## UNITED STATES DEPARTMENT OF LABOR

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## EMPLOYMENT

AND PAY ROLLS

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# OCTOBER 1940 

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# Employment and Pay Rolls 

## SUMMARY OF REPORTS FOR OCTOBER 1940

## Total Nonagricultural Employment

THE increases in nonagricultural employment which have occurred each month since February, raised the estimated total in October to nearly $37,000,000$, the maximum recorded since 1929 . The gain between September and October of 275,000 workers, exclusive of the expansion in the armed forces, was one of the largest increases shown for Octoberin any of the past 12 years. Employment in manufacturing industries as a whole showed a contraseasonal rise from September to October of 2.2 percent or 187,000 wage earners in contrast to a seasonally expected decline of 0.1 percent or 8,500 workers. Wholesale and retail firms reported a seaonsal gain of 57,000 employees, and 56,000 additional workers were employed on construction projects. In the Federal, State, and local government service, exclusive of the armed forces, employment increased by 23,000 , transportation and public utility companies added 4,000 workers, and mines reported a gain of 5,000 . In the finance, service, and miscellaneous group there was a decline of approximately 60,000 , due in large measure to seasonal recessions in resort hotel, recreation, and amusement activities.

Compared with October of last year, employment in nonagricultural industries increased by more than $1,180,000$. Manufacturing industries accounted for approximately 500,000 of this gain, construction projects for 180,000 , and trade for about 70,000 . Employment in the transportation and utility group was approximately 46,000 greater this year than last, and in the finance, service, and miscellaneous group approximately 35,000 higher. In the group of mining industries employment decreased by about 19,000 over the year interval.

These figures do not include emergency employment, which increased 94,000 as a result of the following changes: Increases of 75,000 on projects operated by the Work Projects Administration and 24,000 in the Civilian Conservation Corps, and a decrease of 5,000 on the out-of-school work program of the National Youth Administration.

## Industrial and Business Employment

Employment gains were reported by 73 of the 90 manufacturing industries for which indexes have been computed each month and pay-roll increases by 71 . Of the 16 nonmanufacturing industries regularly surveyed, 6 showed more employees in October than in September and 10 showed larger pay rolls.

The rise of 2.2 percent in factory employment indicated the addition of more than 187,000 workers, whereas a decline of 0.1 percent or 8,500 wage earners would ordinarily be expected. Weekly wages in manufacturing industries rose by 4.0 percent or more than $\$ 8,000,000$, this being about $2 \frac{1}{2}$ times as large as the expected seasonal increase of 1.6 percent or $\$ 3,300,000$. The gains, which were more pronounced in the durable-goods group of manufacturing industries than in the nondurable, partly reflected the increased activity resulting from the defense program. The durable-goods group as a whole showed an employment increase of 4.2 percent while the nondurable-goods group showed a gain of only 0.5 percent. The only durable-goods industries reporting employment declines were the tin-can and the marble-granite-slate industries and these were of a seasonal character.

Defense industries in which particular interest has been centered in recent months showed employment gains as follows: Aircraft, 9,800 wage earners; ship-building, 5,100 ; machine tools, 2,800 ; engines, 2,600 ; and aluminum manufactures, 1,200 . Since 1937, the most recent peak year, these industries have increased their working forces by 197,000 wage earners or more than 100 percent. Other industries stimulated directly or indirectly by war orders and showing large gains over the month were cotton goods, 15,100 ; foundries and machine shops, 13,100 ; electrical machinery, 10,900 ; woolen and worsted goods, 9,400 ; and blast furnaces, steel works, and rolling mills, 8,500 .

There was a larger-than-seasonal employment increase in the automobile industry ( 11.6 percent or 52,000 workers), reflecting a further expansion in production activities. Seasonal expansion was shown in beetsugar $(13,600)$, cottonseed oil $(7,300)$, and confectionery $(3,600)$. Substantial employment gains were also reported by factories manufacturing brass, bronze and copper products ( 5,400 ), wire work ( 5,100 ), and furniture $(3,800)$. Most of the manufacturing industries which reported declines usually show employment recessions in October. Among them were canning ( 56,300 ), men's clothing ( 5,800 ), millinery $(3,500)$, beverages $(3,300)$, and shoes $(2,800)$.

Of the 67 new industries for which separate pay-roll tabulations are now being prepared, 52 showed more men at work and larger pay rolls in October than in September. The percentage gains in
employment in some of these industries affected by defense activity were as follows: Professional, scientific, commercial, and industrial, instruments and apparatus, 6.3; abrasives, 6.5; ammunition, 9.4; firearms, 5.5 ; screw-machine products, 4.9 ; optical goods, 3.3 ; machinetool accessories, 3.2; and fire extinguishers, chemical, 7.3.

Retail stores reported a seasonal employment increase of 1.7 percent, primarily because of large gainsin departmentstores (3.2 percent), variety stores ( 3.3 percent), establishments selling women's ready-to-wear clothing ( 5.9 percent), men's and boy's clothing ( 4.2 percent), family clothing ( 5.6 percent), and jewelry ( 4.0 percent).

Wholesale firms showed a seasonal rise of 1 percent in employment, the more pronounced increases being in the following lines: Farm products, 12.2 percent; farm supplies, 4.3 percent; iron and steel scrap, 3.6 percent; jewelry and optical goods, 3.0 percent; metals and minerals, 2.2 percent; and paper and paper products, 2.0 percent. Assemblers and country buyers and agents and brokers increased employment by 9.5 percent and 2.5 percent, respectively, and the introduction of new models was reflected in the automotive group by an employment gain of 2.8 percent. The principal employment decline was 3.5 percent in chemicals, drugs, and allied products.

The seasonal employment increase of 2.1 percent in bituminouscoal mining continued the gains of the past 3 months, and more than offset the declines in other fields of mining.

Employment in private building construction increased 3.9 percent and weekly pay rolls 6.5 percent from September to October, the largest October gains shown in any of the past 8 years for which figures have been compiled by the Bureau. Compared with October 1939, employment was 23.5 percent higher and pay rolls 32.3 percent larger. General contractors reported an increase of 3.5 percent in employment and special trades contractors an increase of 4.1 percent from September to October. Ten of the fifteen special building trades surveyed showed increased employment as follows: Painting and decorating, 18.2 percent; excavating, 9.6 percent; building insulation, 7.7 percent; plastering, 6.4 percent; masonry, 4.0 percent; roofing and sheet metal, 3.7 percent; electrical contracting, 2.5 percent; plumbing and heating, 2.3 percent; glazing, 1.0 percent; and tile and terrazzo, 0.7 percent. Employment declines were reported in structural steel erection ( 4.2 percent), carpentering (3.4 percent), ornamental metalwork (2.8 percent), wood flooring ( 2.6 percent), and elevator installation and repairing ( 1.5 percent).

A preliminary report of the Interstate Commerce Commission for class I steam railroads showed an employment gain of 0.6 percent between September and October, the total number employed in

October being 1,072,590. Corresponding pay-roll figures for October were not available when this report was prepared. For September they were $\$ 165,479,902$, a decrease of $\$ 6,162,282$ since August. On a daily basis, the pay rolls were about the same for both months.

Hours and earnings.-The average hours worked per week by manufacturing wage earners were 39.3 in October, an increase of 1.3 percent from September. The corresponding average hourly earnings were 67.3 cents, an increase of 0.2 percent from the preceding month. The average weekly earnings of factory workers were $\$ 27.13$, an increase of 1.8 percent since September. Of the 16 nonmanufacturing industries regularly surveyed 9 reported increases in average weekly earnings. Of the 14 nonmanufacturing industries for which manhours are available, 6 showed gains in average hours worked per week and 5 reported increases in average hourly earnings.

Wage-rate increases were reported by 185 of the 33,330 manufacturing establishments which supplied employment information in October. These increases averaged 7.0 percent and affected 39,316 of the $6,218,782$ wage earners covered. Among them were 11 smelting and refining firms with 5,777 workers affected, 18 sawmills ( 3,489 workers), 17 foundries and machine shops ( 2,502 workers), 3 woolen mills ( 1,478 workers), 8 electrical machinery plants ( 1,770 workers), 3 furniture plants ( 1,291 workers), 10 paper and pulp mills ( 1,355 workers), and 4 steel mills ( 1,029 workers). Two plants manufacturing steam fittings and two manufacturing aircraft reported wage-rate increases to nearly 8,000 workers. Out of a total sample of 66,071 nonmanufacturing establishments (excluding building construction firms) employing $2,001,093$ employees in October, 29 establishments reported wage increases to 13,985 workers. These increases averaged 4.7 percent. Among them were 13 metal mines with 12,205 workers affected and 6 street railways with 1,215 workers affected. As the Bureau's survey does not cover all establishments in an industry and, furthermore, as some firms may have failed to report wage changes, these figures should not be construed as representing the total number of wage changes occurring in manufacturing and nonmanufacturing industries.

Employment and pay-roll indexes and average weekly earnings for October 1940 are given in table 1 for all manufacturing industries combined, for selected nonmanufacturing industries, for water transportation, and for class I railroads. Percentage changes over the month and year intervals are also given.

Table 1.-Employment, Pay Rolls, and Earnings in All Manufacturing Industries Combined and in Nonmanufacturing Industries, October 1940

| Industry | Employment |  |  | Pay roll |  |  | Average weekly earnings |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Index October 1940 | Percentage change from- |  | Index October 1940 | Percentage change from- |  | Aver. age in October 1940 | Percentage change from- |  |
|  |  | Sep-tember 1940 | October 1939 |  | $\begin{aligned} & \text { Sep- } \\ & \text { tem- } \\ & \text { ber } \\ & 1940 \end{aligned}$ | $\begin{aligned} & \text { Oc- } \\ & \text { tober } \\ & 1939 \end{aligned}$ |  | Sep-tember 1940 | October 1939 |
| All manufacturing industries combined ${ }^{1}$ | $\begin{gathered} (1928-95 \\ =100) \end{gathered}$ |  |  | $\begin{gathered} (1983-45 \\ =100) \end{gathered}$ |  |  |  |  |  |
|  | 110.1 | +2.2 | +6.2 | -114.5 | +4.0 | +12.6 | \$27.13 | +1.8 | +6.0 |
| Class I steam railroads ${ }^{2}$ | 60.0 | +. 6 | +1.6 | ${ }^{(3)}$ | ${ }^{(3)}$ | ${ }^{(3)}$ | ${ }^{(3)}$ | ${ }^{(3)}$ | ${ }^{(3)}$ |
|  | $\begin{gathered} (1929= \\ 100) \end{gathered}$ |  |  | $\begin{gathered} (1929= \\ 100) \end{gathered}$ |  |  |  |  |  |
| Coal mining: |  |  |  |  |  |  |  |  |  |
| Anthracite ${ }^{4}$ - | 49.8 | -. 8 | -4.0 | 32.2 | -18.2 | $-38.3$ | 21. 26 | -17.5 | $-35.7$ |
| Bituminous ${ }^{4}$ Metalliferous mining | 89.5 | +2.1 | $-3.7$ | 84.3 | +1.3 | -13.6 | 25. 06 | $-7.7$ | $-10.3$ |
| Quarrying and nonmetallic mining | 72.6 | +. 1 | +11.1 | 71.5 | +2.8 | +12.7 | 30.81 | +2.8 | +1.5 |
|  | 48.4 | -. 9 | +. 9 | 46.2 | -. 1 | +1.3 | 23.95 | +. 8 | +. 4 |
| Crude-petroleum production...-- | 61.8 | $-1.9$ | -3.8 | 58.3 | +. 2 | -. 8 | 34.73 | +2.2 | +3.1 |
| Public utilities: |  |  |  |  |  |  |  |  |  |
| Teleptric light and power ${ }^{\text {s }}$---- | 78.9 92.2 | -. 1 | +3.1 +2.1 | 102.9 | +1.1 +1.5 | +5.9 +5.3 | ${ }^{\text {¢ }} 32.03$ | +1.2 +2.0 | +2.6 +3.2 |
| Street railways and busses ${ }^{5} 7$. | 68.5 | -. 1 | -1.4 | 70.9 | -1.8 | +5.3 | ${ }_{6} 63.89$ | +2.8 | +1.1 |
| Trade: ${ }_{\text {Wholesale }{ }^{8} \text { - } \ldots \text {.-.......... }}$ |  |  |  |  |  |  |  |  |  |
|  | 91.8 | +1.0 | $-7$ | 80.5 | $-.7$ | +. 3 | ${ }^{6} 30.55$ | -1.7 | +1.0 |
| Retail ${ }^{5}$ | 94.4 | $+1.7$ | +2.9 | 85.8 | +. 8 | +3.1 | ${ }^{6} 20.90$ | $-.9$ | +. 2 |
| Hotels (year-round) ${ }^{4}$ | 93.1 | +1.7 | +. 2 | 83.6 | +2.1 | +1.7 | ${ }^{8} 15.57$ | +. 4 | +1.5 |
| Laundries ${ }^{\text {4 }}$--....... | 100.1 | -1.7 | +4.2 | 88.0 | $-2.1$ | +4.9 | 18.13 | $-.4$ | +. 6 |
| Dyeing and cleaning ${ }^{4}$ | 109.6 | $-.3$ | +4.4 | 82.7 | -3.4 | +7.0 | 20.64 | $-3.1$ | +2.5 |
| Brokerage.. | ${ }^{(3)}$ | $-1.9$ | $-13.2$ | ${ }^{(3)}$ | +. 3 | $-14.2$ | ${ }^{6} 36.79$ | +2.3 | $-1.1$ |
| Insurance. | (3) | -(10) | +1.9 | ${ }^{(3)}$ | $+.3$ | +2.4 | ${ }^{8} 36.03$ | +. 4 | +. 5 |
| Building construction | ${ }^{(3)}$ | +3.9 | +23.5 | ${ }^{(3)}$ | +6.5 | +32.3 | 33.84 | +2.5 | +7.0 |
| Water transportation ${ }^{11}$ | 80.0 | +. 5 | ${ }^{(3)}$ | ${ }^{(3)}$ | (3) | ${ }^{(3)}$ | ${ }^{(3)}$ | ${ }^{(3)}$ | (3) |

[^1]
## Public Employment

Employment on construction projects financed from appropriations to regular Federal agencies rose to 477,000 in the month ending October 15. As in the preceding month the gain can be attributed largely to national defense activity. Approximately 82,000 additional workers were employed on building construction projects and 7,000 were
added to the force engaged in building naval vessels. These gains and a decrease of 1,000 on other types of work resulted in a net gain of 80,000 on projects financed from regular funds. Pay-roll disbursements on all types of projects totaled $\$ 51,727,000$, an increase of $\$ 8,931,000$ over the preceding month.

Contractors on low-rent projects of the United States Housing Authority added approximately 2,000 building-trades workers to their pay rolls during the month ending October 15. Wage-payments of $\$ 5,577,000$ to the 53,000 men employed were $\$ 349,000$ greater than in September.

Employment on construction projects financed from Public Works Administration funds dropped to 38,000 in the month ending October 15 , a decrease of 12,000 from September. Pay-roll disbursements of $\$ 4,192,000$ were $\$ 1,091,000$ less than in the preceding month.

Employment on construction projects financed by the Reconstruction Finance Corporation remained at about the same level. Wage payments to the 2,000 workers employed during the month ending October 15 were $\$ 216,000$.

Work relief projects of the Work Projects Administration furnished employment to $1,712,000$ persons in October as compared with $1,637,000$ in September. Pay-roll disbursements of $\$ 99,370,000$ were $\$ 8,463,000$ greater than in the preceding month. In addition to these, approximately 72,000 workers were employed on Federal agency projects financed by the Work Projects Administration. Wage earners on these projects were paid $\$ 3,373,000$.

Starting the new school year with 22,000 students in September, the National Youth Administration increased employment on the student work program to 341,000 in October. Pay-roll disbursements for the month amounted to $\$ 2,161,000$. On the out-of-school work program, however, employment decreased 5,000 . The 236,000 young persons on the program were paid $\$ 4,943,000$.

With the beginning of an enlistment period, employment in camps of the Civilian Conservation Corps increased 24,000 in October. Of the 318,000 on the pay roll, 283,000 were enrollees, 1,500 educational advisers, 200 nurses, and 33,300 supervisory and technical employees. Pay-roll disbursements were $\$ 14,059,000$.

In the regular services of the Federal Government employment increases were reported in the executive, judicial, and military branches and a decrease in the legislative branch. Of the $1,086,000$ employees in the executive service, 149,000 were working in the District of Columbia and 937,000 outside the District. Force-account employees (employees on the pay roll of the United States Government who are engaged on construction projects, and whose period of em-
ployment terminates as the project is completed) were 11 percent of the total number of employees in the executive service. A large part of the increase in the executive service was accounted for by an estimated 21,000 employees of selective service boards. In addition, executive service employment increases were reported in the War and Navy Departments and the Department of Justice. Decreases were reported in the Departments of Agriculture and Commerce, the Post Office Department, and the Department of the Interior.

State-financed road projects furnished employment for 11,000 additional workers in October. Of the 208,000 on the pay roll, 68,000 were engaged in the construction of new roads and 140,000 on maintenance. Pay rolls of $\$ 15,514,000$ were $\$ 1,336,000$ more than in September.

A summary of employment and pay-roll data in the regular Federal services and on projects financed wholly or partially from Federal funds is given in table 2.

Table 2.-Summary of Employment and Pay Rolls in Regular Federal Services and on Projects Financed Wholly or Partially From Federal Funds, October 1940
[Preliminary figures]

| Class | Employment |  |  | Pay rolls |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | October 1940 | $\begin{gathered} \text { September } \\ 1940 \end{gathered}$ | Percentage change | $\begin{aligned} & \text { October } \\ & 1940 \end{aligned}$ | ${ }_{1940}$ | Percentage change |
| Federal services: |  |  |  |  |  |  |
| Executive ${ }^{\text {- }}$ | 1,086, 171 | 21, 058, 639 | $+2.6$ | \$166, 485, 603 | 2\$159, 587, 376 | $+4.3$ |
| Judicial.... | $2,841$ | $2,746$ | +3.5 | 656, 398 | 646,424 | ${ }_{\text {(3) }}+1.5$ |
| Legislative. | 5,892 733 | $\begin{array}{r}5,938 \\ \hline 633,54\end{array}$ | - -15 | 1, 290, 002 | 1, 298, 842 |  |
|  | 733, 220 | 633, 589 | +15.7 | 47, 902, 197 | 38. 532, 284 | +24.3 |
| Financed by regular Federal appropriations | 477, 397 | 389, 615 | +22.5 | 51,727. 448 | 42, 796,030 | $+20.9$ |
| TT. S. H. A low-rent housing. | 52, 555 | 50, 829 | +3.4 | 5. 577,218 . | 5, 228, 033 | +6.7 |
| Financed by P. W. A. ${ }^{4}$ - | 37, 824 | 50,051 | -24.4 | 4, 191, 769 | 5,282, 875 | $-20.7$ |
| Financed by R. F.C.s | 1,832 | 1,845 | -. 7 | 215, 858 | 205, 252 | +5.2 |
| Federal agency projects financed |  |  |  |  |  |  |
| tion---.....-.-.---.-.-.- | 71, 674 | 69, 156 | +3.6 | 3,373, 145 | 3, 102,015 | +8. 7 |
| Projects operated by W. P. A...--- | 1, 711, 674 | 1, 636, 824 | +4.6 | 99.370 .355 | 90, 907, 258 | +0.3 |
| National Youth Administration: Student work program - | 341, 199 | 21,776 | +1,466.9 | 2, 160, 889 | 95, 276 | +2,168.0 |
| Out-of-school program | 236, 312 | 241,060 | -2.0 | 4. 943,231 | 4, 827, 087 | +2.4 |
| Civilian Conservation Corps | 318, 453 | 294,622 | +8.1 | 14, 058, 799 | 13, 523, 515 | +4.0 |

${ }^{1}$ Includes force-account and supervisory and technical employees shown under other classifications to the extent of 159,960 employees and pay-roll disbursements of $\$ 22,909,162$ for October 1940, and 150, 139 employees and pay-roll disbursements of $\$ 20,028,413$ for September 1940 .
${ }^{2}$ Revised.
${ }^{3}$ Increase less than 1,0 of 1 percent.
${ }^{4}$ Data covering P. W. A. projects financed [rom National Industrial Recovery Act funds, Emergency Relie Appropriation Acts of 1935, 1936, 1937 funds, and Public Works Administration Appropriation Act of 1938 funds are included. These data are not shown under projects financed by the Work Projects Administration. Includes 5,429 wage earners and $\$ 570,344$ pay roll for Oetober $1940 ; 5,785$ wage earners and $\$ 567,057$ pay roll for September 1940, covering Public Works Administration Projects financed from Emergency Relief Appropriation Acts of 1935, 1936, and 1937 funds. Includes 30,177 wage earners and $\$ 3,402,104$ pay roll for October $1940 ; 41,738$ wage earners and $\$ 4,468,447$ pay roll for September 1940, covering Public Works Administration projects financed from funds provided by the Public Works Administration Appropriation Act of 1938.
${ }^{5}$ Includes 756 employees and pay-roll disbursements of $\$ 94,921$ for October 1940; 795 employees and pay-roll disbursements of $\$ 96,927$ for September 1940 0. projects financed by the RFC Mortgage Company.

## DETAILED TABLES FOR OCTOBER 1940

## Estimates of Nonagricultural Employment

THE estimates of "Total nonagricultural employment," given on the first line of table 3, represent the number of persons engaged in gainful work in the United States in nonagricultural industries, including proprietors and firm members, self-employed persons, casual workers, and domestic workers. The series described as "Employees in nonagricultural establishments" does not include proprietors, self-employed persons, and domestic or casual workers. Neither set of figures includes persons employed on W. P. A. or N. Y. A. projects, or enrollees in C. C. C. camps. The estimates for "Employees in nonagricultural establishments" are shown separately for each of seven major industry groups. Tables giving figures for each group, by months, for the period from January 1929 to date are available on request.

The figures represent the number of persons working at any time during the week ending nearest the middle of each month. The totals for the United States have been adjusted to conform to the figures shown by the 1930 Census of Occupations for the number of nonagricultural "gainful workers" less the number shown to have been unemployed for 1 week or more at the time of the census. Separate estimates for "Employees in nonagricultural establishments" are shown in table 4 for each of the 48 States and the District of Columbia for September and October 1940 and October 1939. Tables showing monthly figures for each State from January 1938 to date are available on request. The State figures do not include the armed forces of the United States nor employees on merchant vessels. Certain adjustments have been made in the United States estimates which cannot be made on a State basis, and for this reason the total of the State estimates will not agree exactly with the United States figures even if allowance is made for military, naval, and maritime employment. These estimates are based in large part on industrial censuses and on regular reports of employers to the United States Bureau of Labor Statistics and to other Government agencies, such as Interstate Commerce Commission. Data derived from employers' quarterly reports in connection with "old age and survivors' insurance," and employers' monthly reports in connection with unemployment compensation have been used extensively as a check on estimates derived from other sources, and in some industries they have provided the most reliable information available.

Table 3.-Estimates of Total Nonagricultural Employment, by Major Groups
[In thousands]

| Industrial group | October 1940 (prelim- | September 1940 | Change September to October 1940 | $\begin{aligned} & \text { October } \\ & 1939 \end{aligned}$ | Change October 1939 to October 1940 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 36, 987 | 36,652 | +335 | 35,800 | +1,187 |
|  | 30,838 | 30,500 | +338 | 29,651 | +1,187 |
| Manufacturing | 10,373 | 10, 184 | +189 | 9,862 | +511 |
| Mining--.... | 852 | 847 | +5 | 871 | -19 |
| Construction. | 1,545 | 1,489 | +56 | 1,366 | +179 |
| Transportation and public utilities. | 3,079 | 3,075 | $+4$ | 3,033 | +46 |
| Trade.---..---.-.-.-.-.-.-.-.-...- | 6,297 | 6,240 | +57 | 6, 228 | +69 |
| Finance, service, and miscellaneous | 4,193 | 4,252 | -59 | 4, 158 | +35 |
| Civil employees.. | 3,876 | 3,853 | +23 | 3,747 | +129 |
| Military and naval forces | 623 | 560 | +63 | 386 | +237 |

${ }^{1}$ Includes proprietors, firm members, self-employed persons, casual workers, and domestic workers.
${ }^{2}$ Does not include proprietors, firm members, selfemployed persons, casual workers, and domestic workers.

Table 4.-Estimated Number of Employees in Nonagricultural Establishments, by States
[Excludes proprietors, firm members, self-employed persons, casual workers, domestic workers, the armed forces of the United States, and employees on merchant vessels]
[In thousands]

| Geographic division and State | October 1940 (preliminary) | Septem- <br> ber 1940 | Change September to October 1940 |  | $\begin{gathered} \text { October } \\ 1939 \end{gathered}$ | Change October 1939 to October 1940 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Number | Percentage |  | Number | $\begin{aligned} & \text { Percent- } \\ & \text { age } \end{aligned}$ |
| New England | 2, 594 | 2, 575 | +19 | +0.8 | 2, 501 | +93 | +3. 7 |
| Maine -------- | 196 | 200 | -4 | $-1.9$ | 190 | +6 | +3.1 |
| New Hampshire. | 127 | 133 | -6 | -4.5 | 127 | 0 | +. 1 |
| Vermont....-- | 78 | 79 | -1 | $-2.2$ | 75 | +3 | +3.7 |
| Massachusetts. | 1,350 | 1,335 | +15 | $+1.1$ | 1,313 | $+37$ | $+2.8$ |
| Rhode Island. - | 238 | 234 | +4 | $+1.9$ | 235 | +3 | +1.4 |
| Connecticut.. | 605 | 594 | +11 | $+2.0$ | 561 | +44 | +7.9 |
| Middle Atlantic | 7,865 | 7,831 | +34 | +. 4 | 7, 854 | +211 | +2.8 |
| New York. - | 3,907 | 3,904 | +3 | +. 1 | 3,873 | +34 | $+.9$ |
| New Jersey --- | 1,217 | 1, 227 | $-10$ | -. 8 | 1, 127 | +90 | +8.0 |
| Pennsylvania. - | 2, 741 | 2, 700 | +41 | +1.5 | 2, $6 \overline{0} 4$ | +87 | +3.3 |
| East North Central | 6, 998 | 6, 908 | +95 | +1.4 | 6, 688 | $+330$ | +4.9 |
| Ohio...- | 1,815 | 1,789 | +26 | +1.5 | 1, 747 | +68 | $+3.9$ |
| Indiana | 814 | 809 | +5 | +. 6 | 762 | +52 | +6.8 |
| Illinois..--- | 2, 278 | 2, 253 | +25 | +1.1 | 2, 193 | +85 | +3.8 |
| Michigan -- | 1,447 | 1. 405 | +42 | +3.0 | 1, 343 | $+104$ | +7.8 |
| W isconsin... | 644 | 647 | -3 | $-6$ | 623 | +21 | +3.3 |
| West North Central. | 2,398 | 2,389 | +9 | +. 4 | 2, 359 | +39 | +1. 7 |
| Minnesota. | 532 | 540 | -8 | -1.5 | 527 | +5 | $+.9$ |
| Iowa...-- | 411 | 412 | -1 | -. 1 | 403 | +8 | +2.1 |
| Missouri .-.... | 785 | 774 | +11 | +1. 4 | 767 | +18 | +2.3 |
| North Dakota. | 80 | 80 | 0 | +. 2 | 78 | +2 | +2.8 |
| South Dakota | 85 | 85 | 0 | -. 3 | 84 | $+1$ | +. 6 |
| Nebraska. | 207 | 203 | +4 | +2.2 | 206 | +1 | $+7$ |
| Kansas.- | 298 | 295 | +3 | +1.1 | 294 | +4 | +1.7 |
| South Atlantic. | 3, 675 | 3, 518 | +57 | +1.6 | 3,428 | +147 | +4.3 |
| Delaware. | 77 | 77 | 0 | +. 7 | -69 | +8 | +12.1 |
| Maryland | 530 | 525 | +5 | +1.0 | 492 | +38 | +7.7 |
| Jistrict of Columbia. | 360 | 351 | +9 | $+2.6$ | 328 | +32 | +9.8 |
| Virginia-:..... | 505 | 499 | +6 | +1.3 | 485 | +20 | +4.3 |
| West Virginia... | 376 | 373 | +3 | +.9 | 378 | $-2$ | $-6$ |
| North Carolina. | 606 | 601 | +5 | +. 8 | 603 | +3 | +. 4 |
| South Carolina... | 285 | 284 | +1 | $+3$ | 274 | +11 | $+3.8$ |
| Georgia. | 476 | 465 | +11 | +2.4 | 465 | +11 | $+2.5$ |
| Florida. - - | 360 | 343 | +17 | +4.9 | 334 | +26 | +7. 7 |

Table 4.-Estimated Number of Employees in Nonagricultural Establishments, by States-Continued


${ }^{1}$ Less than 0.1 percent.

## Industrial and Business Employment

Monthly reports on employment and pay rolls are available for 157 manufacturing industries; 16 nonmanufacturing industries, including private building construction; water transportation; and class I steam railroads. The reports for the first 2 of these groupsmanufacturing and nonmanufacturing-are based on sample surveys by the Bureau of Labor Statistics. The figures on water transportation are based on estimates prepared by the Maritime Commission, and those on class I steam railroads are compiled by the Interstate Commerce Commission. They are presented in the foregoing summary.

The indexes of factory employment and pay rolls are based on the 3 -year average 1923-25 as 100 and are adjusted to 1937 census data. They relate to wage earners only and are computed from reports supplied by representative manufacturing establishments in 90 of the 157 manufacturing industries surveyed. These reports cover more than 55 percent of the total wage earners in all manufacturing industries of the country and more than 65 percent of the wage earners in the 90 industries covered.

The indexes for the nonmanufacturing industries are based on the 12 -month average for 1929 as 100 . Figures for mining, laundries, and dyeing and cleaning cover wage earners only, but the figures for public utilities, trade, and hotels relate to all employees except corporation officers, executives, and other employees whose duties are mainly supervisory. For crude-petroleum production they cover wage earners and clerical field force. The coverage of the reporting
samples for the various nonmanufacturing industries ranges from approximately 25 percent for wholesale and retail trade, dyeing and cleaning, and insurance, to approximately 80 percent for quarrying and nonmetallic mining, anthracite mining, and public utilities.

The indexes for retail trade have been adjusted to conform in general with the 1935 Census of Retail Distribution and are weighted by lines of trade. For the public utilities they have been adjusted to the 1937 Census of Electrical Industries, for wholesale trade to the 1933 census, and for coal mining, year-round hotels, laundries, and dyeing and cleaning to the 1935 censuses.

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

The average weekly earnings shown in tables 5 and 6 are computed by dividing the total weekly pay rolls in the reporting establishments by the total number of full- and part-time employees reported. As not all reporting establishments supply man-hours, average hours worked per week and average hourly earnings are necessarily based on data furnished by a smaller number of reporting firms. The size and composition of the reporting sample vary slightly from month to month. Therefore, the average hours per week, average hourly earnings, and average weekly earnings shown may not be strictly comparable from month to month. The sample, however, is believed to be sufficiently adequate in virtually all instances to indicate the general movement of earnings and hours over the period shown. The changes from the preceding month, expressed as percentages, are based on identical lists of firms for the 2 months, but the changes from October 1939 are computed from chain indexes based on the month-to-month percentage changes.

## EMPLOYMENT AND PAY-ROLL INDEXES, AVERAGE HOURS, AND AVERAGE EARNINGS

The indexes of employment and pay rolls as well as average hours worked per week, average hourly earnings, and average weekly earnings in manufacturing and nonmanufacturing industries in October 1940 are shown in table 5. Percentage changes from September 1940 and October 1939 are also given.

The employment and pay-roll indexes, as well as average hours worked per week, average hourly earnings, and average weekly earnings for August, September, and October 1940, where available, are presented in table 6. The August and September figures, where given, may differ in some instances from those previously published because of revisions necessitated primarily by the inclusion of late reports.

Table 7 gives revised data for anthracite mining for the months February to September 1940, inclusive.

In table 8, indexes of employment and pay rolls are given for all manufacturing industries combined, for the durable- and nondurablegoods groups of manufacturing industries, and for each of 13 nonmanufacturing industries, by months, from October 1939 to October 1940, inclusive. The accompanying chart indicates the trend of factory employment and pay rolls from January 1919 to October 1940.

## Use of Average Hourly Earnings in "Escalator" Clauses ${ }^{1}$

Average hourly earnings of wage earners, such as those shown in table 6 , have been compiled regularly by the Bureau of Labor Statistics since 1932. These averages are published for the use of those who wish either to compare the average earnings of wage earners in different industries or to study the changes in average earnings over a period of time.

Certain characteristics of the average earnings should be indicated. The average of the actual earnings of wage earners as a group may change from one period to another for either of two reasons: (1) By reason of changes in the wages paid or (2) by reason of changes in the composition of the group of wage earners actually at work in different periods. As an example of the latter cause of change, it is evident that if, from one month to the next, the number of wage earners employed in a high-wage industry increases proportionally more than employment generally has increased, the average of actual earnings for the group as a whole will increase. This increase might take place even though there were no changes whatsoever in the earnings of any wage earner in any one of the establishments. It is apparent, therefore, that the Bureau's averages reflect both changes in the actual hourly rates paid as well as changes in the composition of the wage earners in the group. The averages contained in table 6 for all manufacturing, for durable goods, for nondurable goods, and for the various subgroups of industries, such as "iron and steel and their products," reflect both types of influence upon hourly earnings; and they measure the average of the actual earnings of the wage earners actually at work in each respective period.

To an increasing extent use is being made of these average hourly earnings figures in so-called "escalator" clauses in Government contracts. These are designed to protect contractors from losses that might arise from general wage increases over which they could exercise no control. A number of contracts extending over many months have been written recently with clauses that provide for increased payments to the contractor in case of increases in the average of the hourly earnings in the durable-goods industries.

[^2]It should be pointed out that the characteristics of the Bureau's average hourly earnings figures, as described above, make it desirable to use these averages for other than their designed purpose with a certain degree of caution. The purpose for which they were compiled limits their usefulness, especially in July and August, as a measure of change in labor rates. In these months the averages show a seasonal movement unrelated to rates of pay. For example, the average hourly earnings figure in the durable-goods industries dropped from 73.2 cents in June to 72.7 cents in July. This drop was due not to a general decline in wages in this period but almost entirely to the fact that employment in the automobile industry declined sharply as the result of model changes. This industry is a high-wage industry in which the average hourly earnings are about 95 cents an hour. Between June and July, employment in the automobile industry dropped from 104.9 to 82.3. This relative decline, of a purely seasonable character, in the number of highly paid automobile workers was very largely responsible for the decline of half a cent noted in the average hourly earnings in durable-goods industries.

By way of illustration of the problem involved, it would be possible to construct an index of earnings that was unrelated to changes in the relative occupational composition of the group workers actually at work. For example, giving the averages for the several industries the same weights in July and August that they had in June and considering only the influence of changes in average earnings in each industry, we find no change in the rate of earnings from June to July and approximately the same percentage change as is shown by the published figures from July to August. This means that from June to August, the currently published figures show a slight decline over this 3 -month interval whereas the series computed with constant weights shows a small gain.

It is not within the province of the Bureau to indicate the type of average that was contemplated by the contracting parties in the contracts already drawn; least of all can the method of compiling an average be changed. It is obvious however that in incorporating any statistical series in legal documents careful consideration should be given to the purpose for which the figures were originally compiled and to their relevance to some new purpose. The officials of the Bureau are at the disposal of all those who wish to apply any of the Bureau's series to administrative problems. Carefully interpreted and applied, these data have a present usefulness far greater than was imagined in the past. Their appropriate adaptation to new uses involves on the one hand a careful consideration by the Bureau of the purposes of the contracting parties; on the other, consultation with the Bureau to discover whether the new figures as they stand meet the purposes in mind.

Table 5.-Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries, October 1940 MANUFACTURING
[Indexes are based on 3-year average, $1923-25=100$. New series-adjusted to 1937 Census of Manufactures for all industries except automobiles, and not comparable with indeses
published in the July 1939 and earlier issues of the pamphlet. Comparable series available upon request]

| Industry | Employment |  |  | Pay rolls |  |  | A verage weekly earnings ${ }^{1}$ |  |  | Average hours worked per week ${ }^{1}$ |  |  | A verage hourly earnings ${ }^{1}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Index October 1940 | Percentage change from - |  | Index October 1940 | Percentage change from |  | OctoDer 1940 | Percentage change from- |  | October 1940 | Percentage change from- |  | October 1940 | Percentage change from- |  |
|  |  | $\begin{gathered} \text { Sentem- } \\ \text { ber 1940 } \end{gathered}$ | $\begin{gathered} \text { October } \\ 1939 \end{gathered}$ |  | September 1940 | $\begin{gathered} \text { October } \\ 1939 \end{gathered}$ |  | September 1940 | $\begin{gathered} \text { October } \\ 1939 \end{gathered}$ |  | $\left\|\begin{array}{c} \text { Septem- } \\ \text { ber } 1940 \end{array}\right\|$ | $\begin{gathered} \text { October } \\ 1939 \end{gathered}$ |  | Senternber 1940 | $\begin{aligned} & \text { October } \\ & 1939 \end{aligned}$ |
|  | 110. 1 | +2.2 | +6.2 | 114.5 | +4.0 | +12.6 | \$27. 13 | +1.8 | +6.0 | 39.3 | +1.3 | +0.5 | $\begin{aligned} & \text { Cents } \\ & 67.3 \end{aligned}$ | +0.2 | +4.6 |
| Durable goods | 109.9 110.0 | +4.2 + + | +14.2 -.5 | 122.2 105.9 | +7.1 +.3 | +22.4 +1.9 | 31.42 22.28 | +2.8 $+\quad .2$ | +7.2 +2.5 | 41.0 37.6 | +2.2 +.2 | +2.6 -1.9 | 73.9 60.9 | +.4 -.4 | +4.1 +3.8 |
| Durable goods |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Iron and steel and their products, not including machinery. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ${ }_{125.3}^{117.1}$ | +3.1 +1.7 | +9.6 +8.9 | 123.7 | +4.7 +2.4 | +10.3 +6.2 | 30.97 33.04 | +1.5 +.7 | +.6 -2.4 | 39.9 38.8 | +1.8 +.9 | -3.9 | 77.8 85.5 | $-.2$ | +1.9 +.7 |
| Bolts, nuts, washers, and rivets......-.......--- | 121.3 | +2.9 | +6.9 | 149.5 | +7.5 | +8.8 | 29.68 | +4.5 | +.84 +.8 | 42.4 | +3.8 +3.8 | -. 8 | 80.0 70.8 | +. 6 | +1.6 |
| Cast-iron pipe.--...-...--...-.-. | 83.9 | +2.5 | +9.5 | 84.8 | $+7.0$ | +18.8 | 24.10 | +4.3 | +8.4 | 39.8 | +3.9 | +4.4 | 60.2 | +. 6 | +4.1 |
| Cutlery (not including silver and plated cutlery) and edge tools. | 111.3 | +4.0 | +7.1 | 106.3 | +5.6 | +12.9 | 24.87 | +1. 5 | +5. 4 | 40.4 | +1.5 | -1.2 | 62.2 | (-8) | +6.1 |
|  | 80.4 | +4.9 | +23.4 | 102.2 | +11.2 | + 36.8 | 34.30 | +6.1 | +10.9 | 42.8 | +4.7 | +5.9 | 80.8 | +1. 5 | +5.1 |
| Hardware,-...-.........- | 105.3 | +4.1 | +5.6 | 118.8 | +4.6 | +8.4 | 27.74 | +.5 | +2.6 | 40.6 | +2.3 | +1.0 | 88.4 | -1.4 | +1.5 |
|  | 91.0 | +2.8 | +10.7 | 85.1 | +5.4 | +6.5 | 27.26 | +2.5 | $-3.8$ | 39.2 | +2.4 | -6.5 | 70.1 | +. 1 | +2.7 |
| Stamped and enameled ware...............-...-.-- | 188.7 | +7.3 | +15.3 | 217.3 | +8.3 | +25.8 | 27.21 | +.9 | +9.0 | 40.8 | +.8 | +1.5 | 66.2 | +. 3 | +7.6 |
| Steam and bot-water heating apparatus and steam fttings. | 99.4 | +5.4 | +15.1 | 102.5 | +12.5 | +23.0 | 31.34 | +6.7 | +6.9 | 43.2 | +5.1 | +3.6 | 72.7 | +1.7 | +3.5 |
|  | 105.9 | +4.7 | +8.7 | 105.9 | +8.8 | +12.8 | 28.78 | +3.9 | +3.9 | 41.8 | +3.5 | +1.0 | 68.4 | +. 2 | +2.8 |
| Structural and ornamental metalwork | 85.6 | +2.6 | +12.2 | 79.6 | +6. 4 | +16.5 | 30.02 | +3.7 | +3.9 | 41.0 | +4.1 | +2.4 | 73.3 | -. 3 | +1.4 |
| Tin cans and other tinware...-.------- | 101.3 | $-3.7$ | -4.2 | 112.7 | -3.5 | +1.3 | 25.17 | +. 2 | +5.7 | 39.7 | +. 3 | +. 7 | 63.7 | -. 1 | +4.8 |
| Tools (not including edge tools, machine tools, files, and saws) | 106.0 | +6.1 | +16.4 | 113.3 | +8.9 | +22.9 | 26.81 | $+2.7$ | +5.7 | 42.2 | +2.4 | +2.2 +1.6 | 63.7 | +. 2 | +3.3 |
| Wirework--------------------------------------1-1 | 192.6 | +16.9 | +16.1 | 231.4 | +20.7 | +26.3 | 30.09 | +3.3 | +8.8 | 41.7 | +4. 1 | +1.6 | 72.4 | -. 8 | +6.7 |

Table 5.-Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries, October 1940-Continued
MANUFACTURING—Continued

| Industry | Employment |  |  | Pay rolls |  |  | Average weekly earnings |  |  | A verage hours worked per week |  |  | A verage hourly earnings |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Index Octoher 1940 | Percentage change from - |  | Index October 1940 | Percentage change from- |  | October 1940 | Percentage change from- |  | October 1940 | Percentage change from- |  | $\begin{aligned} & \text { Octo- } \\ & \text { ber } \\ & 1940 \end{aligned}$ | Percentage change from- |  |
|  |  | September 1940 | $\begin{array}{\|c} \text { October } \\ 1939 \end{array}$ |  | September 1940 | $\left\lvert\, \begin{gathered} \text { October } \\ 1939 \end{gathered}\right.$ |  | September 1940 | $\begin{gathered} \text { Octo ber } \\ 1939 \end{gathered}$ |  | September 1940 | $\left\lvert\, \begin{gathered} \text { October } \\ 1939 \end{gathered}\right.$ |  | Septem. ber 1940 | $\begin{gathered} \text { October } \\ 1939 \end{gathered}$ |
| Durable goods-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Machinery, notincluding transportation equipment. | 127.3 | +3.4 | $+10.4$ | 145.3 | +5.4 | +30.9 | 831.71 | +1.9 | +9.6 +5.8 | 42.4 | +1.6 | +4.5 | 74. 9 | +0.3 | $+4.0$ |
| Agricultural implements (including tractors).- | 134.9 | +1.0 | +14.5 | 158.8 | $+1.7$ | +20.9 | 31. 41 | $+.6$ | +5.8 | 39.2 | +.5 | $+2.5$ | 80.2 | +. 1 | +2.8 |
| Cash registers, adding machines, and calculating machines | 132.0 | +. 2 | +4.5 | 142.1 | +1.3 | +12.7 | 33.68 | +1.1 | +7.8 | 40.5 | +. 9 | +6.1 | 83.6 | +. 2 | +2.2 |
| Electrical machinery, apparatus, and supplies | 116.1 | +4.4 | +19.3 | 138.2 | +5.2 | +30.7 | 31.73 | +. 7 | +9.5 | 41.7 | +1.3 | +4.8 | 75.9 | -. 6 | +4.5 |
| Engines, turbines, water wheels, and windmills. | 190.4 | +4.5 | +81.0 | 263.4 | +5.6 | +103.8 | 36.33 | +1.1 | +12.7 | 44.4 | -. 8 | +8.0 | 82.2 | +2.0 | +3.9 |
| Foundry and machine-shop products | 106.7 | +3.2 | +17.0 | 111.7 | +6.0 | +24.7 | 31. 18 | +2.7 | +6.6 | 42.1 | +2.3 | +3.5 | 74.0 | +. 4 | +2.7 |
| Machine tools .......-............. | 257.8 | +3.9 | +51.1 | 351.7 | +5.8 | +69.4 | 37.95 | +1.8 | +12.1 | 49.1 | +1.3 | +9.3 | 77.0 | +. 5 | +2.5 |
| Radios and phonographs. | 163.6 | +2.5 | -7.3 | 164.3 | $+1.7$ | -3.1 | 24.74 | -. 8 | +4.5 | 40.1 | -. 3 | -3.9 | 61.8 | -. 4 | +9.2 |
| Textile machincry and parts | 79.7 | +2.1 | + ${ }^{(2)}$ | 78.8 | +3.1 | +4.1 | 27.24 | +1.0 | +4.0 | 41.0 | +1.5 | +1.7 | 66.5 | $-6$ | +2.3 |
| Typewriters and parts.... | 126.8 | +3.5 | +2.2 | 163.2 | +19.0 | +29.6 | 31.52 | $+14.9$ | +26.8 | 45.8 | +8.8 | +17.2 | 68.9 | +5.6 | +8.2 |
| Transportation equipment | 139.4 | +0.9 | +31.4 | 163.3 | +15.4 | +47.4 | 37.39 | +5.0 | +12.2 | 41.6 | +4.5 | $+10.0$ | 89.8 | +. 2 | +2.1 |
| Aircraft ${ }^{3}$ - | 4,115.9 | +9.3 | +141.6 | 4,639.4 | $+10.1$ | +172.5 | 32.78 | +.6 | +8.2 | 44.5 | -7.8 | +6.1 | 75.0 | +1.3 | +. 7 |
| Automobiles. | 124.7 | $+11.6$ | +15.7 | 149.0 | +19.3 | +31.4 | 39. 24 | +6.9 | +13.6 | 41.3 | +7.0 | +9.6 | 94.9 | -. 1 | +3.7 |
| Cars, electric- and steam-railroad | 56.2 | +4.8 | +38.3 | 50.3 | +1.8 | +34.2 | 28.12 | $-2.9$ | -3.1 | 37.7 | -. 4 | +. 1 | 74.3 | $-2.6$ | -3.2 |
| Locomotives. | 39.3 | +10.6 | +54.3 | 40.1 | +9.4 | +62.7 | 31.24 | $-1.0$ | +5.4 | 40.2 | $-1$ | +4.3 | 77.8 | $-.9$ | +1.1 |
| Shipbullding | 197.4 | +4.9 | +47.8 | 244.3 | +7.4 | +70.2 | 36.93 | +2.3 | +15.2 | 41.7 | +1.9 | +9.3 | 87.7 | +. 3 | +4.8 |
| Nonferrous metals and their products | 126.1 | +5.3 | +14.2 | 136.3 | +8.5 | +20.0 | 30.00 | +1.2 | +5.1 | 42.0 | +1.1 | +1.8 | 71.2 | +. 2 | $+3.4$ |
| Aluminum manutactures...... | 203.0 | +4.0 | +20.8 | 249.7 | +4.3 | $+30.9$ | 29.91 | +. 4 | +8.4 | 41.4 | +. 7 | $+{ }_{+}+6$ | 72.2 | -. 3 | +7.8 |
| Brass, bronze, and copper products | 154.9 | $+5.7$ | +18.2 | 190.0 | +7.0 | +23.3 | 33.37 | +1.2 | +4.2 | 43.4 | +1.3 | +1.3 | 77.4 | -. 1 | +2.8 |
| Clocks and watches and time-recording devices. | 104.6 | +4.1 | $+16.2$ | 119.1 | +9.7 | +20.8 | 25.35 | +5.4 | +4.0 | 42.0 | +4.3 | +1.9 | 60.3 | +1.0 | +1.7 |
| Jewelry ---------... | 110.8 | $+7.9$ | +3.9 | 97.8 | +7.8 | $\underline{+5.7}$ | 24.37 | -. 1 | +1.6 | 42.0 | +. 6 | +2.4 | 58.0 | -. 4 | +.8 |
| Lighting equipment | 106.8 | +7.1 | +8.5 | 96.5 | +7.0 | +17.1 | 28.22 | - -1 | +8.0 | 40.7 | $-1$ | +4.9 | 69.2 | $-1$ | +2.8 |
| Silverware end plated ware....................-- | 76.7 | +5.3 | +4.9 +129 | 78.2 | +11.6 +1.7 | +10.4 +1.4 | 29.34 | +6.0 -7 | +5.2 +1.8 | 44.3 | +4.4 | +2.3 | 67.3 | +1.9 | +3.7 |
| Smelting and reflning-copper, lead and zinc-1 | 94.6 | +2.4 | +12.9 | 93.4 | +1.7 | +14.9 | 27.82 | -. 7 | +1.8 | 38.3 | -1.8 | -. 4 | 72.7 | +1.2 | +2.2 |



Table 5.-Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries, October 1940-Continued MANUFACTURING-Continued

| Industry | Employment |  |  | Pay rolls |  |  | A verage weekly earnings |  |  | Average hours worked per week |  |  | A verage hourly earnings |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Index October 1940 | Percentage change from- |  | $\begin{aligned} & \text { Index } \\ & \text { Octo. } \\ & \text { ber } \\ & 1940 \end{aligned}$ | Percentage change from- |  | $\begin{aligned} & \text { Octo- } \\ & \text { ber } \\ & 1940 \end{aligned}$ | Percentage change from- |  | October 1940 | Percentage change from- |  | October 1940 | Percentage change from- |  |
|  |  | September 1940 | $\underset{1939}{ }$ |  | $\begin{aligned} & \text { Septem- } \\ & \text { ber } 1940 \end{aligned}$ | $\begin{gathered} \text { October } \\ 1939 \end{gathered}$ |  | September 1940 | $\begin{gathered} \text { October } \\ 1939 \end{gathered}$ |  | $\begin{array}{\|l\|} \hline \text { Septem- } \\ \text { ber } 1940 \end{array}$ | $\begin{gathered} \text { October } \\ 1939 \end{gathered}$ |  | Septem- <br> ber 1940 | $\begin{aligned} & \text { October } \\ & 1939 \end{aligned}$ |
| Nondurable goods-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Food and kindred products-Continued. |  |  |  |  |  |  |  |  |  |  |  |  | Cents |  |  |
| Slaughtering and meat packing--.--..-- | 109.6 | +1.5 +161.9 | +6.8 -6.9 | 115.8 212.8 | +8.8 +83.2 | +1.5 -1.1 | $\$ 27.64$ 20.58 | +1.3 -30.1 | ${ }_{-6.7}^{+0.7}$ | 40.3 35.2 | +16.8 | +0.2 | 68.4 57.8 | -19.6 | $\underline{+10.6}$ |
| Sugar refining, cane | 95.0 | +3.8 | $-5.8$ | 82.9 | +5.9 | -4.2 | 24.71 | +2.0 | +1.8 | 38.2 | $+3.7$ | $-1$ | 64.6 | $-1.7$ | +1.9 |
| Tobacco manufactures. | 66.5 | +1.1 | $-.3$ | 68.5 | +. 9 | +4.9 | 18. 25 | $-2$ | +5.2 | 37.6 | - 8 | +2. 1 | 48.4 | -. 2 | +3.4 |
| Chewing and smoking tob | 56.6 | +.8 | -9.3 | 67.6 | +. 7 | $-4.6$ | 19.28 | $+.2$ | +5.5 | 35.7 | +(2) | +1.1 | 54.3 | $-1$ | +4. ${ }^{\text {¢ }}$ |
| Cigars and cigarettes.. | 67.7 | +1.2 | +. 7 | 66.2 | $+8$ | +6. 1 | 18.05 | -. 4 | +5.4 | 37.8 | $-.3$ | +2.2 | 47.8 | $-3$ | +3.5 |
| Paper and printing | 117.7 | +1.3 | +1.0 | 115.2 | +1.6 | +1.2 | 29. 20 | +. 3 | +. 2 | 38.7 | +. 9 | -2.8 | 79.2 | - ${ }^{(2)}$ | +3.4 |
| Boxes, paper- | 124.1 | +3.2 | $-3.3$ | 141.9 | +5.6 | -5.8 | 22.78 | +2.3 | $-2.7$ | 40.9 | +2.9 | -5.0 | 55.9 | -. 2 | +2.5 |
| Paper and pulp | 115.1 | $-1.3$ | +1.4 | 123.8 | -. 3 | -1.4 | 26.45 | +1.1 | -2.8 | 40.5 | +1.4 | -7.0 | 65.4 | -. 2 | +4.5 |
| Printing and publishing: | 102.6 | +2.9 | +3.5 | 91.0 | +3.7 | +7.8 | 30.89 | + 8 | +4.2 | 38.8 | $+5$ | +2.0 | 80.7 | +. 1 | +2.0 |
| Newspapers and periodicals | 117.8 | +1.6 | +.5 | 111.5 | +. 4 | +1.0 | 38.25 | -1.1 | +. 5 | 35.8 | $-.5$ | $-.9$ | 103.7 | $-2$ | +1.8 |
| Chemical, petroleum, and coal products. | 125.3 | +2.2 | +2.5 | 139.3 | $+.8$ | +4.5 | 29.96 | -1.3 | +2.0 | 39.3 | +. 7 | -. 9 | 75.7 | -2.0 | +3.2 |
| Petroleum refining...-.-....-...-. | 121.2 | $-1.2$ | $-1.3$ | 136.3 | -2.2 | -2.7 | 34.93 | -1.0 | $-1.3$ | 36.4 | +. 3 | -1.8 | 97.2 | -1.1 | +. 5 |
| Other than petroleum refining | 126.3 | +3.0 | +3.4 | 140.3 | +1.8 | +6.9 | 28.13 | -1.2 | +3.4 | 40.2 | $+.8$ | $-.8$ | 68.7 | -1.9 | +5.1 |
| Chemicals .-.-.-- | 145.6 | +1.5 | $+9.0$ | 176.2 | $+3.1$ | +11.6 | 32.39 | +1.5 | +2.4 | 40.6 | $+1.9$ | -1.1 | 80.4 | $-.3$ | +3.5 |
| Cottonseed-oil, cake, and meal | 131. 1 | +61.9 | $-5.5$ | 128.2 | +64. 2 | +6.7 | 15. 36 | +1.5 | +12.9 | 45.8 | $+6.1$ | -4.3 | 32.0 | -5. 8 | +15.8 |
| Druggists' preparations. | 118.3 | +. 6 | +1.4 | 133.0 | $+4$ | +. 1 | 25. 51 | $-.3$ | $-1.4$ | 40.0 | $-{ }^{-2}$ | -4.3 | 61.4 | -. 2 | +3.3 |
| Explosives | 144.9 7 | -2.0 | $\begin{array}{r}1 \\ +39.1 \\ \hline-18\end{array}$ | 180.9 | $\pm 3.1$ | +44.4 +3.2 | 34. 44 | $\pm$ | +3.9 +4. | 40.1 | +2.8 -1.4 | $\begin{array}{r}+.7 \\ \hline .4\end{array}$ | 85.9 | +2.4 | +3.1 +4.7 |
| Fertilizers | 96.7 125.1 | +1.1 +-.8 | -1.8 | 82.4 135.8 | +3.5 +1 +1 | +3.2 + +.8 | 15.71 29.60 | +5.4 $+\quad .9$ +1.3 | +4.3 $+\quad .8$ | 35.5 41.1 | -1.4 +1.0 | -.4 -.1 | 44.2 72.0 | -4.1 | +4.7 +1.0 |
| Rayon and allied products. | 311.1 | -. 2 | - + | ${ }^{1322.6}$ | -1.5 | +6.8 | 26.53 | -1.3 | +6.2 | 38.7 | -1.6 | $+.6$ | 68.5 | +. 2 | +5.5 |
| Soap-.-.-. | 88.8 | +1.1 | -1.7 | 107.2 | +. 2 | $-1.6$ | 28.42 | -. 9 | +. 7 | 39.9 | -1.4 | -1.5 | 71.1 | +. 4 | +2.2 |
| Rubber products. | 92.8 | +3.8 | +. 4 | 90.4 | +3.9 | -2.5 | 29.31 | +. 1 | $-2.9$ | 38.0 | +. 8 | -3.4 | 77.4 | -. 9 | +. 8 |
| Rubber boots and shoes. | 58.7 | +4.6 | -5.6 | 62.9 | +5.7 | -1.0 | 24.64 | +1.1 | +5.0 | 39.5 | +. 7 | +2.9 | 62.4 | +. 3 | +2.0 |
| Rubber tires and inner tubes | 74.0 | +1.9 | +. 5 | 86.7 | +2.5 | -4.3 | 34.37 | $+.5$ | $-4.7$ | 35.7 | +1.4 | -5.1 | 96.1 | -1.0 | $+3$ |
| Rubber goods, other. | 160.7 | +5.4 | +2.0 | 161.1 | +5.4 | $-{ }^{(2)}$ | 24.30 | +( ${ }^{2}$ | -2.0 | 40.0 | +(2) | $-3.5$ | 62.0 | +. 1 | +1.7 |

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

| Coal mining: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Anthracite ${ }^{5} 5$ | 49.8 | -0.8 | -4.0 | 32.2 | -18.2 | $-38.3$ | \$21. 26 | -17.5 | $-35.7$ | 22.5 | -20.6 | $-36.8$ | 91.8 | -1.2 | -1.3 |
| Bituminous ${ }^{\text {a }}$ | 89.5 | +2.1 | $-3.7$ | 84.3 | +1.3 | $-13.6$ | 25. 06 | $-.7$ | $-10.3$ | 28.6 | -. 5 | -11.4 | 87.6 | $-.8$ | +. 6 |
| Metalliferous mining | 72.6 | +. 1 | +11.1 | 71.5 | +2.8 | +12.7 | 30.81 | +2.8 | +1.5 | 41.9 | +1.9 | -1. 5 | 73.8 | $+.9$ | +3.1 |
| Quarrying and nonmetallic mining | 48.4 | -. 9 | +9 + | 46.2 | -. 1 | +1.3 | 23. 95 | +.8 | + 4 | 42.1 | +. 6 | -1.8 | 56.9 | +. 3 | +2.4 |
| Crude-petroleum production. | 61.8 | $-1.9$ | -3.8 | 58.3 | +. 2 | -. 8 | 34.73 | +2.2 | +3.1 | 38.3 | +3.9 | +1.7 | 88.3 | -1.4 | +. 8 |
| Telephone and telegraph is | 78.9 | -. 1 | +3.1 | 102.9 | +1.1 | +5.9 | 32.03 | +1.2 | +2.6 | 39.9 | +. 3 | +. 2 | 80.8 | +. 9 | +1.1 |
| Electric light and power ${ }^{6} 7$ | 92.2 | $-.5$ | +2.1 | 107.4 | +1.5 | +5.3 | 35.56 | $\underline{+2.0}$ | +3.2 | 40.8 | +4.3 | +4.0 | 87.3 | $-2.2$ | -. 6 |
| Street railways and busses ${ }^{\text {B }} 78$ | 68.5 | . 1 | $-1.4$ | 70.9 | -. 8 | $-.4$ | 33.89 | -. 8 | +1.1 | 45.9 | $-1.1$ | -. 1 | 73.0 | +. 5 | $+2.0$ |
| Trade: Wholesale of 9 | 91.8 | +1.0 | $-7$ | 80.5 | -. 7 | +. 3 | 30.55 |  | +1.0 |  | $-7$ |  |  |  |  |
| Retail 07. | 94.4 | +1.7 | +2.9 | 85.8 | +. 8 | +3 +3.1 | 30.55 20.90 | -1.7 | +1.0 +.2 | 42.7 | -1.2 | (10) ${ }^{2.4}$ | 74.0 53.3 | $-1.1$ | ${ }_{(10)}^{+3.0}$ |
| Food ${ }^{7}$ | 104.4 | +.8 + | +2.8 +1.1 | 95.9 | + | +2.1 +2 | 23. 47 | -. 9 | +1.5 | 43.4 | -1.9 | (10) | 52.1 | $-.2$ | (10) |
| General merchandising | 103.6 | +4.2 | +4.8 | 92.6 | +2.3 | +4.6 | 17. 58 | -1.8 | -. 1 | 38.5 | -1.1 | (10) | 45.6 | $-.2$ | (10) |
| Apparel ${ }^{7}$ | 91.2 | +4.0 | +. 6 | 81.8 | +2.3 | $-1.1$ | 20.74 | -1.6 | $-1.6$ | 37.7 | -1.5 | (10) | 54.6 | -. 1 | (iv) |
| Furniture ${ }^{-}$ | 77.2 | +1.7 | $-2.4$ | 69.3 | + | $-3.3$ | 28.34 | $-.9$ | -. 9 | 44.5 | +. 4 | (10) | 67.5 | -1.3 | (10) |
| Automotive | 85.0 | $-1$ | +5.5 | 79.4 | +2.2 | +7.9 | 27.92 | +2.3 | +2.3 | 47.2 | $-7$ |  | 58.4 | +2.5 | (10) |
| Lumber ${ }^{7}$ | 79.5 | +1.5 | +4.2 | 76.4 | +1.1 | +5.2 | 26.84 | $-.5$ | + +9 | 43.1 | +. 3 | (10) | 63.3 | -. 7 | (10) |
| Hotels (year-round) | 93.1 | +1.7 | +.2 | 83.6 | +2.1 | +1.7 | 15. 57 | +. 4 | +1.5 | 46.0 | $-.5$ | +. 5 | 33.6 | -. 2 | +1.6 |
| Laundries ${ }^{4}$ - | 100.1 | $-1.7$ | +4.2 | 88.0 | $-2.1$ | +4.9 | 18. 13 | $-4$ | + 6 | 42.7 | -. 4 | $\pm .5$ | 42.7 | -. 2 | +1.1 |
| Dyeing and cleaning | 109.6 | $-.3$ | +4.4 | 82.7 | -3.4 | +7.0 | 20.64 | $-3.1$ | +2.5 | 43.0 | $-2.9$ | +1.4 | 49.1 | $-.3$ |  |
| Brokerage ${ }^{6}$-......... | (10) | -1.9 | -13.2 | (10) | $+3$ | $-14.2$ | 36.79 | +2.3 | -1.1 | (10) | (10) | (10) | (10) | ${ }_{(10)}^{(10)}$ | (i) |
| Insurance ${ }^{6}$ | (10) | $-(2)$ +3.9 | +1.9 +23.5 | (10) | +.3 +6.5 | +2.4 +32.3 | 36.03 33.84 | +4 +2.5 | +.5 +7.0 | (10) 35.4 | (10) +1.7 | (10) +4.4 | (10) 95.7 | $\stackrel{(10)}{+.9}$ | $(10)$ +2.7 |
|  |  | +3.9 |  |  |  |  | 33.84 |  |  |  |  |  | 95.7 | +.9 |  |

1 Revised series. Mimeographed sheets giving averages by years, 1932 to 1939, incluA verage hours months, January 1938 to August 1940, inclusive, available on request. number of establishments than average weekly earnings, as not all reporting firms fur nish man-hours. The figures are not strictly comparable from month to month because of changes in the size and composition of the reporting sample
${ }^{2}$ Less than $1 / 10$ of 1 percent
${ }^{3}$ Revised series-Adjusted on basis of a complete employment survey made by the Bureau of Labor Statistics for August 1940. Not comparable with previousiy published ndexes from January 1938 to August 1940, inclusive. Comparable figures for this period given in table 9 of the September issue of this pamphlet.
${ }^{4}$ Indexes adjusted to 1935 census. Comparable series back to January 1929 presented n January 1938 issue of this pamphlet.
See table 7 for revised employment and pay-roll indexes, average hours worked per week, average hourly earnings, and average weekly earnings in anthracite mining, February 1940 to September 1940, inclusive.

B Average weekly earnings, hourly carnings, and hours not comparable with figures published in pamphlats prior to January 1938 as they now exclude corporation officors, executives, and other employees whose duties are mainly supervisory.
${ }^{7}$ Retail-trade indexes adjusted to 1935 census and public-utility indexes to 1937 census. Not comparable with indexes published in pamphlets prior to January 1940 or in MonTEly Labor Review prior to April 1940, with but 1 exception, retail furniture, Comparable series for earlier months available upon request.
8 Covers street railways and trolley and motorbus operations of subsidiary, affiliated, and successor companies; formerly "electric-railroad and motorbus operation and maintenance."
${ }^{9}$ Indexes adjusted to 1933 census. Comparable series in November 1934 and subsequent issues of this pamph
10 Not available.
${ }^{11}$ Cash payments only; value of board, room, and tips not included.

Table 6.-Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries

## manufacturing

[Indexes are based on 3-year average, 1923-25 $=100$, and are adjusted to 1937 Census of Manufactures for all industries except automobiles. Not comparable to indexes published in pamphlets prior to August 1939. Comparable series available upon request]

| Industry | Employment index |  |  | Pay-roll index |  |  | A verage weekly earnings ${ }^{1}$ |  |  | A verage hours worked per week ${ }^{1}$ |  |  | Average hourly earnings 1 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Octo- } \\ & \text { ber } \\ & 1940 \end{aligned}$ | $\begin{gathered} \text { Sep- } \\ \text { tember } \\ 1940 \end{gathered}$ | $\left.\right\|_{1940} ^{\text {August }}$ | October 1940 | $\begin{gathered} \text { Sep- } \\ \text { tember } \\ 1940 \end{gathered}$ | $\underset{1940}{\text { August }}$ | Oetober 1940 | $\begin{aligned} & \text { Sep- } \\ & \text { tember } \\ & 1940 \end{aligned}$ | $\underset{1940}{\text { August }}$ | $\begin{aligned} & \text { Octo- } \\ & \text { ber } \\ & 1940 \end{aligned}$ | $\begin{gathered} \text { Sep- } \\ \text { tember } \\ 1940 \end{gathered}$ | ${ }_{1940}^{\text {August }}$ | October 1940 | $\begin{gathered} \text { Sep- } \\ \text { tember } \\ 1940 \end{gathered}$ | $\underset{1940}{\text { August }}$ |
| All manufacturing | 110.1 | 107.7 | 103.8 | 114.5 | 110.1 | 104.0 | \$27.13 | \$26. 54 | \$26. 10 | 39.3 | 38.8 | 38.4 | $\begin{array}{r} \text { Cents } \\ 67.3 \end{array}$ | Cents 67.1 | $\begin{gathered} \text { Cents } \\ 66.8 \end{gathered}$ |
| Durable goods.. | 109.9 | 105.5 | 99.8 | 122.2 | 114.1 | 105.5 | 31.42 | 30.57 | 29.88 | 41.0 | 40.2 | 39.7 | 73.9 | 73.7 | 78.1 |
| Nondurable goods | 110.2 | 109.7 | 107.6 | 105.9 | 105.6 | 102.4 | 22.28 | 22.20 | 22.10 | 37.6 | 37.5 | 37.2 | 60.9 | 61.1 | 61.3 |
| Iron and steel and their products, not including ma- |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 117.1 | 113.6 | 110.7 | 123.7 | 118.2 | 113.5 | 30.97 | 30.60 | 30.24 | 39.9 | 39.2 | 38.8 | 77.8 | 77.9 | 77.7 |
| Blast furnaces, steel works, and rolling mil | 125.3 | 123.2 | 122.1 | 131.3 | 128.2 | 124.8 | 33.04 | 32.93 | 32. 25 | 38.8 | 38.5 | 38.1 | 85.5 | 85.7 | 84.8 |
| Bolts, nuts, washers, and rivets.-...- | 121.3 | 117.9 | 114.9 | 149.5 | 139.1 | 138.7 | 29.68 | 28.38 | 29.02 | 42.4 | 40.9 | 41.5 | 70.0 | 69.4 | 70.0 |
| Cast-iron pipe. Cutlery (not including silver and plated cut- | 83.9 | 81.9 | 80.2 | [84.8 | 79.3 | 76.3 | 24.10 | 23.02 | 22.72 | 39.8 | 38.3 | 37.9 | 60.2 | 59.7 | 59.4 |
| utlery (not including silver and plated cutlery) and edge tools | 111.3 | 107.0 | 101.5 | 106.3 | 100.7 | 93.2 | 24.87 | 24.49 | 23.91 | 40.4 | 39.8 | 38.8 | 62.2 | 62.4 | 62.6 |
| Forgings, iron and steel | 80.4 | 76.7 | 72.8 | 102.2 | 91.9 | 86.4 | 34. 30 | 32.51 | 32.22 | 42.8 | 40.9 | 40.6 | 80.8 | 79.6 | 79.3 |
| Hardware. | 105.3 | 101.2 | 95.8 | 118.8 | 113.5 | 106.5 | 27.74 | 27.53 | 27.29 | 40.6 | 39.8 | 39.1 | 68.4 | 69.1 | 69.7 |
| Plumbers' supplies | 91.0 | 88.5 | 86.7 | 85.1 | 80.8 | 79.9 | 27.26 | 26.57 | 26.97 | 39.2 | 38.3 | 38.7 | 70.1 | 70.0 | 69.7 |
| Stamped and enameled ware....-.-.-.-...-.-.-. | 188.7 | 175.8 | 164.4 | 217.3 | 200.6 | 182.6 | 27.21 | 26.96 | 26.21 | 40.8 | 40.6 | 39.9 | 66.2 | 66.0 | 65.7 |
| Steam and hot-water heating apparatus and steam fittings | 99.4 | 94.3 | 89.7 | 102.5 | 91.1 | 84.6 | 31.34 | 29.34 | 28.80 | 43.2 | 41.2 | 40.3 | 72.7 | 71.5 | 71.6 |
| Stoves.- | 105.9 | 101.2 | 97.7 | 105.9 | 97.4 | 89.2 | 28.78 | 27.54 | 26.09 | 41.9 | 40.4 | 38.6 | 68.4 | 68.2 | 67.7 |
| Structural and ornamental metalwo | 85.6 | 83.4 | 79.9 | 79.6 | 74.8 | 72.9 | 30.02 | 28. 99 | 29.51 | 41.0 | 39.5 | 40.1 | 73.3 | 73.5 | 73.6 |
| Tin cans and other tinware.......... | 101.3 | 105.2 | 108.1 | 112.7 | 116.8 | 121.9 | 25.17 | 25.01 | 25.61 | 39.7 | 39.6 | 40.4 | 63.7 | 64.0 | 63.9 |
| Tools (not including edge tools, machine tools, files, and saws) | 106.0 | 99.9 | 95.6 | 113.3 | 104.0 | 95.6 | 26.81 | 26.33 | 25. 22 | 42.2 | 41.4 | 39.8 | 63.7 | 63.8 | 63.4 |
|  | 192.6 | 164.7 | 146.1 | 231.4 | 191.6 | 163.4 | 30.09 | 29.12 | 28.00 | 41.7 | 40.0 | 40.0 | 72.4 | 73.0 | 70.8 |
| Machinery, not including transportation equipment | 127.3 | 123.1 | 119.2 | 145.3 | 137.9 | 131.0 | 31.71 | 31.22 | 30.67 | 42.4 | 41.8 | 41.2 | 74.9 | 74.6 | 74.5 |
| Agricultural implements (including tractors).- | 134.9 | 133.5 | 131.2 | 158.8 | 156.2 | 152.0 | 31.41 | 31.17 | 30.87 | 39.2 | 39.1 | 38.6 | 80.2 | 79.9 | 80.1 |
| Cash registers, adding machines, and calculating machines | 132.0 | 131.8 | 128.7 | 142.1 | 140.3 | 135.9 | 33.68 | 33.38 | 33.11 | 40.5 | 40.2 | 40.2 | 83.6 | 83.1 | 82.7 |
| Electrical machinery, apparatus, and supplies | 116.1 | 111.2 | 106.6 | 138.2 | 131.4 | 123.7 | 31.73 | 31.50 | 30.92 | 41.7 | 41.3 | 40.7 | 75.9 | 76.4 | 76.3 |
| Engines, turbines, water wheels, and windmills. | 190.4 | 182.2 | 174.8 | 263.4 | 249.4 | 238.5 | 36.33 | 35.93 | 35.81 | 44.4 | 44.7 | 44.1 | 82.2 | 30.5 | 81.3 |
| Foundry and machine-shop produ | 106.7 | 103.4 | 100.5 | 111.7 | 105. 4 | 101.3 | 31.18 | 30.31 | 30.12 | 42.1 | 41.2 | 41.0 | 74.0 | 73.4 | 73.3 |
| Machine tools ......-.-.----- | 257.8 | 248.0 | 237.5 | 351.7 | 332.3 | 302.9 | 37.95 | 37.27 | 35.48 | 49.1 | 48.4 | 46.7 | 77.0 | 76.6 | 76.0 |
| Radios and phonographs.- | 163.6 79 | 159.5 78.1 | 157.1 76.4 | 164.3 78.8 | 161.5 76.4 | 149.8 73.5 | 24.74 <br> 27.24 <br> 1. | 24.89 26.84 | 23.49 29.30 | 40.1 41.0 | 40.2 40.4 | 38.5 39.6 | 61.8 66.5 | 62.1 66.6 | 61.1 66.6 |
| Textile machinery and parts | 79.7 126.8 | 78.1 122.5 | 76.4 118.0 | 78.8 163.2 | 76.4 137.2 | 73.5 125.4 | 27.24 31.52 | 26.84 27.43 | 28.30 26.04 | 41.0 45.8 | 40.4 42.1 | 39.6 39.7 | 66.5 68.9 | 66.6 65.2 | 66.6 65.6 |

Table 8.-Indexes of Employment and Pay Rolls in Selected Manufacturing ${ }^{1}$ and Nonmanufacturing ${ }^{2}$ Industries, October 1939 to October 1940, Inclusive

| Industry | Employment |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1939 |  |  |  | 1940 |  |  |  |  |  |  |  |  |  |
|  | A $\overline{\mathrm{V}}$. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. |
| Manufacturing <br> All industries. | 96.9 | 103.7 | 103.9 | 104.2 | 101.5 | 101.5 | 100.9 | 99.7 | 99.1 | 99.6 | 99.7 | 103.8 | 107.7 | 110.1 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Durable goods ${ }^{3}$ | 87.9 | 96.2 | 98.3 | 100.2 | 97.6 | 96.7 | 96.6 | 96.2 | 96.7 | 97.3 | 95.9 | 99.8 | 105.5 | 109.9 |
| Nondurable goods ${ }^{4}$ | 105.5 | 110.8 | 109.2 | 108.0 | 105.3 | 106. 1 | 105.1 | 103.0 | 101.4 | 101.7 | 103.3 | 107.6 | 109.7 | 110.2 |
| Nonmanufacturing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Anthracite mining 5........- | 50.6 | 51.9 | 51.3 | 51.0 | 51.5 | 51.6 | 52.2 | 51.2 | 51.8 | 49.7 | 50.5 | 49.9 | 49.8 | 49.8 |
| Bituminous-coal mining s.. | 78.6 | 93.0 | 94.9 | 92.6 | 91.8 | 91.7 | 89.7 | 86.2 | 85.1 | 83.8 | 84.9 | 86.6 | 87.7 | 89.5 |
| Metalliferous mining -..--- | 62.7 | 65.3 | 66.5 | 67.3 | 66.4 | 66.3 | 66.2 | 67.7 | 69.2 | 70.3 | 71.0 | 71.5 | 72.5 | 72.6 |
| Quarrying and nonmetallic mining | 44.6 | 48.0 | 47.1 | 44.0 | 37.8 | 38.3 | 41.0 | 44.5 | 46.9 | 47.9 | 48.1 | 48.5 | 48.9 | 48.4 |
| Crude-petroleum production. | 65.8 | 64.3 | 63.8 | 63.8 | 63.2 | 63.0 | 63.2 | 63.1 | 63.3 | 63.8 | 63.7 | 63.6 | 63.0 | 61.8 |
| Telephone and telegraph ${ }^{6}$ | 75.8 | 76.5 | 76.1 | 75.8 | 76.1 | 75.9 | 76.0 | 76.7 | 77.3 | 77.8 | 78.8 | 79.0 | 78.9 | 78.9 |
| Electric light and power ${ }^{\text {b }}$ | 89.0 | 90.4 | 90.3 | 90.1 | 89.1 | 89.2 | 89.3 | 90.0 | 90.6 | 91.2 | 92.2 | 93.0 | 92.7 | 92.2 |
| Streetrailways and busses ${ }^{6} 7$ | 69.0 | 69.5 | 69.3 | 69.0 | 68.8 | 68.7 | 68.2 | 68.3 | 68.4 | 68.5 | 68.4 | 68.4 | 68.5 | 68.5 |
| Wholesale trade | 89.2 | 92.4 | 92.1 | 92.2 | 90.6 | 90.2 | 90.5 | 89.3 | 88.9 | 89.6 | 89.2 | 90.1 | 90.9 | 91.8 |
| Retail trade ${ }^{6}$ | 89.8 | 91.7 | 93.3 | 104.2 | 87.7 | 87.0 | 91.1 | 89.8 | 91.2 | 91.9 | 89.1 | 88.7 | 92.8 | 94.4 |
| Year-round hotels | 92.0 | 92.9 | 91.8 | 90.8 | 91.3 | 92.1 | 92.0 | 92.7 | 93.4 | 92.0 | 90.3 | 90.3 | 91.6 | 93.1 |
| Laundries ${ }^{\text {s }}$ | 95.9 | 96. 0 | 95.6 | 95.6 | 96.0 | 95.8 | 96.2 | 97.2 | 99.1 | 102.1 | 102.5 | 102.8 | 101.9 | 100.1 |
| Dyeing and cleaning 5 | 101.3 | 105.1 | 97.8 | 97.4 | 94.0 | 93.7 | 99.5 | 104.5 | 108.7 | 112.6 | 108. 2 | 106.7 | 110.0 | 109.6 |

## Pay Rolls

All industries.
Durable goods ${ }^{3}$
Nondurable goods ${ }^{4}$.....

## Nonmanufacturing

Anthracite mining 5 .
Bituminous-coal mining 5 -
Metalliferous mining. .
Quarrying and nonmetal-
Iic mining.
Crude-petroieum produc-tion--
Telephone and telegraph
Electric light and power ${ }^{6}$ -
Street railways and
busses ${ }^{B} 7$
Wholesale trade
Retail trade ${ }^{6}$
Year-round hotels
Laundries ${ }^{5}$
Dyeing and clean-:-.......

| Pay Rolle |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 90.8 | 101.7 | 101.7 | 103.9 | 98.4 | 97.9 | 98.4 | 96.5 | 96.4 | 98.1 | 96.8 | 104.0 | 110.1 | 114.5 |
| 85.3 | 99.8 | 101.1 | 104.8 | 98.4 | 96.9 | 97.8 | 97.5 | 97.8 | 100.4 | 96.5 | 105.5 | 114. 1 | 122.2 |
| 97.0 | 103.9 | 102.4 | 102.8 | 98.4 | 99.1 | 99.0 | 95.4 | 94.9 | 95.6 | 97.1 | 102.4 | 105.6 | 105.9 |
| 39.5 | 52.2 | 42.0 | 26.6 | 52.5 | 32.9 | 38.4 | 36.3 | 40.0 | 40.6 | 36.5 | 33.1 | 39.3 | 32.2 |
| 69.9 | 97.6 | 96.3 | 84.3 | 87.0 | 87.0 | 78.3 | 72.2 | 75.3 | 73.9 | 75.2 | 82.5 | 83.2 | 84.3 |
| 56.0 | 63.4 | 63.9 | 65.0 | 63.6 | 64.2 | 63.2 | 63.5 | 65.7 | 65.4 | 63.7 | 68.5 | 69.5 | 71.5 |
| 38.7 | 45.6 | 42.9 | 39.2 | 29.6 | 30.8 | 34.1 | 38.1 | 42.7 | 43.9 | 43.5. | 45.2 | 46.2 | 46. 2 |
| 61.0 | 58.8 | 59.6 | 59.2 | 58.4 | 59.0 | 58.4 | 59.0 | 58.7 | 58.8 | 59.1 | 59.0 | 58.2 | 58.3 |
| 95.6 | 97.2 | 96. 4 | 97.4 | 97.4 | 96.9 | 98. 1 | 98.7 | 98.8 | 1.00 .0 | 101.3 | 100.4 | 101.8 | 102.9 |
| 100.4 | 102.0 | 102.5 | 102.4 | 101.6 | 102.2 | 102.3 | 103.3 | 104.2 | 104.8 | 105.8 | 108.1 | 105.8 | 107.4 |
| 69.5 | 71.2 | 69.4 | 69.8 | 69.0 | 71.5 | 69.5 | 69.2 | 69.2 | 70.5 | 70.0 | 70.4 | 71.5 | 70.9 |
| 76.6 | 80.3 | 79.0 | 79.1 | 77.1 | 77.1 | 77.8 | 77.4 | 77.4 | 78.4 | 78.3 | 78.7 | 81.1 | 80.5 |
| 80.8 | 83.2 | 83.6 | 91.8 | 79.9 | 79.1 | 82.0 | 82.3 | 83.4 | 84.8 | 82.6 | 81.5 | 85.1 | 85.8 |
| 81.2 | 82.2 | 81.8 | 81.1 | 81.1 | 82.7 | 81.8 | 83.2 | 83.0 | 82.0 | 80.5 | 80.7 | 81.8 | 83.6 |
| 83.1 | 83.9 | 82.9 | 83.7 | 83.4 | 83.1 | 84.1 | 85.6 | 88.5 | 92.4 | 90.0 | 90.5 | 89.9 | 88.0 |
| 73.6 | 77.3 | 70.8 | 69.9 | 65.5 | 64, 4 | 72.7 | 79.6 | 85.4 | 89.6 | 80.0 | 78.9 | 85. 6 | 82.7 |

[^3]
## INDUSTRIAL AND BUSINESS EMPLOYMENT IN PRINCIPAL METROPOLITAN AREAS

A comparison of employment and pay rolls in September and October 1940 is made in table 9 for 13 metropolitan areas, each of 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. Footnotes to the table specify which cities are excluded. Data concerning them have been prepared in a supplementary tabulation which is available on request. The figures represent reports from cooperating establishments and cover both full- and part-time workers in the manufacturing and nonmanufacturing industries presented in table 5, with the exception of building construction, and include also miscellaneous industries.

Revisions made in the figures after they have gone to press, chiefly because of late reports by cooperating firms, are incorporated in the supplementary tabulation mentioned above. This supplementary tabulation covers these 13 metropolitan areas as well as other metropolitan areas and cities having a population of 100,000 or more according to the 1930 Census of Population.
Table 9.-Comparison of Employment and Pay Rolls in Identical Establishments in September and October 1940, by Principal Metropolitan Areas

| Metropolitan area | Number of establishments October 1940 | Number on pay roll October 1940 | Percentage change from September 1940 | Amount of pay roll (1 week) October 1940 | Percentage: change from September 1940 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| New York ${ }^{1}$ | 13,658 | 747, 355 | +2.0 | \$21, 589,496 | +1.4 |
| Chicago ${ }^{2}$ | 4,451 | 504, 260 | +2.6 | 14,511,519 | +2.2 |
| Philadelphia ${ }^{3}$ | 2,533 | 263, 045 | +3.2 | 7, 452, 151 | +3.0 |
| Detroit | 1,693 | 388, 304 | +7.9 | 14, 456, 281 | +12.2 |
| Los Angeles | 3,091 | 204, 151 | +1.0 | 6, 196, 236; | +1.2 |
| Cleveland. | 1,642 | 146,682 | +2.2 | 4, 485, 738; | +4. 7 |
| St. Louis | 1,419 | 142, 881 | +2.5 | 3, 677, 040 | +4. 1 |
| Baltimore | 1, 104 | 123,587 | +3.3 | 3, 294, 434 | +2.8 |
| Boston ${ }^{5}$ | 2,915 | 200, 191 | +1.9 | 5,250,971 | +. 6 |
| Pittsburgh | 1,344 | 219, 020 | +2.4 | 6, 879,913 | +4.7 |
| San Francisco ${ }^{6}$ | 1,706 | 99, 075 | +. 4 | 3,098, 613 | +1.5 |
| Buffalo. | 802 | 95, 017 | +2.4 | 2,820, 073 | +3.9 |
| Milwaukee | 1,001 | 113,129 | +2.8 | 3, 374,940 | +5.1 |

${ }^{1}$ Does not include Elizabeth, Jersey City, Newark, or Paterson, N. J., or Yonkers, N. Y.
${ }^{2}$ Does not include Gary, Ind.
3 Does not include Camden, N. J.

- Does not include Long Beach, Calif.
${ }^{5}$ Does not include Cambridge, Lynn, or Somerville, Mass.
${ }^{6}$ Does not include Oakland, Calif.


## WAGE-RATE CHANGES IN AMERICAN INDUSTRIES

The following table gives information concerning wage-rate adjustments occurring during the month ending October 15, 1940, as shown by reports received from manufacturing and nonmanufacturing establishments which supply employment data to this Bureau.

As the Bureau's survey does not cover all establishments in an industry and, furthermore, as some firms may have failed to report wage-rate changes, these figures should not be construed as representing the total number of wage changes occurring in manufacturing and nonmanufacturing industries.

Table 10.-Wage-rate Changes Reported by Manufacturing and Nonmanufacturing Establishments During Month Ending Oct. 15, $1940{ }^{1}$

| Group and industry | Establishments |  |  | Employees |  |  | Average per centage change in wage rates of employees having- |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total number re-porting | Number re-porting- |  | Total number covered | Number having- |  |  |  |
|  |  |  |  |  | W | W |  |  |
|  |  | $\left\|\begin{array}{c} \text { rate } \\ \text { in- } \\ \text { creases } \end{array}\right\|$ | $\left\lvert\, \begin{gathered} \text { rate } \\ \text { de- } \\ \text { creases } \end{gathered}\right.$ |  | $\begin{gathered} \text { rate } \\ \text { in- } \\ \text { creases } \end{gathered}$ | $\begin{gathered} \text { rate } \\ \text { de- } \\ \text { creases } \end{gathered}$ | $\begin{gathered} \text { In- } \\ \text { creases } \end{gathered}$ | $\underset{\text { De- }}{\text { creases }}$ |
| All manufacturing... | 33, 334 | 185 | 4 | 6, 218, 782 | 39,316 | 675 | 7.0 | 9.1 |
| Iron and steel group | 2,498 | 22 |  | 884, 753 | 5,412 | - | 6.4 |  |
| Blast furnaces, steel works, and rolling mills | 328 | 4 |  | 473, 744 | 1, 029 |  | 3.9 |  |
| Forgings .-.-.------------------1-1 | 92 | 3 |  | 13,397 | 125 |  | 15.7 |  |
| Structural and ornamental metalwork. | 302 | 3 |  | 29, 337 | 82 |  | 10.0 |  |
| Machinery group---- | 3,833 | 31 |  | 869,860 | 5,018 |  | 6.1 |  |
| Electrical machinery.---...-- | 576 | 8 |  | 223, 446 | 1,770 |  | 4.6 |  |
| Foundries and machine shops. | 2, 258 | 17 |  | 288, 383 | 2, 502 |  | 6.9 |  |
| Transpoitation group. | 730 | 6 | - | 688, 482 | 6, 234 |  | 11.2 |  |
| Nonferrous metals group | 1,130 | 25 |  | 223, 850 | 8,299 |  | 6.1 |  |
| Brass, bronze, and-coppe, products -- | 366 | 7 |  | 86,362 | 6 61 |  | 8.1 | ------ |
| Smelting and refining copper, lead, and zinc. | 53 | 11 |  | 30,496 | 5, 777 |  | 5.5 |  |
| Lumber and allied products group.. | 2,617 | 27 |  | 327,934 | 5, 056 | .... .- | 6.1 |  |
| Furniture - -- -- | 706 | 3 |  | 99, 090 | 1,291 |  | 9.0 |  |
| Sawmills.--.-....---.-. | 760 | 18 |  | 135, 752 | 3,489 |  | 5.1 |  |
| Stone, clay, and glass group.- | 1, 602 | 17 |  | 198, 437 | 1,249 |  | 6.6 | - --..- |
| Glass...... | , 154 |  |  | 64,429 | - 576 |  | 6.8 | - --.- |
| Fabrics grcup- Woclen and worsted goods group----- | 3,621 <br> 483 | 7 3 |  | 943,291 | 2,886 1,478 |  | 7.6 |  |
| Woclen and worsted goods group Food group | 483 5,333 | 3 6 |  | 149, e34 520,645 | 1,478 |  | 7.3 9.8 | - --- |
| Canning and preserving- | 1,061 | 3 |  | 118, 207 | 101 |  | 9.9 |  |
| Paper and printing group-. | 3,977 | 19 |  | 362, 581 | 1,779 |  | 5. 4 |  |
| Paper and pulp....... | , 434 | 10 |  | 127, 211 | 1,355 |  | 5. 5 |  |
| Book and job printing-- | 1, 597 | 4 |  | 79, 771 | 179 |  | 5. 4 |  |
| Chemical group. .- | 2,235 | 14 |  | 317, 584 | 1,379 | - - | 6. 7 | ---- |
| Chemicals.. | 240 | 5 |  | 65, 968 | , 507 |  | 5.8 |  |
| Rubber group.-- | 250 | 3 | - -- | 116, 528 | 1,103 | - - . . . | 3.3 | --.... |
| All nonmanufacturing (except building construction) | 66, 071 | 36 |  | 2,001, 093 | 14,428 |  | 4.7 |  |
| Metalliferous mining | 297 | 15 |  | 52, 218 | 12,538 |  | 4.7 |  |
| Street railways and busses.. | -292 | 6 |  | 90, 739 | 1,215 |  | 3.0 |  |
| Wholesale trade. | 11,272 | 6 |  | 247, 582 | 316 |  | 9.5 | --- |

[^4]
## Public Employment

Employment created by the Federal Government includes employment financed from both regular and emergency appropriations.

EXECUTIVE SERVICE OF THE FEDERAL GOVERNMENT
Statistics of employment and pay rolls for the executive service of the Federal Government in September and October 1940 are given in table 11.

Table 11.-Employment and Pay Rolls for the Executive Service of the United States Government, October $1940{ }^{1}$
[Subject to revision]

| Class | Employment |  |  | Pay rolls |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { October } \\ & 1940 \end{aligned}$ | $\text { September }_{1940^{2}}$ | $\begin{gathered} \text { Percent- } \\ \text { age } \\ \text { change } \end{gathered}$ | $\begin{aligned} & \text { October } \\ & 1940 \end{aligned}$ | $\begin{aligned} & \text { September } \\ & 1940^{2} \end{aligned}$ | Percentage change |
| Entire service: Total | 1,086, 171 | 1, 058, 639 | +2.6 | \$166, 485, 603 | \$159, 587, 376 | +4.3 |
| Regular appropriation. | 911,062 | 893, 481 | +2.0 | 142,098, 677 | 138,080, 390 | +2.9 |
| Emergency appropriation | 50,206 124,903 | 50,437 114,721 | -.5 +8.9 | $6,712,880$ $17,674,046$ | $6,718,996$ $14,787,990$ | +19.5 |
| Inside the District of Columbia: Total | 149, 479 | 145, 557 | +2.7 | 26,000,944 | 25, 201, 723 | +3.2 |
| Regular appropriation | 133, 401 | 128,795 | +3.6 | 23, 063, 268 | 22,519,920 | +2.4 |
| Emergency appropriation | 7,476 | 7, 586 | $-1.5$ | 1, 157, 666 | 1, 186, 114 | $-2.4$ |
| Force-account. | 8,602 | 9, 176 | -6.3 | 1,780, 010 | 1, 495, 689 | +19.0 |
| Outside the District of Columbia: Total. | 936,692 | 913,082 | +2.6 | 140, 484, 659 | 134, 385, 653 | +4.5 |
| Regular appropriation | 777, 661 | 764, 686 | +1.7 | 119, 035, 409 | 115, 560, 470 | +3.0 |
| Emergency appropriation | 42, 730 | 42,851 | -. 3 | 5, 555, 214 | 5, 532, 882 | +. 4 |
| Force-account... | 116,301 | 105,545 | +10.2 | 15, 894,036 | 13, 292, 301 | +19.6 |

${ }^{t}$ Data relate to the last pay period of the month.
${ }^{2}$ Revised.

## CONSTRUCTION PROJECTS FINANCED BY THE PUBLIC WORKS ADMINISTRATION

Details concerning employment, pay rolls, and man-hours worked during October on construction projects financed by Public Works Administration funds are given in table 12, by type of project.

Table 12.-Employment and Pay Rolls on Projects Financed From Public Works Administration Funds, October $1940{ }^{1}$
[Subject to revision]

| Type of project |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

Federal projects financed from Public Works Administration Appropriation Act 1938 funds

All projects
Airport construction (exclusive of buildings)
Building construction.
Electrification
Reclamation

Streets and roads.
Water and sewerage
Miscellaneous.
Professional, technical, and clerical.

| All projects ${ }^{\text {6 }}$. |
| :---: |
| Building construction ${ }^{0}$ |
| Streets and roads. |
| Water and sewerage |
| Miscellaneous.... |


| 4,467 | 3,959 | $\$ 491,602$ | 552,995 | $\$ 0.889$ | $\$ 529,126$ |
| ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |
| 482 | 453 | 49,808 | 74,236 | .671 | 39,850 |
| 2,06 | 1,748 | 212,557 | 198,245 | 1.072 | 265,331 |
| 45 | 38 | 3,778 | 3,695 | 1.022 | 1,293 |
| 1,234 | 1,130 | 160,542 | 193,950 | .828 | 130,071 |
| 399 | 369 | 39,456 | 50,427 | .782 | 46,271 |
| 159 | 122 | 14,806 | 21,756 | .681 | 37,613 |
| 26 | 24 | 2,968 | 2,373 | 1.251 | 4,238 |
| 72 | 54 | 4,788 | 5,258 | .911 | 3,686 |
| 24 | 21 | 2,899 | 3,055 | .949 | 773 |
|  |  |  |  |  |  |

Non-Federal projects financed from National Industrial Recovery Act funds

| 1,340 | 1,170 | $\$ 148,962$ | 144,667 | $\$ 1.030$ |
| ---: | ---: | ---: | ---: | ---: |
| 788 | 669 | 111,514 | 85,690 | 1.301 |
| 322 | 287 | 20,382 | 33,734 | 102,153 |
| 1 | 1 | 144 | 144 | 1.000 |
| 229 | 213 | 16,922 | 25,099 | .674 |
|  |  |  |  | 165,729 |

Non-Federal projects financed from Emergency Relief Appropriation Act 1935, 1936, and 1937 funds ${ }^{3}$

| 5,429 | 4,540 | \$570, 344 | 738,208 | \$0. 773 | \$462, 613 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 635 | 537 | 78, 844 | 60, 435 | 1.305 | 99,603 |
| 954 | 797 | 68,311 | 94, 641 | . 722 | 91, 573 |
| 3,310 | 2,771 | 366, 271 | 515,742 | . 710 | 238,035 |
| 266 | 244 | 32, 826 | 37, 811 | . 868 | 18,436 |
| 264 | 191 | 24, 092 | 29, 579 | . 814 | 14,966 |

See footnotes at end of table.

Table 12.-Employment and Pay Rolls on Projects Financed From Public Works Administration Funds, October 1940-Continued
[Subject to revision]

| Type of project | Empoyment |  | Monthly pay rolls | Manhours worked during month | A verage earnings per hour | Value of material orders placed during month |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Maximum | Weekly average |  |  |  |  |
| All projects .------------....-.-. | Non-Federal projects financed from Public Works Administration Appropriation Act 1938 funds |  |  |  |  |  |
|  | 25, 710 | 21, 235 | \$2,910, 502 | 2,643, 794 | \$1. 101 | \$3, 826, 886 |
| Building construction | 6,313 | 5,089 | 725,878 | 565, 058 | 1. 285 | 1,065, 844 |
| Electrification. | 656 | 548 | 74,602 | 62, 171 | 1. 200 | 283, 923 |
| Heavy engineering | 7,560 | 6, 411 | 921, 041 | 841, 168 | 1. 095 | 1, 152, 338 |
| Reclamation....- | 259 | 213 | 32,458 | 37, 463 | . 866 | 10,557 |
| Streets and roads. | 3,060 | 2, 420 | 201, 056 | 253, 854 | . 792 | 206. 430 |
| Water and sewerage | 7,862 | 6,554 | 955, 467 | 884, 080 | 1.081 | 1,107.794 |

${ }^{1}$ 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 Public Roads Administration.
${ }^{5}$ Not available; weekly average included in total for all projects.
o Includes data for workers engaged in construction of underground tunnel who. because of the additional risk involved, were paid at rates higher than those usually paid for building construction.

## UNITED STATES HOUSING AUTHORITY

Table 13 shows data concerning employment, pay rolls, and manhours worked in October 1940 on low-rent projects of the United States Housing Authority.
Table 13.-Employment and Pay Rolls on Low-rent Housing Projects Operated by the United States Housing Authority, October 1940
[Subject to revision]

| Geographic division | Employment |  | Monthly pay rolls | Man-hours worked during month | Average earnings per hour | Value of material orders placed during month |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Maximum | Weekly average |  |  |  |  |
| All divisions. | 52, 555 | 44,459 | \$5, 577, 218 | 5,884, 760 | \$0.948 | \$7,326,510 |
| New England | 6,355 | 5,512 | 832, 716 | 753, 678 | 1. 105 | 847, 726 |
| Middle Atlantic. | 8,999 | 7,610 | 1,247,556 | 969, 163 | 1. 287 | 1, 474, 704 |
| East North Central | 5,547 | 4,727 | 765, 385 | 639,493 | 1. 197 | 805,991 |
| West North Central | 307 | 262 | 36, 097 | 37,307 | . 988 | 42, 213 |
| South Atlantic | 12,096 | 10,117 | 1,007, 851 | 1,338, 009 | . 753 | 1,322, 435 |
| East South Central. | 8,800 | 7,331 | 781, 436 | 985, 750 | -793 | 1, 425, 609 |
| West South Central | 6,581 | 5,471 | 552, 857 | 693,321 | . 797 | 806, 971 |
| Mountain. | 827 | 658 | 94, 217 | 76,484 | 1.232 | 236, 132 |
| Pacific | 1,644 | 1, 459 | 208, 314 | 195, 276 | 1. 067 | 306,527 |
| Outside continental United States.- | 1,399 | I, 312 | 50, 789 | 196, 279 | . 259 | 58, 202 |

## WORK PROJECTS ADMINISTRATION PROGRAM

A record of employment, pay rolls, and man-hours worked in October on projects financed by the Work Projects Administration is shown in table 14, by type of project.

Table 14.-Employment and Pay Rolls on Projects Financed by the Work Projects Administration, October 1940
[Subject to revision]

| Type of project | Employment |  | Monthly pay roll | Man-hours worked during month | A verage earnings per hour | Value of material orders placed during month |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Maximum ${ }^{1}$ | Weekly average |  |  |  |  |
| All projects.--...-----.------------ | Projects operated by Work Projects Administration ${ }^{2}$ |  |  |  |  |  |
|  |  | 1,711,674 | \$99, 370, 355 | 219, 817, 015 | \$0.452 | (3) |
|  | Projects operated by other Federal agencies |  |  |  |  |  |
| All projects...----------------------- | 71,674 | 69, 128 | \$3,373, 145 | 7,559,701 | \$0. 446 | \$761, 554 |
| Airport construction (exclusive of buildings) | 6,315 | 6, 308 | 82,712 | 379,776 | . 218 | 55, 535 |
| Building construction | 33, 295 | 31, 582 | 1,703, 327 | 3, 506, 858 | . 486 | 457, 304 |
| Forestry------ | 6,932 | 6,857 | 298, 325 | 729, 194 | . 409 | 35,542 |
| Grade-crossing elimination ${ }^{4}$ - | 118 | 103 | 9,271 | 13,018 | . 712 | 15,327 |
| Hydroelectric power plants s.....-- | 1, 100 | 1,096 | 49,745 | 192,634 | . 258 | 48,199 |
| Plant, crop, and livestock conservation | 9,343 | 9,315 | 460, 110 | 1,006, 828 | . 457 | 37, 743 |
| Professional, technical, and clerical | 4,859 | 4,665 | 318, 077 | 539,777 | . 589 | 17,877 |
| Public roads ${ }^{4}$-.. | 145 | 109 | 7,204 | 14, 165 | . 509 | 3,976 |
| Reclamation | 7,322 | 7,108 | 340,077 | 927, 432 | . 367 | 32,914 |
| River, harbor, and flood control...- | 396 | 343 | 31, 261 | 47,401 | . 660 | 21,771 |
| Streets and roads ...- | 981 | 814 | 42,415 | 117, 382 | . 361 | 19,713 |
| Water and sewerage. | 391 | 379 | 13, 070 | 46, 171 | . 283 | 640 |
| Miscellaneous | 477 | 449 | 17,551 | 39,065 | . 449 | 15,013 |

${ }^{1}$ Maximum number employed during any 1 week of the month by each contractor and Government agency doing force-account work.
${ }^{2}$ Data are for the calendar month. Will be published by type of project in November pamphlet.
${ }^{3}$ Data on a monthly basis are not available
${ }^{4}$ Projects under the jurisdiction of the Public Roads Administration.
${ }^{3}$ Projects under construction in Puerto Rico.
Data on employment, pay rolls, and man-hours worked in October on each type of project operated by the Work Projects Administration were not available when this report was prepared. The figures for September are presented in table 15.

Table 15.--Employment and Pay Rolls on Projects Operated by the Work Projects: Administration by Type of Project, September 1940

| [Subject to revision] |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |
| Type of project |  |  |

[^5]
## NATIONAL YOUTH ADMINISTRATION

Employment and pay rolls on the National Youth Administration projects for September and October 1940 are shown in table 16.

Table 16.-Employment and Pay Rolls on National Youth Administration Projects, October 1940

| [Subject to revision] |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Type of project | Employment |  | Pay rolls |  |
|  | October | September | October | September |
| Total | 577, 511 | 262, 836 | \$7, 104, 120 | \$4, 922, 383 |
| Student work program Out-of-scbool work program | $\begin{aligned} & 341,109 \\ & 236,312 \end{aligned}$ | $\begin{array}{r} 21,776 \\ 241,060 \end{array}$ | $\begin{aligned} & 2,160,889 \\ & 4,943,231 \end{aligned}$ | $\begin{array}{r} 95,276 \\ 4,827,087 \end{array}$ |

## CIVILIAN CONSERVATION CORPS

Employment and pay rolls in the Civilian Conservation Corps in September and October 1940 are presented in table 17.

Table 17.-Employment and Pay Rolls in the Civilian Conservation Corps, October $1940^{1}$

| [Subject to revision] |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Group | Employment |  | Pay rolls |  |
|  | $\begin{aligned} & \text { October } \\ & 1940 \end{aligned}$ | ${\underset{1940}{ }}_{\text {September }}$ | $\begin{aligned} & \text { October } \\ & 1940 \end{aligned}$ | $\underset{1940}{\text { September }^{2}}$ |
| All groups. | 318,453 | 294, 622 | \$14, 058, 799 | \$13,523, 515 |
| Enrolled personnel ${ }^{2}$ | 283, 396 | 259, 204 | 8,823, 683 | 8, 283, 092 |
| Educational advisers ${ }^{3}$ | 213 1,549 | 1.217 1.545 | 31,327 260,000 | 29,383 258,775 |
| Supervisory and technical ${ }^{3}$ | 33, 295 | 33,656 | 4, 943, 789 | 4,952, 265 |

${ }^{1}$ Employment figure is monthly average for enrolled personnel, and number employed on last day of month for other groups.
${ }^{2}$ October data include 3,837 enrollees and pay roll of $\$ 77,308$ outside continental United States; in September the corresponding figures were 3,838 enrollees and pay roll of $\$ 74,013$.
${ }^{3}$ Included in executive service, table 11.

## CONSTRUCTION PROJECTS FINANCED FROM REGULAR FEDERAL APPROPRIATIONS

Statistics of employment, pay rolls, and man-hours worked on construction projects financed by the Reconstruction Finance Corporation in October are presented in table 18, by type of project.

Table 18.-Employment and Pay Rolls on Projects Financed by the Reconstruction Finance Corporation, by Type of Project, October $1940{ }^{1}$

|  | Subject to | vision] |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Type of project | Employment ${ }^{2}$ | Monthly pay rolls | Man-hours worked during month | A verage earnings per hour | Value of material orders placed dur ing month |
| All projects | 1,832 | \$215, 858 | 204, 834 | \$1.054 | \$407, 333 |
| Building construction ${ }^{3}$ | 1,488 | 171, 450 | 154,951 | 1. 106 | 314,817 |
| Streets and roads | 106 | 9,605 | 12,542 | . 766 | 27, 828 |
| Water and sewerage | 150 | 25, 632 | 28, 650 | . 895 | 60. 239 |
| Heavy engineering | 88 | 9, 171 | 8,691 | 1.055 | 4,449 |

${ }^{1}$ Data are for the month ending on the 15th.
${ }^{2}$ Maximum number employed during any 1 week of the month by each contractor.
${ }^{3}$ Includes 756 employees; pay-roll disbursements of $\$ 94,921 ; 72,661$ man-hours worked; and material orders placed of $\$ 205,220$ on projects financed by R FC Mortgage Company.

## CONSTRUCTION PROJECTS FINANCED BY THE RECONSTRUCTION FINANCE CORPORATION

Data concerning employment, pay rolls, and man-hours worked on construction projects financed from regular Federal appropriations during October are given in table 19, by type of project.

Table 19.-Employment and Pay Rolls on Construction Projects Financed From Regular Federal Appropriations, by Type of Project, October $1940{ }^{1}$
[Subject to revision]

| Type of project | Employment |  | Monthly pay rolls | Man-hours worked during month | Average earnings per hour | Value of material orders placed during month |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Maximum ${ }^{2}$ | Weekly average |  |  |  |  |
| All projects | ${ }^{3} 477,397$. | 432, 688 | \$51,727,448 | 64, 813,974 | \$0. 798 | \$102, 670, 734 |
| Airport construction | 21, 100 | 19,953 | 1, 700, 546 | 2, 119,642 | . 802 | 5, 100,597 |
| Building construction. | 138, 612 | 108, 160 | 10,862, 254 | 12,936,922 | . 840 | 24, 413,556 |
| Electrification: <br> Rural Electrification Administration projects ${ }^{4}$ | 4,933 | 3,957 | 254, 144 | 461, 697 | . 550 | 1, 501, 760 |
| Other than R. E. A. projects. | 501 | 407 | 33, 335 | 44, 373 | . 751 | 137, 033 |
| Forestry | 19 | 19 | 1,537 | 2,812 | . 547 | 547 |
| Heavy engineering | 122 | 114 | 19,174 | 13, 335 | 1. 438 |  |
| Public roads ${ }^{5}$ | $\left.{ }^{6}\right)$ | 92, 100 | 9,165, 025 | 14, 165,349 | . 647 | 16, 262,428 |
| Reclamation | 27, 539 | 26, 420 | 3, 973, 607 | 4, 432, 145 | . 897 | 3, 284, 494 |
| River, harbor, and flood control: <br> Dredging, dikes, revetments, etc. | 35, 253 | 31, 013 | 3. 608, 631 | 5, 423, 626 | . 665 | 4, 534, 274 |
| Locks and dams | 9, 126 | 8, 458 | 1,252, 453 | 1, 471, 915 | . 851 | 1,131, 496 |
| p construction: <br> Naval vessels. | 100,958 | 88,089 | 16, 486, 601 | 18, 039, 356 | . 914 | 38, 680.533 |
| Other than naval vessels | 27,360 | 25, 193 | 3, 290, 066 | 3, 988, 180 | . 825 | 5,477, 079 |
| Streets and roads. | 4,193 | 3,702 | 359, 228 | 502, 007 | . 716 | 415, 243 |
| Water and sewerage | 835 | 712 | 68, 101 | 98, 672 | 690 | 239, 757 |
| Miscellaneous | 14,746 | 14,391 | 652, 746 | 1,113,943 | . 586 | 1,491,937 |

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-road projects.
4 Financed by Rural Electrification Administration loans.
${ }^{5}$ Under the jurisdictio of the Publiz Roads Administration.
${ }^{6}$ Not available, weekly average included in the total for all projects.

## STATE-ROADS PROJECTS

A record of employment and pay-roll disbursements on the construction and maintenance of roads financed wholly from State or local funds in October 1940, compared with September 1940, and October 1939, is presented in table 20.

Table 20.-Employment and Pay Rolls on Construction and Maintenance of State Roads, October $1940{ }^{1}$
[Subject to revision]

| Item | Employment ${ }^{2}$ |  |  | Pay rolls |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { October } \\ & 1940 \end{aligned}$ | September 1940 | $\begin{gathered} \text { October } \\ 1939 \end{gathered}$ | $\begin{aligned} & \text { Octoher } \\ & 1940 \end{aligned}$ | $\begin{aligned} & \text { Septem.her } \\ & 1940 \end{aligned}$ | $\begin{gathered} \text { October } \\ 1939 \end{gathered}$ |
| Total. | 203, 024 | 196, 957 | 158, 108 | \$15, 514, 368 | \$14, 178, 338 | \$11, 338, 800 |
| New roads | 67,698 | 66,036 | 29, 252 | 4,901, 974 | 4, 342, 663 | 1,898, 360 |
| Maintenance | 140, 326 | 130, 921 | 128, 856 | 10, 612, 394 | 9, 835, 675 | 9,440, 440 |

[^6]
[^0]:    UNITED STATES GOVERNMENTPRINTING OFFICE P WASHINGTON• 1941

[^1]:    ${ }^{1}$ Revised indexes-Adjusted to 1937 Census of Manufactures. See also table 9 in the September 1940 issue of this pamphlet.
    ${ }^{2}$ Preliminary-Source: Interstate Commerce Commission.
    ${ }^{3}$ Not available.
    ${ }_{4}$ Indexes adjusted to 1935 census. Comparable series back to January 1929 presented in January 1938 issue of this pamphlet.
    ${ }_{5}$ Retail-trade indexes adjusted to 1935 census and public-utility indexes to 1937 census. Not comparable with indexes published in pamphlets prior to January 1940 or in the Monthly Labor Review prior to April 1940. Revised series available upon request.
    ${ }^{6}$ A verage weekly earnings not strictly comparable with figures published in issues of this pamphlet dated earlier than January 1938 as they now exclude corporation officers, executives, and other employees whose duties are mainly supervisory.
    ${ }^{7}$ Covers street railways and trolley and motorbus operations of subsidiary, affiliated, and successor companies.
    ${ }^{8}$ Indexes adjusted to 1933 census. Comparable series in November 1934 and subsequent issues of this pamphlet
    ${ }^{9}$ Cash payments only; the additional value of board, room, and tips cannot be computed.
    ${ }^{10}$ Less than 110 of 1 percent.
    ${ }_{11}$ Based on estimates prepared by the United States Maritime Commission.

[^2]:    ${ }^{1}$ Reprint from the August Employment and Pay Rolls pamphlet.

[^3]:    13-year average $1923-25=100$-adjusted to 1937 Census of Manufactures. See table 9 in September 1940 pamphlet for further revisions.
    ${ }^{2}$ 12-month average for $1929=100$. Comparable indexes for wholesale trade, quarrying, metal mining, and crude-petroleum production aie in November 1934 and subsequent issues of Employment and Pay Rolls, or in February 1935 and subsequent issues of Monthly Labor Review. For other nonmanufacturing indexes see notes 5 and 6 .
    ${ }^{3}$ Includes: Iron and steel, machinery, transportation equipment, nonferrous metals, lumber and allied products, and stone, clay, and glass products.
    ${ }^{4}$ Includes: Textiles and their products. leather and its manufactures, food and kindred products, to bacco manufactures, paper and printing, ohemicals and allied products, products of petroleum and coal, rubber products, and a number of miscellaneous industries not included in other groups.
    ${ }^{3}$ Indexes have been adjusted to the 1935 census. Comparable series from January 1929 forward are presented in January 1938 and subsequent issues of this pamphlet.
    ${ }^{8}$ Retail-trade indexes adjusted to 1935 census and public-utility indexes to 1937 census. Not comparable with indexes published in Employment and Pay Rolls pamphlets prior to Jantary 1940 or in MONTHLY Labor Review prior to April 1940. Comparable series January 1929 to December 1939 available in mimeo* graphed form.
    ${ }_{7}$ Covers street railways and trolley and motorbus operations of subsidiary, affiliated, and successor ompanies.

[^4]:    ${ }^{1}$ As the Bureau's survey does not cover all establishments in an industry, and furthermore, as some firms may have lailed to report wage changes, the figures should not be construed as representing the total number of wage changes occurring. Figures are not given for some industries to avoid disclesure of information concerning individual establishments. They are, however, included, where practicable, in "all manufacturing," in "all nonmanufacturing," and in the various industry groups.

[^5]:    ${ }^{1}$ Data for "All projects" represent the average of the weekly employment counts made as af each Wednesday during the calendar month. The distribution by type of project is estimated on the basis of employment on Sept. 25, 1940.

[^6]:    ${ }^{1}$ Projects financed wholly from State or local funds. October and September 1940 data are for the calendar month; October 1939 for the month ending on the 15th.
    ${ }^{2}$ Average number working during month.

