Serial No. R. 22.
UNITED STATES DEPARTMENT OF LABOR
FRANCES PERKINS, Secretary
BUREAU OF LABOR STATISTICS
ISADOR LUBIN, Commissioner

## TREND OF EMPLOYMENT

## July 1933

THE Bureau of Labor Statistics of the United States Department of Labor presents in the following tables, data compiled from payroll reports supplied by cooperating establishments in 17 of the important industrial groups of the country and covering the pay period ending nearest the 15th of the month.

Information for 89 of the principal manufacturing industries of the country is shown, following which are presented tabulations showing the changes in employment and pay rolls in the 16 nonmanufacturing industries included in the Bureau's monthly survey, together with information available concerning employment in the executive civil service and on class I railroads.

## Employment in Selected Manufacturing Industries in July 1933

Comparison of Employment and Pay-Roll Totals in July 1933 with June 1933 and July 1932

INCREASES of 7.2 percent in employment and 7.9 percent in pay rolls were shown in manufacturing industries in July 1933 as compared with June 1933. The level of employment in July of the present year is 21.9 percent above the level of July 1932, in which month the lowest point of employment and pay rolls in the year 1932 was recorded. Pay rolls in July 1933 show a gain of 28.5 percent over the year interval.

The index of employment in July 1933 was 67.3 as compared with 62.8 in June 1933, 58.7 in May 1933, and 55.2 in July 1932; the payroll index in July 1933 was 46.5 as compared with 43.1 in June 1933, 38.9 in May 1933, and 36.2 in July 1932. The 12 -month average for 1926 equals 100.

These changes in employment and pay rolls in July 1933 are based on reports supplied by 18,090 establishments in 89 of the principal manufacturing industries of the United States. These establishments reported $3,023,831$ employees on their pay rolls during the pay period ending nearest July 15 whose combined weekly earnings were $\$ 54,553,744$. The employment reports received from these cooperating establishments cover approximately 50 percent of the total number of wage earners in all manufacturing industries of the country.

The recent broad expansion in manufacturing industries which began in April and which was reflected by increases in employment in 72 of the 89 manufacturing industries surveyed in May and 79 industries in June, continued in July, 77 industries reporting increases in number of wage earners over the month interval and 71 industries reporting increases in weekly pay-roll totals.

There are a number of factors which make these impressive gains in factory employment and pay rolls in July of even greater significance than is at first apparent. A marked decline in employment and a more pronounced decrease in pay rolls in July has been invariably reported in previous years, due to the customary closing down for repairs and inventory during the first part of the month, the beginning of vacation periods, and the effect of the July 4 holiday on pay rolls covering more than a 1 -week period. These usual conditions were reported to some extent in July 1933, together with a number of strikes and labor disturbances in various localities. These retarding factors, however, failed to halt the general expansion in business activity in July 1933, and instead of the customary decreases in July an increase of 7.2 percent in employment and 7.9 percent in pay rolls is shown.

The increase of 7.2 percent in employment in July indicates a return to employment of approximately 400,000 workers since June 15, and the increase of 7.9 percent in pay rolls between June and July represents an estimated increase of $\$ 7,500,000$ paid in weekly wages to factory workers in July over the weekly earnings paid in June.

These continued monthly expansions in employment and pay rolls in manufacturing industries have brought the level of factory employment in July 1933 to the highest point registered since October 1931, and the index of pay rolls has reached the highest point recorded since March 1932.

Thirteen of the fourteen groups of manufacturing industries reported increases in employment and pay rolls between June and July, the tobacco group alone failing to report gains in both items over the monthly interval. The transportation group reported the most pronounced gain in employment ( 12.6 percent) due largely to continued gains in number of workers in the automobile industry, which reported a further increase of 13.2 percent in July as compared with June. The rubber-products group reported an increase of 11.8 percent in employment between June and July, due to pronounced gains in the rubber footwear, automobile tire, and other rubbergoods industries. The iron and steel group reported a gain of 10.9 percent in employment over the month interval. Each of the 13 industries comprising this group reported increases in employment, the iron and steel industry reporting the most pronounced gain, 13.9 percent, and the stove, tool, wirework, bolt and nut, steam fitting, and structural-ironwork industries also reporting large gains in number of workers from June to July. The lumber products group reported a gain of 10.3 percent in employment between June and July, the sawmill and millwork industries reporting gains of 13 percent and 11.1 percent, respectively, with smaller increases shown in the furniture and turpentine and rosin industries. Increases in employment ranging from 7.1 percent to 7.9 percent were reported in the leather, stone-clay-glass, textile, and machinery groups. The railroad repair shop group reported a gain of 6.7 percent in employment and the nonferrous metals group reported a gain of 6.6 percent. The chemical group reported an increase of 5.5 percent in employment between June and July, and the increases in the remaining two groups, paper and printing, and food, were 2 percent and 1.8 percent, respectively. The decreases in employment and pay rolls in the tobacco manufactures group were 1.3 and 0.2 percent, respectively.

The most pronounced gain in employment in any of the separate manufacturing industries was reported in the electric and steam railroad car-building industry in which a gain of 24.7 percent was shown between June and July. The brick industry reported an increase of 19.1 percent in number of workers in July, as compared with June, and the carpet industry reported a gain of 18.7 percent in employment. The textile machinery industry reported an increase of 16.6 percent in employment over the month interval, rubber footwear 15.8 percent, cash registers 14.4 percent, and silk 14 percent. Other industries reporting increases of more than 10 percent in employment were: Woolen, 13.1 percent; bolts and nuts, 13 percent; stoves, 12.8 percent; tires, 12.5 percent; cottonseed oil, cake, and meal, 12.3 percent, smelting and refining-copper, lead, and zinc, 12.2 percent; brass, bronze, and copper products, 11.8 percent; locomotives, 11.5 percent; cotton small wares, 11.4 percent; tools, 10.8 percent; and cotton goods and explosives, 10.5 percent each.

Other pronounced gains in employment in industries of major importance were as follows: Marble, slate, and granite, 10 percent; chemicals, 9.2 percent; men's clothing 9.1 percent; rayon, 8.2 percent; foundry and machine-shop products and structural metal work, 8.1 percent each; boots and shoes, 7.5 percent; electrical machinery, 7.3 percent; machine tools, 6.7 percent; leather, 6.4 percent; hardware, 6.3 percent; paper and pulp, 5.9 percent; and furniture, 5.1 percent. Among the 12 industries in which decreases in employment were reported between June and July 1933, the silverware industry reported the most pronounced decline, 16.2 percent, due largely to vacations in a number of establishments, while the millinery and women's clothing industries also reported sharp declines in employment, which are seasonal at this period of the year. The jewelry industry reported a decrease of 4.9 percent in employment; chewing tobacco, 3.9 percent; confectionery, 3.8 percent; and corsets, 1.4 percent. The decreases in employment reported in the remaining 5 industries were less than 1 percent.

Comparing the level of employment in July 1933 with the level of employment in July 1932, 71 industries show more employees on the pay rolls in July 1933 than in July 1932. Only 18 industries failed to register increases in employment over the year interval. In a number of instances the increases in employment were spectacular. Employment in the beverage industry, due to the resumption of operations of breweries, stands 109.1 percent above the level of July 1932. The index of employment in the woolen and worsted goods industry in July 1933 is 85.4 percent above the level of the corresponding month of 1932 , and the cotton goods index of employment is 82.7 percent above the level of July 1932. Establishments engaged in the manufacture of rayon and allied products reported an increase of 80.4 percent in number of workers over the $12-\mathrm{month}$ interval; silk goods show an increase of 64.5 percent over the same period. Additional industries reporting pronounced gains in employment between July 1932 and July 1933 are: Textile machinery, 75.7 percent; carpets and rugs, 58.1 percent; stoves, 47.9 percent; radios, 50.6 percent; agricultural implements, 46 percent; shirts and collars, 38 percent; and men's clothing, 35.1 percent.

In table 1, which follows, are shown the number of identical establishments reporting in both June and July 1933 in the 89 manufacturing
industries, together with the total number of employees on the pay rolls of these establishments during the pay period ending nearest July 15, the amount of their earnings for 1 week in July, the percents of change over the month and year intervals, and the indexes of employment and pay roll in July 1933.

The monthly percents of change for each of the 89 separate industries are computed by direct comparison of the total number of employees and of the amount of weekly pay roll reported in identical establishments for the 2 months considered. The percents of change over the month interval in the several groups and in the total of the 89 manufacturing industries are computed from the index numbers of these groups, which are obtained by weighting the index numbers of the several industries in the groups by the number of employees or wages paid in the industries. The percents of change over the year interval in the separate industries, in the groups and in the totals are computed from the index numbers of employment and pay-roll totals.

TABLE 1.-COMPARISON OF EMPLOYMENT AND PAY ROLLS IN MANUFACTURING ESTABLISHMENTS IN JULY 1933 WITH JUNE 1933 AND JULY 1932

| Industry | Estab-lishments reporting in both June July 1933 | Employment |  |  | Pay-roll totals |  |  | Index numbers July 1933 (average$1926=100)$ $1926=100$ ) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\left\|\begin{array}{c} \text { Number } \\ \text { on pay } \\ \text { roll, July } \\ 1933 \end{array}\right\|$ | Percent of change |  | Amount of (pay roll July 1933 | Percent of change |  |  |  |
|  |  |  | $\left\|\begin{array}{c} \text { June to } \\ \text { July } \\ 1933 \end{array}\right\|$ | $\begin{gathered} \text { July } \\ 1932 \text { to } \\ \text { July } \\ 1933 \end{gathered}$ |  | $\begin{array}{\|} \left\lvert\, \begin{array}{c} \text { June to } \\ \text { July } \\ 1933 \end{array}\right. \\ \hline \end{array}$ | 1932 to July 1933 | Em-ployment | $\begin{gathered} \text { Pay- } \\ \text { roll } \\ \text { totals } \end{gathered}$ |
| Food and kindred prod- |  |  |  |  |  |  |  |  |  |
| uets-................. | 3,064 | 261,881 <br> 63,873 | +1.8 +1.4 | $\underline{+11.0}$ | \$5,449,488 | +3.0 | +7.5 | 88.1 | ${ }_{76} 71.8$ |
| Beverage | 359 | 22,943 | $+3.8$ | +109.1 | -646, 820 | +2.7 | +122.4 | 166.9 | 155. 7 |
| Butter | 311 | 5, 857 |  | -1.7 | 118, 299 | +2.0 | -11.4 | 102.9 | 77.3 |
| Confectioner | 320 | 32, 095 | -3.8 | +20.6 | 405, 513 | -2.3 | +10.0 | 70.8 | 47.5 |
| Flour | 423 | 16,540 | +6.2 | +5.6 | 348. 181 | +12.8 | +2.6 | 87.9 | 70.6 |
| Ieo cream... | 365 | 12, 711 | $+2.5$ | -4.1 | 318, 557 | +1.8 | -13.3 | 80.0 | 59.8 |
| Slaughtering and meat packing $\qquad$ | 247 | 01, 877 |  | +8.9 | 1,911, 542 |  | +6.4 | 92.8 | 4. 4 |
| Sugar, beet-- | 61 | 4,710 | +7.5 | +28.7 | 1,99, 300 | +10.9 | +21.1 | 52.5 | 40.1 |
| Sugar refining, ca | 13 | 8,275 | $+2.6$ | +6.1 | 208, 205 | +4.0 | +3.0 | 80.4 | 71.5 |
| ucts | 3,206 | 764,161 | +7.1 | +56.2 | 10, 164,781 | +0, ${ }^{\text {a }}$ | +79.4 | 86.4 | 57,6 |
| Fabrics | 1,903 | 628, 671 | +9.7 | +65.8 | 8, 306, 084 | +11.3 | +94.5 | 93.7 | 66.9 |
| Carpets and rugs | 27 | 16, 133 | +18.7 | +58.1 | 287, 006 | +19.4 | +117.2 | 70.2 | 50.6 |
| Cotton goods. | 670 | 310, 445 | +10.5 | +82.7 | 3, 530, 577 | +13.2 | +124.0 | 101. 4 | 73.7 |
| Cotton small wares. Dyeing and finish- | 111 | 11, 122 | +11.4 | +43.4 | 173, 512 | +15.0 | +70.5 | 99.4 | 76.4 |
| ing textiles... | 153 | 40,683 | +9.2 | +38.1 | 749, 304 | +7.4 | +70.9 | 88.5 | 64.6 |
| Hats, fur-felt Knit goods. | $\begin{array}{r}27 \\ 440 \\ \hline 20\end{array}$ | 5,275 114,229 | +3.0 | +18.7 +34.2 | 1, 104, 1498 | +5.1 | +41.4 | 70.5 | 46.1 |
| Silksnd rayongoods | 238 | 53, 031 | +14.0 | +64.5 | 1, 708, 366 | +18.5 | +80.6 | 68.1 | 46.6 |
| Woolen and worsted |  |  |  |  |  |  |  |  |  |
| Wearing gop-.........-- |  |  | $+13.1$ | +85. ${ }^{+8}$ | 1, 321, 273 | +14.0 | $+114.1$ | 105.5 | 82.2 |
| Wearing apparel. | $\begin{array}{r}1,303 \\ \hline 97\end{array}$ | 135,490 70 | $\underline{-9.1}$ | +32.21 | 1,858, 697 1, 023, 802 | +3.4 +22.9 |  | 69.0 76.2 | 39.3 45.4 |
| Clothing, men's Clothing. women's. |  | 75, 802 | +9.1 <br> -13.0 | +35.1 | $1,023,802$ 382,668 | +22.9 +8 | +74.8 +21.1 | 76.2 59.3 | 45.4 31.0 |
| Clothing. women's. Corsets and allied garments | 543 35 | 25, 6, 060 | -13.0 -1.4 | $\begin{array}{r} +30.6 \\ +9.4 \end{array}$ | 382,666 83,478 | -8.4 | +21.1 +16.1 | 59.3 99.4 | 31.0 73.4 |
| Men's furnishings.-. | 73 | 7.817 | +5.9 | +43.1 | 83, 248 | -. 2 | +31.3 | 66.7 | 73.3 |
| Millinery | 140 | 8.195 | 14.8 | +24.4 | 115, 446 | -20.9 | +17.9 | 58.6 | 33.6 |
| Shirts and collars. | 115 | 17,331 | +8.7 | +38.0 | 170, 057 | +3. | +45.6 | 70.8 | 44.4 |
| Iron a products, not includng machinery | 1,379 | 363, 539 | +10.9 | +25.8 | 6, 751, 472 | +14.2 | +77.9 | 64.9 | 41.1 |
| Bolts, nuts, washers, | 70 |  |  |  |  |  |  |  |  |
| Cast-iron pipe. | 33 | 4,368 | +9.2 | (1) | 80, 661 | $+12$. | $+5.3$ | 32.1 | 18.0 |
| Cutlery (not including silver and plated cut- |  |  |  |  |  |  |  |  |  |
| forgings, ind edge tools--- | 128 86 | $\begin{aligned} & 8,552 \\ & 6,651 \end{aligned}$ | +2.1 +6.3 | + $\mathbf{- 2 2 . 6}$ | 165,198 122,004 | +6.9 +6.5 | +10.4 +38.1 | 61.8 67.1 | 44. 6 |

${ }^{1}$ No change.

TABLE 1.-OOMPARISON OF EMPLOYMENT AND PAY ROLLS IN MANUFACTUEING ESTABLISHMENTS IN JULY 1933 WITH JUNE 1933 AND JULY 1932-Continued

| Industry | Estab-lishreport. ing in June and 1933 | Employment |  |  | Pay-roll totals |  |  | Index numbers July 183 (average$1926=100$ ) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { Number } \\ & \text { on pay } \\ & \text { roll, Juiy } \\ & \text { 1833 } \end{aligned}$ | Percent of change |  | Amount of pay roll (1 week) July 1033 | Percent of change |  |  |  |
|  |  |  | $\left.\begin{array}{\|c\|} \hline \\ \text { June to } \\ \text { July } \\ 1983 \end{array} \right\rvert\,$ | ${ }_{1032}$ July July 1933 |  | $\left\|\begin{array}{c} \text { June to } \\ \text { July } \\ \text { 1933 } \end{array}\right\|$ | $\begin{gathered} \text { July } \\ \text { cun2 to } \\ \text { July } \\ \text { Jus3 } \end{gathered}$ | $\begin{aligned} & \text { Em- } \\ & \text { ploy- } \\ & \text { ment } \end{aligned}$ | Pay. totals |
| Iron and steel and their products-Continued. |  |  |  |  |  |  |  |  |  |
| Hardware------- |  | $\begin{array}{r} 22,964 \\ 227,159 \\ 8,682 \end{array}$ | $\begin{array}{r} +6.3 \\ +13.9 \\ +6.0 \end{array}$ | $9 \begin{aligned} & +17.4 \\ & +30.8 \end{aligned}$ | $\begin{array}{r} \$ 363,284 \\ 4,359,927 \\ 438,945 \end{array}$ | $\begin{gathered} +12.5 \\ +19.2 \end{gathered}$ | $\begin{array}{r} +53.7 \\ +117.3 \end{array}$ | 55.9 <br> 67.6 | 33.242.8 |
| Tron and steel-.-7i- | $\begin{gathered} 205 \\ 68 \end{gathered}$ |  |  |  |  |  |  |  |  |
| Steam and hot-water heating apparatus and steam fittings. |  |  |  | $+33.1$ |  |  |  |  |  |
| Stoves..---.-....- | 160 | $\begin{aligned} & 16,233 \\ & 19,220 \end{aligned}$ | $\begin{array}{r} +7.6 \\ +12.8 \end{array}$ | $\begin{gathered} +32.3 \\ +47.9 \end{gathered}$ | $\begin{aligned} & 297,039 \\ & 352,522 \end{aligned}$ | +9.2 +13.6 | +48. 1 | 43.0 | 27.4 |
| Struetural and orna- |  |  |  |  |  |  |  |  |  |
| Tin cantal metalwork and other tin- | 19 | $14,722$ | +8.1 | -5.8 | 221, 567 | +5.2 | -11.6 | 42.6 | 22.1 |
| ware.....--- | 61 | 9,543 | +4.8 | +10.1 | 191,062 | +5.0 | +21.4 | 82.7 | 52.8 |
| Tools (not including edge tools, machine tools, files, and saws). |  |  |  |  |  |  |  |  |  |
| Wirework..-.... | $\underline{124} 8$ | 7,6776,848 | $\begin{array}{r} +10.8 \\ +8.8 \end{array}$ | $+88.1$ | $\begin{aligned} & 142,500 \\ & 139,412 \end{aligned}$ | $\begin{array}{r} +15.1 \\ +10.9 \end{array}$ | $\begin{array}{r} +58.1 \\ +81.8 \end{array}$ | 69.9 | 46.0 97.1 |
| Machinery, not includ- mgtransportation |  |  |  |  |  |  |  |  |  |
| equipment--------- | 1,785 | 289, 011 | +7.9 | +9.9 | 5, 564, 714 | +10.9 | +28.6 | 52.0 | 84.7 |
| ments...-.... | 78 | 7,192 | +4.1 | +46.0 | 116,439 | 5 | $\begin{aligned} & +54.3 \\ & +82.3 \end{aligned}$ | 28.9 | 21.6 |
| Cash registers, adding machines, and calculating machines |  |  |  |  |  |  |  |  |  |
| Electrical machinery, | 37 | 14, 372 | +14.4 | +14.8 | 358,658 | +16.2 |  | 80.8 | 62.2 |
| apparatus and suppies | 282 |  |  | -3.8 |  |  | +9.2 |  |  |
| Engines, turbines, trac- |  | 89, 748 | +7.3 |  | 1, 819, $37 \%$ | +10.2 |  | 53.4 | 40.4 |
| tors, and water wheels_ Foundry and machine- | 88 | $\begin{gathered} 109,377 \\ 11,285 \end{gathered}$ | $\begin{aligned} & +7.2 \\ & +8.1 \end{aligned}$ | $\begin{array}{r} +8.9 \\ +11.0 \\ +8.5 \end{array}$ | $\begin{array}{r} 2,028,300 \\ 226,207 \end{array}$ | +5.8 | +23. 4 | 45.4 | 29.5 |
| shop products.. | 1,048 |  |  |  |  |  | +32.2 | $50.3$$33.3$ | $\begin{aligned} & 30.8 \\ & 22.0 \end{aligned}$ |
| Machine tools.... | 46 |  | +6.7 |  |  | +8.8 | +23.6 |  |  |
| Radios and phono- graphs | 42 | 22, 730 |  |  |  |  |  |  | 55.7 |
| Toxtille machinery and |  |  | +2.1 | +50.8 | 335, 481 | $-14.9$ | +16.5 | 72.8 | 68.9 |
| Typewriters and sup- |  |  |  |  |  |  |  | 72.8 |  |
| plies. |  | 8,297 |  | +. 8 | 134, 704 | +14.8 | +26.0 | 57.7 | 36. 4 |
| their products.........- |  | 87,188 |  |  | 1,601,803 | +6.2 | +86.8 | $59.5$ | 40.9 |
| Aluminum manufac- tures............. |  |  | +6.8 | +25.5 |  |  |  |  | 37.2 |
| Brass, bronze, and cop- |  |  |  |  | 98,985 | +5.5 | $+60.8$ | 64.5 | 46.0 |
| Clocks and watches and time-recording | 206 | 34, 474 | +11.8 | +29.5 | 678,761 | +14.6 |  | 40. |  |
| Jewices...- | 24 | $\begin{array}{l\|l\|} \hline 4 & 8,612 \\ \hline & 6,918 \\ \hline & 2,951 \end{array}$ | $\begin{array}{r} +1.6 \\ -4 \end{array}$ | $\begin{array}{r} +32.7 \\ +10.3 \end{array}$ | $\begin{aligned} & \begin{array}{l} 102,4 \\ 122,355 \end{array} \end{aligned}$ | 5 $\begin{array}{r}+17.0 \\ -4.2\end{array}$ | $\begin{aligned} & +46.8 \\ & +12.2 \end{aligned}$ | 40.6 34.2 |  |
| Joweiry--.-.-.-.- | 5 |  |  |  |  |  |  | 34.2 | 27.9 22.0 |
| Silverware and plated |  | 8,038 | +5.9 +42.0 <br> -16.2 -5.4 |  | 63, 342 |  |  |  | 49.8 |
| Smare.....-.-.-....-- |  | $10,335$ |  |  |  |  | -1.3 |  | 45.6 |
| Stamper, lead, and zinc- | 39 |  | +12.2 | +10 | 200, 9 | +18.2 | +24.3 | 63.8 |  |
| Stamped and enameled |  | 14,173 | +6.1 | +25.6 | 227, 609 |  |  | $71.2$ |  |
| Transportation equip- |  |  |  |  |  | ${ }^{+6.9}$ | +34.0 | $\begin{array}{r} 71.2 \\ 56.2 \\ 251.4 \end{array}$ | 45.3 |
|  |  | $\begin{gathered} 264,365 \\ 7,113 \\ 226,145 \end{gathered}$ |  |  | $\begin{array}{r} 5,718,607 \\ 186,103 \\ 4,916,867 \end{array}$ |  |  |  | 223.4 |
| Automobiles. | 233 |  | +13.2 | +1.0 |  | +6.3 | +5.9 | 59.8 | 44.8 |
| Cars. electric and steam railroad |  |  |  |  |  |  |  |  |  |
| Locomotives. |  | 1,683 | +11.5 | -28.3 | 33, 664 | $+20.0$ | -32.2 | 11.9 | 8.2 |
| 8hipbuilding | 6 | 24, 246 | +8.9 | -17.7 | 499,071 | +11.3 | -30.8 | 62.7 | 44.1 |
| Railroad repair shop | 914 | 92,084 | +6.7 | +1.9 | 2, 063, 872 |  | +6.7 | 48.0 | 36.8 |
| Electric railroad. | 390 524 | 19,437 |  | -8. +3 | a 473,733 $1,580,139$ | $3{ }^{-2 .}$ | 14.7 +9.9 | 62.6 46.9 | ${ }_{35 .} 8$ |
| Steam railroad... | 524 | 72,647 | +7.4 | +3.1 | 1, 500, 139 | + +5.6 | +9.9 | 46.9 | 35.6 |

TAbLE 1.-COMPARISON OF EMPLOYMENT AND PAY ROLLS IN MANUFACTURING ESTABLISHMENTS IN JULY 1933 WITH JUNE 1933 AND JULY 1932-Continued


2 Less than one tenth of 1 percent.

## Per Capita Earnings in Manufacturing Industries

Per capita weekly earnings in July 1933 for each of the 89 manufacturing industries surveyed by the Bureau of Labor Statistics and for all industries combined, together with the percents of change in July 1933 as compared with June 1933 and July 1932, are shown in table 2.

These earnings must not be confused with full-time weekly rates of wages. They are per capita weekly earnings, computed by dividing the total amount of pay roll for the week by the total number of employees (part-time as well as full-time workers).

TABLE 2-PER CAPITA WEEKLY EARNINGS IN MANUEACTURING INDUSTRIES IN JULY 1933 AND COMPARISON WITH JUNE 1933 AND JULY 1932

| Industry | Per capita weekly earnings in July 1833 | Percent of change compared with- |  |
| :---: | :---: | :---: | :---: |
|  |  | June 1933 | July 1932 |
| Food and kindred products: |  |  |  |
| Baking--..---.-.--- | \$21.81 | ${ }_{-1.4}^{+1.4}$ | -3.6 |
| Butter- | 20.20 | +1.1 | -10.0 |
| Confectionery | 12.63 | +1.5 | -9.0 |
| Flour | 21.05 | +6.2 | -2.8 |
|  | 25. 06 | -. 6 | - 0.2 |
| Slaughtering and meat packing | 20.15 21.08 | - +3.3 | -2.4 |
| Sugar refming, cane | 25.16 | +1.4 | -2.3 |
| Textiles and their products: |  |  |  |
| $\xrightarrow{\text { Carpets and rugs. }}$ | 17.79 | +..6 | +36.7 |
| Cotton goods...-. | 11. 37 | +2.3 | +22.7 |
| Cotton small war | 15.60 | +3.2 | +18.9 |
| Dyeing and finishing textiles. | 18. 42 | -1.6 | +24.1 |
| Hats, fur-felt | 19.74 | +2.1 | +19.3 |
| Knit goods. | 12.54 | -2.3 | +9.4 |
| Silk and rayon goods | 13.36 | +4.0 | +10.3 |
| Wearing apparel: ${ }^{\text {Wools and }}$ (ed goods | 16. 99 | +. 7 | +15.2 |
| Clothing, men's. | 14.57 | +12.7 | +28.8 |
| Clothing, women's | 14. 83 | +5.4 | -7.1 |
| Corsets and allied ga | 13.78 | -3.9 | +6.2 |
| Men's furnishings | 10. 65 | -5.8 | -8.2 |
| Millinery---1..- | 14.09 | -7.2 | -5.2 |
| Iron and steel and their products, not including machinery: | 9.81 | -5.0 | +5.5 |
| Bolts, nuts, washers, and rivets. | 18. 07 | -. 5 | +27.5 |
| Cast-iron pipe....-..---1.-...-- | 13.89 | +2.7 | +5. 5 |
|  | 19.32 | +4.7 +.2 | +10.7 |
| Hardware. | 15. 82 | +5.9 | +30.9 |
| Iron and steel | 19.19 | +4.7 | ${ }^{+66.2}$ |
| Plumbers' supplies | 16.00 | -11.8 | $+178$ |
| Steam and hot-water heating apparatus and steam fittings | 18. 30 | $+1.5$ | +11.8 |
| Structural and ornamental metal work | 15. 05 | +2.7 | ${ }_{-6.3}$ |
| Tin cans and other tinware- | 20.02 | +. 2 | +10.3 |
| Tools (not including edge tools, machine tools, files, and saws).- | 18. 56 | +3.8 | +34.0 |
| Machinery, not including transportation equipment: | 20.36 | +2.0 | +39.8 |
| Agricultural implements --....................... | 16.19 | -4.4 | +5.3 |
| Cash registers, adding machines, and calculating machines. | 24.96 | +1.6 | +15.3 |
| Electrical machinery, apparatus, and supplies | 20.27 | +2.7 | +13.5 |
| Engines, turbines, tractors, and water whe | 20.47 | $-1.3$ | +13.0 |
| Foundry and machine-shop products | 18. 50 | +4.6 | +19.2 |
| Machine tools--..-- | 20.08 14.76 | +2.0 | $\pm{ }_{-2.5}^{+13.5}$ |
| Textile machinery and par | 22.48 | +7.0 | +55.0 |
| Typewriters and supplies. | 16.24 | $+7.5$ | +25.0 |
| Nonferrous metals and their products: |  |  |  |
| Aluminum manufactures.. | 17.42 | -1.2 | +36.5 |
| Brass, bronze, and copper products --..-.... | 19.69 | +2.5 | +23.9 |
| Clocks and watches and time-recording devices | 15. 50 | +15.2 | +10.7 |
| Jewelry. | 17.68 | + 7 | +1.8 |
| Lighting equipment | 18. 08 | -1.7 | +2.3 |
| Silverware and plated ware...-.-.-....- | 17.97 | +1.4 | +4.2 |
| Smelting and refining-copper, lead, and zinc. | ${ }_{16.05} 20.31$ | ${ }_{-1.7}^{+5}$ | +13.1 +6.5 |
| Transportation equipment: |  |  | +6.5 |
| Afrcraft | 26.16 | -4.3 | -11.6 |
| Automobiles. | 21.74 | -6.1 | +4.7 |
| Cars, electric and steam railroad. | 15. 18 | +.8 | -14.2 |
| Locomotives. | 20.24 20.58 | +7.5 +2.2 | -5.4 |

7360-33-2

TABLI 2.-PER CAPITA WEEKLY EARNINGS IN MANUFACTURING INDUSTRIES IN JULY 1933 AND COMPARISON WITH JUNE 1933 AND JULY 1932-Continued

| Industry | Per capita weeky earnings in July 1833 | Percent of change compared with- |  |
| :---: | :---: | :---: | :---: |
|  |  | June 1933 | July 1932 |
| Railroad repair shops: |  |  |  |
| Electric railroad.- | \$24.37 | $-1.7$ | -7.2 |
| Lumber and allied products: |  |  |  |
| Furniture-- <br> Lumber: | 13. 43 | +.8 | +13.5 |
| Millwork | 14. 59 | +1.7 | -. 8 |
| Sawmills. | 12.64 | +4.5 | +5.8 |
| Turpentine and rosin. | 12.91 |  | -13.2 |
| Stone, clay, and glass products: | 12.45 |  | +3.2 |
| Cement-.................. | 17. 10 | +1.8 | $\pm 6.3$ |
| Glass. | 17.93 | $-5.5$ | +2.4 |
| Marble, granite, slate, and other products | 19.68 | +3.1 | -10.6 |
| Leather and its manufactures: | 14. 88 | -1.4 | +10.7 |
| Boots and shoes | 16. 56 | +5.3 |  |
| Leather. | 20.07 | +1.1 | +13.2 |
| Paper and printing: |  |  |  |
| Boxes, paper- | 17. 76 | +1.1 | +6.2 |
| Paper and pulp. <br> Printing and publishing: | 18.94 | +2.0 | +11.8 |
| Printing and publishing: Book and job | 25. 21 | +1.2 | -3.1 |
| Newspapers and periodicals | 30.58 | -1.1 | -10.4 |
| Chemicals and allied products: |  |  |  |
| Ohemicals.- | 24.16 | +1 | +2.6 |
| Cottonseed, oil, cake, and | 10.87 | -1.0 |  |
| Druggists' preparations. | 19.40 | -3.4 | -1.8 |
| Explosives. | 20. 99 | +3.4 | +9.2 |
| Fertilizers | 12.44 | +1.6 | -18.2 |
| Paints and varnishes | 21.64 | -4.3 | +1.6 |
| Petroleum reffining. | 26.87 | -. 1 | -4.9 |
| Rayon and allied products | ${ }^{16.51}$ | 5 | +8. 5 |
| Rubber products:------- | 21. 49 |  | -6.1 |
| Rubber boots and shoes. |  |  |  |
| Rubber goods, other than boots, shoes, tires, and inner tubes.-- | 18.85 | +2.8 | $+10.4$ |
| Rubber tires and inner tubes.......................................-- | 24.39 | +(2) | +13.1 |
| Tobacco manufactures: |  |  |  |
| Chewing and smoking tobacco and snuff Cigars and cigarettes | $\begin{aligned} & \text { 13. } 59 \\ & \text { 1. } 64 \end{aligned}$ | $+.1$ | ${ }_{-5.1}+1$ |
| Total, 89 industries. | 18.04 | ${ }^{3}+7$ | ${ }^{2}+5.3$ |

${ }^{1}$ No change. $\quad{ }^{2}$ Less than one tenth of 1 percent. ${ }^{\mathbf{z}}$ Weighted.

## General Index Numbers of Employment and Pay-Roll Totals in Manufacturing Industries

General index numbers of employment and pay-roll totals in manufacturing industries by months, from January 1926 to July 1933, together with average indexes for each of the years from 1926 to 1932, and for the 7 -month period, January to July 1933, inclusive, are shown in the following table. In computing these general indexes the index numbers of each of the separate industries are weighted according to their relative importance in the total. Following this table are two charts prepared from these general indexes showing the course of employment and pay rolls from January 1926 to July 1933, inclusive.

TABLE 3.-GENERAL INDEXES OF EMPLOYMENT AND PAY ROLLS IN MANUPAC. TURING INDUSTRIES, JANUARY 1926 TO JULY 1933
[12-month average, $1026=100]$

| Month | Employment |  |  |  |  |  |  |  | Pay rolls |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1926 | 1827 | 1928 | 1929 | 1930 | 1931 | 1932 | 1933 | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 | 1932 | 1933 |
| January. | 100.4 | 97.3 | 91.6 | 95.2 | 90.7 | 74.6 | 64.8 | 56. 6 | 98.0 | 94.8 | 89.6 | 94.5 | 88.1 | 63.7 | 48.6 | 35.8 |
| Gebruary | 101.5 | 98.0 | 93. 0 | 97.4 | 90.9 | 75.3 | 65.6 | 57.5 | 102.2 | 100.6 | 93. 9 | 101.8 | 91.3 | 68.1 | 49.6 | 36.4 |
| March. | 102.0 | 99.5 | 93.7 | 98.6 | 90.5 | 75.9 | 64. 5. | 55.1 | 103. 4 | 102.0 | 95.2 | 103.9 | 91.6 | 69.6 | 48.2 | 33.4 |
| April | 101.0 | 98. 6 | 93.3 | 99.1 | 89.9 | 75. 7 | 62.2 | 56.0 | 101.5 | 100.8 | 93.8 | 104. 6 | 90.7 | 68.5 | 44.7 | 34.9 |
| May. | 99.8 | 97. 6 | 93. 0 | 99.2 | 88.6 | 75. 2 | 59.7 | 58.7 | 99.8 | 99.8 | 94.1 | 104.8 | 88.6 | 67.7 | 42.5 | 38.9 |
| June | 99.3 | 97. 0 | 93.1 | 98.8 | 86.5 | 73. 4 | 57.5 | 62, 8 | 99.7 | 97.4 | 94.2 | 102.8 | 85.2 | 63.8 | 39.3 | 43.1 |
| July | 97.7 | 95.0 | 92.2 | 98.2 | 82.7 | 71.7 | 55.2 | 67.3 | 95.2 | 93.0 | 91. 2 | 88.2 | 77.0 | 60.3 | 36.2 | 46.5 |
| August | 98.7 | 95.1 | 93. 6 | 98.6 | 81.0 | 71.2 | 56.0 |  | 98.7 | 95.0 | 94. 2 | 102.1 | 75.0 | 59.7 | 36. 3 |  |
| Soptembe | 100.3 | 95.8 | 95. 0 | 99.3 | 80.9 | 70.9 | 58.5 |  | 99.3 | 94, 1 | 95.4 | 102.6 | 75.4 | 56.7 | 38.1 |  |
| October- | 100.7 | 95. 3 | 95. 8 | 98.4 | 79.9 | 68.9 | 59.9 |  | 102.9 | 95.2 | 99.0 | 102. 4 | 74.0 | 55.3 | 38.8 |  |
| November | 99.5 | ${ }^{93.5}$ | 95. 4 | 95.0 | 77.9 | 67.1 | 59. 4 |  | 99.6 | 91.6 | ${ }^{98.1}$ | 95. 4 | 69.6 | 52.5 | 38.6 |  |
| December | 08.9 | 92.6 | 95. 5 | 92.3 | 76.6 | 66.7 | 68.3 |  | 99.8 | 93.2 | 97.7 | 92.4 | 68.8 | 52.2 | 37.7 |  |
| Average.-- | 100.0 | 90.4 | 18.8 | 27.5 | 84.7 | 72.2 | 60.1 | 159.1 | 100.6 | 98.5 | 24.5 | 100.5 | 81.3 | 81.5 | 41.6 | 188.4 |

${ }^{1}$ Average for 7 months.

## Time Worked in Manufacturing Industries in July 1933

Reports as to working time in July were received from 13,856 establishments in 89 manufacturing industries. Three percent of these establishments were idle, 57 percent operated on a full-time basis, and 40 percent worked on a part-time schedule.
An average of 91 percent of full-time operation in July was shown by reports received from all the operating establishments included in table 4. The establishments working part time in July averaged 78 percent of full-time operation.

A number of establishments supplying data concerning plantoperating time have reported full-time operations but have qualified the hours reported with a statement that, while the plant was operating full time, the work in the establishment was being shared and the employees were not working the full-time hours operated by the plant.



TABLE 4.-PROPORTION OF FULL TIME WORKED IN MANUFACTURING INDUSTRIES BY ESTABLISHMENTS REPORTING IN JULY 1033

${ }^{1}$ Less than one half of 1 percent.

TABLR 4.-PROPORTION OF FULL TIME WORKED IN MANUFACTURING INDUSTRIES BY ESTABLISHMENTS REPORTING IN JULY 1983-Continued

| Industry | Establishments reporting- |  | Percent of establishments operating |  | A verage percent of full time reported by- |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total number | $\begin{gathered} \text { Percent } \\ \text { idle } \end{gathered}$ | Full time | Part time | All operating establishments | Establishments operating part time |
| Transportation equipment.-----.--- | 292 | 5 | 50 | 45 | 90 | 78 |
|  | 26 |  |  | 38 |  | 83 |
| Automobiles. | 134 | 6 | 46 | 48 | 80 | 80 |
| Cars, eloctric and steam railroad....... | 35 | 11 | 20 | 69 | 80 | 73 |
|  | 7 |  | 57 | 43 | 84 | 63 |
|  | 90 | 1 | 64 | 34 |  |  |
| Ralliroad repair shops.. | ${ }^{678}$ | 1 | 88 | ${ }_{38} 6$ | 88 | 81 |
| Ejlectric railroad...---...................- | $\begin{aligned} & 281 \\ & 395 \end{aligned}$ | 1 | ${ }_{21}^{62}$ | 38 78 | 94 <br> 84 <br> 8 | 87 |
| Lumber and allied products. | 1,145 | 2 | 60 | 48 | 89 | 77 |
| Furniture........-.-.........- | , 342 | 1 | 40 | 50 | 89 | 78 |
| Lamber: | 328 |  | 47 |  |  |  |
| Sawmills.-. | 456 | 2 | 53 | 45 | ${ }_{90} 8$ | 77 |
| Turpentine and rosin... | 21 | 5 | 48 | 48 | 94 |  |
| Stone, clay, and giass products. | 690 | 13 | 49 | 38 | 89 | 74 |
| Brick, tilie, and terra cotta.... | 198 | 28 | 29 | 46 | 84 | 75 |
| Cement----------...-- | 78 | 8 | 82 | 10 | 97 | 71 |
| Marbie, granite, slate, and other | 143 | 11 | 74 | 15 | 96 |  |
| products.. | 181 | 9 | 42 | 49 | 88 | 74 |
| Pottery-- | 92 | 4 | 38 | 58 |  | 73 |
| Leather and lis manufactures | 375 | 3 | 63 |  |  |  |
| Boots and shoes | 251 | 4 | ${ }_{68}^{61}$ | 35 32 | 94 | 888 |
| Faper and printing. | 1,616 |  | 57 | 42 |  |  |
| Boxes, paper..... | 259 | (1) | 49 | 51 | 90 | 80 |
| Paper and pulp | 313 | 3 | 58 | 39 | 91 |  |
| Printing and publishing: Book and job | 644 |  |  |  |  | 80 |
| Newspapers and periodicals....... | 400 | (1) | 77 | 23 | 97 | 87 |
| Chemicals and allied products.. | 817 | 2 |  |  |  |  |
| Chemicals.--.----------...- | 78 |  | 73 | 24 | 97 | 87 |
| Cottonseed, oil, cake. and meal......-- | ${ }^{59}$ | 9 | 53 | 38 | 91 | 80 |
|  | 12 |  | 17 |  | 88 | 88 |
| Fertilizers....................... | 150 |  | H | 28 | 95 | 82 |
| Paints and varnishes.......... | 302 |  | 67 | 33 | 95 | 84 |
| Petroleum reaning------.--- | 95 | 3 | 74 | ${ }_{27}^{23}$ | 97 | 88 |
|  | 85 |  |  | 36 | 99 | 84 |
| Rubber products.. | 117 | 1 |  |  |  |  |
| Rubber boots and shoes....------.-.-- | 7 |  | 43 | 57 | 93 | 88 |
| Rubber goods, other than boots, shoes, tires, and inner tubes | 81 | 1 |  |  |  |  |
| Rubber tires and inner tubes...........- | 29 |  | 55 | 45 | 93 | 82 |
| Tobaceo manufactures.-. Chewing and smoking tobaceo and | 208 | 4 | 32 | 64 | 85 | 77 |
|  | 32 |  |  |  |  | 70 |
| Cigars and cigarettes. | 176 | 3 | 29 | 68 | 85 | 77 |
| Total, 89 Industries | 13,856 | 3 | 57 | 40 | 91 | 78 |

${ }^{1}$ Less than one hall of 1 percent.

## Employment in Nonmanufacturing Industries in July 1933

INCREASED employment in July 1933, as compared with June, was reported in 12 of the 15 nonmanufacturing industries appearing in the following table. Data for the building-construction industry are not presented here but are shown in more detail under the section "Building construction." The canning and preserving industry reported the most pronounced gains in both employment and pay roll over the month interval, the increase of 37.8 percent in employment
and 25.8 percent in pay rolls indicating the usual seasonal expansion in this industry. An increased demand is indicated in the rising employment in the anthracite and bituminous coal-mining industries, the anthracite-mining industry reporting an increase of 11 percent in employment coupled with an increase of 11.5 percent in pay rolls. The bituminous coal-mining industry reported a gain of $3: 1$ percent in employment coupled with an increase of 15.1 percent in earnings. The quarrying and nonmetallic mining industry reported a gain of 4.8 percent in number of workers in July 1933, compared with June, and the metalliferous-mining industry reported an increase of 4.7 percent in employment. The crude-petroleum-producing industry reported a gain of 2.7 percent in number of employees from June to July; hotels, due largely to the opening of seasonal resort hotels, reported an increase of 2.6 percent; and the wholesale-trade industry reported an increase of 1.6 percent in number of employees over the month interval. The gains in the remaining 4 industries reporting increased employment were less than 1 percent and were as follows: Laundries and banks, brokerage, real estate, and insurance, 0.4 percent each; power and light, 0.3 percent; and electric-railroad and motor-bus operation, 0.1 percent. In the four industries in which decreases in employment were reported the retail-trade group showed a falling off in employment, which is customary at this time of year. This decline of 4.7 percent appeared largely in the department, variety, and limited-price group of establishments. The dyeing and cleaning industry reported a seasonal loss of 3.2 percent, and the telephone and telegraph industry reported a drop of 1 percent in number of employees.

In the following table are presented employment and pay-roll data for the nonmanufacturing industries surveyed, exclusive of building construction:

TABLR 1.-COMPARISON OF EMPLOYMENT AND PAY ROLLS IN NONMANUFACTURING ESTABLISHMENTS IN JULY 1933 WITH JUNE 1933 AND JULY 1932

| Industrial groups | Estab-lish-mentsreport-ing inbothJuneandJuly1033 | Employment |  |  | Pay-roll totals |  |  | Index numbers, July 1833 (average $1929=100$ ) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Numberon payroll, July1933 | Percent of change |  | Amount of pay roll (1 week), July 1933 | Percent of change |  |  |  |
|  |  |  | June to July 1933 | $\begin{gathered} \text { July } \\ \text { cu32 to } \\ \text { July } \\ \text { 1933 } \end{gathered}$ |  | $\begin{aligned} & \text { June to } \\ & \text { July } \\ & \text { I933 } \end{aligned}$ | $\left\{\begin{array}{c} \text { July } \\ 1932 \text { to } \\ \text { July } \\ \text { 1933 } \end{array}\right.$ | $\begin{aligned} & \text { Em- } \\ & \text { ploy- } \\ & \text { ment } \end{aligned}$ | $\begin{gathered} \text { Pay- } \\ \text { roll } \\ \text { totals } \end{gathered}$ |
| Coal mining: |  |  |  |  |  |  |  |  |  |
| Bituminous | 1, 471 | 191, 024 | $+{ }_{+3.1}$ | -1.6 | 2, 814,739 | +11. ${ }^{\text {+ }}$ | $+37.7$ | 43.8 63.2 | 33.6 |
| Metalliferous mining | 278 | 22,365 | +4.7 | $+11.8$ | 420, 408 | +3.7 | +12.4 | 33.0 | 19.0 |
| Quarrying and nonmetallic mining | 1,134 | 33,044 | +4.8 | (1) | 498, 991 | +3.6 | -2.4 | 49.5 | 28.4 |
| Crude-petroleum producing-- | 239 | 24, 189 | +2.7 | +7.4 | 673, 889 | +4.0 | -5.4 | 59.5 | 42.2 |
| Public utilities: ${ }_{\text {Telephone and telegraph. }}$ | 8,316 | 247, 238 | -1.0 | -13.4 | 6, 507, 178 | +. 1 | -16.2 | 68.5 | 66.7 |
| Power and light. | 3,204 | 195, 56.5 | +. 3 | -5.8 | 5, 551, 531 | +. 2 | -11.1 | 77.5 | 70.0 |
| Electric-railroad and mo-tor-bus operation and maintenance | 560 | 130, 295 | +. 1 | -8.2 | 3, 431, 484 | -1.1 | -13.6 | 69.4 | 57.4 |
| Trade: |  |  |  |  |  |  |  |  |  |
| Wholesale. | 2,924 | 75, 870 | +1.6 | + 4 | 1,982,011 | +3.3 | -8.7 | 76.9 | 59.1 |
| Retail .-.-.....---- | 17, 560 | 334, 147 | -4.7 | (1) | 6, 329,075 | -4.0 | -8.2 | 74.6 | 58.1 |
| Hotels (cash payments only)' | 2,702 | 138, 180 | +2.6 | -3.6 | 1,678, 710 | +1.8 | -13.8 | 75.6 | 53.3 |
| Canning and preserving | 874 | 65, 865 | +37.8 | +4.9 | 666,704 | +25.8 | -2.7 | 76.6 | 46.2 |
| Laundries. | 909 | 54,715 | +. 4 | -5.0 | 797, 683 | -1.2 | -15.4 | 76.3 | 56.1 |
| Dyeing and cleaning-...----- | 311 | 10, 427 | -3.2 | +. 6 | 172,823 | -6.9 | -12.0 | 82.9 | 52.8 |
| Banks, brokerage, insurance, and real estate | 4,475 | 168, 056 | ${ }^{8}+.4$ | z-. 7 | 5, 551,826 | 1 +6 | -5.4 | ${ }^{3} 97$. | 385.2 |

[^0]Per capita weekly earnings in July 1933 for 15 nonmanufacturing industries included in the Bureau's monthly trend-of-employment survey, together with the percents of change in July 1933 as compared with June 1933 and July 1932, are given in the table following. These per capita weekly earnings must not be confused with full-time weekly rates of wages; they are per capita weekly earnings computed by dividing the total amount of pay roll for the week by the total number of employees (part-time as well as full-time workers).

TABLE 2.-PER CAPITA WEEKLY EARNINGS IN 15 NONMANUFACTURING INDUSTRIES IN JULY 1933 ÁND COMPARISON WITH JUNE 1933 AND JULY 1932

| Industrial group | Per capita weekly earnings in July 1933 | Percent of change July 1933 compared with- |  |
| :---: | :---: | :---: | :---: |
|  |  | June 1933 | July 1932 |
| Coal mining: |  |  |  |
| Anthracite-- | \$25. 34 | $+0.4$ | $+12.5$ |
| Bituminous. | 13.85 | +11.7 | +27.9 |
| Metalliferous mining------------ | 18.80 | -. 9 | +. 5 |
| Quarrying and nonmetallic mining | 15.10 27.85 | -1.2 +1.2 | -2.4 -11.9 |
| Public utilities: |  |  |  |
| Telephone and telegraph. | 26.32 | +1.0 | -3.2 |
| Power and light. | 28.39 | -. 1 | -5. 5 |
| Electric-railroad and motor-bus operation a | 26.20 | -1.1 | -5.8 |
| Trade: <br> Wholesale | 26.12 | +1.6 |  |
| Retail.--- | 18.94 | +. 7 | $-8.2$ |
| Hotels (cash payments only) | 12. 33 | $-.8$ | -10.5 |
| Canning and preserving. | 10. 12 | -8.7 | -7.4 |
| Laundries. | 14.58 | -1.6 | -11.0 |
| Dyeing and cleaning | 16.57 | -3.8 | -12.5 |
| Banks, brokerage, insurance, and real estate | 32.92 | $2+1$ | -4.8 |

1 The additional value of board, room, and tips cannot be computed.
2 Weighted.

## Indexes of Employment and Pay-Roll Totals for Nonmanufacturing Industries

Index numbers of employment and pay-roll totals for 15 nonmanufacturing industries are presented in the following table. These index numbers show the variation in employment and pay rolls by months, from January 1930 to July 1933, in all nonmanufacturing industries with the exception of the laundry, dyeing and cleaning, and the banks, brokerage, insurance, and real-estate industries for which information over the entire period is not available. The Bureau has secured data concerning employment and pay rolls for the index base year 1929 from establishments in these industries and has computed index numbers for those months for which data are available from the Bureau's files. These indexes are shown in this tabulation.

[^1]TABLE 3.-INDEXES OF EMPLOYMENT AND PAY ROLLS FOR NONMANUFACTUBING INDUSTRIES, JANUARY TO DECEMBER 1930, 1931, AND 1932, AND JANUARY TO JULY 1933
[12-month average, $1929=100$ ]

| Month | Anthracite mining |  |  |  |  |  |  |  | Bituminous-coal mining |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Employment |  |  |  | Pay rolls |  |  |  | Employment |  |  |  | Pay rolls |  |  |  |
|  | 1930 | 1931 | 1932 | 1933 | 1930 | 1931 | 1932 | 1933 | 1930 | 1931 | 1932 | 1933 | 1930 | 1931 | 1932 | 1933 |
| January | 102.1 | 90.6 | 76.2 | 52.5 | 105.8 | 89.3 | 61.5 | 43.2 | 102.5 | 93.9 | 80.8 | 69.8 | 101.4 | 73.3 | 47.0 | 36.1 |
| February | 106.9 | 89.5 | 71.2 | 58.7 | 121.5 | 01.9 | 57.3 |  | 102.4 | 91.5 | 77.4 | 69.3 | 02. 1 | 68.3 | 47.0 | 37.2 |
| A pril | 84.1 | 85.2 | 70.1 | 54.6 | ${ }^{75} 0$ | 71.3 | 72.0 | 48.8 | 94.4 | 85.9 | 75. 5 | ${ }^{67.6}$ | 81.7 | 65. 6 | 43.8. | ${ }_{26.6}^{30.7}$ |
| May | 93.8 | 80.3 | 66. 9 | 43.2 | 98.8 | 76.1 | 58.0 | 30.0 | 90.4 | 82.4 | 62.6 | 61.2 | 77.5 | 54.4 | 33. | 26.9 |
| June. | 90.8 | 76.1 | 53.0 | 39.5 | 94.3 | 66.7 | 37.4 | 34.3 | 88.4 | 78.4 | 60.5 | 61.3 | 75.6 | 52.4 | 27. | 29.2 |
| July | 91.6 | 65.1 | 44.5 | 43.8 | 84.0 | 53.7 | 34.5 | 38.2 | 88.0 | 76.4 | 58.6 | 63.2 | 68.9 | 50.4 | 24, 4 | 33.6 |
| August | 80.2 | ${ }^{67.3}$ | 49.2 |  | 78.8 | 56. 4 | 41.4 |  | 89.2 | 77.0 | 59.4 |  | 71.1 | 50.6 | 26.4 |  |
| Septembe October | ${ }_{99.0}^{93.8}$ | 80.0. | 53.8. |  | 91.6 | 64.9 | 47.0 |  | ${ }_{91}^{90.5}$ | 80.4 81.3 | 67.4 |  | 74.9 | 53.6 | 30.2 37.8 |  |
| November | 97.2 | 83.5 | 62.7 |  | 98.0 | 79.5 | 51.0 |  | 92.5 | 81.1 | 69.4 |  | 79.1 | 54.6 | 38.0 |  |
| December | 99.1 | 79.8 | 62.3 |  | 100.0 | 78.4 | 56.2 |  | 92.5 | 81.2 | 70.0 |  | 77.7 | 52.3 | 37.7 |  |
| Average... | 93.4 | 80.5 | 62.5 | 14.1 | 95.3 | 75.4 | 53.7 | 141.2 | 93.4 | 83.2 | 67.4 | 65. 2 | 81.3 | 57.5 | 35.6 | 31.5 |
|  | Metalliferous mining |  |  |  |  |  |  |  | Quarrying and nonmetallic mining |  |  |  |  |  |  |  |
| January | 95.7 | 68.3 | 49.3 | 32.4 | 92.7 | 55.0 | 29.7 | 18.1 | 79.6 | 64.4 | 48.9 | 35.1 | 71.9 | 50. 4 | 30.2 | 18.1 |
| February | 92.3 | 65. 3 | 48.9 | 31.5 | 92.5 | 54.6 | 27.8 | 17.8 | 79.8 | ${ }^{66.6}$ | 47.4 | 34.8 | 73.5 | 54.4 | 29. 6 | 17.4 |
| April. | 89.3 | 63. 9 | 43.3 | 29.4 | 88.3 | 51.4 | 25. 0 | 16.4 | 87.4 | 76.1 | 48.6 | 39. 3 | 85.4 | 62.6 | 30.0 | 20.2 |
| May | 87.5 | 62.4 | 38.3 | 30.0 | 85.6 | 49.3 | 23.8 | 17.0 | 90.8 | 75.0 | 50.6 | 43.4 | 90.2 | 62.3 | 32.3 | 23.8 |
| June | 84.6 | 60.0 | 32.2 | 31.5 | 81.6 | 46.1 | 20.1 | 18.3 | 90.3 | 72.3 | 49.5 | 47.3 | 90.8 | 60.1 | 30.0 | 27.5 |
| July | 80.5 | 56.2 | 29.5 | 33.0 | 71.9 | 41.3 | 16.9 | 19.0 | 89.9 | 71.0 | 49.5 | 49.5 | 85.5 | 57.3 | 29.1 | 28.4 |
| August | 79.0 | 55.8 | 28.6 |  | 71.0 | 40.2 | 16.5 |  | 89.3 |  | 51.1 |  | 85.8 | 55.1 | 29.7 |  |
| Oetober | 78.1 | ${ }_{53}^{55 .} 8$ | 29.3 30.5 |  | 68.6 | 40.4 | 18.0 |  | 84.7 | ${ }^{64 .} 6$ | 52.4 |  | 79.3 | 51.2 <br> 48 | 30. ${ }^{30.5}$ |  |
| November | 72.8 | 52.8 | 31.9 |  | 63.4 | 35.1 | 18.7 |  | 78.3 | 59.3 | 49.4 |  | 66.8 | 43.3 | 27.1 |  |
| December | 70.1 | 51.2 | 33.3 |  | 59.9 | 34.3 | 18.7 |  | 70.2 | 53.9 | 42.3 |  | 59.9 | 36.9 | 22.1 |  |
| Average.-. | 83.2 | 59.1 | 36.5 | 31.1 | 78.0 | 44.8 | 21.6 | 17.7 | 84.3 | 67.4 | 49.0 | 140.6 | 79.3 | 53.4 | 29.1 | 121.9 |
|  | Crude-petroleum producing |  |  |  |  |  |  |  | Telephone and telegraph |  |  |  |  |  |  |  |
| January | 92.7 | 74.8 | 54.9 | 57.2 | 94.0 | 71.5 | 46.5 | 39.9 | 101.6 | 90.5 | 83.0 | 74.6 | 105.1 | 96.3 | 89.1 | 71.7 |
| Februar | 90.8 | 73. 2 | 54.4 | 57.0 | 88.6 | 70.0 | 46.9 | 41.7 | 00. 2 | 89.2 | 82.0 | 73. 9 | 101. 9 | 94.8 |  | 71.9 |
| March. | 88.3 | 72.2 69.8 | 54.9 | ${ }_{56.8}^{56.5}$ | 81. 6 | 66.3 | 43.2 | 42.5 | 99.4 | 88.6 | 81.7 |  | 103.8 | ${ }^{95.0}$ | 83. 2 | 71.6 |
| Aprin. | 89.8 | 67.8 | 54.5 | 56.9 | 85. 4 | ${ }^{64.7}$ | 47.1 | 41.6 | 99.7 | ${ }_{87.4} 8$ | 81.6 | 70.1 | 103.2 | 95. 1 | 82.8 | 67.8 |
| June. | 90.2 | 65.0 | 54.2 | 58.0 | 87:1 | 62.7 | 44.8 | 40.6 | 99.8 | 86.9 | 79.9 | 69.2 | 103.4 | 95.0 | 82.1 | 66.6 |
| July | 89.9 | 65.3 | 55.4 | 59.5 | 88.5 | 59.2 | 44.6 | 42.2 | 100.0 | 86.6 | 79.1 | 68.5 | 106. 6 | 93.3 | 79.6 | 66.7 |
| August | 87.7 | 62.4 | 57.4 |  | 86.0 | 56.3 | 42.9 |  | 98.8 | 85.9 | 78.1 |  | 102.5 | 92.3 | 79.1 |  |
| Septembe | 85.0 | 61.2 60.4 | 56.2 56.8 |  | 88.6 | ${ }_{54}^{55 .} 2$ | 42.9 |  | 96.8 <br> 94.5 <br> 8 | 85.0 | 77.4 |  | 102.2 | ${ }_{91.6}^{92.1}$ | 75.9 |  |
| November | 83.6 | 57.6 | 56.5 |  | 80.0 | 52.0 | 42.4 |  | 93.0 | 83.5 | 75.5 |  | 97.9 | 89.7 | 74.3 |  |
| December. | 77.4 | 58.2 | 57.2 |  | 77.2 | 54.9 | 41.7 |  | 91.6 | 83.1 | 74.8 |  | 101.3 | 92. | 73.5 |  |
| Average...- | 87.4 | 65.7 | 55.3 | $\stackrel{1}{57.4}$ | 85.9 | 61.7 |  | 141.2 | 97.9 | 86.6 | 79.1 |  | 102.8 | 93.7 | 81.1 | 69.3 |
|  | Power and light |  |  |  |  |  |  |  | Electric-railroad and motor-bus operation and maintenance ${ }^{2}$ |  |  |  |  |  |  |  |
| Janua |  | 99.2 | 89.3 | 77.7 | 99.7 | 98.6 | 88.4 | 73.0 | 97.1 | 86.9 | 79.5 | 70.6 | 97.8 | 85.6 |  | 60.9 |
| February | 98.8 | 97.8 | 87.2 | 77.4 ${ }^{\text {7 }}$ | 100.4 | 99.7 | 86.0 | 71.6 | 95. 1 | 86.6 | 78.9 |  | 95.7 | 87.1 |  | 60.6 |
| March <br> April | ${ }^{99} 1007$ | ${ }_{97.1}^{96.7}$ | 85. 8 | 76.91 | 102.6 | 102. 4 | 85.4 | 71.9 69.4 | 94.4 | 86. 4 | 77.6 | 69.8. | ${ }^{97.1}$ | 88. 6 | 73.6 | 59.1 |
| May | 103.4 | 97.6 | 84.0 | 76.9 | 104.5 | 98.7 | 84. 2 | 69.8 | 95. 2 | 85.9 | 76.9 | 69.1 | 96.0 | 85.1 | 72.2 | 58.2 |
| June. | 104.6 | 97.2 | 83.2 | 77.3 | 107.8 | 98.3 | 80.5 | 69.8 | 94.8 | 85.3 | 76.5 | 69.3 | 97.0 | 84.8 | 70.2 | 58.0 |
| July. | 105.9 | 96.7 | 82.3 | 77.5 | 106.7 | 97.4 | 78.7 | 70.0 | 95.3 | 85. 6 | 75.6 | 69.4 | 95.6 | 83.3 | 66.4 | 57.4 |
| August | 106.4 | 95.9 | 81.5 |  | 106.6 | 96.2 | 76. 7 |  | ${ }^{92} 9$ | 84.8 | 74.1 |  | 92.1 | 81.9 | 63.8 |  |
| September | 105.2 | 94.7 | 81.0 |  | 106. 1 | 94.3 | 74.7 |  | 91.8 | 84.0 | 73.5 |  | 90.5 | 81.2 | 62.5 |  |
| October- | 104.8 | 92.7 | 79.9 |  | 105.6 | ${ }^{93.2}$ | 74. 4 |  | 91.0 | 82.7 | 72.3 |  | 88.9 | 79.0 | 61.5 |  |
| November | 103.4 | 91.3 | 79.1 |  | 103.7 | 93.3 | 73. 2 |  | 89.3 | 81.5 | 71.8 |  | 87.7 | 79.7 | 61.7 |  |
| December. | 103.2 | 90.3 | 78.4 |  | 106.3 | 91.2 | 73.2 | $\cdots$ | 88.8 | 79. | 71 |  | 88.6 | 77. | 61.9 |  |
| Average. | 103.0 | 95.6 | 83.01 | 177.2 | 104.3 | 90.7 | 79.8 | 170.8 | 93.4 | 84.7 | 75.5 | 169.7 | 93.5 | 83.4 | 68.0 | 158.9 |

[^2] repair-shop groups, manufacturing industries, table 1.

TABLR 3.-INDEXES OF EMPLOYMENT AND PAY ROLLS FOR NONMANUFACTUBING INDUSTRIES, JANUARY TO DECEMBER 1930, 1931, AND 1932, AND JANUARY TO JULY 1933-Continued
[12-month average, $1929=100]$

| Month | Wholesale trade |  |  |  |  |  |  |  | Retail trade |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Employment |  |  |  | Pay rolls |  |  |  | Employment |  |  |  | Pay rolls |  |  |  |
|  | 1930 | 1931 | 1932 | 1933 | 1930 | 1931 | 1932 | 1933 | 1930 | 1931 | 1932 | 1933 | 1930 | 1931 | 1032 | 1023 |
| January | 100.0 | 89.5 | 81.8 | 75.3 | 100.0 | 87.5 | 74. 1 | 61.7 | 98.8 | 90.0 | 84.3 | 76.9 | 99.7 | 89.4 | 78.0 | 62.7 |
| February | 98.5 | 88.2 | 80.9 | 74. 1 | 98.3 | 88.4 | 72.5 | 58.6 | 94.4 | 87.1 | 80.5 | 73.4 | 96.0 | 86.7 | 73.7 | 58.4 |
| March. | 97.7 | 87.4 | 79.8 | 73.1 | 99.7 | 89.1 | 71.3 | 57.1 | 93.8 | 87.8 | 81.4 | 71.4 |  |  | 73.4 | 55.1 |
| April | 97.3 | 87.4 | 78.9 | 73.3 | 97. 9 | 85. 2 | 68.9 | 56.0 | 97.3 | 90.1 | 81. 6 | 78.6 | 97.5 | 88.3 | 72.7 | 60.4 |
|  | 96.8 | 87.1 | 77.9 | 74.0 | 97.4 | 84.7 | 69.7 | 57.4 | 96.7 | 89.9 | 80.8 | 77.0 | 97.3 | 88.0 | 71.1 | 59.5 |
| June- | 96.5 | 87.1 | 77.0 | 75.7 | ${ }^{98} 6$ | 88.1 | ${ }_{64}^{66 .} 7$ | 57. 59 59 | 83.9 | 83.19 | 79.4 <br> 74 | 78. 3 | ${ }_{91}^{96.8}$ | 87.6 83.3 | ${ }_{63 .}^{68 .}$ | 60.5 58.1 |
| August | 96.0 | 86.8 | 76.4 | 76.9 | ${ }^{93.6}$ | 88.1 | 64.7 <br> 63. | 59.1 | 85.6 | 81.8 | 74.6 72.6 | 74. 6 | ${ }^{91.7}$ | 83.3 80.3 | 60. 7 | 58.1 |
| September | 94.8 | 86.1 | 77.1 |  | 93.6 | 81.4 | 63.1 |  | 92.0 | 86.6 | 77.8 |  | 92.4 | 83.5 | 64.6 |  |
| October- | 94.2 | 85.2 | 77.8 |  | 92.9 | 79.9 | 63.8 |  | 95.5 | 89.8 | 81.3 |  | 95.1 | 84.6 | 67.1 |  |
| November | 92.6 | 84.1 | 77.6 |  | 91.0 | 79.7 | 63.3 |  | 98.4 | 90.9 | 81.7 |  | 96.8 | 85.4 | 86.9 |  |
| December | 92.0 | 83.7 | 77.0 |  | 91.3 | 77.8 | 62.6 |  | 115. 1 | 106. 2 | 95.2 |  | 107.7 | 94.1 | 73. |  |
| Average.-.- | 96.0 | 86.6 | 78.2 | 174. 6 | 95.9 | 83.6 | 67.0 | 158.2 | 95.9 | 89.4 | 80.8 |  | 96.2 | 86.6 | 69.4 | 159.2 |
|  | Hotels |  |  |  |  |  |  |  | Canning and preserving |  |  |  |  |  |  |  |
| January | 100. 4 | 95.0 | 83. 2 | 73.8 | 100.3 | 91.0 | 73.8 | 55.7 | 46.1 | 48.9 | 35.0 | 34.1 | 50.3 | 46.1 | 31.8 | 24.8 |
| February | 102. 4 | ${ }_{96.8}^{96.8}$ | 84.3 | 73.8 | 103.8 | ${ }_{93} 93$ | 73.8 | 55.9 | 45.7 | 48.3 | ${ }_{36}^{37.1}$ | 35.11 | 51.5 | 48.6 | 32.7 | 25.9 |
| April. | 100.1 | 95.9 | 82.7 | 71.8 | 100.3 | 89.9 | 69.6 | 51.7 | 74.8 | 59.6 | 47.0 | 49.2 | 72.6 | 57.1 | 37.0 | 33.5 |
| May | 98.0 | 92.5 | 80.1 | 71.9 | 98.4 | 87.7 | 67.0 | 51.8 | 65.7 | 56.0 | 40.5 | 45.5 | 66.9 | 56.0 | 36.0 | 31.8 |
| June | 98.0 | 91.6 | 78.0 | 73.6 | 98.1 | 85.4 | 63.8 | 52.3 | 83.0 | 70.6 | 55. 5 | 55.6 | 81.5 | 58.6 | 40.5 | 36. 7 |
| July | 101. 3 | 93.3 | 78.4 | 75.6 | 99.8 | 85.2 | 61.8 | 53.3 | 126.3 | 102.2 | 73.0 | 76.6 | 112.7 | 74.2 | 47.5 | 46.2 |
| August | 101.5 | 92.8 | 77.6 |  | 98.8 | 83.8 | 59.6 |  | 185. 7 |  | 99.0 |  | 172.0 | 104.7 | 65.6 |  |
| Septembe | 100. 1 | 90.6 | 77.0 |  | 97.1 | 81.9 | 58.1 |  | 246. 8 | 180. 1 | 125.3 |  | 14.8 | 129.4 | 75.1 |  |
| October | 97.5 | 87.4 | 75. 4 |  | ${ }_{93}^{95.5}$ | 79.7 | 58.6 |  | 164 |  |  |  | 140.0 | 77.6 | 51.8 |  |
| November | 95.2 <br> 93.5 | 84.9 83.1 | 73.2 |  | ${ }_{91.5}^{93.6}$ | 77.1 | 56.6 |  | 96.7 61.6 | 60.8 40.7 | 30. 7 |  | 82.9 57.4 | ${ }_{36}{ }^{48.1}$ | ${ }_{25}$ |  |
| Average-..- | B9. 2 | 91.7 | 79.0 | 173.3 | 98.5 | 85.4 | 64.5 |  | 103.9 | 80.9 |  | 147.0 | 96.1 | 65.6 |  | 131.9 |
|  | Laundries ${ }^{8}$ |  |  |  |  |  | Dyeing and cleaning * |  |  |  |  |  | Banks, brokerage insurance, and real estate ${ }^{8}$ |  |  |  |
|  | Employment |  |  | Pay rolls |  |  | Employment |  |  | Pay rolls |  |  | Employment |  | Pay rolls |  |
|  | 1931 | 1932 | 1933 | 1931 | 1932 | 1933 | 1931 | 1932 | 1933 | 1931 | 1932 | 1933 | 1932 | 1933 | 1932 | 1933 |
| January | 00.5 | 84.7 | 75.4 | 86.6 | 78.4 | 57.9 | 88.9 | 82.1 | 73.0 | 77.7 | 65.8 | 46.6 | 98.6 | 97.6 | 94.0 | 85.5 |
| March | 89.5 | 82.0 | 73.0 | 85.6 | 71.6 | 52.9 | 88.4 | 80.5 | 71.2 | 75.6 | 62.7 | 42.4 | ${ }_{99}{ }^{88} 1$ | ${ }_{96} 97$ | ${ }_{93}^{93.5}$ | 84.1 |
| April. | 00.5 | 82.0 | 73.4 | 86.8 | 71.4 | 54.0 | 95.7 | 83.3 | 81.1 | 86.3 | 65.9 | 54. | 98.8 | 96.3 | 92. 4 | 83.3 |
| May | 90.3 | 81.4 | 73.5 | 86.5 | 70.6 | 54.5 | 96.7 | 84.5 | 82.0 | 86.6 | 67.3 | 53.9 | 98. 2 | 96.4 | 93.2 | 83.6 |
| June. | 91.0 | 81.0 | 76.0 | 87.1 | 68.6 | 56.7 | 99.0 | 85.1 | 85.6 | 89.1 | 65.8 | 56.6 | 98.1 | 97. | 90.4 | 84.7 |
| July | 91.8 | 80.3 | 76.3 | 87.4 | 66. 3 | 56.1 | 98. 6 | 82.4 | 82.9 | 86.2 | 60.0 | 52.8 | 98.5 | 97.8 | 90.1 | 85.2 |
| August | 90.2 | 78.8 |  | 84.6 | 63.9 |  | 93.5 | 79.5 |  | 80.0 | 56.3 |  | 98.7 |  | 88.5 |  |
| September October | 88.3 | 78.6 |  | 88.1 | 62.9 |  | ${ }_{94.2}^{95}$ | 82. 3 |  | 82. 6 | 61.0 |  | 98.8 |  | 87.3 |  |
| November. | 88.2 | 76.2 |  | 78.9 | 59.1 |  | 90.1 | 78.0 |  | 74.7 | 52.3 |  | 98.2 |  | 86.0 |  |
| December.......- | 85.3 | 75.9 |  | 77.4 | 58.7 |  | 84.9 | 75. |  | 67. 5 | 48. |  | 98.0 |  | 85.7 |  |
| Average.. | 89.4 | 80.1 | 174. 6 | 84.4 | 67.0 | 155.4 | 92.7 | 81.4 | 178.1 | 80.5 | 60.5 | 149.7 | 98.5 | 187.0 | 90.1 | 184. 4 |

[^3]
## Average Man-Hours Worked and Average Hourly Earnings

IN THE following tables the Bureau presents a tabulation of manhours worked per week and average hourly earnings, based on reports supplied by identisal establishments in June and July 1933 in 15 industrial groups and 74 separate manufacturing industries. Man-hour data for the building-construction group and for the insurance, real estate, banking, and brokerage group are not available, and data for several of the 89 manufacturing industries surveyed monthly are omitted from these tables due to lack of adequate information.
The total number of establishments supplying man-hour data in these 15 industrial groups represents approximately 50 percent of the establishments supplying monthly employment data.

The tabulations are based on reports supplying actual man-hours worked and do not include nominal man-hour totals, obtained by mutiplying the total number of employees in the establishment by the plant operating time.

Table 1 shows the average hours worked per employee per week and average hourly earnings in 15 industrial groups and for all groups combined. The average hours per week and average hourly earnings for the combined total of the 15 industrial groups are weighted averages, wherein the average man-hours and average hourly earnings in each industrial group are multiplied by the total number of employees in the group in the current month and the sum of these products divided by the total number of employees in the combined 15 industrial groups.
In presenting information for the separate manufacturing industries shown in table 2 , data are published for only those industries in which the available man-hour information covers 20 percent or more of the total number of employees in the industry at the present time. The average man-hours and hourly earnings for the combined 89 manufacturing industries have been weighted in the same manner as the averages for all industrial groups combined, table 1.

TABLE R.-AVERAGE HOURS WORKED PER WEEK PER EMPLOYEE AND AVERAGE HOURLY EARNINGS IN 15 INDUSTRIAL GROUPS, JUNE AND JULY 1933.

| Industrial group | Average hours per week |  | A verage hourly earnings |  |
| :---: | :---: | :---: | :---: | :---: |
|  | June 1933 | July 1933 | June 1933 | July 1933 |
| Manufacturing | Hours 42.6 | Hours 42.5 | Cents 41.8 | Cents 42.1 |
| Coal mining: |  |  |  |  |
| Anthracite. | 30.7 | 31.3 | 81.6 | 81.8 |
| Bituminous. | 28.5 | 32.0 | 45.3 | 45.0 |
| Metalliferous mining. | 39.9 | 39.5 | 47.2 | 47.4 |
| Quarrying and nonmetallic mining | 41.2 | 41.5 | 37.6 | 37.5 |
|  | 50.4 | 50.0 | 48.8 | 48.8 |
| Public utilities: ${ }_{\text {Telephone and telegraph }}$ | 37.5 | 38.0 | 71.1 | 70.8 |
| Telephone and telegraph. | 37.5 46.0 | 38.0 44.7 | 71.1 61.9 | 70.8 63.4 |
| Electric-railroad and motor-bus operation and maintenance. Trade: | 46.5 | 46.1 | 56.5 | 56.4 |
| Wholesale.- | 47.2 | 46.6 | 53.3 | 54.8 |
| Retail. | 44.8 | 44.2 | 40.5 | 40.9 |
| Hotels.-.- | 50.5 | 50.9 | 23.1 | 22.8 |
| Canning and preserving. | 43.1 | 39.0 | 31.0 | 31.3 |
| Laundries | 42.8 | 42.4 | 33.2 | 33.1 |
|  | 47.0 | 45.7 | 37.6 | 36.8 |
| Total | 43.3 | 43.1 | 43.5 | 43.8 |

Per capita weekly earnings, computed by multiplying the average man-hours worked per week by the average hourly earnings shown in the following table, are not identical with the per capita weekly earnings appearing elsewhere in this trend-of-employment compilation, which are obtained by dividing the total weekly earnings in all establishments reporting by the total number of employees in those establishments. As already noted, the basic information upon which the average weekly man-hours and average hourly earnings are computed covers approximately 50 percent of the establishments reporting monthly employment data.

TABLE 2-AVERAGE HOURS WORKED PER WEEK PER EMPLOYEE AND AVERAGE HOURLY EARNINGS IN SELEOTED MANUFACTURING INDUSTRIES, JUNE AND JULY 1933

| Industry | Average hours per week |  | A verage hourly earnings |  |
| :---: | :---: | :---: | :---: | :---: |
|  | June 1933 | July 1933 | June 1933 | July 1933 |
| Food and kindred products: | Hours | Hours | Cents | Cents |
| Baking--- | 47.0 | 47.2 | 42.7 | 42.9 |
| Beverages | 47.7 378 | 44.8 37 | 60.0 34.6 | ${ }^{61.6}$ |
| Flour--- | 47.6 | 47.7 | 41.3 | 42.0 |
| Ice cream | 52.9 | 51.1 | 47.0 | 48.4 |
| Slaughtering and meat packing | 48.2 | 49.3 | 41.9 | 40.9 |
| Sugar, beet. -.....--- | 47.3 | ${ }^{43.6}$ | 47.9 | 52.3 |
| Textiles and their products: | 54.1 | 54.5 | 44.0 | 43.8 |
| Fabrics: |  |  |  |  |
| Carpets and rugs. | 44.3 | 44.8 | 38.7 | 37.7 |
| Cotton goods-- | 49.2 | 48.9 | 22.7 | 23.1 |
| Cotton small wares | 46.2 | 46.3 | 33.6 | 34.4 |
| Dyeing and finishing textiles | 50.4 | 49.6 | 37.0 | 36.6 |
| Knit goods | 46.7 | 45.9 | 29.5 | 29.2 |
| Silk and rayon goods. | 42.2 | 41.8 | 30.4 | 31.1 |
|  | 48.3 | 49.0 | 34.8 | 35. 2 |
| Iron and steel and their products, not including machinery: Bolts, nuts, washers, and rivets. | 40.7 | 41.2 | 42.6 | 42.4 |
| Oast-iron pipe | 29.0 | 35.8 | 45.1 | 40.0 |
| Outlery (not including silver and plated cutlery) and edge |  |  |  |  |
| toos. | 39.8 | 42.2 42.9 | 48.4 <br> 43.5 | 47.9 43.7 |
| Hardware............ | 38.0 | 40.2 | 41.1 | 40.5 |
| Iron and steel. | 37.8 | 40.0 | 48.2 | 48.3 |
| Plumbers' supplies | 43.2 | 38.1 | 43.0 | 42.3 |
| Steam and hot-water heating apparatus and steam fittings.- | 38.1 | 38.8 | 47.0 | 47.1 |
|  | 40.0 | 41.3 |  |  |
| Structural and ornamental metalwork. .-...-..-- | 35.2 | 33.6 | 41.7 | 42.4 |
| Tools (not including edge tools, machine tools, files, and saws) | 38.5 | 40.9 | 45.4 | 44.6 |
| Machinery, not including transportation equipment: |  |  |  |  |
| Agricultural implements---.--- | 36.4 | 34.5 | 45.6 | 45.8 |
| Oash registers, adding machines, and calculating machines.- | 40.6 | 39.8 | ${ }_{5}^{62.0}$ | 63.7 |
| Electrical machinery, apparatus, and supplies. | 37.9 | 38.1 | 53.1 | 53.7 |
| Engines, turbines, tractors, and water wheels. | ${ }^{37.3}$ | 37.5 | 54.2 | 54.7 |
| Foundry and machine-shop products... | 35.7 | 37.8 | 49.3 | 49.0 |
| Machine tools.. | 36.3 | 36.8 | 53.6 | 54.0 |
| Radios and phonographs | 40.9 | 35. 3 | 38.2 | 38.1 |
| Textile machinery and parts | 42.6 35.2 | 44.7 30.4 | 52.8 44.0 | 52.3 42.9 |
| Nonferrous metals and their products: |  |  |  |  |
| Aluminum manufactures.....-.... | 43.1 | 42.5 | 40.1 | 40.2 |
| Brass, bronze, and copper products | 41.5 | 42.9 | 46.1 | 45.6 |
| Clocks and watches and time-recording device | 41.5 | 43.7 | 35. 4 | 35. 5 |
| Jewelry- | 36. 6 | 38.0 | 43.8 | 43.7 |
| Silverware and plated ware- | 38.0 | 40.3 | 44.6 | 44.4 |
| Smelting and reilning-copper, lead, and zinc | 40.4 | 42.0 | 48.0 | 47.4 |
| Stamped and enameled ware. | 41.0 | 41.6 | 38.5 | 37.4 |
| Transportation equipment: | 43.4 | 44.3 | 65.4 | 65.4 |
| Automobiles. | 40.7 | 38.1 | 56.6 | 57.0 |
| Locomotives | 39.9 | 42.3 | 49.6 | 49.9 |
| Shipbuilding | 31.2 | 33.0 | 55.5 | 55.7 |
| Railroad repair shops: | 44.1 | 43.4 | 55.7 | 56.1 |
| Steam railroad. | 36.6 | 34.4 | 62.9 | 63.6 |

TABLE 2--AVERAGE HOURS WORKED PER WEEK PER EMPLOYEE AND AVERAGE HOURLY EARNINGS IN SELECTED MANUFACTURING INDUSTRIES, JUNE AND JULY 1933-Continued

| Industry | Average hours per week |  | Average hourly earnings |  |
| :---: | :---: | :---: | :---: | :---: |
|  | June 1933 | July 1933 | June 1933 | July 1933 |
| Lumber and allied products: | Hours | Hours | Cents | Cents |
| Furniture | 39.7 | 41.9 | 32.2 | 31.0 |
| Lumber: |  |  |  |  |
| Millwork. | 43.1 | 44.7 | 33.0 | 32.7 |
| Stone, clay, and glass products: | 43.5 | 44.1 | 27.1 | 27.8 |
| Brick, tile, and terra cotta | 36.7 | 37.2 | 32.0 | 32.4 |
| Cement | 38.7 | 38.1 | 40.5 | 41.9 |
| Glass | 40.9 | 39.5 | 44.7 | 44.9 |
| Marble, granite, slate, and other products | 35.7 | 36.4 | 51.8 | 52.5 |
| Pottery | 35.8 | 35.9 | 39.8 | 38.9 |
| Leather and its manufactures: Leather Paper and printing: | 47.1 | 46.3 | 40.9 | 41.7 |
| Boxes, paper | 44.6 | 45.8 | 39.9 | 39.4 |
| Paper and pulp. | 45.6 | 46.1 | 40.8 | 41.1 |
| Printing and publishing: |  |  |  |  |
| Book and job-- ----------- Newspapers and periodicals | 37.1 40.9 | 37.7 40.8 | 66.1 | 66.0 73.2 |
| Chemicals and allied products: | 40.9 | 40.8 | 73.6 | 73.2 |
| Chemicals .--..---------- | 44.5 | 44.3 | 54.2 | 54.3 |
| Cottonseed, oil, cake, and meal | 59.5 | 60.4 | 20.0 | 19.3 |
| Druggists' preparations. | 40.3 | 40.2 | 46.5 | 46.5 |
| Explosives.........- | 36. 5 | 38.3 | 54.3 | 54.5 |
| Fertilizers.- | 43.7 | 43.0 | 27.6 | 28.6 |
| Paints and varnishes | 47.6 | 44.6 | 46.9 | 47.8 |
| Petroleum refining. | 39.7 | 40.0 | 63.4 | 62.3 |
| Rayon and allied products. | 44.9 | 44.1 | 37.3 | 37.5 |
| Soap | 43.8 | 43.9 | 45.2 | 45.6 |
| Rubber products: <br> Rubber goods, other than boots, shoes, tires, and inner tubes. | 44.1 | 43.5 | 42.4 | 43.5 |
| Rubber tires and inner tubes. | 42.1 | 38.4 | 57.8 | 62.0 |
| Tobacco manufactures: <br> Chewing and smoking tobacco and snuff <br> Cigars and cigarettes. | 41.4 42.3 | 39.6 42.6 | 32.2 29.5 | 33.6 29.5 |

## Employment in Building Construction in July 1933

EMPLOYMENT in the building-construction industry decreased 0.4 percent in July as compared with June, and pay rolls decreased 0.8 percent over the month interval.

The percents of change of employment and pay-roll totals in July as compared with June are based on returns made by 10,657 firms employing in July 79,127 workers in the various trades in the buildingconstruction industry and whose combined weekly earnings during the pay period ending nearest July 15 were $\$ 1,679,130$. These reports cover building operations in various localities in 34 States and the District of Columbia.

COMPARISON OF EMPLOYMENT AND TOTAL PAY ROLL IN THE BUILDING=CONSTRUCTION INDUSTRY IN IDENTICAL FIRMS, JUNE AND JULY 15, 1933


[^4]COMPARISON OF EMPLOYMENT AND TOTAL PAY ROLL IN THE BUILDING-CONSTRUCTION INDUSTRY IN IDENTICAL FIRMS, JUNE AND JULY 15, 1933-Con.

| Locality | $\begin{aligned} & \text { Num- } \\ & \text { ber of } \\ & \text { frms } \\ & \text { report- } \\ & \text { ing } \end{aligned}$ | $\begin{gathered} \text { Number on pay } \\ \text { roll } \end{gathered}$ |  | $\begin{gathered} \text { Percent } \begin{array}{c} \text { of } \\ \text { change } \end{array} \end{gathered}$ | $\begin{aligned} & \text { Amount of pay } \\ & \text { roll } \end{aligned}$ |  | $\begin{aligned} & \text { Pereent } \\ & \text { of } \\ & \text { change } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | June 15 | July 15 |  | June 15 | July 15 |  |
| Colorado: Denver | 195 | 616 | 600 | -2.6 | \$12,067 | \$12,001 | -0.5 |
| Connecticut: |  |  |  |  |  |  |  |
| Hartford. | 205 | ${ }_{989} 88$ | ${ }_{994} 631$ | $+{ }_{+}^{+5}$ | 22,142 | 22,406 | $+1.2$ |
| New Haven | 179 | 1,054 | 959 | -9.0 | 25, 541 | 22,997 | -10.0 |
| Delaware: Wilming | 120 | 1,025 | 955 | -6.8 | 19,886 | 17,517 | -11.9 |
| District of Columbia | 519 | 8,475 | 8,593 | +1.4 | 241, 468 | 241,059 | -. 2 |
| Florida: <br> Jacksonville. | 53 | 375 | 448 | +19.5 | 5,833 | 7,278 | +24.8 |
| Miami | 75 | 639 | 778 | +21.8 | 9,861 | 11,567 | +17.3 |
| Georgia: Atlanta | 142 | 1,250 | 1,173 | -6.2 | 17,682 | 16,309 | -7.8 |
| Ilinois: Chicago ${ }^{1}$ | 124 | 1,830 | 1,190 | -38.3 | 35,997 | 29,629 | -17.7 |
| Other reporting localities | 70 | 643 | 585 | -9.0 | 13,209 | 13, 448 | +1.8 |
| Evansville | 52 | 308 | 323 | +4.9 | 4,806 | 4,760 | . 8 |
| Fort Wayne | 88 | 262 | 275 | +5.0 | 3,639 | 3,812 | +4.8 |
| Indianapolis. | 164 | 1,087 | 1,020 | -6.2 | 21,323 | 19,344 | -9.3 |
| South Bend | 37 | 117 | 131 | +12.0 | 1,914 | 2,166 | +13.2 |
| Iowa: Des Moines | 105 | 584 | 483 | -17.3 | 10,852 | 8, 315 | -23.4 |
| Kansas: Wichita. | 63 | 307 | 267 | -13.0 | 5, 056 | 4,480 | -11.4 |
| Kentucky: Louisville | 118 | 885 | 1,044 | +18.0 | 16, 104 | 16,301 | +1.2 |
| Louisiana: New Orlean | 123 | 1,159 | 1,019 | -12.1 | 18,684 | 16,303 | -12.7 |
| Maine: Portland. | 106 | 337 | 372 | -3.9 | 7,952 | 6,671 | -16. 1 |
| Massachusetts: All reporting local- $\quad 105$ |  |  |  |  |  |  |  |
| ities 1 ...-------------------- | 717 | 4,395 | 4,384 | -. 3 | 105, 854 | 106, 647 | +. 7 |
| Michigan: <br> Detroit | 466 | 3,220 | 3,721 | +15.6 | 63, 121 |  | +12.2 |
| Flint | 55 | 225 | 188 | -16.4 | 3,213 | 3,183 | +12.2 |
| Grand Rapids | 98 | 360 | 373 | +3.6 | 5,585 | 5,088 | -9.3 |
| Minnesota: |  |  |  |  |  |  |  |
|  | 51 | 291 | 324 | +11.3 | 4,091 | 4,292 | +4.9 |
| Minneapolis | 204 | 1,251 | 1,362 | +8.9 | 28,717 | 25, 109 | -6.0 |
| 8t. Paul | 162 | 837 | 847 | +1.2 | 15,281 | 17,750 | +16.3 |
| Kansas City ${ }^{2}$ | 265 | 1,382 | 1,495 | +8.2 | 28,729 | 31, 000 | +7.9 |
| St. Louis | 513 | 2,480 | 2,560 | +3.2 | 64,390 | 66, 711 | +3.6 |
| Nebraska: Omaha | 147 | 1,187 | 942 | -20.6 | 21,400 | 18,503 | -13.5 |
|  |  |  |  |  |  |  |  |
| Other reporting localities ${ }^{1}$ | 206 | 4,898 | 5,217 | +6.5 | 119, 248 | 127, 514 | +6.9 |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  | 4,480 |  |  |
| Oincinnati | 439 | 2,149 | 2,222 | +3.4 | $\begin{array}{r}4,48 \\ 47 \\ \hline 879\end{array}$ | 47, 410 | 二1.6 |
| Cleveland | 566 | 2, 656 | 2,362 | -11.1 | 63,884 | 57,774 | -9.6 |
| Dayton.... | 119 | 528 | 551 | +4.8 | 9,165 | 10, 533 | +14.9 |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Tulsa | ${ }_{58} 8$ | 235 | ${ }_{241}^{482}$ | +16.7 +2.6 | - ${ }_{3,468}$ | 7,023 |  |
| Oregon: Portland | 172 | 727 | 734 | +1.0 | 13, 633 | 13,923 | +1.5 +2.9 |
| Pennsylvania: 4 - 40.0 |  |  |  |  |  |  |  |
| Erie area ${ }^{\text {1 }}$ - | 30 | 191 | 211 | +10.5 | 2,499 | 2,396 | -4.1 |
| Philadelphia area | 525 | 4,876 | 4,901 | +. 5 | 88,468 | 88,926 | +. 5 |
| Pittsburgh area ${ }^{1}$ | 272 | 1,684 | 1,813 | +7.7 | 34, 519 | 36,319 | +5.2 |
| Reading-Lebanon area ${ }^{1}$ | ${ }^{62}$ | 277 | 299 | +7.9 | 4,525 | 4,933 | +9.0 |
| Scranton area ${ }^{1}$ - | 38 | 229 | 225 | $-1.7$ | 5,103 | 5, 071 | -. 6 |
| Other reporting areas 1 | 339 | $\stackrel{2,371}{1}$ | 2,460 | +3.8 | 40,869 | 40, 632 | $-.6$ |
|  |  |  |  |  |  |  |  |
| Chattanooga | 42 | 283 | 305 | +7.8 | 5,085 |  |  |
| Knoxville | 48 | 425 | 432 | +1.6 | 5,037 | 5,502 | +9.2 |
| Memphis. | 84 |  | 468 | $+1.7$ | 6,418 | 6, 236 | -2.8 |
|  |  |  |  |  |  |  |  |
| Dallas | 176 | 1,362 | 1,153 | -15.3 |  |  |  |
| El Paso | 27 | ${ }^{1} 161$ | ${ }^{1} 164$ | -1.3 +1.9 | 20,213 | 17,050 | -15.6 |
| Houston | 152 | 854 | 1,020 | +19.4 | 12,313 | 15, 152 | +23.1 |
| San Antonio. | 120 | 842 |  | -2.1 | 11, 161 | 10,881 | -2.5 |
| Utah: Salt Lake City | 82 | 364 | 299 | -17.9 | 5,780 | 4. 622 | -20.0 |
| ${ }^{1}$ Data supplied by cooperating State bureaus. <br> ${ }^{2}$ Includes both Kansas Clty, Mo., and Kansas City, Kans. <br> ${ }^{3}$ Includes Covington and Newport, Ky. <br> ERach soparate area includes from 2 to 8 counties. |  |  |  |  |  |  |  |

COMPARISON OF EMPLOYMENT AND TOTAL PAY ROLL IN THE BUILDING-CON. STRUCTION INDUSTRY IN IDENTICAL FIRMS, JUNE AND JULY 15, 1933-Con.

| Locality | $\begin{aligned} & \text { Num- } \\ & \text { ber of } \\ & \text { firms } \\ & \text { report- } \\ & \text { ing } \end{aligned}$ | $\begin{gathered} \text { Number on pay } \\ \text { roll } \end{gathered}$ |  | $\begin{gathered} \text { Percent } \\ \text { of } \\ \text { change } \end{gathered}$ | $\begin{aligned} & \text { Amount of pay } \\ & \text { roll } \end{aligned}$ |  | $\begin{aligned} & \text { Percent } \\ & \text { of } \\ & \text { change } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | June 15 | July 15 |  | June 15 | July 15 |  |
| Virginia: |  |  |  |  |  |  |  |
| Norfolk-Portsmouth | 87 | 969 | 910 | -6. 1 | \$15,645 | \$14,316 | -8. 5 |
|  | 146 | 863 | 898 | +4.2 | 16, 268 | 16, 236 | -. 2 |
| Seattle. | 156 | 585 | 699 | +19.5 | 10, 167 | 13,334 | +31.1 |
| Spokane | 51 | 180 | 250 | +38.9 | 2, 868 | 4,908 | +71.1 |
| Tacoma | 82 | 121 | 164 | +35.5 | 1,831 | 2,307 | +26.0 |
| West Virginia: Wheeling | 45 | 189 | 175 | -7.4 | 3,497 | 2,990 | -14.5 |
| Wisconsin: All reporting localities ${ }^{\text {1-- }}$ | 59 | 802 | 831 | -7.9 | 14, 321 | 15, 377 | +7.4 |
| Total, all localities............ | 10,657 | 79,418 | 79,127 | -. 4 | 1,691, 851 | 1, 679, 130 | -. 8 |

${ }^{1}$ Data supplied by cooperating State bureaus.

## Trend of Employment in July 1933, by States

IN THE following table are shown the fluctuations in employment and pay-roll totals in July 1933 as compared with June 1933, in certain industrial groups by States. These tabulations have been prepared from data secured directly from reporting establishments and from information supplied by cooperating State agencies. The combined total of all groups does not include building-construction data, information concerning which is published elsewhere in a separate tabulation by city and State totals. In addition to the combined total of all groups, the trend of employment and pay rolls in the manufacturing, public utility, hotel, wholesale trade, retail trade, bituminous-coal mining, crude-petroleum producing, quarrying and nonmetallic mining, metalliferous mining, laundry, and dyeing and cleaning groups is presented. In this State compilation, the totals of the telephone and telegraph, power and light, and electric-railroad operation groups have been combined and are presented as one group-public utilities. Due to the extreme seasonal fluctuations in the canning and preserving industry, and the fact that during certain months the activity in this industry in a number of States is negligible, data for this industry are not presented separately. The number of employees and the amount of weekly pay roll in June and July 1933 as reported by identical establishments in this industry are included, however, in the combined total of "All groups."

The percents of change shown in the accompanying table, unless otherwise noted, are unweighted percents of change; that is, the industries included in the groups, and the groups comprising the total of all groups, have not been weighted according to their relative importance in the combined totals.
As the anthracite-mining industry is confined entirely to the State of Pennsylvania, the changes reported in this industry in table 1, nonmanufacturing industries, are the fluctuations in this industry by State totals.

When the identity of any reporting company would be disclosed by the publication of a State total for any industrial group, figures for the group do not appear in the separate industrial-group tabulation, but are included in the State totals for "All groups." Data are not presented for any industrial group when the representation in the State covers less than three establishments.

## OOMPARISON OF EMPLOYMENT AND PAY ROLLS IN IDENTICAL ESTABLISHMENTS

 IN JUNE AND JULY 1933, BY STATES[Figures in italics are not compiled by the Burean of Labor Statistics, but are taken from reports issued by cooperating State organizations]

| State | Total, all groups |  |  |  |  | Manufacturing |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of estab-lishments | $\begin{gathered} \text { Num- } \\ \text { ber on } \\ \text { pay } \\ \text { Toll, } \\ \text { July } \\ \text { 1933 } \end{gathered}$ | Per- cent of change | Amount of pay roll (1 week) July 1933 | Per- <br> cent of change | Number of estabments | Number on pay July 1933 | Percent of change | Amount of pay roll (1 week), July 1833 | Percent of change |
| Alabama | 495 | 60, 550 | +4.8 | \$717, 200 | +11.9 | 203 | 43,656 | +6.8 | \$499, 774 | +10.8 |
| Arizona | 397 | 7,600 | -2.3 | 145, 549 | -8.1 | 57 | 1,966 |  |  | -3.8 |
| Arkansas | 2 ${ }^{1} 1480$ | ${ }_{8}^{15,467}$ | $+1.1$ | 5,585,989 | $+3.1$ | ${ }_{1,097}^{178}$ | $\stackrel{10,588}{199,167}$ | +1.6 | ${ }_{2}{ }_{7489,2925}$ | +4.0 |
| Colorado | 807 | 28, 287 | +. 5 | 572, 863 | +1.3 | 120 | 10,483 | +.1 | 209, 346 | +5. 4 |
| Connecticut | 1,099 | 148, 391 | +5.8 | 2,905, 865 | +8.9 | 642 | 127, 978 | +6.8 | 2, 376, 222 | +10.9 |
| Delaware | 131 | 11, 054 | +12.5 | 228, 976 | +10.0 | 48 | 7, 493 | +10.8 | 160, 392 | +12.6 |
| Dist, of Columbia | ${ }_{551}^{622}$ | 29, 235 | -2.5 | 669, 210 | $-3.7$ | 53 | 2,933 | -. 8 | 87,883 | $-3.0$ |
| Florida | 551 650 | 22, 200 | -2.5 +8.0 | - $\begin{array}{r}\text { 358,965 } \\ 1,102,915\end{array}$ | +2.0 +7.8 | 1206 | 13,026 80,090 | +1.4 +9.8 | 177,202 840,088 | +5.6 +10.6 |
| Idaho | 204 | 7, 356 | +9.4 | 133, 649 | +14.6 | 39 | 3,588 | +12.7 |  |  |
| Ilinois | 31,678 | 304,734 | +4.7 | 6,996, 398 | +5.2 | 1,079 | 199,445 | +6.5 | 3, 688,216 | +7.2 |
| Indiana | 1,214 | 123, 669 | +6.6 | 2, 298,589 | +4.8 | 544 | 94, 135 | +10.5 | 1,769, 551 | +7.8. |
| Iowa-.. | 1,187 | 44, 101 | +3.2 | 837, 902 | +3.8 | 435 | 25,159 | +6.4 | 470, 185 | +6.1 |
| Kansas | 4, 1,281 | 59,792 | +6.6 | 1,320, 541 | +1.1 | 487 | 28, 72\% | +3.8 | 470, 630 | +3.4 |
| Kentucky | 811 | 64, 244 | +6.0 | 992, 288 | +7.8 | 197 | 26, 215 | +9.9 | 431, 824 | +7.6 |
| Louisiana | 469 | 30,754 | +5.1 | 455, 812 | +6.2 | 208 | 20,145 | +10.0 | 271, 496 | +10.92 |
| Maine. | 548 | 46, 639 | +8.5 | 800, 256 | +11.4 | 178 | 39,056 | +7.8 | 662,927 | +13.7 |
| Maryland | 3886 | 82, 084 | +6.6 | 1, 669, 267 | +7.1 | 466 | 58, 012 | +11.1 | 1,071, 596 | 5 +18.9 +18.7 |
| Massachusetts | 6 8,088 | 360, 058 | +4.2 | 7, 400,874 | +5.7 | 1,148 | 187, 059 | +9.7 | 3, 445,186 | +12.7 |
| Michigan. | 1,597 | 279, 603 | +9.8 | 8, 987, 378 | +4.9 | 432 | 288, 589 | +11.2 | 5,040,785 | +2.s |
| Minnesota | 1,027 | 62, 670 | +4.6 | 1, 271, 605 | +3.4 | 267 | 29, 851 | +6.8 | 583, | +5.0 |
| Mississippi | 1, 195 | -8, 113,684 | +6.1 +2.9 | 2, ${ }^{110} 56,76898$ | +3.9 +2.0 | 70 | 5,880 65,728 | + +8.4 | 60, 113 | $+3.9$ |
| Montan | ${ }^{1} 345$ | 8, 927 | $+7.0$ | 2, 212, 503 | +7.9 | 46 | 2,523 | +7.2 | 1, 50,881 | +3.8 +3.0 |
| Nebraska. | 720 | 21, 630 | -. 5 | 453, 095 | +1.3 | 123 | 10, 699 | +2.4 | 222, 297 | +4.2 |
| Nevada. | 136 | 1,469 | +8.1 | 35, 264 | +6.7 | 22 | 286 | +9.6 | 7, 267 | +14.0 |
| New Hampshire. | 503 | 39, 192 | +7.2 | 639, 211 | +10.2 | 185 | 34, 673 | +7.3 | 538,193 | +10.6 |
| Now Jersey- | 1,539 | 195, 002 | +4.2 | 4, 239, 153 | +2.7 | ${ }^{7} 878$ | 170, 486 | +4.5 | 3, 596,488 | +4.5 |
| New Mexico. | 194 | 4,916 | +4.4 | 78, 946 | +6.0 | 26 | 790 | +25.4 | 13, 228 | +44. 4 |
| New York. | 7,991 | 526, 007 | +2.1 | 12, 545, 813 | +2.7 | 81,710 | 386, 780 | +4.5 | 7,309, 486 | +6.5 |
| North Carolina | 888 | 133, 905 | +0.9 | 1,573, 352 | +10.8 | 528 | 128, 906 | +10.3 | 1, 488, 484 | +11.4 |
| North Dakota. | 354 | 3,969 | +2.9 | -80,053 | +1.5 | +60 | 1, 095 | +6.8 | 6, ${ }^{23,1888}$ | +4.9 |
| Ohio | 4, 911 | 409, 608 | +6.5 | 8, 148, 813 | +7.1 | 1,900 | 306, 216 | +8.6 | 6, 111, 668 | +9.8 |
| Oxiahom | 698 | 26, 987 | +2.2 | 528, 751 | +2.0 | 134 | 10,565 | +5.6 | 191, 783 | +5.2 |
| Oregon | 653 | 30, 848 | +15.9 | 551, 585 | +12.0 | 145 | 18, 357 | +7.7 | 274, 708 | +9.2 |
| Pennsylvania | 5, 134 | 602, 948 | +4.2 | 11, 278,925 | +6.5 | 1,781 | S46, 577 | +4, 8 | 5, 788, 189 | +7.5 |
| Rhode Island. <br> South Carolina | 903 | 63,812 6097 508 | +5.6 | 1, 199, 958 | +7.1 +10.1 | 259 179 | 51,940 57,826 | +6.9 +7.3 | -918, 883 | +9.4 +11.6 |
| South Dakota | 257 | 5,698 | +3.2 | 135, 367 | +4.7 | 47 | 2,009 | +1.8 | 38,772 | +7.5 |
| Tennossee | 742 | 68,774 |  | 949, 081 | +5.9 | 264 | 52,154 | +8.3 | 679, 320 | +7.6 |
| Texas | 821 | 64,489 | +2.6 | 1,405,724 | +1.3 | 397 | 57, 678 | +4.1 | 767,418 | +8.4 |
| Utah | 281 | 13, 892 | +16.4 | 239, 265 | +7.1 | 83 | 4,161 | +. 9 | 81, 336 | +5.9 |
| Vermont. | 377 | 10, 542 | +6. 5 | 201, 879 | +7.2 | 116 | 5,933 | +9.3 | 113, 490 | +12.8 |
| Virginia. | 1,278 | 85, 887 | +4.5 | 1, 314, 039 | +4.6 | 419 | 60,753 | +5.8 | 878, 472 | +5. 4 |
| Washington | 1,140 | 51, 119 | +6.3 | 1, 009,390 | +5.2 | 239 | 25, 351 |  | 471, 072 | +8.5 |
| West Virgin |  | 97, 557 | +5.0 | 1, 627, 034 | +8.6 | 173 | 37, 783 | +8.5 | 685, 728 | +1.7 |
| Wisconsin. | -1,098 | 148, 8727 | +7.1 | 2, 459, 498 | +6.1 | 777 | 116, 184 | ${ }^{5}+7.8$ | 1,908, 898 | ${ }^{6}+6.8$ |
| W yoming | 196 | 5, 428 | -1.5 | 122, 204 | +. 5 | 26 | 1,275 | +2.7 | 34, 413 | +3.3 |

[^5]COMPARISON OF EMPLOYMENT AND PAY ROLLS IN IDENTICAL ESTABLIREMENTS IN JUNE AND JULY 1933, BY STATES-Continued
[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

| State | Wholesale trade |  |  |  |  | Retail trade |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of estab-lishments | Number on pay July 1933 | $\begin{gathered} \text { Per- } \\ \text { cent of } \\ \text { change } \end{gathered}$ | Amount of pay roll week), July 1933 | Percent of change | Number of estabments | $\begin{aligned} & \text { Num- } \\ & \text { ber on } \\ & \text { pay } \\ & \text { roll, } \\ & \text { July } \\ & \text { 1933 } \end{aligned}$ | $\left.\begin{gathered} \text { Per- } \\ \text { cent of } \\ \text { change } \end{gathered} \right\rvert\,$ | Amount of pay roll (1 week), July 1933 | $\left\lvert\, \begin{gathered} \text { Per- } \\ \text { cent of } \\ \text { change } \end{gathered}\right.$ |
| Alabama | 15 | 550 | -0.4 | \$14,778 | +17.1 | 60 | 1,827 | $-3.3$ | \$27, 063 | -3.0 |
| Arizona. | 20 | 170 | +. 6 | 4,383 | +.8 | 173 | 1,347 | -8.2 | 22, 509 | -7.6 |
| Arkansas. | 185 | ${ }_{5}^{410}$ | +. ${ }^{2}$ | \% ${ }^{9}, 188$ |  | 130 | 1, 1.588 | -. 6 | 21, 708 | -1.3 |
| California | 105 | 5,046 | $+8$ | 18981818 | +2.4 | 184 | 21,512 | -2.6 | 439,080 | -1.9 |
| Colorado.. | 27 | 910 | +.7 | 25, 307 | +3.2 | 274 | 3,835 | -4.3 | 74,594 | -2.8 |
| Connecticut | 59 | 1,286 | +1.8 | 34,798 | +. 5 | 117 | 4,909 | -. 7 | 03, 558 | $+{ }^{10}$ |
| Delaware | 7 | 108 | +1.9 | 2,294 | +8.6 | 9 | 197 | +52.7 | 2,438 | +15.6 |
| Dist. of Columbia- | 31 | 405 | $-1.7$ | 11,887 | $-1.5$ | 404 | 10, 394 | -4.2 | 204, 667 | $-6.3$ |
| Florida. | 49 | 750 | +1.1 | 17,340 | +1.1 | 73 | 1,120 | +7.7 | 19,721 | +3.9 |
| Georgia. | 32 | 440 | +1.4 | 12,740 | +6.5 | 28 | 1,868 | -5.9 | 28, 613 | -4.3 |
| Idaho | 8 | 112 | +. 9 | 3,080 | +3.7 | 50 | 353 | +4. 1 | 6, 439 | +2.5 |
| Illinois | 34 | 1,950 | +. 9 | 45,240 | +1.0 | 134 | 20, 117 | -. 6 | 481, 134 | +. 8 |
| Indiana | 54 | 1,074 | +2.8 | 26, 055 | +3.3 | 174 | 5,684 | -6.1 | 80,711 | -6. 7 |
| Iowa... | 32 | 1,032 |  | 25, 459 | +4.8 | 126 | 2,945 | -4.7 | 46,780 | -8.4 |
| Kansas. | 76 | 1,775 | -. 5 | 43, 188 | +1.1 | 416 | 5, 255 | -2.5 | 98,482 | +1.6 |
| Kentucky | 22 | 348 | (ii) | 7,369 | - 1 | 27 | 1,609 | -5.5 | 24, 163 | -6.2 |
| Louisiana | $\stackrel{30}{7}$ | 679 | +1.5 | 14, 316 | +1.7 | 21 | 2, 562 | $-1.2$ | 35, 072 | -3.2 |
| Maine. | 17 | 441 | +7.0 | 10, 307 | +5.9 | 71 | 885 | -. 7 | 16,307 | +3.1 |
| Maryland | 58. | 787 | $-1.2$ | 16,880 | +4.9 | 98 | 5, 39\% | -9.9 | 84, 161 | -8.4 |
| Massachusetts | 711 | 14,208 | +1.2 | 574,883 | +2.2 | 4,206 | 58, 780 | -s. 1 | 1,158, 498 | -. 8 |
| Michigan. | 59 | 1,481 | +1.3 | 37, 296 | +2.4 | 161 | 9,477 | -6.4 | 170, 759 | -. 2 |
| Minnesota | 59 | 3,979 | +6.2 | 105, 010 | +5.6 | 248 | 6, 594 | -10.8 | 110, 074 | -10.7 |
| Mississippi | 4 | 109 | +1.9 | 2, 103 | +6.2 | 47 | 344 | . 6 | 3,416 | +2.1 |
| Missouri.. | 52 | 4, 270 | +1.4 | 104, 373 | +2.4 | 129 | 8,212 | -7.5 | 148, 346 | -5.6 |
| Montana | 15 | 239 | +3.5 | 6, 628 | +2.9 | 81 | 748 | +2.0 | 15,969 | +2.4 |
| Nebraska. | 36 | 917 | +1 | 24, 085 | +2.0 | 186 | 1,565 | $-4.0$ | 28, 2585 | -3.6 |
| Nevada-..---...-- | ${ }^{6}$ | 85 | +1.2 +10 |  | +7.2 |  |  | $\pm+2.6$ |  | $+3.9$ |
| New Hampshire.- | 18 24 | ${ }_{571}^{207}$ | +10.1 $+\quad .5$ | -5,109 | ${ }^{+5.1}$ | 71 408 | 741 6,683 | $-8.7$ | 142, 1873 | +3.0 -7.7 |
| New Mexico....-- | ${ }_{8}^{24}$ | ${ }_{86} 5$ | -3.4 | 16,350 3,122 | $-1.2$ | ${ }_{53}$ | 6,683 259 | +6.5 | 142, 5 [55 | +1.3 |
| New York. | 399 | 10,705 | +1.4 | 325, 405 | +1.8 | 3,900 | 58,815 | -9.3 | 1, 198, 394 | -8.7 |
| North Carolina | 16 |  | -3.8 | 5, 302 | +. 3 | 159 |  | -2.0 | 10,457 | -1.5 |
| North Dakota. | 14 | 199 | +8.2 | 5, 610 | +10.5 | 34 | 394 | -7.1 | 6, 184 | -3.9 |
| Ohio....... | 227 | 4,739 | +1.0 | 118, 173. | +4.9 | 1, 555 | 31,712 | +.9 | 541, 494 | -3.2 |
| Oklahoma | 59 | 886 | +1.1 | 21, 026 | +1.4 | 65 | 1,396 | 7 | 21, 420 | -4.5 |
| Oregon. | 46 | 1,005 | +6.1 | 26,307 | +3.5 | 168 | 2, 034 | -1.0 | 39,392 | +. 5 |
| Pennsylvania | 127 | 3,520 | 5 | 92,601 | +1.8 | 326 | 24, 689 | -4.5 | 455, 584 | -4.8 |
| Rhode Island. | 42 | 964 | 3 | 22, 665 | +1.6 | 487 | 4,574 | -1.4 | 92, 959 | +.8 |
| South Carolina. | 13 | 168 | -. 6 | 4, 087 | -2.0 | 14 | 387 | -2.5 | 3,580 | -1.5 |
| South Dakota | $\theta$ | 120 | +4.3 | 3,067 | +5.2 | 7 | 40 | -11.1 | 572 | -0.5 |
| Tennessee. | 33 | ${ }^{691}$ | +5. 2 | 14,829 | +0.4 | 51 | 3,035 | -6.3 | 44, 747 | +5.6 |
| Texas | 148 | 2, 868 | +.7 | 70, 388 | +1.4 | 71 | 6, 856 | -4.8 | 28, 887 | -6.8 |
| Utah | 14 | 469 | +3.8 | 11,855 | +14.1 | 17 | 427 | -2. 1 | 5,777 | +5.1 |
| Vermont. | 5 | 114 | -4.2 | 2,654 | -4.8 | 34 | 408 | $+2.3$ | 5,625 | +1.4 |
| Virginia..........-- | 43 | 955 | +. 7 | 23, 265 | +2.7 | 473 | 4,417 | +1.4 | 81, 041 | +3.9 |
| Washington....... | 81 | 2,025 | -1.1 | 51, 234 | + 7 | 412 | 5,691 | -2.9 | 105, 454 | -2.2 |
| West Virginia | 29 | 607 | +4.1 | 15, 411 | +3.9 | 48 | 830 | -2.5 | 13,470 | -1.1 |
| Wisconsin.-- | 46 | 1,780 | $+1.6$ | 39,499 | +3.7 | 51 | 8,725 | $-\left({ }^{10}\right)$ | 121,941 | -. 5 |
| W yoming--..----- | 9 | 58 | (11) | 1,708 | +5.6 | 41 | 209 | +3.0 | 4,827 | +3.8 |

20 Less than one tenth of 1 per cent.
${ }^{11}$ No change.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN IDENTICAL ESTABLISHMENTS IN JUNE AND JULY 1833, BY STATES-Continued
[Figures in italics are not complied by the Bureau of Labor Statisties, but are taken from reports issued by cooperating State organizations]


[^6]COMPARISON OF EMPLOYMENT AND PAY ROLLS IN IDENTICAL ESTABLISHMENTS IN JUNE AND JULY 1933, BY STATES-Continued
[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

${ }^{11}$ No change.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN IDENTICAL ESTABLISHMENTS IN JUNE AND JULY 1983, BY STATES-Continued
[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

| State | Public utilities |  |  |  |  | Hotels |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of estab-lishments | Number on pay July 1933 | Percent of change | Amount of pay Toll 1 week) July 1933 | $\left\|\begin{array}{c} \text { Per- } \\ \text { cent of } \\ \text { change } \end{array}\right\|$ | $\left\lvert\, \begin{aligned} & \text { Num- } \\ & \text { ber of } \\ & \text { estab- } \\ & \text { lish- } \\ & \text { ments } \end{aligned}\right.$ | Number on pay roll, 1933 | Percent of change | Amount of pay roll (1 week), July 1933 | Percent of change |
| Alabama | 80 | 1,702 | -1.0 | \$34, 124 | +0.9 | 24 | 1,107 | -1.9 | \$8, 805 | -5. 5 |
| Arizona- | ${ }^{67}$ | 1,215 | +2.8 | 29,895 | +1.3 | 17 | 364 | -6. 2 | 5,480 | $+1.6$ |
| Arkansas | 58 | 1,678 |  | 39, 957 | +2.3 | 12 |  | -5.1 | 4,001 | -5.2 |
| California | 47 | 48, 266 | -. 1 | 1,159, 730 | +2.2 | 208 | 8,966 | -2. 2 | 138, 480 | -1.7 |
| Colorado. | 196 | 5,184 | -. 2 | 130, 237 | +. | 65 | 1,520 | +4.4 | 20,000 | +7.4 |
| Connecticut... | 135 | 9,312 | -. 3 | 286, 015 | +2.3 | 30 | 1,163 | +3.7 | 14, 559 | +1.7 |
| Delaware- | 28 | 1,056 | -. 3 | 30, 052 | +4.4 | 6 | 256 | +1.6 | 3,243 | +8.8 |
| Dist. of Columbia | 22 | 8,090 | + 8 | 228, 057 |  | 49 | 3,543 | $-6.3$ | 48,685 | -8.9 |
| Florida- | 184 | 3, 834 | $-1.1$ | 100, 880 | +3.4 | 59 | ${ }_{98}^{984}$ | -6.9 | 81840 | -13.3 |
| Georgia | 186 | 6,289 | -1.8 | 173, 643 | $+1.0$ | 28 | 1,373 | +2.7 | 10,239 | -2.6 |
| Idaho | ${ }_{7}^{55}$ | 653 | +2.8 | 12,873 | +4.8 | 23 | 32 | -. 6 | 3, 697 | $+8$ |
| Illinois. | 77 | 66, 668 | +. 7 | 1, 809, 649 | +1.8 | ${ }^{12} 46$ | 10, 868 | +8.4 | 160, 408 | +11.1 |
| Indiana | 133 | 8,706 | +. 1 | 201, 514 | $-1.4$ | 79 | ${ }^{2}, 896$ | $-1.2$ | 28, 512 | $-1.5$ |
| Iowa-. | ${ }_{87}^{423}$ | 9,375 4,801 | +2.0 | 204, 427 | +3.0 | 74 | 2, 2360 | - -1.8 | 20,332 6,374 | -4.8 |
| Kentucky | 293 | 6, 153 | -. 3 | 138, 786 | -. 8 | 35 | 1,601 | +1.5 | 15, 055 | -6.0 |
| Louisiana | 150 | 4,107 | -. 7 | 90, 271 | +1.7 | 23 | 1,764 | -3.9 | 17,701 | -4.2 |
| Maine. | 166 | 2,419 | -9.4 | 66,950 | -8. | 33 | 1,491 | +61.7 | 15,958 | +60.8 |
| Maryland | 94 | 12,287 | -. 2 | 324, 516 | -1.8 | 22 | 1,063 | -8.8 | 12,810 | -9.4 |
| Massachuse | ${ }^{13} 134$ | 44,667 | +. 7 | 1,239, 892 | +1.4 | 84 | 3,251 | -1.6 | 45,480 | -3.0 |
| Michigan. | 413 | 20,083 | -1.3 | 556, 341 | -3.2 | 107 | 4,693 | -2.1 | 48,591 | +2.4 |
| Minnesota | 225 | 11,734 | +1.1 | 300, 359 | -. 8 | 76 | 3,099 | $+6.0$ | 34, 557 | $+6.7$ |
| Mississippi | 190 | 1, 626 | +.9 | 32,485 | +3.8 | 19 | 537 | +1.9 | 3,773 | +2.3 |
| Missouri. | 187 | 18, 937 | - ${ }^{10}$ | 475,507 | -4.2 | 95 | 4,607 | $-1.0$ | 53, 448 | +. 4 |
| Montana | 100 | 1,764 | +. 1 | 50, 698 | +3.4 | 28 | 413 | +2.2 | 5,711 | +4.4 |
| Nebraska. | 299 | 5,521 | +. 7 | 135, 443 | +1.8 | 43 | 1,456 | -4.5 | 13, 742 | -4.8 |
| Nevada. | 37 | 377 | +. 3 | 10, 170 | -2.8 | 14 | 213 | +40.1 | 3,460 | +38.5 |
| New Hampshire. | 140 | 2,075 | -2.6 | 59, 295 | +4.9 | 22 | 623 | +118.6 | 6, 328 | +124.2 |
| New Jersey | 265 | 21, 120 | $+5$ | 595, 278 |  | 85 | 5,816 | +37.5 | 64, 601 | +31. 4 |
| New Mexico. | 49 | 519 | +8.1 | 10, 226 | +3. | 16 | 334 | -. 3 | 3, 400 | -. 2 |
| New York | 881 | 96, 408 | -. 2 | 2, 998, 990 | -. 6 | 278 | 29,675 | +2.6 | 436, 828 | $+.6$ |
| North Carolina. | ${ }^{96}$ | 1,683 |  | 36, 148 | +8.7 | 33 | 1,113 | + 3 | 9,632 | +.6 |
| North Dakota | 171 | 1,177 | +3.1 | 27,973 | +1.5 | 24 | 402 | +3.6 | 3, 932 | $\underline{+2.8}$ |
| Ohio | 488 | 31, 011 | -1.2 | 789, 824 | -. 7 | 153 | 8, 695 | +. 3 | 101, 464 | -1.6 |
| Oklahoma. | 245 | 5,763 | -. 3 | 120, 000 | -2.4 | 49 | 1,027 | -8.1 | 10,086 | -6.9 |
| Oregon. | 183 | 5,472 | -. 4 | 130, 486 | +. 6 | 58 | 1,102 | +2.4 | 13, 338 | +. 3 |
| Pennsylvania | 815 | 64, 475 | - 7 | 1,362, 5 56 |  | 183 | 9, 357 | -1.9 | 108, 982 | -4.3 |
| Rhode Island- | 42 | 3,316 | -1.8 | 93, 733 | -2.4 | 19 | 562 | +44.8 | 6, 853 | +34. 1 |
| South Carolina | 70 | 1,606 | -4.5 | 30, 369 | -9.1 | 13 | 387 | -1.8 | 2, 651 | -5. 5 |
| South Dakota | 129 | 929 | +1.2 | 23, 367 | +2.3 | 20 | 317 | -2.5 | 3, 537 | -2.7 |
| Tennessee.. | 244 | 4,176 | +. 2 | 91, 716 | +1.5 | 40 | 2,195 | +. 7 | 18, 447 | +. 1 |
| Texas. | 138 | 6, 636 | +2.4 | 171, 508 | +1.0 | 43 | 2,836 | -9.4 | 38, 467 | +. ${ }_{5}$ |
| Utah | ${ }^{68}$ | 1,766 | +8.1 | 36, 122 | +4.4 | ${ }_{27}$ | 696 | +24.5 | 5,454 | +2.5 |
| Virginia | 178 | 5,557 | $-.2$ | 132, 446 | +2.5 | 34 | 1,842 | -1.2 | 19,021 | -1.8 |
| Washington | 200 | 9,495 |  | 247, 766 | +2.8 | 88 | 2,413 | -1.4 | 26, 322 | +. 5 |
| West Virginia | 120 | 5,521 | +1.2 | 139, 792 | +1.3 | 39 | 1,054 | -1.3 | 11, 066 | -1.1 |
| Wisconsin.- | ${ }^{14} 48$ | 10,291 | +8.7 | 279, 118 | +8.9 | ${ }^{12} 45$ | 1,369 | -. 7 | (15) |  |
| Wyoming.-. | 48 | 418 | +1.5 | 10,037 | +1.3 | 14 | 167 | -. 6 | 2, 242 | +. 8 |

10 Less than one tenth of 1 percent.
12 Includes restaurants.
${ }^{13}$ Includes steam railroads.
${ }^{14}$ Includes railways and express.
15 Data not supplied.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN IDENTICAL ESTABLISHMENTS IN JUNE AND JULY 1933, BY STATES-Continued
[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]


COMPARISON OF EMPLOYMENT AND PAY ROLLS IN IDENTICAL ESTABLISHMENTS IN JUNE AND JULY 1933, BY STATES-Continued
[Figures in italics are not complled by the Burean of Labor Statistics, but are taken from reports issued by cooperating State organizations]

| State | Banks, brokerage, insurance, and real estate |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of establishments | $\begin{gathered} \text { Number } \\ \text { on pay rou, } \\ \text { July } 1933 \end{gathered}$ | Percent of change | Amount of pay roll (1 week), July 1933 | Percent of change |
| Alabama. | 16 | 341 | +0.3 | \$9,122 | -1.9 |
| Arizona. | 27 | 183 | -3.7 | 4,827 | -9.5 |
| Arkansas | 17 | 224 | -3.4 | 5,403 | -4.0 |
| California | 1,113 | 23,005 | $+.6$ | 767,041 | +.8 |
| Colorado. | 28 | 1, 046 | +. 5 | 35, 803 | +2.6 |
| Oonnecticut | 58 | 2, 036 | $+.5$ | 72, 517 | -. 7 |
| District of Oolumbia | 15 40 | 568 1.318 | +7 +1.2 | 19,673 | $+1$ |
| Florida............... | 17 | 1,515 | +1.2 +.2 | 48, 17.577 | -1.8 |
| Georgia. | 24 | 647 | -. 9 | 21, 276 | +.1 |
| Idaho.. | 16 | 138 | +3.0 | 3,462 | +1.7 |
| Lrinois. | 95 | 10,259 | -2.5 | 358, 485 | -2.4 |
| Indiana | 39 | 1, 194 | +1.0 | 39,785 | -. 7 |
| Iowa | 19 | 1,151 | +1.3 | 37, 466 | +. 6 |
| Kansas.- | 28 | 767 | -1.5 | 22,630 | -2.2 |
| Kentucky. | 19 | 843 | -. 4 | 29,601 | +. 1 |
| Louisiana | 9 | 375 | $-{ }^{-1}$ | 13,597 | $-3.1$ |
| Maine--- | 13 | 182 | +1.1 +1.8 | 4,453 31,846 | -1.7 |
| Massachusette. | 210 | 6,078 | +.8 | 188,859 | +. 7 |
| Michigan. | 137 | 4, 129 | -4.8 | 132, 560 | -4. 5 |
| Minnesota | 52 | 2,838 | +4.6 | 80,425 | +5.7 |
| Mississipp | 16 | 170 | -4.0 | 3,946 | +1.3 |
| Missouri-- | ${ }_{20}^{82}$ | 4,717 | + | 141,889 | -3. ${ }^{+}$ |
| Nebraska | 13 | 488 | +. 2 | 17, 410 | -1.3 |
| Nevada... |  |  |  |  |  |
| New Hampshire. | 39 | 471 | +. 4 | 11, 678 | +. 6 |
| New Jersey-- | 104 | 12, 190 | (ii) ${ }^{+.2}$ | 348,593 2,063 | -1.6 |
| New York | 720 | 49,689 |  |  |  |
| North Carolina | 29 | 523 | +1.0 | 13, 200 | +.8 |
| North Dakota | 35 | ${ }^{243}$ | +3.8 | 6,202 | +4.0 |
| Ohio | 200 | 5,635 | -2.4 | 191, 402 | -1.2 |
| Oklahoma | 20 | 609 | -1.1 | 18, 808 | -1.2 |
| Oregon | 13 | 715 | +9.3 | 24, 872 | +32.6 |
| Pennsylvania | 809 | 2s, 764 | +.6 | 715.300 | +1.3 |
| Rhode Island. South Carolina | 29 9 | 1,006 | (11) ${ }^{+}$ | 40, 643 | +3.2 |
| South Dakota. | 31 | 240 | (1). 4 | 5,742 | $\pm 2.2$ |
| Tennessee. | 31 | 1,088 | -9.0 | 37,794 | -5. 2 |
| Texas | 22 | 1,274 | + 1 | 33, 896 | - 4 |
| Utah. | 14 | 449 | +1.1 | 15, 772 | +. 6 |
| Vermont | 29 | 220 | +1.9 | 6,349 | +4.0 |
| Virginia | 32 | 1,314 | +1.9 | 41, 444 | -. 1 |
| Washington. | 30 | 1,306 |  | 42,340 | -. 2 |
| West Virginia | 44 | 654 | -2.7 | 19,474 | -. 7 |
| Wisconsin.. | 17 | 915 | +4.7 | 30, 920 | $+{ }^{5}$ |
| Wyoming... | 10 | 9 | +4.7 | 2,721 | +6.3 |

[^7]
## Employment and Pay Roll in July 1933 in Cities of Over 500,000 Population

IN THE following table are presented the fluctuations in employment and pay-roll totals in July 1933 as compared with June 1933 in 13 cities of the United States having a population of 500,000 or over. These changes are computed from reports received from identical establishments in each of the months considered.

In addition to including reports received from establishments in the several industrial groups regularly covered in the Bureau's survey, excluding building construction, reports have also been secured from other establishments in these cities for inclusion in these totals. Information concerning employment in building construction is not available for all cities at this time and therefore has not been included.

FLUCTUATIONS IN EMPLOYMENT AND PAY ROLL IN JULY 1933 AS COMPARED WITH JUNE 1933

| Cities | Number of establishments reporting in both months | Number on pay roll |  | Percent of change | Amount of pay roll ( 1 week) |  | $\begin{aligned} & \text { Percent } \\ & \text { of } \\ & \text { change } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { June } \\ & 1933 \end{aligned}$ | $\begin{aligned} & \text { JuIy } \\ & 1933 \end{aligned}$ |  | $\begin{aligned} & \text { June } \\ & 1983 \end{aligned}$ | $\begin{aligned} & \text { July } \\ & 1933 \end{aligned}$ |  |
| New York City | 5,190 | 309, 716 | 303, 188 | -2. 1 | \$8, 121, 275 | \$8, 065, 567 | $-0.7$ |
| Chicago, Ill | 1,800 | 194, 134 | 201, 176 | +3.6 | 4, 557, 441 | 4, 766, 927 | +4.6 |
| Philadelphia, $\mathbf{P a}$ | 862 | 129, 893 | 134, 746 | +3.7 | 2,780,926 | 2, 865, 928 | +3.1 |
| Detroit, Mich | 553 | 165, 117 | 180,946 | +9.6 | 3, 840, 981 | 4,062, 632 | +5.8 |
| Los Angeles, Cal | 857 | 62,543 | 63,924 | +2.2 | 1, 470, 505 | 1, 508, 693 | +2.6 |
| Cleveland, Ohio | 1, 051 | 86, 147 | 88, 714 | +3.0 | 1, 755, 511 | 1, 801, 879 | +2.6 |
| St. Louis, Mo- | 502 | 66, 330 | 68, 762 | +3.7 | 1,402,578 | 1, 449,337 | +3.3 |
| Baltimore, Md | 5694 | 47, 019 | 47, 557 | +1.1 | 904,247 | 927, 223 | +2.5 |
| Boston, Mass | 3,063 | 89, 264 | 89, 101 | $-2$ | 2,081,488 | 2, 115, 412 | +1.6 |
| Pittsburgh, Pa | 434 | 52,440 | 51, 752 | -1.3 | 1,065, 038 | 1,073, 886 | +. 8 |
| San Francisco, Calif | 1,157 | 47,240 | 48, 867 | +3.4 | 1, 130, 272 | 1, 144, 349 | +1.2 |
| Buffalo, N. ${ }^{\text {M }}$ | 420 | 37,068 | 39,430 | +6.4 | 803,681 | 861,555 | +7.2 |
| Milwaukee, Wis | 455 | 40,835 | 42,849 | +4.9 | 806,032 | 825,963 | +2.5 |

## Employment in the Executive Civil Service of the United States July 1933

THERE were 18,006 fewer employees on the pay roll of the United States Government in July 1933 than in July 1932, and 10,380 fewer employees in July 1933 than in June 1933.

These figures do not include the legislative, judicial, or Army and Navy services. The information as shown in table 1 was compiled by the various departments and offices of the United States Government and sent to the United States Civil Service Commission where it was assembled. The data were tabulated by the Bureau of Labor Statistics and published here by courtesy of the Civil Service Commission and in compliance with the direction of Congress. Information is not yet available as to amount of pay roll. The table shows the number of Federal employees inside the District of Columbia, the number of such employees outside the District of Columbia, and the total for the entire service. Approximately 12 percent of the total number of Federal workers are employed in the District of Columbia.

TABIE 1.-EMPLOYEES IN THE EXECUTIVE CIVIL SERVICE OF THE UNITED STATES, JULY 1932, JUNE AND JULY 1933

| Item | District of Columbia |  |  | Outside District of Columbia |  |  | Entire service |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Perma- nent | $\left\|\begin{array}{c} \text { Tempo- } \\ \text { rary } 1 \end{array}\right\|$ | Total | Perma- | $\left\lvert\, \begin{gathered} \text { Tempo- } \\ \text { rary } \end{gathered}\right.$ | Total | $\underset{\text { nent }}{\text { Perma- }}$ | $\left.\begin{array}{\|c} \text { Tempo- } \\ \text { rary } 1 \end{array} \right\rvert\,$ | Total |
| Number of employees: July 1832 | 65, 098 <br> 63, 067 <br> 62, 308 | $\begin{aligned} & \mathbf{2 , 4 5 4} \\ & \mathbf{2 , 3 7 0} \\ & \mathbf{3 , 7 5 3} \end{aligned}$ | $\begin{aligned} & 67,552 \\ & 65.437 \end{aligned}$ | $\begin{aligned} & 472,900 \\ & 466,443 \end{aligned}$ | $\begin{aligned} & 32,606 \\ & 33,552 \end{aligned}$ | $\begin{aligned} & 505,506 \\ & 499,995 \end{aligned}$ | $\begin{aligned} & 537,098 \\ & 529,510 \end{aligned}$ | $\begin{aligned} & 35,060 \\ & 35,922 \end{aligned}$ | $\begin{aligned} & 573,058 \\ & 565,432 \end{aligned}$ |
| June 1033- |  |  |  |  |  |  |  |  |  |
| July 1933...--....- |  |  |  |  | 28, 830 | 488,990 | 522,469 | 32, 583 | 555, 052 |
| Gain or loss: July 1932-July 1933 |  | +1,299 | -1,490 | -12,740 | -3,776 | -16,516 | -15, 529 | -2,477 | $-18,006$$-10,380$ |
| Juny 1932-July 1933 - |  |  |  |  |  |  |  |  |  |
| Percent of change: July 1932-July 1933. | $\begin{array}{r} -4.3 \\ -1.2 \end{array}$ | $\begin{array}{r} +52.9 \\ +58.4 \end{array}$ | $\begin{aligned} & -2.2 \\ & +1.0 \end{aligned}$ | -2.7 | -11.6 | -3.3 | -2.9 | -7.1 | $\begin{aligned} & -3.1 \\ & -1.8 \end{aligned}$ |
| July 1932-July 1833. <br> June 1932-July 1933 |  |  |  |  |  |  |  |  |  |
| Labor turnover, July 1933: Additions. | 6981,4561.11 | $\begin{array}{r} 2,024 \\ 644 \\ 20.93 \end{array}$ | $\begin{gathered} 2,722 \\ \mathbf{2 , 0 0 7} \\ 3.19 \end{gathered}$ | $\begin{array}{r} 4,896 \\ 11,179 \\ 1.06 \end{array}$ | $\begin{array}{r} 9,635 \\ 14,357 \\ 30.89 \end{array}$ | $\begin{array}{r} 14,531 \\ 25,536 \\ 2.94 \\ 2.51 \end{array}$ | 5,59412,6351.06 | $\begin{gathered} 11,659 \\ 14,998 \\ 34.04 \end{gathered}$ |  |
| Separations |  |  |  |  |  |  |  |  | 17,25327,6333.08 |
| Turnover rate per 100 |  |  |  |  |  |  |  |  |  |

${ }^{1}$ Not including field service Post Office Department.
There was a decrease of 4.3 percent in the number of permanent employees in the District of Columbia comparing July 1933 with July 1932. Comparing July 1933 with June 1933, the decrease in permanent employees was 1.2 percent. While there was a substantial increase in the number of temporary employees, the total Federal employment in the District of Columbia decreased 2.2 percent, comparing July 1933 with the same month of the previous year, but increased 1 percent, comparing July 1933 with June 1933.
Employees for four new Federal agencies are included in the above figures. The Federal Emergency Relief Administration, the Federal Coordinator of Transportation, the Tennessee Valley Authority, and the Public Works Administration added to the Federal pay roll in July, 310 permanent and 72 temporary employees. The Department of Agriculture, due to agriculture aid administration work, had a net increase of 1,435 temporary employees. This explains the big increase in temporary employees as compared with July 1932 and June 1933.

Outside of the District of Columbia the number of permanent employees decreased 2.7 percent and the number of temporary employees decreased 11.6 percent, comparing July 1933 with July 1932 . Total Federal employment throughout the United States decreased 3.1 percent during the same period.

Table 2 shows employment and pay roll in the Emergency Conservation Corps, sometimes known as the Forest Service.

TABLE 2.-EMPLOYMENT AND PAY ROLLS IN THE EMERGENCY CONSERVATION CORPS, JUNE AND JULY

|  | Number |  | Pay rolls |  |
| :---: | :---: | :---: | :---: | :---: |
|  | June | July | June | July |
| Enrolled personnel | 272, 219 | 293, 525 |  |  |
| Reserve officers, line-..- | 1,132 | 1,293 | (1) | (1) |
| Supervisory and technical | 7, 236 | 11,103 | \$873, 583 | \$1, 314, 528 |
| Total. | 281, 454 | 306, 763 | 29,374,906 | ${ }^{2} 10,481,310$ |

[^8]The data in the above table were collected by the Bureau of Labor Statistics from the War Department and the Forest Service of the Department of Agriculture.

On the last day of July there were 293,525 enrolled men in the Forest Service. This is an increase of over 21,000 as compared with June. There were on the pay roll in the Forest Service 11,103 supervisory and technical civilians on July 31, an increase of nearly 4,000 . The Forest Service as a whole increased over 25,000 , comparing July with June.

The pay of the enrolled personnel is $\$ 30$ per month, except that 5 percent of the members are being paid $\$ 45$ per month, and an additional 8 percent are paid $\$ 36$ per month. The pay roll as shown for the enrolled personnel were figured on this basis. During the month of July nearly $\$ 10,500,000$ was paid to enrolled personnel and civilian supervisors in the Emergency Conservation Corps. Pay-roll data for Reserve officers, line and medical, are not available.

## Employment on Class I Steam Railroads in the United States

REPORTS of the Interstate Commerce Commission for class I railroads show that the number of employees (exclusive of executives and officials) increased from 945,382 on June 15, 1933, to 976,998 on July 15, 1933, or 3.3 per cent. Data are not yet available concerning total compensation of employees for July 1933. The latest pay-roll information available shows an increase from $\$ 108,411,242$ in May to $\$ 110,360,300$ in June, or 1.8 percent.

The monthly trend of employment from January 1923 to July 1933 on class I railroads-that is, all roads having operating revenues of $\$ 1,000,000$ or over-is shown by index numbers published in the following table. These index numbers are constructed from monthly reports of the Interstate Commerce Commission, using the 12 -month average for 1926 as 100 .

TABLE 1.-INDEXES OF EMPLOYMENT ON CLASI I STEAM BAILBOADS IN THE UNITED 8TATES, JANUARY 1923 TO JULY 1933
[12-month average, 1926=100]

| Month | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 | 1932 | 1933 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| January | 98.3 | 96.6 | 95.6 | 95.8 | 95.5 | 89.3 | 88.2 | 86.3 | 73.3 | 61.2 | 53.0 |
| February | 98.6 | 97.0 | 95.4 | 96.0 | 95.3 | 89.0 | 88.9 | 85.4 | 72.7 | 60.3 | 52.7 |
| March | 100.5 | 97.4 | 95.2 | 96.7 | 95.8 | 89.9 | 90.1 | 85.5 | 72.9 | 60.5 | 51.5 |
| April | 102.0 | 98.9 | 96.6 | 98.9 | 97.4 | 91.7 | 92.2 | 87.0 | 73.5 | 60.0 | 51.8 |
| May. | 105. 0 | 99.2 | 97.8 | 100.2 | 99.4 | 94.5 | 94.9 | 88.6 | 73.9 | 59.7 | 52.5 |
| June. | 107. 1 | 98.0 | 98.6 | 101.6 | 100.9 | 95.9 | 96.1 | 86.5 | 72.8 | 57.8 | 53.6 |
| July | 108. 2 | 98.1 | 99.4 | 102.9 | 101.0 | 95.6 | 96.6 | 84.7 | 72.4 | 56.4 | 55.4 |
| August | 109.4 | 99.0 | 99.7 | 102.7 | 99.5 | 95.7 | 97.4 | 83.7 | 71.2 | 55.0 |  |
| September | 107.8 | 99.7 | 99.9 | 102.8 | 99.1 | 95.3 | 96.8 | 82.2 | 69.3 | 55.8 |  |
| October | 107.3 | 100.8 | 100.7 | 103.4 | 98.9 | 95.3 | 96.9 | 80.4 | 67.7 | 57.0 |  |
| November | 105. 2 | 99.0 | 99.1 | 101.2 | 95.7 | 92.9 | 93.0 | 77.0 | 64.5 | 55.9 |  |
| December | 99.4 | 96.0 | 97.1 | 98.2 | 91.9 | 89.7 | 88.8 | 74.9 | 62.6 | 54.8 |  |
| Average. | 104.1 | 98.3 | 97.9 | 100.0 | 97.5 | 82.9 | 93.3 | 83.5 | 70.6 | 57.9 | 152.8 |

[^9]
## Wage-Rate Changes in American Industries

## Manufacturing Industries

IN THE following table is presented information concerning wagerate adjustments occurring between June 15 and July 15, 1933, as shown by reports received from manufacturing establishments supplying employment data to this Bureau. Of the 18,090 manufacturing establishments included in the July survey, 17,422 establishments, or 96.3 percent of the total, reported no change in wage rates over the month interval. The $2,819,636$ employees not affected by changes in wage rates constituted 93.2 percent of the total number of employees covered by the July trend of employment survey of manufacturing industries.

Six hundred and thirty manufacturing establishments in 69 industries reported increases in wage rates during the period June 15 to July 15, affecting 202,371 workers and averaging 10.7 percent. These increases represent voluntary raises in practically all instances, as the N.R.A. codes did not become effective until after July 15.

The number of establishments reporting wage-rate decreases continued to decline, only 1,824 workers being affected in the 38 establishments reporting decreases in wage rates, which averaged 11.4 percent.

TABLE 1.-WAGE-RATE CHANGES IN MANUEACTWRING INDUSTRIES DURING MONTH ENDING JULY 15, 1933

| Industry | Estab-lishments reporting | Total number of employees | Number of establishments reporting- |  |  | Number of employees having- |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{array}{\|c\|} \text { No } \\ \text { wage- } \\ \text { rate } \\ \text { changes } \end{array}$ | $\begin{aligned} & \text { Wage- } \\ & \text { rate } \\ & \text { in- } \\ & \text { creases } \end{aligned}$ | Wage. rate decreases | $\begin{aligned} & \text { Nowage- } \\ & \text { rate } \\ & \text { changes } \end{aligned}$ | Wagerate increases | Wagerate decreases |
| All manufacturing industries. Percent of total. | $\begin{array}{r}18,090 \\ 100.0 \\ \hline\end{array}$ | $\begin{array}{r}3,023,881 \\ 100.0 \\ \hline\end{array}$ | $\begin{array}{r}17,422 \\ 96.3 \\ \hline\end{array}$ | 630 3.5 | $\begin{array}{r}38 \\ 0.2 \\ \hline\end{array}$ | $\begin{array}{r} 2,819,636 \\ 93.2 \end{array}$ | $\begin{array}{r} 202,371 \\ 6.7 \end{array}$ | ${ }_{\text {(1) }}^{1,824}$ |
| Food and kindred products: |  |  |  |  |  |  |  |  |
| Beverages-..-----.-. | 359 | 22, 943 | 349 | 9 | 1 | 22, 167 | 765 | 11 |
| Butter | 311 | 5,857 | 310 | 1 |  | 5, 851 | 6 |  |
| Confectionery | 320 | 32, 095 | 317 | 1 | 2 | 31,946 | 102 | 47 |
| Flour.- | 423 | 16,540 | 415 | 8 |  | 15, 615 | 925 |  |
| Ice cream.------------------- | 365 | 12,711 | 361 | 4 |  | 12, 611 | 100 |  |
| Slaughtering and meat packing. | 247 | 94, 877 | 241 | 6 |  | 94,518 | 359 |  |
|  | 61 | 4,710 | 61 |  |  | 4,710 |  |  |
| Sugar refining, cane.........--- | 13 | 8,275 | 13 |  |  | 8,275 | --...... |  |
| Textiles and their products: <br> Fabrics: <br> Carpets and rugs......... 27 16,133 27   |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Cotton goods. <br> Cotton small wares | 670 111 | 10,445 11,122 | 604 104 | 66 6 | 1 | 281,608 10,437 | 28,837 | 75 |
| Dyeing and finishing textiles. | 153 | 40,683 | 148 | 5 |  | 38,988 | 1,695 |  |
| Hats, fur-felt..-.........-- | 27 | 5,275 | 27 |  |  | 5,275 |  |  |
| Knit goods...- | 440 | 114, 229 | 414 | 26 |  | 106, 177 | 8,052 |  |
| Silk and rayon goods.----- | 238 | 53, 031 | 220 | 17 | 1 | 47,795 | 5,166 | 70 |
| Woolen and worsted | 287 | 77,753 | 209 | 27 | 1 | 69,348 | 8,241 | 164 |
| Wearing apparel: |  |  |  |  |  |  |  |  |
| Clothing, men's.-. | 397 | 70, 285 | 365 | 32 |  | 62, 369 | 7,916 |  |
| Clothing, women's | 543 | 25, 802 | 538 | 5 |  | 25, 584 | 218 |  |
| Corsets and allied garments. | 35 | 6,060 | 35 |  |  | 6, 060 |  |  |
| Men's furnishings | 73 | 7,817 | 71 | 2 |  | 7,767 | 50 |  |
| Millinery .-.-. | 140 | 8,195 | 139 | 1 |  | 7,762 | 433 | -------- |
| Shirts and collars.-.-.---- | 115 | 17,331 | 108 | 7 |  | 16, 332 | 999 |  |

Table 1.-WAGE-RATE CHANGES IN MANUFACTURING INDUSTRIES DURING MONTH ENDING JULY 15, 1933-Continued

| Industry | Estab-lishments reporting | Total number of employees | Number of establishments reporting- |  |  | Number of employees having- |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Wage- rate increases | Wage-decreases | No wagerate changes | Wagerate increases | Wagerate decreases |
| Iron and steel and their products, not including machinery: |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Bolts, nuts, washers, and rivets | 70 | 10,920 | 67 | 3 |  | 10,391 | 529 |  |
| Cast-iron pipe------------------ | 33 | 4,368 | 32. | 1 |  | 4,228 | 140 |  |
| Cutlery (not including silver and plated cutlery) and edge tools. | 126 | 8,552 | 122 | 3 | 1 | 8,340 | 187 | 25 |
| Forgings, iron and steel | 126 | 6,651 | 65 | 1 |  | 6,639 | 12 | 0 |
| Hardware.--....------ | 105 | 22,964 | 103 | 2 |  | 22, 647 | 317 |  |
| Iron and steel | 205 | 227, 159 | 198 | 7 |  | 221, 876 | 5, 283 |  |
| Plumbers' supplies.- | 68 | 8, 682 | 67 |  |  | 8,547 | 135 |  |
| Steam and hot-water heating apparatus and steam fittings. | 98 | 16,233 | 96 | 2 |  | 15,944 | 289 |  |
| Stoves..-.-.----------.----- | 160 | 19, 220 | 151 | 5 | 4 | 18,892 | 239 | 89 |
| Structural and ornamental metalwork | 194 | 14,722 | 192 |  | 2 | 14, 665 |  | 57 |
| Tin cans and other tinware-- | 61 | 9,543 | 59 | 2 |  | 9,447 | 96 |  |
| Tools (not including edge tools, machine tools, files, and saws) $\qquad$ | 124 | 7,677 | 118 | 6 |  | 7,185 | 492 |  |
|  | 69 | 6,848 | 67 | 2 |  | 6,549 | 299 |  |
| Machinery, not including transportation equipment: |  |  |  |  |  |  |  |  |
| Agricultural implements. Cash registers, adding machines, and calculating machines | 78 | 7, 192 | 75 | 3 |  | 6,935 | 257 |  |
|  | 37 | 14,372 | 36 | 1 |  | 14,358 | 14 |  |
| Electrical machinery, apparatus, and supplies. | 282 | 89, 748 | 261 | 19 | 2 | 72, 293 | 17, 410 | 45 |
| Engines, turbines, tractors, and waterwheels. | 88 | 17, 198 | 87 | 1 |  | 16,176 | 1,022 |  |
| Foundry and machine-shop products. | 1,048 | 109, 377 | 1,022 | 25 | 1 | 101, 137 | 8, 204 | 36 |
| Machine tools-.-.------- | 1,146 | 11,265 | 1,022 | 4 |  | 11, 201 | 8, 64 |  |
|  | 42 | 22, 730 | 41 | 1 |  | 22,450 | 280 |  |
| Textile machinery and parts - | 48 | 8,832 | 45 | 3 |  | 8,812 | 20 |  |
| Typewriters and supplies ---- | 16 | 8,297 | 16 |  |  | 8,297 |  |  |
| Nonferrous metals and their products: <br> Aluminum manufactures |  |  |  |  |  |  |  |  |
|  | 28 | 5,682 | 26 |  |  | 5,682 |  |  |
| Brass, bronze, and copper products. | 206 | 34,474 | 201 | 5 |  | 33,857 | 617 |  |
| Clocks and watches and timerecording devices. | 24 | 6,612 | 24 |  |  | 6,612 |  |  |
| Jewelry .---------------------------- | 134 | 6,918 | 134 |  |  | 6,918 |  |  |
| Lighting equipment Silverware and plated ware | 52 | 2,951 | 51 |  | 1 | 2,943 |  | 8 |
|  | 51 | 6,038 | 50 | 1 |  | 5,047 | 991 |  |
| Smelting and refining-copper, lead, and zinc. | 39 | 10,385 | 35 | 4 |  | 8,772 | 1,563 |  |
| Stamped and ensmeled ware- | 88 | 14, 173 | 88 |  |  | 14,173 |  |  |
| Transportation equipment: <br> Aircraft |  |  |  |  |  |  |  |  |
|  | 29 | 7, 113 | 29 |  |  | 7,113 |  |  |
|  | 233 | 226,145 | 223 | 10 |  | 222, 741 | 3, 404 |  |
| Cars, electric and steam railroad. | 42 | 5,198 | 42 |  |  | 5,198 |  |  |
| Locomotives | 11 | 1,663 | 11 |  |  | 1,663 |  |  |
| Shipbuilding | 96 | 24, 246 | 96 |  |  | 24, 246 |  |  |
| Railroad repair shops: Electric railroad |  | 19,437 | 388 |  | 2 | 19,278 |  | 159 |
| Electric rairroad | 524 | 18, 737 | 524 |  | 2 | 19, 278 |  | 159 |
| Lumber and allied products:Furniture. |  |  |  |  |  |  |  |  |
|  | 440 | 46,074 | 413 | 27 |  | 39,884 | 6,190 |  |
| Lumber: |  |  |  |  |  |  |  |  |
| Millwork | 471 | 21,129 | 454 | 14 | 3 | 19,354 | 1,722 | 53 |
| Sawmills. | 599 | 69,068 | 529 | 69 | 1 | 51, 215 | 17, 538 | 315 |
| Turpentine and rosin | 23 | 1,317 | 21 | 2 |  | 1,196 | 121 |  |
| Stone, clay, and glass products: |  |  |  |  |  |  |  |  |
| Brick, tile, and terra cotta.-- | 652 | 21,842 | 614 | 37 | 1 | 18,120 | 3,687 | 35 |
|  | 122 | 16,072 | 108 | 14 |  | 13, 482 | 2, 590 |  |
| Glass | 186 | 41,694 | 181 | 5 |  | 40, 298 | 1,306 |  |
| Marble, granite, slate, and other products. <br> Pottery. | 217 | 5,369 | 214 | 2 | 1 | 5,217 | 146 | 6 |
|  | 116 | 16,087 | 111 | 5 |  | 15,628 | 459 |  |

TABLE 1.-WAGE-RATE CHANGES IN MANURACTURMNG INDUSTRIES DURING MONTH ENDING JULY 15, 1833-Continued

| Industry | Estab-lishments reporting | Total number of employees | Number of establishments reporting- |  |  | Number of employees having- |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | No wagerate changes | Wagerate increases | Wagerate decreases | No wagerate changes | Wagerate increases | Wagerate decreases |
| Leather and its manufactures: |  |  |  |  |  |  |  |  |
|  | 339 | 121,735 | 329 | 10 |  | 118,997 | 2,738 |  |
| Paper and printing: | 153 | 20, 613 | 142 | 11 |  | 25, 763 | 3,850 |  |
| Boxes, paper | 318 | 22, 606 | 311 | 6 | 1 | 21,938 | 633 | 35 |
| Paper and pulp | 400 | 84, 026 | 374 | 26 |  | 79,389 | 4,637 | -------- |
| Printing and pablishing: Book and job.-....-. | 766 | 41,296 | 757 | 4 | 5 | 40,960 | 231 | 105 |
| Newspapers and periodicals. | 465 | 68,384 | 458 | 3 | 4 | 67, 517 | 473 | 394 |
| Chemicals and allied products: Chemicals | 109 | 23, 483 | 107 | 2 |  | 21, 861 | 1,622 |  |
| Cottonseed, oil, cake, and meal. | 107 | 23,483 3,485 | 101 | 6 |  | 21,801 3,362 | 1,623 123 |  |
| Druggists' preparations...--- | 45 | 7,604 | 45 |  |  | 7,604 |  |  |
|  | 30 | 3, 645 | 30 |  |  | 3, 645 |  |  |
| Fertilizers | 173 | 5, 690 | 170 | 3 |  | 5, 511 | 179 |  |
| Paints and varnishes. | 348 | 16, 751 | 340 | 7 | 1 | 15, 624 | 1,118 | 9 |
| Petroleum refining. | 126 | 49,487 | 125 | 1 |  | 49, 476 | 10, 11 |  |
| Rayon and allied products.-- | 22 | 28, 006 | 14 | 8 |  | 17, 697 | 10,309 |  |
|  | 95 | 15, 104 | 91 | 4 |  | 15,079 | 25 | -------- |
| Rubber products: <br> Rubber boots and shoes | 9 | 10,385 | 8 | 1 |  | 9, 501 | 884 |  |
| Rubber goods, other than boots, shoes, tires, and inner tubes. | 08 | 21, 025 | 94 | 4 |  | 20, 254 | 771 |  |
| Rabber tires and inner tubes- | 41 | 57, 497 | 32 | 9 |  | 23, 424 | 34,073 |  |
| Tobacco manufactures: <br> Chewing and smoking tobacco and snuff | 33 | 9, 674 | 32 | 1 |  | 9,596 | 78 |  |
| Cigars and cigarettes.........-- | 208 | 43, 459 | 206 | 1 | 1 | 43,373 | 6 | 80 |

## Nonmanufacturing Industries

Data concerning wage-rate changes occurring between June 15 and July 15, 1933, in 15 groups of nonmanufacturing industries are presented in the following table.

No changes in wage rates were reported in the anthracite mining and telephone and telegraph industries. Both increases and decreases were reported in 10 of the remaining 13 industries over the month interval. The average percents of increase reported were as follows: Metalliferous mining and canning and preserving, 14.8 percent each; dyeing and cleaning, 13.9 percent; quarrying and nonmetallic mining, 13.5 percent; laundries, 12.9 percent; retail trade, 12.8 percent; bituminous-coal mining, 11.9 percent; banks, brokerage, insurance, real estate, 11.4 percent; wholesale trade, 9 percent; and hotels, 3 percent. The average percents of decrease reported were as follows: Laundries, 15 percent; banks, brokerage, insurance, and real estate, 12.7 percent; dyeing and cleaning, 12.5 percent; quarrying and nonmetallic mining, 12.1 percent; hotels, 11.6 percent; retail trade, 11.3 percent; electric-railroad operation and maintenance, 7.5 percent; power and light, 7.4 percent; crude-petroleum producing, 7.3 percent; and canning and preserving, 3 percent.

Table 2.-WAGE-RATE CHANGES IN NONMANUFACTURING INDUSTRIES DURING MONTH ENDING JULY 15, 1933

| Industrial group | Estab-lishments reporting | Total number of employees | Number of establishments reporting - |  |  | Number of employees having- |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\left.\begin{array}{\|c} \text { No } \\ \text { wage-- } \\ \text { rate } \\ \text { changes } \end{array} \right\rvert\,$ | Wagerate increases | Wagerate decreases | $\begin{gathered} \text { No } \\ \text { wage- } \\ \text { rate } \\ \text { changes } \end{gathered}$ | Wagerate increases | Wagerate decreases |
| Anthracite mining | 160 | 59,940 | 160 |  |  | 59,940 |  |  |
| Percent of total.--------------- | 100.0 | 100.0 | 100.0 |  |  | 100.0 |  |  |
| Bituminous-coal mining | 1,471 | 191, 024 | 1,359 | 112 |  | 165, 455 | 25,569 |  |
| Percent of total.--.-.-------- | 100.0 | 100.0 | 92.4 | 7.6 |  | 86.6 | 13.4 |  |
| Metalliferous mining.------------ | 278 | 22,365 | 256 | 22 |  | 19,850 | 2,515 |  |
| Percent of total.- | 100.0 | 100.0 | 92.1 | 7.9 |  | 88.8 | 11.2 |  |
| Quarrying and nonmetallic mining | 1,134 | 33, 044 | 1,115 | 17 | 2 | 32, 264 | 751 | 29 |
| Percent of total .-......------ | 100.0 | 100.0 | 98.3 | 1.5 | . 2 | 97.6 | 2.3 | . 1 |
| Orude-petroleum producing.-.-.- | 239 | 24, 189 | 234 |  | 5 | 24, 146 |  | 43 |
| Percent of total..............-- | 100.0 | 100.0 | 97.9 |  | 2.1 | 99.8 |  | . 2 |
| Telephone and telegraph...-.....- | 8,316 | 247, 238 | 8,316 |  |  | 247, 238 |  |  |
| Percent of total. | 100.0 | 100.0 | 100.0 |  |  | 100.0 |  |  |
|  | 3,204 | 195,565 | 3,201 |  | 3 | 194, 205 |  | 1,360 |
| Percent of total..--.-------.-- | 100.0 | 100.0 | 99.9 |  | . 1 | 99.3 |  | . 7 |
| Electric-railroad and motor-bus operation and maintenance Percant of total | 560 100.0 | 130,995 100.0 | 558 99.6 |  | 2 .4 | 129,999 99.2 |  | 996 .8 |
| Wholesale trade.--- | 2,924 | 75,870 | 2,899 | 25 | . 4 | 75,365 | 505 | . 8 |
| Percent of total | 100.0 | 100.0 | 99.1 | . 9 |  | 99.3 | . 7 |  |
| Retail trade. | 17,560 | 334, 147 | 17,510 | 18 | 32 | 333, 765 | 182 | 200 |
| Percent of tota | 100.0 | 100.0 | 99.7 | . 1 | . 2 | 99.9 | $\stackrel{1}{2}$ | . 1 |
| Hotels. | 2,702 | 136, 190 | 2,691 | 4 | 7 | 135,968 | 123 | 99 |
| Percent of total | 100.0 | 100.0 | 99.6 | .1 | . 3 | 99.8 | .$^{.1}$ | . 1 |
| Canning and preserving | 874 | 65,865 | 850 | 23 | 1 | 62,988 | 2,872 | 5 |
| Percent of total. | 100.0 | 100.0 | 97.3 | 2.6 | . 1 | 95.6 | 4.4 | (1) |
| Laundries. | 909 | 54,715 | 906 | 2 | 1 | 54, 652 | 21 | 42 |
| Percent of total | 100.0 | 100.0 | 99.7 | 2 | . 1 | 99.9 | ${ }^{(1)}$ | . 1 |
| Dyeing and cleaning | 311 | 10,427 | 307 | 3 | 1 | 10,308 | 114 | 5 |
| Percent of total. | 100.0 | 100.0 | 98.7 | 1.0 | . 3 | 98.9 | 1.1 | (1) |
| Banks, brokerage, insurance, and real estate. | 4,475 | 168,658 | 4,425 | 36 | 14 | 167,346 | 1,190 | 120 |
| Percant of total | 100.0 | 100.0 | 93.9 | . 8 | . 3 | 99.2 | . 7 | 1 |

${ }^{1}$ Less than one tenth of 1 percent.


[^0]:    ${ }^{1}$ No change. ${ }^{2}$ The additional value of board, room, and tips cannot be computed. ${ }^{2}$ Weighted.

[^1]:    7360-33-3

[^2]:    ${ }^{1}$ Average for 7 months.
    2 Not including electric-railroad car building and repairing; see transportation equipment and railroad

[^3]:    ${ }^{3}$ Monthly data for previous years not available.

[^4]:    ${ }^{1}$ Data supplied by cooperating State bureaus.

[^5]:    ${ }^{1}$ Includes automobile dealers and garages, and sand, gravel, and building construction.
    3 Includes banks, insurance, and office employment.
    I Includes building and contracting.
    Includes transportation, financial institutions, restaurants, theaters, and building construction.
    Weighted percent of change.
    ${ }^{6}$ Includes construction, municipal, agricultural, and offlce employment, amusement, and recreation, professional and transportation services.
    7 Includes laundries.
    ${ }^{8}$ Includes laundering and cleaning.

    - Includes construction, but does not include hotels and restaurants.

[^6]:    ${ }^{11}$ No change.

[^7]:    ${ }^{11}$ No change.

[^8]:    ${ }^{1}$ Data not available.
    ${ }^{2}$ Not including pay rolls of Reserve officers, line or medical.

[^9]:    ${ }^{1}$ A verage for 7 months.

