# EMPLOYMENT and PAY RILLLS 

## DETAILED REPORT FEBRUARY 1949

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Prepared by
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# EMPLOYMENTI AND PAY ROLIS 

Detailed Report

February 1949
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| 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 $1-1 x$. |

$\therefore$.
TABLE 1: Estimated Number of Nage and Salary Workers in Nonagriculturai Establishmente, by Industry Livision
(In thousands)

| Industry division | 1949 |  | 1948 |  |  | 1948 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | February | Jancary | Secember | February | January | Average |
| TOTAL | 43,997 | 44,340 | 46,088 | 44,279 | 44,603 | 45,131 |
| :Manufacturing | 15,756 | 15,890 | 16,283 | 16,183 | 16,267 | 16,277 |
| Aining | 92.2 | 924 | 939 | 914 | 922 | 925 |
| Contract construction | 1,824 | 1,906 | 2,079 | 1,731 | 1,871 | 2,060 |
| iransportation and public utilities | 3,957 | 3,577 | 4,066 | 4,019 | 4,020 | 4,065 |
| Trade | 9,513 | 9,625 | 10,381 | 9,520 | 9,622 | 9,746 |
| Finance | 1,706 | 1,711 | 1,722 | 1.,690 | 1,680 | 1,719 |
| Serrice | 4,560 | 4,546 | 4,624 | 4,730 | 4,723 | 4,681 |
| Government | 5.759 | 5,761 | 5,994 | 5,492 | 5,498 | 5,658 |

See explanatory notes, sections A. $\overline{\text { n }}$, 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 group | 1949 |  | 1.948 |  |  | 1948 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | February | Jamuary | December | February | January | Average |
| ATH MANUFACIURING | 15,756. | 15,890 | 16,283 | 16,183 | 16,267 | 16,277 |
| IURABIT GOODS | 7,891 | 8,005 | 8,222 | 8,167 | 8;256 | 8,214 |
| Iron and steel and their products | 1,867 | 1,892 | 1,935 | 1,920 | 1,925 | 1,923 |
| Electrical machinery | 700 | 715 | 730 | 763 | 767 | 736 |
| Machinery, except electrical | 1,515 | 1,536 | 1,560 | 1,591 | 1,583 | 1,572 |
| Trensportation equipment, except automobiles | 578 | 580 | 588 | 589 | 598 | 577 |
| Automobiles | 949 | 972 | 980 | 914 | 989 | 968 |
| Nonferrous metals and their products | 448 | 455 | 468 | 478 | 478 | 471 |
| Lumber and timber basic products | 790 | 800 | 870 | 813 | 816 | 874 |
| Furniture and finished <br> lumber products | 526 | 529 | 552 | 581 | 580 | 560 |
| Stone, clay, and glass products | 518 | 526 | 539 | 518 | 520 | 533 |
| NONDURABLE GOODS | 7,865 | 7,885 | 8,061 | 8,016 | 8,011 | 8,063 |
| Textile-mill products and other fiber manufactures | 1,313 | 1,323 | 1,358 | ;1,428 | 1, 413 | 1,398 |
| Apparel and other finished textile products | 1,358 | 1,310 | 1,327 | 1,333 | 1,311 | 1,307 |
| Leather and leather products | - 412 | 1,310 | - 409 | 1,348 | 445 | 1424 |
| Food | 1,687 | 1,723 | 1.792 | 1,658 | 1,688 | 1,788 |
| Tobacco manufactures | 96 | 96 | 100 | 101 | 101 | 100 |
| Paper and allied products | 476 | 481 | 491 | 479 | 482 | 482 |
| Printing, publishing, and allifed industries | 726 | 729 | 738 | 724 | 726 | 725 |
| Chemicals and allied products | 778 | 784 | 788 | 773 | 72 | 72 |
| Products of petroleum and coal | 237 | 233 | 240 | 173 237 | 238 | 242 |
| Rubber products | 235 | 240 | 246 | 257 | 259 | 248 |
| Miscellaneous industries | 547 | 551 | 572 | 578 | 574 | 576 |

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

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

| Major industry group | 1949 |  | 1948 |  |  | 1948 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | February | January | December | February | January | Average |
| MINIINE | 922 | 924 | 939 | 914 | 922 | 925 |
| Anthracite | 81 | 82 | 82 | 81 | 81 | 82 |
| Bituminous coal | 417 | 419 | 423 | 415 | 422 | 411 |
| Metel | 104 | 100 | 101 | 101 | 100 | 101 |
| Quarrying and nonmetalilc | 85 | 86 | 93 | 87 | 89 | 94 |
| Crude petroleum and natural gas production 1/ | 235 | 237 | 240 | 230 | 230 | 238 |
| TRANSPORTATION AND PUBLIC URILITIES | 3,957 | 3,977 | 4,066 | 4,019 | 4,020 | 4,065 |
| Transportation | 2;704 | 2,728 | 2,809 | 2,802 | 2,809 | 2,822 |
| Communication | 736 | -734 | 740 | 723 | 719 | 735 |
| Other public utilities | 517 | 515 | 517 | 494 | 492 | 509 |
| GOVERNMENT | 5,759 | 5,761 | 5,904 | 5,492 | 5,498. | 5,658 |
| Federal | 1,877 | 1,876 | 2,156 | 1,746 | 1,743 | 1, 839 |
| State and local | 3,882 | 3,885 | 3,838 | 3,746 | 3,755 | 3,820 |

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

LABLB 4: Federal Civilian Employment and Pay Rolls in All Areas and in Continental United States, and Total Civilitan-Govertmentemplomment and Pay Rojls in Hashington, D. C. 1/
(In thousands)


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

T/BIE 5: Peraonnel and Pay of the Military Branch of the Federal Government I/ (In thousands)

| Desimation. | 1949 |  | 1948 |  |  | 1948 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | F'ebruary | 4 dancary | December | Fébruar | \% January | Average |
| PRRSONNEL (as of ifirst of month) Total | 1,687 |  | 1 |  | i | A-me |
| By branch: |  |  |  |  |  |  |
| Army | $712^{\circ}$ | 677 | 662 | 552 | 2/398 | c/ 98.4 |
| Air Force | 416 | 412 | 410 | 353 | 2/ | 2/ |
| Mavy. | 450 | 447 | 449 | 414 | 4.421 | 424 |
| Marine Corps | 87 | 86 | 85 | 80 | 83 | 83 |
| Coast Guard. | 2.2 | 22 | ?2 | 20 | 20 | 20 |
| By sex: |  |  |  |  |  |  |
| Men | 1,671 | - 1,629 | 1,613 | 1,402 | 1 1, +05 | 1,475 |
| Women | 16 | 15 | 15 | 17 | 17 | 15 |
| PAY (for entire |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Total | 1\$289,960 | \$2999,593 | \$294,061 | \$281, 42.3. | \$300, 241 | \$286,912 |
| By branch: |  |  |  |  |  |  |
| Army and Atr Force | 187,813 | 1995,048 | 189, 237 | 170,209 | 179,389 | 178,032 |
| Navy | 84, 201 | -85,638 | 185,598 | 91,172 | 100,639 | +89,808 |
| Marine Corps | 13,509 | 14,123 | 14,336 | 15,582 | : 15,506 | 14,446 |
| Coast Guara | 4,437 | 4,785 | 4,891 | 4,460 | 4,707 | 4,626 |
| By type of pay: |  |  |  |  |  |  |
| Pay rolls | 257,503 | [265,618 | .260,046 | 240,493 | 1250, 353 | 249,427 |
| Tustering-out pay | 4,210 | 5,023 | 5,221 | 17,838 | 13,465 | 7,953 |
| Framily allowance | 28,163 | -28,709 | 28,605 | 23,566 | - 23,454 | 26,438 |
| Leave payments | 85 | 1. 243 | 190 | 5,526 | 12,369 | 3,094 |
| Cash | 30 | 123. | 133 | 1,182 | 12,204 | 659 |
| Bonds | 55 | 120 | 56 | 4,344 | 1 10, 164 | 2,435 |

See the glossary for definitions.
1/ Because of rounding, the individual figures may not add to group totals.
2/ Separate figures for Army and Air Force not available, combined data shown under Army. ments for Selected States
(In thousandis)

| State | 1949 | 1948 |  |  | 1947 | 1948 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | January | December | Novomber | January | December | Average |
| Arizona | 155 | 159 | 156 | $155^{\circ}$ | 156 | 155 |
| Arkansas* | 295 | 311 | 306 | 282 | 295 | 296 |
| Califorinia | 2,991 | 3,115 | 3,085 | 3,03'7` | 3,122 | 3,081 |
| Connecticut | 751 | 778 | 775 | * 771 | 792 | 770 |
| Georgia | 729 | 753 | 751 | 737 | 752 | 743 |
| Idaho | 124 | 131 | 132 | * 117 | 125 | 122 |
| Illinois | 3,157 | 3,256 | 3,230 | 3,172 | 3,225 | 3,182 |
| Indiana | 1,176 | 1,226 | 1,215 | 1,186 | 1,221 | 1,204 |
| Kanses | 433 | 454 | 447 | 419 | 435 | 435 |
| Maine | 251 | 262 | 263 | 264 | 270 | 260 |
| Maryland | 700 | 723 | 723 | 682 | 698 | 703 |
| Massachusetts | 1,680 | 1,754 | 1,727 | *1,720 | 1,773 | 1,723 |
| Minnesota. | 77. | 809 | 813 | 773 | 795 | 796 |
| Missouri | 1,112 | 1,158 | 1,14.4 | 1,125 | 1,156 | 1,135 |
| Montana | 137 | 142 | 14.2 | 134 | 138 | 139 |
| Nevada 1/ | 46 | 48 | 48 | 48 | 49 | 48 |
| New Jersey | 2,537 | 1,586 | 1,585 | 1,561 | 1,604 | 1,581 |
| New Mexico | 126 | 130 | 129 | * 121 | 121 | 127 |
| New York | 5,483 | 5,699 | 5,64,9 | *5, 517 | *5,713 | 5,583 |
| Oklahoma* | 462 | 486 | 472 | 439 | 452 | 461 |
| Pennsylvania | 3,581 | 3,701 | 3,671 | 3,566 | 3,662 | 3,610 |
| Rhode Island | 275 | 237 | 288 | 289 | 298 | 288 |
| Tennessee | 720 | 749 | 748 | 720 | 722 | 741 |
| Texas | 1,760 | 1,808 | 1,777 | 1,677 | 1,715 | 1,727 |
| Utah | 168 | 184 | 186 | 173 | 181 | 182 |
| Vermont 1/ | 92 |  | 94 | * 94 |  | 95 |
| Washington | 646 | 688 | 692 | * 647 | * 675 | 675 |
| Wisconsin | 971 | 1,006 | 1,000 | 971 | 996 | 992 |
| Wyoming | 74 | 78 | 79 | 70 | 73 | 78 |

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

* Révised: Data for other months revised as follows:

Arkansas - October 1948 to 308..
Connecticut - February 1943 to 770.
Idaho - February through October 1948 to $115,115,115,116,118$, 121, 121, 132, and 133.
New Mexico - February through September 1948 to $1: 20$, 122, 124, 128, 130, 131, 132 and 133.
New York - February through October 1948 to $5,508,5,538,5,508$, $5,521,5,570,5,559,5,618,5,653$, and 5,661 .
Oklahoma - September and October 1948 to 475 and 472.
Vermont - February 1948 to 94.
Washington - February through October 1948 to 642, 654, 665, 648, $671,68 \%, 693,707$, and 704.

TABIE 7: Estimated Number of Wage and Salary Workers in Manufacturing Industries, by State
(In thousands)

| Region and State | 1949 | 1948 |  |  | 1947 | 1948 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | January | December | November | January | December | Average |
| NEW EINGLAND: |  |  |  |  |  |  |
| Maine 1/ | 107.8 | 109.3 | 111.2 | 116.9 | 118.5 | 114.0 |
| New Hampshire | 77.7 | 79.2 | 80.4 | 85.8 | 85.3 | 82.7 |
| Vermont 1/ | 35.2 | 36.2 | 36.6 | 39.1 | 40.0 | 37.7 |
| Massachusetts | 696.7 | 715.5 | 722.8 | 747.3 | 757.2 | 729.3 |
| Rhode Island | 136.1 | 139.5 | 142.1 | 153.5 | 154.6 | 146.9 |
| Connecticut I/ | 387.6 | 395.1 | 396.5 | * 417.4 | 417.8 | 402.0 |
| MIDDIE ATJANTIC: |  |  |  |  |  |  |
| New York | 1,807.8 | 1,853.1 | 1,884.7 | 1,902.0 | 1,931.7. | 1,872.6 |
| New Jersey | 707.6 | 724.7 | 740.9 | 757.3 | 764.0 | 744.8 |
| Pennsylvania | 11,461.4 | 1,498.9 | 1,504.0 | 1,515.6 | 1,527.3 | 1,502.0 |
| EAST YORTH CENVIRAL: |  |  |  |  |  |  |
| Ohio | 1,189.9 | 1,210.4 | 1,224.6 | 1,246.0 | 1,250.9 | 1,229.0 |
| Indiana | 533.5 | 542.9 | 545.8 | 556.3 | 559.0 | 548.9 |
| Illinois | 1,211.5 | 1,234.5 | 1,242.7 | 1,271.0 | 1, 273.6 | 1,237.0 |
| Michigan | 972.9 | 988.5 | 993.4 | 1,019.6 | 1,024.2 | 994.9 |
| Wisconsin 1/ | 415.5 | 426.5 | 430.7 | 433.9 | 1,436.1 | 432.8 |
| WEST NORTH CENTIRAL: |  |  |  |  |  |  |
| Minnesota 1/ | 191.7 | 197.5 | 200.8 | 200.0 | 202.0 | 200.6 |
| Iowa 1/ | 153.9 | 155.9 | 153.8 | 155.5 | 156.2 | 150.4 |
| Missouri 1/ | 342.0 | 345.5 | 347.2 | 350.3 | 351.7 | 346.1 |
| North Dakota | 6.6 | 6.6 | - 6.9 | 6.6 | 6.7 | 6.7 |
| South Dakota | 11.7 | 12.0 | 12.2 | 11.2 | 11.3 | 11.6 |
| Nebraska | +2. 6 | 42.9 | 44.1 | 43.8 | 46.3 | 41.9 |
| Kansas I/ | 86.6 | 87.8 | 87.8 | 81.6 | 83.1 | 84.3 |
| SOUTH ATLANTIC: |  |  |  |  |  |  |
| Delaware | 44.5 | 44.8 | 45.2 | 45.7 | 46.1 | 42.5 |
| Maryland | 219.1 | 227.7 | 233.0 | 226.9 | 229.6 | 231.7 |
| District of Columbia | 16.7 | 17.1 | 17.0 | 17.3 | 17.5 | 17.1 |
| Virginia | 206.3 | 211.3 | 215.5 | 213.6 | 215.1 | 213.7 |
| West Virginia | 129.6 | 132.3 | 132.7 | 132.4 | 132.5 | 132.6 |
| North Carolina | 360.1 | 367.2 | 369.3 | 382.7 | 380.8 | 376.6 |
| South Carolina | 108.8 | 193.0 | 193.6 | 198.3 | 198.9 | 196.8 |
| Georgia 1 / ${ }^{\text {F }}$ / | 1265.6 99.3 | 271.7 | 277.6 | 281.3 | 280.0 | 277.7 |
| Florida I/ | 99.3 | 99.7 | 97.3 | 100.3 | - 97.8 | 94.4 |

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

| Region and State | 1949 | 1948 |  |  | 1947 | 1948 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | January | Decamber | November | Januery | December | Average |
| EAST SOUPH CENTRAL: |  |  |  |  |  |  |
| Kentucky | 122.7 | 126.8 | 128.6 | 129.5 | 130.4 | 128.0 |
| Tennessee it ${ }^{\text {c }}$ | 235.4 | 245.3 | 250.8 | 255.4 | 254.7 | 255.6 |
| Alabama 1 | 223.3 | 224.8 | 228.7 | 232.7 | 230.9 | 228.5 |
| Mississippi | 83.5 | 86.6 | 87.0 | 95.5 | 95.7 | 89.4 |
| WEST SOUTH CENTIRAL: |  |  |  |  |  |  |
| Arkansas I/ | 74.7 | 77.1 | 79.0 | 71.9 | 76.1 | 76.7 |
| Louisiana $1 /$ | 148.6 | 150.9 | 152.6 | 156.4 | 150.9 | 150.2 |
| Oklahoma 17 | 64.3 | 66.7 | 67.4 | 64.0 | 64.7 | 66.0 |
| Texas | 345.2 | 353.3 | 358.0 | 342.7 | 346.6 | 348.1 |
| MOUNTATN: |  |  |  |  |  |  |
| Montana | 16.9 | 18.1 | 18.6 | 17.7 | 18.5 | 17.8 |
| Idaho 1/ | 19.0 | 20.9 | 23.4 | 18.2 | 19.5 | 20.2 |
| Wyoming 1/ | 6.1 | 6.4 | 7.1 | 6.0 | 6.7 | 6.5 |
| Colorado | 53.5 | 55.9 | 59.2 | 57.2 | 61.0 | 56.5 |
| New Mexicol/* | 9.5 | 9.9 | 10.1 | 8.3 | 8.6 | 9.4 |
| Arizona $1 /{ }^{\text {/ }}$ | 14.3 | 15.2 | 15.1 | 14.7 | 14.7 | 35.0 |
| Utah $1 /$ | 25.5 | 27.7 | 30.9 | 25.1 | 26.9 | 27.5 |
| Nevada. $1 /$ | 3.2 | 3.3 | 3.4 | 3.3 | 3.3 | 3.4 |
| PACIFIC: |  |  |  |  |  |  |
| Washington 1/ | 163.5 | 174.5 | 184.8 | 169.4 | 172.2 | 175.5 |
| Oregon | 102.9 | 109.9 | 113.3 | 109.8 | 111.4 | 113.7 |
| California | 702.8 | 727.1 | 737.1 | 705.0 | 715.1 | 730.1. |

See' explanatory notes, sections $H$ and $I$.

1/. Series based on Standard Industrial Classification. Data for Now York, Washington and Wyoming may not. be strictly comparable with those published prior to the current repart.

* Revised: Data for other monthe revised as follows:

Connecticut - February 1948 to 418.8
Georgia -Apzil through Octóber 1948 to 276.5; 275.0; 276.3; 273.6; 280.1; 279.4; and 279.9.

New Mexico-April through September 1948 to $9.0 ; 9.4 ; 9.5 ; 9.8 ; 9 ; 8 ;$ and 9.8.
Tennessee - Auguat through October 1948 to 259.1; 256.6; and 256.6.
10.

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

| Industry group and industry | 1349 |  |  | 1948 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Feimruary | January | Lecenber | Tebruary | January |
| ALL MANUFACHURING | 12, 552 | 12,670 | 13,059 | 13,066 | 13,150 |
| DURABLE GCODS | 6,416 | 6,522 | 6,736 | 6,711 | 6,795 |
| NONDURABLE GOODS | 6,136 | 6,148 | 5,323 | 6,355 | 6,355 |
| Durable goods |  |  |  |  |  |
| IRON AND STHEEL AND THEIR PRODUCIS $1 /$ | 1,574 | 1,597 | 1,638 | 1,628 | 1,634 |
| Blast furnaces, steel works, and rolling mills | 546.2 105.8 | 543.0 109.0 | 543.0 113.1 | 508.5 120.5 | 508.8 120.4 27.9 |
| Malleable-iron castings | 34.8 | 36.6 | 39.0 | 37.8 | 37.9 |
| Steel castings | 72.3 | 73.8 | 74.9 | 72.3 | 71.3 |
| Cast-iron pipe and fittings | 28.6 | 29.8 | 30.0 | 28.0 | 28.7 |
| Tin cans and other tinware | 43.1 | 44.8 | 46.4 | 45.7 | 47.4 |
| Wire drawn from purchesed rods | 27.8 | 28.5 | 28.7 | 30.9 | 31.4 |
| Wirework | 41.1 | 41.6 | 42.2 | 42.5 | 43.5 |
| Cutlery and edge tools' | 22.7 | 23.2 | 24.3 | 24.6 | 24.7 |
| Tool's (except edge tools, machine tools, files, and saws) | 23.3 | 24.0 | 24.4 | 25.8 | 25.9 |
| Hardware | 50.9 | 52.01 | 54.2 | 56.9 . | 56.0 |
| Plumbers' supplies | 39.6 | 41.4 | 42.4 | 40.0 | 40.0 |
| Stoves, oil burners, and heating equipment, not elsewhere classified | 61.8 | 64.0 | 76.4 | 91.0 | 93.1 |
| Steam and hot-water heating apparatus and steam fittings | 60.0 | 63.3 | 65.3 | 66.5 | 65.9 |
| Stamped and enameled ware and galvanizing | 105.7 | 106.4 | 113.5 | 121.2 | 121.6 |
| Fabricated structural and ornamental metalwork | 64.1 | 65.0 | 65.6 | 63.4 | 63.7 |
| Metal doors, sash, frames, molding, and trim | 9.9 | 10.3 | 11.0 | 10.2 | 10.8 |
| Bolts, nuts, washers, and rivets | 28.2 | 28.5 | 28.7 | 28.7 | 28.7 |
| Forgings, iron and steel: | 37.6 | 38.1 | 38.4 | 37.0́ | 37.8 |
| Wrought pipe, welded and heavyriveted | 19.7 | 19.6; | 19.5 | 19.1 | 19.8 |
| Screw-machine products and wood screws | 33.8 | 35.1 | 35.7 | 36.6 | 36.1 |
| Steel barrels, kegs, and drume | 7.3 | 7.6 | 7.8 | 8.1 | 8.4 |
| Firearms | 22.4 | 2.6 | 22.4 | 20.4 | 20.0 |
| HIECIRICAL, MACHINERY $1 /$ | 521 | 536 | 552. | 584 | 588 |
| Electrical equipment | 347.4 | 354.5 | 363.4 | 387.7 | 389.7 |
| Radios and phonographs | 88.6 | 93.6 | 97.2 | 99.2 | 100.3 |
| Communication equipment | 85.3 | 88.4 : | 91.8 | 97.2 | 98.2 |

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 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | February | January | December | February | January |
| YACHINERY, EXCEPT ELECTRICAI 1/ | 1,158 | 1,179 | 1,202 | 1,237 | 1,231 |
| Machinery and machine-shop products | 489.9 | 499.1 | 506.0 | 521.3 | 518.5 |
| Engines and turbines | 51.5 | 52.3 | 52.6 | 54.4 | 54.6 |
| Tractors | 61.4 | 61.8 | 61.6 | 61.9 | 61.4 |
| Agricultural machinery, excluding tractors | 76.0 | 76.5 | 77.1 | 74.6 | 72.3 |
| Machine tools | 43.3 | 44.1 | $4 \% \cdot 3$ | 50.4 | .50.4 |
| Machine-tool accessories | 52.0 | 53.5 | 54.4 | 56.3 | 56.4 |
| Textile machinery | 41.0 | 41.2 | 41.6 | 40.8 | 40.1 |
| Pumps and pumping equipment | 67.7 | 68.6 | 69.4 | 75.4 | 75.5 |
| Typewriters | 16.1 | 16.8 | 18.4 | 25.1 | 25.8 |
| Cash registers; adding, and calculating machines | $41: 5$ | 42.4 | 43.8 | 45.9 | 45.3 |
| Washing machines, wringers, and driers, domestic | 9.6 | 10.2 | 12.5 | 16.5 | 16.2 |
| Sewing machines, domestic and industrial | 15.1 | 15.1 | 15.0 | 13.5 | 13.4 |
| Refrigerators and refrigeration equipment | 73.8 | 76.3 | $79 \cdot 3$ | 81.6 | 82.6 |
| TRANSPC.TTATION EQUIPMENT, EXCEPT AUTOMOBILES | $442^{\circ}$ | 444 | 453 | 464 | 472 |
| Locomotives | 25.2 | 25.3 | 26.5 | 26.5 | 26.3 |
| Cars, electric- and steam-railroad | 56.7 | 56.2 | 56.1 | 54.0 | 55.9 |
| Aircraft and parts, excluding aircraft engines | 151.1 | 151.4 | 151.6 | 135.3 | 134.7 |
| Aircraft engines | 28.5 | 28.7 | 28.5 | 24.9 | 25.3 |
| Shipbuilding and boatbuilding | 86.8 | 88.9 | 92.7 | 127.7 | 132.9 |
| Motorcyclos, bicycles, and parts | 8.9 | 9.5 | 12.0 | 14.6 | 14.5 |
| AUTOMOBIIES | 758 | 776 | 784 | 720 | 789 |
| NONFERROUS METALS AND THEEIR PRODUCTS I/ | 378 | 385 | 398 | 409 | 409 |
| Smelting and refining, primary, of nonferrous metals | 40.6 | 40.7 | 41.2 | 40.2 | 39.9 |
| Alloying; and rolling and drawing of nonferrous metals, except aluminum | 52.6 | 54.4 | (1) 54.7 | 53.1 | 53.6 |
| Clocks and watches | 23.1 | 24.2 | 27.0 | 28.6 | 28.6 |
| Jewelry (precious metals) and jewelers' findings | 26.1 | 26.1 | 26.8 | 27.5 | 27.3 |
| Silverware and plated ware | 26.7 | 27.0 | 28.0 | 27.1 | 26.8 |
| Lighting equipment | 30.5 | 29.9 | - 30.9 | 33.9 | 33.6 |
| Aluminum manufactures | 38.7 | 39.7 | 40.6 | 45.2 | 45.3 |
| Sheet-metal work, not elsewhere classified | 32.9 | 34.3 | 36.4 | 38.4 | $: 38.8$ |

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 group and industry | 1949 |  | 1948 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | February | January | December | February | y January |
| LUMBER AND TILBER BASIC PRODUCTS 1/ | 708 | 717 | 785 | 736 | 738 |
| Sawnills and logging campe | 567.2 | 571.8 | 632.4 | 594.1 | 597.7 |
| Planing and plywood mills | 140.5 | 145.4 | 152.4 | 141.1 | 140.8 |
| FURNITURE AND FINISHED LUMBER PRODUCTS. 1/ | 437 | 440 | 462 | 490 | 489 |
| Hattresses and bedsprings | 31.8 | 31.4 | 33.4 | 38.6 | : 38.7 |
| Furniture | 240.5 | 242.1 | 254.1 | 266.2 | 265.1 |
| Wooden boxes, other than cigar | 31.4 | 32.4 | 35.1 | 37.6 | 37.8 |
| Caskets and other morticians' goods | 18.0 | 18.7 | 18.8 | 20.7 | 21.0 |
| Wood preserving | 16.4 | 16.5 | 17.0 | 16.7 | 17.6 |
| Wood, turned and shaped | 32.2 | 32.4 | 33.4 | 35.1 | 34.3 |
| STONE, CIAY, AND GLASS PRODUCTS 1/ | 440 | 448 | 462 | 443 | 445 |
| Glass and glassware | 111.2 | 113.6 | 118.8 | 118.8 | 121.0 |
| Glass products made from purchased glass | 14.0 | 14.4 | 14.7 | 14.3 | 14.4 |
| Cement | 36.4 | 36.5 | 37.0 | 35.2 | 35.2 |
| Brick, tile, and terra cotta | 78.5 | 79.9 | 83.1 | 75.3 | 78.0 |
| Pottery and related products | 60.4 | 60.2 | 61.6 | 57.8 | 57.4 |
| Gypsum | 7.3 | 7.4 | 7.5 | 7.6 | 7.5 |
| Wailboard, plaster (except gypsum), and mineral wool | 13.2 | 14.3 | 14.8 | 14.4 | 14.5 |
| Lime | 10.4 | 10.4 | 10:7 | 10.7 | 10.7 |
| Marble, granite, slate, and other products | 18.9 | 18.4 | 19.2 | 17.9 | 18.0 |
| Abrasives | 20.1 | 20.6 | 20.6 | 19.7 | 15.8 |
| Asbestos products. | 23.2 | 24.1 | 25.3 | 25.1 | 25.1 |
| Nondurable goods |  |  |  |  |  |
| TEXTILE-MILL PRODUCTS AND OTHER FIBER MANUFACTURES 1/ | 190 | 1,200 | 1,236 | 1,306 | 1,292 |
|  |  |  |  |  |  |
| Cotton manufactures, except smallwares | 490.6 | 494.9 | 507.5 | 525.3 | 523.6 |
| Cotton smallwares | 12.6 | 12.8 | 13.1 | 14.9 | 14.6 |
| Silk and rayon goods | 114.9 | 118.0 | 120.8 | 119.2 | 115.5 |
| Woolen and worsted manufactures, except dyeing and finishing | 144.2 | 149.1 | 157.4 | 179.5 | 177.4 |
| Hosiery | 139.0 | 137.7 | 140.5 | 150.8 | 149.5 |
| Knitted cloth | 10.9 | 10.9 | 11.2 | 11.7 | 11.6 |
| Knitted ${ }^{\text {outerwear }}$ and knitted gloves | 32.0 | 31.4 | 33.2 | 33.9 | 32.9 |
| Knitted underwear | 40.7 | 40.4 | 43.6 | 53.5 | 52.8 |
| Dyeing and finishing textiles, including woolen and worsted | 91.1 | 90.2 | 92.5 | 95.5 | 94.4 |
| Carpets and rugs, wool | 39.7 | 40.0 | 40.7 | 39.0 | 38.4 |
| Hats, fur-felt | 11.6 | 11.7 | 11.7 | 13.7 | 13.7 |
| Jute goods, except felts | 4.2 | 4.3 | 4.3 | 4.2 | 4.0 |
| Cordage and twine | 14.6 | 14.7 | 14.9 | 17.2 | 16.8 |

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

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

| Industry group and industry | 1949 |  | 1948 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | February | January | December | February | January |
| PPAREL AND OIHER FINISHED TEXTILE PRODUCTS 1/ | 1,177 | 1,129 | 1,147 | 1,166 | 1,147 |
| Men's clathing; not elsewhere classified | 290.7 | 279.8 | 281.3 | 288.2 | 285.3 |
| Shirts, collars, and nightwear | 66.7 | 62.9 | 66.8 | 74.1 | 73.8 |
| Underwear and neckwear, men's | 18.8 | 17.4 | 19.0 | 18.7 | 18.1 |
| 'Work shirts | 15.7 | 13.8 | 16.0 | 14.8 | 13.9 |
| Women's clothing, not elsewhere classiffed | 501.6 | 483.3 | 486.5 | 485.3 | 476.2 |
| Corsets and allied garments | 18.5 | 18.8 | 19.4 | 20.1 | 19.7 |
| Millinery | 23.7 | 21.7 | 20.9 | 24.5 | 23.1 |
| Handkerchiefs | 5.2 | 5.4 | 5.5 | 5.0 | 4.9 |
| Curtains, draperies, and bedspreads | 20.1 | 17.6 | 19.5 | 25.6 | 24.1 |
| Houaefurnishings, other than curtains, etc. | 24.9 | 24.0 | 25.6 | 23.1 | 23.7 |
| Textile bags | 24.0 | 23.8 | 24.1 | 22.0 | 22.3 |
| LEATHER AND LFATHER PRODUCTS 1/ | 367. | 365 | 364 | 402 | 399 |
| Leather | 46.0 | 46.5 | 47.3 | 50.3 | 50.2 |
| Boot and shoe cut stock and findings | 17.4 | 17.1 | 17.0 | 19.5 | 19.7 |
| Boots and shoes | 239.3 | 237.2 | 232.1 | 257.8 | 256.2 |
| Leather gloves and mittens | 9.7 | 9.4 | 10.6 | 12.5 | 12.2 |
| Trunks and suitcases | 11.1 | 11.0 | 13.1 | 14.0 | 13.3 |
| FOOD 1/ | 1,153 | 1,182 | 1,253 | 1,159 | 1,191 |
| Slaughtering and meat packing | 205.1 | 213.1 | 218.2 | 199.9 | 209.7 |
| Butter | 33.1 | 33.3 | 34.9 | 32.0 | 32.6 |
| Condensed and evaporated milk | 19.2 | 19.0 | 18.7 | 18.8 | 18.4 |
| Ice cream | 24.4 | 23.5 | 23.9 | 23.6 | 23.6 |
| Flour | 40.5 | 41.3 | 41.5 | 40.7 | 41.8 |
| Feeds, prepared | 28.9 | 28.7 | 28.9 | 27.4 | 29.3 |
| Cereal preparations | 13.1 | 12.8 | 12.5 | 12.4 | 12.1 |
| Baking | 243.7 | 244.1 | 251.7 | 238.7 | 236.4 |
| Sugar refining, cane | 24.7 | 24.6 | 24.2 | 24.2 | 22.2 |
| Sugar, beet | 4.8 | 5.3 | 10.8 | 6.8 | 11.1 |
| Confectionery | 71.1 | 74.1 | 82.4 | 77.3 | 82.0 |
| Beverages, nonalcoholic | 37.8 | 38.7 | 39.5 | 36.1 | 37.4 |
| Malt liquors | 73.1 | 74.5 | 77.9 | 74.1 | 75.2 |
| Canning and preserving | 120.8 | 131.8 | 163.1 | 136.8 | 142.2 |
| TOBACCO MANUFACTURES 1/ | 83 | 83 | 87 | 88 | 87 |
| Cigarettes | 32.8 | 33.5 | 34.1 | 33.5 | 33.6 |
| Cigars | 42.3 | 42.1 | 45.2 | 46.2 | 45.8 |
| Tobacco (chewing and smoking) and snuff | 7.5 | 7.8 | 7.8 | 7.9 | 7.9 |

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

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

| Industry group and industry | 1049 |  | 1948 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | February | Jenuaxy | December | February | January |
| PAPER AND AULIED PRODUCTS 1/ | 386 | 391 | 401 | 392 | 395 |
| Paper and pulp | 202.4 | 204.5 | 207.0 | 203.0 | 203.0 |
| Paper goods, other | 61.5 | 62.2 | 63.5 | 61.9 | 62.6 |
| finvelopes | 12.7 | 12.8 | 13.1 | 12.5 | 12.4 |
| Paper bags. | 16.4 | 16.5 | 16.7 | 18.0 | 18.1 |
| Paper bosess | 21.9 | 94.5 | 99.9 | 96.5 | 97.7 |
| PRINITNG, PUBLISHING, AND ALILED IMDINSTRIES 1/ | 433 | 436 | 443 | 438 | 439 |
| Newspapers and periodicals | 150.4 | 149.7 | 152.3 | 144.1 | 143.6 |
| Printing; boois and job | 184.2 | 186.5 | 188.7 | 187.7 | 189.7 |
| Lithographing | 29.5 | 30.1 | 31.3 | 31.8 | 32.0 |
| Bookbinding | 33.4 | 33.9 | 34.5 | 37.4 | 37.6 |
| CHPMDCALS AND ALETED PRODUCTS 1/ | 589 | 594 | 597 | 588 | 588 |
| Peints, varnishes, and colors | 46.0 | 47.1 | 47.6 | 49.3 | 48.6 |
| Drugs, medicines, and insecticides | 65.7 | 65.6 | 64.4 | 65.6 | 65.7 |
| Perfumes and cosmetics | 21.0 | 11.2 | 12.2 | 12.1 | 12.0 |
| Soap | 26.3 | 26.4 | 26.5 | 25.4 | 25.5 |
| Rayon and allied products | 65.2 | 65.1 | 64.8 | 63.7 | 63.2 |
| Chemicels, not elsewhere classified | 204.7 | 209.4 | 211.2 | 205.5 | 206.7 |
| Explosives and safety fuses | 26.7 | 27.1 | 27.4 | 25.5 | 25.3 |
| Compressed and liquefled gases | 9.1 | 9.3 | 9.5 | 9.8 | 9.9 |
| Armunition, small-arms | 7.0 | 7.1 | 7.2 | 7.8 | . 7.7 |
| Fireworks | 2.6 | 2.6 | 2.4 | 2.6 | 2.5 |
| Cottonseed oil | 21.6 | 24.0 | 25.7 | 19.5 | 21.7 |
| Fertilizers | 33.9 | 30.4 | 28.7 | 35.4 | 33.3 |
| TRODUCTS OT: FETROLEUM AND COAL I/ | 162 | 162 | 164 | 163 | 164 |
| Petroleum refining | 113.1 | 112.9 | 113.3 | 112.1 | 112.4 |
| Coke and byproducts | 32.0 | 32.3 | 32.1 | 30.3 | 30.5 |
| Paving materials | 2.2 | 2.2 | 2.6 | 1.8 | 2.0 |
| Roofing materials | 13.5 | 13.4 | 15.1 | 17.6 | 18.0 |

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

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

| Industry group and industry | 1949 |  | 1974 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | February-i | January | December | February | Januar |
| SUBBER PRODUCTS 1/ | 186. | 191 | 196 | 208 | 210 |
| Rubber tires and inner tubes | 86.5 | 88.4 | : 89.6 | 98.9 | 100.6 |
| Rubber boots and shoes | 20.6 | 22.4 | . 23.5 | 22.8 | 22.5 |
| Rubber goods, other | 79.3 | 80.1 | ; 82.6 | 86.5 | 86.8 |
| MISCEILANEOUS INDUSTRIES 1/ | 411 | 415 | 435 | 445 | 443 |
| Instruments. (professionel and scientific.), and fire-control | 30.8 | 30.6 |  | 27.7 | 27.7 |
| equipment | 37.0 | 38.4 | 30.2 39.6 | 27.7 39.0 | 27.7 38.9 |
| Optical instruments and ophthalmic goods | 26.3 | 26.1 | 26.3 | 27.4 | 27.8 |
| Pianos, organs, and parts | 12.2 | 12.6 | - 13.3 | 15.7 | 16.8 |
| Games, toys, and dolls | 33.8 | 32.3 | 39.5 | 36.3 | 33.5 |
| Buttons | 12.6 | 12.5 | 13.0 | 13.4 | 13.3 |
| Fire extinguishers | 2.3 | 2.6 | 2.8 | 2.5 | 2.6 |

See explanatory notes, sections C, D, and G, and the glossary for definitions.
1/ Estimates for the individual industries comprising the 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 providinf consistent series. Comparable data from Jenuary 1939 are available upon request to the Bureau of Labor Statistics. Such requests should specify the ceries desired.
16.

TABLE 9: Estimated Number of Employees in Selected Nonmanufacturing Industrios $1 /$

> (In thousands)

| Industry group and industry | 1949 |  | 1948 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | February | Januay | Deceraber | February | January |
| 'IIIING: $2 /$ |  |  |  |  |  |
| Cbal |  |  |  |  |  |
| Anthracite | 76.2 | 77.2 | 77.0 | 76.6; | 76.2 |
| Bituminous coal | 399 | 401 | 405. | 397. | 404 |
| Metal | 92.8 | 89.8 | 90.1 | 90.2 | 89.7 |
| Iron | 32.0 | 32.0 | 32.3 | 31.9 | 30.9 |
| Copper | 26.7 | 24.2 | 214.4 | 27.0 | 26.9 |
| Lead end zinc | 16.9 | 16.9 | 16.9 | 16.3 | 15.7 |
| Gold and silver | 9.2 | 8.9 | 8.7 | 8.7 | 8.6 |
| Miscellaneous | 8.0 | 7.9 | 7.9 | 7.8 | 7.7 |
| Quarrying and nonmetallic | 76.6 | 77.5 | 83.4 | 76.8 | 79.9 |
| Crude petroleum and natural gas production $3 /$ | 129.6 | 129.5 | 129.6 | 127.1 | 126.4 |
| MRANSPORTAIION AND PUBLIC UIILITIES: |  |  |  |  |  |
| Cless I raflroads 4/ | 1,232 | 1,256 | 1,306 | 1,311 | 1,318 |
| Street railways and busses 5/ | 242 | 243 | 244 | 249 | 250 |
| Telephone | 640 | 638 | 642 | 623 | 620 |
| Telegraph 6/ | 32.8 | 33.3 | 33.9 | 36.8 | 36.6 |
| Electric ilight and power | 282 | 281. | 282 | 269 | 268 |
| 3RRVICE: |  |  |  |  |  |
| Hotels (year-round) | 364 | 366 | 370 | 377 | 378 |
| Power laundries 2/ | 217 | 221 | 224 |  | 235 |
| Cleaning and dyeing 2/ | 83.3 | 84.5 | 86.3 | 86,8 | 88.9 |

See explanatory notes, sections $C, D$, and $G$, and the glossary for definitions.
1/ Unless otherwise noted, data include all employees.
If Includes production and related workers only.
Does not include well drilling or rig building.
Includes ail employees at middle of month. Excludes employees of awitching and terminal compenies. Class I railroeds include thcee with over $\$ 1,000,000$ amual revenue, Source: Interstate Commerce Commission.
5/ Includes private and municipal street-railway companies and affiliated, subsidiary, or successor trolley-bus and motor-bus companies.
$6 /$ Includes all land-line employees except those compensated on a comiseion besis. Excludes general and divisional headquarters personnel, trainees in school, and meabengers.

IABLE 10: Indexes of Production-Worker Employment and Weekly Pay Rolls in Manufacturing Industries
(1939 Average $=100$ )

| Industry group and industry | Eirploynent indexes |  |  |  | Pat-roll indexes |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1949 |  | 1948 |  | 1949 |  | 1948 |  |
|  | Feb. | Jan. | Dec. | Feb. | Fob. | Jan. | Dec. | Feb. |
| ALL MANUFACIURING | 153.2 | 154.7 | 159.4 | 159.5 | 357.9 | 363.0 | 377.6 | 354.1 |
| DURABLE GOODS | 177.7 | 180.6 | 186.5 | 185.8 | 403.2 | 412.6 | 430.1 | 393.1 |
| NONDURABIE GOODS | 133.9 | 134.2 | 138.0 | 138.7 | 313.6 | 31.4 .5 | 326.3 | 316.0 |
| Durable goods |  |  |  |  |  |  |  |  |
| RON AND STMEFT AND |  |  |  |  |  |  |  |  |
| PRODUCTS I/ | 158.8 | 161.1 | 165.2 | 164.2 | 348.4 | 356.7 | 371.4 | 337.6 |
| Blast furnaces, steel works, and rolling mills | 140.6 | 139.8 | 139.8 | 130.9 | 302.8 | 304.6 | 305.1 | 257.5 |
| Gray-iron and semisteel castings | 170.0 | 175.1 | 181.7 | 193.7 | 376.2 | 395.8 | 424.1 | 436.7 |
| Malleable-iron castings | 180.9 | 190.3 | 203.1 | 196.7 | 424.9 | 468.6 | 520.8 | 467.6 |
| Steel castings | 225.6 | 230.3 | 233.6 | 225.5 | 496.7 | 506.0 | 525.2 | 465.6 |
| Cast-iron pipe and fittings | 262.3 | 169.3 | 170.3 | 159.1 | 460.8 | 475.5 | 471.2 | 392.5 |
| Tin cans and other tinware | 135.8 | 140.9 | 145.9 | 143.8 | 306.5 | 317.7 | 340.3 | 302.4 |
| Wire drawn from purchased rods | 126.7 | 129.6 | 230.8 | 140.5 | 257.9 | 268.3 | 271.4 | 268.7 |
| Wireuprk | 135.3 | 136.9 | 238.8 | 139.9 | 323.0 | 332.0 | 334.7 | 309.0 |
| Cutiery and edge tools | 147.5 | 150.3 | 157.8 | 159.4 | 353.8 | 371.2 | 394.3 | 377.2 |
| Tools (except edge tools, machine tools, files, and sawe) | 152.5 | 157.1 | 159.3 | 168.8 | 348.5 | 361.3 | 372.5 | 379.0 |
| Hardware | 142.9 | 146.0 | 152.0 | 159.7 | 339.3 | 350.0 | 370.8 | 372.1 |
| Plumbers' supplies | 151.0 | 157.9 | 161.5 | 152.6 | 321.8 | 343.3 | 378.3 | 320.3 |
| Stoves, oil burners, and heating equipment, not elsewhere classified | 125.7 | $130 \cdot 3$ | 155.3 | 185.2 | 261.7 | 277.2 | 350.4 | 407.6 |
| Steam and hot-water heating apparatus and steam fittings | 285.8 | 196.1 | 202.3 | 206.1 | 400.6 | 418.1 |  |  |
| Stamped and enameled ware and galvanizing | 178.7 | 279.8 | 191.9 | 204.9 | 429.3 | 440.0 | 481.0 | 472.0 |
| Fabricated structural and ornamental metalwork | 180.6 | 182.9 | 184 | 178.4 |  | 398.5 | 406.8 | 3.0 |
| Metal doors, sash, frames, molding, and trim | 1228.4 | 133.0 | 141.7 | 178.2 131.2 | 297.4 | 311.7 | 341.8 | 276.9 |
| Bolts, nuts, washers, and rivets | 185.0 | 186.9 | 188.4 | 188.2 | 410.4 | 420.5 | 445.1 | 406.0 |
| Forgings, iron and steel | 229.4 | 232.6 | 234.2 | 229.5 | 529.4 | 540.5 | 548.5 | 496.2 |
| Wrought pipe, welded and heavy-riveted | 220.5 | 239.3 | 219.2 | 214.6 | 504.6 | 499.1 | 497.2 | 443.2 |
| Screw-machine producte and wood screws | 187.6 | 194.5 | 197.8 | 203.2 | 421.3 |  |  | 45.1 |
| Steel barrels, kegs, and drums | 113.2 | 118.1 | 120.6 | 125.5 | 301.9 | 321.0 | 349.4 | 300.5 |
| Fireams | 421.3 | 424.9 | 423.3 | 383.9 | 1011.1 | 1007.6 | 1005.6 | 872. 2 |
| ELECTRICAL MACHINERX 1/ | 201.2 | 206.9 | 213.1 | 22.4 | 442.2 | 454.3 | 474.6 | 465.1 |
| Electrical equipment | 190.2 | 194.1. | 199.0 | 212.3 | 420.3 | 427.0 | 444.1 | 436.7 |
| Radios and phonographs | 201.3 | 212.8 | 221.0 | 225.5 | 478.3 | 50.7 .3 | 551.4 | 495.6 |
| Communication equipment | 262.8 | 272.4 | 282.9 | 299.3 | 524.1 | 547.2 | 564.3 | 593.7 |

See explanatory notes; sections C, F, and G, and the glossary for definitions.
10.

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 |  |
|  | Feb. | Jan. | Dec. | Feb. | Feb | Jan. | Dec. | Feb. |
| MACHINERY, EXCEPT ELECTRICAL 1/ | 219.1 | 22 | 227.5 | 234:0 | 463.0 | 473.7 | 491.6 | 471.9 |
| Machinery and machine-shop products | 236.0 | 240.4 | 243.7 | 251.1 | 501.9 | 517.7 | 532.6 | 513.7 |
| Engines and turbines | 275.9 | 280.4 | 281.9 | 291.6 | 601.9 | 609.9 | 639.3 | 622.1 |
| Tractors | 196.3 | 197.8 | -97.0 | 197.9 | 366.8 | 374.6 | 369.6 | 351.9 |
| Agricultural machinery, excluding tractors | 266.5 | 268.3 | 270.1 | 261.6 | 607.6 | 599.0 | 613.7 | . 5 |
| Machine tools | 118.2 | 120.5 | 129.3 | 137.6 | 218.6 | 224.2 | 249.3 | , |
| Machine-tool accessories | 201.2 | 207.3 | 210.6 | 218.0 | 367.4 | 384.0 | 395.7 | 398.0 |
| Textile machinery | 187.0 | 188.2 | 190.0 | 186.2 | 429.2 | 437.8 | 461.4 | 420.9 |
| Pumps and pumping equipment | 272.3 | 275.9 | 278.9 | 303.1 | 619.9 | 609.7 | 632.9 | 647.5 |
| Typewriters | 99.6 | 103.4 | 113.2 | 154.9 | 220.4 | 229.5 | 265.7. | 357.6 |
| Cash registers; adding, and calculating machines | 210.9 | 215.5 | 222.5 | 233.4 | 461.8 | 474.2 | 494.2 | 489.0 |
| Washing machines, wringers, and driers, domestic | 128.8 | 136.4 | 167.3 | 221.1 | 261.4 | 274.5 | 316.6 | 470.4 |
| Sewing machines, domestic and industrial | 193.0 | 192.1 | 191.4 | 172.5 | 481.7 | 490.1 | 504.1 | 404.0 |
| Refrigerators and refrigeration equipment | 210.0 | 216.9 | 225.6 | 232.2 | 449.8 | 460.8 | 490.0 | 433.7 |
| TRANSPORTATION EQUIP EXCEPT AUTOMOBILES. | 278.3 | 28C.0 | 2855.3 | 292.6 | 607.9 | 608.5 | 635.5 | 593.3 |
| Locomotives | 388.9 | 390.4 | 410.1 | 409.1 | 894.0 | 917.9. | 1024.4 | 869.2 |
| Cars, electric- and steamrailroad | 231.2 | 229. | 228.6 | 220.2 | 563.4 | 557.1 |  | 479.5 |
| Aircraft and parts, excluding aircraft engines | 380.8 | 381.6 | 382.1 | 341.1 | 828.0 | 808.0 | 838.5 | 49.5 667.3 |
| Aircraft engines | 321.1 | 323.2 | 320.9 | 280.1 | 604.9 | 617.2 | 618.9 | 469.4 |
| Shipbuilding and boatbuilding | 125.4 | 128.3 | 133.9 | 184.4 | 263.2 | 274.4 | 288.6 | 385.4 |
| Motorcycles, bicycles, and parts | 128.0 | 136.4 | 171.6 | 209.4 | $260 \cdot 4$ | 274.4 | 353.7 | 420.6 |
| AUTOMOBILES | 188.5 | 193.0 | 194.8 | 178.9 | 444.7 | 455.3 | 451.2 | 357.6 |
| NONFERROUS METALS AND THETR PRODUCTS 1/. | 16.4 .9 | 168.0 | 173.6 | 178.5 | 363.6 | 372.2 | 391.2 | 372.9 |
| Smelting and refining, primary, of nonferrous metals | 147.1 | 147.3 | 149.1 | 145.4 | 339.2 | 344.2 | 342.1 | 303.7 |
| Alloying; and rolling and drawing of nonferrous metals, except aluminum | 135.6 | 140.1 | 141.0 | 136.9 | 3, | - | 309.8 | 3 |
| Clocks and watches | 113.9 | 119.3 | 133.3 | 141.1 | 282.8 | 295.9 | 335.9 | 333.4 |
| Jewelry (precious metals) and jewelers' findings | 180.9 | 180.8 | 185.3 | 190.4 | 377.0 | 371.5 | 402.3 | 396.2 |
| Silverware and plated ware | 219.8 | 223.0 | 230.8 | 223.1 | 506.4 | 512.7 | 554.3 | 525.6 |
| Lighting equipment | 148.8 | 146.1 | 151.0 | 165.4 | 348.2 | 319.8 | 335.4 | 333.7 |
| Aluminum manufactures | 164.2 | 168.6 | 172.5 | 192.0 | 341.0 | 349.8 | 357.5 | 366.8 |
| Sheet-metal work, not elsewhere classified | 175.4 | 182. | 24.4 | 204.9 | 397.9 | 422.8 | 453.3 | 447.1 |

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

TABIE 10: Inciexes of Production-Worker Employment and Neekly Poy Kolls in Manufac. turing Industries - Continued

| Industry group and induatry | Employmont indexes |  | Pay-roll indexes |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1943-1948 |  | 1949 |  | 1948 |  |
|  | Feb. Jan. Dec. | Feb. | Feb. | Jın. | Dec. | Feb. |
| LIMBER AND TIMBER BESIC PRODUCTS $1 /$ | 168.4170 .6 186.7 | 175.0 | 395.7 | 418.2 | 465.6 | 417.2 |
| Sawmilis and logging camps | 180.9182 .3 201.6 | 189.4 | 42 ล2. 9 | 450.0 | 503.5 | 452.4 |
| Planing and plywcod mills | 177.718 ¢. 8192.6 | 178.4 | 425.6 | 439.9 | 481.5 | 422.2 |
| FURNITURE AND FINISHED LUMBER PRODUCTS 1/ | 140.7 | 149.2 | 315.7 | 317.91 | 345.4 | 350.2 |
| Mattresses and bedsprings | 155.0152 .9162 .9 | 188.5 | 343.5 | 326.8 | 351.3 | 410.9 |
| Furniture | 135.2136 .1142 .8 | 149.6 | 320.5 | 323.0 | 354.4 | 356.0 |
| Wooden boxes, other than cirgar | 110.9 114.4124 .1 | 132.6 | 270.5 | 280.9 | 313.9 | 311.8 |
| Caskets and other morticians' góods | 129.2 134.4135 .0 | 148.9 | 260:6 | 282.6 | 282.4 | 310.5 |
| Wood preserving | 130.7 130.9:135.4 | 133.1 | 347.6 | 354.4 | 372.4 | 311.6 |
| Wood, turned end sheped | 131.1132 .0 136.1 | 142.7 | 312.0 | 314.8 | 331.1 | 327.9 |
| STONE, CLAY, RND GLASS PRODUCTS 1/ | 150.0 152.51157 .4 | 150.9 | 344.5 | 349.5 | 366.9 | 321.4 |
| Glass and glassware | 155.8:159.2:166.5 | 166.5 | 366:8 | 371.9 | 385.3 | 350.9 |
| Glass products made from purchased glass. | 140.0 143.6147.0 | 142.4 | 313.9 | 322.9 | 350.7 | 307.0 |
| Cement | 149.5149 .8152 .1 | 144.6 | 303.6 | 308.1 | 312.2 | 273.9 |
| Brick; tile, and terra cotta | 135.2137 .7 143.1 | 129.8 | 329.0 | 330.8 | 355.5 | 285.4 |
| Pottery and related products | 178.5177 .9182 .0 | 170.7 | 392.1 | 386. | 404.1 | 345.2 |
| Gypsum | 148.8:150.4 151.5 | 153.8 | 342.3 | 343.9 | 378.5 | 320.1 |
| Weillboard, plaster (except gypsum), and mineral wool | 152.3:176.3:181.9 | 177.2 | 380.6 | 454.9 | 493.0 | 431.7 |
| Lime | 110.2 110.3:112.7 | 112.7 | 296.8 | 304.3 | 313.0 | 280.3 |
| Marble, granite, slate, and other products | 102.2. 99.6:103.9 | 96.5 | 197:1 | 190.6 | 204.2 | 169.5 |
| Abrasives | 2.0́0.2:265.7 266.9 | 254.1 | 562.7 | $57^{1}$ | 580.7 | 526.0 |
| Asbestos producte Nondurable goods | 146.1151 .8159 .4 | 158.0 | 351.9 | 362.2 | 398.9 | 370.6 |
| TEXTIITR-MILI PRODUCTS AND OTHER FIBER MANUFACIURES 1/ | 104.0 104.9:108.0 | 114:2 | 274.8 | 276.7 | 291.9 | 310.6 |
| Cotton manufactures, except smallwares | 117.3:118.3121.3 | 125.6 | 332.9 | 331.9 | 352.7 | 377.0 |
| Cotiton smallwares | -89.9: $90.7{ }^{\text {¢ }}$ | 105.8 | 214.4 | 213.8 | 221.2 | 249.3 |
| Silk and rayon goods | 90.8 93.295 .4 | 94.1 | 267.3 | 276.2 | 293.4 | 282.2 |
| Woolen and-worsted manufactures, except dyeing and finishing | -91.5 -94.6 99.8 | 113.9 | 245.6 | 258.5 | 275.0 | 321.1 |
| Hosiery | 82.8-82.0 83.6 | 89.7 | 193.6 | 192.2 | 201.8 | 204.8 |
| Knitted cloth | 94.9 94.8 97.2 | 101.8 | 225.4 | 226.3 | 227.0 | 242.6 |
| Knitted outerwear and knitted eloves | 107.7105 .7111 .8 | 114.0 | 260.7 | 258.1 | 264.6 | 269.1 |
| Knitted underwear | -99.9 99.3 107.1 | 131.4 | 235.9: | 231.0 | 256.1 | 334.4 |
| Dyeing and finishing textiles, including woolen and worsted | 129.0 127.7 130.9 | 135.3 | 321.3 | 309.0 | 327.7 | 334.6 |
| Carpets and rags, wool | 146.8148 .0150 .7 | 144.1 | 370.0 | 382.1 | 389.8 | 346.0 |
| Hets, fur-felt | 75.3 76.0 75.8 | 89.0 | 175.6 | 177.8 | 176.8 | 202.2 |
| Jute goods, except felts | 111.5112 .2113 .5 | 1110.3 | 269.5 | 271.1 | 283.6 | 265.7 |
| Cordage and twine | 114.4:115.1 116.7 | 134.7 | 270.1 | 278.9 | 288.6 | 337.6 |

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

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

| Industry group and industry | Employment indexee |  |  |  | Pay-roll indexes |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1949 |  | 1948 |  | 1949 |  | 1948 |  |
|  | Feb. | Jan. | Dec. | Feb. | F'eb. | Jan. | Dec. | Feb. |
| APEAREL AND OTHER FINISERD TEXTIIES PRODUCTS 1/ | 149.1 | 143.0 | 1245.3 | 147.7 | 34.5 .8 | 327.2 | 329.2 | 345.2 |
| Men's clothing, not elsewhere classified | 126.6 | 121.8 | 122.5 | 125.5 | 286.0 | 269.6 | 271.9 | 293.0 |
| Shirts, collars, and nightwear | 90.2 | 85.0 | 90.3 | 100.2 | 211.9 | 192.9 | 211.5 | 246.0 |
| Underwear and neckwear, men's | 111.1 | 102.7 | 111.9 | 110.3 | 314.3 | 282.4 | 320.3 | 300.0 |
| Work shirts | 110.9 | 97.7 | 112.9 | 104.8 | 282.0 | 238.4 | 271.0 | 250.6 |
| Women's clothing, not elsewhere cleasified | 175.2 | 168.9 | 170.0 | 169.5 | 391.6 | 376.9 | 370.7 | 387.1 |
| Corsets, and allied garments | 98.6 | 100.4 | 103.4 | 107.0 | 226.8 | 223.8 | 233.3 | 237.7 |
| Millinery | 93.0 | 34.9 | 82.0 | 96.1 | 205.6 | 162.9 | 148.4 | 206.4 |
| Handkerchiefs | 103.0 | 106.0 | 107.6 | 97.9 | 286.0 | 279.7 | 295.8 | 243.4 |
| Curtains, draperies, and bedspreads | 112.9 | 99.2 | 109.9 | 143.9 | 289.3 | 240.4 | 265.2 | 329.8 |
| Housefurnishings, other. than curtains, etc. | 222.6 | 214. | 228.8 | 206.7 | 517.2 | 483.9 | 560.4 | 452.9 |
| Textile bags | 190.5 | 188.5 | 190.9 | 174.3 | 432.7 | 438.9 | 455.7 | 365.4 |
| LEATHER AND LEATHEKR PRODUCTS $1 /$ | 105.8 | 105.0 | 104.8 | 115.8 | 239.4 | 235.0 | 234.3 | 262.5 |
| Leathe | 91.9 | 92.9 | 94.6 | 100.4 | 202.2 | 204.6 | 210.9 | 216.4 |
| Boot and shoe cut stock and findings | 87.1 | 85.9 | 85.1 | 97.8 | 184.4 | 177.4 | 178.1 | 198.6 |
| Boots and shoes. | 103.6 | 102.7 | 100.5 | 111.7 | 239.6 | 234.4 | 227.5 | 261.0 |
| Leather gloves cnd mittens | 97.0 | 93.6 | 106.0 | 124.9 | 201.1 | 194.2 | 209.9 | 252.2 |
| Trunks and suftcases | 133.7 | 132.3 | 157.3 | 168.6 | 277.6 | 256.3 | 343.2 | 366.9 |
| FOOD 1/ | 134.9 | 138.3 | 146.6 | 135.6 | 302.9 | 312.1 | 333.5 | 288.5 |
| Slaughtering and meat packing | 151.9 | 157.8 | 161.5 | 148.0 | 307.8 | 343.8 | 365.6 | 280.6 |
| Butter | 164.5 | 165.4 | 173.4 | 158.8 | 367.6 | 369.3 | 380.9 | 332.7 |
| Condensed and evaporated milk | 176.7 | 174.9 | 172.1 | 172.5 | 428.0 | 416.1 | 407.4 | 388.1 |
| Ice creara | 138.4 | 133.4 | 135.7 | 133.8 | 280.0 | 265.7 | 270.4 | 250.9 |
| Flour | 145.9 | 148.8 | 149.4 | 146.7 | 332.1 | 362.5 | 346.6 | 31.8 .2 |
| Feeds, prepared | 167.4 | 166.1 | 167.5 | 158.7 | 385.0 | 391.9 | 396.0 | 314.7 |
| Cereal preparations | 156.8 | 152.8 | 149.8 | 147.8 | 356.0 | 338.1 | 326.8 | 322.2 |
| Baking | 128.0 | 128.2 | 132.2 | 125.4 | 271.7 | 264.6 | 279.5 | 257.2 |
| Sugar refining, cane | 155.7 | 154.7 | 152.8 | 152.7 | 348.1 | 343.0 | 316.9 | 278.8 |
| Sugar, beet | 41.7 | 45.2 | 93.0 | 58.7 | 98.5 | 110.6 | 194.2 | 132.2 |
| Confectionery | 127.6 | 133.0 | 147.9 | 138.8 | 290.9 | 304.6 | 347.0 | 302.6 |
| Beverages, nonalcohollc | 158.5 | 162.2 | 165.7 | 151.3 | 277.0 | 276.1 | 284.7 | 254.3 |
| Malt liquors | J:80.6 | 184.0 | 192.5 | 183.1 | 332.3 | 331.8 | 359.5 | 320.7 |
| Canning and preserving | 80.3 | 87.7 | 108.5 | 91.0 | 215.8 | 226.8 | 280.0 | 239.9 |
| TOBACCO MANUFACTURES 1/ | 88.6 | 89.3 | 93.3 | 93.9 | 193.5 | 200.5 | 217. | 195.7 |
| Cigarettes | 119.8 | 122.0 | 124.2 | 122.1 | 239.8 | 249:9 | 269.2 | 219.3 |
| Cigars. | 75.8 | 75.5 | 80.9 | 82.8 | 169.2 | 174.8 | 192.1 | 189.4 |
| Tobacco (chewing and smoking) and snuff | 74.7 | 77.1 | 78.0 | 78.3 | 161.4 |  | 19.1 | 189.4 |

See explanatory notes, sections C, F, end G, and the glossaxy for definitions.

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

| Industry group and industry | Employment Indexee |  |  |  | Pey-roll indexes |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1449 |  | -120 |  | 1949 |  | 1m9 1948 |  |
|  | F $\in$ b. | Jan. | Dec. 1 | Feb. | Feb. | Jen. | Dec. | Feb. |
| PAPFR AND ALLIED PRODUCTS 1/ | 145.4 | 147.5 | 151.1 | 147.8 | 335.3 | 341.9 | 356.5 | 328.9 |
| Paper and pulp | 146.9 | 148.4 | 150.2 | 147.3 | 341.0 | 348.6 | 357.9 | 333.8 |
| Paper goods, other | 163.0 | 164.9 | 168.2 | 164.3. | 380.5 | 381.2 | 394.7 | 352.9 |
| Envelopes | 145.9 | 147.2 | 150.4 | 143.9 | 297.8 | 302.8 | 317.5 | 282.8 |
| Paper bags | 147.5 | 148.5 | 150.5 | 162.0 | 357.0 | 355.4 | 364.5 | 357.8 |
| Paper boxes | 132.5 | 136.3 | 144.0 | 139.1 | 296.5 | 305.6 | 335.3 | 307.1 |
| FRINTING; PUBLISEING; AND ALLIED INDUSTRIES 1/ | 132.1 | 132.9 | 135.2 | 133.5 | 269.7 | 268.8 | 280.6 |  |
| Newspapers and periodicals | 126.8 | 126.1 | 128.3 | 121.4 | 247.8 | 242.7 | 258.9 | 224.6 |
| Printing; book and job | 144.3 | 146.2 | 147.8 | 147.1 | 307.0 | 309.4 | 316.0 | 290.9 |
| Lithographing | 112.3 | 124.5 | 119.3 | 121.2 | 216.3 | 218.6 | 233.3 | 219.0 |
| Bookbinding | 129.5 | 131.5 | 133.8 | 145.1 | 296.4 | 305.4 | 310.6 | 307.7 |
| CHEMICAIS AND ALJIED PRODUCTS 1/ | 203.9 | 206.1 | 207.0 | 204.2 | 454.2 | 459.1 | 462.3 | 425.6 |
| Paints, varnishes, and colors | 162.7 | 166.7 | 168.2 | 174.5 | 315.5 | 317.2 | 325.5 | 324.4 |
| insecticides | 238.5 | 238.2 | 233.9 | 238.3 | 535.8 | 534.6 | 514.4 | 489.2 |
| Perfumes and cosmetics | 105.5 | 107.1 | 116.8 | 116.2 | 223.2 | 30.3 | 247.4 | 231.2 |
| Soap | 172.3 | 173.3 | 173.5 | 166.3 | 385.5 | 385.0 | 404.1 | 376.4 |
| Rayon and allied products | 134.9 | 134.6 | 134.0 | 131.8 | 304.0 | 304.5 | 305.3 | 270.2 |
| Chemicals, not elsewhere classified | 292.7 | 299.5 | 302. 1 | 293.9 | 621.6 | 639.3 | 639.7 | 584.8 |
| Explosives and safety fuses | 366.6 | 371.7 | 375.2 | 349.9 | 729.7 | 707.6 | 746.9 | 678.2 |
| Compressed and liquefied gases | 229.0 | 232.8 | 239.6 | $2{ }^{1}+6.2$ | 493.1 | 487.7 | 483.8 | 475.5 |
| Ammunition, small-arms | 164.0 | 165.7 | 167.7 | 182.2 | 385.3 | 380.6 | 395.2 | 388.7 |
| Fireworks | 227.3 | 227.2 | 208.0 | 221.8 | 559.9 | 587.4 | 541.4 | 630.2 |
| Cottonseed oil | 141.3 | 157.1 | 168.3 | 127.7 | 414.6 | 475.6 | 539.9 | 338.0 |
| Fertilizers | 180.1 | 161.5 | 152.1 | 188.1 | 503.0 | 449.8 | 427.5 | 482.2 |
| PRODUCIS OF PETROLEUM AND COAL 1/ | 152.8 | 153.0 | 155.0 | 153.9 | 339.2 | 349.6 | 345.5 | 315.4 |
| Petroleum refining | 154.4 | 154.2 | 154.8 | 153.1 | 334.2 | 346.4 | 338.2 | 302.1 |
| Coke and byproducts | 247.4 | 148.9 | 147.8 | 139.6 | 351.0 | 358.4 | 350.7 | 312.3 |
| Paving materials 2/ | 87.8 | 91.4 | 105.0 | 73.2 | 191.3 | 185.8 | 239.5 | 160.6 |
| Roofing materials | 167.2 | 165.8 | 186.7 | 217.5 | 373.1 | 368.5 | 413.2 | 500.7 |

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

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

| Industry group and industry | Emplorment indexes |  |  | Pay-roll Indexes |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1949 - 1948 |  |  | 1949 |  |  |  |
|  | Feb.i Jan. | Dec. | Feb. | Feb. | Jan. | Dec. | Feb. |
| RUBBER PRODUCTS 1/ | 154.1157 .3 | 161.8 | 172.0 | 309.8 | 320.6 | 332.7 | 337.2 |
| Rubber tires and inner tubes | 159.5163 .0 | 165.3 | 182.4 | 298.8 | 294.5 | 299.6 | 315.4 |
| Rubber boots and shoes | 138.8151 .1 | 1.58 .0 | 1.53 .8 | 301.5 | 351.1 | 338.2 | 345.0 |
| Rubber goods, other | 152.8154 .4 | 159.2 | 166.9 | 346.8 | 353.9 | 370.0 | 366.2 |
| MISCEILANEOUS INDUSTRIES 1/ | 167.9169.4 | 177 | 181.9 | 381.4 | 384.2 | 406.8 | 393.9 |
| Instruments (professional and. scientific), and fire-contral equipment | 272.21270 .4 | $25 \%$.11 | 245.2 | 596.3 | 588.1 | 578.6 | 487.1 |
| Photographic apparatus | 222.8217 .1 | 223.91 | 220.9 | 432.1 | 440.7 | 455.1 | 424.2 |
| Optical instruments and ophthalmic. goods | 221.5219 .6 | 221.5 | 230.0 | 452.5 | 1452.9 | 455.7 | 446.3 |
| Pianos, organs, and parts | 156.3161 .3 | 170.8 | 201.5 | 329.1 | 341.3 | 381.2 | 421.1 |
| Games, toys, and dolls | 177.1160 .8 | 206.9 | 189.9 | 429.4 | 410.2 | 501.4 | 450.1 |
| Buttons | 112.0111 .1 | 116.2 | 119.4 | 263.0 | [267.4 | 281.7 | 285.5 |
| Fire extinguishers | 221.7252 .4 | 272.6 | 249.3 | 515.5 | 601.7 | 635.1 | 523.2 |

See explanatory notes, sections $C, F$, and $G$, and the glossary for definitions.
1/ Śsee footnote 1, table 8.
2/ Paving materials - November 1949 pay roil revised to 240.2. Industries

$$
(1939 \text { Average }=100)
$$

| Industry group and industry | Ermployment indexes |  |  |  | Pay-roll indexes |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1949 |  | 1948 |  | 194 ? |  | 1948 |  |
|  | Feb: | Jan. | Dec. | Feb. | Feb. | Jan. | Dec. | Feb. |
| MINING: |  |  |  |  |  |  |  |  |
| Coal: |  |  |  |  |  |  |  |  |
| Anthracite | 91.1 | 92.3 | 92.0 | 91.6 | 168.3 | 238.6 | 224.6 | 232.8 |
| Bituminous coal | 107.3 | 107.9 | 109.0 | 106.8 | 350.1 | 355.3 | 355.0 | 320.0 |
| Metal. | 100.2 | 97.0 | 97.3 | 97.4 | 228.6 | 225.1 | 224.4 | 201.7 |
| Iron | 151.7 | 151.4 | 152.7 | 146.8 | 354.7 | 363.1 | 358.0 | 310.3 |
| Copper | 106.8 | 36.7 | 97.7 | 108.2 | 252.9 | 241.2 | 244.4 | 241.7 |
| Lead and zinc | 103.7 | 103.5 | 103.6 | 99.9 | 272.2 | 278.0 | 277.8 | 235.0 |
| Gold and silver Miscellaneous. | 35.2 | 34.3 | 33.6 | $\begin{array}{r}33.4 \\ \hline 18\end{array}$ | 66.6. | 61.9 | 62.4 | 58.4 |
| Miacellaneous <br> Quarrying and nonmetallic | 191.7 | 188.0 | 189.4 | 187.0 | 398.1 | 412.3 | 408. 2 | 347.4 |
| Quarrying and nonmetallic <br> Crude petroleum and natural gas production. | 1211.9 | 113.2 | 121.8 | 112.2 | 281.2 | 288.1 | 321.2 | 262.0 |
|  | 113.2 | 113.2 | 113.2 | 111.1 | 236.7 | 245.1 | 235.7 | 219.9 |
| TRANSPORTATION AND PUBLIC UIIIITIES: |  |  |  |  |  |  |  |  |
| Class I ratlroads $1 /$ | 1724.7 | 127.2 | 132.2 | 132.7 | 1/ | 1/ | 1. | 1 |
| Street railways and busses | 125.1 | 125.4 | 125.9 | 128.6 | 230.6 | 231.3 | 233.4 | 234.7 |
| Telephone | 201.6 | 200.8 | 202.2 | 196.2 | 346.2 | 337.2 | 339.7 | 316.3 |
| Telegraph | 87.1 | 88.6 | 90.0 | 97.8 | 208.6 | 210.9 | 212.6 | 212.6 |
| Flectric light and pover | 115.6 | 115.1 | 115.6 | 110.3 | 206.2 | 206.7 | 206.4 | 188.2 |
| TRADE: $2 /$ |  |  |  |  |  |  |  |  |
| Wholesale | 114.9 | 115.9 | 117.8 | 116.1 | 219.3 | 222.7 | 224.0 | 1214.9 |
| Retail | 109.1 | 111.7 | 129.0 | 111.8 | 214.4 | 222.6 | 251.4 | 208.4 |
| Food | 111.8 | 111.6 | 114.6 | 113.9 | 232.4 | 231.9 | 234.8 | 221.5 |
| General merchandise | 118.7 | 126.0 | 177.1 | 122.9 | 225.0 | 248.3 | 340.8 | 221.4 |
| Apparel | 1206.3 | 110.9 | 135.0 | 108.2 | 198.7 | 211.9 | 254.7 | 194.3 |
| Furniture and housefurnishings | 90.1 | 91.1 | 97.5 | 91.0 | 180.3 | 186.8 | 201.1 | 177.8 |
| Automotive | 207.3 | 108.9 | 113.7 | 105.7 | 210.4 | 216.5 | 224.7 | 196.8 |
| Lumber and building materials | 115.0 | 117.6 | 123.9 | 118.8 | 234.4 | 239.8 | 251.0 | 1227.6 |
| SHRVICE: |  |  |  |  |  |  |  |  |
| Hotels (year-round) 3/ | 112.9 | 113.4 | 114.6 | 116.8 | 235.9 | 236.3 | 238.6 | 233.2 |
| Power laundries | 110.8 | 113.1 | 114.2 | 117.6 | 219.8 | 228.5 | 227.6 | 225.4 |
| Cleaning and dyeing | 143.3 | 145.3 | 148.4 | 149.3 | 271.1 | 284.3 | 291.3 | 271.9 |

See footnotes; table 9, and explanatory notes, sections C, $F$, and G.
I/ Source: Interstate Comerce Commision: Pay-roll data are not available.
2/. Includes all nonsupervisory employees and working supervisors.
3/ Money payments only; additional value of board, room, uniforms, and tips, not included.
24.

TABIE 12: Estimated Number of Production Workers and Indexes of
Production-Worker Employment. and Heekly Pay Rolls in Manufacturing Industriës 1/, Annual Atorages, 1947 and 1948

| Industry group and industry | Estimated production workers <br> (thousands) |  | Indexes (1939 = 100) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Employment |  | Pay roll |  |
|  | 1948 | 1947 | 1948 | 1947 | 1948 | 1947 |
| ALL MANUFACTURTMG | 13,102 | 12;890 | 159.9 | 157.3 | 365.1 | 332.1 |
| DURABLE GOOLS | - | 37 | 186.6 | 183.8 | 410.4 | 371.9 |
| NONDURABLE GOODS | 6,365 | 6,253 | 138.9 | 136.5 | 320.7 | 293.1 |
| Durable goods |  |  |  |  |  |  |
| IRON AND STEEEL AND .THEEIR PRODUCTS $2 /$ | 1,628 | 1,597 | 164.2 | 161.0 | 350.7 | 314.9 |
| Blast furnaces, steel works, and rolling milis | 524 | 497.4 | 135.1 | 128.0 | 278.8 |  |
| Gray-iron and semisteel castings | 115.6 | 120.2 | 185.7 | 193.2 | 424.0 | 422.2 |
| Malleable-iron castings | 37.8 | 35.1 | 196.9 | 182.8 | 479.9 | 414.5 |
| Steel castings | 73.2 | 69.4 | 228.5 | 216.5 | 492.2 | 422.6 |
| Cast-iron pipe and fittings | 28.9 | 27.4 | 164.3 | 155.9 | 420.8 | 372.3 |
| Tin cans and other tinware | 46.3 | 44.5 | 145.8 | 140.0 | 326.7 | 288.8 |
| Wire urawn from purchased rods | 29.4 | 30.4 | 133.8 | 138.5 | 262.2 | 253.4 |
| Wirework | 42.2 | 40.8 | 138.7 | 134.1 | 317.1 | 278.9 |
| Cutlery and edge tools | 23.7 | 25.3 | 153.6 | 163.9 | 371.5 | 374.1 |
| Tools (except edge tools, machine tools', files, and saws) | 25.1 | 25.6 | 163.7 | 167.1 | 372.4 | 352.6 |
| Hardwiare | 54.5 | 52.8 | 152.9 | 148.1 | 357.2 | 324.2 |
| Plumbers' supplies. | 40.6 | 39.7 | 154.7 | 151.2 | 339.8 | 298.7 |
| Stoves, ofl burners, and heating equipment, not elsewhere classified | d 86.7 | 90.9 | 176.3 | 185.0 | 395.0 | 388.9 |
| Steam and hot-water heating apparatus and steam fittings | 64.7 | 67.9 | 200.4 | 210.2 | 439.9 | 424.1 |
| Stamped and enameled ware and galvanizing | 117.3 | 119.4 | 198.3 | 201.7 | 470.1 | 442,6 |
| Fabricated structural and. ornamental metalwork | 64.2 | 62.4 | 180.7 | 175.6 | 373.7 | 341,2 |
| Metal doors, sash, frames, moiding, and trim | 10.6 | 10.1 | 137.6 | 130.2 | . 310.8 | 268.7 |
| Bolts, nuts, washers, and rivets | 28.5 | 28.5 | 187.0 | :187.1 | 417.3 | 372.3 |
| Forgines, iron and steel | 36.7 | 36.4 | 224.3 | 222.6 | 493.1 | 452.3 |
| Wrought pipe; welded and heavyriveted | 10.5 | 18.1 | 219.0 | 203.2 | 473.1 | 394.7 |
| Screw-machine products and wood screws | . 35.9 | 37.1 | 199.2 | 206.0 | 444.6 | 432.2 |
| Steel barrels, kegs, and drums | 7.9 | 8.2 | 122.7 | 127.5 | 317.0 | 311.5 |
| Firearms | 21.4 | 19.0 | 401.1 | 356.9 | 938.6 | 764.5 |
| ELBCIRICAL MACHITERY - 2 / | 558 | 587 | 215.2 | 226.7 | 458.0 | 440.4 |
| Electrical equipment | 372.1 | 386.5 | 203.7 | 211.6 | 432.9 | 409.8 |
| Radios and. phonographs | 93.2 | 103.7 | 211.8 | 235.7 | 490.4 | 497.5 |
| Comminication equipment | 92.3 ! | 97.2 | 284.4 | 299.3 | 562.5 | 551.5 |

TABLE 12: Estimated Rumber of Production Vorkers and Indexes of Produotion-Worker Emiloyment anci Weekly Pay Rolla in Manufacturing Industries 1/, Anmal Averegos, 1947 and $1948{ }^{\circ}$ - Continued

| Industry group and industry | - Estimated production workers (thoucands) |  | Indexes ( $1939=100$ ) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Fmployment |  | Pay roll |  |
|  | 1948 | 1947 | 1948 ! | 1947 | 1.48 | 11947 |
| MACHINERX, HXCEPT BLPCTRICAL | 1,213 | 1,208 | 229.6 | 228.7 | 478.5 | 439.9 |
| Machinery and machine-shop products | 510.7 | 517.2 | 245.9 | 249.1 | 518.7 | 482.7 |
| Engines and turbines | 52.9 | 54.3 | 283.61 | 290.8 | 612.8 | 586.0 |
| Tractors | 59.1 | 56.6 | 189.1 | 181.1 | 345.1 | 307.9 |
| Agricultiral machinery, exciuding tractors | 75.0 | 65.5 | 262.9 | 229.5 | 576.3 | 453.8 |
| Machine tools. | 48.1 | 54.5 | 131.4 | 148.8 | 246.6 | 263.9 |
| Machine-tool accessories | 55.1 | 59.5 | \|213.2 | 230.5 | 390.0 | 394.6 |
| Textile machinery | 41.4 | 38.1 | 189.2 | 173.9 | 445.5 | 364.5 |
| Pumps and pumping equipment | 70.9 | 76.6 | 285.2 | 307.9 | 625.7 | 628.3 |
| Typewriters | 22.6 | 22.8 | 139.4 | 140.4 | 312.8 | 298.6 |
| Cash rogisters; adäing, and calculating machines | 45.2 | 40.8 | 229.5 | 207.3 | 494. | 418.4 |
| Washing machines, wringers, ant driers, domestic | ) 15.7 i | 14. | 210.2 | 196.1 | 452 | 5.4 |
| Sewing machines, domertic and industrial | 14.2 ! | 11.8 | 180.6 | 150.3 | 446.1 | 324.8 |
| Refrigerators and refrigeration enuipment | 81.7 | 75. | 232. | 215.7 | 479.6 | 405.0 |
| TRANSPORTATION EQUIPMEMFI, AUPOMOBILES | 448 | 453 | 82.1 | 285.6 | 589.7 | 551.6 |
| Locomotives | 25.7 | 25.4 | ! 397.0 | 391.9 | 895 | 805.5 |
| Cars, electric- and steamarailrond | 54.8 | 54.9 | :223.3 | 223.7 | 501:3 | 466.5 |
| Aircraft and parte, excluding aircraft engines | 137.1 | 135.9 | 345.5 | 342.6 | 712.4 | 648.9 |
| Aircraft engines | 25.7 | 27.2 | 289.0 | 305.6 | 524.6 | 493.6 |
| Shipbuilding and boatbuilding | 109.9 | 121.6 | 158.7 | 175.7 | 328. | 340.1 |
| Motomcycles, bicycles, and farts | 13.2 | 13.3 | 189.3 | 191.4 | 399. | 382.4 |
| AUTOMOBITES | 771 | 757 | 191.7 | 188.2 | 408.9 | 363.5 |
| MONTETROUSS MLIALS AND THEIR FRODUCI | / 402 | 415 | ;175.2 | 181.2 | 377.1 | : 356.6 |
| Smolting and refining, primary, of nonferrous motals | 41.1 | 40.3 | 148.6 | 145.9 | . 7 | 291.2 |
| Alloying; and folling and draying of nonferrous. metals, except. aluminum |  |  | 138 | 148.0 | 287.9 | 278.5 |
| Clocks and watches | 23.1 | 27.8 | 138.5 | 137.0 | 335.0 | 305.0 |
| Joweiry (precious metals) and |  |  |  |  |  |  |
| jewelers' findings Silverware and plated ware | 26.9 27.5 | 26.6 24.9 | 186.5 226.3 | 183.9 205.2 | 382 534 | 354.6 458.1 |
| Ifghting equipment | 31.8 | 36.4 | 155.3 | 177.9 | 326.4 | 334.8 |
| Aluminum manufactures | 42.0 | 45.6 | 178.3 | 193.6 | 349.3 | 349.8 |
| Sheet-motal work, not elsewhere classified | 37.3 | 39.5 | $199.1$ | $210.7$ | 446.7 | 432.9 |

26. 

TABLE 12: Estimated Number of Production Workers and Indexes of Production-Worker Employment. and Weekly Pay Rolls in Manufacturing Industries 1/, Annual Avcrages, 1947-and 1948 - Continued


TABLE 12: Bstimated limber of Production Workers and Indexes of Froduction-Worker Raployment and Weerly Pay Rolls in Manufacturing Industries I/, Annual Averagesrmint 7 and retheinuontinued

| Industry group and. industry | Fstimated promdufticn workers(thcusands) |  | Indexes (1939 a 100) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Employment |  | Pay roll |  |
|  | 1.948 | 1947 | 1948 | 1947 | 1948 | 1947 |
| APPAREL AND OTHER FINISHED TBXCIILE PRODUCTS 2/ | 1,137 | 1,061 | 144.0 | 134.3 | 326.5 | 291.9 |
| Men's olothing, not elsewhere classified | 288.4 | 267.4 | 125.6 | 116.5 | 288.2 | 257.3 |
| Shirts, collars, and nightwear | 71.5 | 71.5 | 96.7 | 96.7 | 235.2 | 226.6 |
| Underwear and neckwear, mon's | 18.4 | 17.5 | 108.6 | 103.2 | 301.4 | 265.5 |
| Work shirts | 15.9 | 14.6 | 112.3 | 103.4 | 280.0 | 243.5 |
| Women's clothing; not elsewhere classified | 468.1 | 430.6 | 163.5 | 150.4 | 354.6 | 314.6 |
| Corsets and allied garments | 19.0 | 17.9 | 101.5 | 95.3 | 226.2 | 202.6 |
| milliners | 21.1 | 20.4 | 82.8 | 80.0 | 1156.9 | 141.4 |
| Eandkerchiefe | 5.0 | 4.8 | 98.5 | 94.8 | 251.5 | 225. 2 |
| Curtains, draperies, and bedspreads | 21.4 | 20.2 | 120.7 | 113.5 | 281.9 | 249.8 |
| Housefurnishings, other than curtains, etc. | 23.9 | 23.1 | 213.6 | 206.7 | 492.6 | $4+2.5$ |
| Textile bags | 22.4 | 22.2 | 178.0 | 176.0 | 398.0 | 360.0 |
| LEATHER AND LEATHER PRODUCTS $2 /$ | 378 | 385 | 109.0 | 110.8 | 239.5 | 238.4 |
| Leather | 48.1 | 49.3 | 96.1 | 98.4 | 206.5 | 202.5 |
| Boot and shoe cut stock and findings | 18.0 | 19.4 | 90.3 | 97.3 | 182.0 | 186.7 |
| Boots and shoes | 240.9 | 244.1 | 104.4 | 105.7 | 233.0 | 234.1 |
| Leather gloves and mittens | 12.5 | 12.6 | 124.6 | 126.5 | 257.1 | 243.1 |
| Trunks and suitcases | 13.7 | 13.3 | 104.8 | 160.3 | 362.5 | :328.2 |
| FOOD $2 /$ | 1,264 | 1,254 | 148.0 | 146.7 | 322.8 | 300.4 |
| Slaughtering and meat packing | 187.1 | 191. ${ }^{\text {c }}$ | 138.6 | 141.6 | 297.8 | 286.3 |
| Butter | 36.2 | 35.5 | 180.0 | 176.2 | 1385.2 | 352.7 |
| condensed and evaporated milk | 20.5 | 21.1 | 188.2 | 193.7 | 445.1 | 409.3 |
| Ice cream. | 27.3 | 28.4 | 155.2 | 161.2 | 299.6 | 289.2 |
| Flour | 41.2 | 40.4 | 148.2 | 145.3 | 337.2 | 324.9 |
| Feeds, prepared | 28.4 | 28.7 | 164.7 | 166.0 | 379.0 | 350.0 |
| Cereal preparations | 12.9 | 12.9 | 153.8 | 153.9 | 1332.7 | 308.1 |
| Baking | 247.2 | 234.8 | 129.8 | 123.3 | 267.3 | 233.9 |
| Sugar refining, cane | 23.3 | 23.0 | 146.6 | 1144.7 | 305.7 | 292.2 |
| Sugar, beet | 11.0 | 12.9 | 94.4 | 110.9 | 205.5 | 226.7 |
| Confectionery | 75.2 | 72.5 | 135.0 | 130.1 | 306.8 | 277.6 |
| Beverages, nonalcoholic | . 42.6 | 35.4 | 178.8 | 148.6 | 306.8 | 248.8 |
| Malt liquars | 80.0 | 75.2 | 197.8 | 185.9 | 368.3 | 333.1 |
| Canning and preserving | 215.6 | 219.9 | 143.5 | 146.3 | 373.5 | 368.6 |
| TOBACCO MARUHACTURES $2 /$ | 87 | 86 | 92.9 | 92.5 | 210.7 | 201.8 |
| Cleparettes | 33.9 | 33.3 | 123.7 | 121.3 | 261.3 | 241.7 |
| Cigars | 45.0 | 45.0 | 80.6 | 80.6 | 186.2 | 184.0 |
| Tobacco (chowing and amoking) and smuff | 7.8 | 8.0 | 77.3 | : 79.3 | 168.2 | ;160.2 |

28. 

TABLE 12: Fstimated Number of Production Workers and Indexes of Production-Worker Employment andi ifeekly Pay Rolls in Manufacturing Industries 1/b Annual f.rerages', 1947 and 1948 - Continued.

| Industry group and industry | Estimated production workers (thousands) |  | Indexes ( $1939=100$ ) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Employnent |  | Pay roll |  |
|  | 1948 | 1947 | 1948 | 1947 | 1948 | 1947 |
| 2APER AND ALIIED PRODUCTS ?/ | 394 | 391 | 148.6 | 147.2 | 342.3. | ; 306.8 |
| Paper and pulp | 205.1 | 198.5 | 148.9 | 144.1 | 349.2 | \| 306.5 |
| Paper goods; other | 62.2 | 61.7 | 1.64 .9 | 163.5 | 365.6 | ; 328.4 |
| Envelopes | 12.7 | 12.0 | 145.3 | 138.0 | 291.4 | .266.0 |
| Paper .bags. | 17.7 | 18.6 | 158.9 | 167.3 | 372.4 | -347.7 |
| Paper boxes | 95.8 | 98.9 | 138.2 | 142.6 | 314.4 | 293.1 |
| 'RINTING, PUBLISHING, AND ALLTED INDUSTIRIES'?/ | 436 | 434 | 133.1 | 132.2 | 265.3 | 241.3 |
| Newspapers and periodicals | 147.4 | 141.6 | 124.2 | 119.3 | 239.7 | : 209.6 |
| Printing; book and job | 185.9 | 186.0 | 145.7 | 145.7 | 299.5 | 273.3 |
| Lithographing | 31.4 | 32.6 | 119.4 | 124.0 | 228.1 | 220.8 |
| Bookbinding | 35.4 | 37.6 | 137.5 | 146.0 | 308.2 | : 314.7 |
| HHEMICALS AND ALITED PRODUCTS 2/ | 586 | 577 | 203.4 | 200.0 | 440.6 | 393.6 |
| Paints, varnishes, and colors | 48.7 | 47.2 | 172.1 | 166.8 | 330.4 | 296.0 |
| Drugs, medicines, and insecticides | 64.4 | 67.9 | 234.0 | 246.6 | 492.4 | : 470.3 |
| Perfumes and cosmetics | 11.9 | 12.8 | 113.9 | : 123.2 | 230.7 | :230.4 |
| Soap | 24.9 | 24.2 | 163.5 | 158.7 | 369.6 | - 323.1 |
| Rajon and allied products | 64.0 | 61.0 | 132.3 | ; 126.2 | 286.0 | 248.2 |
| Chemicals, not elsewhere classified | 207.8 | 205.5 | 297.2 | 293.9 | 610.6 | : 548.8 |
| Explosives and safety fuses | 26.6 | 22.8 | 365.5 | : 312.9 | 725.6 | 558.5 |
| Compressed and íquefied gases | 9.9 | 9.6 | 248.6 | 242.3 | 491.9 | 429.7 |
| Ammunition, smail-arms | 7.6 | 6.7 | 177.5 | 157.4 | 402.0 | 350.1 |
| Fireworks | 2.5 | 2.7 | 216.9 | :234.2 | 580.3 | 639.3 |
| Cottonseed oil | 19.2 | 17.9 | 125.9 | : 117.0 | 366.9 | 310.0 |
| Fertilizers | 30.9 | 30.9 | 163.8 | 164.0 | 452.3 | 424.7 |
| ?RODUCTS OF PETROLEUM AND COAL 2/ | 166 | 162 | 156.9 | 152.9. | 337.6 | 288.4 |
| Petroleum refining | 113.7 | 111.4 | 155.3 | 152.2 | 325.3 | 277.2 |
| Coke and byproducts | 31.4 | 28.8 | 244.7 | 132.8 | 329.6 | 271.1 |
| Paving materials | 2.5 | 2.8 | 100.4 | 115.1 | 226.1 | 226.3 |
| Roofing materials | 17.4 | 17.8 | 215.1 | 219.3 | 514.7 | 480.3 |

TABLF 12: Eetimated Number of Production Workers and Indoxes of Production-Worker Employmont and Weekly Pay Rolls in Manuiacturing Industries I/, Amnual Averages, 1947 and 1948 - Continued

| Industry eroup and industry | Estimated production workers (thousends) |  | Indexes (1939 = 100) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Eanploy | ment | Pay roll |  |
|  | 1043 | 1947 | 3.948 | 1947 | 1948 | $\underline{194}$ |
| RUBEER PRODUCIS 2/ | 199 | 213 | 164:3 | 176.1 | 334.7 | 353.6 |
| Rubber tires and inner tubes | 93.0 | 106.7 | 171.5 | 196.7 | 316.2 | 361.5 |
| Rubber boots and shoes | 22.4 | 22.0 | 150.6 | 148.5 | 348.6 | 32.). 7 |
| Rubber goods, other | 83.4 | 84.3 | 160.9 | 162.5 | 359.2 | 342.6 |
| MISCELTANEOUS ITDUSIRIES $2 /$ | 442 | 448 | 180.4 | 183.0 | 397.0 | 374.2 |
| Instruments (professional and scientific), and fire-control. equipment | 28.4 | 27.9 | 251.3 | 247.1 | 516.3 | 463.1 |
| Photographic apparatus | 39.1 | 37.4 | 220.9 | 211.5 | 437.5 | 385.5 |
| optical instruments and ophthalmic goods | 86.4 | 26.8 | 221.7 | 241.9 | 438.5 | 451.4 |
| Planos, orgens, and parts | 24.0 | 2.5.8 | 179.2 | 202.2 | 381:5 | 434.8 |
| Gemes, toys, and dolis | 41.8 | 36.3 | 218.5 | 189.7 | 524.1 | 419.1 |
| Buttons | 13.1 | 12.5 | 116.6 | 117.1 | 27\%4.0 | 247.5 |
| Fire extinguishers | 2.7 | 8.9 | 267.3 | :286,1 | 58i.8 | 563.0 |

If Egtimates and Indexes are based on reports from cooperating establishments covering both full- and part-time production and related workers who worked or received pay during any part of the pay period ending nearest the 15 th of the month. Major industry groups have been açusted to levele indicated by Fedoral Security Agoncy data through 1946.

2/. Estimates and indexes for the individual industries comprising the major industry groups have been adjusted to levels indicated by Federal Securfty Agency data through 1946. Comparable data frcm January 1939 are available upon nequest to the Bureau of Labor Statistics. Such requests should specify. the series desired.

TABLE 13: Estimated Number of Employees and Indexes of Employment and Weekly Pay Rolls in Selected Nonmanufacturing Industries 1/, Annual Averages, 1947 and 1948


1/ Unless otherwise noted, data inolude all employees.
2/ Inoludes production and related workers only.
3/Estimates and indexes have been adjusted to levels indicated by Federal Seourity Agency data through 1.946.
4/ Does not include well drilling or rig building.
5/ Inoludes all employees at middle of month. Excludes employees of switching and terminal
oompanies. Class I railr.cads inclade those with over $\$ 1,000, C 00^{\circ}$ anmal revenue. Souroes Inte:state Comerce Ccrmisaicn.
6 Not availaoie.
7 Inolides private and munioipal street-raipway companies and afriliated, subsidiary, or suooessor trolley-bus and motor-bus companies.
8/ Inoludes all landmline employees exoept those compensated on a commission basis. Frcludes general and divisional haadquarters personnel, trainees in sohool, and messengers.
$9 /$ Inoludes all nonsuperrisory workers and working supervisors.
10/Money payments only; additional value of board, room, uniforms, and tips, not inoluded.

Sec. A. Scope of Employment Adjustmente - The oxployment estimates shown in this roport for the industry divisions (e.G., manufacturing, mining, etc.) and industry groups (e.g., iron and steel, electrical machinery, etc.) have been adjusted to lerols indicated by Federel Security Agency date through 1946 and have beon carried forward from 1946 bench-mark levels, thereby providing conaistont series.

Sec. B. Sources of Bench-Mark Data - In prepering estimates fo: private employment prior to 1939, the various industrial consuses taken by the Bureau of the Census were used as sources of bench-mark Cata, Data obtained from the Federal Security Agency are the main bases for 1946 bench marks. Bonch marks for State and Local goverment are based an data compiled by the Buseau ci the Census, while most of the data on Federal Gcromment employment is made available by the U. S. Civil Service Comission. The Interstate Commerce Comnission is the source for railroads, and the U. S. Maritime Commisaion for water transportation.

Sec. C. Adjustments of Production-Worker Estimates Date for the manurecturing major industry groups have been adjusted to levels indicated by Federal Security Agency data through 1945 and have been carried forward from 1946 bench-mark levels, thereby providing consistent series. Eetimates for the individual manfacturing industries, formerly adjusted to data through 1945, are now being adjusted to 1946 bench-mark levels. As these adjustments are campleted, they are published in this report and indicated by appropriate footwotes. In the nommanufacturing inaustries, the entire series of mining industries have been adjustod to 1946 bench-mark levels.

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

Sec. $D_{2}$ How Enployment Fstimates Are Made - Estimates of changes in the level of employment are based on reports from a sample eroup of esteblishments, inasmuch as full covorage is prohibitively costily and timo-conauming. In using a sample, it is essential that an accurate base be established from which eatimates may be carried forward. This base or "bench mark" is either a complete count or an estimate with a satiafactory degree of accuracy. When a new bench mark bocomes evallable, estimates
preparsd since the last bench mark are reviewed to determine if any adjustment of level is required. This ia the basic principle of employment estimating used by the BLS. It yielde a sa'iafactory compromise between a alow but highly accurate complete count on the one hand, and a rapid but less accurate sample count on the other.

Briefly, the Bureau of Labor Statistics computes employnent estimntes as follows: first, a bench mark or level of employment is doternised; eocond, a emple of eatablishments is selected; and third, cluenges in employnent indicated by this reporting sample are applied to the bench mark to determine the monthly estimates of enfloyment between bench-mark periods. For exampla, if the latest complete adata on employnent for an industry were 40,200 in September, and if the industry haa a reporting cample of 13 establisiments employing 23,200 workers in September and 23,800 in October, the October estimetes would be preparod 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 the Bureau of Labor Statistics.

Why Adjustments Are Necessary - Because reports are not immediately available from new firms, they are frequently introduced into the BIS 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 beginaing January 1945 and in the manufacturing seriee beginning January 1946. Adjustments in some. induatry 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 estinates cover all full- and parttime wage and salary workers in private nonagricultural establishments who worked or received pay during the pay period ending rearest the 15 th of the month; in Federal establishmonts 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 nre 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 estinates of eny payments. in kind. Bonuses, unless carned end paid regularly each pay period, are also excluded.

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

Sec. G. Source of Data Employment and pay-roll estimates are besed on reports from cooperating establishments. 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 | : Number : Employees or production <br> : of estab-: $\quad$ workers |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Mnnufacturing | 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,C00 | 20 |
| Retail | 37,900 | 1,097,030 | 25 |
| Service: |  |  |  |
| Hotels (year-round) | 1,200 | 131,0en | 35 |
| Power laundries and cleaning and dyeing | 1,600 | 67,100 | 21 |

Sec. H. Coverage of Employment Estimates The employment estimstes shown in tables $1,2,3,6$, and 7 cover all fulland part-time wage and salary workers who worked or received pay ciuring 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 inlicated on page v. The estimates for manufecturing have been adijusted to recent data made available under the Federal Social Security program. Since some States have adjusted to more recent bench-mark data thin others, and becauce varying methods of computation are used, the total of the Stiste 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 total 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 shown 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.


New Encland: Regional Director, U. S.. Bureau of Labor Statistics, Old South Bldg., 294 Washington St.i. Boston 33, Massachusetts (Connecticut, Maine, Maseachusetts; New Hampshire, Rhode Island, Vermont).
North Atlantic: Regional Director, U. S. Bureau of Labor Statistics, Room 10C0, 341 Ninth Avenue, New York 1, New York (Delaware, District of Columbia; Maryland, New Jersey, New York, Pennaylvania).
Southern: Regional Director, U." S. Bureau of Labor Statistice, 1020 Grant BIdg., Forsyth and Walton Streets, Atlanta 3; Georgia (Alabama, Arkansan; Florida, Georgia, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessea, Texas, Virginia).
North Certral: Regional Direction, U. S. Bureau of Labor Statiatice, Roon 312, 226 W. Jackson Blvd., Chicago 6, Illinois (Illinois, Indiana, Iowa, Kansas, Kentucly, Michigan, Minnesota, Missouri, ITebriska, Norti Dakota, Ohio; South Dakota, West Virginia, Wisconsin).
PacIfic-Rccky Mountain: Regional Director, U. S. Bureau of Labor Statistics, 50 Federal Office Bldis., Fulton and Leavenworth Streets, San Francisco 2, California (Aitzona, California, Colorado, Idaho;: Montana', Nevada, New Mexico; Oregon, Uteh, Washington, Wyoming).

## GLOGSARY

Continental 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 cthers. Force-account construction workers, i.e., hired directly by and on the pay rolls of Federal, State, and local goverment, public utilities, and private establishments; are excluded.

Defense Agencies Covers civilian erriloyees of the National Military Establishment, Maritime Commissich, National Advisory Committee for Aeronautics, The Panama Canal, Phililppine Alien Property Administration, Philippine War Demage Comiesicn, Selective Service System, Vier Assets Adrinistration; Oefice of Defense Transportation, National Security Resources Bcari, National Security Council.

Femily Allowances - Reprecents the Government's contribution; the amount contributad by the persomel is included under pay rolls.

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

Haployment ahown here for the executive branch differs from data published by the U. S. Civin Saindee Comisaion in the following respects: (1) Fmployment coilected. and published by the Civil Service Commission as of the last day of the month, is here presonted as of the firut day of the next month; (2) substitute rural mail carriers are excluded; (3) employmont in December of eech year includes the additicral- fosiel onployees necessitated by the Chistmes aeason, excizuded from published Civil Servies Comisstion floures starifig 19i4; (4) seamen and trianees who are hirod and jeid by private steamship companies having contracts with the Maritime Commission ere excluded; (5) the Panama Raslroad Company is shown here under Goverrmont corponetions but is incliniod under the executive branch by the Civil Service Comaleaion.

Finance - Covers establishmonts operating in the fields of finance, insurance, and real estate; oxcludes the Federal Reserve District Banks and the mixed-ownership banics of the Farm Credit Ad̉ministration.

Goverment - Covers Federal, State, and local govermantol esteilichmonts performing legisiative, executive, and judicial functions, as weil as all govermment-cwned end cperated establishments and institutions (ersenais, navi yerds, hospitials, etca), goverment corporations, and goverrment force-account construction. The data shown in tailes 1 and 3 exclude fourthclass postmasters because they presumajly have other major jcbs.

Govermment corporations - Covers oni-r tirree corporstions: The Panama Railroad Compeny, the Fedoral Reserve Zankn, and the mixed-ownership banks of the Farm Credit Administration. All other corporations are included under the executite branch.

Indexes of production-worker employment - Estimatos of pro-duction-workor employment expressed as a percentage of the averaze employment in 1939.

Indexes of production-worker weekly pey rolls - Estinates of production-worker weekiy pay rolls expressed as a percentage of the average weekly pay roill ior 1939.

Leave payments - Payments were authorized by Public Law 704 of the 79 th Congress and were continued by Puklic Iaw 254 of the 80th Congress to enlisted persomel 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 sccrued in excess of 60 days. Vaiue of vonds represents face vilue; 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 here and included under pay rolls.

Manufacturing - Corers only privately owned estahlishments; n governmental manufacturing operations such as arsenals and navy yards are excluded.

Military persomel - Repreeents persons on active duty as of the first of the month. Reserve personnel are excluded if' on ing active duty or if on active duty for a brief troining or emergency period.

Military pay rolls - Represent estimated pay roll oblizations basod on an average montrly personnel count, plua luap-sum payments for terminal ieave. Payrolis for the inevy and Ccast Guard include caich payments I'cr ciothing-ellowance balances in January, April; July, and Cctcber.

Mining - Covers establishments encaged in the extraction fram the earth of orgenic and inorgenic misorals which occur in nature as solids, liquids, or gaees; includes verious contract adrvices required in mining operctions, such as removal of overburden, tunnelling and shafting, and the drilling or acidizing of oil wells; also incluces ore dressing, boneficiating, and concentration.

Nonapriculturai establishmonts - Govermental or private business establishrientes (I) that are physicaliy locatod within continental United States; and (2) whose principal actirity can be classified under one of the foilowing industry divisions manufacturing, mining, contract construction, transportation and public utilities, trade, finance, service, or government.

Pay rolls - Private pay rolls represent vaekly pay rolls of both full- and part-time production and rifated workers (or nonsupervisory employees and working supervisors) who worked or received pay for any part o: the pay period ending nearest the 15th of the month, before dediactions for old-age end unemployment insurance, group insurance, withholding tex, bonds, and union dues, but after deductions for damaged work. Includes pay for sicir leave, helidiays, and vacations taken. Excludes cash payments for vacations not taken, retroactive pay not earned during period reported, value of payments in kind, and bonuses, uniess earnod and paid regularly each pay period. In coal mining portal-to-pritel pay is included.

Federal civilian fay rolls are for all employees before ieductions for income tex, retiroment, and bonds, and cover the working days in the calendar month.

Production and related workers - Includes working foremen and all nonsupervisory workers (including lead men and trainees) engaged in fabricating, processing, assembling, inspection, receiving, storage, handling, packing, warehousing, shipping, maintenance, repair, janitorial, watchman services, 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. Excludes automobile repair services, government owned and operated hospitals, museums, etc., and domestic service.

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

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

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, sales-delivery, advertising, credit, collection, and in installation and servicing of own products, 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 alterations to the plant who are utilized as a separate work force (force-account 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.

