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## EMPLOYMENT

AND PAY ROLLS

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# Employment and Pay Rolls 

## SUMMARY OF REPORTS FOR JULY 1938

## T'otal Nonagricultural Employment

TOTAL nonagricultural employment, exclusive of Works Progress Administration and other Federal emergency projects, showed virtually no change between June and July 1938 whereas declines of approximately 140,000 workers are usually shown in July. Factors contributing to offset the usual seasonal decrease were a slight contraseasonal gain in factory employment and an increase of approximately 14,000 workers on class I railroads. While retail trade establishments employed approximately 100,000 fewer workers in July, the current decrease was smaller than the average July decrease of the preceding 9 years.

Employment gains in private industries were reported for 26 States. Among the more important industrial States reporting gains were Massachusetts, North and South Carolina, Maine, and Rhode Island in which the hiring of large numbers of workers by cotton and woolen mills was the chief factor. Decreased activity in coal mining and in manufacture of durable-goods products accounted largely for the declines in Pennsylvania, Michigan, Ohio, lllinois, and New York.

There was an increase in July in the number of persons engaged on work programs financed from Federal funds with the exception of P. W. A. projects. The most marked gains in employment occurred in the Civilian Conservation Corps, on projects operated by the Works Progress Administration, and on projects financed from regular Fedoral appropriations. In the regular services of the Federal Government increases occurred in the executive, legislative, and military services and a decrease was reported in the judicial service.

## Industrial and Business Employment

Manufacturing industries reported a gain of 0.4 percent in employment and no change in pay rolls between mid-June and mid-July. Normally factory employment declines by about 1 percent and factory pay rolls by about 4 percent in July, largely because of inventory shut-downs and the July 4 holiday.

As compared with last July, factory forces were reduced by onefourth and their pay rolls by one-third.

The principal increases since June in factory forces were in the nondurable-goods industries, in which employment expanded 3.0 percent, principally because of reemployment in the woolen and cotton goods industries, in men's clothing and shoes, and in the seasonal food industries, such as canning. Many of the heavy manufacturing industries continued to reduce employment. The decrease for the durable-goods group as a whole was 2.7 percent. The most pronounced losses were in plants manufacturing machinery and transportation equipment-in particular, agricultural implements, automobiles, foundry and machine-shop products, engines and tractors, and electrical machinery.

Wage-rate reductions were reported in 37 manufacturing industries, affecting 47,990 wage earners out of a total of $3,716,819$ for whom data were reported to the Bureau of Labor Statistics. Most of the reductions were in cotton mills, in which nearly 31,000 workers received wage cuts. Factories manufacturing shoes, paper and pulp, woolen goods, and carpets and rugs reported wage reductions affecting about 10,000 workers.
In the nonmanufacturing industries employment declines were largely seasonal. The decline of 3.0 percent in retail trade employment, indicating a reduction of about 100,000 workers, was the smallest percentage decrease in any July during the past ${ }^{-1} 9$ years, except 1929, 1933, and 1936 when the decreases were 2.0 percent, 3.0 percent, and 2.7 percent, respectively.

The decrease of 4.4 percent in the general merchandising group was the smallest decline recorded in July in any recent year. The apparel group dropped 12.2 percent of its workers and the furniture group 3.8 percent between mid-June and mid-July, while the food and automotive groups reduced their forces slightly. Employment in retail lumber and building materials increased by 0.9 percent, hardware by 0.5 percent, and drug stores by 1.5 percent. Firms dealing in coal, wood, and ice employed 3.9 percent more workers than in June. Country buyers and wholesale firms dealing in farm products reduced their forces sufficiently to offset small employment gains in other lines of wholesale trade, such as groceries, food, and petroleum, resulting in a net reduction of nearly 10,000 employees in wholesale trade as a group.

There were greater than seasonal reductions in employment in anthracite mines, which laid off 20.3 percent or 16,300 of their workers, and in metal mines where 6,900 workers ( 11.4 percent) were laid off. Bituminous coal mines reduced their forces seasonally by 1.9 percent, affecting 7,400 workers; oil producers laid off 0.9 percent of their workers; and quarrying firms added 1.1 percent to the number on their
rolls. Year-round hotels and dyeing and cleaning plants reported seasonal reductions in forces, 1.7 percent and 2.0 percent, respectively. Brokerage houses added employees for the first time since last November, insurance firms reported the fifth successive monthly gain, and laundries increased their forces seasonally by 1.1 percent. Private building contractors reported a somewhat smaller than average increase in employment on jobs exclusive of projects financed by the Public Works Administration, the Reconstruction Finance Corporation, and regular appropriations of the Federal, State, and local governments. The number of workers employed by public utilities as a whole remained practically unchanged.

Class I railroads increased their forces for the second consecutive month. According to a preliminary report of the Interstate Commerce Commission, they had 929,477 employees (including 11,876 exccutives, officials, and staff assistants) in July, a gain of 14,389 or 1.6 percent since June. July pay rolls for railroads were not available when this report was prepared. For June they amounted to $\$ 140,-$ 391,948 as against $\$ 132,928,271$ for May, an increase of $\$ 7,463,677$ or 5.6 percent.

Hours and earnings.-The average hours worked per week by factory wage earners was 34.9 in July, a gain of 1.3 percent since June. Average hourly eamings were 63.9 cents or 1.1 percent lower than in the preceding month, while average weekly earnings dropped 0.5 percent to $\$ 22.17$.

Of the 14 nonmanufacturing industries for which man-hour data are available, only bituminous-coal mining and private building construction showed gains in average hours worked per week. Average hourly earnings, however, rose for 7 of these 14 industries. Average weekly earnings were higher for 7 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 July 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, July 1938

| lndustry | Employment |  |  | Pay roll |  |  | Average weckly earnings |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Index } \\ & \text { July } \\ & \text { 1938 } \end{aligned}$ | Percentage change from- |  | $\begin{aligned} & \text { Index } \\ & \text { July } \\ & \text { 1938 } \end{aligned}$ | Percentare change from- |  | A verJuly 1938 | Percentare change from- |  |
|  |  | June 1938 | July 1937 |  | ${ }_{\text {June }}$ | July |  | June 1938 | July 1937 |
| All manufacturing industries combined ${ }^{1}$ | $\left\lvert\, \begin{gathered} (1929- \\ 25=100) \\ 76.1 \end{gathered}\right.$ | +0.4 | -25.0 | $\left\|\begin{array}{c} (1923- \\ 25=100) \\ 07.2 \end{array}\right\|$ | 0 | -33.1 | \$22. 17 | -0.5 | -10.8 |
| Class I steam railroads : ........- | 52.0 | +1.6 | $-20.9$ | (3) | ${ }^{(3)}$ | (3) | ${ }^{(3)}$ | (3) | ${ }^{(3)}$ |
| Coal mining: | $\begin{gathered} (12929= \\ 100) \end{gathered}$ |  |  | $\begin{gathered} (1929= \\ 100) \end{gathered}$ |  |  |  |  |  |
| Anthracite ${ }^{4}$ | 44.6 | -20.3 | -17.8 | 20.2 | -59.4 | $-47.2$ | 14. 76 | -49.0 | -35.8 |
| Bituminous '--- | 78.6 | -1.9 | $-18.0$ | 56.8 | - 17.8 | -26.9 | 19.27 | +1.6 | $-12.9$ |
| Quarring and nonmetalie | 49.5 | -11.4 |  |  |  |  |  |  | -19.5 |
| mining | 44. 1 | +1.1 | -20.6 | 37.0 | $-.9$ | -27.3 | 21.38 | -2.0 | -8.4 |
| Crude-petroleum producing | 72.1 | -. 0 | -8.1 | 66.7 | -1.2 | -5.4 | 33.42 | -. 3 | +2.8 |
| Public utilities: <br> Telephone and telegraph... | 74.9 | +. 2 | -6.0 | 90.9 | (5) | -1.4 | ${ }^{\circ} 30.19$ | -. 2 | +4.9 |
| Electric light and power |  |  |  |  |  |  |  |  |  |
| Electric-railtroad and | 92.5 | +. 3 | -5.1 | 08.5 | -. 2 | -3.7 | $\bigcirc 33.50$ | $-.5$ | +1.: |
| motorbus operation and | 70.1 | -. 4 | -4.5 | 69.0 | -. 9 | -2.6 | - 32, 20 | -. 6 | +2.0 |
| Trade: |  |  |  |  |  |  |  |  |  |
| Wholesale. | 86.6 | -. 7 | -4.4 | 73.6 | -. 2 | -4.3 | ${ }^{\circ} 29.76$ | +. 5 | +. 1 |
| Retail--- | 81.1 | -3.0 | -7. 4 | ${ }_{68}^{68.1}$ | -1.9 | -f. 5 | ${ }^{8} 21.72$ | +1.1 | +1. 1 |
| General merchandising. | 87.9 | -4.4 | -8. 4 | 80.4 | $-4.5$ | -7.9 | - 18.33 | -. 2 | +. 5 |
| Other than general merchandising | 79.3 | -2.6 | -7.1 | 65.6 | -1.3 | -6. 1 | 824.41 | +1.4 | +1.1 |
| Hotels (yeer-round) ${ }^{\text {P }}$. ${ }^{\text {a }}$ | 90.7 | $-1.7$ | $-3.1$ | 77.4 | $-2.7$ | -2.4 | - 14.61 | -1.1 | +. 7 |
| Laundries ${ }^{\text {4 }}$ | 97.7 | +1.3 | $-7.6$ | 82.9 | +1.3 | -6.9 | 17. 29 | +. 1 | +. 8 |
| Dyeing and cleaning | 108.8 | $-2.0$ | -2.2 | 77.5 | $-6.9$ | -2.5 | 19.85 | $-5.0$ |  |
| Brokerage............ | (3) | +2.3 | -15.6 | (3) | +3.9 | -21.8 | ${ }^{\circ} 34.05$ | +1.5 | -7.2 |
| Insurance | (3) | +. 4 | +2.1 | (3) | +1.3 | -2.0 | - 36.70 | +.9 | -4.0 |
| Building construction | (3) | +1.3 | -31.8 | (3) | +1.8 | $-32.9$ | 29. 52 | +. 5 | -1.7 |

${ }^{1}$ Revised indexes-Adjusted to 1033 Census of Manufactures.
2 Preliminary-Source: Interstate Commerce Commission.
${ }^{3}$ Not a vailable.

- Indexes adjusted to 1935 consus. Comparable series back to January 1929 presented in January 1938 issue of this pamphlet.
${ }^{6}$ Less than 3io of 1 percent.
- Average weekly earnings not strictly comparable with figures published in issues of this pamphlet dated earlier than January 1938, as they now exclude corporation ollicers, exccutives, and other employees whose duties are mainly supervisory.
${ }_{7}$ Cash payments only; the additional value of board, room, and tips cannot be computed.


## Public Employment

The number working on Public Works Administration projects decreased approximately 7,000 in July due to the completion of many of the projects financed from N. I. R. A. funds and E. R. A. A. 1935 funds. New contracts are being awarded for the 1938 P. W. A. program, funds for which were made available in July, but the effect of this new program has not yet been reflected in the employment figures. Of the 110,000 at work in July 20,000 were engaged on Federal and non-Federal projects financed from National Industrial

Recovery Act funds, 90,000 on non-Federal projects financed from funds provided by the Emergency Relief Appropriation Acts of 1935, 1936, and 1937, and 325 on Federal projects started with funds provided by the new Public Works Administration Appropriation Act of 1938. Pay-roll disbursements of $\$ 9,001,000$ were $\$ 773,000$ less than in June.
Employment on projects financed from regular Federal appropriations continued to increase, due in large part to seasonal expansion in road construction work. In July 236,000 were working on projects financed from regular Federal appropriations, a gain of 14,000 from June. Gains in employment were reported on projects with the exception of the following types: Building construction, electrification projects of the Rural Electrification Administration, forestry, heavy engincering, and water and sewerage. Monthly pay-roll disbursements in July for all types of projects of $\$ 23,854,000$ were $\$ 2,492,000$ more than in June.

Virtually the same number $(3,000)$ were working on construction projects financed by the Reconstruction Finance Corporation in July as were at work in June. A decrease occurred in pay-roll disbursements due to a decrease in the number of man-hours worked during the month. Pay-roll disbursements amounted to $\$ 448,000$ in July, a drop of $\$ 46,000$ from June.

A marked increase in employment occurred on projects operated by the Works Progress Administration. The number at work in July was $2,967,000$, a gain of 200,000 from June. Pay rolls on these projects amounting to $\$ 151,216,000$ in July were $\$ 5,140,000$ more than in June. An increase of 14,000 reported in the number working on Federal projects under The Works Program in July raised the total to 302,000 . During the month the number of man-hours worked on these Federal projects decreased and pay-roll disbursements were lower than in June; July pay rolls amounted to $\$ 10,289,-$ 000 . The number employed on work projects of the National Youth Administration was 214,000 , an increase of 12,000 over June. Data on employment and pay rolls for Student Aid in July will not be available until next month.

In the regular services of the Federal Government increases in the number working were reported for the executive, legislative, and military services and a decrease occurred in the judicial service. Of the 868,000 employees in the executive service in July, 116,000 were working in the District of Columbia and 752,000 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. Marked increases in employment occurred in the War, Navy, and 94213-38-2

Post Office Departments. The Department of Agriculture was among those agencies reporting decreases in the number working.

With the beginning of a new enlistment period, the number of workers in the Civilian Conservation Corps increased 22,000 from June, raising the total working to 316,000 . Of the total number in camps in July 278,000 were enrollees, 5,000 reserve officers, 300 nurses, 1,600 educational advisers, and 31,000 supervisory and technical employees. Monthly pay-roll disbursements for all groups of workers totaled $\$ 14,266,000$.

There were nearly 200,000 workers employed on roads financed wholly from State or local funds in July, an increase of 20,000 from the preceding month and 24,000 more than in July 1937. Of the total number at work in July 31,000 were on new road construction and 169,000 on maintenance. Pay rolls for both types of road work were $\$ 12,983,000$ in July, an increase of $\$ 923,000$ over June pay-roll disbursements.

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

Table 2.-Summary of Federal Employment and Pay Rolls, July $1938{ }^{1}$


[^0]
## DETAILED TABLES FOR JULY 1938

## Industrial and Business Employment

MONTHLY reports on employment and pay rolls are available for the following groups: 89 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, average hours worked per week, average hourly earnings, and average weekly earnings in manufacturing and nonmanufacturing industries in July 1938 are shown in table 3. Percentage changes from June 1938 and July 1937 are also given.
Indexes of employment and pay rolls as well as average hours worked per week, average hourly earnings, and a verage weckly carnings for May, June, and July 1938, are presented in table 4. The May and June figures may differ in some instances from those previously published because of revisions nceessitated by the inclusion of late reports and other causes.

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 employces 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 carnings shown in tables 3 and 4 are not strictly comparable from month to month. 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.
[Indexes are based on 3 -year average $1923-25=100$ and are adjusted to 1933 Census of Manufactures. Not comparable to indexes published in pamphlets prior to October 1936]

| Industry | Employment |  |  | Pay rolls |  |  | $\begin{gathered} \text { Average weekly } \\ \text { earnings } \end{gathered}$ |  |  | Average hours worked per week ${ }^{1}$ |  |  | $\begin{aligned} & \text { Average hourly } \\ & \text { carnings } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Index } \\ & \text { July } \\ & 1038 \end{aligned}$ | Preentage change from- |  | $\begin{aligned} & \text { Index } \\ & \text { July } \\ & 1938 \end{aligned}$ | Percentage clange from- |  | $\begin{aligned} & \text { July } \\ & 1938 \end{aligned}$ | Percentage change from- |  | $\begin{aligned} & \text { July } \\ & 1938 \end{aligned}$ | Percentago change from- |  | $\begin{aligned} & \text { July } \\ & 1938 \end{aligned}$ | Percentage clange from- |  |
|  |  | June 1938 | July |  | June 1938 | July |  | $\mathrm{Jun}_{1038}$ | July |  | June | July |  | June | ${ }^{\text {July }}$ |
|  | 78.1 | $+0.4$ | -25.0 | 67.2 | 0 | -33.1 | \$22.17 | -0.5 | -10.8 | 34.9 | +1.3 | -8.6 | $\begin{array}{r} \text { Cents } \\ 63.9 \\ \hline \end{array}$ | -1.1 | -2.2 |
|  | $\begin{aligned} & \hline 64.0 \\ & 89.1 \\ & \hline \end{aligned}$ | $\begin{array}{r}-2.7 \\ +3.0 \\ \hline\end{array}$ | -35.3 -14.4 | 35.4 82.2 | $\begin{array}{r}+4.6 \\ +4.3 \\ \hline\end{array}$ | -45.0 -17.8 | 23.74 20.83 | -1.9 +1.5 | $\begin{array}{r}-14.9 \\ -4.0 \\ \hline\end{array}$ | 33.6 35.9 | +1.2 +3.1 | -18.5 -4.1 | 71.1 58.2 | -.9 <br> -.8 | -1.1 -.5 |
| Durable goods |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Iron and steel and their products, not including machinery | 72.4 | -1.0 | -32.7 | 55.8 | -2.8 | -50.8 | 21.65 | $-1.8$ | -26.9 | 29.1 | -1.6 | -24.0 | 78.1 | +. 1 | $-7$ |
| Blast furnaces, steel works, and rolling milisBolts,Cast, washers, and rivetsCanton | 78.9 | +. 2 | $-34.2$ | 57.4 | $-2.6$ | $-56.6$ | 21. 43 | $-2.8$ | $-34.0$ | 25.8 | $-2.3$ | $-32.2$ | 83.6 | -(2) | -1.6 |
|  | 58.7 | -2. 2 | $-33.1$ | 50.0 | $-4.3$ | -46.6 | 19.37 | $-4.2$ | -20. 1 | 27.3 | -4.3 | -24.9 | 70.9 | +(2) | +6.3 |
|  | 55.7 | -2.9 | $-19.5$ | 42.2 | $+2.8$ | -21.4 | 20.24 | +5.9 | -2.1 | 34.1 | +4.5 | -6.9 | 59.0 | +2.3 | +4.9 |
| Cast-iron pipe $\qquad$ <br> Cutlery (not including silver and plated cutlery) and edge tools | 59.8 | $-15.4$ | -28.8 | 49.1 | -15.3 | -37.0 | 20.59 | +(2) | -11. 7 | 33.6 | - | -14.3 | 62.5 | $-.5$ | +3.5 |
|  | 39.1 | $-4.0$ | -45.9 | 28.1 | $-1.2$ | $-55.9$ | 22. 06 | +2.9 | $-18.3$ | 29.5 | +2.2 | $-23.8$ | 74.8 | $+.8$ | +6.5 |
|  | 53.2 | -7.9 | -43.0 | 48.9 | $-7.8$ | $-54.7$ | 20.77 | +(2) | -20.4 | 31.8 | +(2) | -17.2 | 65.2 | -. 1 | $-4.3$ |
|  | 80.5 | +. 1 | $-13.0$ | 55.5 | -3.4 | -22.8 | 21.83 | -3.4 | -11.2 | 32.9 | $-3.7$ | $-14.0$ | 66.2 | +. 2 | +3.1 |
| Stcarn and hot-water heating apparatus and steam fltings. | 58.8 | +3.5 | $-23.6$ | 46.8 | $+.9$ | $-34.0$ | 23. 18 | $-2.5$ | -13.6 | 32.9 | -3.6 | -17.0 | 70.3 | +. 9 | +3.3 |
|  | 71.2 | -4.5 | $-31.9$ | 54.8 | -6.1 | $-33.4$ | 22. 51 | $-1.7$ | -2.1 | 34.4 | -1.1 | -7.5 | 66.1 | $-4$ | +6.2 |
| Struetural and ornamental metawork.........-- | 57.0 | +1.4 | -29.3 | 52.8 | +4.6 | -35.9 | 25.95 | +3.2 | $-9.3$ | 35.8 | +2.9 | -11.5 | 72.5 | $+3$ | +2.5 |
|  | 93.4 | $+3.6$ | $-18.7$ | 90.7 | $+1.0$ | -20.8 | 22.29 | -1.9 | -2.6 | 37.8 | -. 6 | -5.1 | 59.0 | -1.4 | +2.6 |
| Tools (not including edge tools, machine tools, files, and saws) <br> Wirework | 69.9 | -4.5 | -31.5 | 61.7 | -5. 5 | -42.7 | 20.40 | $-1.0$ | $-16.3$ | 32.8 | $-1.1$ | -18.1 | 61.6 | -. 1 | +1.1 |
|  | 98.3 | -5.1 | -44. 1 | 78.7 | -8.2 | $-54.1$ | 19.87 | $-3.4$ | $-18.9$ | 30.6 | $-2.2$ | -15.9 | 65.1 | -1.0 | -2.4 |
| Machinery, not including transportation equipment Agricultural implements. | 82.7 | -3.8 | -36.3 | 73.2 | -4.8 | -45.2 | 24.34 | -1.0 | -13.9 | 33.5 | - -5 | -16.8 | 72.3 | -. 5 | -2.8 +1.8 |
|  | 91.9 | $-21.5$ | $-33.7$ | 104.4 | -25.9 | $-39.5$ | 25.33 | $-5.6$ | $-8.7$ | 34.6 | $-5.6$ | $-9.5$ | 73.3 | -. 2 | +1.8 |
| Cash registers, adding maehines, and calculating machines. | 122.6 | +. 5 | $-10.6$ | 118.3 | +2.2 | -19.4 | 27.93 | +1.7 | $-9.8$ | 35.0 | +2.0 | $-12.7$ | 80.7 | -. 1 | +3.7 |
| Electrical machinery, apparatus, and supplies. Fingines, turbines, tractors, and water whcels. Foundry and machine-shop products. | 72.9 | -3.0 | -39.7 | 64.8 | -3.7 | -47.8 | 24.33 | $\bigcirc 7$ | -13.4 | 32.7 | + +. 1 | -15.7 | 84.2 | $-.8$ | +2.7 +2.3 |
|  | 92.7 | -11.2 | -38.8 | 85.9 | $-9.5$ | -44.6 | 28.14 | +1.9 | $-9.4$ | 34.7 | +2.0 | -12.0 | 81.4 | $-.3$ | +2.3 |
|  | 74.2 | $-2.0$ | -34.0 | 63.8 | $-3.1$ | -44.4 | 23.95 | $-1.1$ | $-16.7$ | 33.6 | -. 6 | -19.0 | 71.0 | -. 4 | +3.4 |


| Machine to | 104.0 | -4.5 | -31.9 | 82.0 | -4.8 | -48.5 | 24.26 | -. 3 | -24.3 | 33.3 | -. 4 | -24.8 | 72.8 | +. 1 | +. 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Radios and phonographs | 92.3 | +. 1 | -53.1 | 75.9 | +1.0 | $-54.3$ | 22.11 | +1.0 | $-2.5$ | 36.3 | -. 8 | -2.4 | 61.0 | +1.8 | $-.1$ |
| Textile machinery and pa | 56.1 | $-1$ | $-35.0$ | 46.2 | $-1.2$ | -48.4 | 22.25 | $-1.1$ | $-20.7$ | 33. 3 | $-.4$ | $-20.0$ | 67.0 | -. 8 | -. 8 |
| Typewriters and parts. | 112.8 | $+4$ | -25.9 | 78.3 | $-2.4$ | -46.2 | 19.02 | -2.8 | -27.4 | 29.3 | -2.5 | -29.3 | 65.0 | -. 3 | +2.6 |
| Transportation equipme | 55.3 | $-11.2$ | $-53.9$ | 51.3 | -11.1 | -56. 3 | 29. 54 | $+.2$ | $-5.8$ | 33.6 | +. 4 | -5. 8 | 88.4 | $-.2$ | -. 3 |
| Aircraft | 698.5 | -2.3 | $-11.7$ | 631.8 | $-3.6$ | -7.5 | 28.78 | $-1.3$ | +4.8 | 39.4 | -. 8 | $-8$ | 74.0 | $+.2$ | +6.4 |
| Automobiles | 53.2 | -13.6 | -59.2 | 46.7 | -13.2 | -62.3 | 29.72 | +. 5 | -7.5 | 32.0 | +. 4 | -7.9 | 93.0 | +. 1 | $+3$ |
| Cars, electric-and steam-railroad | 25.6 | -10.6 | -84.2 | 26.0 | $-16.5$ | -68.8 | 24.42 | -6.6 | $-12.7$ | 33.0 | -5.9 | -14.8 | 74.1 | -. 7 | +2.1 |
| Locomotives..--. | 24.6 | -10.3 | -80.6 | 15.5 | -21. 1 | -69.4 | 24.51 | -2.3 | -22.3 | 32.1 | $-1.8$ | -26.6 | 76.4 | - 4 | $+5.9$ |
| Shipbuilding | 90.8 | -2.3 | -9.4 | 105.6 | -3.1 | $-5.5$ | 31.34 | -. 8 | +4.3 | 38.8 | +. 7 | +1.8 | 80.4 | +. 2 | +3.1 |
| Railroad repair shops | 40.8 | +2.3 | -36.1 | 40.9 | -. 2 | -35.6 | 29.00 | -2.5 | +. 7 | 39.8 | -3.1 | -3.6 | 72.4 | +. 7 | +4.8 |
| Electric railroad | 59.3 | -. 8 | $-6.4$ | 64.0 | -3.3 | -4.4 | 30.39 | -2.4 | +2.2 | 42.5 | -3.0 | $-2.8$ | 70.1 | $+.5$ | $+5.2$ |
| Steam railroad | 39.4 | +2.4 | -38.4 | 39.3 | +. 1 | -37.9 | 28.68 | -2.2 | $+.6$ | 39.5 | -3.0 | $-3.9$ | 72.6 | +. 7 | +4.8 |
| Nonferrous metals and their pro | 77.8 | -2.1 | -30.1 | 65.0 | -. 8 | -38.3 | 22.51 | +1.3 | $-11.7$ | 34.0 | +2.2 | -11.0 | 65.6 | $-.7$ | $-.7$ |
| Aluminum manufactures. | 91.9 | +. 4 | -30. 1 | 86.5 | $+1.9$ | -35.7 | 23. 07 | +1.5 | -7.9 | 33.9 | +1.6 | -12.3 | 68.1 | -. 1 | +5. 1 |
| Brass, bronze, and copper products | 82.4 | $+.5$ | -30.8 | 72.3 | +7.5 | -38.0 | 24.74 | $+7.0$ | $-10.5$ | 34.7 | +6.4 | $-10.3$ | 71.4 | $+.6$ | - 4 |
| Clocks and watches and time-recording devices_ | 84.8 | -2.2 | -26.1 | 62.8 | $-.9$ | -42. 1 | 10.58 | $+1.3$ | -21.7 | 29.0 | +5.4 | $-22.3$ | 57.0 | -3.9 | +2.0 |
| Jewelry -- | 77.4 | +2.1 | -14.8 | 54.4 | +1.2 | -19.8 | 21.49 | $-.9$ | -5.9 | 30.2 | $+3.0$ | -4.0 | 58.6 | $-3.4$ | -3.3 |
| Lighting equipment | 58.8 | $-1.5$ | -35.8 | 48.9 | -1.4 | -44.8 | 21.22 | +. 1 | -14.1 | 31.2 | +1.4 | -15.9 | 68.1 | -1.2 | +2.2 |
| Silverware and plated | 58.8 | -13.1 | -20.2 | 44.4 | -14.6 | $-33.7$ | 20.55 | -1.7 | -16.9 | 31.7 | $-2.8$ | -17.6 | 64.7 | +1.8 | +. ${ }^{6}$ |
| Smelting and refining-copper, lead, and zinc. | 67.3 | $-1.6$ | -26.7 | 57.3 | -5.9 | -34.2 | 25.09 | -4.4 | -10.3 | 37.1 | -3.9 | -7.6 | 67.7 | $-6$ | $-2.9$ |
|  | 90.3 | -6.6 | -40.2 | 78.2 | -7.8 | -46.5 | 21.14 | $-1.3$ | -10.6 | 34.0 | $+3$ | -7.8 | 61.8 | $-1.5$ | $-3.3$ |
| Lumber and allied products | 54.2 | 0 | -25.7 | 45.8 | $-4.8$ | -31.9 | 18.64 | $-4.7$ | -8.5 | 36.5 | -3.1 | -8.5 | 51.5 | -2.8 | -1.3 |
| Furniture | 64.8 | $+.3$ | -26.3 | 48.3 | $-3.0$ | $-34.7$ | 17.80 | $-3.3$ | -11.4 | 34.2 | -2.2 | $-13.2$ | 52.2 | $-1.7$ | +. 6 |
| Lumber: Millwork |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Millwork | 46.2 | +2.5 | $-19.4$ | 44.0 | +3.7 | -19.8 | 21.76 | +1.2 | -. 5 | 39.6 | +1.8 | -3.2 | 55.0 | $-.5$ | +3. 1 |
| Sawmills. | 41.3 | $-.6$ | $-26.6$ | 34.9 | $-8.4$ | $-33.9$ | 18. 29 | $-7.9$ | $-10.1$ | 37.0 | -4.7 | -7.2 | 50.2 | -4.0 | -3.5 |
| Stone, clay, and glass produc | 55.9 | -2.3 | -22.0 | 48.5 | -5.5 | -28.6 | 21.90 | $-3.2$ | -5. 9 | 34.7 | -3.2 | -9.3 | 63.8 | $-.3$ | +2.8 |
| Brick, tile, and terra cot Cement | 40.2 | $+1.1$ | -25.3 | 32.0 | $-1.6$ | -30.8 | 18.83 | $-2.7$ | $-7.3$ | 37.0 | -2.1 | -6.8 | 51.1 | -1. 1 | - 6 |
| Cement.-. | 65.5 | +3.2 | -6.0 | 66.8 | +1.4 | $-7.8$ | 26. 13 | $-1.8$ | $-2.0$ | 37.8 | -2.8 | $-5.6$ | 69.0 | +1.1 | +3.1 |
| Glass. | 74. 7 | -6.0 | -30.8 | 69.1 | -10.4 | -36.4 | 22.55 | -4.6 | -8. 1 | 31.9 | -4.7 | $-10.7$ | 70.7 | +. 2 | $+3.0$ |
| Marble, granite, slate, and other products....- | 37.9 | +.8 | $-14.7$ | 32.4 | -. 9 | $-15.5$ | 24.93 | $-1.7$ | $-1.0$ | 36.4 | $-2.4$ | -6.0 | 68.8 | +1.3 | +4.4 |
|  | 65.1 | -4.7 | $-10.6$ | 47.0 | $-13.0$ | -20.4 | 19.14 | $-8.7$ | -11.0 | 32.5 | -4.6 | -15.1 | 62.3 | $-1.7$ | $+6.3$ |
| Nondurable goods |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Textiles and their product | 82.2 | +2.8 | -17.8 | 64.7 | +7.5 | -24.3 | 15.67 | +4.7 | -8.0 | 32.7 | +4.1 | -4.2 | 48.0 | $+.9$ | $-3.7$ |
| Fabrics.. | 79.4 | +4.2 | $-19.0$ | 66.4 | +7.4 | -25.9 | 15. 72 | $+3.2$ | $-8.5$ | 33.9 | +4.4 | -4.6 | 48.4 | $-1.0$ | -3.8 |
| Carpets and rugs | 60.0 | +24.0 | -39.9 | 4R. 2 | +15.5 | -52. 4 | 18. 69 | -6.9 | $-20.8$ | 29.3 | $-5.4$ | -20.1 | 63.9 | $-1.5$ | $-.8$ |
| Cotton goods. | 83.2 | +3.5 | -18.4 | 70.5 | +10.1 | -27.1 | 13. 29 | +6.2 | $-10.9$ | 34.0 | +8.5 | -4.7 | 39.2 | -2.1 | $-5.7$ |
| Cotton small ware | 74.8 | $-8$ | -22.2 | 67.8 | -1.8 | -25.0 | 16. 57 | $-1.0$ | -3.8 | 35.6 | +1.5 | -3.1 | 47.3 | -1.5 | $-1.8$ |
| Dyeing and finishing textiles | 96.8 | $-1.0$ | -11.3 | 78.2 | +1.9 | -16.9 | 19.60 | +3.0 | -6.3 | 35.7 | +1. 0 | $-1.3$ | 54.6 | $-1.0$ | -5.0 |
| Hats, fur-felt | 72.0 | +30.1 | -14.1 | 63.0 | +54.5 | -22.0 | 23.85 | +18.8 | -0.3 | 3.4 | +15.7 | -10.4 | 70.1 | -2.6 | -3.9 |
| Knit goods. | 100.4 | +. 7 | -13.6 | 94.7 | $-1.5$ | $-15.9$ | 16. 41 | -2.2 | -2.6 | 32.7 | -1.1 | -4.6 | 50.8 | $-1.4$ | +2.2 |
| Silk and rayon goods | 55.0 | +2.9 | $-30.9$ | 42.6 | +3.5 | $-36.8$ | 15.17 | $+.5$ | -8.5 | 33.7 | $-{ }^{2}$ ) | -0.8 | 44.4 | $+.3$ | -1.8 |
| Woolen and worsted go | 65.4 | +12.1 | -19.0 | 53.2 | +17.3 | -25.9 | 18.85 | +4.6 | -8.5 | 35.4 | +5.2 | -. 9 | 53.4 | $-.5$ | -7.7 |
| Wearing apparel. | 86.8 | - 1 | -14.9 | 58.6 | $+7.3$ | -20.6 | 15. 50 | +7.5 | -6.8 | 30.1 | +3.0 | $-3.1$ | 51.4 | +5.0 | -4.1 |
| Clothing, men's. | 82.9 | +14.8 | -22.8 | 57.3 | +32.8 | -33.6 | 16. 37 | $+15.7$ | $-14.2$ | 28.3 | $+7.8$ | $-11.0$ | 58.2 | $+6.3$ | -3.6 |
| Clothing, women's | 107.9 | $-9.1$ | -7.8 | 69.2 | -3.9 | -2.8 | 17. 14 | +5.7 | +5.3 | 31.3 | +2.9 | +5.9 | 52.1 | +5.6 | -1.9 |
| Corsets and allied gar | 82.2 | -3.8 | $-1.0$ | 73.5 | $-3.9$ | -8.4 | 14. 77 | $-1$ | -1.6 | 31.6 | $+.5$ | $-1.9$ | 46.5 | +. 2 | +2.1 |
| Men's furnishings. | 109.4 | -2.7 | $-15.7$ | 77.6 | $-5.5$ | -19.6 | 12. 18 | $-2.9$ | -4.6 | 32.0 | $-3.7$ | +4.5 | 35.1 | +. 1 | -7.0 |

Table 3.-Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries, July 1938—Continued
MANUFACTURING-Continued

| Industry | Employment |  |  | Pay rolls |  |  | Average weekly caruings |  |  | Average hours worked per week |  |  | Average hourly earnings |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Index } \\ & \text { July } \\ & 1938 \end{aligned}$ | Percentage change from- |  | $\begin{aligned} & \text { Index } \\ & \text { July } \\ & 1938 \end{aligned}$ | Percentage change from- |  | $\begin{gathered} \text { July } \\ 1938 \end{gathered}$ | Percentage change from- |  | $\begin{aligned} & \text { July } \\ & 1938 \end{aligned}$ | Percentage chauge from- |  | $\begin{aligned} & \text { July } \\ & 1038 \end{aligned}$ | Pcrcentrge change from- |  |
|  |  | Juno 1938 | July 1937 |  | ${ }_{1938}$ | July 1937 |  | June | July 1937 |  | June 1938 | July 1937 |  | June 1938 | $\begin{aligned} & \text { July } \\ & 19: 3 i \end{aligned}$ |
| Nondurable goods-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Textiles and their products-Continued. <br> Wearing apparel-Continued. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 35. 6 | -16.9 | -8.1 | 22.9 | -18.1 | $-3.4$ | \$18.41 | $-1.4$ | +5.0 -1.3 | 30.9 | +7.6 | +10.6 | 60.7 | -4. 5 | -9.5 |
| Leather and its manufactures | 101.3 85.8 | -5.2 +9.3 | -10.7 -10.8 | 75.0 68.1 | -6.4 +20.0 | -21.8 | 11.14 18.58 | -1.3 +0.7 | -12.3 -12.4 | 30.9 30.1 | +1 +12.9 | -7.8 | 37.4 51.6 | -1.7 | -6.6 |
| Boots and shoes..- | 89.5 | +10.8 | -8.7 | 63.0 | +27.0 | $-21.0$ | 17.48 | +14.6 | -13.7 | 35.8 | +16.1 | -7.0 | 49.2 | $-2.1$ | -7.6 |
| Leather-.... | 75.6 | +2.4 | -20.1 | 79.3 | +4.1 | -23.8 | 23.44 | +1.7 | -4.6 | 37.4 | +1.7 | -3.8 | 62.8 | +( ${ }^{(2)}$ | -. 7 |
| Food and kindred produc | 116.1 | +8.2 | $-7.0$ | 118.0 | +6.2 | -8. 0 | 24. 53 | $-1.8$ | -1.1 | 41.1 | +. 9 | $-5.1$ | 69.5 | -3.0 | +2.0 |
| Baking-- | 132.9 | +. 6 | $-2.7$ | 131. 2 | $+.6$ | -2.7 | 25.79 | +( ${ }^{2}$ ) | -. 1 | 42.3 | $-7$ | $-3.9$ | 61.2 | +. 6 | +3.4 |
| Beverages | 219.2 | +3.1 | -6.5 | 258. 7 | $+5.6$ | $-9.2$ | 34.73 | +2.5 | $-2.9$ | 41.2 | +1.9 | -4.5 | 85.1 | $+.3$ | +1.4 |
| Butter... | 90.9 | +. 7 | -6.6 | 76.2 | +1.4 | -2.4 | 23.01 | +. 7 | +4.4 | 47.9 | +. 6 | $-.2$ | 47. 6 | $+1$ | +5.3 |
| Canuing and preserring | 173.4 | +58.8 | -17.3 | 167.1 | +56.0 | -31.8 | 16.06 | $-.5$ | -17.6 | 38.2 | +9.1 | $-15.7$ | 42.9 | -8, 1 | -3.5 |
| Confectionery...--. | 65.3 | $-3.3$ | $-5.7$ | 62.3 | -7.2 | -3.1 | 17.47 | -4.1 | +2.7 | 35.4 | $-5.5$ | -1.3 | 49.6 | +1. 2 | +3.3 |
| Flour | 75.4 | +3.5 | $-3.2$ | 78.1 | $+5.1$ | $-1.8$ | 27.06 | +1. 6 | +1.6 | 45.4 | +1.9 | -. 4 | 59. 3 | $-4$ | +1.4 |
| Ice cream | 85.9 | +3.2 | -7.9 | 80.7 | +4.0 | $-5.7$ | 28.74 | +. 7 | +2.3 | 48.4 | +1.1 | -4. 4 | 59.2 | $-1.0$ | +4.8 |
| Slaughtering and ineat packing | 85.9 | +1.2 | -4.5 | 98.5 | +3.0 | -1.4 | 28.63 | +1.8 | +3.2 | 41.6 | +2.5 | +3.1 | 69.1 | $-{ }^{-1}$ | +. 1 |
| Sugar, beet-...---.-....- | 46.0 | +9.5 | $-13.0$ | 50.5 | +1.4 | $-9.8$ | 25.99 | $-7.3$ | +3.7 | 36.3 | $-10.7$ | -7.9 | 73.5 | +2.7 | +11.3 |
| Sugar relining, cane | 73.9 | -2. 6 | -8.8 | 72.1 | -. 1 | -10.9 | 24.82 | +2.6 | -2.4 | 41.7 | +4.9 | -4.0 | 59.9 | $-1.6$ | $-1$ |
| Tobacco manufactures. | 57.3 | -5.0 | -5.4 | 58.0 | -4.0 | $-5.0$ | 17.18 | +1.1 | +. 4 | 37.2 | $+1.7$ | $-6$ | 46.0 | -. 5 | $+1.5$ |
| Chewing and sinoking tobaeco and | 54.5 | -1.2 | $-1.7$ | 66.6 | $-2.2$ | +1.0 | 18.07 | $-1.0$ | +2.8 | 35.5 | $-1.4$ | $+.9$ | 51. 1 | +. 4 | +1.7 |
| Cigars and cigarettes. | 57.5 | $-5.5$ | -6.1 | 51.3 | $-4.3$ | $-5.9$ | 16. 96 | +13 | +. 3 | 37.4 | +2.1 | -. 7 | 45.4 | -. 7 | $-8.1$ |
| Paper and printing. | 98.7 | -. 5 | $-8.8$ | 91.4 | 0 | -10.0 | 27.10 | +. 5 | -1.4 | 37.0 | +1.6 | -3.8 | 78.4 | -. 7 | +2.8 |
| Boxes, paper | 88.8 | +. 2 | $-13.2$ | 88.3 | +2.3 | $-12.0$ | 20.42 | +2.1 | +1.3 | 37.6 | +3.0 | -3.9 | 54.7 | $-.8$ | +4.6 |
| Paper and pulp. | 104.1 | $-.3$ | $-12.8$ | 98.4 | +2.0 | $-17.5$ | 23.37 | +2.4 | $-5.3$ | 37.8 | $+3.6$ | $-5.1$ | 61.9 | -1.0 | $-.2$ |
| Printing and publishing: Book and job |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 88.8 99.7 | +1.1 | -7.1 | 81.3 96.8 | +1.2 -3.0 | -9.8 -3.0 | 28.96 36.39 | +.1 -.6 | -3.0 +.2 | 36.9 35.9 | $\underline{+1.2}$ | -4.8 -.6 | 80.0 .97 .8 | -( ${ }^{2}$ ) | +2.1 +2.5 |
| Chemicals and allied products, and petrol |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| fining--.-.-.-.----. | 103.8 | $-1$ | -18. 5 | 113. 2 | -1.4 | $-17.3$ | 28.48 | -1.3 | -. 9 | 36.9 | $-1.2$ | $-4.3$ | 77.5 | +. 5 | +3.2 |
| Petroleum refining. | 118.3 | +. 6 | $-7.2$ | 134.2 | $-1.8$ | -6.3 | 34. 60 | $-2.3$ | +1.0 | 35.2 | -2.9 | $-1.7$ | 98.8 | $+.6$ | +2.2 |
| Other than petroleum refining | 100.3 | $-1.3$ | -18.8 | 106.8 | $-1.1$ | -20.8 | 25.54 29.40 | -1.8 | $-2.5$ | 37.6 37 | $-6$ | $-4.9$ | 68.7 | +. 3 | +2.1 |
| Chemicals. | 105.9 | $-1.7$ | -24.1 | 113.7 | $-3.0$ | -26. 1 | 29.40 | -1.3 | -2.7 | 37.3 | $-1.0$ | -5.0 | 78.7 | -. 4 | +2.4 |


| Cottonseed-oil, cake, and meal | 49.2 | +2.6 | +17.7 | 45.8 | +6.8 | +29.5 | 13.31 | +4. 1 | +10.3 | 48.3 | +. 5 | $-1.0$ | 26.7 | +2.8 | +8.3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Druggists' preparations... | 103.3 | $-.4$ | -2.7 | 112.7 | -1.8 | +. 7 | 23.65 | $-1.5$ | +3.5 | 37.5 | -. 8 | +. 1 | 61.8 | +3.1 | +6.2 |
| Explosives....- | 85.3 | +. 4 | $-10.5$ | 92.4 | +3.4 | -11.0 | 30.63 | +3.0 | $-6$ | 36.8 | +.9 | $-4.3$ | 83.2 | +2.0 | +4.0 |
| Fertilizers. | 57.8 | -7.2 | -17.2 | 64.3 | $-3.0$ | $-16.7$ | 18. 55 | +4.5 | +. 7 | 38.0 | -. 9 | -3.2 | 48.7 | +5.4 | +4.8 |
| Paints and varnishe | 114.6 | $-1.9$ | -15.9 | 113.5 | -4.0 | $-18.0$ | 27.38 | -2.2 | $-2.3$ | 38.8 | -3.1 | -5.1 | 70.7 | +. 9 | +2.8 |
| Rayon and allied prod | 289.8 | +1.9 | $-27.8$ | 266. 1 | +3.1 | -32.3 | 22.68 | +1.2 | $-6.2$ | 35.1 | +1.6 | -8. 7 | 64, 5 | $-5$ | +3.0 |
| Soap. | 94.5 | +3.1 | $-7.7$ | 108.5 | +1.4 | $-7.2$ | 28.32 | -1.7 | +. 6 | 38.6 | -. 5 | -1.8 | 73.6 | -1.2 | +2.2 |
| Rubber products | 68.5 | $-3.0$ | -28.8 | 63.9 | +1.1 | -34.0 | 24.84 | +4.2 | -7.3 | 32.4 | +3.5 | $-6.5$ | 77.6 | +. 7 | $-1.9$ |
| Rubber boots and shoes. | 40.8 | -23.7 | -33.9 | 32.4 | -20.9 | -40.8 | 20.15 | +3.7 | $-10.5$ | 34.3 | +4.8 | -9.3 | 58.7 | $-1.1$ | -1.3 |
| Rubber tires and inner tu | 62.5 | +. 4 | -30.3 | 61.0 | +4.4 | -34.8 | 28.43 | +4.0 | -6.4 | 30.0 | +4.3 | $-5.5$ | 94.5 | +. 1 | -1.9 |
| Rubber goods, other. | 103.0 | $+.3$ | -24.6 | 94.3 | +1.7 | $-30.6$ | 20.81 | +1.4 | $-7.9$ | 35.3 | +2.6 | -7.2 | 59.9 | -. 1 | -. 0 |

NONMANUFACTURING

| [Indexes are based on 12 -month average $1929=100$ ] |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Coal mining: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Anthracite ${ }^{3}$ | 44.6 | -20.3 | -17.8 | 20.2 | -59.4 | -47.2 | \$14.76 | -49.0 | -35.8 | 14.9 | -51.3 | -43.3 | 88.5 | -5. 1 | -2.9 |
| Bituminous ${ }^{3}$. | 78.6 | $-1.9$ | -16.0 | 56.8 | -. 3 | -26.9 | 19.27 | +1.6 | $-12.9$ | 21.5 | +1.9 | -14.3 | 88.1 | +. 4 | (2) |
| Metalliferous mining | 49.5 | $-11.4$ | -39.6 | 37.8 | -17.8 | $-51.4$ | 23.84 | $-7.2$ | -19.5 | 35.9 | $-5.5$ | -13.5 | 66.7 | $-1.6$ | -6.6 |
| Quarrying and nonmetalic mining | 44.1 | +1.1 | -20.6 | 37.0 | -. 9 | $-27.3$ | 21.38 | $-2.0$ | -8. 4 | 39.2 | $-2.3$ | $-8.4$ | 54.2 | $-.3$ | $-.8$ |
| Crude-petroleum producing----- | 72.1 | -. 9 | -8.1 | 66.7 | -1.2 | $-5.4$ | 33.42 | -. 3 | +2.9 | 30.8 | $-.8$ | +. 5 | 84.2 | +. 6 | +1.7 |
| Public utilities: <br> Telephone and telegraph 4 | 74.9 | +. 2 | $-6.0$ | 90.9 | ${ }^{(2)}$ | $-1.4$ | 30.19 | -. 2 | +4.9 | 38.4 | 0 | -1.8 | 82.7 | $-4$ | +5.9 |
| Electric light and power and manufactured gas ${ }^{4}$ | 92.5 | +. 3 | -5.1 | 08.5 | -. 2 | $-3.7$ | 33.50 | -. 5 | +1.5 | 39.3 | -2.3 | $-2.0$ | 85.3 | +1.6 | +3.3 |
| Electric-railroad and motorbus operation and maintenance ${ }^{4}$ | 70.1 | -. 4 | $-4.5$ | 69.0 | -. 9 | -2.6 | 32.20 | $-.6$ | +2.0 | 44.6 | $-1.2$ | -3.6 | 71.1 | +. 7 | +5.8 |
| Trade: |  |  |  |  |  |  |  |  |  |  |  |  |  |  | +5.8 |
| Wholesale 1 | 86.6 | $-.7$ | $-4.4$ | 73.6 | $-.2$ | $-4.3$ | 29. 76 | +. 5 | +. 1 | 42.1 | -. 8 | -2.5 | 70.9 | +1.1 | +1.4 |
| Retail $4 . .$. | 81.1 | -3.0 | -7. 4 | 68.1 | $-1.9$ | -6.5 | 21. 72 | +1.1 | +1.1 | 42.6 | -. 5 | $-1.1$ | 55.9 | +2.0 | +3.3 |
| General merchandising ${ }^{4}$ | 87.9 | -4.4 | -6. 4 | 80.4 | -4.5 | $-7.8$ | 18. 33 | -1.2 | +. 5 | 39.0 | -1.6 | +1.1 | 49.8 | +1.4 | $-4$ |
| Other than meneral merchandising | 79.3 | -2.6 | $-7.1$ | 65.6 | $-1.3$ | -6. 1 | 24.41 | +1.4 | +1. 1 | 43.6 | -. 3 | $-1.6$ | 57.7 | +2.1 | +4.1 |
| Hotels (year-round) ${ }^{3} 43 . \ldots$................ | 90.7 | $-1.7$ | -3.1 | 77.4 | -2.7 | -2.4 | 14.61 | -1.1 | +. 7 | 46.8 | $-.2$ | $-3.7$ | 31.0 | $-.4$ | $+2.7$ |
| Laundries ${ }^{3}$ - ........ | 97.7 | +1.1 | $-7.6$ | 82.9 | +1.3 | $-6.9$ | 17.29 | +. 1 | +. 8 | 42.3 | 0 | -4.1 | 41.4 | $+.4$ | +5.3 |
| Dyeing and cleaning ${ }^{3}$ | 108.6 | -2.0 | $-2.2$ | 77.5 | -6.9 | $-2.5$ | 19. 85 | $-5.0$ | -. 4 | 42.0 | -3.1 | -3.2 | 47.6 | $-1.3$ | +4.3 |
| Brokerage ${ }^{\text {4 }}$-.-......- | ${ }^{(6)}$ | +2.3 | -15.6 | ${ }^{(8)}$ | $+3.9$ | $-21.8$ | 34. 05 | +1.5 | -7.2 | (6) | (6) | (6) | (6) | (8) | (6) |
| Insurance ${ }^{4}$ - | ${ }^{(8)}$ | +. 4 | +2.1 | ${ }^{(6)}$ | +1.3 | $-2.0$ | 36.70 | $+.9$ | -4. 0 | ${ }^{(6)}$ | ${ }^{(6)}$ | ${ }^{6}$ ) | (6) | ${ }^{(8)}$ |  |
| Building construction. | ${ }^{(6)}$ | +1.3 | -31.8 | $\left.{ }^{6}\right)$ | +1.8 | -32.9 | 29.52 | $+.5$ | -1.7 | 33.0 | +1.1 | $-3.9$ | 80.5 | $-.6$ | +1.7 |

${ }^{1}$ A verage weekly carnings are computed from figures furnished by all reporting establishments. A vcrage hours and average hourly earnings are computed from data supplied by a smaller number of establisliments as all reporting firms do not furnish man-hours. Percentage changes over year are computed from indexes. Percentage changes over month in average weekly earnings for the manufacturing groups. for all manufacturing
industries combined, and for retail trade are also computed from indexes. industries combined, and for
2
${ }^{3}$ Indexes adjusted to 1935 census. Comparable series back to January 1829 presented in January 1938 issue of this pamphlet.

4 A verage 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.
${ }^{5}$ Cash payments only; the additional value of board, room, and tips cannot be computed.
${ }^{6}$ Not available.

Table 4.-Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries, July, June, and May 1938 MANUFACTURING
[Indexes are based on 3-year average 1923-25=100 and are adjusted to 1933 Census of Mranufactures. Not comparable to indexes published in pamphlets prior to October 1936. Comparable series available upon request]

| Industry | Employment index |  |  | Pay-roll index |  |  | Avarage weekly earnings ${ }^{1}$ |  |  | Average hours worked per weak ${ }^{1}$ |  |  | Average hourly earnings ${ }^{1}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | July | June | May 1938 | July | June 1988 | May | July | ${ }^{\text {June }}$ | May 1938 | July 1938 | Juns 1938 | May 1938 | $\underset{1938}{\text { July }}$ | June 1938 | $\begin{aligned} & \text { May } \\ & 1938 \end{aligned}$ |
| All manufacturing industries | 76.1 | 75.8 | 77.4 | 67.2 | 67.2 | 69.2 | \$22.17 | \$22.30 | \$22. 43 | 34.9 | 34.4 | \$4.4 | Cents 63.9 | Cents | Cents 85. 0 |
| Durable goods.-- Nondurable goods | $\begin{aligned} & 64.0 \\ & 89.1 \end{aligned}$ | 65.8 86.5 | 68.2 87.4 | 55.4 82.2 | 58.1 78.8 | 60.5 80.3 | 23.74 20.83 | 24.22 20.52 | 24.29 20.64 | 88.6 35.9 | 34.0 34.7 | 38.9 34.9 | 71.1 58.2 | 71.8 58.7 | 72.1 58.8 |
| Durable goods |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Iron and steel and their products, not including machinery. | 72.4 | 73.1 | 75.5 | 55.8 | 57.4 | 60.9 | 21.65 | 22.17 | 22.75 | 29.1 | 29.6 | 30.2 | 76.1 | 76.3 | 76.3 |
| Blast furnaces, steel works, and rolling mills.- | 78.9 | 78.8 | 82.1 | 57.4 | 59.0 | 63.9 | 21. 43 | 22.21 | 23.08 | 25.8 | 26.5 | 27.6 | 83.6 | 84.1 | 83.7 |
| Bolts, nuts, washers, and rivets..-........----- | 58.7 | 58.8 | 61.4 | 50.0 | 52.3 | 55.7 | 19.37 | 20.16 | 20.56 | 27.3 | 28.3 | 29.2 | 70.9 | 71.1 | 70.5 |
| Cast-iron pipe. Cutlery (not including silver and plated cut- | 55.7 | 57.3 | 57.1 | 42.2 | 41.0 | 40.6 | 20.24 | 19.11 | 19.06 | 34.1 | 32.7 | 32.7 | 59.0 | 57.6 | 57.5 |
| Cutiery (not including silver and plated cutlery) and edge tools. | 59.8 | 70.7 | 71.8 | 49.1 | 58.0 | 58.2 | 20.59 | 20.51 | 20.28 | 33.6 | 33. 6 | 33.9 | 62.5 | 62.8 | 62.1 |
|  | 39.1 | 40.7 | 43.4 | 28.1 | 28.4 | 31.0 | 22. 06 | 21. 36 | 21.82 | 29.5 | 28.9 | 29.6 | 74.8 | 73.8 | 73.9 |
| Hardware......-........ | 53.2 | 57.7 | 59.8 | 48.9 | 53.1 | 53.9 | 20.77 | 20.77 | 20.37 | 31.8 | 31.8 | 31.4 | 65.2 | 65.3 | 64.9 |
| Plumbers' supplies. | 80.5 | 80.4 | 79.7 | 55.5 | 57.4 | 58.7 | 21.83 | 22. 55 | 23. 28 | 32.9 | 34.1 | 34.7 | 66.2 | 66.0 | 67.0 |
| Steam and hot-water heating apparatus and steam fitlings. $\qquad$ | 58.8 | 56.8 | 57.0 | 46.8 | 48.4 | 43.1 | 23. 18 | 23. 79 | 22.01 | 32.9 | 34.1 | 30.9 | 70.3 | 69.8 | 70.9 |
| Stoves.-........ | 71.2 | 74.5 | 76.5 | 54.8 | 58.3 | 61.5 | 22. 51 | 22. 95 | 23. 61 | 34. 4 | 34.9 | 35.7 | 66.1 | 66.4 | 666. 6 |
| Structural and ornamental metalwork | 57.0 | 56.2 | 57.5 | 52.8 | 50.4 | 52.7 | 25. 95 | 25. 26 | 25.77 | 35.8 | 34.7 | 35.8 | 72.5 | 72.8 | 72.2 |
| Tin cans and other tinware-.-.-.-......------ | 93.4 | 90.1 | 88.7 | 96.7 | 95.1 | 93.6 | 22. 29 | 22.71 | 23. 36 | 37.8 | 37.8 | 37.9 | 59.0 | 60.1 | 61.9 |
| Tools (not including edge tools, machine tools, fles, and saws) $\qquad$ | 69.9 | 73.2 | $7 \pm .9$ | 61.7 | 65.2 | 68.5 | 20. 40 | 20.71 | 21. 25 | 32.8 | 33.4 | 34.0 | 61.6 | 61.7 | 61.8 |
| Wirework..-.-.---....-. | 98.3 | 103.5 | 116.0 | 78.7 | 85.8 | 98.3 | 19.87 | 20.59 | 20.99 | 30.6 | 31.3 | 31.6 | 65.1 | 65.8 | 66.5 |
| Machinery, not including transportation equipment. | 82.7 | 86.0 | 89.6 | 73.2 | 76.8 | 81.3 | 24.34 | 24.68 | 24.96 | 33.5 | 33.8 | 34.1 | 72.3 | 72.7 | 72.9 |
| Agricultural implements. | 91.9 | 117.2 | 129.5 | 104.4 | 141.0 | 162.5 | 25. 33 | 26.80 | 27.98 | 34.6 | 36.6 | 37.2 | 73.3 | 73.5 | 75.4 |
| Cash registers, adding machines, and calculating machines. | 122.6 | 121.9 | 124.4 | 118.3 | 115.8 | 116.4 | 27.93 | 28. 56 | 28.16 | 35. 6 | 35. 2 | 34.8 | 80.7 | 81.8 | 81.2 |
| Electrical machinery, apparatus, and supplies.- | 72.9 | 75.2 | 78.0 | 64.8 | 67.3 | 69.1 | 24. 33 | 24. 49 | 24.27 | 32.7 | 32.7 | 32.3 | 74.2 | 74.7 | 74.9 |
| Engines, turbines, tractors, and water wheels. | 92.7 | 104.4 | 108.5 | 85.9 | 95.0 | 101. 6 | 28.14 | 27. 50 | 28.35 | 34.7 | 33.9 | 34.8 | 81.4 | 81.5 | 81.6 |
| Foundry and machine-shop products.--....-- | 74.2 | 75.7 108.8 | 79.2 | 63.8 | 65.8 | 70.1 | 23.95 | 24. 30 | 24. 74 | 33. 6 | 33.9 | 34.7 | 71.0 | 71.4 | 71.3 |
| Machine tools.- | 104.0 | 108.8 | 116.4 | 82.0 | 86.1 | 96.8 | 24. 26 | 24.31 | 25. 51 | 33. 3 | 33.4 | 34.9 | 72.8 | 72.7 | 73.0 |


| Radios and phonographs. | 92.3 | 92.2 | 86.3 | 75.91 | 75. 1 | 70.1 | 22.11 | 22.07 | 21. 64 | 36.3 | 36.9 | 35.9 | 61.0 | 59.9 | 60.7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T'extile machinery and parts | 56.1 | 56.1 | 60.0 | 46.2 | 46.8 | 48.4 | 22.25 | 22.80 | 22. 30 | 33.3 | 33.7 | 33.4 | 67.0 | 67.8 | 66.9 |
| 'rypewriters and parts. | 112.8 | 112.3 | 112.9 | 78.3 | 80.2 | 79.1 | 19.02 | 19.56 | 19.19 | 29.3 | 30.0 | 29.5 | 6\%. 0 | 65.1 | 64.9 |
| - Transportation equipment | 55.3 | 62.3 | 68.2 | 51.3 | 57.7 | 59.9 | 29.54 | 29.64 | 28. 14 | 33.6 | 33.4 | 31.9 | 88.4 | 83.9 | 88.5 |
| © Aircraft.-........... | 698.5 | 715.2 | 745.1 | 631.8 | 655.7 | 683.7 | 28. 78 | 29. 11 | 29.14 | 39.4 | 39.7 | 40.4 | 74. 0 | 73.8 | 72.4 |
| $\cdots$ Automobiles. | 53.2 | 61.6 | 68.7 | 46.7 | 53.7 | \%16. 1 | 29.72 | 29.49 | 27.65 | 32.0 | 31.9 | 30.0 | 13.0 | 42. 5 | 92.0 |
| ¢ Cars, electric-and steam-railroad | 25.6 | 23.6 | 32.1 | 20.0 | 31.1 | 34.4 | 24.42 | 26. 14 | 23. 67 | 33.0 | 35.0 | 34.6 | 74.1 | 74.6 | 74.3 |
| Locomotives. | 24.6 | 30.5 | 33.0 | 15.5 | 19.6 | 22.3 | 24.51 | 25.08 | 26.38 | 32.1 | 32.7 | 33.8 | 78.4 | 70.8 | 78.0 |
| \% Shipbuilding | 90.8 | 92.9 | 93.1 | 105.6 | 108.9 | 100.7 | 31, 31 | 31.61 | 30.92 | 38.8 | 37.3 | 37.0 | 80.4 | 83.3 | 82.7 |
| co Railroad repair shops | 40.8 | 39.9 | 41.0 | 40.9 | 41.0 | 42.5 | 29.00 | 29.70 | 29.94 | 39.8 | 41.1 | 41.3 | 72.4 | 71.9 | 72.0 |
| Electric railrond. | 59.3 | 59.8 | 60.4 | 64.0 | 66.2 | 67.3 | 30.34 | 31.19 | 31.32 | 42.5 | 43.8 | 14.0 | 70.1 | 60.8 | 69.8 |
| Steam railroad | 39.4 | 38.4 | 39.6 | 39.3 | 39.2 | 40.8 | 28.68 | 29.35 | 29.62 | 39.5 | 410.7 | 40.7 | 72.6 | 72.2 | 72.3 |
| $\therefore$ Nonferrous metals and their produ | 77.9 | 79.6 | 82.5 | 65.0 | 65.5 | 68.7 | 22.51 | 22. 20 | 22. 55 | 34.0 | 33. 5 | 33.8 | 65.6 | 66.9 | 66.3 |
| Aluminum manufactures. | 91.9 | $9] .5$ | 84.9 | 80.5 | 84.8 | 02.3 | 23.07 | 22.75 | 23.97 | 33.9 | [33. 4 | 33.0 | 68. 1 | 68.2 | 68.6 |
| Brass, bronze, and copper product | 82.4 | 82.0 | 83.6 | 72.3 | 67.2 | 70.5 | 24. 74 | 23. 14 | 23. 78 | 34.7 | 32.6 | 33.1 | 71.4 | 70.9 | 71.4 |
| Clocks and watches and time-rearding devices | 84.8 | 86.8 | 90.7 | 62.8 | 63.4 | 68.1 | 16. 78 | 16. 75 | 17.25 | 29.0 | 27.9 | 28 | 57.0 | 60.0 | 6i0.: |
| Jewelry.-...- | 7 T .4 | 75.8 | 73.6 | 54.4 | -3. 7 | 50.6 | 21. 49 | 21.82 | 21.00 | 36.2 | 398 | 33.9 | 58. 9 | 60.9 | 61. \% |
| Lighting equipment | 58.8 | 59.6 | 63.6 | 48. | 49.6 | 50.7 | 21. 22 | 22.10 | 21.14 | 31.2 | 32.1 | 31.4 | 68. 1 | (is. ${ }^{\text {c }}$ | 6i7. 2 |
| Silverware and plated ware | 58. 8 | 6.7 | $6 \times .8$ | 41.1 | 52.0 | [-1. 0 | 20.85 | 20.85 | 21.41 | 31.7 | 32.6 | 73 | 6.7 | 63.1 | ti3. 0 |
| Smelting and refiving-coprer, lead, and zince | $6 \mathrm{G}, 3$ | 68.4 | 71.1 | 57.3 | 6.10 | 64.0 | 20.03 | 20.14 | 29.42 | 37.1 | 38.4 | 30. 1 | ti7. 7 | 68.2 | (is.is |
| Stamped and enameled ware .............. . . | 90.3 | 96.6 | 105. 3 | 78.2 | 8.1 .8 | 02.8 | 21.14 | 21.3 .7 | 21.85 | 31.0 | 33.8 | 33.9 | 61.8 | 62.7 | 6\% 3 |
| Lamber and allied products.....- | 54.2 | 84.2 | 54.4 | 45.8 | 48.1. | 47.4 | 18.64 | 19. 52 | 19.21 | 36.5 | 37.5 | 3 P .8 | 51.5 | 53.1 | 53.1 |
| Furnituro... | 64.8 | 64.5 | 63.8 | 48.3 | 49.: | 47.8 | 17.80 | 18. 42 | 17.89 | 34.2 | 35.0 | 33.2 | 512. 2 | 33.1 | 54.3 |
| Lumber: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Millwork | 46.2 | 45.1 | 44.2 | 44.0 | 42.4 | 41.6 | 21.76 | 21. 36 | 21. 39 | 39.6 | 39.0 | 38.8 | 55.0 | 54.9 | 55.1 |
| Sawmills. | 41.3 | 41.6 | 42.4 | 34.9 | 38.1 | 38.2 | 18. 29 | 19.76 | 10.42 | 37.0 | 38.6 | 38.2 | 50.2 | 32.7 | 31.8 |
| Stone, clay, and glass products | 55.9 | 57.2 | 57.4 | 48.5 | 51.3 | 52.6 | 21.90 | 22.77 | 23.12 | 34.7 | 35.7 | 35.0 | 63.8 | 64.1 | 64.0 |
| Brick, tile, and terra cotta | 40.2 | 39.8 | 39.9 | 32.0 | 32.5 | 32.3 | 18.83 | 19.43 | 19.17 | 37.0 | 37.7 | 36.6 | 51.1 | 51.8 | 51.8 |
| Cement | 65.5 | 63.5 | 62.2 | 0368 | 65.9 | 60.4 | 26.13 | 26.62 | 27.44 | 37.8 | 38.9 | 40. 2 | 69.0 | 68.4 | 68. 3 |
| Glass | 74.7 | 70.5 | 80.9 | 69.1 | 77.1 | 78.5 | 22. 55 | 23.48 | 23.44 | 31.9 | 33.4 | 33.6 | 30.7 | 70.5 | 69.8 |
| Marble, granite, slate, and other | 37.9 | 37.5 | 37.3 | 32.4 | 32.7 | 34.4 | 24.93 | 25. 19 | 26.77 | 36.4 | 37.1 | 39.3 | 68.8 | 67.8 | 68.6 |
| Pottery | 65.1 | 68.3 | 68.6 | 47.0 | 54.0 | 58.0 | 19.14 | 20.93 | 23. 38 | 32.5 | 34.0 | 34.9 | 62.3 | 63.6 | 64.2 |
| Nondurable goods |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Textiles and their products. | 82.2 | 80.0 | 82.3 | 64.7 | 60.2 | 63.7 | 15.67 | 15.08 | 15. 23 | 32.7 | 21.4 | 31.8 | 48.0 | 47.9 | 47. 9 |
| Fabrics_-...-....----- | 79.4 | 76.2 | 76.8 | 66.4 | 61.8 | 02.7 | 15. 72 | 15. 29 | 15. 12 | 33.9 | 32.4 | 32.2 | 46.4 | 47.3 | 47.3 |
| Carpets and rugs. | 60.0 | 48.4 | 63.7 | 40.2 | 40.0 | 46.7 | 18. 69 | 10.61 | 17.41 | 29.3 | 30.5 | 27.1 | 63.9 | f,t. 3 | 64. 2 |
| Cotton goods.... | 83.2 | 80.4 | S0. 9 | 70.5 | 64.0 | 65.9 | 13.29 | 12.62 | 12.70 | 34.0 | 31.3 | 31.1 | 319.2 | 40.1 | 40.8 |
| Cotton small wares | 74.8 | 75.4 | 77.7 | 67.8 | 69.0 | 71.5 | 16.57 | 16.82 | 16. 89 | 35.6 | 31.7 | 34.8 | 47.3 | +8.4 | 48.2 |
| Dyeing and finishing textiles | 96.8 | 97.8 | 101.7 | 78.2 | 76.7 | 83.1 | 19.60 | 1.8. 97 | 19.74 | 35.7 | 34.5 | 36.0 | - 5 - 6 | 84.7 | 84. 4 |
| Hats, fur-felt.....-... | 72.0 | 55.4 | 67.1 | 63.0 | 40.8 | 47.5 | 23.85 | 20.05 | 19.20 | 3.1. 3 | 29.6 | 28.0 | 70.1 | 72.0 | 72.3 |
| Knit goods.. | 100.4 | 99.7 | 99.0 | 94.7 | 96.1 | 97.7 | 16. 41 | 16.68 | 17.06 | 32.7 | 33.1 | 33.7 | 50.8 | 51.4 | 51.3 |
| Silk and rayon goods | 55.0 | 53.5 | 59.1 | 42.6 | 41.2 | 40.5 | 15. 17 | 15. 04 | 1.5. 30 | 33.7 | 33.5 | 34.0 | 44.4 | 44.2 | 44. 6 |
| Woolen and worsted goods | 65.4 | 58.3 | 51.7 | 53.2 | 45.4 | 37.3 | 18. 85 | 18.02 | 16.65 | 35.4 | 33.7 | 30.6 | 33.4 | 53.7 | 54.6 |
| Wearing apparel.-.-.-..... | 80.8 | 86.9 | 93.2 | 58.6 | 54.6 | 63.0 | 15. 50 | 1.4. 31 | 15.52 | 30.1 | 29.2 | 31.0 | 31.4 | 18.9 | 49.1 |
| Clothing, men's. | 82.9 | 72.2 | 76.2 | 57.3 | 43.2 | 47.9 | 16.37 | 14.09 | 14. 86 | 28.3 | 26.2 | 27.1 | 58.2 | 54.8 | 55. 1 |
| Clothing, women's | 107.9 | 118.7 | 132.8 | 69.2 | 72.0 | 88.4 | 17. 14 | 16. 25 | 18. 14 | 31.3 | 30. 2 | 33.1 | \%2. 1 | 49.3 | 49.7 |
| Corsets and allied garments. | 82.2 | 85.5 | 86.6 | 73.5 | 76.0 | 84.7 | 14.77 | 14.91 | 16. 27 | 31.6 | 31.7 | 34.9 | 416.5 | 46.5 | 46. 3 |
| Men's furnishings... | 109.4 | 112.4 | 114.4 | 77.6 | 82.1 | 79.5 | 12. 18 | 12.74 | 12.17 | 32.0 | 34.3 | 33.0 | 35.1 | 35. 1 | 34.1 |

Table 4.-Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries, July, June, and May 1938-Contd.


| Explosives. | 85.3 | 84.9 | 84.8 | 92.4 | 89.3 | 85.9 | 30.63 | 29.65 | 28. 52 | 36.8 | 36.4 | 34.9 | 83.2 | 81.5 | 81.7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fertilizers. | 57.8 | 62.3 | 90.4 | 64.3 | 66.3 | 95.7 | 18. 55 | 17.33 | 17.46 | 38.0 | 38,0 | 39.0 | 48.7 | 45.8 | 41.9 |
| Paints and varuishos | 114.6 | 116.7 | 118.7 | 113.5 | 118.2 | 122.2 | 27.38 | 27.79 | 28.17 | 33.8 | 39.9 | 40.7 | 70.7 | 69.7 | 69.3 |
| Rayou and allied produci | 289.8 | 284.2 | 304.0 | 266.1 | 258. 1 | 275.0 | 22.68 | 22.42 | 22.34 | 35.1 | 34.6 | 34.6 | 64.5 | 64.8 | 64. 6 |
| Soap--.-..-- | 94.5 | 91.7 | 91.7 | 108.5 | 107. 1 | 107.2 | 28.32 | 28.81 | 28.84 | 38.6 | 38.8 | 38.7 | 73.6 | 74.5 | 74.7 |
| Rubber products. | 68.5 | 70.6 | 71.5 | 63.9 | 63.2 | 63.1 | 24.84 | 23.75 | 23. 39 | 32.4 | 31.3 | 31.1 | 77.6 | 77.0 | 78.9 |
| Rubber boots and shoes | 40.8 | 53.5 | 52.4 | 32.4 | 41.0 | 39.7 | 20.15 | 19.18 | 18. 98 | 34.3 | 32.1 | 31.4 | 58.7 | 59.8 | (80. 5 |
| Rubber tires and inner tubes | 62.5 | 62.2 | (i2. 3 | 61.0 | 58. 4 | 57.0 | 23.43 | 27.35 | 26.67 | 30.0 | 28.7 | 27.9 | 94.5 | 94.5 | 95.0 |
| Rubler goods other. | 103.0 | 102. 7 | 106.6 | 94.3 | 92.7 | 96.8 | 20.81 | 20.49 | 20.72 | 35.3 | 34.5 | 35.1 | 59.9 | 59.7 | 59. t |

NONMANUFACTURING
[Indexes are based on 12 -month arerage $1929=100$ ]

| Coal mining: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Anthracite ${ }^{\text {2 }}$ | 4.6 | 50.0 | 52.8 | 20.2 | 49.7 | 38.3 | \$14. 76 | \$28.94 | \$23.61 | 14.9 | 30.6 | 25.1 | 88.5 | 93.2 | 92.3 |
| Bituminous: | 78.6 | 80.2 | 82.2 | 56.8 | 57.0 | 55.3 | 19.27 | 18.92 | 17.81 | 21.5 | 21.0 | 19.7 | 88.1 | 87.9 | SS. 4 |
| Metalliferous mining | 49.5 | \%f, 0 | 58.8 | 37.8 | 46.1 | 51.2 | 23.84 | 25. 65 | 27.12 | 35.9 | 37.9 | 40.1 | 66.7 | 67.9 | 67. ${ }^{\text {\% }}$ |
| Quarrying and nommetalic mini!g. | 44.1 | 43.6 | 43.7 | 37.0 | 37.3 | 38.3 | 21. 38 | 21.61 | 22. 11 | 39.2 | 40.4 | 41.0 | 54.2 | 53.5 | \%3.0 |
| Crude-petrolemmprodaciag | 72.1 | 72.8 | 73.2 | (66. 7 | 67.5 | 10.7 | 33.42 | 34.23 | 33.64 | 30.8 | 40.2 | 39.4 | 84.2 | 83.6 | 85.2 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Telephone and teleyraph Rectric light and power and manufactored | 74.9 | 74.8 | 75. 0 | 00.9 | 90.9 | 91.3 | 30.19 | 31.08 | 31. 14 | 38.4 | 38.4 | 38.4 | 82.7 | 85.5 | 85.6 |
| gas 3.-.-..........-.-.-.-.-.....-- | 92.5 | 92.2 | 91.7 | 93.5 | 98.6 | 97.4 | 33.50 | 33.55 | 33.33 | 39.3 | 40.3 | 39.3 | 85.3 | 83.6 | 85.0 |
| Flectric-railroad and motorbus operation and maintenance ${ }^{3}$ | 70.1 | 70.4 | 70.6 | 69.0 | 69.7 | 71.2 | 32. 20 | 32.37 | 32.96 | 44.6 | 45.0 | 45.9 | 71.1 | 70.9 | 70.7 |
| 'rade: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Wholesale ${ }^{3}$ | 86.6 | 87.2 | 87.3 | 73.6 | 73.8 | 75.1 | 29.76 | 29.83 | 30.30 | 42.1 | 42.5 | 42.8 | 70.9 | 70.7 | 71.3 |
| Ketail ${ }^{3}$-- | 81.1 | 83.6 | 83.8 | 68.1 | 69.5 | 70.0 | 21. 72 | 21.46 | 21.45 | 42.6 | 42.7 | 42.7 | 55.9 | 55.0 | 54.5 |
| (reneral merchandising ${ }^{3}$ | 87.9 | 91.9 | 92.4 | 80.4 | 84.3 | 84.4 | 18.33 | 18. 22 | 18. 15 | 39.0 | 39.3 | 39.3 | 49.8 | 49.4 | 48.9 |
| Other than general merchandising ${ }^{3}$ | 79.3 | 81.4 | 81.5 | 65.6 | 66.4 | 67.0 | 24.41 | 24. 11 | 24. 18 | 43.6 | 43.7 | 43.7 | 57.7 | 56.6 | 86. 2 |
| Hotels (year round) 233 | 90.7 | 92.2 | 93.7 | 77.4 | 79.6 | 80.5 | 14. 61 | 14.95 | 14. 80 | 46.8 | 46.8 | 46. 6 | 31.0 | 31.4 | 31.5 |
| Iaundries ${ }^{2}$ - | 97.7 | 96.6 | 96.2 | 82.9 | 81.8 | 80.9 | 17.29 | 17. 20 | 17.10 | 42.3 | 42.4 | 42.0 | 41.4 | 41.0 | 41. 1 |
| 1) yeing and cleaning | 105. 6 | 110.8 | 109.9 | 77.5 | 83.3 | 80.7 | 10.85 | 20.93 | 20.30 | 42.0 | 43.3 | 42.1 | 47.6 | 48.6 | 48. f |
| 13 rokerage ${ }^{36}$ | +2.3 | $-1.3$ | $-1.9$ | $+3.9$ | $-1.2$ | -4.6 | 34.05 | 34.06 | 33.61 | (4) | (4) a | (4) | (4) | (4) | $\left.{ }^{4}\right)$ |
| linsurauce ${ }^{36}$ - | $+4$ | $+.3$ | $+1$ | $+1.3$ | +1.1 | -. 8 | 36.70 | 36. 64 | 30.27 | (4) | (4) | ${ }^{(4)}$ | ${ }^{(4)}$ | (4) |  |
| Buiking construction ${ }^{6}$ | +1.3 | $+.2$ | +3.4 | +1.8 | +1.1 | +5.8 | 29.52 | 29.43 | 29.07 | 33.0 | 32.6 | 32.3 | 89.5 | 90.4 | 90.3 |

1 A werage wedsy earbings are computed from hures furnished by an reporting establishments. A veruge hours and average hourly carnings are computed fron data supplied hy a smaller number of establishments as all reporting firms do not curnish man-hours. The ligures are not strict ly confparable from month to month because of changes in the size and composition of the reporting sample
in Indexes 103 isup or this publication omable series back to Jannary 1020 presented
${ }^{3}$ A rerage weekly carnings, homly carnings, and hours not strictly comparable with
ngures published in paniphlets prior to January 1938 as thes now cxeldde ecrporuivin oflicers, executives, and other ensployees whese duties are nainly supervisory.

Not available.
8 Cash payments only; the additional value of board, room, aud tips cannot be compoted.
ondexes of employment and pay rolls are not available; percentage changes from preceding montli substituted.

## INDEXES OF EMPLOYMENT AND PAY ROLLS

Indexes of employment and pay rolls are given in table 5 for all manufacturing industries combined, for the durable- and nondurablegoods groups of manufacturing industries, and for 13 nonmanufacturing industries, including 2 subgroups under retail trade, by months, from July 1937 to July 1938, inclusive. The accompanying chart indicates the trend of factory employment and pay rolls from January 1919 to July 1938.

The indexes of factory employment and pay rolls are computed from returns supplied by representative establishments in 89 manufacturing industries and cover wage earners only. The base used in computing these indexes is the 3 -year average $1923-25$ as 100 . In July 1938 reports were received from 25,434 manufacturing establishments employing $3,716,819$ workers, whose weelly earnings were $\$ 82,413,317$. The employinent reports received from these establishments cover more than 55 percent of the total wage earners in all manufacturing industrics of the country and more than 65 percent of the wage earners in the 89 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 15 th of the month.


Table 5.-Indexes of Employment and Pay Rolls in Selected Mamufacturing ${ }^{1}$ and Non. manufacturing ${ }^{2}$ Industries, July 1937 to July 1938, Inclusive

| Industry | Employ ment |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Avg. for year 1937 | 1937 |  |  |  |  |  | 1938 |  |  |  |  |  |  |
|  |  | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July |
| Manufacturing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All industries | 09.3 | 101.4 | 102.3 | 102.1 | 100.5 | 94.7 | 88.6 | 82. 2 | 82.3 | 81.7 | 79.6 | 77.4 | 75.8 | 76.1 |
| Durable goods ${ }^{\text {d }}$ | 95.5 | 98.9 | 98.1 | 97.3 | 97.6 | 02.4 | 84.3 | 75.1 | 73.3 | 72.4 | 70.0 | 68.2 | 65.8 | 64.0 |
| Nondurable goods 4.... | 103.4 | 10.1 | 106.9 | 107.3 | 103. 6 | 97.3 | 93.3 | 89.9 | 92.1 | 91.7 | 89.8 | 87.4 | 86.5 | 89.1 |
| Nonmanufacturing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Anthracite mining --- | 60.2 | 54.3 | 49.7 | 58.1 | 61.15 | 60.9 | 61.4 | 59.6 | 6n. 0 | 59.3 | 57.0 | 52.8 | 56.0 | 44.6 |
| Bituminous-coal mining | 90.3 | 93.7 | 97.4 | 99.4 | 102.4 | 101. 4 | 99.4 | 96.9 | 95.5 | 93. 2 | 85.8 | 82.2 | 80.2 | 78.6 |
| Metalliferous mining. <br> Quarrying and nonmetallic mining | 76.8 | 82.0 | 83.4 | 84. 1 | 82. 9 | 75.4 | 70.4 | 67.4 | 63.6 | 62.3 | 61.6 | 58.8 | 56.0 | 49.5 |
|  | 51.4 | 55.5 | 64.9 | 54.7 | 53.3 | 49.9 | 43.9 | 38.2 | 37.8 | 38.9 | 41.7 | 43.7 | 43.6 | 44.1 |
| Crude-petroleum producing. | 76.5 | 78.5 | 79.3 | 78.2 | 77.5 | 77.2 | 76.5 | 75.3 | 74. 2 | 73.6 | 73.8 | 73.2 | 72.8 | 72.1 |
| Telephone and telegraph... Electric light and power, and manufactured gas. | 77.8 | 79.7 | 79.8 | 79.8 | 79.6 | 78.9 | 78.0 | 77.8 | 75.7 | 74.9 | 74.8 | 75.0 | 74.8 | 74.9 |
|  | 95.6 | 97.5 | 08.3 | 08.6 | 98. 5 | 97.3 | 96. 1 | 93.8 | 02.6 | 92.0 | 91.8 | 91.7 | 92.2 | 92. 5 |
| Electric-railroad and motorbus operation and maintenance ${ }^{5}$ $\qquad$ | 73.1 | 73.4 | 73.4 | 73.7 | 73.4 | 73.2 | 72.8 | 72.3 | 71.2 | 70.8 | 71.1 | 70.6 | 70.4 | 70.1 |
| Wholesale trade...........- | 92.0 | 90.6 | 91.8 | 93.0 | 94.0 | 93.5 | 93.3 | 91.0 | 90. 4 | 89.1 | 88.5 | 87.3 | 87.2 | 88.6 |
| Retail trade. .............. | 89.8 | \$7. 6 | 86.2 | 90.7 | 92.1 | 91. 7 | 100.4 | 84.1 | 82.4 | 83.0 | 88.2 | 83.8 | 83.6 | 81.1 |
| General merchandising. | 104.3 | 95.9 | 93.8 | 103.7 | 108.1 | 109.8 | 145.9 | 91.5 | 88.8 | 90.5 | 101.0 | 92.4 | 91.9 | 87.9 |
| Other than general merchandising- | 85.9 | 85.4 | 84.2 | 87.3 | 87.9 | 86.9 | 88.5 | 82.1 | 80.7 | 81.0 | 84.9 | 81.5 | 81.4 | 79.3 |
| Year-round hotels. .-.-. -- | 94.9 | 93.6 | 91.3 | 05.7 | 00.9 | 90. 6 | 94.9 | 04.3 | 94.5 | 93.4 | 03.5 | 93.7 | 92. 2 | 90.7 |
| Laundries .-....-.-.---.-.-- | 100.6 | 105.8 | 104.7 | 104.1 | 99.9 | 97.8 | 97.0 | 96.8 | 95.7 | 94.8 | 95.4 | 96.2 | 90.6 | 97.7 |
| Dyeing and cleaning...-.-- | 107.5 | 111.0 | 110.3 | 112.8 | $\left.\right\|^{110.5}$ | 103.5 | 99.2 | 96.8 | 95.6 | 98.5 | 111.8 | 109.9 | 110.8 | 108.6 |
|  | Pay rolls |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Manufacturing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All industries...-.-.....---- | 98.0 | 100.4 | 103.8 | 100.1 | 100.1 | 80.5 | 80.9 | 71.7 | 73.2 | 73.3 | 70.7 | 69.2 | 67.2 | 67.2 |
| Tondurable goods ${ }^{\text {a }}$----- | 97. 5 | 100.7 | 104.0 | 09.4 | 101.7 | 89.9 | 77.0 | 63.9 | 63.7 | 63.8 | 61.8 | 60.5 | 58.1 | 55.4 |
|  | 98.5 | 100.0 | 103.5 | 100.9 | 98.2 | 89.0 | 85.8 | 81.6 | 85.1 | 85.3 | 82.0 | 80.3 | 78.8 | 82.2 |
| Nonmanufacturing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Anthracite mining | 46.9 | 38.2 | 29.6 | 34.2 | 55.4 | 49.0 | 51.3 | 46.5 | 48.1 | 47.3 | 39.0 | 38.3 | 49.7 | 20.2 |
| Bituminous-conl mining.-- | Ni. 5 | 77. 7 | 84.3 | 90.9 | 100.7 | 91.1 | 95.1 | 70.4 | 74.0 | 68.4 | 56.3 | 55.3 | 57.0 | 56.8 |
| Metalliferous mining.-..-- | 74.0 | 77.8 | 83.0 | 82.2 | 81.7 | 71.6 | 65.1 | 59.1 | 55.8 | 56.3 | 53.3 | 51.2 | 46.0 | 37.8 |
| Quarrying and nonmetallic mining $\qquad$ | 45.4 | 50.8 | 53.2 | 50.1 | 49.3 | 41.7 | 33.4 | 27.7 | 28.6 | 30.2 | 33.9 | 38.3 | 37.3 | 37.0 |
| Crude-petroleum producing $\qquad$ | 68.2 | 70.5 | 70.8 | 71.2 | \| 69.9 | 70.2 | 69.8 | 68.2 | 69.6 | 68.0 | 68.0 | 66.7 | 67.6 | 66.7 |

[^1]Table 5.-Indexes of Employment and Pay Rolls in Selected Manufacturing and Nonmanufacturing Industries, July 1937 to July 1938, Inclusive-Continued

| Industry | Pay rolls |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1937 |  |  |  |  |  | 1038 |  |  |  |  |  |  |
|  |  | July | Aug. | Sept | Oct. | Nor. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July |
| Nonmanufacturing-Con. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Telephone and telegraph.- | 89.6 | 92.1 | 92.1 | 92.3 | 94.9 | 91.4 | 94.7 | 93.7 | 89.9 | 92.6 | 91.6 | 91.3 | 90.9 | 90.9 |
| Electric light and power, and manufactured gas... | 99.6 | 102. 2 | 102.6 | 104.0 | 105.3 | 103.8 | 102.8 | 98.9 | 98.5 | 98. 6 | 97.6 | 97.4 | 98.6 | 98. 5 |
| Electric-railroad and motorbus operation and maintenance ${ }^{5}$ | 70.6 | 70.8 | 73.1 | 71.6 | 71.4 | 51.8 | 71.9 | 70.6 | 70.2 | 69.9 | 70.0 | 71.2 | 60.7 | 69.0 |
| Wholesale trade. | 76.6 | 76.9 | 79.0 | 78.3 | 79.3 | 78.3 | 77.8 | 75.4 | 75.3 | 74.7 | 74.6 | 75.1 | 73.8 | 73.6 |
| Retail trade...... | 73.1 | 72.8 | 72.3 | 74.4 | 75.9 | 75.3 | 80.6 | 70.1 | 68.4 | 68. 6 | 72.2 | 70.0 | 69.5 | 68.1 |
| General merchandis- | 92.5 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Otherthan geveral | 92.5 |  |  |  |  |  |  | 84.6 | 81.5 | 62.2 | 89.4 | 84.4 | 84.3 | 80.4 |
| merchandising...-.-- | 69.1 | 69.8 | 69.5 | 70.7 | 71.7 | 70.8 | 71.8 | 67.1 | 65.7 | 65.8 | 68.6 | 67.0 | 66.4 | 65.6 |
| Year-round hotels. | 80.6 | 79.4 | 90.5 | 82.4 | 84.1 | 84.3 | 82.6 | 81.6 | 83.6 | 80.9 | 80.5 | 80.5 | 79.6 | 77.4 |
| Laundrics. | 83.0 | 89.0 | 88.0 | 86.4 | 83.4 | 81.1 | 81.1 | 81.1 | 79.1 | 78.6 | 81.6 | 80.9 | 81.8 | 82.9 |
| Dyeing and cleaning..... | 77.6 | 79.5 | 81.3 | 85.7 | 83.6 | 73.7 | 68.6 | 65.5 | 65.2 | 68.2 | 87.2 | 60. | 83.3 | 77.5 |

${ }^{8}$ Not including electric-railroad car building and repairing. See transportation equipment and railroad repair-shop groups, Wanufacturing industries, table 3.

TREND OF INDUSTRIAL AND BUSINESS EMPLOYMENT, BY STATES
A comparison of employment and pay rolls, by States and geographic divisions, in June and July 1938, is shown in table 6 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 89 manufacturing industries presented in table 3 . The totals for all groups combined include all manufacturing industries, each of the nonmanufacturing industries presented in table 3 (except building construction), and seasonal hotels.

Table 6.-Comparison of Employment and Pay Rolls in Identical Establishments in June and July 1938, by Geographic Divisions and by States
[Figures in italics are not compiled in 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 estab-lishments | Number on pay roll July 1938 | $\begin{array}{\|c\|} \text { Per- } \\ \text { cent- } \\ \text { age } \\ \text { change } \\ \text { front } \\ \text { June } \\ 1938 \\ \hline \end{array}$ | $\left\|\begin{array}{c} \text { Amount } \\ \text { of pay roll } \\ \text { (1 weok) } \\ \text { July } 1938 \end{array}\right\|$ | Per- cent- age change from June 1938 | Num- ber of cstab- lish- ments | $\left\|\begin{array}{c} \text { Number } \\ \text { on pay } \\ \text { roll } \\ \text { July } \\ 1938 \end{array}\right\| \text { c }$ | Per- cent- age change from June 1938 | $\left\|\begin{array}{c} \text { Amount } \\ \text { of pay roll } \\ \text { (1 week) } \\ \text { July } 1938 \end{array}\right\|$ | Per- cent- age change from June 1938 |
| New England | 13,739 | 775, 948 | $+1.5$ | $\begin{gathered} \text { Dollars } \\ 17,170,236 \end{gathered}$ | +3.4 | 3, 631 | 514, 600 | +2.0 | $\begin{gathered} \text { Dollars } \\ 10,619,130 \end{gathered}$ | 9 |
| Maine | 837 | 54, 0 | +7.8 | 1, 057,702 | +12.1 | 304 | 43,450 | +7.9 | 801, 382 | +15.0 |
| New Hamp- | 660 | 38, 063 | +4.9 | 769,366 | +6.0 | 212 | 29,587 | +1.9 | [91, 667 | +5.6 |
| Vermont.. | 485 | 16,372 | +4.1 | 351, 864 | +4.9 | 151 | 9, 186 | +4.0 | 189, 226 | +7.1 |
| Massachusetts | 18,150 | $4{ }_{49}{ }^{417,505}$ | +.7 | 9, 655, 90.3 | +2.0 | 1,808 | 230, 888 | +1.4 | 4, 11616,388 | +3.2 |
| Rhode Island | 1.197 | 79, 378 | +4.9 | 1, 625,267 | +8.1 | 410 | 61, 845 | +6.4 | 1, 179, 295 | +11.0 |
| Connecticut | 2,430 | 109, 647 |  | 3, 710, 134 | +2.1 | 746 | 130,694 |  | 2,941, 172 | +2.7 |
| Middle Atlantic | 31, 611 | 1, 853, 024 | -1.1 | 46, 420, 166 | -3.0 | 5, 565 | 1, 030, 315 |  | 24,498, 200 | +. 1 |
| New York | 19,685 | 832,363 |  | 22, 905, 316 | +. 4 | 22,410 | 379, 772 |  |  | +2.0 |
| New Jersey | 4,310 | 317,229 | +. 2 | 7,919, 130 | + | ${ }^{3} 881$ | 225, 250 |  | 6,567, 920 |  |
| Pennsylvani | 7,616 | 703, 432 | -2.7 | 15, 505, 720 | -9.0 | 2,324 | 425, 293 | ${ }^{4}+{ }^{(5)}$ | 9,0.59, 555 | 4-1.5 |
| East North Centr | 25, 540 | 1,795, 080 | -2.3 | 44, 111, 651 | -2.7 | 8, 669 | 1, 234, 201 | -2. 4 | 29, 534,695 | -2. 6 |
| Ohio | 7,339 | 487, 074 | -1.2 | 11, 417,989 | -1.7 | 2, 530 | 351, 618 . | - 7 | 8,087, 673 | -1.8 |
| Indiana | 3,056 | 2 20,678 | -3.5 | 4, 9997,694 | -2.6 | ${ }^{1,074}$ | 168, 655 | -3. ${ }^{\text {r }}$ |  | -8.0 |
| Illinois. | ${ }^{6} 6,782$ | ${ }^{5283} 8.712$ | -1.4 | 13, 293, 573 | -1.2 | 2,463 | 34, 690 | -1.9 | $8,472,177$ | -1.2 |
| Michigan | , 4,025 | 330, 991 | -7.6 | 8, 981, 938 | -8. 1 | 1,062 | 215,291 | -8.5 | 6, 494, 528 | ${ }^{-7.6}$ |
| Wisconsin | 74,398 | 229, 631 | +2.4 | 5, 420, 457 | +1.2 | 81,540 | 157, 900 | +10.8 | 3, 637, 320 | +5.7 |
| West North Cen | 12,461 | 439, 895 | +2.2 | 10, 568, 445 | +2.3 | 2,633 | 209, 674 | +4.9 | 4, 979, 40r | +4.7 |
| Minnesota | - 2,788 | 124,632 | + 5.8 | 3,158, 112 | +3.7 | 644 | 51,118 | +11.5 | 1,274, 598 | +7.1 |
| Iowa | 1, 347 | 60, 225 | +1.7 | 1, 376, 329 |  | 421 | 33, 053 | +3. 1 | 766,285 |  |
| Missouri | 2,886 | 158, 561 | +1.4 | 3,781, 824 | +3.6 | 860 | 88, 044 | +4.3 | 1, 987, 252 | +7.7 |
| North Dako | 605 | 5,085 | +1.6 | 124, 513 |  | 5 | ${ }^{654}$ | +.8 | 18, 094 | +. 7 |
| South Dak | 459 | 7,928 | ${ }_{-2.1}^{+2.1}$ | 205, 801 |  | 相 | 2, 2550 | +2.3 |  | +3.4 |
| Kansas. | 102, 490 | 65, 287 | +8.8 | 1,276, 625 | -2.7 | ${ }_{458}^{161}$ | 24,677 | +2.6 | 631,189 | -4.4 |
| South Atlantic | 11, 246 | 787, 135 |  | 14, 687, 734 | +1.3 | 2,959 | 527, 136 | +. 6 | 8, 898, 683 | +1.9 |
| Delaware | 245 | 14, 183 | +1.8 | 318, 301 | +1.0 | 85 | 8, 966 | +3.1 | 221,345 | +2.8 |
| Maryland. | 1,618 | 124,618 | 1.2 | 2, 842, 426 |  | 628 | 84, 699 | 4-. 7 | 1,847,153 | 4-. 1 |
| District of $\mathrm{Co}-$ umbia |  |  | -2.5 |  | -1.9 | 38 |  | 1.6 |  | 3 |
| Virginis. | 2,123 | 107, 755 | -2.5 | 2, 012, 612 |  | 466 | 72, 204 | -1.8 | 1, 331,608 | +. 3 |
| West Virginia- | 1,258 | 125, 226 | . 5 | 2, 797, 968 | +2.4 | 271 | 43,760 | -2.6 | 1, 958, 753 | -1.6 |
| North Carolina- | 1,583 | 162, 524 | +4.0 | 2, 379, 935 | +3.1 | 664 | 148, 665 | +4.3 | 2, 136, 035 | +3.4 |
| South Carolina- | 744 | 72, 744 | +2.2 | 1, 019, 575 | +6.9 | 211 | 65, 247 | +2.5 | 878,001 | +7.6 |
| Feorrida | 1,489 | 103, 769 | -. 1 | 1, 601, 118 | +2.5 | 390 | 78, 972 | +. 2 | 1, 086, 404 | +4.0 |
| Florida.. | 1,085 | 38,751 | -7.4 | 713,497 | $-3.5$ | 206 | 20,471 | -7.8 | 333,715 | $-2.8$ |
| East South Central | 4,638 | 263, 756 | -1.8 | 4, 599, 572 | -. 2 | 1,056 | 157, 270 | -. 2 | 2, 598, 842 | +. 6 |
| Kentucky-- | 1,406 | 76, 196 | -2.0 | 1, 463, 203 | . 4 | 287 | 29,813 | -1.8 | 557, 829 | -5.5 |
| Tennessee | 1,420 | 92, 415 | -1.3 | 1, 581, 996 | +. 4 | 372 | 65, 489 | -. 8 | 1, 083,729 | +1.5 |
| Alabama.-. | 1,192 | 76,416 | -4.0 | 1, 268, 687 | -2.4 | 294 | 50, 178 | -. | 796, 823 | +2.1 |
| Mississippi-...- | 620 | 18,729 | +6.8 | 285, 686 | +7.5 | 103 | 11,790 | +10.6 | 160,461 | +11.2 |
| West South Central | 6,229 | 231, 431 | -. 4 | 5, 262, 074 | -. 4 | 1,355 | 107, 344 | + ${ }^{(5)}$ | 2, 338, 388 | +. 2 |
| Arkansas. | 121,119 | 29,788 | $+{ }^{+5}$ | 523, 246 | +.1 | 905 | 18,050 | +. 1 | 295, 826 |  |
| Oouisiana. | 1,064 | 52, 596 | (8) | 1,064, 227 | ${ }_{+1.6}^{+1.6}$ | 259 | 28, 716 | -. 9 | 554, 933 | +2.5 |
| Texas. | ${ }_{2}^{1,755}$ | 107, 805 |  | 2, 657,401 | -2,6 | 678 | 50,708 | +1.818 | 1,255,197 | -2.8 |

${ }^{1}$ Includes banks and trust companies, construction, municipal, agricultural, and oflice employment. amusement and recreation, professional services, and trucking and handing.
${ }^{2}$ Includes laundering and cleaning, and water, light, and power.
${ }^{3}$ Includes laundries.
${ }_{1} 1$ Weighted percentage change.

- Less than 150 of 1 percent.
- Includes automobile and miscellaneous services, restaurants, and building and contracting.
${ }^{7}$ Includes construction but not public works.
- Does not include logging.
- 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.
${ }^{10}$ Includes financial institutions, miscellaneous services, and restauritnts.
11 Weighted percentage change including hired farm labor.
${ }^{19}$ Includes automobile dealers and garages, and sand, gravel, and building stone.

Table 6.-Comparison of Employment and Pay Rolls in Identical Establishments in June and July 1938, by Geographic Divisions and by States-Continued

| Gengraphic division and State | Totnl-all groups |  |  |  |  | Manufacturing |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of estab-lisbments | $\left\|\begin{array}{c} \text { Number } \\ \text { on pay } \\ \text { roll } \\ \text { July } \\ 1938 \end{array}\right\|$ | $\begin{array}{\|c\|} \text { Per- } \\ \text { cent- } \\ \text { ge } \\ \text { change } \\ \text { from } \\ \text { June } \\ \text { 1938 } \end{array}$ | Amount of pay roll (1 week) July 1938 | Per-centage change from June 1938 | Number of estab-lishments | $\left\|\begin{array}{c} \text { Number } \\ \text { on pay } \\ \text { roll } \\ \text { July } \\ \text { 1938 } \end{array}\right\| \text { c }$ | $\begin{gathered} \text { Per- } \\ \text { cent- } \\ \text { age } \\ \text { change } \\ \text { from } \\ \text { June } \\ 1938 \end{gathered}$ | $\left.\begin{array}{\|c\|c\|} \text { Amount } \\ \text { of pay roll } \\ \text { (1 week) } \\ \text { July } 1938 \end{array} \right\rvert\,$ | Per-centage from June 1938 |
| Mountain | 4, 280 |  |  | Dollars 2, 813, 291 | -3.7 | 587 |  |  | Dollars 898,152 |  |
| Montana | 646 | 13, 632 | +1.4 | 376, 129 | -1.9 | 86 | 4,284 | +8.3 | 104, 583 | -3.2 |
| Idaho. | 509 | 10, 298 | -. 4 | 254, 417 | -5.9 | 64 | 3,671 | +16.7 | 91, 073 | +7.7 |
| W yoming | 322 | 8,512 | -. 6 | 220, 903 | -4.3 | 42 | 1,732 | +.6 | 54, 207 | -3.3 |
| Colorado. | 1,273 | 40, 841 | +4.0 | 963, 888 | + 8 | 193 | 14, 315 | +17.4 | 352,082 | +12.5 |
| Nery Mexico. | 291 | 6,741 | +-2.4 | 136, 395 | -1.0 | 32 | 1,082 | +6.3 | 19, 607 | +1.8 |
| Arizona | 443 | 13,012 | -6.6 | 312, 447 | -13.5 | 42 | 2,538 | -11.3 | 57, 485 | -17.1 |
| Utah- | 582 194 | 21,910 3 | +6.5 +3.7 | 458,414 90 | $-6.0$ | 109 | 10, 288 | +48.9 +4 | 199,454 | +23.6 -10.4 |
| Nevada. | 194 | 3,271 | +3.7 | 90,698 | -2.1 | 19 | 745 | +. 4 | 19,661 | -10.4 |
| Pacific-.-...- ... | 10, 371 | 441, 088 | + ${ }^{\text {(\%)}}$ | 12, 096, 180 | -2.8 | 2,569 | 224, 461 | +1.6 | 5, 727, 089 | -3. 6 |
| Washington... | 2,766 | 86, 498 | +1.2 | 2, 131,150 | $-3.3$ | 548 | 47, 880 | +4.1 | 1, 093, 175 | -5.2 |
| Oregon. Californ | 13 $\begin{gathered}1,373 \\ 6,32\end{gathered}$ | 47,931 306,657 | -. 2 | ${ }_{8,773,279}^{1,191,251}$ | -3.51 | +306 | 27,809 148,702 | +.5 +1.5 | - 646,574 | -6.11 |

${ }^{8}$ Less than 30 of 1 per cent.
${ }_{13}$ Includes banks, insurance, and office employment.

## INDUSTRIAL AND BUSINESS EMPLOYMENT IN PRINCIPAL METROPOLITAN AREAS

A comparison of employment and pay rolls in June and July 1938 is made in table 7 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 coopcrating establishments and cover both full- and part-time workers in the manufacturing and nonmanufacturing industries presented in table 3 with the exception of building construction, and include also miscellaneous industries.

Table 7.-Comparison of Employment and Pay Rolls in Identical Establishments in Junc and July 1938, by Principal Metropolitan Areas

| Netropolitan area | Number of establishments | Number on pay roll, July | Percentage change from June | Amount of pay roll (1 week) July | Percentage change from June |
| :---: | :---: | :---: | :---: | :---: | :---: |
| New York ${ }^{1}$ | 14,216 | 551,741 | $-1.5$ | \$14, 874, 657 | -0.6 |
| Chicago ${ }^{\text {a }}$ | 4, 501 | 409,394 | $-1.4$ | 11, 085, 442 | $-.9$ |
| Philadelphia ${ }^{3}$ | 2, 023 | 176,112 | -. 8 | 4, 6699, 832 |  |
| Detroit-...-.-- | 1,776 | 192, 500 | -10.6 | 5, 830, 789 | -8.0 |
| Los Angeles ${ }^{5}$ | 2,021 | 144, 9013 | $-2.4$ | 4, 186, 484 | -3.2 |
| Cleveland. | 1,640 | 106, 200 | $-1.2$ | 2, 579, 205 | $-1.9$ |
| St. Louis. | 1,477 | 118,091 | +1.2 | 2, 857, 733 | +3.0 |
| Baltimore. | 1,156 | 92,858 | $-1.9$ | 2. 125, 459 | $-.9$ |
| Boston ${ }^{\text {B }}$ | 1,470 | 41, 143 | $-1.8$ | 2,453. 180 | -. 2 |
| Pittsburgh | 1,178 | 150. 049 | $-7$ | 3, 440, 371 | -6.2 |
| San Francisco ${ }^{\text {? }}$ | 1, 045 | 77,876 | $-1.9$ | 2, 270, 727 | -4.4 |
| Buffalo. | 861 | 51, 834 | +2.6 | 1,385, 216 | +3.4 |
| Milwaukee. | 1,154 | 91, 397 | -3.4 | 2, 373, 626 | $-2.0$ |

[^2]
## 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 June and July 1938 are given in table 8.

Table 8.-Employment and Pay Rolls for the Executive Service of the U. S. Government, June and July $1938{ }^{1}$
[Subject to revision]

| 1 tem | Employment |  | Per-centage cliange | Pay rolls |  | Per-contage change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | July | June ${ }^{2}$ |  | July | Junc : |  |
| Entire service: <br> Total | 808. 235 | 857,824 | +1.2 | \$128, 119, 436 | \$128, 127, 191 | ${ }^{(3)}$ |
| Regular appropriation.-.......-.--- | 730, 4610 | 729, 403 | +. 1 | 111,530, 000 | 111, 508, 338 | ${ }^{(3)}$ |
| Emergency аppropriation....---.--- | 62, 746 | 62, 084 | -. 4 | 8, 146, 275 | 8,305, 085 | $-1.9$ |
| Force-account (regular and emergency) $\qquad$ | 74, 009 | 65, 437 | +14.6 | 8, 434, 161 | 8,313, 768 | +1.4 |
| Inside the District of Columbia: Total | 116, 500 | 115,758 | +. 7 | 20, 364, 822 | 20, 413, 759 | $-.2$ |
| Regular appropriation | 100, 006 | 98, 573 | +1.5 | 17, 803, 035 | 17,753, 528 | +.6 |
| Emergency apprepriation....-.......- | 11,927 | 12,533 | $-4.8$ | 1,805,371 | 1,931,023 | $-6.5$ |
| Force-account (regular and emergency) | 4, 6.57 | 4,652 | +. 1 | 606, 416 | 729, 208 | -4. 5 |
| Outside the District of Columbia: Total | 751, 645 | 742,066 | +1.3 | 107, 754, 614 | 107, 713, 432 | (3) |
| Regular appropriation-----------.- | 630.484 | 630, 830 | -. 1 | 93, 675,965 | 93, 754, 810 | -. 1 |
| Emergency appropriation....-....... | 50, 819 | 50, 451 | +. 7 | 6, 340, 904 | 6, 374, 062 | -. 5 |
| Force-account (regular and emergency) | 70,342 | 60, 785 | +10.7 | 7,737, 745 | 7, 584, 560 | +2.0 |

${ }^{1}$ Data include number of employees receiving pay during the last pay period of the month.
${ }^{2}$ Revised.
${ }^{3}$ Less than 1 fo of 1 percent.

## GOVERNMENT-OWNED CORPORATIONS

Semiannually the Civil Service Commission collects data on Government and Government-owned corporations. Employees of these agencies are not paid directly by the Federal Government.

Employment and pay rolls in Government and Government-owned corporations are shown in table 9.

Table 9.-Employment and Pay Rolls in Government Corporations and GovernmentOuned Corporations

| Establishment | Number of employees ${ }^{1}$ |  | Total pay roll |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { June 30, } \\ & 1938 \end{aligned}$ | $\begin{gathered} \text { Dec. 31, } \\ 1937 \end{gathered}$ | $\begin{gathered} \text { G-month } \\ \text { period } \\ \text { eniing } \\ \text { June 30, } \\ 1933 \end{gathered}$ | 6-month period ending 1937 |
| All establishments | 24, 962 | 25, 266 | \$20, 604, 746 | \$20, 708, 880 |
| Treasury: Office of Comptroller of the Currency, Division of Insolvent National Banks. | 399 | 415 | 488, 254 | 445, 071 |
| Farm Credit Administration: <br> Bank for cooperatives... | 199 | 187 | 274,878 | 263, 555 |
| Federal intermediate credit banks | 453 | 478 | 536, 085 | 527, 545 |
| Federal land banks ${ }^{2}$ | 5,213 | 5,534 | 4, 646, 707 | 4, 844, 460 |
| General agents' offices. | 424 | 425 | 504, 869 | 521.711 |
| Joint stock land banks. | 603 | 730 | 762,025 | 846,653 |
| Production credit corporations | 288 | 303 | 409.975 | 415,096 |
| Federal Reserve Banks--.-.-.- | 10, 803 | 10, 385 | 9, 374, 066 | 9, 247, 032 |
| Inland Waterways Corporation. | 2, ${ }^{\text {3, }} 521$ <br> 18 | 3,172 3,633 | $1,723,257$ $1,875,840$ | $1,750,278$ $1,929,089$ |
| Spruce Production Corporation. | 4 | 4 | 8,790 | 8,390 |

[^3]
## CONSTRUCTION PROJECTS FINANCED BY THE PUBLIC WORKS ADMINISTRATION

Details concerning employment, pay rolls, and man-hours worked during July 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 Irom Public Works Administration Funds, July $1938{ }^{1}$
[Subject to revision]

| Type of project | Wage eurners |  | Monthly pay-roll disbursements | Number of man-hours worked during month | $\begin{gathered} \text { Aver- } \\ \text { age } \\ \text { earn- } \\ \text { ings per } \\ \text { hour } \end{gathered}$ | Value of matarial orders placed during noontl |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Maximum number employed ${ }^{2}$ | Weekly nverage |  |  |  |  |
|  | Federal projects financed from National Industrial Recovery Act of 1933 funds |  |  |  |  |  |
| All projects. | ${ }^{3} 10,168$ | 9,645 | \$868, 807 | 1,224, 527 | \$0.710 | \$850, 744 |
| Building construction | 1,232 | 1,056 | 138,905 | 119,880 | 1.159 | 122,792 |
| Naval vessels. | (3) 677 | . 659 | 90,812 | 104, 006 | . 873 | 18,498 |
| Public roads ${ }^{\text {4 }}$ | ${ }^{(5)}$ | 5,362 | 362,737 | 640, 317 | . 566 | 370, 000 |
| Reclamation | 1,694 | 1,548 | 193, 130 | 238, 824 | . 809 | 223, 171 |
| River, harbor, and flood control--- | 1,130 | 965 | 78, 122 | 116,479 | . 671 | 106,914 |
| Miscellaneous.. | 73 | 55 | 5,101 | 5,015 | 1.017 | 9,369 |

1 Data are for the month ending on the 15th.
${ }^{2}$ Maximum number employed during any 1 week of the month by each contractor and Government agency doing force-account work.
${ }^{3}$ Includes weekly average for public roads.
4 Under the jurisdiction of the Bureau of Public Roads.
${ }^{5}$ Not available; weekly average included in total for all projects.

Table 10.-Employment and Pay Rolls on Projects Financed From Public Works Administration Funds, July 1938-Continued
[Subject to revision]

| 'Type of project | Wage earners |  | Monthly pay-roll disbursements | Number of man-hours workod during month | Average earnings per hour | Value of material orders placed during month |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Maximum number employed | Weekly average |  |  |  |  |


| All projects-----.......-...-------- | Federal projects financed from Public Works Administration Act of 1938 funds |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 325 | 322 | \$14,854 | 18,590 | \$0. 790 | \$8,498 |
| Building construction <br> Professional, technical, and clerical. | 301 | 298 | 14, 429 | 18, 147 | . 795 | 8,498 |
|  | 24 | 24 | 425 | 443 | . 959 | 0 |
|  | Non-Federal projects financed from National Industrial Recovery Act of 1933 funds |  |  |  |  |  |
| All projects | 9,443 | 8, 024 | \$006, 217 | 821,972 | \$1. 102 | \$1, 974, 287 |
| Buildng construction. <br> Railroad construction. <br> Streets and roads. <br> Water and sewerage <br> Miscellaneous. | 4,305 | 3, 623 | 474, 592 | 352, 569 | 1. 346 | 1,167, 807 |
|  | 24 | 24 | ${ }_{5111} 11$ | 208 | . 534 |  |
|  | 877 | 749 | 51, 111 | 69, 295 | . 737 | 88, 191 |
|  | 2,976 1,261 | 2,513 1,115 | 285,623 94,780 | 263,469 136,431 | 1.084 .695 | -440,244 |
|  |  |  |  |  |  |  |

Projects financed from Emergency Relief Appropriation Acts of 1935, 1936, and 1937 funds ${ }^{\circ}$

|  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 90,040 | 75, 665 | \$7,210, 860 | 8,797, 119 | \$0.820 | \$13, 534, 66 |
| Building construction ${ }^{\text {? }}$ | 50, 281 | 49,729 | 5, 003, 046 | 5, 583, 814 | . 896 | 8,952,612 |
| Electrification. | 990 | 826 | 71,386 | 98, 839 | . 722 | 163,791 |
| Heavy engineering | 6,086 | 5, 152 | 578, 211 | 688, 809 | . 839 | 1,279, 804 |
| Reclamation. | 842 | 698 | 78,746 | 98, 118 | . 803 | 209, 597 |
| River, harbor, and flood control... | 470 | 423 | 36, 198 | 58,906 | . 615 | 61,870 |
| Streets and roads. | 10,441 | 8,782 | 550, 462 | 1,067,903 | . 515 | 944, 070 |
| Water and sewerage | 11, 689 | 9, 834 | 873, 328 | 1, 171, 701 | . 745 | 1,629, 285 |
| Misceilaneous.. | 241 | 221 | 10,485 | 28, 929 | . 674 | 293, 640 |

[^4]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 Einergency 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 nonFederal 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 circunstances 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 July is shown in table 11, by type of project.

Table 11.-Employment and Pay Rolls on Projects Financed by The Works Program, July $1938{ }^{1}$
[Suhject to revision]


1 Unless otherwise noted data are for the month ending on the 15th.
${ }^{2}$ Maximum number employed during any 1 week of the month by each contractor and Government agency doing force-account work.
${ }_{3}$ The data for the Bureau of Entomology and Plant Quarantine, under plant, crop, and livestock conser-
vation, and the Hureau of Forest Service, under forestry, are for the calendar month.

- These data are for projects under the jurisdiction of the Bureau of Public Roads.
- These data are for projects under construction in Puerto Rico.

Table 11.-Employment and Pay Rolls on Projects Financed by The Works Program, July 1938-Continucd

| Type of project | Wage earners |  | Monthlypay-roll dis-bursements | Number of man-hours worked during month | $\begin{gathered} \text { A rer- } \\ \text { age } \\ \text { earn- } \\ \text { ingsper } \\ \text { hour } \end{gathered}$ | Value of material orders placed during month |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ATaximum number employed | Weeklyaverage |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

Public Works Administration projects financed from Emergency Relief Appropriation Act fands of 1935, 1936, and 1937


Projects operated ly Works Progress Administration ${ }^{7}$

All projects

| $2,906,832$ | $\ldots \ldots \ldots$ | $\$ 151,215,718$ | $300,750,953$ | $\$ 0.503$ | (9) |
| :--- | :--- | :--- | :--- | :--- | :--- |

[^5]Table ${ }^{-1} 12$ shows employment, pay rolls, and man-hours worked for the second quarter of 1938 on projects operated by the Works Progress Administration, by type of project.

Table 12.-Employment and Pay Rolls on Projects Operated by the Works Progress Administration, by Type of Project, for the Second Quarter of 1938
[Subject to revision]

| Type of project | Number employed ${ }^{1}$ | Pay-roll disbursements | Number of man-hours worked | A verage earnings per hour |
| :---: | :---: | :---: | :---: | :---: |
| All projects. | 2, 805, 219 | \$415, 404, 578 | 828,030, 144 | $\$ 0.501$ |
| Conservation | 111,958 | 16, 491, 562 | 33, 513, 530 | . 492 |
| Fighway, roud, and street | 1, 303, 441 | 165, 164, 860 | 367, 714, 297 | . 449 |
| Professional, technical, and clerica | 288, 245 | $56,993,509$ | 89, 922, 833 | . 634 |
| Public buildings ${ }^{2}$. | 214, 170 | 36, 597, 143 | 53, 840, 040 | . 680 |
| Publicly owned or onerited utilitie | 252, 708 | 46, 525, 313 | 87, 946, 535 | . 529 |
| Recreational facilities ${ }^{3}$ - | 246.274 | $43.035,914$ | 72, 585, 503 | . 593 |
| Sanitation and heulth. | 72,854 | 9, 055, 820 | 21, 809, 201 | . 415 |
| Seuring, canning, gardening, otc | 241, 174 | 30, 324, 531 | 81, 232, 130 | . 373 |
| Transportation...- | 46,421 | 7. 103. 418 | 11, 782, 454 | . 603 |
| Not elsewhere classified | 27,884 | 4,112, 505 | 8, 583, 621 | . 474 |

${ }^{1}$ Data are for the week ending July 2, 1938.
2 Separate data for housing projects are not available.
3 Exclusice of buildings.
Table 13 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 July 1938, inclusive.

Similar data for Student Aid are shown from September 1935, the starting date, to June 1938, inclusive.

Table 13.-Employment and Pay Rolls on National Youth Administration Projects Financed by The Works Program, From Beginning of Program Through July $1938{ }^{1}$
[Subject to revision]

${ }^{1}$ Data are for a calendar month.
d Data on a monthly basis are not available. This total represents expenditures through Miarch 31. 1938, and includes rentals and services and some sponsors' contributions.
${ }^{3}$ No expenditures for materials on this type of project.
4 Revised.

## CIVILIAN CONSERVATION CORPS

The Civilian Conservation Corps, created in April 1933, was further extended under the authority of the Emergency Relief Appropriation Act of 1935. During the fiscal year 1937, the Civilian Conservation Corps was continued from appropriations authorized by the First Deficiency Appropriation Act of 1936. Beginning with July 1, 1937, the Civilian Conservation Corps was continued for 3 years by an act of Congress. The Civilian Conservation Corps is usually regarded as a part of The Works Program, although it is now financed by a separate appropriation.

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 June and July 1938 are presented in table 14.

Table 14.-Employment and Pay Rolls in the Civilian Conservation Corps, June and July $1938^{1}$
[Subject to revision]

| Group | Number of employees |  | Amount of pay rolls |  |
| :---: | :---: | :---: | :---: | :---: |
|  | July | June | July | June |
| All groups. | 316, 227 | 293,859 | \$14, 266, 482 | \$13, 506, 062 |
| Enrolled personnel ${ }^{2}$ | 278, 086 | 250, 555 | 8, 649, 379 | 7,087,136 |
| Reserve officers.. | 5,085 | 5,069 | 1,291, 222 | 1,316,237 |
| Nurses ${ }^{\text {a }}$.-.-.-- | 205 | 275 | 28, 072 | 29,262 |
| Educational advisers ${ }^{3}$ - | 1,568 | 1,547 | 264, 169 | 260, 026 |
| Supervisory and technical | 31, 223 | 36,413 | 4, 033, 640 | 4,813,401 |

${ }^{1}$ Data on number of employees refer to employment on last day of month. Amount of pay rolls are for the entiremonth.
${ }_{2}$ July data include 3,021 enrollees and pay roll of $\$ 88,636$ outside continontal United States; in June the corresponding figures were 3,514 enrollees and $\$ 82,923$.
${ }^{3}$ Included in executive service, table 8.

## CONSTRUCTION PROJECTS FINANCED BY RECONSTRUCTION FINANCE CORPORATION

Statistics of employment, pay rolls, and man-hours worked on construction projects financediby the Reconstruction Finance Corporation in July are presented in table 15, by type of project.

Table 15.-Employment and Pay Rolls on Projects Financed by the Reconstruction Finance Corporation, By Type of Project, July $1938{ }^{1}$
[Subject to revision]

| Type of project | Maximum number of wage earners ${ }^{3}$ | Monthly pay-roll disburse ments | Number of man-hours worked during month | Average earnings per hour | Value of material orders placed during month |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All projects. | 2,997 | \$447, 594 | 505, 642 | \$0.885 | \$485,446 |
| Building construction ${ }^{3}$ | 171 | 16, 263 | 20,204 | . 805 | 13,783 |
| Water and sewerage. | 2,716 | 424, 883 | 473, 897 | . 897 | 471, 133 |
| Miscellaneous.-.... | 110 | 6,443 | 11,541 | . 558 | 530 |

[^6]
## 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 Burean 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 July are given in table 16, by type of project.

Table 16.-Employment and Pay Rolls on Construction Projects Financed From Regular Federal Appropriations, by Type of Project, July $1938{ }^{1}$
[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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Maximum } \\ \text { number } \\ \text { employed } \end{gathered}$ | Weckly average |  |  |  |  |
| All profects. | ${ }^{8} 236,415$ | 222,475 | \$23, 854, 162 | 34, 220,555 | \$0.697 | \$39, 327, 117 |
| Building construction | 16, 732 | 13,922 | 1,462, 111 | 1, 529, 067 | . 956 | 2, 556, 438 |
| Electrification: <br> Rural Electrification Administration projects | 6. 220 | 5,221 | 374, 334 | 684, 241 | . 547 | 2, 254, 321 |
| Other than Rural Electrification Administration projects. | 201 | 131 | 8,019 | 11, 805 | . 676 | 8,193 |
|  | 130 | 130 | 8,338 | 19,409 | . 430 | 2,200 |
| Heavy engineering | 67 | 60 | -8,467 | 9,769 | . 867 | 13,411 |
| Public roads ${ }^{5}$ | ${ }^{(6)}$ | 101,967 | 9, 703, 255 | 16, 576, 918 | . 585 | 16, 172, 092 |
| Reclamation.---------------- | 15,600 | 14,865 | 2,024, 020 | 2, 407, 262 | . 841 | 2, 730,630 |
| River, harbor, and flood control: Dredging, dikes, revetments, etc $\qquad$ | 35, 154 | 29,075 | 2,981, 409 | 4, 433, 042 | . 673 | 4,040, 144 |
| Locks and dams. | 10,198 | 8,971 | 1,056, 775 | 1,430, 549 | . 739 | 1, 824,794 |
| Ship construction: <br> Naval vessels. | 43,176 | 42, 046 | 5, 805, 530 | 6, 434, 203 | . 902 | 8, 758, 689 |
| Other than naval vessels | 1,918 | 1,548 | 145, 220 | 175, 697 | . 827 | 323, 801 |
| Streets and roads. | 3,185 | 2,888 | 184,900 | 358, 186 | . 516 | 462,783 |
| Water and sewerage | 195 | 156 | 10, 725 | 14,930 | . 718 | 110,416 |
| Miscellaneous.. | 1,672 | 1,495 | 81, 059 | 135,417 | . 599 | 69,305 |

${ }^{1}$ Data are for the month ending on the 15th.
${ }^{2}$ Maximum number employed during any 1 woek of the month by each contractor, and Government agency doing force-account work.
${ }_{3}$ Includes weekly average for public-rond projects.
4 Financed by Rural Electrification'Administration lonns.l
${ }^{5}$ Under the jurisdiction of the Bureau of Public Roads.

- Not available; weekly avcrage 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 July 1938, compared with June 1938 and July 1937, is presented in table 17.

Table 17.-Employment and Pay Rolls on Construction and Maintenance of State Roads, July 1938, June 1938, and July $1937{ }^{1}$
[Subject to revision]

| Item | Number of employees: |  |  | Pay-roll disbursements |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | July 1938 | June 1938 | July 1837 | July 1938 | June 1938 | July 1937 |
| Total | 199, 500 | 179,867 | 175, 047 | \$12, 982, 940 | \$12, 059, 010 | \$11, 998, 370 |
| New roads | 30,594 | 19,875 | 25, 140 | 1,940, 490 | 1,445, 870 | 1,697, 530 |
| Maintenance. | 108, 906 | 159, 992 | 149,907 | 11, 042, 450 | 10, 614, 040 | 10,300, 840 |

[^7]
[^0]:    1 Includes data on projects financed wholly or partially from Federal funds.
    3 Includes force-account and supervisory and technical employees shown under other classifications to the extent of 108,055 employees and pay-roll disbursemonts of $\$ 12,760,042$ for July and 103.672 employees and payroll disbursements of $\$ 13,416,457$ for June.

    * Revised.

    4 Less than 30 of 1 percent.
    ${ }^{5}$ Data covering P. W. A. projects financed from Emergency Relief Appropriation Acts of 1935, 1936. and 1037 funds and Public Works Appropriation Act of 1038 funds are included. These data aro not shown under The Works Program. Includes 90,040 wage earners and $\$ 7,210,860$ pay roll for July; 93 , 141 wage earners and $\$ 7,630,319$ pay roll for June, covering Public Works Administration projects financed from Emergency Relief Appropriation Acts of 1935, 1936, and 1037 funds. Data for July include projects financed from Public Works Appropriation Act of 1938 funds.
    6 Includes 62 employees and pay-roll disbursements of $\$ 5,003$ for July and 97 employees and pay-roll disbursements of $\$ 8,345$ for June on projects financed by the RFC Mortgage Co.
    ${ }^{7}$ Not available.

[^1]:    i 3-year average $1923-25=100$-adjusted to 1933 Census of Manufactures. Comparable indexes are in February 1937 and subsequent issues of Employment and Pay Rolls or in April 1927 and sulssequent issues of Monthly Labor Review.
    : 12 -month average for $1029=100$. 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 tho January 1938 and subsequent issues of Employment and Pay Rolls.
    ${ }^{3}$ Includes: Iron and steel; machinery; transportation equipment; railroad repair shops; nonferrous metals; lumber and allied products; and stone, clay, aud glass products.

    4 Inclides: Textiles and their products, leather and its manufactures, food and kindied 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.

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

[^2]:    ${ }^{1}$ Does not include Elizabeth, Jersey City, Newark, or Paterson, N. J., nor Yonkers, N. Y.
    2 Does not include Gary, Ind
    ${ }^{2}$ Does not include Camden, N. J.
    ${ }^{5}$ Does not includo Long Reach, Calif
    4 Less than 1 Ko of 1 percent.

    - Figures relate to city of Boston only.
    ${ }^{7}$ Does not include Oakland, Calif.

[^3]:    ${ }^{1}$ Data on number of employees refer to employees on pay roll with pay during the last pay-roll period of the month.
    ${ }^{2}$ Includes land-bank appraisers.
    ${ }^{3}$ Includes the Panama Railroad Steamship Line, which is owned and operated by the Panama Railroad Co.

[^4]:    ${ }^{6}$ These data are also included in soparate tables covering projects financed by The Works Program.
    I Includes a maximum of 1,927 and an average of 1,041 employees working on low-cost housing projects financed from E. R. A. A. 1835 funds who were paid $\$ 200,015$ for 196,312 nan-hours of labor. Material orders in the amount of $\$ 134,473$ were placed for these projects. These data aro also included in separate tables covering projects financed from The Works Program.

[^5]:    ${ }^{2}$ Maximum number emploved during any 1 week of the month by each contractor and Government agency doing force-account work.
    © Includes data for $8 s, 1 \mathrm{t} 3$ employees workingon non-Federal projectsand 1,927 emplosees working on lowcost housing projects. These data aro included in separate tables covering projects under the jurisdiction of the Public Works Adnuinistration.
    ${ }^{7}$ Data are for the calendar month. Not availahle by type of project.

    * 1Represents number of names on pay roll for week ending July 30, 1938.
    - Data on a monthly basis are not available.

[^6]:    ${ }^{1}$ Data are for the month ending on the 15th.
    ${ }^{2}$ Maximum number employed during any 1 week of the month by each contractor.
    ${ }^{8}$ Includes 02 employees; pay-roll disbursoments of $\$ 5,903 ; 5,502$ man-hours worked; and material orders placed of $\$ 10,100$ on projects financed by the RFC Mortgage Co.

[^7]:    ${ }_{1}$ Data are for the month ending on the 15 th and are for projects financed wholly from State or local funds.
    ${ }^{2}$ Average number working during month.

