# EMPLIYMENT and PAY RILLLS 

## DETAILED REPORT MARCH <br> 1949

Unitf! States Department of Labor Bureau of Labor Statistics

## Prepared by

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HMPLOYMENT AND PAY ROLIS
Detailed Report
March 1949
TABLE CONTEHTS PAGE

1. Estimated Number of Wage and Salary Workers in Nonagricul- tural Establishments, by Industry Division ..... 2
2. Estimated Number of Wage and Salary Workers in Manufacturing Industries, by Major Industry Group. ..... 3
3. Estimated Number of Wage and Salary Workers in Selected Nonmanufacturing Industries, by Major Industry Group ..... 4
4. Federal Civilian Employment and Pay Rolls in All Areas and in Continental United States, and Total Civilian Government Fraployment and Pay Rolls in Washington, D. C ..... 5
5. Personnel and Pay of the Military Branch of the Federal Government ..... 6
6. Estimated Number of Wage and Salary Workers in Nonagricul- tural Establishments for Selected States, February 1949. ..... 7
7. Estimated Number of Wage and Salary Workers in Manufacturing Industries, by State, February 1949 ..... 8
8. Estimated Number of Production Workers in Manufacturing Industries ..... 10
9. Estimated Number of Emplojees in Selected Nommanufacturing Industries ..... 16
10. Indexes of Production-Worker Employment and Weekly Pay Rolls in Manufacturing Industries. ..... 17
11. Indexes of Kmployment and Weekly Pay Rolls in Selected Nommanufacturing Industries. ..... 23
Ixplanatory Notes ..... 1
Glossary ..... マi ..... マi
Data for the 2 most recent months
shown are subject to revision
$* * * * * * * * * * * * * * * * * * * *$
Explanatory notes outlining briefly the
concepts, methodology, and sources used
in preparing data for this report appear
in the appendix. See pages i - ix.
12. 

TABIE 1: Estimated Number of Wage and Salary Workers in Nonagricultural Establishments, by Industry Division
(In thousands)

| Industry division | 1949 |  |  | 1948 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | March | February | January | March | February |
| TOTAL | 43,871 | 44,016 | 44,350 | 44,600 | 44,279 |
| Manufacturing | 15,597 | 15,774 | 15,890 | 16,269 | 16,183 |
| Mining | 914 | 922 | 925 | 924 | 914 |
| Contract construction | 1,838 | 1,820 | 1,906 | 1,805 | 1,731 |
| Transportation and pub utilities | 3,920 | 3,956 | 3,978 | 4,032 | 4,019 |
| Trade | 9,531 | 9,513 | 9,625 | 9,598 | 9,520 |
| Finance | 1,718 | 1,712 | 1,716 | 1,697 | 1,690 |
| Service | 4,591 | 4,560 | 4,549 | 4,729 | 4,730 |
| Government | 5,762 | 5,759 | 5,761 | 5,546 | 5,492 |

See explanatory notes, sections A - H, and the glossary for definitions.

TABLE 2: Estimated Number of Wage and Salary Workers in Manufacturing Industries, by Major Industry Group
(In thousands)

| Major industry eroup | 1949 |  |  | 1948 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | March | February | January | March | February |
| ALL MANUFACTURING | 15,597 | 15,774 | 15,890 | 16,269 | 16,183 |
| DURABLE GOODS | 7,782 | 7,895 | 8,005 | 8,258 | 8,167 |
| Iron and steel and their products | 1,835 | 1,865 | 1,892 | 1,929 | 1,920 |
| Electrical machinery | 680 | 699 | 715 | 756 | 763 |
| Machinery, except electrical | 1,489 | 1,515 | 1,536 | 1,587 | 1,591 |
| Transportation equipment, except automobiles | 574 | 577 | 580 | 589 | 589 |
| Automobiles | 951 | 952 | 972 | 985 | 914 |
| Nonferrous metals and their products | 437 | 449 | 455 | 482 | 478 |
| Lumber and timber basic products | 787 | 793 | 800 | 827 | 813 |
| Furniture and finished lumber products | 519 | 527 | 529 | 576 | 581 |
| Stone, clay, and glass products | 510 | 518 | 526 | 527 | 518 |
| NONDURABLE GOODS | 7,815 | 7,879 | 7,885 | 8,011 | 8,016 |
| Textile-mill products and other fiber manufactures | 1,271 | 1,313 | 1,323 | 1,435 | 1,428 |
| Apparel and other finished textile products | 1,364 | 1,366 | 1,310 410 | 1,334 | 1,333 448 |
| Leather and leather products | 1, 412 | 412 | $\begin{array}{r}410 \\ \hline 723\end{array}$ | + 442 | + 448 |
| Food | 1,696 | 1,694 | 1,723 | 1,655 | 1,658 |
| Tobacco manufactures | 95 | 96 | 96 | 100 | 101 |
| Paper and allied products | 471 | 476 | 481 | 480 | 479 |
| Printing, publishing, and allied industries | 724 | 727 | 729 | 722 | 724 |
| Chemicals and allied products | 774 | 777 | 784 | 773 | 773 |
| Products of petroleum and coal | 237 | 237 | 238 | 238 | 237 |
| Rubber products | 232 | 235 | 240 | 253 | 257 |
| Miscellaneous industries | 539 | 546 | 551 | 579 | 578 |

See explanatory notes, sections $A-H$, and the glossary for definitions.
4.

TABLE 3: Estimated Number of Wage and Salary Workers in Selected Nonmanufacturing Industries, by Major Industry Group
(In thousands)

| Major industry group | 1949 |  |  | 1948 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | March | February | January | March | February |
| MINIING | 914 | 922 | 925 | 924 | 914 |
| Anthracite | 80 | 81 | 82 | 82 | 81 |
| Bituminous coal | 409 | 417 | 419 | 419 | 415 |
| Metal | 105 | 104 | 100 | 102. | 101 |
| Quarrying and nonmetallic | 87 | 85 | 87 | 90 | 87 |
| Crude petroleum and natural gas production 1/ | 233 | 235 | 237 | 231 | 230 |
| TRANSPORTATION AND PUBLIC UTILITIES | 3,920 | 3,956 | 3,978 | 4,032 | 4,019 |
| Transportation | 2,671 | 2,703 | 2,729 | 2,808 | 2,802 |
| Communicatior | 732 | 736 | 734 | 728 | 723 |
| Other public utilities | 517 | 517 | 515 | 496 | 494 |
| GOVERNMENT | 5,762 | 5,759 | 5,761 | 5,546 | 5,492 |
| Federal | 1,877 | 1,877 | 1,876 | 1,758 | 1,746 |
| State and local | 3,885 | 3,882 | 3,885 | 3,788 | 3,746 |

See explanatory notes, sections A - H, and the glossary for definitions.
1/ Includes well drilling and rig building.

TABLS 4: Federal Civilian Employment and Pay Rolls in All Areas and in Continental United States, and Total Civilian Government Employment and Pay Rolls in Washington, D. C. I/
(In thousands)

| Area and branch | Employment(as of first or month) |  |  |  | $\begin{gathered} \text { Pay rolls } \\ \text { (total for month) } \end{gathered}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1949 |  |  | 1948 | 1949 |  |  | 1948 |
|  | March | Pebruary | January | March | March | Pebruary | January | March |
| All Areas |  |  |  |  |  |  |  |  |
| total pederal | 2,089.8 | 2,089.0 | 2;089.5 | 1,996.3 | \$578,296 | \$518,356 | \$537.916 | \$498,325 |
| Executive | 2,050.6 | 2,049.8 | 2,050.4 | 1,956.5 | 568,035 | 508,534 | 527,868 | 488,676 |
| Defense agencies | 934.4 | 935.2 | 933.7 | 897.9 | 253,767 | 220,851 | 230,653 | 218,706 |
| Post Office Department | 475.0 | 475.0 | 475.8 | 431.7 | 120,212 | 119,978 | 121,598 | 102,124 |
| Other agencies | 641.2 | 639.6 | 640.9 | 626.9 | 194,046 | 167.705 | 275,617 | 167,846 |
| Legislative | 7.5 | 7.4 | 7.4 | 7.2 | 2,763 | 2,650 | 2,657 | 2,499 |
| Judicial | 3.6 | 3.6 | 3.5 | 3.5 | 1,455 | 1,306 | 1,352 | 1,343 |
| Government corporations | 28.1 | 28.2 | 28.2 | 29.1 | 6,053 | 5,866 | 6,039 | 5,807 |
| $\frac{\text { Continental }}{\text { United States }}$ |  |  |  |  |  |  |  |  |
| total federal | 1,897.2 | 1,897.6 | 1,896.0 | 1,770.6 | 535,848 | 481,266 | 498,625 | 456,878 |
| Executive | 1,864.7 | 1,865.2 | 1,863.6 | 1,738.0 | 526,315 | 472,094 | 489.363 | 447.901 |
| Defense agencies | 780.8 | 782.0 | 777.7 | 708.9 | 221,398 | 192.503 | 200,204 | 185,284 |
| Post Office Department | 473.2 | 473.3 | 474.1 | 430.1 | 119.766 | 119.540 | 121,154 | 101,765 |
| Other agencies | 610.7 | 609.9 | 611.8 | 599.0 | 185,251 | 160,051 | 168,005 | 160,852 |
| Legislative | 7.5 | 7.4 | 7.4 | 7.2 | 2.763 | 2,650 | 2,657 | 2,499 |
| Judicial | 3.5 | 3.5 | 3.5 | 3.4 | 1,414 | 1,268 | 1,314 | 1,305 |
| Government corporations | 21.5 | 21.5 | 21.5 | 22.0 | 5.356 | 5,254 | 5.291 | 5.173 |
| Washington, D. C. |  |  |  |  |  |  |  |  |
| TOTAL GOVERNMENT | 239.9 | 238.9 | 237.5 | 226.3 | 78,371 | 68,631 | 71,434 | 65.336 |
| D. C. government | 19.1 | 19.1 | 18.9 | 18.7 | 4.790 | 4,418 | 4,647 | 4.518 |
| Pederal | 220.8 | 219.8 | 218.6 | 207.6 | 73.581 | 64,213 | 66.787 | 60,818 |
| Executive | 212,7 | 211.8 | 210.6 | 199.8 | 70,574 | 61,345 | 63,904 | 58,104 |
| Defense agencies | 72.0 | 71.7 | 71.2 | 66.1 | 23.112 | 20,046 | 20,687 | 17,900 |
| Post Office Department | 7.6 | 7.6 | 7.6 | 7.4 | 2,100 | 2,070 | 2,132 | 2,340 |
| Other agencies | 133.1 | 132.5 | 131.8 | 126.3 | 45,362 | 39,229 | 41,085 | 37,864 |
| Legislative | 7.5 | 7.4 | 7.4 | 7.2 | 2,763 | 2,650 | 2,657 | 2,499 |
| Judicial | . 6 | . 6 | .6 | .6 | 244 | 218 | 226 | 215 |

See the glossary for definitions.
1/ Data for Central Intelligence Agency are excluded.
6.

TABLE 5: Personnel and Pay of the Military Branch of the Federal Govermment 1/
(In thousands)

| Designation | 1949 |  |  | 1948 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | March | Fobruary | January | March | Pobruary |
| PERSONNEL (as of first of month) Total | 1,681 | 1,687 | 1,644 | 1,423 | 1,419 |
| By branch: |  |  |  |  |  |
| Army | 703 | 712 | 677 | 544 | 552 |
| Air Force | 417 | 416 | 412 | 365 | 353 |
| Navy | 451 | 450 | 447 | 413 | 414 |
| Marine Corps | 87 | 87 | 86 | 80 | 80 |
| Coast Guard | 22 | 22 | 22 | 20 | 20 |
| By sex: |  |  |  |  |  |
| Men | 1,664 | 1,671 | 1,629 | 1,406 | 1,402 |
| Women | 16 | 16 | 15 | 17 | 17 |
| PAY (for entire month) Total | \$289,043 | \$290,041 | \$299,593 | \$285,011 | \$281,423 |
| By branch: |  |  |  |  |  |
| Army and Air Force | 188,587 | 187,813 | 195,048 | 175,697 | 170,209 |
| Navy | 81,204 | 84,201 | 85,638 | 90,459 | 91,172 |
| Marine Corps | 14,504 | 13,591 | 14,123 | 14,233 | 15,582 |
| Coast Guard | 4,747 | 4,437 | 4,785 | 4,622 | 4,460 |
| By type of pay: |  |  |  |  |  |
| Pay rolls | 255,340 | 257,503 | 265,618 | 242,969 | 240,493 |
| Mustering-out pay | 4,511 | 4,292 | 5,023 | 13,050 | 11,838 |
| Family allowance | 29,108 | 28,163 | 28,709 | 24,997 | 23,566 |
| Leave payments | 84 | 85 | 243 | 3,995 | 5,526 |
| Cash | 34 | 30 | 123 | 905 | 1,182 |
| Bonds | 50 | 55 | 120 | 3,090 | 4,344 |

See the glossary for definitions.
1/ Because of rounding, the individual figures may not add to group totals.

TABLE 6: Estimated Number of Wage and Salary Workers in Nonagricultural Establishments for Selected States, February 1949
(In thousands)

| State | 1949 |  | 1948 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | February | January | December | February | January |
| Arizona | 155 | 155 | 159 | 155 | 155 |
| Arkanses | 289 | 295 | 311 | 276 | 282 |
| California * | 2,970 | 2,992 | 3,117 | 3,024 | 3,037 |
| Connecticut | 739 | 751 | 778 | 770 | 771 |
| Georgia | 727 | 730 | 753 | 731 | 737 |
| Idaho | 118 | 123 | 131 | 115 | 117 |
| Illinois | 3,112 | 3,157 | 3,256 | 3,151 | 3,172 |
| Indiana | 1,163 | 1,176 | 1,225 | 1,180 | 1,186 |
| Kansas | 429 | 434 | 454 | 411 | 419 |
| Maine | 248 | 251 | 262 | 259 | - 262 |
| Maryland | 690 | 699 | 723 | 676 | 682 |
| Massachusetts | 1,662 | 1,680 | 1,755 | *1,715 | 1,720 |
| Minnesota | 767 | 775 | 809 | * 764 | 773 |
| Missouri | 1,099 | 1,112 | 1,158 | 1,114 | 1,125 |
| Montana | 135 | 137 | 142 | * 133 | 134 |
| Hevada 1/ | 46 | 46 | 48 | 47 | 48 |
| Hew Jersey | 1,523 | 1,538 | 1,586 | 1,553 | 1,561 |
| Now Moxico | 127 | 127 | 130 | 120 | 121 |
| New York | 5,454 | 5,481 | 5,699 | 5,508 | 5,517 |
| Oklahoma | 459 | 462 | 486 | 432 | 439 |
| Pennsylvania | 3,549 | 3,581 | 3,701 | 3,546 | 3,566 |
| Rhode Island | 273 | 276 | 288 | - 290 | - 290 |
| Tennessee | 714 | 720 | 749 | 721 | 720 |
| Texas | 1,747 | 1,752 | 1,808 | 1,664 | 1,677 |
| Utah | 169 | 168 | 184 | 171 | 173 |
| Vermont $1 /$ | 91 | 92 | -95 | 64 | 94 .64 |
| Weshington | 641 | 646 | 688 | 642 | 647 |
| Wisconsin | 961 | 971 | 1,006 | 972 | 971 |
| Wyoming | 73 | 74 | 78 | 69 | 70 |

See explanatory notes, sections H and I.
1 Does not include contract construction.

* Revised. Data for other months revised as follows:

California - August through November 1948 to 3,147, 3,162, 3,123 and 3,086.
Maine - March through September 1948 to 256, 251, 256, 268, 277, 281, and 278.
Massachusetts - March 1948 to 1,720; April 1948 to 1,712; October 1948 to 1,733; and November 1948 to 1,728.
Minnesota - March 1948 to 762.
Montana - April 1948 to 136; Junc 1948 to 139.
Rhode Island - March through November 1948 to 292, 290, 288, 289, 287, 286, 290, 289, and 289.
8.

TABLE 7: Estimated Numbar of Wage and Salary Workers in Manufacturing Industries, by State, February 1949
(In thousands)

| Region and State | 1949 |  | 1948 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | February | January | December | February | January |
| NEW ENGIAND: |  |  |  |  |  |
| Maine 1/ | 106.3 | 107.8 | 109.3 | 114.3 | *116.0 |
| Now Hampshire | 77.9 | 77.7 | 79.2 | 85.6 | 85.8 |
| Vermont 1/ | 34.5 | 35.4 | 36.2 | 38.8 | 39,1 |
| Massachusetts | 690.8 | 696.7 | 715.5. | 746.0 | 747.3 |
| Rhode Island | 134.3 | 136.1 | 139.5 | 154.5 | 153.5 |
| Connecticut 1/ | 379.0 | 387.6 | 395.1 | 418.8 | 417.4 |
| MIDDIE ATLANHIC: |  |  |  |  |  |
| New York | 1,809.0 | 1,807.8 | 1,853.1 | *1,912.1 | 1,902.0 |
| New Jersey | 702.4 | 707.2 | 724.7 | 757.8 | 757.3 |
| Pennsylvania | 1,446.9 | 1,461.8 | 1,498.9 | 1,513.1 | 1,515.6 |
| EAST NORTH CENIRAL: |  |  |  |  |  |
| Ohio | 1,180.5 | 1,190.6 | 1,210.4 | 1,243.9 | 1,246.0 |
| Indiana | 528.0 | 533.5 | 542.9 | 553.4 | 556.3 |
| Illinois | 1,191.7 | 1,211.5 | 1,234.5 | 1,267.0 | 1,271.0 |
| Michigan | 947.4 | 972.9 | 988.5 | 970.7 | 1,019.6 |
| Wisconsin 1/ | 411.4 | 415.5 | 426.5 | 434.2 | - 433.9 |
| WEST MORTH CENIIRAL: |  |  |  |  |  |
| Minnesota 1/ | 189.7 | 191.7 | 197.5 | 199.0 | 200.0 |
| Iowa 1/ | 152.3 | 253.9 | 155.9 | 154.7 | 155.5 |
| Missouri 1/ | 339.3 | 342.0 | 345.5 | 349.2 | 350.3 |
| North Dakota | 6.4 | 6.6 | 6.6 | 6.4 | 6.6 |
| South Dakota | 11.6 | 11.7 | 12.0 | 11.1 | 12.2 |
| Nebraska | 41.6 | 42.4 | 42.9 | 43.0 | 43.8 |
| Kansas 1/ | 86.0 | 86.6 | 87.8 | 79.8 | 81.6 |
| SOUTH ATTANHITC: |  |  |  |  |  |
| Delaware | 44.8 | 44.5 | 44.8 | 45.9 | 45.7 |
| Maryland | 218.0 | 219.1 | 227.7 | 228.5 | 226.9 |
| District of Columbia | 16.8 | 16.7 | 17.1 | 16.8 | 17.3 |
| Virginia | 205.9 | 206.3 | 211.3 | 213.5 | 213.6 |
| West Virginia | 128.4 | 129.6 | 132.3 | 130.3 | 132.4 |
| North Carolina | 358.5 | 360.1 | 367.2 | 380.4 | 382.7 |
| South Carolina | 190.9 | 188.8 | 193.0 | 196.9 | 198.3 |
| Georgia $\frac{1}{1 /}$ | 265.7 | 266.6 | 271.7 | 280.1 | 281.3 |
| Florida 1 / | 99.5 | 99.3 | 99.7 | 98.9 | 100.3 |

TABLE 7: Estimated Number of Wage and Salary Workers in Manufacturing Industries, by State, February 1949 - Continued
(In thousands)

| Region and State | 1949 |  | 1948 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | February | January | December | Februaxy | January |
| EAST SOUTH CENTRAL: |  |  |  |  |  |
| Kentucky | 122.4 | 122.7 | 126.8 | 129.4 | 129.5 |
| Tennessee 1/ | 236.4 | 235.7 | 245.3 | 256.1 | 255.4 |
| Alabama $1 /$ | 220.8 | 223.3 | 224.8 | 230.2 | 232.7 |
| MississippI | 81.3 | 83.5 | 86.6 | 90.5 | 95.5 |
| WEST SOUTH CENIRAL: |  |  |  |  |  |
| Arkansas 1/ | 70.9 | 74.7 | 77.1 | 69.8 | 71.9 |
| Louisiana 1/ | 147.4 | 148.6 | 150.9 | 142.6 | 150.4 |
| Oklahoma 17 | 63.5 | 54.3 | 66.7 | 62.6 | 64.0 |
| Texas | 337.1 | 343.1 | 353.3 | *340.1 | 342.7 |
| MOUNTAIN: |  |  |  |  |  |
| Montana | 16.9 | 16.9 | 18.1 | 17.3 | 17.7 |
| Idaho 1/ | 17.5 | 19.0 | 20.9 | 17.6 | 18.2 |
| Wyoming 1/ | 6.0 | 6.1 | 6.4 | 5.7 | 6.0 |
| Colorado | 52.7 | 53.5 | 55.9 | 55.1 | 57.2 |
| New Mexico 1/ | 9.5 | 9.5 | 9.9 | 8.2 | 8.3 |
| Arizona 1/ | 14.8 | 14.6 | 15.2 | 14.6 | 14.7 |
| Utah 1/ | 25.5 | 25.5 | 27.7 | 24.1 | 25.1 |
| Nevada 1/ | 3.1 | 3.2 | 3.3 | * 3.4 | 3.3 |
| PACIFIC: |  |  |  |  |  |
| Washington 1/ | 163.4 | 163.5 | 174.5 | 167.2 | 169.4 |
| Oregon - | 102.1 | 102.9 | 109.9 | 109.2 | 109.8 |
| California | 693.7 | 703.6 | 727.1 | 703.5 | 705.0 |

See explanatory notes, sections H and I.
1/ Series based on Standard Industrial Classification.

* Revised. Data for other months revised as follows:

Maine - March through September 1948 to 111.2; 103.6; 105.9; 111.8; 117.1; 121.5; and 120.4.

New York - March through October 1948 to 1,904.0; 1,849.9; 1,829.5; $1,842.7$; 1,818.4; 1,878.4, 1,900.0; and 1,896.9.
Texas - March 1948 to 337.0.
10.

TABLE 8: Estimated Number of Production Workers in Manufacturing Industries (In thousands)

| Industry group and industry | 1949 |  |  | 1948 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | March | February | January | March | February |
| AIL MANUFACTURING | 12,393 | 12,560 | 12,673 | 13,131 | 13,066 |
| DURABLA GOODS | 6,314 | 6,420 | 6,525 | $6,791$ | $6,711$ |
| NONDURABLE GOODS | 6,079 | 6,140 | 6,148 | $6,340$ | $6,355$ |
| Durable goods |  |  |  |  |  |
| IRON AND STIEEL AND THEIR PRODUCTS | 1,545 | 1,574 | 1,597 | 1,634 | 1,628 |
| Blast furnaces, steel works, and rolling mills | 547.3 | 547.6 | 543.0 | 516.1 | 508.5 |
| Gray-iron and semisteel castings | 101.6 | 105.8 | 109.0 | 119.9 | 120.5 |
| Malleable-iron castings | 33.5 | 34.8 | 36.6 | 37.9 | 37.8 |
| Steel castings | 70.5 | 72.3 | 73.8 | 73.0 | 72.3 |
| Cast-iron pipe and fittings | 28.8 | 28.7 | 29.8 | 28.3 | 28.0 |
| Tin cans and other tinware | 42.7 | 43.1 | 44.8 | 44.5 | 45.7 |
| Wire drawn from purchesed rods | 27.0 | 27.8 | 28.5 | 30.6 | 30.9 |
| Wirework | 39.9 | 41.1 | 41.6 | 43.4 | 42.5 |
| Cutlery and edge tools | 21.9 | 22.7 | 23.2 | 24.0 | 24.6 |
| Tools (except edge tools, machine tools, files, and saws) | 23.2 | 23.3 | 24.0 | 25.7 | 25.8 |
| Hardware | 49.3 | 50.8 | 52.1 | 57.2 | 56.9 |
| Plumbers' supplies | 37.4 | 39.6 | 41.4 | 40.2 | 40.0 |
| Stoves, oil burners, and heating equipment, not elsewhere classified | 60.0 | 61.8 | 64.0 | 87.5 | 91.0 |
| Steam and iot-water heating apparatus and steam fittings | 57.4 | 60.0 | 63.3 | 66.0 | 66.5 |
| Stamped and enameled ware and galvanizing | 99.9 | 105.7 | 106.4 | 120.1 | 121.2 |
| Fabricated structural and ornamental metalwork | 62.9 | 64.1 | 65.0 | 63.9 | 63.4 |
| Metal doors, aash, framen, molding, and trim | 9.6 | 9.9 | 10.3 | 10.5 | 10.2 |
| Bolts, nuts, washers, and rivets | 27.4 | 28.2 | 28.4 | 28.9 | 28.7 |
| Forgings, iron and steel | 37.0 | 37.6 | 38.1 | 37.5 | 37.6 |
| Wrought pipe, welded and heavyriveted | 19.3 | 19.6 | 19.6 | 19.2 | 19.1 |
| Screw-machine products and wood screws | 32.9 | 33.8 | 35.1 | 36.8 | 36.6 |
| Steel barrels, kegs, and drums | 6.9 | 7.3 | 7.6 | 7.9 | 8.1 |
| Firearms | 22.9 | 22.4 | 22.6 | 20.8 | 20.4 |
| RLECTRICAL MACHINERY | 505 | 521 | 536 | 577 | 584 |
| Electrical equipment | 339.8 | 347.4 | 354.5 | 382.9 | 387.7 |
| Radios and phonographs | 83.8 | 88.6 | 93.6 | 97.6 | 99.2 |
| Communication equipment | 81.3 | 85.3 | 88.4 | 96.5 | 97.2 |

See explanatory notes, sections C, D, and G, and the glossary for definitions.

TABLE 8: Estimated Number of Production Workers in Manufacturing Industries-Cont!d
(In thousands)

| Industry group and industry | 1949 |  |  | 1948 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | March | February | January | March | February |
| MACHINERY, EXCEPTI ELECIRICAL | 1,133 | 1,158 | 1,179 | 1,232 | 1,237 |
| Machinery and machine-shop products | 476.6 | 489.9 | 499.1 | 518.6 | 521.3 |
| Fingines and turbines | 50.6 | 51.5 | 52.3 | 54.7 | 54.4 |
| Tractors | 60.7 | 61.4 | 61.8 | 62.2 | 61.9 |
| Agricultural machinery, excluding tractors | 76.2 | 76.0 | 76.5 | 75.9 | 74.6 |
| Machine tools | 42.5 | 43.3 | 44.1 | 49.2 | 50.4 |
| Machine-tool accessories | 50.9 | 52.0 | 53.5 | 55.9 | 56.3 |
| Textile machinery | 40.2 | 41.0 | 41.2 | 41.1 | 40.8 |
| Pumps and pumping equipment | 66.4 | 67.7 | 68.6 | 73.7 | 75.4 |
| Typewriters | 15.1 | 16.1 | 16.8 | 24.9 | 25.1 |
| Cash registers; adding, and calculating machines | 40.8 | 41.5 | 42.4 | 46.1 | 45.9 |
| Washing machines, wringers, and driers, domestic | 8.6 | 9.6 | 10.2 | 16.3 | 16.5 |
| Sewing machines, domestic and industrial | 15.2 | 15.0 | 15.1 | 13.7 | 13.5 |
| Refrigerators and refrigeration equipment | 72.9 | 73.8 | 76.3 | 81.0 | 81.6 |
| TRANSPORTATION EQUIPMENT, EXCEPT AUTOMOBILES | 439 | 442 | 444 | 465 | 464 |
| Locomotives | 25.9 | 25.9 | 25.7 | 26.6 | 26.5 |
| Cars, electric- and steam-railroad | 55.4 | 56.7 | 56.2 | 54.4 | 54.0 |
| Aircraft and parts, excluding - aircraft engines | 151.9 | 150.9 | 151.8 | 136.1 | 135.3 |
| Aircraft engines | 28.7 | 28.5 | 28.7 | 24.6 | 24.9 |
|  | 83.8 | 85.9 | 87.8 | 125.8 | 127.7 |
| Motorcycles, bicycles, and parts | 8.9 | 8.9 | 9.5 | 14.8 | 14.6 |
| AUTOMOBIIES | 759 | 760 | 776 | 784 | 720 |
| NONFERROUS METALS AND TEEIR PRODUCTS | 368 | 378 | 385 | 413 | 409 |
| Smelting and refining, primary, of nonferrous metals | 41.1 | 40.6 | 40.7 | 40.8 | 40.2 |
| Alloying; and rolling and drawing of nonferrous metals, except aluminum | 48.9 | 52.6 | 54.4 | 54.6 | 53.1 |
| Clocks and watches | 22.8 | 23.1 | 24.2 | 28.8 | 28.6 |
| Jewelry (precious metals) and jowelers' findings | 25.5 | 26.0 | 26.0 | 27.0 | 27.5 |
| Silverware and plated ware | 26.0 | 26.7 | 27.0 | 27.5 | 27.1 |
| Lighting equipment | 29.1 | 30.4 | 29.9 | 33.1 | 33.9 |
| Aluminum manufactures | 38.7 | 38.7 | 39.7 | 45.2 | 45.2 |
| Sheet-metal work, not elsewhere classicied | 32.1 | 32.9 | 34.3 | 38.3 | 38.4 |

See explanatory notes, sections C, D, and $G$, and the glossary for definitions.
12.

TABLE 8: Estimated Number of Production Workers in Manufacturing Industries -Cont'd (In thousands)

| Industry eroup and industry | 1949 |  |  | 1948 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | March | February | January | March | Pebruary |
| LUNBER AND TIMBER BASIC PRODUCTS | 703 | 710 | 720 | 749 | 736 |
| Sawmills and logeing camps | 566.0 | 569.4 | 574.4 | 606.9 | 594.1 |
| Planing and plywood mills | 137.3 | 140.5 | 145.4 | 142.3 | 141.1 |
| FURNITURE AND FINISHED LUMBER PRODUCTS | 429 | 437 | 440 | 485 | 490 |
| Mattresses and bedsprings | 32.0 | 31.8 | 31.4 | 37.0 | 38.6 |
| Furniture | 234.8 | 240.5 | 242.1 | 263.7 | 266.2 |
| Wooden boxes, other than cigar | 30.6 | 30.8 | 31.8 | 37.0 | 37.6 |
| Caskets and other morticians' goods | 17.5 | 18.0 | 18.7 | 20.9 | 20.7 |
| Wood preserving | 16.8 | 16.5 | 16.6 | 16.7 | 16.7 |
| Wood, turned and shaped | 32.1 | 32.1 | 32.5 | 35.7 | 35.2 |
| STONE, CLAY, AND GLASS PRODUCTS | 433 | 440 | 448 | 452 | 442 |
| Glass and glassware | 109.4 | 111.2 | 113.6 | 121.7 | 118.8 |
| Glass products made from purchased glass | 13.2 | 14.0 | 24.4 | 14.4 | 14.3 |
| Cement | 36.2 | 36.4 | 36.5 | 35.3 | 35.2 |
| Brick, tile, and terra cotta | 77.3 | 78.5 | 79.9 | 77.3 | 75.3 |
| Pottery and related products | 59.7 | 60.4 | 60.2 | 58.9 | 57.8 |
| Gypsum | 7.4 | 7.3 | 7.4 | 7.6 | 7.6 |
| Wallboa..d. plaster (except gypsum), and mitieral wool | 12.6 | 13.2 | 14.3 | 14.3 | 24.4 |
| Lime | 10.3 | 10.4 | 10.4 | 10.9 | 10.7 |
| Marble, ©ranite, slate, and other products | 19.1 | 18.9 | 18.4 | 18.4 | 17.9 |
| Abrasives | 19.7 | 20.1 | 20.6 | 20.1 | 19.7 |
| Asbestos products | 22.4 | 23.2 | 24.1 | 25.3 | 25.1 |
| Nondurable goods |  |  |  |  |  |
| TEXIILE-MILL PRODUCTS AND OTHER FIBER MANUFACITURES | 1,149 | 1,190 | 1,200 | 1,312 | 1,306 |
| Cotton manufactures, except smallwares | 479.3 | 490.6 | 494.9 | 529.4 | 525.3 |
| Cotton smallwares | 12.7 | 12.6 | 12.8 | 14.9 | 14.9 |
| Silk and rajon goods | 108.5 | 114.9 | 118.0 | 120.0 | 119.2 |
| Woolen and worsted manufactures, except dyoing and finishing | 128.3 | 144.2 | 149.1 | 178.3 | 179.5 |
| Hosiery | 136.9 | 139.0 | 137.7 | 151.9 | 150.8 |
| Knitted cloth | 10.9 | 10.9 | 10.9 | 11.7 | 11.7 |
| Knitted outerwear and knitted gloves | 31.3 | 32.0 | 31.4 | 34.0 | 33.9 |
| Knitted underwear | 40.4 | 40.7 | 40.4 | 54.1 | 53.5 |
| Dyeing and finishing textiles, including woolen and worsted | 90.3 | 91.1 | 90.2 | 95.1 | 95.5 |
| Carpets and rugs, wool | 38.8 | 39.7 | 40.0 | 39.4 | 39.0 |
| Hats, fur-felt | 11.1 | 11.6 | 11.7 | 13.7 | 13.7 |
| Jute goods, except felts | 4.2 | 4.2 | 4.3 | 4.1 | 4.2 |
| Cordage and twine | 14.3 | 14.6 | 14.7 | 17.1 | 17.2 |

See explanatory notes, sections $C, D$, and $G$, and the glossary for definitions.
(In thousands)

| Industry eroup and industry | 1949 |  |  | 1948 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | March | February | Januery | March | February |
| APPAREL AND OTHITR FINISHED TEXTILE PRODUCTS | 2,178 | 1,180 | 1,129 | 1,165 | 1,166 |
| Men's clothing, not elsewhere classified | 289.5 | 290.7 | 279.8 | 291.3 | 288.2 |
| Shirts, collars, and nightwear | 68.6 | 67.4 | 63.5 | 74.4 | 74.1 |
| Underwear and neckwear, men's | 19.0 | 18.8 | 17.4 | 19.0 | 18.7 |
| Work shirts | 16.0 | 16.1 | 14.0 | 15.4 | 14.8 |
| Women's clothing, not elsewhere classified | 498.5 | 502.9 | 484.1 | 481.7 | 485.3 |
| Corsets and allied garments | 18.4 | 18.4 | 18.8 | 19.9 | 20.1 |
| Millinery | 24.9 | 24.3 | 22.1 | 24.2 | 24.5 |
| Handkerchiefs | 5.4 | 5.2 | 5.4 | 5.1 | 5.0 |
| Curtains, draperies, and bedspreads | 20.1 | 20.1 | 17.6 | 23.2 | 25.6 |
| Housefurnishings, other than curtains, etc. | 26.7 | 24.8 | 24.0 | 24.0 | 23.1 |
| Textile bags | 23.6 | 24.0 | 23.8 | 21.7 | 22.0 |
| LEATHER AND IEATHER PRODUCTS | 368 | 368 | 365 | 396 | 402 |
| Leather | 45.2 | 46.0 | 46.5 | 49.2 | 50.3 |
| Boot and shoe cut stock and findings | 17.3 | 17.4 | 17.1 | 18.9 | 19.5 |
| Boots and shoes | 239.5 | 239.3 | 237.2 | 254.1 | 257.8 |
| Leather gloves and mittens | 10.0 | 9.7 | 9.4 | 12.5 | 12.5 |
| Truniss and suitcases | 12.0 | 11.8 | 11.0 | 13.9 | 14.0 |
| FOOD | 1,155 | 1,153 | 1,182 | 1,149 | 1,159 |
| Slaughtering and meat packing | 199.9 | 205.1 | 213.1 | 193.6 | 199.9 |
| Butter | 33.8 | 33.1 | 33.3 | 34.3 | 32.0 |
| Condensed and evaporated milk | 20.0 | 19.2 | 19.0 | 19.3 | 18.8 |
| Ice cream | 25.5 | 24.4 | 23.5 | 24.4 | 23.6 |
| Flour | 39.7 | 40.6 | 41.4 | 40.3 | 40.7 |
| Feeds, prepared | 28.9 | 28.9 | 28.7 | 26.3 | 27.4 |
| Cereal preparations | 13.4 | 13.1 | 12.8 | 12.1 | 12.4 |
| Baking | 244.8 | 243.7 | 244.4 | 241.7 | 238.7 |
| Sugar refining, cane | 25.2 | 24.7 | 24.6 | 23.5 | 24.2 |
| Sugar, beet | 4.3 | 4.8 | 5.3 | 5.9 | 6.8 |
| Confectionery | 68.7 | 71.1 | 74.1 | 72.5 | 77.3 |
| Beverages, nonalcoholic | 38.8 | 37.8 | 38.7 | 38.4 | 36.1 |
| Malt liquors | 77.7 | 73.3 | 74.7 | 74.8 | 74.1 |
| Canning and preserving | 121.8 | 120.4 | 131.5 | 135.5 | 136.8 |
| TOBACCO MANUFACTURES | 82 | 83 | 83 | 87 | 88 |
| Cigarettes | 33.0 | 32.8 | 33.5 | 33.2 | 33.5 |
| Cigars | 42.2 | 42.3 | 42.1 | 46.2 | 46.2 |
| Tobacco (chewing and smoking) and snuff | 7.3 | 7.5 | 7.8 | 7.8 | : 7.9 |

See explanatory notes, sections $C, D$, and $G$, and the glossary for definitions.
14.

TABLE 8: Estimated Number of Production Workers in Manufacturing Industries -Cont'd (In thousands)

| Industry group and industry | 1949 |  |  | 1948 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | March | February | January | March | February |
| PAPER AND ALIIED PRODUCTS | 381 | 386 | 391 | 393 | 392 |
| Paper and pulp | 200.3 | 202.4 | 204.5 | 203.8 | 203.0 |
| Paper goods, other | 61.0 | 61.5 | 62.2 | 62.0 | 61.9 |
| Envelopes | 12.6 | 12.7 | 12.8 | 12.7 | 12.5 |
| Paper bags | 16.1 | 16.4 | 16.5 | 18.2 | 18.0 |
| Paper boxes | 90.2 | 91.9 | 94.5 | 95.2 | 96.5 |
| PRINTING, PUBLISHING, AND ALLIED INDUSTRIES | 432 | 433 | 436 | 435 | 438 |
| Newspapers and periodicals | 152.2 | 150.4 | 149.7 | 144.8 | 144.1 |
| Printing; book and jub | 181.0 | 184.2 | 186.5 | 185.4 | 187.7 |
| Lithographing | 29.5 | 29.5 | 30.1 | 31.4 | 31.8 |
| Bookbinding | 33.4 | 33.4 | 33.9 | 37.2 | 37.4 |
| CHEMICALS AND ALLIED PRODUCTS | 586 | 588 | 594 | 587 | 588 |
| Paints, varnishes, and colors | 45.3 | 46.0 | 47.1 | 48.6 | 49.3 |
| Drugs, medicines, and insecticides | 65.8 | 66.5 | 66.4 | 65.2 | 65.6 |
| Perfumes and cosmetics | 10.8 | 11.0 | 11.2 | 11.6 | 12.1 |
| Soap | 26.4 | 26.3 | 26.4 | 24.9 | 25.4 |
| Rayon and allied products | 63.6 | 65.2 | 65.1 | 63.7 | $63 . \%$ |
| Chemicals, not elsewhere classified | 202.7 | 204.7 | 209.4 | 205.4 | 205.5 |
| Explosives and safety fuses | 26.5 | 26.7 | 27.1 | 25.8 | 25.5 |
| Compressed and liquefied gases | 9.1 | 9.1 | 9.3 | 9.9 | 9.8 |
| Ammunition, small-arms | 6.8 | 7.0 | 7.1 | 7.8 | 7.8 |
| Fireworks | 2.5 | 2.6 | 2.6 | 2.4 | 2.6 |
| Cottonseed oil | 20.6 | 21.4 | 23.8 | 17.6 | 19.5 |
| Fertilizers | 38.8 | 34.1 | 30.6 | 38.1 | 35.4 |
| PRODUCTS OF PETROLEUM AND COAL | 162 | 162 | 162 | 165 | 163 |
| Petroleum refining | 112.8 | 113.1 | 112.9 | 113.5 | 112.1 |
| Coke and byproducts | 31.9 | 32.0 | 32.3 | 30.7 | 30.3 |
| Paving materials | 2.3 | 2.2 | 2.2 | 1.8 | 1.8 |
| Roofing materials | 13.5 | 13.5 | 13.4 | 17.4 | 17.6 |

See explanatory notes, sections $C, D$, and $G$, and the glossary for definitions.

TABLE 8: Estimated Number of Production Workers in Manufacturing Industries -Contid (In thousands)

| Industry group and industry | 1949 |  |  | 1948 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | March | February | January | March | Fobruary |
| RUBBER PRODUCTS | 183 | 186 | 191 | 204 | 208 |
| Rubber tires and inner tubes | 85.8 | 86.5 | 88.4 | 96.4 | 98.9 |
| Rubber boots and shoes | 19.9 | 20.6 | 22.4 | 22.6 | 22.8 |
| Rubber goods, other | 76.9 | 79.6 | 80.1 | 85.7 | 86.5 |
| MISCELLANEOUS INDUSTRIES | 403 | 411 | 415 | 447 | 445 |
| Instruments (professional and scientific), and fire-control equipment | 31.1 | 30.8 | 30.6 | 27.7 | 27.7 |
| Photographic apparatus | 37.2 | 37.6 | 38.4 | 38.8 | 39.0 |
| Optical instruments and ophthalmic goods | 26.1 | 26.3 | 26.1 | 27.2 | 27.4 |
| Planos, organs, and parts | 11.5 | 12.2 | 12.6 | 14.8 | 15.'! |
| Games, toys, and dolls | 33.6 | 33.8 | 32.3 | 38.5 | 36.3 |
| Buttons | 12.4 | 12.6 | 12.5 | 13.8 | 13.4 |
| Fire extinguishers | 2.1 | 2.1 | 2.5 | 2.6 | 2.5 |

See explanatory notes, sections C, D, and G, and the glossary for definitions.
16.

TABLE 9: Estimated Number of Employees in Selected Nomanufacturing Industries $1 /$
(In thousands)

| Industry group and industry | 1949 |  |  | 1948 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | March | February | January | March | February |
| MINING: $2 /$ |  |  |  |  |  |
| Coal |  |  |  |  |  |
| Anthracite | 75.3 | 76.2 | 77.2 | 77.4 | 76.6 |
| Bituminous coal | 392 | 399 | 401 | 401 | 397 |
| Metal | 94.3 | 92.8 | 89.8 | 91.4 | 90.2 |
| Iron | 32.1 | 32.0 | 32.0 | 31.5 | 31.0 |
| Copper | 27.8 | 26.7 | 24.2 | 26.9 | 27.0 |
| Lead and zinc | 17.1 | 17.0 | 16.9 | 16.3 | 16.3 |
| Gold and silver | 9.2 | 9.1 | 8.9 | 8.7 | 8.7 |
| Miscellaneous | 7.9 | 8.0 | 7.9 | 7.9 | 7.8 |
| Quarrying and nonmetallic | 78.2 | 76.6 | 77.8 | 80.0 | 76.8 |
| Crude petroleum and natural gas production 3/ | 129.2 | 129.6 | 129.5 | 127.1 | 127, |
| TRANSPORTATITON AND PUBLIC UTILITIES: |  |  |  |  |  |
| Class I railroads 4/ |  | 1,231 | 1,255 | 1,316 | 1,311 |
| Street railways and busses 5/ | 242 | 242 | 243 | 249 | 249 |
| Telephone | 637 | 640 | 638 | 627 | 623 |
| Telegraph 6/ | 32.4 | 32.8 | 33.3 | 36.9 | 36.8 |
| Electric light and power | 283 | 282 | 281 | 271 | 269 |
| SERVICE: |  |  |  |  |  |
| Hotels (year-round) |  | 364 | 365 |  |  |
| Power laundries 2/ | 216 | 217 | ${ }_{2}^{261}$ | 231 | ${ }^{230} 86$ |
| Cleaning and dyeing 2/ | 84.1 | 83.3 | 84.5 | 90.0 | 86.8 |

See explanatory notes, sections C, D, and G, and the glossary for definitions.
1/ Unless otherwise noted, data include all employees.
2/ Includes production and related workers only.
Does not include well driliing or rig building.
4/ Includes all employees at middle of month. Excludes omployees of switching and terminal companies. Class I railroads include those with over $\$ 1,000,000$ annual revenue. Source: Interstate Commerce Commission.
5/ Includes private and municipal street-railway companies and affiliated, subsidiary, or successor trolles-bus and motor-bus companies.
6/ Includes all land-line employees except those compensated on a commission basis. Excludes general and divisional headquarters persomel, trainees in school, and messengers.
table 10: Indexes of Production-Worker Frmployment and Weekly Pay Rolls in Manufacturing Industries (1939 Average $=100$ )

| Industry group and industry | Employment indexes |  |  |  | Pay-roll indexes |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1949 |  |  | 1948 | 1949 - |  |  | $\frac{1948}{\text { Mar. }}$ |
|  | Mar. | Feb. | Jan. 1 | Mar. | Mar. | Feb.i | Jen. |  |
| ALL MANUFACTURING | 151.3 | 153.3 | 154.7 | 160.3 | 349.3 | 357.8 | 363.1 | 358.4 |
| DURABIE GOODS | 174.9 | 177.8 | 180.7 | 188.1 | 390.1 | 402.7 | 412.7 | 402.0 |
| NONDURABIE GOODS | 132.7 | 134.0 | 134.2 | 138.4 | 309.5 | 314.0 | 314.7 | 315.7 |
| Durable goods |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| PRODUCTS | 155.9 | 158.8 | 161.1 | 164.8 | 336.7 | 348.4 | 356.7 | 340.8 |
| Blast furnaces, steel works, and rolling mills | 140.9 | 141.0 | 139.8 | 132.9 | 299.8 | 303.7 | 304.6 | 260.9 |
| Gray-iron and semisteel castings | 163.3 | 170.0 | 175.1 | 192.7 | 345.1 | 376.2 | 395.8 | 444.0 |
| Malleable-iron castings | 174.4 | 180.9 | 190.3 | 197.0 | 382.6 | 424.9 | 468.6 | 469.7 |
| Steel castings | 220.1 | 225.6 | 230.3 | 227.7 | 470.6 | 496.7 | 506.0 | 481.0 |
| Cast-iron pipe and fittings | 163.5 | 163.1 | 169.3 | 160.8 | 424.4 | 460.6 | 475.5 | 397.5 |
| Tin cans and other tinware | 134.4 | 135.8 | 140.9 | 140.01 | 306.1 | 306.5 | 317.7 | 289.8 |
| Wire drawn from purchased rods | 123.1 | 126.7 | 129.6 | 139.4 | 241.0 | 257.9 | 268.3 | 269.1 |
| Wirework | 131.2 | 135.3 | 136.9 | 142.9 | 312.1 | 323.0 | 332.0 | 316.4 |
| Cutlery and edge tools | 142.3 | 147.5 | 150.3 | 155.9 | 338.8 | 353.8 | 371.2 | 370.6 |
| Tools (except edge tools, machine tools, files, and saws) | 151.6 | 152.5 | 157.1 | 167.9 | 341.6 | 348.5 | 361.3 | 378.4 |
| Hardware | 138.3 | 142.4 | 146.1 | 160.5 | 324.0 | 335.0 | 347.0 | 373.9 |
| Plumbers' supplies | 142.6 | 151.0 | 157.9 | 153.2 | 306.3 | 321.8 | 343.3 | 329.0 |
| Stoves, oil burners, and beating equipment, not elsewhere classified | 122.2 | 125.7 | 130.3 | 178.1 | 260.8 | 261.7 | 277.2 | 388.2 |
| Steam and hot-water heating apparatus and steam fittings | 277.9 | 185.8 | 196.1 | 204.5 | 379.5 | 400 | 418.1 | 438.5 |
| Stamped and enameled ware and galvanizink | 168.9 | 178.7 | 179.8 | 203.0 | 403.5 | 429 | 440.0 | 470.6 |
| Fabricated structural and ornamental metaiwork | 177.2 | 180.6 | 182.9 | 179.9 | 385.2 | 394 | 398.5 | 361.5 |
| Metal doors, sash, frames, molding, and trim | 124.5 | 128.4 | 133.0 | 135.4 | 281.2 | 297.4 | 311.7 | 292.2 |
| Bolts, nuts, washers, and rivets | 180.2 | 185.0 | 186.6 | 190.0 | 402.8 | 413.8 | 429.9 | 422.4 |
| Forgings, iron and steel | 225.9 | 229.4 | 232.6 | 228.8 | 490.2 | 529.4 | 540.5 | 487.5 |
| Wrought pipe, welded and heavy-riveted | 216.6 | 219.9 | 219.3 | 215.5 | 476.2 | 501. | 499.1 | 455.3 |
| Screw-machine products and wood screws | 182.6 | 187.6 | 194.5 | 203.9 | 398.0 | 421. | 441.3 | 456.5 |
| Steel barrels, kegs, and drums | 107.0 | 113.2 | 118.1 | 121.9 | 269.5 | 301. | 321.0 | 302.0 |
| Firearms | 429.0 | [421.3 | -424.9 | 390.0 | 1016. | 1011.1 | 1007.6 | 911.3 |
| ELECIRICAL MACHINERY | 194.9 | 201.2 | 206.9 | 222.9 | 424.1 | 442 | 454.3 | 459.1 |
| Electrical equipment | 186.0 | 190.2 | 194. | 209.6 | 403. | 420. | 427.0 | 432.2 |
| Radios and phonographs | 190.4 | 201.3 | 212.8 | 221.9 | 454. | 478. | 507.3 | 488.4 |
| Communication equipment | 250.5 | 262.8 | 272.4 | 1297.4 | 506. | 524. | 547.2 | 578.6 |

See explanatory notes, sections $C, F$, and $G$, and the glossary for definitions.

TABIE 10: Indexes of Production-Worker Fmployment and Weekly Pay Rolls in Manufacturing Industries - Continued

| Industry group and industry | Employment indezes |  |  |  | Pay-roll indexes |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1949 |  |  | 1948 | 1949 |  |  | 1948 |
|  | Mar. | Feb. | Jan. | Mar. | Mar. | Feb. | Jan. | Mar. |
| MACHINERY, EKCEFT ELECTRICAL | 214.4 | 219.1 | 223.1 | 233.1 | 448.5 | 463.0 | 473.7 | 475.2 |
| Machinery and machine-shop products | 229.5 | 236.0 | 240.4 | 249.8 | 484.7 | 501.9 | 7.7 |  |
| Engines and turbines | 271.4 | 275.9 | 280.4 | 293.3 | 579.2 | 601.9 | 609.9 | 632.3 |
| Tractors | 194.0 | 196.3 | 197.8 | 198.8 | 358.0 | 366.8 | 374.6 | 353.8 |
| Agricultural machinery, excluding tractors | 267.0 | 266.5 | 268.3 | 266.1 | 601.2 | $60 \% .6$ | 599.0 | 576.8 |
| Machine tools | 116.1 | 118.2 | 120.5 | 134.5 | 211.8 | 218.6 | 224.2 | 249.2 |
| Machine-tool accessories | 197.3 | 201.2 | 207.3 | 216.6 | 359.7 | 367.4 | 384.0 | 388.9 |
| Textile machinery | 183.5 | 187.0 | 188.2 | 187.6 | 423.7 | 429.2 | 437.8 | 443.2 |
| Pumps and pumping equipment | 266.8 | 272.3 | 275.9 | 296.2 | 594.0 | 619.9 | 609.7 | 638.0 |
| Typewriters | 93.3 | 99.6 | 103.4 | 153.5 | 201.6 | 220.4 | 229.5 | 347.5 |
| Cash registers; adding, and calculating machines | 207.3 | 210.9 | 215.5 | 234.2 | 456.3 | 461.8 | 474.2 | 499.9 |
| Washing machines; wringers, and driers, domestic | 114.8 | 128.5 | 136.4 | 218.4 | 236.4 | 259.4 | 274.5 | 454.0 |
| Sewing machines, domestic and industrial | 193.4 | 191.8 | 192.1 | 174.8 | 479.4 | 481.5 | 490.1 | 414.5 |
| Refrigerators and refrigeration equipment | 207.4 | 210.0 | 216.9 | 230.4 | 430.1 | 449.8 | 460.8 | 454.7 |
| TRANSPORTATION EQUIPMENT, EXCEPT AUTOMOBIIES | 276.6 | 278.3 | 280.0 | 292.7 | 599.4 | 607.5 | 610.3 | 600.4 |
| Locomotives | 400.1 | 399.8 | 397.3 | 411.3 | 930.5 | 891.4 | 934.4 | 908.6 |
| Cars, electric- and ateam; railroad | 225.8 | 231.2 | 229.3 | 22:. 8 | 533.9 | 563.4 | 557.1 | 490.3 |
| Aircraft and parts, excluding aircraft engines | 382.8 | 380.3 | 382.5 | 342.9 | 819.2 | 829.8 | 814.6 | 675.9 |
| Aircraft engines | 322.4 | 321.1 | 323.2 | 276.9 | 587.0 | 604.9 | 617.2 | 473.9 |
| Shipbuilding and boatbuilding | 121.0 | 124.0 | 126.8 | 181.6 | 259.5 | 261.7 | 272.3 | 383.7 |
| Motorcycles, bicycles, and parts | 128.2 | 128.3 | 136.4 | 211.7 | 264.1 | 260.7 | 274.4 | 426.6 |
| AUTOMOBIIES | 188.7 | 188.8 | 193.0 | 195.0 | 415.7 | 441.5 | 455.3 | 396.5 |
| MONHERROUS NETALS AND THEIR PRODUCTS | 160.7 | 164.9 | 168.0 | 180.0 | 345.3 | 363.6 | 372.2 | 377.1 |
| Smelting and reíining, primary, of nonferrous metals | 148.8 | 147.1 | 147.3 | 147.8 | 343.8 | 339.2 | 344.2 | 307.2 |
| Alloying; and rolling and drawing of nonferrous metals, except aluminum | 126.0 | 135.6 | 140.1 | 140.6 | 242.3 | 276 | 296. | 283.5 |
| Clocks and watches | 112.4 | 113.9 | 119.3 | 141.9 | 279.4 | 282.8 | 295.9 | 339.1 |
| Jewelry (precious metals) and jowelers' findings | 176.9 | 180.3 | 180.3 | 191.0 | 368.2 | 375.7 | 370. | 391.8 |
| Silverware and plated ware | 214.5 | 219.8 | 223.0 | 226.5 | 459.0 | 506.4 | 512.7 | 543.3 |
| Lighting equipment | 142.2 | 148.6 | 146.1 | 161.7 | 317.3 | 347.2 | 319.8 | 328.4 |
| Aluminum manufactures | 164.4 | 164.2 | 168.6 | 192.1 | 332.6 | 341.0 | 349.8 | 362.0 |
| Sheet-metal work, not elsewhere classified <br> See explanatory notes, sections |  |  |  |  |  |  | 2.8. | 450.6 |

IABLF 10: Indexes of Production-Worker Employment and Weokly Pay Rolls in Manufacturing Industries - Continued

| Industry group and industry | Employment indexes |  |  |  | Pay-roll indexes |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1949 |  |  | 1.948 | 1949 |  |  | $\frac{1948}{\text { Mar. }}$ |
|  | Mar | Feb. | Jan. | Mar. | Mar. | Feb. | Jan. |  |
| UMBER AND TIMBER BASIC PRODUCTS | 167.3 | 168.9 | 171. | 178.3 | 403.5 | 395. | 418.2 | 427.6 |
| Sawmills and logging camps | 180.5 | 181.5 | 183 | 193.5 | 437.3 | 423.1 | 450.7 | 466.4 |
| Planing and plywood mills | 173.5 | 177.7 | 183.8 | 179.9 | 414.4 | 425.6 | 439.9 | 424.7 |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Mattresses and bedsprings | 156.0 | 155.0 | 152.9 | 180.3 | 346.8 | 343.5 | 326.8 | 387.9 |
| Furniture | 132.0 | 135.2 | 136.1 | 148.2 | 313.8 | 320.5 | 323.0 | 353.4 |
| Wooden boxes, other than cigar | 108.1 | 108.8 | 112.2 | 130.5 | 258.9 | 263.7 | 274.0 | 320.5 |
| Caskets and other morticians: goods | 125.6 | 129.2 | 134.4 | 150.2 | 256.5 | 269.6 | 282.6 | 315.7 |
| Wood preserving | 133.7 | 131.0 | 131.8 | 132.7 | 366.7 | 350.6 | 362.1 | 331.6 |
| Wood, turned and shaped | 130.6 | 130.7 | 132.3 | 145.5 | 313.8 | 315.2 | 317.3 | 339.0 |
| STONE, CLAY, AND GLASS PRODUCTS | 147.6 | 150.0 | 152.5 | 153.9 | 335.9 | 344.5 | 349.5 | 336.6 |
|  | 153.4 | 155.8 | 159.2 | 170.6 | 352.2 | 366.8 | 371.9 | 370.0 |
| Glass products made from purchased glass | 131.8 | 140.0 | 143.6 | 143.5 | 289.2 | 313.9 | 322.9 | 307.8 |
| Cement | 148.6 | 149.5 | 149.8 | 144.8 | 306.5 | 303.6 | 308.1 | 278.5 |
| Brick, tile, and terra cotta | 133.2 | 135.2 | 137.7 | 133.1 | 322.6 | 329.0 | 330.8 | 304.1 |
| Pottery and related products | 176.5 | 178.5 | 177.9 | 174.2 | 384.6 | 392.1 | 386.8 | 361.2 |
| Gypsum | 148.9 | 148.8 | 150.4 | 154.5 | 328.5 | 342.3 | 343.9 | 328.3 |
| Wailboard, plaster (except gypsum), and mineral wool Lime | 155.4 | 162.3 | 176.3 | 176.2 | 385.2 | 380. | 454.9 | 448.7 |
|  | 109.0 | 110.2 | 110.3 | 115.0 | 303.5 | 296.8 | 304.3 | 301.5 |
| Marble, granite, slate, and other products Abrasives | 103.0 | 102.2 | 99.6 | 99.3 | 198.9 | 197.1 | 190.6 | 179.3 |
|  | 255.1 | 260.2 | 265.7 | 260.5 | 543.2 | 562.7 | 574.9 | 560.2 |
| Asbestos products Nondurable goods | 240.8 | 146.1 | 151.8 | 159.0 | 334.4 | 351.9 | 362.2 | 376.2 |
|  |  |  |  |  |  |  |  |  |
| TEXTIIE-MILL PRODUCTS AND OTHER TIBER MANUFACTURES | 100.4 | 104.0 | 104.9 | 114.7 | 260.3 | 274.8 | 276.7 | 315.6 |
| Cotton manufactures, except smallwares | 114.6 | 117.3 | 118.3 | 126.6 | 319.6 | 332.9 | 331.9 | 385.1 |
| Cotton smallwaree | 90.2 | 89.9 | 90.7 | 105.8 | 211.8 | 214.4 | 213.8 | 249.1 |
| Silk and rayon goods Woolen and worsted manufactures, except dyeing and finishing Hosiery | 85.7 | 90.8 | 93.2 | 94.8 | 239.5 | 267.3 | 276.2 | 288.0 |
|  | 81.4 | 91.5 | 94.6 | 113.1 | 208.7 | 245.6 | 258.5 | 322.1 |
|  | 81.5 | 82.8 | 82.0 | 90.4 | 190.5 | 193.6 | 192.2 | 212.6 |
| Knitted cloth | 94.2 | 94.9 | 94.8 | 1101.4 | 229.1 | 225.4 | 226.3 | 243.3 |
| Knitted outerwear and knitted glores <br> Kinitted underwear | 105.2 | 107.7 | 105.7 | 114.4 | 256.8 | 260.7 | 258.1 | 268.8 |
|  | 99.1 | 99.9 | 99.3 | 132.8 | 240 | 235.9 | 231.0 | 348.1 |
| Dyeing and finishing textiles, including woolen and worsted | 127.8 | 129.0 | 127.7 | 134.7 | 320.1 | 321. | 309.0 | 332.1 |
| Carpets and rugs, wool | 143.6 | 146.8 | 148.0 | 145.7 | 362.8 | 370 | 382 | 352.6 |
|  |  | 75 | 76.0 | 89.3 | 160.6 | 175 | 177 | $\frac{107}{26} 5$ |
| Cuteragoods except felts | 112.3 |  | 115.1 | 134.1 |  | 276. | , | 330.4 |
| - |  |  |  |  |  |  |  |  |

20. 

TABIE 10: Indexes of Production-Worker Rmployment and Weekly Pay Rolls in Manufacturing Industries - Continued


See explanatory notes, sections $C, F$, and $G$, and the glossary for definitions.

TABLE 10: Indexes of Production-Worker Employment and Weekly Pay Rolls in Manufacturing Industries - Continued

| Industry group and industry | Employment indexes |  |  |  | Pay-roll indexes |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1949 |  |  | 1948 | 1949 |  |  | 1948 |
|  | Mar | Feb. | Jan. | Mar. | Mar. | Feb. | Jan. | Mar. |
| PAPER AND ALLIED PRODUCTS | 143.6 | 145.4 | 147.5 | 148.0 | 327.6 | 335.3 | 341.9 | 330.8 |
| Paper and pulp | 145.4 | 146.9 | 148.4 | 147.9 | 332.2 | 341.0 | 348.6 | 335.6 |
| Paper goods, other | 161.6 | 163.0 | 164.9 | 164.2 | 368.1 | 380.5 | 381.2 | 354.2 |
| Envelopes | 144.1 | 145.9 | 147.2 | 145.7 | 292.4 | 297.8 | 302.8 | 283.7 |
| Paper bags | 144.9 | 147.51 | 148.5 | 164.1 | 358.1 | 358.7 | 355.4 | 373.7 |
| Paper boxes | 130.1 | 132.5 | 136.3 | 137.3 | 292.5 | 296.5 | 305.6 | 305.4 |
| PRINTING, PUBLISHING, AND ALLIED INDUSIRIES | 131.6 | 132.1 | 132.9 | 132.8 | 273.9 | 269.7 | 268.8 | 258.5 |
| Newspapers and periodicals | 128.3 | 126.8 | 126.1 | 122.0 | 255.3 | 247.8 | 242.7 | 229.2 |
| Printing; book and job | 141.8 | 144.3 | 146.2 | 145.3 | 307.5 | 307.0 | 309.4 | 292.5 |
| Lithographing | 112.4 | 112.3 | 114.5 | 119.5 | 218.9 | 216.3 | 218.6 | 227.2 |
| Bookbinding | 129.7 | 129.5 | 131.5 | 144.5 | 302.0 | 296.4 | 305.4 | 313.4 |
| CHEMICALS AND AILIED PRODUCTS | 203.3 | 203.9 | 206.1 | 203.6 | 449.0 | 454.2 | 459.1 | 425.1 |
| Paints, varnishes, and colors | 160.2 | 162.7 | 166.7 | 171.9 | 311.4 | 315.5 | 317.2 | 319.1 |
| Drugs, medicines, and insecticides | 238.9 | 241.6 | 241.2 | 236.9 | 529.9 | 535.7 | 534.5 | 487.6 |
| Perfumes and cosmetics | 104.1 | 105.5 | 107.1 | 111.2 | 221.4 | 223.2 | 230.3 | 222.0 |
| Soap | 173.0 | 172.3 | 173.3 | 163.1 | 384.5 | 385.5 | 385.0 | 359.0 |
| Rayon and allied products | 131.6 | 134.9 | 134.6 | 131.8 | 294.7 | 304.0 | 304.5 | 271.9 |
| Chemicals, not elsewhere classified | 290.0 | 292.7 | 299.5 | 293.8 | 609.3 | 621.6 | 639.3 | 584.3 |
| Explosives and safety fuses | 363.6 | 366.6 | 371.7 | 354.1 | 714.4 | 729.7 | 707.6 | 675.2 |
| Compressed and liquefied gases | 228.4 | 229.0 | 232.8 | 250.1 | 491.3 | 493.1 | 487.7 | 473.6 |
| Ammunition, small-arms | 159.2 | 164.0 | 165.7 | 182.8 | 346.9 | 385.3 | 380.6 | 396.8 |
| Fireworks | 212.4 | 227.3 | 227.2 | 203.9 | 537.9 | 559.9 | 587.4 | 625.8 |
| Cottonseed oil | 135.2 | 140.0 | 155.6 | 115.0 | 401.7 | 409.9 | 470.2 | 316.4 |
| Fertilizers | 206.0 | 180.9 | [162.2 | 202.3 | 591.0 | 506.8 | 453.2 | 540.2 |
| PRODUCTS OF PEIROLEUM AND COAL | 152.6 | 152.8 | 153.0 | 155.4 | 339.4 | 339.2 | 349.6 | 320.0 |
| Petroleum reifining | 154.1 | 154.4 | 154.2 | 155.0 | 334.7 | 334.2 | 346.4 | 306.6 |
| Coke and byproducts | 146.9 | 147.4 | 148.9 | 141.4 | 346.6 | 351.0 | 358.4 | 314.6 |
| Paving materials | 92.8 | 87.8 | 91.4 | 75.3 | 207.6 | 191.3 | 185.8 | -173.1 |
| Roofing materials | 167.3 | 167.2 | 165. | 215.3 | 379.7 | 373.1 | 368.5 | 502.7 |

See explanatory notes, sections C, F, and G, and the glossary for definitions.
22.

TABIE 10: Indexes of Production-Worker Hmployment and Weekly Pay Rolls in Manufacturing Industries - Continued

| Industry group and industry | Hmployment indexes |  |  |  | Pay-roll indexes |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1949 |  |  | 1948 | 1949 |  |  | 1948 |
|  | Mar. | Feb. | Jan. | Mar. | Mar. | Fob. | Jan. | Mar. |
| RUBBER PRODUCTS | 151.0 | 154.1 | 157.8 | 168.9 | 297.8 | 309.8 | 320.6 | 320.6 |
| Rubber tires and inner tubes | 158.2 | 159.5 | 163.0 | 177.7 | 287.8 | 288.8 | 294.5 | 292.4 |
| Rubber boots and shoes | 133.9 | 138.8 | 151.1 | 152.4 | 250.2 | 301.5 | 351.1 | 347.0 |
| Rubber goods, other | 148.3 | 153.4 | 154.4 | 165.3 | 328.6 | 346.8 | 353.9 | 356.2 |
| MISCELLANEOUS INUUSTRIES | 164.8 | 167.9 | 169.4 | 182.6 | 378.2 | 381.4 | 384.2 | 394.0 |
| Instruments (professional and scientific), and fire-control equipment | 274.6 | 272.2 | 270.4 | 244.6 | 598.1 | 596.3 | 588.1 | 489.3 |
| Photographic apparatus 1/ | 210.4 | 212.8 | 217.1 | 219.8 | 426.6 | 432.1 | 440.7 | 422.3 |
| Optical instruments and ophthalmic goods | 219.6 | 221.5 | 219.6 | 229.1 | 447.2 | 452.5 | 452.9 | 444.8 |
| Planos, organs, and parts | 147.7 | 156.3 | 161.8 | 189.7 | 311.7 | 329.1 | 341.3 | 396.0 |
| Games, toys, and dolls | 175.9 | 177.1 | 168.8 | 201.2 | 434.3 | 429.4 | 410.2 | 463.7 |
| Buttons | 110.0 | 112.0 | 111.1 | 122.6 | 258.4 | 263.0 | 267.4 | 284.3 |
| Fire extinguishers | 202.7 | 204.5 | 246.0 | 258.6 | 512.6 | 515.5 | 601.7 | 541.0 |

See explanatory notes, sections C, F, and G, and the glossary for definitions.
1/ 1948 annual average pay roll shown in table 12 of the February issue of this report as 437.5 should have read 435.7 .

TABLE 11: Indexes of Fmployment and Weekly Pay Rolls in Selected Nonmanufacturing Industries
(1939 Average $=100$ )

| Industry croup and industry | Employment Indexes |  |  |  | Pay-roll indexes |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1949 |  |  | 1948 | 1949 , |  |  | 1948 |
|  | Mar. | Feb. | Jan. | Mar. | Mar. | Feb. | Jan. | Mar. |
| MINING: |  |  |  |  |  |  |  |  |
| Coal: |  |  |  |  |  |  |  |  |
| Anthracite | 90.1 | 91.1 | 92.3 | 92.6 | 160.1 | 168.3 | 238.6 | 255.9 |
| Bituminous coal | 105.4 | 107.3 | 107.9 | 108.0 | 311.7 | 343.9 | 355.3 | 342.0 |
| Metal | 101.6 | 100.2 | 97.0 | 98.7 | 237.4 | 228.6 | 225.1 | 201.3 |
| Iron | 152.1 | 151.7 | 151.4 | 149.4 | 368.2 | 364.7 | 363.1 | 313.8 |
| Copper | 111.4 | 106.8 | 96.7 | 107.9 | 277.3 | 252.9 | 241.2 | 234.8 |
| Lead and zinc | 104.8 | 104.3 | 104.1 | 100.2 | 285.7 | 276.1 | 280.3 | 232.8 |
| Gold and silver | 35.3 | 35.1 | 34.3 | 33.3 | 64.3 | 66.2 | 61.9 | 56.7 |
| Miscellaneous | 188.5 | 191.7 | 188.0 | 189.1 | 396.0 | 396.2 | 410.3 | 349.2 |
| Quarrying and nonmetallic | 114.2 | 111.9 | 113.6 | 116.8 | 286.8 | 281.2 | 290.2 | 272.7 |
| Crude petroleum and natural gas production | 112.9 | 113.2 | 113.2 | 111.1 | 233.1 | 236.7 | 245.1 | 208.3 |
| TRANSPORTATION AND PUBLIC UTILITIES: |  |  |  |  |  |  |  |  |
| Class I railroads $1 /$ | 121.0 | 124.6 | 127.1 | 133.3 |  |  |  |  |
| Street railways and busses | 124.9 | 125.1 | 125.4 | 128.7 | 228.7 | 230.6 | 231.3 | 232.6 |
| Telephone | 200.5 | 201.6 | 200.8 | 197.4 | 344.9 | 346.2 | 337.2 | 314.7 |
| Telegraph | 86.0 | 87.1 | 88.6 | 98.2 | 206.8 | 208.6 | 210.9 | 213.0 |
| Electric light and power | 115.7 | 115.6 | 115.1 | 110.9 | 206.0 | 206.2 | 206.7 | 184.4 |
| TRADE: $2 /$ |  |  |  |  |  |  |  |  |
| Wholesale | 114.5 | 114.9 | 115.9 | 115.3 | 217.4 | 219.3 | 222.7 | 210.8 |
| Retail | 109.3 | 109.1 | 111.7 | 113.8 | 214.5 | 214.4 | 222.6 | 210.4 |
| Food | 112.7 | 111.8 | 111.6 | 116.7 | 233.3 | 232.4 | 231.9 | 226.1 |
| General merchandise | 119.0 | 118.7 | 126.0 | 124.5 | 227.5 | 225.0 | 248.3 | 225.5 |
| Apparel | 108.8 | 106.3 | 110.9 | 116.8 | 200.0 | 198.7 | 211.9 | 208.8 |
| Furniture and housefurnishings | 89.8 | 90.1 | 91.1 | 91.9 | 177.1 | 180.3 | 186.8 | 173.7 |
| Automotive | 107.1 | 107.3 | 108.9 | 105.8 | 212.7 | 210.4 | 216.5 | 197.5 |
| Lumber and building materials | 114.0 | 115.0 | 117.6 | 119.4 | 232.1 | 234.4 | 239.8 | 228.6 |
| SERVICE: |  |  |  |  |  |  |  |  |
| Hotels (year-round) 3/ | 111.9 | 112.8 | 113.3 | 116.4 | 233.0 | 236.2 | 236.5 | 229.0 |
| Power laundries | 110.1 | 110.8 | 113.1 | 117.7 | 219.1 | 219.8 | 228.5 | 227.5 |
| Cleaning and dyeing | 144.5 | 143.3 | 145.3 | 154.8 | 278.9 | 271.1 | 284.3 | 291.2 |

See footnotes, table 9, and explanatory notes, sections C, F, and G.
1/ Source: Interstate Commerce Commission. Pay-roll data are not available.
2/ Data include all nonsupervisory employees and working supervisors.
3/ Money payments only; additional value of board, room, uniforms, and tips, not included.

Sec. A. Scope of Employment Adjustments - The employment estimates shown in this report for the industry divisions (è.g., manufacturing, mining, etc.) and industry groups (e.g., iron and steel, electrical machinery, etc.) have been adjusted to levels indicated by Federal Security Agency data through 1946 and have been carried forward from 1946 bench-mark levels, thereby providing consistent series.

Sec. B. Sources of Bench-Mark Data - In preparing estimates for private employment prior to 1939, t: various industrial censuses taken by the Bureau of the Census were used as sources of bench-mark data. Data obtained from the Federal Security Agency are the main bases for 1946 bench marks. Bench marks for State and local government are based on data compiled by the Bureau of the Census, while most of the data on Federal Government employment is made available by the U. S. Civil Service Commission. The Interstate Commerce Commission is the source for Class I railroads, and the U. S. Maritime Commission for water transportation.

Sec. C. Adjustments of Production-Worker Estimates Data for the manufacturing major industry groups have been adjusted to levels indicated by Federal Security Agency data through 1946 and have been carried forward from 1946 bench-mark levels, thereby providing consistent series. Estimates for the individual manufacturing industries, with the exception of the industries in the transportation equipment except automobiles group, have been adjusted to 1946 bench-mark levels. In the nonmanufacturing industries, the entire series of mining industries have been adjusted to 1946 bench-mark levels.

Since the data shown in this report cover only the current months, a set of summary sheets for each industry presenting comparable figures from January 1939 to date, by months, will be provided upon request to the Bureau of Labor Statistics. Such requests should specify the series desired.

Sec. D. How Employment Estimates Are Made - Estimates of changes in the level of employment are based on reports from a sample group of establishments, inasmuch as full coverage is prohibitively costly and time-consuming. In using a sample, it is essential that an accurate base be established from which estimates may be carried forward. This base or "bench mark" is either a complete count or an eatimate with a satisfactory degree of accuracy. When a new bench mark becomes available, estimates
prepared since the last bench mark are reviewed to determine if any adjustment of level is required. This is the basic principle of employment estimating used by the BLS. It yields a satisfactory compromise between a slow but highly accurate complete count on the one hand, and a rapid but less accurate sample count on the other.

Briefly, BLS computes employment estimates as follows: first, a bench mark or level of employment is determined; second, a sample of establishments is selected; and third, changes in employment indicated by this reporting sample are applied to the bench mark to determine the monthly estimates of employment between bench-mark periods. For example, if the latest complete data on employment for an industry were 40,200 in September, and if the industry has a reporting sample of 13 establishments employing 23,200 workers in September and 23,800 in October, the October estimates would be prepared as follows:

$$
40,200 \times \frac{23,800}{23,200}=41,240
$$

In general, then, the month-to-month changes in employment reflect the fluctuations shown by establishments reporting to BLS.

Why Adjustments Are Necessary - Because reports are not immediately available from new firms, they are frequently introduced into the BLS sample after they have been in operation for some time. This lapse of time produces a rather consistent understatement which becomes larger from year to year. It is important, therefore, that estimates not be allowed to go uncorrected for too long a period. The most recent adjustments correct for the downward bias that had accumulated in the nonmanufacturing series beginning January 1945 and in the manufacturing series beginning January 1946. Adjustmente in some industry divisions were made in order to incorporate greater refinements in methodology and new source materials that have become available.

Sec. E. Comparability With Other Types of Employment Data - The Bureau of Labor Statistics employment estimates are based upon reports submitted by cooperating establishments and therefore differ from employment information obtained by household interviews, such as the Monthly Report of the Labor Force. The BLS estimates of employment in nonagricultural establishments differ from the Monthly Report of the Labor Force total nonagricultural employment estimates in several important respects.

For example: (1) The BLS estimates cover all full- and parttime wage and salary workers in private nonagricultural establishments who worked or received pay during the pay period ending nearest the 15th of the month; in Federal establishments during the pay period ending just before the first of the month; and in State and local government during the pay period ending on or just before the last of the month. Persons who worked in more than one establishment during the reporting period would be counted more than once; (2) Proprietors, selfemployed persons, domestic servants, and unpaid family workers are excluded.

Sec. F. Pay-Roll Indexes - Cooperating establishments are instructed to report pay rolls of production or nonsupervisory workers prior to deduction for old age and unemployment insurance, withholding taxes, bonds, and union dues. Pay for sick leave, holidays, and vacations taken is included. Respondents are instructed to exclude pay for vacations not taken as well as cash estimates of any payments in kind. Bonuses, unless earned and paid regularly each pay period, are also excluded.

The methodology for obtaining pay-roll estimates is similar to that for employment estimates. Sample changes showing monthly movements are used in projecting established bench marks to secure current pay-roll estimates. These pay-roll estimates are converted into indexes, using the 1939 average as a base.

Sec. G. Source of Data - Employment and pay-roll estimates are based on reports from cooperating establishmenis. The approximate number of establishments, and workers covered, for each industry division is as follows:

Approximate Coverage of BLS Employment and Pay-Roll Sample

| Industry division $:$ | $\qquad$ |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  | : Percent of total |
| Manufacturing | 34,300 | 7,542,000 | 56 |
| Mining | 2,700 | 407,000 | 52 |
| Contract construction | 12,500 | 480,000 | 22 |
| Public utilities | 7,500 | 933,000 | 78 |
| Trade: |  |  |  |
| Wholesale | 12,800 | 360,000 | 20 |
| Retail | 37,900 | 1,097,000 | 25 |
| Service: |  |  |  |
| Hotels (year-round) | 1,200 | 131,000 | 35 |
| Power laundries and cleaning and dyeing | g 1,600 | 67,000 | 21 |

Sec. H. Coverage of Employment Estimates - The employment estimates shown in tables 1, 2, 3, 6, and 7 cover all fulland part-time wage and salary workers who worked or received pay during the pay period ending nearest the 15 th of the month. Proprietors, self-employed persons, domestic servants, and personnel of the armed forces are excluded. The estimates and indexes shown in tables 8 and 10 refer to production and related workers as defined in the glossary, page ix.

Sec. I. State Estimates - State estimates are prepared in cooperation with various State Agencies as indicated below. The estimates for manufacturing have been adjusted to recent data made available under the Federal Social Security program. Since some States have adjusted to more recent bench-mark data than others, and because varying methods of computation are used, the total of the State estimates differs from the national total (see tables 1 and 2). Because of these recent revisions the State estimates for manufacturing are not consistent with the unrevised data shown prior to June 1947 for totel employment in nonagricultural establishments, by State. A number of States also make available more detailed industry data and information for earlier periods which may be secured directly upon request to the appropriate State Agency. Estimates of nonagricultural employment, by State, for those States which are now publishing such estimates are shown in table 6 and are consistent with the manufacturing estimates in table 7. As nonagricultural estimates for additional States become available, they will be show in table 6.

The following publications are available upon request from the BLS Regional Offices or the Bureau's Washington Office:

Nonagricultural Employment, by State, 1943-1947.
Employment in Manufacturing Industries, by State, 1943-1946.

Estimates of Total Employment in Manufacturing Industries by State, 1947.

COOPERATING STATE AGENCIES
Alabama - Dept. of Industrial Relations, Montgomery 5.
Arizona - Unemployment Compensation Div., Employment Security Commission, Phoenix.
Arkansas - Employment Security Div., Dept. of Labor, Little Rock.

California - Div. of Labor Statistics and Research, Dept. of Industrial Relations, San Francisco 3.
Connecticut - Employment Security Div., Dept. of Labor and Factory Inspection, Hartford 15.
Delaware - Federal Reserve Bank of Philadelphia, Philadelphia 1, Pa.
Florida - Unemployment Compensation Div., Industrial Commission, Tallahassee.
Georgia - Employment Security Agency, Dept. of Labor, Atlanta 3. Idaho - Employment Security Agency, Industrial Accident Board, Boise. Illinois - Dept. of Labor, Chicago 1.
Indiana - Employment Security Div., Indianapoiis 4.
Iowa - Employment Security Comission, Des Moines 9.
Kansas - Employment Security Div., State Labor Dept., Topeka.
Kentucky - Dept. of Economic Security, Frankfort.
Louisiana - Div. of Fmployment Security, Dept. of Labor, Baton Rouge 4.
Maine - Unemployment Compensation Commiseion, Augusta.
Maryland - Dept. of Employment Security, Baltimore 2.
Massachusetts - Div. of Statistics, Dept. of Labor and Industries, Boston 10.
Michigan - Dept. of Labor and Industry, Lansing 13.
Minnesota - Div. of Employment and Security, Dept. of Social Seourity, St. Paul 1.
Missouri - Div. of Employment Security, Dept. of Labor and Industrial Relations, Jefferson City.
Montana - Unemployment Compensation Commission, Helena.
Nebraska - Div. of Employment Security, Dept. of Labor, Lincoln 1.
Nevada - Employment Security Dept., Carson City.
New Hampshire - Unemployment Compensation Div., Bureau of Labor, Concord.
New Jersey - Dept. of Labor and Industry, Trenton 8.
New Mexico - Employment Security Comission, Albuquerque.
New York - Div. of Placement and Unemployment Insurance, Dept. of Labor, New York 17.
North Carolina - Dept. of Labor, Raleigh.
North Dakota - Unemployment Compensation Div., and Employment Service, Bismarck.
Oklahoma - Erployment Security Commission, Oklahoma City 2.
Pennsylvania - Federal Reserve Bank of Philadelphia, Philadelphia 1 (mfg.); Bureau of Research and Information, Dept. of Labor and Industry, Harrisburg (nonmfg.).
Rhode Island - Div. of Census and Information, Dept. of Labor, Providence 2.
Tennessee - Dept. of Employment Security, Nashville 3.
Texas - Bureau of Business Research, University of Texas, Austin 12.
Wtah - Dept. of Fmployment Security, Industrial Commission, Salt Lake City 13.
Vermont - Unemployment Compensation Commission, Montpelier.
Virginia - Div. of Research and Statistics, Dept. of Labor and Industry, Richmond 21.
Washington - Fmployment Security Dept., Olympia.
Wisconsin - Statistical Dept., Industrial Comission, Madison 3.
Wyoming - Employment Security Comission, Casper.

## BIS REGIONAL OFFICES

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North Atlantic: Regional Director, U. S. Bureau of Labor Statistics, Room 1000, 341 Ninth Avenue, New York 1, New York (Delaware, District of Columbia, Maryland, New Jersey, New York, Penneylvania).
Southern: Regional Director, U. S. Bureau of Labor Statistics, 1020 Grant Bldg., Forsyth and Walton Streets, Atlanta 3, Georgia (Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Cerolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia).
North Central: Regional Director, U. S. Bureau of Labor Statistics, Room 312, 226 W. Jackson Blvd., Chicago 6, Illinois (Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, West Virginia, Wisconsin).
Pacific-Rocky Mountain: Regional Director, U. S. Bureau of Labor Statistics, 550 Federal Office Bldg., Fulton and Leavenworth Streets, San Francisco 2, California (Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming).

## GLOSSARY

Cuntinental United States - Covers only the 48 States and the District of Columbia.

Contract Construction - Covers only firms engaged in the construction business on a contract basis for others. Force-account construction workers, i.e., hired directly by and on the pay rolls of Federal, State, and local government, public utilities, and private establishments, are excluded.

Defense Agencies - Covers civilian employees of the National Military Establishment, Maritime Commission, National Advisory Committee for Aeronautics, The Panama Canal, Philippine Alien Property Administration, Philippine War Damage Comisaion, Selective Service System, War Assets Administration, Office of Defense Transportation, National Security Resources Board, National Security Council.

Family Allowances - Represents the Government's contribution; the amount contributed by the personnel is included under pay rolls.

Federal Government-Fiocutive Branch - Includes U. S. Navy Yards, Federal arsenals, and force-account construction. Fourth-class postmasters are included under the executive branch in table 4, but are excluded from the government data shown in tables 1 and 3.

Erployment shown here for the executive branch differs from data published by the U. S. Civil Service Commission in the following respects: (1) Eraployment collected and published by the Civil Service Commission as of the last day of the month, is here presented as of the first day of the next month; (2) substitute rural mail carriers are excluded; (3) employment in December of each year includes the additional postal employees necessitated by the Christmas season, excluded from published Civil Service Commission figures starting 1942; (4) seamen and trainees who are hired and paid by private steamship companies having contracts with the Maritime Commission are excluded; (5) the Panama Railroal Company is shown here under Government corporations but is included under the executive branch by the Civil Service Commiasion,

Finance - Covers establishments operating in the fields of finance, insurance, and real estate; excludes the Federal Reserve District Banks and the mixed-ownership janks of the Farm Credit Administration.

Government - Covers Federal, State, and Iocal governmental establishments performing legislative, executive, and judicial functions, as well as all government-owned and operated establishments and institutions (arsenals, navy yards, hospitals, etc.), government corporations, and government force-account construction. The data shown in tables 1 and 3 exclude fourthclass postmasters because they presumably have other major jobi.

Goverment corporations - Covers only three corporations: The Panama Railroad Company, the Federal Reserve Banks, and the mixed-ownership banks of the Farm Credit Administration. All other corporations are included under the executive branch.

Indexes of Production-Worker Employment - Estimates of pro-duction-worker employment expressed as a percentage of the average enployment in 1939.

Indexes of Production-Worker Weekly Pay Rolls - Estimates of production-worker weekly pay rolls expressed as a percentage of the average weekly pay roll for 1939.

Leave Payments - Payments were authorized by Public Law 704 of the 79th Congress and were continued by Public Law 254 of the 80th Congress to enilsted personnel who were discharged prior to September 1, 1946 for accrued and unused leave and to officers and enlisted personnel then on active duty for leave accrued in excess of 60 days. Value of bonds represents face value; interest is paid in addition when bonds are cashed. Lump-sum payments for terminal leave, which were authorized by Public Law 350 of the 80th Congress, and were started October 1947, are excluded bere and included under pay rolls.

## Manufacturing - Covers only privately owned establishments;

 governmental manufacturing operations such a, arsenals and navy yards are excluded.Military Personnel - Represents persons on active duty as of the first of the month. Reserve personnel are excluded if on inactive duty or if on active duty for a brief training or emergency period.

Military Pay Rolls - Represent estimated pay roll obligations based on an average monthly personnel count, plus lump-sum payments for terminal leave. Pay rolle for the Navy and Coast Guard include cash payments for clothing-allowance balances in January, April, July, and October.

Mining - Covers establishments engaged in the extraction from the earth of organic and inorganic minerala which occur in nature as solids, liquids, or gases; includes various contract services required in mining operations, such as removal of overburden, tumelling and shafting, and the drilling or acidizing of oil wells; also includes ore dressing, beneficiating, and concentration.

Nonagricultural Establishments - Governmental or private business establishments; (1) that are physically located within continental United States; and (2) whose principal activity can be classified under one of the following industry divisions manufacturing, mining, contract construction, transportation and public utilities, trade, finance, service, or government.

Pay Rolls - Private pay rolls represent weekly pay rolls of both full- and part-time production and related risckers (or nonsupervisory employees and working supervisors) who worked or received pay for any part of the pay period ending nearest the l5th of the month, before deductions for old-age and unemployment insurance: group insurance, withholding tex, bonds, and union dues, but after deductions for damaged work. Includes pay for sick leave, holidays, and vacations taken. Excludes cash payments for vacations not taken, ritroactive piy not earned during period reported, value of payments in kir, ${ }^{2}$, and bonuses, unless earned and paid regularly each pay period. In coal mining portal-to-portal pay is included.

Federal civilian pay rolls are for all employees before deductions for income tax, retirement, and bonds, and cover the working days in the calendar year.

Production and related workers - Includes working foremen and all nonsupervisory workers (including lead men and traineea) engaged in fabricating, processing, assembling, inspection, receiving, storage, handilig, packing, warehousing, shipping, maintenance, repair, janitorial, watchman servioes, products development, auxiliary production for plant's own use (e.g., power plant), and record-keeping and other services closely associated with the above production operations. Excludes supervisory employees (above the working foreman level) and their clerical staffs, routemen, salesmen, and other groups of nonproduction workers defined below under wage and salary workers.

Service - Covers establishments primarily engaged in rendering services to individuals and business firms. Freiudes automobile repair services, government-owned and operated hospitals, museums, etc., and domestic service.

Trade - Covers establishments engaged in wholesale trade, 1.e., selling merchandise to retailers, and in retail trade, 1.e., selling merchandise for personal or household consumption, and rendering services incidental to the sales of goods. IncIudes auto repair services.

Transportation and public utilities - Covers only privately owned and operated enterprises engaged in providing all types of transportation and related services; telephone, telegraph, and other communication services; or providing electricity, gas, steam, water, or sanitary service. Govern-ment-owned and operated establishments are included under goverment.

Wage and salary workers - In addition to production and related workers as defined above, includes workers engaged in the following activities: executive, purchasing, finance, accounting, legal, personnel (including cafeterias, medical, etc.), professional and technical activities, sales, salesdelivery, advertising, credit, collection, and in installation and servicing of own producte, routine office functions, factory supervision (above the working foreman level), and other workers not included as production workers. Also includes employees on the establishment pay roll engaged in new construction and major additions or altarations to the plant who are utilized as a separate work force (forceaccount construction workers).

Wage earner - See production workers.
Washington, D. C. - Data for the executive branch of the Federal Government also include areas in Maryland and Virginia which are within the metropolitan area, as defined by the Bureau of the Census.

