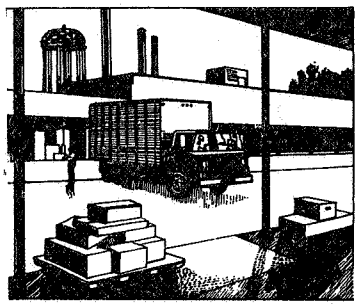


CURRENT BUSINESS REPORTS

# Monthly Wholesale Trade

## SALES AND INVENTORIES

Issued April 1981

## January 1981

BW-81-01

**Notice of Revision to Monthly Wholesale Sales, Inventory and Stock-Sales Ratio Estimates.**

Monthly merchant wholesalers' sales, inventories and stock-sales ratios by kind of business for the United States were revised for the period January 1973 through January 1981 based on estimates derived from the 1977 Census of Wholesale Trade and the 1978 and 1979 Annual Wholesale Trade Surveys (ATS).

The sales, inventories and stock-sales ratios shown in this report have been revised. The revised monthly estimates for January 1973-December 1980 are shown in the publication "Revised Monthly Wholesale Trade, Sales and Inventories."

Additional information about the methodology used in the revision process is provided in appendix C under the heading "Benchmarking."

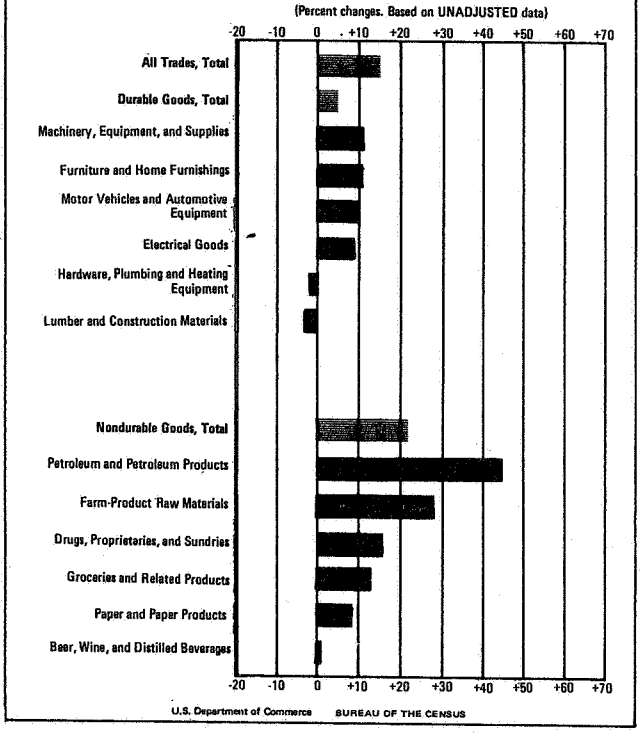
**Sales.** January 1981 sales of merchant wholesalers after adjustment for seasonal variations and trading-day differences but not for price changes, were $98.4 billion, up 2 percent from the previous month and 17 percent above January 1980. Adjusted November-through-January total sales were up 7 percent from the August-through-October period and were 17 percent above the total sales for the comparable months a year ago.

After adjustment, January sales in the durable goods trades were 3 percent above the previous month and were 8 percent above the same month a year ago. Nondurable goods sales were up 1 percent from December and were 24 percent above January 1980. Total monthly sales in the durable goods group during the November-through-January period were 8 percent above the prior 3 months and were 9 percent above the comparable period a year ago. Three-month total sales for the nondurable goods group were 6 percent above the August-through-October period and were 23 percent above the total sales for the same period a year ago.

**Inventories.** Total inventories of merchant wholesalers, after adjustment for seasonal variations, but not for price changes, were valued at $105.3 billion at the end of January, virtually unchanged from the previous month, but 11 percent above the same month a year ago. Both durable and nondurable goods stocks were unchanged from last month, but both were 11 percent above the January 1980 levels.

**Stock-Sales Ratios.** The January stock-sales ratio for merchant wholesalers, based on seasonally adjusted data, was 107, down 2 points from the previous month and down 6 points from the previous year. The stock-sales ratio for durable goods was 167, down 5 points from December but up 5 points from January 1980. The ratio for nondurable goods was 65, down 1 point from the previous month and down 7 points from the year ago ratio.

**Percent Change in Sales of Merchant Wholesalers in Selected Kinds of Business**
**January 1981 Compared With January 1980**




For the sampling errors associated with these data and the use of sampling errors in determining reliability of the estimates please see appendix A.

An advance release of January 1981 data reflecting the unrevised series was issued on March 6, 1981.

U.S. Department of Commerce
BUREAU OF THE CENSUS

**Inquiries concerning this report should be addressed to Ronald Piencykoski, Business Division, Bureau of the Census, Washington, D.C. 20233. Telephone (301) 763-3916/763-3917.**

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Postage stamps not acceptable; currency submitted at sender's risk. Remittances from foreign countries must be by international money order or by draft on a U.S. bank. $12.00 per year. Additional charge for foreign mailing, $3.00. Single copy $1.50.

# Table 1. Estimated Monthly Sales of Merchant Wholesalers by Kind of Business for the United States, Unadjusted: 1981 and 1980

(MILLIONS OF DOLLARS. DATA ARE NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | 1980 | | | | | | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN.[P] | JAN. | FEB. | MAR. | APR. | MAY | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. | 1980 |
| | MERCHANT WHOLESALERS, TOT. | 93,258 | 81,056 | 79,421 | 84,101 | 83,106 | 83,507 | 81,607 | 86,052 | 86,311 | 90,715 | 99,023 | 91,328 | 97,659 | 1043,886 |
| | TOTAL (EX FARM-PROD RAW MATLS) | 80,567 | 71,104 | 70,285 | 74,422 | 73,613 | 73,896 | 73,107 | 76,952 | 76,933 | 80,580 | 87,102 | 80,363 | 85,305 | 923,662 |
| 50 | DURABLE GOODS, TOT. | 36,110 | 34,340 | 34,540 | 36,737 | 35,913 | 34,947 | 35,508 | 35,757 | 36,010 | 38,112 | 41,298 | 36,679 | 38,598 | 438,439 |
| 501 | MOTOR VEHICLES & AUTO PARTS & SUPPLIES | 7,034 | 6,395 | 6,597 | 6,759 | 7,045 | 6,700 | 6,716 | 6,867 | 7,026 | 6,449 | 7,638 | 6,621 | 6,816 | 81,629 |
| 5013,4 | AUTO PARTS & SUPPLIES, TIRES & TUBES | 3,165 | 2,706 | 2,646 | 2,842 | 2,873 | 2,813 | 2,929 | 2,946 | 3,028 | 3,117 | 3,451 | 3,012 | 3,053 | 35,416 |
| 5013 | AUTO PARTS & SUPPLIES | 2,709 | 2,287 | 2,271 | 2,394 | 2,443 | 2,387 | 2,454 | 2,459 | 2,543 | 2,581 | 2,889 | 2,530 | 2,576 | 29,814 |
| 502 | FURNITURE & HOME FURNISHINGS | 1,337 | 1,210 | 1,186 | 1,305 | 1,345 | 1,257 | 1,246 | 1,209 | 1,250 | 1,330 | 1,531 | 1,356 | 1,355 | 15,580 |
| 5021 | FURNITURE--HSEHLD & OFFICE[1] | 482 | 444 | 433 | 476 | 482 | 455 | 456 | 446 | 465 | 469 | 499 | 441 | 500 | 5,566 |
| 5023 | HOME FURNISHINGS[2] | 855 | 766 | 753 | 829 | 863 | 802 | 790 | 763 | 785 | 861 | 1,032 | 915 | 855 | 10,014 |
| 503 | LUMBER & OTHER CONSTRUCTION MATLS | 2,494 | 2,562 | 2,390 | 2,575 | 2,577 | 2,587 | 2,874 | 2,957 | 2,842 | 3,046 | 3,309 | 2,822 | 2,704 | 33,245 |
| 5031 | LUMBER, PLYWOOD & MILLWORK | 1,616 | 1,711 | 1,625 | 1,699 | 1,641 | 1,640 | 1,807 | 1,846 | 1,787 | 1,930 | 2,054 | 1,786 | 1,720 | 21,246 |
| 5039 | CONSTRUCTION MATLS, N.E.C. | 878 | 851 | 765 | 876 | 936 | 947 | 1,067 | 1,111 | 1,055 | 1,116 | 1,255 | 1,036 | 984 | 11,999 |
| 5051 PT. | FERROUS METALS SERV CTRS & OFFICES | 3,373 | 3,163 | 2,996 | 3,255 | 2,991 | 2,874 | 2,841 | 2,580 | 2,732 | 3,042 | 3,272 | 2,954 | 3,327 | 36,027 |
| 5051 PT. | FERROUS METALS SERV CTRS | 2,639 | 2,385 | 2,241 | 2,465 | 2,290 | 2,128 | 2,154 | 1,956 | 2,078 | 2,286 | 2,491 | 2,271 | 2,510 | 27,255 |
| 506 | ELECTRICAL GOODS | 3,844 | 3,525 | 3,671 | 3,698 | 3,496 | 3,525 | 3,770 | 3,908 | 3,802 | 4,207 | 4,299 | 4,236 | 4,299 | 46,436 |
| 5063 | ELECTRICAL APPARATUS & EQUIP, WIRING SUPPLIES & CONSTRUCTION MATLS[3] | 1,938 | 1,673 | 1,847 | 1,811 | 1,750 | 1,783 | 1,901 | 1,895 | 1,862 | 2,158 | 2,178 | 2,155 | 2,155 | 23,168 |
| 5064,5 | ELECTRICAL APPLIANCES, TV & RADIO SETS, & ELECTRONIC PARTS & EQUIP[4] | 1,906 | 1,852 | 1,824 | 1,887 | 1,746 | 1,742 | 1,869 | 2,013 | 1,940 | 2,049 | 2,121 | 2,081 | 2,144 | 23,268 |
| 5064 | ELECTRICAL APPLIANCES, TV & RADIO SETS[5] | 1,021 | 966 | 915 | 979 | 882 | 869 | 989 | 1,098 | 1,069 | 1,142 | 1,200 | 1,130 | 1,194 | 12,433 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIP, & SUPPLIES | 2,259 | 2,306 | 2,111 | 2,278 | 2,162 | 2,162 | 2,262 | 2,393 | 2,312 | 2,405 | 2,645 | 2,328 | 2,259 | 27,623 |
| 5072 | HARDWARE | 911 | 869 | 822 | 865 | 832 | 823 | 867 | 823 | 832 | 895 | 932 | 859 | 863 | 10,282 |
| 5074 | PLUMBING & HEATING EQUIP & SUPPLIES (HYDRONICS) | 943 | 998 | 898 | 965 | 902 | 878 | 896 | 971 | 960 | 1,035 | 1,181 | 1,011 | 967 | 11,662 |
| 508 | MACHINERY, EQUIP, & SUPPLIES | 10,343 | 9,313 | 9,777 | 10,551 | 10,705 | 10,627 | 10,774 | 10,621 | 10,885 | 11,613 | 11,949 | 10,511 | 11,722 | 129,048 |
| 5082 | CONSTRUCTION & MINING MACHINERY & EQUIP | 1,106 | 1,057 | 1,211 | 1,332 | 1,307 | 1,402 | 1,321 | 1,339 | 1,602 | 1,473 | 1,414 | 1,341 | 1,377 | 16,176 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIP & SUPPLIES | 4,593 | 4,115 | 4,263 | 4,431 | 4,560 | 4,588 | 4,600 | 4,453 | 4,509 | 4,720 | 4,929 | 4,501 | 5,079 | 54,748 |
| 5086 | PROFESSIONAL EQUIP & SUPPLIES | 1,049 | 967 | 958 | 999 | 1,066 | 1,087 | 1,104 | 1,120 | 1,149 | 1,200 | 1,217 | 1,107 | 1,208 | 13,182 |
| 5093 | SCRAP & WASTE MATLS | 1,340 | 1,442 | 1,521 | 1,629 | 1,530 | 1,436 | 1,215 | 1,047 | 1,107 | 1,240 | 1,458 | 1,267 | 1,435 | 16,327 |
| 51 | NONDURABLE GOODS, TOT. | 57,148 | 46,716 | 44,881 | 47,364 | 47,193 | 48,560 | 46,099 | 50,295 | 50,301 | 52,603 | 57,725 | 54,649 | 59,061 | 605,447 |
| | TOTAL (EX FARM-PROD RAW MATLS) | 44,457 | 36,764 | 35,745 | 37,685 | 37,700 | 38,949 | 37,599 | 41,195 | 40,923 | 42,468 | 45,804 | 43,684 | 46,707 | 485,223 |
| 511 | PAPER & PAPER PROD | 1,968 | 1,799 | 1,738 | 1,761 | 1,747 | 1,725 | 1,696 | 1,763 | 1,775 | 1,879 | 2,009 | 1,822 | 1,929 | 21,643 |
| 5111,3 | PRINTING, WRITING, IND & PERSONAL SERV PAPER | 1,418 | 1,299 | 1,261 | 1,322 | 1,297 | 1,286 | 1,276 | 1,294 | 1,287 | 1,375 | 1,465 | 1,304 | 1,413 | 15,879 |
| 5111 | PRINTING & WRITING PAPER | 649 | 656 | 659 | 656 | 657 | 638 | 621 | 586 | 576 | 626 | 697 | 582 | 652 | 7,606 |
| 5113 | IND & PERSONAL SERV PAPER[6] | 769 | 643 | 602 | 666 | 640 | 648 | 655 | 708 | 711 | 749 | 768 | 722 | 761 | 8,273 |
| 512 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 1,194 | 1,028 | 958 | 1,019 | 1,019 | 1,026 | 1,034 | 1,090 | 1,074 | 1,159 | 1,313 | 1,134 | 1,197 | 13,051 |
| 5122 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 1,194 | 1,028 | 958 | 1,019 | 1,019 | 1,026 | 1,034 | 1,090 | 1,074 | 1,159 | 1,313 | 1,134 | 1,197 | 13,051 |
| 5122 PT. | GENERAL-LINE DRUGS | 389 | 328 | 324 | 348 | 332 | 341 | 336 | 350 | 341 | 383 | 394 | 349 | 410 | 4,236 |
| 513 | APPAREL, PIECE GDS & NOTIONS[7] | 1,971 | 2,056 | 2,027 | 2,103 | 2,022 | 1,777 | 1,953 | 2,318 | 2,445 | 2,541 | 2,486 | 2,141 | 1,921 | 25,790 |
| 514 | GROCERIES & RELATED PROD | 13,128 | 11,658 | 11,011 | 11,807 | 12,030 | 12,353 | 12,173 | 13,154 | 12,592 | 12,915 | 13,815 | 12,741 | 13,640 | 149,889 |
| 5141 | GROCERIES, GENERAL LINE | 4,365 | 3,772 | 3,595 | 3,894 | 3,923 | 4,072 | 3,936 | 4,281 | 4,103 | 4,066 | 4,462 | 4,173 | 4,407 | 48,684 |
| 5144 | POULTRY & POULTRY PROD | 635 | 575 | 550 | 579 | 597 | 589 | 583 | 638 | 652 | 659 | 725 | 670 | 691 | 7,508 |
| 5145 | CONFECTIONERY | 257 | 229 | 216 | 241 | 241 | 242 | 249 | 257 | 263 | 274 | 322 | 283 | 296 | 3,113 |
| 5147 | MEATS & MEAT PROD | 1,770 | 1,776 | 1,656 | 1,712 | 1,684 | 1,712 | 1,667 | 1,828 | 1,859 | 1,841 | 2,019 | 1,736 | 1,897 | 21,387 |
| 5148 | FRESH FRUITS & VEGETABLES | 1,190 | 1,031 | 1,039 | 1,155 | 1,254 | 1,343 | 1,337 | 1,354 | 1,206 | 1,217 | 1,258 | 1,200 | 1,258 | 14,652 |
| 515 | FARM PROD RAW MATERIALS | 12,691 | 9,952 | 9,136 | 9,679 | 9,493 | 9,611 | 8,500 | 9,100 | 9,378 | 10,135 | 11,921 | 10,965 | 12,354 | 120,224 |
| 5153 | GRAIN | 10,525 | 8,054 | 7,363 | 7,997 | 7,878 | 7,984 | 6,910 | 7,587 | 7,770 | 8,205 | 9,890 | 8,801 | 9,814 | 98,253 |
| 517 | PETROLEUM & PETROLEUM PROD | 16,914 | 11,682 | 11,419 | 11,238 | 11,138 | 11,610 | 10,823 | 13,275 | 13,530 | 14,007 | 15,657 | 16,626 | 17,185 | 158,190 |
| 5171 | PETROLEUM BULK STATIONS & TERMINALS | 6,179 | 4,532 | 4,360 | 4,256 | 4,062 | 4,129 | 3,937 | 4,246 | 4,306 | 4,752 | 5,446 | 5,546 | 6,249 | 55,821 |
| 518 | BEER, WINE, & DISTILLED ALCOHOLIC BEVERAGES | 2,159 | 2,128 | 2,145 | 2,315 | 2,502 | 2,664 | 2,738 | 3,001 | 2,831 | 2,638 | 2,906 | 2,667 | 3,162 | 31,697 |
| 5181 | BEER & ALE | 1,145 | 1,083 | 1,151 | 1,202 | 1,341 | 1,551 | 1,591 | 1,702 | 1,660 | 1,434 | 1,431 | 1,244 | 1,454 | 16,844 |
| 5182 | WINE & DISTILLED ALCOHOLIC BEVERAGES[8] | 1,014 | 1,045 | 994 | 1,113 | 1,161 | 1,113 | 1,147 | 1,299 | 1,171 | 1,204 | 1,475 | 1,423 | 1,708 | 14,853 |
| 519 | MISC NONDURABLE GOODS | 5,745 | 5,197 | 5,273 | 6,297 | 6,114 | 6,544 | 5,903 | 5,514 | 5,415 | 5,898 | 6,153 | 5,347 | 6,284 | 69,939 |
| 5194 | TOBACCO & TOBACCO PROD | 863 | 872 | 805 | 851 | 902 | 922 | 919 | 1,016 | 942 | 938 | 1,018 | 860 | 953 | 10,998 |

Note: Merchant wholesalers total and group totals include data for some kinds of business not shown separately.

[P] Preliminary estimates. See p. 16, Sample Design and Estimation Procedures.

[1] The furniture household and office kind of business is subject to a sampling variability of 9 percent for January 1981.

[2] The home furnishings kind of business is subject to a sampling variability of 8 percent for January 1981.

[3] The electrical apparatus and equipment, wiring supplies, and construction materials kind of business is subject to a sampling variability of 10 percent for January 1981.

[4] The electrical appliances, TV and radio sets, and electronic parts and equipment kinds of business are subject to a sampling variability of 8 percent for January 1981.

[5] The electrical appliances, TV and radio sets kind of business is subject to a sampling variability of 12 percent for January 1981.

[6] The industrial and personal service paper kind of business is subject to a sampling variability of 9 percent for January 1981.

[7] The apparel, piece goods, and notions group is subject to a sampling variability of 11 percent for January 1981.

[8] The wine and distilled alcoholic beverages kind of business is subject to a sampling variability of 8 percent for January 1981.

# Table 2. Estimated Monthly Inventories of Merchant Wholesalers by Kind of Business for the United States, Unadjusted: 1981 and 1980

(MILLIONS OF DOLLARS. DATA ARE NOT ADJUSTED FOR SEASONAL VARIATIONS)

| 1972 SIC | KIND OF BUSINESS | 1981 | 1980 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN.[P] | JAN. | FEB. | MAR. | APR. | MAY | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. |
| | MERCHANT WHOLESALERS, TOTAL | 105,819 | 95,227 | 96,956 | 97,808 | 97,467 | 97,480 | 97,785 | 98,387 | 100,205 | 101,310 | 104,277 | 105,866 | 105,449 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 96,515 | 86,778 | 88,611 | 90,177 | 90,998 | 91,846 | 92,451 | 92,382 | 93,682 | 93,901 | 94,861 | 95,869 | 96,235 |
| 50 | DURABLE GOODS, TOTAL | 66,620 | 59,993 | 61,500 | 62,489 | 63,506 | 64,620 | 65,133 | 64,730 | 65,894 | 65,273 | 65,137 | 65,857 | 66,716 |
| 501 | MOTOR VEHICLES & AUTOMOTIVE PARTS & SUPPLIES | 11,461 | 10,440 | 10,820 | 10,761 | 11,130 | 11,215 | 11,292 | 11,326 | 11,206 | 10,984 | 11,246 | 11,253 | 11,615 |
| 5013,4 | AUTOMOTIVE PARTS & SUPPLIES, TIRES & TUBES | 5,826 | 5,625 | 5,582 | 5,568 | 5,649 | 5,797 | 5,739 | 5,565 | 5,716 | 5,750 | 5,659 | 5,775 | 5,813 |
| 5013 | AUTOMOTIVE PARTS & SUPPLIES | 4,739 | 4,558 | 4,499 | 4,450 | 4,518 | 4,660 | 4,550 | 4,530 | 4,688 | 4,703 | 4,628 | 4,703 | 4,730 |
| 502 | FURNITURE & HOME FURNISHINGS | 2,172 | 1,970 | 1,978 | 2,077 | 2,115 | 2,057 | 2,112 | 2,165 | 2,106 | 2,212 | 2,188 | 2,126 | 2,168 |
| 5023 | HOME FURNISHINGS | 1,556 | 1,445 | 1,451 | 1,519 | 1,560 | 1,510 | 1,528 | 1,585 | 1,543 | 1,608 | 1,600 | 1,555 | 1,566 |
| 503 | LUMBER & OTHER CONSTRUCTION MATERIALS | 3,393 | 3,527 | 3,577 | 3,751 | 3,661 | 3,587 | 3,537 | 3,429 | 3,551 | 3,377 | 3,331 | 3,493 | 3,392 |
| 5031 | LUMBER, PLYWOOD, AND MILLWORK[1] | 2,210 | 2,299 | 2,371 | 2,427 | 2,395 | 2,370 | 2,258 | 2,207 | 2,324 | 2,172 | 2,168 | 2,268 | 2,206 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS & OFFICES | 5,745 | 5,078 | 4,987 | 5,073 | 4,946 | 5,390 | 5,341 | 5,044 | 5,369 | 5,297 | 5,074 | 5,420 | 5,721 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | 4,523 | 4,020 | 3,977 | 4,111 | 3,935 | 4,342 | 4,359 | 4,053 | 4,334 | 4,242 | 3,999 | 4,323 | 4,532 |
| 506 | ELECTRICAL GOODS | 6,545 | 6,027 | 6,057 | 6,004 | 6,243 | 6,433 | 6,444 | 6,578 | 6,659 | 6,643 | 6,720 | 6,560 | 6,611 |
| 5063 | ELECTRICAL APPARATUS & EQUIPMENT, WIRING SUPPLIES, & CONSTRUCTION MATERIALS | 2,803 | 2,652 | 2,796 | 2,733 | 2,784 | 2,890 | 2,796 | 2,820 | 2,888 | 2,890 | 2,889 | 2,875 | 2,881 |
| 5064,5 | ELECTRICAL APPLIANCES, TV & RADIO SETS, & ELECTRONIC PARTS & EQUIPMENT | 3,742 | 3,375 | 3,261 | 3,271 | 3,459 | 3,543 | 3,648 | 3,758 | 3,771 | 3,753 | 3,831 | 3,685 | 3,730 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT & SUPPLIES | 4,704 | 4,468 | 4,651 | 4,755 | 4,846 | 4,720 | 4,648 | 4,576 | 4,557 | 4,525 | 4,584 | 4,482 | 4,632 |
| 5072 | HARDWARE[2] | 1,921 | 1,730 | 1,809 | 1,863 | 1,844 | 1,794 | 1,773 | 1,749 | 1,824 | 1,853 | 1,842 | 1,806 | 1,885 |
| 5074 | PLUMBING & HEATING EQUIPMENT & SUPPLIES (HYDRONICS) | 1,795 | 1,765 | 1,830 | 1,869 | 1,978 | 1,941 | 1,888 | 1,899 | 1,840 | 1,767 | 1,819 | 1,770 | 1,788 |
| 508 | MACHINERY, EQUIPMENT, & SUPPLIES | 23,773 | 20,659 | 21,728 | 22,327 | 22,364 | 22,833 | 23,162 | 22,825 | 23,260 | 23,261 | 22,878 | 23,542 | 23,811 |
| 5082 | CONSTRUCTION & MINING MACHINERY & EQUIPMENT | 4,234 | 4,259 | 4,513 | 4,563 | 4,606 | 4,750 | 4,752 | 4,489 | 4,503 | 4,310 | 4,255 | 4,299 | 4,242 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, & SUPPLIES | 7,143 | 6,450 | 6,664 | 7,005 | 6,907 | 6,977 | 7,027 | 6,897 | 7,015 | 7,113 | 6,891 | 7,103 | 7,300 |
| 51 | NONDURABLE GOODS, TOTAL | 39,199 | 35,234 | 35,456 | 35,319 | 33,961 | 32,860 | 32,652 | 33,657 | 34,311 | 36,037 | 39,140 | 40,009 | 38,733 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 29,895 | 26,785 | 27,111 | 27,688 | 27,492 | 27,226 | 27,318 | 27,652 | 27,788 | 28,628 | 29,724 | 30,012 | 29,519 |
| 511 | PAPER & PAPER PRODUCTS | 1,857 | 1,647 | 1,671 | 1,717 | 1,744 | 1,752 | 1,777 | 1,741 | 1,712 | 1,750 | 1,773 | 1,820 | 1,849 |
| 5111,3 | PRINTING, WRITING, INDUSTRIAL, & PERSONAL SERVICE PAPER[3] | 1,259 | 1,120 | 1,127 | 1,168 | 1,183 | 1,177 | 1,222 | 1,182 | 1,150 | 1,189 | 1,202 | 1,215 | 1,248 |
| 5111 | PRINTING & WRITING PAPER | 553 | 486 | 492 | 512 | 513 | 505 | 530 | 500 | 484 | 492 | 501 | 516 | 546 |
| 5113 | INDUSTRIAL & PERSONAL SERVICE PAPER[4] | 706 | 634 | 635 | 656 | 670 | 672 | 692 | 682 | 666 | 697 | 701 | 699 | 702 |
| 512 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 1,575 | 1,423 | 1,406 | 1,457 | 1,471 | 1,451 | 1,438 | 1,467 | 1,483 | 1,562 | 1,716 | 1,624 | 1,570 |
| 514 | GROCERIES & RELATED PRODUCTS | 7,941 | 6,830 | 6,926 | 7,098 | 7,058 | 6,854 | 7,076 | 6,916 | 6,810 | 7,284 | 7,711 | 7,729 | 7,978 |
| 5141 | GROCERIES, GENERAL-LINE | 2,819 | 2,491 | 2,548 | 2,637 | 2,606 | 2,535 | 2,548 | 2,614 | 2,572 | 2,760 | 2,979 | 2,891 | 2,895 |
| 517 | PETROLEUM & PETROLEUM PRODUCTS | 4,840 | 4,088 | 4,230 | 4,191 | 4,097 | 4,368 | 4,482 | 4,638 | 4,792 | 4,952 | 5,176 | 5,234 | 4,992 |
| 518 | BEER, WINE, & DISTILLED ALCOHOLIC BEVERAGES | 2,772 | 2,692 | 2,608 | 2,819 | 2,910 | 2,861 | 2,882 | 2,874 | 2,842 | 2,963 | 3,134 | 3,158 | 2,722 |
| 5181 | BEER & ALE[5] | 1,032 | 969 | 970 | 1,173 | 1,229 | 1,206 | 1,203 | 1,148 | 1,084 | 1,134 | 1,115 | 1,156 | 1,018 |
| 5182 | WINE & DISTILLED ALCOHOLIC BEVERAGES | 1,740 | 1,723 | 1,638 | 1,646 | 1,681 | 1,655 | 1,679 | 1,726 | 1,758 | 1,829 | 2,019 | 2,002 | 1,704 |

Note: Merchant wholesalers total and group totals include data for some kinds of business not shown separately.

[P] Preliminary estimate. See p. 16, Sample Design and Estimation Procedures.

[1] The lumber, plywood, and millwork kind of business is subject to a sampling variability of 10 percent for January 1981.
[2] The hardware kind of business is subject to a sampling variability of 8 percent for January 1981.
[3] The printing, writing, industrial, and personal service paper kinds of business are subject to a sampling variability of 8 percent for January 1981.
[4] The industrial and personal service paper kind of business is subject to a sampling variability of 13 percent for January 1981.
[5] The beer and ale kind of business is subject to a sampling variability of 8 percent for January 1981.

# Table 3. Stock-Sales Ratios of Merchant Wholesalers by Kind of Business for the United States, Unadjusted: 1981 and 1980

(PERCENT. DATA ARE NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | 1980 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN.[P] | JAN. | FEB. | MAR. | APR. | MAY | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | . |
| | MERCHANT WHOLESALERS, TOTAL | 113 | 117 | 122 | 116 | 117 | 117 | 120 | 114 | 116 | 112 | 105 | 116 | 108 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 120 | 122 | 126 | 121 | 124 | 124 | 126 | 120 | 122 | 117 | 109 | 119 | 113 |
| 50 | DURABLE GOODS, TOTAL | 184 | 175 | 178 | 170 | 177 | 185 | 183 | 181 | 183 | 171 | 158 | 180 | 173 |
| 501 | MOTOR VEHICLES & AUTOMOTIVE PARTS & SUPPLIES | 163 | 163 | 164 | 159 | 158 | 167 | 168 | 165 | 159 | 170 | 147 | 170 | 170 |
| 5013,4 | AUTOMOTIVE PARTS & SUPPLIES, TIRES & TUBES | 184 | 208 | 211 | 196 | 197 | 206 | 196 | 189 | 189 | 184 | 164 | 192 | 190 |
| 5013 | AUTOMOTIVE PARTS & SUPPLIES | 175 | 199 | 198 | 186 | 185 | 195 | 185 | 184 | 184 | 182 | 160 | 186 | 184 |
| 502 | FURNITURE & HOME FURNISHINGS | 162 | 163 | 167 | 159 | 157 | 164 | 170 | 179 | 168 | 166 | 143 | 157 | 160 |
| 5023 | HOME FURNISHINGS | 182 | 189 | 193 | 183 | 181 | 188 | 193 | 208 | 197 | 187 | 155 | 170 | 183 |
| 503 | LUMBER & OTHER CONSTRUCTION MATERIALS | 136 | 138 | 150 | 146 | 142 | 139 | 123 | 116 | 125 | 111 | 101 | 124 | 125 |
| 5031 | LUMBER, PLYWOOD, AND MILLWORK | 137 | 134 | 146 | 143 | 146 | 145 | 125 | 120 | 130 | 113 | 106 | 127 | 128 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS & OFFICES | 170 | 161 | 166 | 156 | 165 | 188 | 188 | 196 | 197 | 174 | 155 | 183 | 172 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | 171 | 169 | 177 | 167 | 172 | 204 | 202 | 207 | 209 | 186 | 161 | 190 | 181 |
| 506 | ELECTRICAL GOODS | 170 | 171 | 165 | 162 | 179 | 182 | 171 | 168 | 175 | 158 | 156 | 155 | 154 |
| 5063 | ELECTRICAL APPARATUS & EQUIPMENT, WIRING SUPPLIES, & CONSTRUCTION MATERIALS | 145 | 159 | 151 | 151 | 159 | 162 | 147 | 149 | 155 | 134 | 133 | 133 | 134 |
| 5064,5 | ELECTRICAL APPLIANCES, TV & RADIO SETS, & ELECTRONIC PARTS & EQUIPMENT | 196 | 182 | 179 | 173 | 198 | 203 | 195 | 187 | 194 | 183 | 181 | 177 | 174 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT & SUPPLIES | 208 | 194 | 220 | 209 | 224 | 218 | 205 | 191 | 197 | 188 | 173 | 193 | 205 |
| 5072 | HARDWARE | 211 | 199 | 220 | 215 | 222 | 218 | 204 | 213 | 219 | 207 | 198 | 210 | 218 |
| 5074 | PLUMBING & HEATING EQUIPMENT & SUPPLIES (HYDRONICS) | 190 | 177 | 204 | 194 | 219 | 221 | 211 | 196 | 192 | 171 | 154 | 175 | 185 |
| 508 | MACHINERY, EQUIPMENT, & SUPPLIES | 230 | 222 | 222 | 212 | 209 | 215 | 215 | 215 | 214 | 200 | 191 | 224 | 203 |
| 5082 | CONSTRUCTION & MINING MACHINERY & EQUIPMENT | 383 | 403 | 373 | 343 | 352 | 339 | 360 | 335 | 281 | 293 | 301 | 321 | 308 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, & SUPPLIES | 156 | 157 | 156 | 158 | 151 | 152 | 153 | 155 | 156 | 151 | 140 | 158 | 144 |
| 51 | NONDURABLE GOODS, TOTAL | 69 | 75 | 79 | 75 | 72 | 68 | 71 | 67 | 68 | 69 | 68 | 73 | 66 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 67 | 73 | 76 | 73 | 73 | 70 | 73 | 67 | 68 | 67 | 65 | 69 | 63 |
| 511 | PAPER & PAPER PRODUCTS | 94 | 92 | 96 | 98 | 100 | 102 | 105 | 99 | 96 | 93 | 88 | 100 | 96 |
| 5111,3 | PRINTING, WRITING, INDUSTRIAL, & PERSONAL SERVICE PAPER | 89 | 86 | 89 | 88 | 91 | 92 | 96 | 91 | 89 | 86 | 82 | 93 | 88 |
| 5111 | PRINTING & WRITING PAPER | 85 | 74 | 75 | 78 | 78 | 79 | 85 | 85 | 84 | 79 | 72 | 89 | 84 |
| 5113 | INDUSTRIAL & PERSONAL SERVICE PAPER | 92 | 99 | 105 | 98 | 105 | 104 | 106 | 96 | 94 | 93 | 91 | 97 | 92 |
| 512 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 132 | 138 | 147 | 143 | 144 | 141 | 139 | 135 | 138 | 135 | 131 | 143 | 31 |
| 514 | GROCERIES & RELATED PRODUCTS | 60 | 59 | 63 | 60 | 59 | 55 | 58 | 53 | 54 | 56 | 56 | 61 | 58 |
| 5141 | GROCERIES, GENERAL-LINE | 65 | 66 | 71 | 68 | 66 | 62 | 65 | 61 | 63 | 68 | 67 | 69 | 66 |
| 517 | PETROLEUM & PETROLEUM PRODUCTS | 29 | 35 | 37 | 37 | 37 | 38 | 41 | 35 | 35 | 35 | 33 | 31 | 29 |
| 518 | BEER, WINE, & DISTILLED ALCOHOLIC BEVERAGES | 128 | 127 | 122 | 122 | 116 | 107 | 105 | 96 | 100 | 112 | 108 | 118 | 86 |
| 5181 | BEER & ALE | 90 | 89 | 84 | 98 | 92 | 78 | 76 | 67 | 65 | 79 | 78 | 93 | 70 |
| 5182 | WINE & DISTILLED ALCOHOLIC BEVERAGES | 172 | 165 | 165 | 148 | 145 | 149 | 146 | 133 | 150 | 152 | 137 | 141 | 100 |

Note: Merchant wholesalers total and group totals include data for some kinds of business not shown separately.

[P]Preliminary estimate. See p. 16, Sample Design and Estimation Procedures.

# Table 4A. Estimated Monthly Sales, Inventories, and Stock-Sales Ratios of Merchant Wholesalers by Kind of Business for the United States, Adjusted: 1981 and 1980

(SALES AND INVENTORIES IN MILLIONS OF DOLLARS, STOCK-SALES RATIOS IN PERCENT)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | 1980 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN.[P] | JAN. | FEB. | MAR. | APR. | MAY | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. |
| | | SALES ADJUSTED FOR SEASONAL VARIATIONS AND TRADING-DAY DIFFERENCES | | | | | | | | | | | | |
| | MERCHANT WHOLESALERS, TOTAL | 98,414 | 84,131 | 83,606 | 82,616 | 81,245 | 80,471 | 81,714 | 85,810 | 86,889 | 90,223 | 93,282 | 93,901 | 96,591 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 85,886 | 74,450 | 74,158 | 73,182 | 71,929 | 71,274 | 72,642 | 76,351 | 76,783 | 79,666 | 82,335 | 83,162 | 85,013 |
| 50 | DURABLE GOODS, TOTAL | 40,585 | 37,526 | 37,298 | 35,896 | 34,561 | 33,688 | 34,793 | 35,196 | 35,353 | 36,937 | 38,110 | 38,799 | 39,403 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | 7,613 | 6,689 | 6,996 | 6,456 | 6,307 | 6,198 | 6,610 | 6,693 | 7,019 | 6,920 | 7,302 | 7,212 | 7,145 |
| 502 | FURNITURE AND HOME FURNISHINGS | 1,537 | 1,349 | 1,275 | 1,286 | 1,301 | 1,265 | 1,254 | 1,250 | 1,261 | 1,281 | 1,321 | 1,331 | 1,344 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | 3,133 | 3,136 | 2,869 | 2,763 | 2,585 | 2,469 | 2,673 | 2,688 | 2,542 | 2,729 | 2,853 | 2,999 | 3,001 |
| 506 | ELECTRICAL GOODS | 4,348 | 3,844 | 4,061 | 3,735 | 3,661 | 3,579 | 3,696 | 3,798 | 3,735 | 3,976 | 3,912 | 4,178 | 4,094 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | 2,496 | 2,466 | 2,402 | 2,368 | 2,097 | 2,067 | 2,173 | 2,222 | 2,238 | 2,349 | 2,370 | 2,428 | 2,411 |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | 11,687 | 10,348 | 10,570 | 10,304 | 10,205 | 9,950 | 10,420 | 10,526 | 10,842 | 11,071 | 11,136 | 11,500 | 11,888 |
| 51 | NONDURABLE GOODS, TOTAL | 57,829 | 46,605 | 46,308 | 46,720 | 46,684 | 46,783 | 46,921 | 50,614 | 51,536 | 53,286 | 55,172 | 55,102 | 57,188 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 45,301 | 36,924 | 36,860 | 37,286 | 37,368 | 37,586 | 37,849 | 41,155 | 41,430 | 42,729 | 44,225 | 44,363 | 45,610 |
| 511 | PAPER AND PAPER PRODUCTS | 2,008 | 1,779 | 1,786 | 1,744 | 1,731 | 1,711 | 1,727 | 1,752 | 1,782 | 1,849 | 1,864 | 1,920 | 1,917 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | 1,254 | 1,039 | 1,028 | 1,021 | 1,003 | 1,035 | 1,058 | 1,070 | 1,095 | 1,123 | 1,169 | 1,178 | 1,174 |
| 513 | APPAREL, PIECE GOODS, AND NOTIONS | 2,140 | 2,146 | 2,145 | 2,095 | 2,082 | 1,911 | 2,151 | 2,242 | 2,221 | 2,239 | 2,185 | 2,156 | 2,057 |
| 514 | GROCERIES AND RELATED PRODUCTS | 13,396 | 11,705 | 11,615 | 11,772 | 11,771 | 11,832 | 12,284 | 12,721 | 12,706 | 12,993 | 13,245 | 13,135 | 13,492 |
| 515 | FARM-PRODUCT RAW MATERIALS | 12,528 | 9,681 | 9,448 | 9,434 | 9,316 | 9,197 | 9,072 | 9,459 | 10,106 | 10,557 | 10,947 | 10,739 | 11,578 |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | 16,326 | 11,010 | 10,959 | 11,283 | 11,435 | 11,645 | 11,204 | 13,560 | 13,863 | 14,455 | 15,487 | 16,220 | 16,461 |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | 2,649 | 2,530 | 2,500 | 2,452 | 2,515 | 2,574 | 2,568 | 2,823 | 2,738 | 2,673 | 2,729 | 2,727 | 2,686 |
| 519 | MISCELLANEOUS NONDURABLE GOODS | 6,054 | 5,459 | 5,562 | 5,766 | 5,672 | 5,685 | 5,633 | 5,804 | 5,804 | 5,946 | 6,221 | 5,831 | 6,498 |
| | | INVENTORIES ADJUSTED FOR SEASONAL VARIATIONS | | | | | | | | | | | | |
| | MERCHANT WHOLESALERS, TOTAL | 105,296 | 94,719 | 95,813 | 95,594 | 96,654 | 97,351 | 98,328 | 99,618 | 101,920 | 102,953 | 104,293 | 105,203 | 105,529 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 97,504 | 87,631 | 88,687 | 88,953 | 90,287 | 90,860 | 91,855 | 92,007 | 93,694 | 94,216 | 95,187 | 96,607 | 97,558 |
| 50 | DURABLE GOODS, TOTAL | 67,717 | 60,944 | 61,680 | 61,878 | 62,996 | 63,553 | 64,025 | 63,938 | 65,387 | 65,461 | 65,951 | 66,955 | 67,938 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | 11,303 | 10,296 | 10,364 | 10,488 | 11,031 | 11,038 | 11,281 | 11,394 | 11,517 | 11,514 | 11,464 | 11,378 | 11,603 |
| ? | FURNITURE AND HOME FURNISHINGS | 2,214 | 2,008 | 2,016 | 2,058 | 2,117 | 2,049 | 2,052 | 2,131 | 2,100 | 2,160 | 2,175 | 2,163 | 2,237 |
| ] | LUMBER AND OTHER CONSTRUCTION MATERIALS | 3,476 | 3,606 | 3,609 | 3,631 | 3,561 | 3,489 | 3,454 | 3,349 | 3,540 | 3,415 | 3,396 | 3,635 | 3,501 |
| 506 | ELECTRICAL GOODS | 6,796 | 6,259 | 6,336 | 6,120 | 6,287 | 6,313 | 6,311 | 6,443 | 6,503 | 6,538 | 6,614 | 6,553 | 6,651 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | 4,820 | 4,578 | 4,656 | 4,635 | 4,598 | 4,543 | 4,508 | 4,491 | 4,589 | 4,636 | 4,682 | 4,713 | 4,835 |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | 24,283 | 21,059 | 21,750 | 21,975 | 22,165 | 22,518 | 22,686 | 22,689 | 23,075 | 23,122 | 23,321 | 23,925 | 24,272 |
| 51 | NONDURABLE GOODS, TOTAL | 37,579 | 33,775 | 34,133 | 33,716 | 33,658 | 33,798 | 34,303 | 35,680 | 36,533 | 37,492 | 38,342 | 38,248 | 37,591 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 29,787 | 26,687 | 27,007 | 27,075 | 27,291 | 27,307 | 27,830 | 28,069 | 28,307 | 28,755 | 29,236 | 29,652 | 29,620 |
| 511 | PAPER AND PAPER PRODUCTS | 1,912 | 1,696 | 1,698 | 1,724 | 1,728 | 1,745 | 1,732 | 1,739 | 1,731 | 1,731 | 1,771 | 1,815 | 1,833 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | 1,634 | 1,476 | 1,463 | 1,453 | 1,452 | 1,461 | 1,432 | 1,461 | 1,484 | 1,519 | 1,630 | 1,610 | 1,612 |
| 514 | GROCERIES AND RELATED PRODUCTS | 8,054 | 6,927 | 6,933 | 6,986 | 7,016 | 6,916 | 7,083 | 7,036 | 7,013 | 7,262 | 7,494 | 7,660 | 7,868 |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | 4,727 | 3,984 | 4,268 | 4,187 | 4,295 | 4,466 | 4,728 | 4,737 | 4,797 | 4,836 | 4,982 | 5,018 | 4,904 |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | 2,846 | 2,767 | 2,757 | 2,788 | 2,782 | 2,770 | 2,814 | 2,851 | 2,942 | 2,984 | 3,011 | 3,054 | 2,924 |
| | | STOCK-SALES RATIOS BASED ON ADJUSTED DATA | | | | | | | | | | | | |
| | MERCHANT WHOLESALERS, TOTAL | 107 | 113 | 115 | 116 | 119 | 121 | 120 | 116 | 117 | 114 | 112 | 112 | 109 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 114 | 118 | 120 | 122 | 126 | 127 | 126 | 121 | 122 | 118 | 116 | 116 | 115 |
| 50 | DURABLE GOODS, TOTAL | 167 | 162 | 165 | 172 | 182 | 189 | 184 | 182 | 185 | 177 | 173 | 173 | 172 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | 148 | 154 | 148 | 162 | 175 | 178 | 171 | 170 | 164 | 166 | 157 | 158 | 162 |
| 502 | FURNITURE AND HOME FURNISHINGS | 144 | 149 | 158 | 160 | 163 | 162 | 164 | 170 | 167 | 169 | 165 | 163 | 166 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | 111 | 115 | 126 | 131 | 138 | 141 | 129 | 125 | 139 | 125 | 119 | 121 | 117 |
| 506 | ELECTRICAL GOODS | 156 | 163 | 156 | 164 | 172 | 176 | 171 | 170 | 174 | 164 | 169 | 157 | 162 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | 193 | 186 | 194 | 196 | 219 | 220 | 207 | 202 | 205 | 197 | 198 | 194 | 201 |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | 208 | 204 | 206 | 213 | 217 | 226 | 218 | 216 | 213 | 209 | 209 | 208 | 204 |
| 51 | NONDURABLE GOODS, TOTAL | 65 | 72 | 74 | 72 | 72 | 72 | 73 | 70 | 71 | 70 | 69 | 69 | 66 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 66 | 72 | 73 | 73 | 73 | 73 | 74 | 68 | 68 | 67 | 66 | 67 | 65 |
| 511 | PAPER AND PAPER PRODUCTS | 95 | 95 | 95 | 99 | 100 | 102 | 100 | 99 | 97 | 94 | 95 | 95 | 96 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | 130 | 142 | 142 | 142 | 145 | 141 | 135 | 137 | 136 | 135 | 139 | 137 | 137 |
| 514 | GROCERIES AND RELATED PRODUCTS | 60 | 59 | 60 | 59 | 60 | 58 | 58 | 55 | 55 | 56 | 57 | 58 | 58 |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | 29 | 36 | 39 | 37 | 38 | 38 | 42 | 35 | 35 | 33 | 32 | 31 | 30 |
| 8 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | 107 | 109 | 110 | 114 | 111 | 108 | 110 | 101 | 107 | 112 | 110 | 112 | 109 |

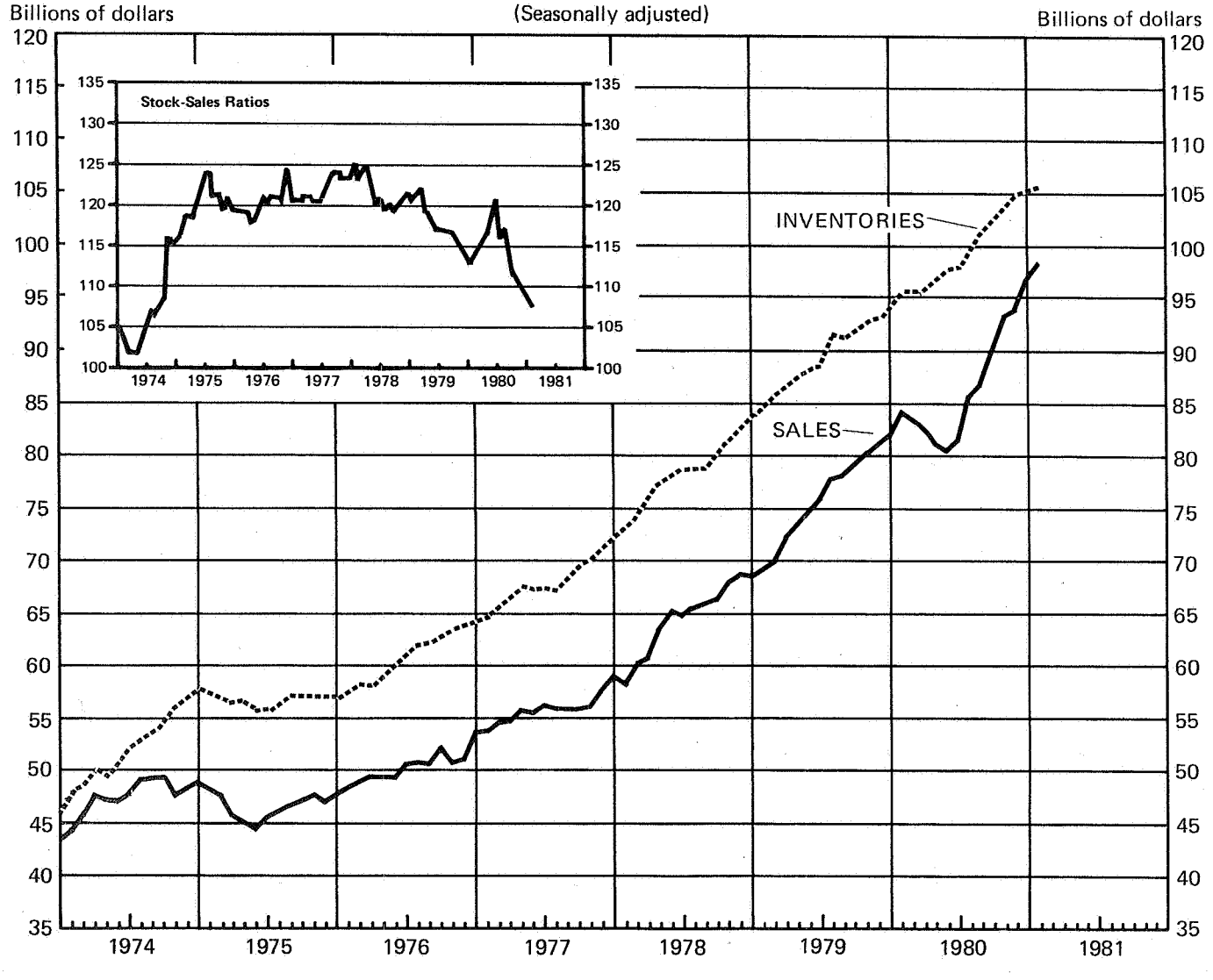
[P]Preliminary estimates. See p. 16, Sample Design and Estimation Procedures.

## Table 4B. Percent Change Between Selected 3-Month Periods Sales of Merchant Wholesalers, United States

(Based on seasonally-adjusted data)

| Item | 3 month period, November 1980-January 1981 from-- | | | |
|---|---|---|---|---|
| | Aug. 1980-Oct. 1980 (3 months ago) | May 1980-July 1980 (6 months ago) | Feb. 1980-Apr. 1980 (9 months ago) | Nov. 1979-Jan. 1980 (12 months ago) |
| Merchant wholesalers, total..... | +7 | +16 | +17 | +17 |
| Durable goods, total..... | +8 | +15 | +10 | +9 |
| Nondurable goods, total... | +6 | +18 | +22 | +23 |

### Monthly Sales, Inventories, and Stock-Sales Ratios of Merchant Wholesalers: 1974-1981



# Table 5. Percent Changes in Sales and Inventories of Merchant Wholesalers by Kind of Business for the United States: January 1981

| 1972 SIC code | Kind of business | Unadjusted | | | | Adjusted[1] | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Sales | | Inventories, end-of-month (at cost) | | Sales | | Inventories, end-of-month (at cost) | |
| | | Jan. 1981 from Dec. 1980 | Jan. 1981 from Jan. 1980 | Jan. 1981 from Dec. 1980 | Jan. 1981 from Jan. 1980 | Jan. 1981 from Dec. 1980 | Jan. 1981 from Jan. 1980 | Jan. 1981 from Dec. 1980 | Jan. 1981 from Jan. 1980 |
| | Merchant wholesalers, total | -5 | +15 | 0 | +11 | +2 | +17 | 0 | +11 |
| | Total (excluding farm-product raw materials) | -6 | +13 | 0 | +11 | +1 | +15 | 0 | +11 |
| 50 | Durable goods, total | -6 | +5 | 0 | +11 | +3 | +8 | 0 | +11 |
| 501 | Motor vehicles and automotive parts and supplies | +3 | +10 | -1 | +10 | +7 | +14 | -3 | +10 |
| 5012 | Automobiles and other motor vehicles | +3 | +5 | -3 | +17 | (*) | (*) | (*) | (*) |
| 5013,4 | Automotive parts and supplies, tires and tubes | +4 | +17 | 0 | +4 | (*) | (*) | (*) | (*) |
| 5013 | Automotive parts and supplies | +5 | +18 | 0 | +4 | (*) | (*) | (*) | (*) |
| 502 | Furniture and home furnishings | -1 | +11 | 0 | +10 | +14 | +14 | -1 | +10 |
| 5021 | Furniture--household and office[3] | -4 | +9 | +2 | +17 | (*) | (*) | (*) | (*) |
| 5021 pt. | Household furniture[4] | -15 | -16 | +3 | +6 | (*) | (*) | (*) | (*) |
| 5021 pt. | Office furniture[5] | +1 | +20 | +2 | +25 | (*) | (*) | (*) | (*) |
| 5023 | Home furnishings | 0 | +12 | -1 | +8 | (*) | (*) | (*) | (*) |
| 503 | Lumber and other construction materials | -8 | -3 | 0 | -4 | +4 | 0 | -1 | -4 |
| 5031 | Lumber, plywood, and millwork | -6 | -6 | 0 | -4 | (*) | (*) | (*) | (*) |
| 5039 | Construction materials, n.e.c. | -11 | +3 | 0 | -4 | (*) | (*) | (*) | (*) |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | -19 | -1 | +1 | -3 | +5 | +1 | -3 | -3 |
| 5051 pt. | Ferrous metals service centers and offices | +1 | +7 | 0 | +13 | (*) | (*) | (*) | (*) |
| 5051 pt. | Ferrous metals service centers | +5 | +11 | 0 | +13 | (*) | (*) | (*) | (*) |
| 506 | Electrical goods | -11 | +9 | -1 | +9 | +6 | +13 | +2 | +9 |
| 5063 | Electrical apparatus and equipment, wiring supplies, and construction materials | -10 | +16 | -3 | +6 | (*) | (*) | (*) | (*) |
| 5064,5 | Electrical appliances, TV and radio sets, and electronic parts and equipment | -11 | +3 | 0 | +11 | (*) | (*) | (*) | (*) |
| 5064 | Electrical appliances, TV and radio sets | -14 | +6 | 0 | +2 | (*) | (*) | (*) | (*) |
| 507 | Hardware, plumbing, heating equipment, and supplies | 0 | -2 | +2 | +5 | +4 | +1 | 0 | +5 |
| 5072 | Hardware | +6 | +5 | +2 | +11 | (*) | (*) | (*) | (*) |
| 5074 | Plumbing and heating equipment and supplies (hydronics) | -2 | -6 | 0 | +2 | (*) | (*) | (*) | (*) |
| 5075 | Warm air heating and air conditioning equipment and supplies | -3 | -12 | +4 | +2 | (*) | (*) | (*) | (*) |
| 508 | Machinery, equipment, and supplies | -12 | +11 | 0 | +15 | -2 | +13 | 0 | +15 |
| 5081 | Commercial machines and equipment | -9 | +26 | -3 | +33 | (*) | (*) | (*) | (*) |
| 5082 | Construction and mining machinery and equipment | -20 | +5 | 0 | -1 | (*) | (*) | (*) | (*) |
| 5083 | Farm and garden machinery and equipment[6] | -23 | -2 | +4 | +29 | (*) | (*) | (*) | (*) |
| 5084,5 | Industrial machinery, equipment, and supplies | -10 | +12 | -2 | +11 | (*) | (*) | (*) | (*) |
| 5086 | Professional equipment and supplies | -13 | +8 | -2 | +14 | (*) | (*) | (*) | (*) |
| 5093 | Scrap and waste materials | -7 | -7 | -5 | +12 | (*) | (*) | (*) | (*) |
| 5093 pt. | Iron and steel scrap | -6 | 0 | -5 | +17 | (*) | (*) | (*) | (*) |
| 5093 pt. | Waste materials | -7 | -16 | -4 | +2 | (*) | (*) | (*) | (*) |
| 51 | Nondurable goods, total | -3 | +22 | +1 | +11 | +1 | +24 | 0 | +11 |
| | Total (excluding farm-product raw materials) | -5 | +21 | +1 | +12 | -1 | +23 | +1 | +12 |
| 511 | Paper and paper products | +2 | +9 | 0 | +13 | +5 | +13 | +4 | +13 |
| 5111,3 | Printing, writing, industrial, and personal service paper | 0 | +9 | +1 | +12 | (*) | (*) | (*) | (*) |
| 5111 | Printing, and writing paper | 0 | -1 | +1 | +14 | (*) | (*) | (*) | (*) |
| 5113 | Industrial and personal service paper | +1 | +20 | +1 | +11 | (*) | (*) | (*) | (*) |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 0 | +16 | 0 | +11 | +7 | +21 | +1 | +11 |
| 5122 | Drugs, drug proprietaries, and druggists' sundries | 0 | +16 | 0 | +11 | (*) | (*) | (*) | (*) |
| 5122 pt. | General-line drugs | -5 | +19 | +4 | +9 | (*) | (*) | (*) | (*) |
| 514 | Groceries and related products | -4 | +13 | 0 | +16 | -1 | +14 | +2 | +16 |
| 5141 | Groceries, general-line | -1 | +16 | -3 | +13 | (*) | (*) | (*) | (*) |
| 5141 pt. | Voluntary groups | -2 | +12 | -1 | +14 | (*) | (*) | (*) | (*) |
| 5141 pt. | Retailer cooperatives | -3 | +17 | -6 | +17 | (*) | (*) | (*) | (*) |
| 5141 pt. | Other general-lines | +2 | +19 | -2 | +10 | (*) | (*) | (*) | (*) |
| 5142,3,6,9 | Specialty-line groceries | -4 | +15 | -1 | +21 | (*) | (*) | (*) | (*) |
| 5144 | Poultry and poultry products | -8 | +10 | +6 | +22 | (*) | (*) | (*) | (*) |
| 5145 | Confectionery | -13 | +12 | +3 | +15 | (*) | (*) | (*) | (*) |
| 5147 | Meats and meat products | -7 | 0 | -1 | -2 | (*) | (*) | (*) | (*) |
| 5148 | Fresh fruits and vegetables | -5 | +15 | +13 | +33 | (*) | (*) | (*) | (*) |
| 515 | Farm-product raw materials[2] | +3 | +28 | +1 | +10 | +8 | +29 | -2 | +10 |
| 5152 | Cotton[7] | -12 | +28 | +10 | -19 | (*) | (*) | (*) | (*) |
| 5153 | Grain | +7 | +31 | -1 | +22 | (*) | (*) | (*) | (*) |
| 517 | Petroleum and petroleum products | -2 | +45 | -3 | +18 | -1 | +48 | -4 | +19 |
| 5171 | Petroleum bulk stations and terminals | -1 | +36 | -1 | +19 | (*) | (*) | (*) | (*) |
| 518 | Beer, wine, and distilled alcoholic beverages | -32 | +1 | +2 | +3 | -1 | +5 | -3 | +3 |
| 5181 | Beer and ale | -21 | +6 | +1 | +6 | (*) | (*) | (*) | (*) |
| 5182 | Wines and distilled alcoholic beverages | -41 | -3 | +2 | +1 | (*) | (*) | (*) | (*) |
| 519 | Miscellaneous nondurable goods | -9 | +11 | +8 | +13 | -7 | +11 | +3 | +13 |
| 5191 | Farm supplies | +5 | +12 | +12 | +14 | (*) | (*) | (*) | (*) |
| 5194 | Tobacco and tobacco products | -9 | -1 | -1 | +1 | (*) | (*) | (*) | (*) |
| 5198 | Paints, varnishes, and supplies | +2 | +3 | +1 | +10 | (*) | (*) | (*) | (*) |
| 5199 pt. | Books, periodicals, newspapers[8] | -9 | +18 | 0 | +24 | (*) | (*) | (*) | (*) |

*Adjusted data are available only for summary group totals.

[1]Adjusted for seasonal variations and, in the case of sales, also for trading-day differences. Adjusted data are only available for the summary kind-of-business groups shown.

[2]There are indications that the seasonal adjustment factors for this trade group may not reflect recent trends. The seasonally adjusted data for this trade group and also for the summary group totals should, therefore, be used with caution.

[3]Sampling variability of 8 percent for percent change between January 1981 and December 1980 for sales.

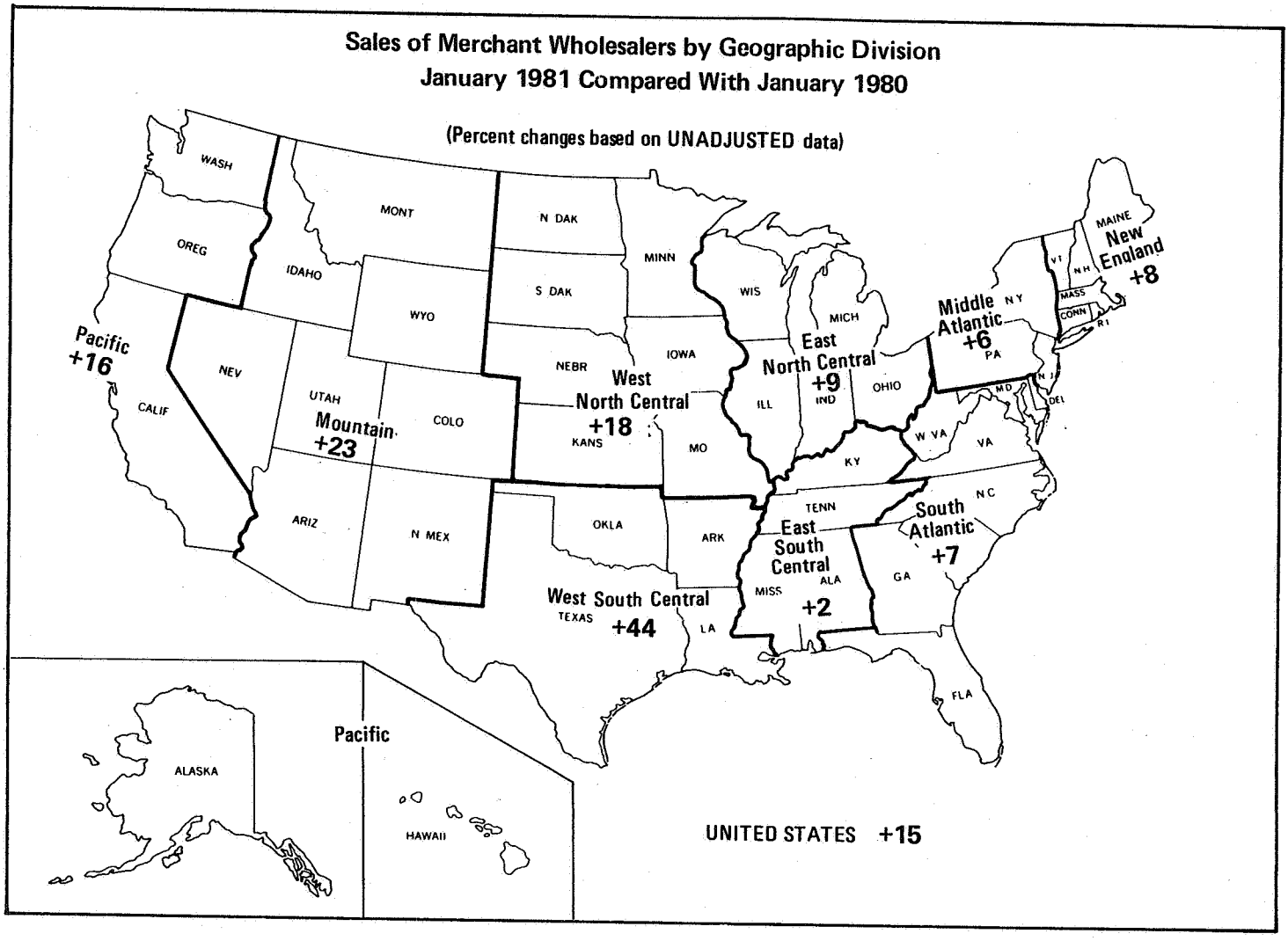
[4]Sampling variability of 8 percent for percent change between January 1981 and December 1980 for sales, and 16 percent for January 1981 from January 1980 for both sales and inventories.

[5]Sampling variability of 10 percent for percent change between January 1981 and December 1980 sales.

[6]Sampling variability of 6 percent for percent change between January 1981 and December 1980, and 10 percent for January 1981 from January 1980 for sales.

[7]Sampling variability of 7 percent for percent change between January 1981 and December 1980, and 14 percent for January 1981 from January 1980 for sales.

[8]Sampling variability of 9 percent for percent change between January 1981 and December 1980, and 12 percent for January 1981 from January 1980 for sales.




## Table 6. Estimated Monthly Sales of Merchant Wholesalers and Sampling Errors, Geographic Division: 1981 and 1980

(Sales, in millions of dollars, are NOT ADJUSTED for seasonal variations or trading-day differences; sampling errors in percent)

| 1972 SIC code | Kind of business and geographic division[1] | 1981 | 1980 | | | | | | | | | | | | Total 12 mos. | Sampling error of the estimate | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Jan.[p] | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | | Range[2] | Median |
| | Merchant wholesalers, total | 93,258 | 81,056 | 79,421 | 84,101 | 83,106 | 83,507 | 81,607 | 86,052 | 86,311 | 90,715 | 99,023 | 91,328 | 97,659 | 1,043,886 | 1.4-1.7 | 1.5 |
| | New England | 4,523 | 4,194 | 4,046 | 4,338 | 3,881 | 4,059 | 4,125 | 4,368 | 4,109 | 4,400 | 4,668 | 4,524 | 4,786 | 51,498 | 4-6 | 5 |
| | Middle Atlantic | 19,703 | 18,502 | 17,745 | 19,554 | 17,580 | 17,555 | 17,407 | 17,959 | 18,298 | 19,380 | 20,204 | 19,463 | 20,750 | 224,397 | 3-4 | 4 |
| | East North Central | 13,956 | 12,765 | 12,181 | 12,604 | 12,989 | 13,286 | 12,504 | 12,775 | 13,122 | 13,600 | 15,510 | 13,852 | 14,147 | 159,335 | 2-3 | 2 |
| | West North Central | 9,652 | 8,179 | 7,816 | 8,143 | 8,694 | 8,842 | 8,234 | 8,724 | 8,884 | 9,328 | 11,024 | 9,321 | 10,306 | 107,495 | 2-3 | 3 |
| | South Atlantic | 9,154 | 8,555 | 8,348 | 8,892 | 8,995 | 8,719 | 8,803 | 8,781 | 8,540 | 8,976 | 9,781 | 8,875 | 9,668 | 106,933 | 2-3 | 2 |
| | East South Central | 3,676 | 3,616 | 3,730 | 3,771 | 3,969 | 3,950 | 3,761 | 3,801 | 3,832 | 3,835 | 4,356 | 3,759 | 4,036 | 46,416 | 3-4 | 4 |
| | West South Central | 15,681 | 10,865 | 10,990 | 11,456 | 11,544 | 11,669 | 11,417 | 13,865 | 13,835 | 14,655 | 15,925 | 15,445 | 16,552 | 158,218 | 4-6 | 5 |
| | Mountain | 3,591 | 2,916 | 2,919 | 3,272 | 3,108 | 3,129 | 3,314 | 3,261 | 3,335 | 3,900 | 3,713 | 3,528 | 3,828 | 40,223 | 4-6 | 6 |
| | Pacific | 13,322 | 11,464 | 11,646 | 12,071 | 12,346 | 12,298 | 12,042 | 12,518 | 12,356 | 12,641 | 13,842 | 12,561 | 13,586 | 149,371 | 2-3 | 3 |
| 50 | Durable goods, total | 36,110 | 34,340 | 34,540 | 36,737 | 35,913 | 34,947 | 35,508 | 35,757 | 36,010 | 38,112 | 41,298 | 36,679 | 38,598 | 438,439 | 1.6-2.6 | 1.8 |
| | Middle Atlantic | 7,524 | 7,780 | 7,596 | 8,224 | 7,752 | 7,430 | 7,488 | 7,429 | 7,340 | 7,911 | 8,727 | 7,960 | 8,146 | 93,783 | 6-8 | 6 |
| | East North Central | 5,607 | 5,520 | 5,615 | 5,757 | 5,786 | 5,544 | 5,382 | 5,264 | 5,586 | 6,029 | 6,620 | 5,983 | 6,020 | 69,106 | 3-4 | 3 |
| | West North Central | 2,525 | 2,663 | 2,658 | 2,742 | 2,649 | 2,637 | 2,590 | 2,661 | 2,818 | 2,872 | 3,214 | 2,718 | 2,830 | 33,052 | 5-7 | 5 |
| | South Atlantic | 4,143 | 4,038 | 3,856 | 4,308 | 4,424 | 4,091 | 4,375 | 4,360 | 4,265 | 4,377 | 4,834 | 4,128 | 4,327 | 51,383 | 2-4 | 3 |
| | West South Central | 4,688 | 3,863 | 4,054 | 4,302 | 4,279 | 4,292 | 4,386 | 4,653 | 4,530 | 4,758 | 5,027 | 4,665 | 4,916 | 53,725 | 4-5 | 4 |
| | Mountain | 1,503 | 1,228 | 1,214 | 1,388 | 1,381 | 1,261 | 1,376 | 1,360 | 1,415 | 1,744 | 1,702 | 1,415 | 1,747 | 17,231 | 7-9 | 8 |
| | Pacific | 6,979 | 6,132 | 6,457 | 6,731 | 6,592 | 6,644 | 6,728 | 6,738 | 6,818 | 6,887 | 7,503 | 6,664 | 7,249 | 81,143 | 4-5 | 4 |
| 51 | Nondurable goods, total | 57,148 | 46,716 | 44,881 | 47,364 | 47,193 | 48,560 | 46,099 | 50,295 | 50,301 | 52,603 | 57,725 | 54,649 | 59,061 | 605,447 | 1.6-2.0 | 1.8 |
| | New England | 2,854 | 2,521 | 2,463 | 2,578 | 2,372 | 2,619 | 2,572 | 2,684 | 2,607 | 2,643 | 2,860 | 2,915 | 3,053 | 31,887 | 6-7 | 6 |
| | Middle Atlantic | 12,179 | 10,722 | 10,149 | 11,330 | 9,828 | 10,125 | 9,919 | 10,530 | 10,958 | 11,469 | 11,477 | 11,503 | 12,604 | 130,614 | 3-4 | 4 |
| | East North Central | 8,349 | 7,245 | 6,566 | 6,847 | 7,203 | 7,742 | 7,122 | 7,511 | 7,536 | 7,571 | 8,890 | 7,869 | 8,127 | 90,229 | 3-4 | 4 |
| | West North Central | 7,127 | 5,516 | 5,158 | 5,401 | 6,045 | 6,205 | 5,644 | 6,063 | 6,066 | 6,456 | 7,810 | 6,603 | 7,476 | 74,443 | 3-4 | 4 |
| | South Atlantic | 5,011 | 4,517 | 4,492 | 4,584 | 4,571 | 4,628 | 4,428 | 4,421 | 4,275 | 4,599 | 4,947 | 4,747 | 5,341 | 55,550 | 3-5 | 4 |
| | East South Central | 2,204 | 2,173 | 2,223 | 2,246 | 2,428 | 2,342 | 2,131 | 2,193 | 2,096 | 2,058 | 2,493 | 2,222 | 2,406 | 27,011 | 3-5 | 4 |
| | West South Central | 10,993 | 7,002 | 6,936 | 7,154 | 7,265 | 7,377 | 7,031 | 9,212 | 9,305 | 9,897 | 10,898 | 10,780 | 11,636 | 104,493 | 6-10 | 8 |
| | Pacific | 6,343 | 5,332 | 5,189 | 5,340 | 5,754 | 5,654 | 5,314 | 5,780 | 5,538 | 5,754 | 6,339 | 5,897 | 6,337 | 68,228 | 4-5 | 5 |

Note: Detail may not add to totals due to rounding and minor revisions.

[p]Preliminary estimate. See p. 16, Sample Design and Estimation Procedure.

[1]See map on page 8.

[2]The range of sampling error of the estimate is based on data for August, September, and October 1977.

# Table 7. Percent Changes in Sales and Inventories of Merchant Wholesalers and Sampling Errors by Kind of Business for Geographic Divisions: January 1981

(Based on data NOT ADJUSTED for seasonal variations or trading-day differences)

| 1972 SIC code | Kind of business and geographic division[1] | Percent change in-- | | | | Sampling errors of the ratio corresponding to the percent change in columns[2]-- | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Sales | | Inventories | | | | | |
| | | Jan. 1981 from Dec. 1980 | Jan. 1981 from Jan. 1980 | Jan. 1981 from Dec. 1980 | Jan. 1981 from Jan. 1980 | | | | |
| | | A | B | D | E | A | B | D | E |
| | Merchant wholesalers, total | -5 | +15 | 0 | +11 | 0.7 | 1.2 | 0.3 | 0.9 |
| | New England | -6 | +8 | 0 | +11 | 2.1 | 4.8 | 0.9 | 4.2 |
| | Middle Atlantic | -5 | +6 | 0 | +13 | 1.7 | 3.2 | 0.8 | 2.6 |
| | East North Central | -1 | +9 | -1 | +7 | 1.3 | 2.5 | 0.5 | 2.4 |
| | West North Central | -6 | +18 | +2 | +14 | 1.4 | 2.4 | 0.8 | 2.2 |
| | South Atlantic | -5 | +7 | +2 | +6 | 1.1 | 2.4 | 0.6 | 2.0 |
| | East South Central | -9 | +2 | 0 | -2 | 2.3 | 3.4 | 0.9 | 2.8 |
| | West South Central | -5 | +44 | 0 | +15 | 2.0 | 4.5 | 0.8 | 2.5 |
| | Mountain | -6 | +23 | +4 | +27 | 2.1 | 3.4 | 1.1 | 3.4 |
| | Pacific | -2 | +16 | -1 | +15 | 1.0 | 2.4 | 0.6 | 2.2 |
| 50 | Durable goods, total | -6 | +5 | 0 | +11 | 0.9 | 2.3 | 0.4 | 1.1 |
| | New England | -4 | 0 | +1 | +13 | 4.3 | 10.7 | 1.1 | 6.0 |
| | Middle Atlantic | -8 | -3 | 0 | +14 | 2.1 | 6.3 | 1.0 | 3.5 |
| | East North Central | -7 | +2 | -1 | +4 | 1.6 | 3.1 | 0.6 | 3.2 |
| | West North Central | -11 | -5 | -1 | +8 | 2.3 | 5.0 | 1.1 | 2.7 |
| | South Atlantic | -4 | +3 | +1 | +5 | 1.5 | 3.7 | 0.8 | 2.8 |
| | East South Central | -10 | +2 | 0 | +9 | 4.2 | 6.0 | 1.4 | 4.5 |
| | West South Central | -5 | +21 | +1 | +16 | 3.0 | 5.1 | 0.8 | 3.3 |
| | Mountain | -14 | +22 | +3 | +23 | 3.2 | 6.1 | 1.3 | 4.7 |
| | Pacific | -4 | +14 | -2 | +16 | 1.6 | 3.4 | 0.8 | 2.8 |
| 51 | Nondurable goods, total | -3 | +22 | +1 | +11 | 0.8 | 1.3 | 0.5 | 1.2 |
| | New England | -7 | +13 | -1 | +8 | 1.9 | 3.8 | 1.2 | 4.5 |
| | Middle Atlantic | -3 | +14 | +1 | +12 | 2.0 | 3.1 | 0.8 | 3.6 |
| | East North Central | +3 | +15 | +1 | +12 | 2.1 | 2.8 | 1.0 | 3.3 |
| | West North Central | -5 | +29 | +4 | +20 | 1.9 | 2.7 | 1.2 | 3.1 |
| | South Atlantic | -6 | +11 | +2 | +8 | 1.8 | 2.9 | 1.1 | 3.0 |
| | East South Central | -8 | +1 | +1 | -15 | 1.6 | 3.6 | 1.8 | 3.1 |
| | West South Central | -6 | +57 | -2 | +12 | 2.6 | 6.3 | 1.6 | 4.5 |
| | Mountain | 0 | +24 | +4 | +35 | 2.0 | 5.2 | 1.7 | 5.8 |
| | Pacific | 0 | +19 | +2 | +12 | 1.7 | 2.9 | 1.0 | 3.4 |
| 5013,4 | Automotive parts and supplies, tires and tubes | +4 | +17 | 0 | +4 | 2 | 4 | 1 | 3 |
| | New England | (S) | (S) | +1 | -11 | (*) | (*) | 3 | 14 |
| | Middle Atlantic | -4 | +6 | -1 | +19 | 4 | 8 | 1 | 7 |
| | East North Central | -2 | +6 | +1 | -4 | 3 | 8 | 1 | 5 |
| | West North Central | +7 | +21 | 0 | +2 | 3 | 13 | 2 | 11 |
| | South Atlantic | -4 | +9 | +1 | +3 | 4 | 10 | 2 | 8 |
| | East South Central | -2 | +15 | +1 | +15 | 3 | 12 | 3 | 12 |
| | West South Central | +9 | +13 | +4 | -12 | 3 | 10 | 2 | 10 |
| | Mountain | -2 | (S) | +6 | (S) | 6 | (*) | 3 | (*) |
| | Pacific | +14 | +39 | -3 | +8 | 3 | 6 | 2 | 12 |
| 502 | Furniture and home furnishings | -1 | +11 | 0 | +10 | 3 | 4 | 1 | 3 |
| | Middle Atlantic | +13 | +17 | -3 | +12 | 6 | 10 | 1 | 8 |
| | East North Central | -13 | +3 | -7 | -5 | 6 | 13 | 2 | 8 |
| | West North Central | +1 | (S) | +5 | +11 | 6 | (*) | 3 | 10 |
| | West South Central | +11 | +7 | +6 | +16 | 4 | 10 | 2 | 10 |
| | Pacific | -9 | +12 | +2 | +11 | 6 | 12 | 2 | 10 |
| 503 | Lumber and other construction materials | -8 | -3 | 0 | -4 | 2 | 3 | 1 | 3 |
| | New England | (S) | +5 | +2 | +11 | (*) | 14 | 3 | 12 |
| | Middle Atlantic | -10 | -8 | 0 | -9 | 6 | 11 | 2 | 12 |
| | East North Central | -10 | -14 | -2 | -9 | 4 | 8 | 2 | 9 |
| | West North Central | -14 | -14 | -5 | -24 | 7 | 11 | 4 | 12 |
| | South Atlantic | -6 | 0 | +1 | -4 | 4 | 9 | 2 | 8 |
| | East South Central | -16 | -6 | -2 | -22 | 7 | 13 | 2 | 12 |
| | West South Central | -4 | +7 | +2 | +19 | 5 | 13 | 2 | 10 |
| | Pacific | -6 | +6 | 0 | +3 | 4 | 9 | 2 | 9 |
| 5051 pt. | Ferrous metals service centers | +5 | +11 | 0 | +13 | 3 | 4 | 1 | 3 |
| | New England | -7 | (S) | -9 | (S) | 7 | (*) | 6 | (*) |
| | Middle Atlantic | +7 | +12 | 0 | +9 | 6 | 9 | 2 | 12 |
| | East North Central | +3 | +5 | -1 | +1 | 5 | 7 | 1 | 6 |
| | West North Central | +15 | -7 | 0 | -4 | 5 | 10 | 2 | 9 |
| | South Atlantic | -2 | (S) | +6 | (S) | 5 | (*) | 2 | (*) |
| | East South Central | +10 | +18 | -4 | +13 | 3 | 11 | 2 | 14 |
| | West South Central | +2 | +19 | -2 | +41 | 4 | 10 | 2 | 9 |
| | Mountain | +10 | (S) | 0 | (S) | 3 | (*) | 3 | (*) |
| | Pacific | +9 | (S) | -2 | (S) | 5 | (*) | 4 | (*) |
| 5063 | Electrical apparatus and equipment, wiring supplies, and construction materials | -10 | +16 | -3 | +6 | 3 | 4 | 1 | 3 |
| | New England | -23 | -10 | +1 | +13 | 4 | 12 | 2 | 12 |
| | Middle Atlantic | +1 | +31 | -8 | -2 | 4 | 11 | 2 | 7 |
| | East North Central | -5 | +1 | -1 | +8 | 3 | 8 | 2 | 7 |
| | West North Central | -8 | -11 | -5 | -14 | 5 | 12 | 3 | 12 |
| | South Atlantic | -6 | +15 | +1 | +9 | 3 | 8 | 2 | 8 |
| | East South Central | (S) | (S) | -2 | (S) | (*) | (*) | 3 | (*) |
| | West South Central | -15 | (S) | -2 | (S) | 7 | (*) | 3 | (*) |
| | Mountain | -12 | -7 | -3 | +3 | 4 | 14 | 2 | 11 |
| | Pacific | -25 | -5 | -3 | +5 | 4 | 10 | 2 | 6 |

See footnotes at end of table.

# Table 7. Percent Changes in Sales and Inventories of Merchant Wholesalers and Sampling Errors by Kind of Business for Geographic Divisions: January 1981—Continued

(Based on data NOT ADJUSTED for seasonal variations or trading-day differences)

| 1972 SIC code | Kind of business and geographic division[1] | Percent change in-- Sales: Jan. 1981 from Dec. 1980 | Sales: Jan. 1981 from Jan. 1980 | Inventories: Jan. 1981 from Dec. 1980 | Inventories: Jan. 1981 from Jan. 1980 | Sampling errors of the ratio corresponding to the percent change in columns[2]-- A | B | D | E |
|---|---|---|---|---|---|---|---|---|---|
| | | A | B | D | E | | | | |
| 5064,5 | Electrical appliances, TV and radio sets, and electronic parts and equipment | -11 | +3 | 0 | +11 | 2 | 4 | 1 | 4 |
| | Middle Atlantic | -12 | +15 | +2 | +11 | 4 | 9 | 2 | 10 |
| | East North Central | -12 | +20 | -1 | +17 | 5 | 10 | 2 | 13 |
| | West North Central | +23 | (S) | 0 | (S) | 5 | (*) | 2 | (*) |
| | South Atlantic | -12 | +14 | -3 | +9 | 4 | 12 | 2 | 7 |
| | West South Central | -6 | -5 | +4 | +27 | 4 | 13 | 2 | 12 |
| | Mountain | (S) | (S) | +1 | +24 | (*) | (*) | 3 | 13 |
| | Pacific | -6 | -18 | -1 | +4 | 7 | 11 | 3 | 9 |
| 5072 | Hardware | +6 | +5 | +2 | +11 | 2 | 3 | 1 | 3 |
| | New England | +3 | -25 | -3 | -12 | 4 | 13 | 3 | 14 |
| | Middle Atlantic | +16 | +9 | -2 | +2 | 3 | 9 | 2 | 11 |
| | East North Central | -4 | -14 | +4 | +17 | 4 | 9 | 4 | 10 |
| | West North Central | -1 | +7 | +3 | 0 | 4 | 7 | 2 | 6 |
| | South Atlantic | +2 | +7 | +2 | +13 | 3 | 8 | 2 | 10 |
| | East South Central | +12 | -16 | -1 | -4 | 4 | 10 | 2 | 9 |
| | Pacific | +12 | +22 | +1 | +16 | 3 | 10 | 2 | 11 |
| 5074 | Plumbing and heating equipment and supplies (hydronics) | -2 | -6 | 0 | +2 | 2 | 5 | 1 | 9 |
| | Middle Atlantic | +3 | -5 | +1 | (S) | 6 | 14 | 3 | (*) |
| | East North Central | +7 | +5 | -5 | (S) | 7 | 14 | 2 | (*) |
| | South Atlantic | -3 | -8 | 0 | -9 | 3 | 11 | 2 | 9 |
| | Mountain | +12 | (S) | +4 | +15 | 4 | (*) | 2 | 14 |
| | Pacific | -7 | -9 | +3 | +6 | 4 | 14 | 2 | 11 |
| 5084,5 | Industrial machinery, equipment, and supplies | -10 | +12 | -2 | +11 | 2 | 5 | 1 | 3 |
| | Middle Atlantic | -19 | +11 | -1 | +10 | 5 | 9 | 2 | 7 |
| | East North Central | -8 | -7 | -2 | +7 | 4 | 6 | 1 | 6 |
| | West South Central | -5 | (S) | -5 | +12 | 4 | (*) | 1 | 6 |
| | Pacific | -7 | +9 | -2 | +10 | 3 | 8 | 2 | 8 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 0 | +16 | 0 | +11 | 2 | 3 | 1 | 4 |
| | New England | +11 | -7 | +2 | -20 | 3 | 12 | 3 | 14 |
| | Middle Atlantic | -4 | +8 | -3 | -3 | 4 | 8 | 2 | 7 |
| | East North Central | -5 | -2 | +1 | +6 | 4 | 8 | 2 | 8 |
| | West North Central | +2 | +17 | +1 | +23 | 5 | 12 | 2 | 9 |
| | South Atlantic | +1 | +37 | -1 | +36 | 2 | 10 | 2 | 8 |
| | East South Central | +6 | +26 | -4 | -3 | 2 | 9 | 2 | 10 |
| | West South Central | +7 | +33 | +3 | +19 | 2 | 12 | 2 | 14 |
| | Mountain | -9 | +35 | 0 | +21 | 1 | 7 | 1 | 6 |
| | Pacific | -1 | +23 | +4 | (S) | 2 | 13 | 1 | (*) |
| 5141 | Groceries, general-line | -1 | +16 | -3 | +13 | 1 | 2 | 0 | 2 |
| | New England | 0 | +7 | -3 | +2 | 2 | 6 | 2 | 7 |
| | Middle Atlantic | -5 | +11 | 0 | +8 | 1 | 3 | 1 | 7 |
| | East North Central | 0 | +28 | -3 | +19 | 1 | 4 | 1 | 5 |
| | West North Central | -1 | +11 | +1 | +5 | 2 | 5 | 2 | 7 |
| | South Atlantic | -3 | +3 | -1 | +8 | 2 | 5 | 1 | 4 |
| | West South Central | -5 | +14 | -5 | +14 | 2 | 7 | 2 | 6 |
| | Mountain | -2 | +42 | -4 | +44 | 2 | 6 | 2 | 9 |
| | Pacific | +8 | +13 | -6 | +13 | 0 | 3 | 1 | 3 |
| 5142,3,6,9 | Specialty-line groceries | -4 | +15 | -1 | +21 | 1 | 3 | 1 | 4 |
| | Middle Atlantic | -6 | +10 | -5 | +40 | 2 | 5 | 2 | 7 |
| | East North Central | -4 | +10 | +5 | +13 | 3 | 6 | 1 | 6 |
| | West North Central | +3 | +24 | +17 | +22 | 3 | 5 | 1 | 6 |
| | South Atlantic | -13 | +9 | -4 | -12 | 4 | 13 | 2 | 13 |
| | East South Central | -3 | +6 | -17 | -26 | 4 | 12 | 2 | 13 |
| 5148 | Fresh fruits and vegetables | -5 | +15 | +13 | +33 | 2 | 3 | 2 | 7 |
| | Middle Atlantic | -7 | +14 | +11 | +35 | 3 | 9 | 5 | 14 |
| | East North Central | -5 | +13 | +17 | +70 | 3 | 8 | 3 | 10 |
| | West North Central | -3 | +30 | +6 | (S) | 4 | 14 | 3 | (*) |
| | West South Central | -12 | +29 | +6 | (S) | 7 | 13 | 3 | (*) |
| | Pacific | -4 | +22 | +3 | +28 | 6 | 9 | 2 | 10 |
| 5194 | Tobacco and tobacco products | -9 | -1 | -1 | +1 | 1 | 4 | 1 | 5 |
| | New England | -28 | -26 | 0 | (S) | 3 | 14 | 3 | (*) |
| | Middle Atlantic | -10 | +4 | -4 | (S) | 4 | 14 | 3 | (*) |
| | East North Central | -6 | +10 | +2 | +8 | 2 | 10 | 2 | 11 |
| | West North Central | -14 | (S) | +2 | (S) | 6 | (*) | 6 | (*) |
| | South Atlantic | -11 | +18 | -2 | 0 | 4 | 14 | 3 | 12 |
| | East South Central | -5 | (S) | +3 | (S) | 3 | (*) | 4 | (*) |
| | West South Central | -12 | (S) | -7 | -31 | 3 | (*) | 4 | 11 |
| | Mountain | +5 | (S) | 0 | (S) | 3 | (*) | 5 | (*) |
| | Pacific | -6 | +5 | -3 | +4 | 2 | 10 | 3 | 12 |

Note: Data at the United States level are generally more reliable than data by geographic division. In those kinds of business where the geographic division trends are subject to a high sampling error, it may be desirable to use the United States total trends for the kinds of business rather than the geographic division trends.

(S) Does not meet publication standards because of extreme variability or high nonresponse rate.

[1] See map on page 8.

[2] The sampling errors (in percent) shown in columns A and D are based on medians or measurements on data for August, September, and October 1977. For SIC's 5051 pt., and 5063 the medians of measurements in columns A and D are based on data for June, July, and August 1978.

# APPENDIX A. Reliability of Data

There are two types of errors possible in an estimate based on a sample survey—sampling and nonsampling. Sampling errors occur because observations are made only on a sample, not on the entire population. Nonsampling errors can be attributed to many sources in the collection and processing of data. The accuracy of a survey result is determined by the joint effects of sampling and nonsampling errors.

**Measures of sampling variability**—The particular sample used in this survey is one of a large number of all possible samples of the same size that could have been selected using the same design. Estimates derived from the different samples would differ from each other. The average of these estimates would be close to the estimate derived from a complete enumeration of the population (assuming that a complete enumeration has the same nonsampling errors as the sample survey). The average of the estimates differs from the estimate from a complete census because of the composite estimation technique. Disregarding this difference, the sampling error or standard error of the estimate is a measure of the variability among the estimates from all possible samples of the same size and design and, thus, is a measure of the precision with which an estimate from a particular sample approximates the results of a complete enumeration. The coefficient of variation (expressed as a percent) is the standard error of the estimate times 100 percent, divided by the value being estimated. Note that any measures of sampling variability, such as the standard error or coefficient of variation, are estimates derived from the sample and are also subject to sampling variability.

Estimates of sampling variability (the coefficients of variation in percent) for sales and inventories at the kind-of-business detail provided in this publication are shown in table A-1. These coefficients of variation permit certain confidence statements about the sample estimates. As noted above, the particular sample used in this survey is one of a large number of all possible samples of about the same size that could have been selected using the same design. In about two out of three (67 percent) of these samples, the estimate would differ from a complete enumeration by less than the corresponding percent for that estimate shown in the sampling variability table. In about 19 out of 20 (95 percent) of these samples, the estimate would differ from the results of a complete enumeration by less than twice the percentages shown.

To illustrate the computations involved in the above confidence statements for monthly dollar volume estimates, assume that an estimate for a kind of business published in table 1 for a particular month is $5,000 million and that the median coefficient of variation for this statistic, is 0.9 percent or .009. Multiplying $5,000 million by .009 yields $45 million. Therefore, a 67 percent confidence interval is $4,955 million to $5,045 million (i.e. $5,000 million plus or minus $45 million). If corresponding confidence intervals were constructed for all possible samples of the same size and design, approximately two out of three (67 percent) of these intervals would contain the figure obtained from a complete enumeration. Similarly a 95 percent confidence interval is $4,910 million to $5,090 million (i.e., $5,000 million plus or minus $90 million).

As an example of the use of the coefficients of variation with ratios, assume that an estimated month-to-month percent change published in table 5 is -1.0 percent for a particular kind of business. This is equivalent to a month-to-month ratio of .990. Assume the median coefficient of variation for this ratio as shown in table A-1 is 0.5 percent (or .005). Multiplying .990 by .005 yields .005. Therefore, a 67 percent confidence interval is .985 to .995 (i.e., .990 plus or minus .005) and a 95 percent confidence interval is .980 to 1.000 (i.e., .990 plus or minus .010).

**Nonsampling errors**—As calculated for this report, the coefficient of variation measures certain nonsampling errors but does not measure any systematic biases in the data. Bias is the difference, averaged over all possible samples of the same size and design, between the estimate and the true value being estimated. The accuracy of the tabulated data is determined by the joint effects of the sampling and nonsampling errors.

Nonsampling errors can be attributed to many sources: (1) inability to obtain information about all cases in the sample, (2) response errors, (3) definitional difficulties, (4) differences in the interpretation of questions, (5) mistakes in recording or coding the data obtained, and (6) other errors of collection, response, coverage, and estimation for missing data. These nonsampling errors also occur in complete censuses.

Although no direct measurement of the biases due to nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

A major source of bias in the published estimates is due to imputing data for nonrespondents, for late reporters, and for data which fail edit. For all kinds of business combined, imputed data amount to about 15 percent of the sales estimates and 25 percent for inventories.

# Table A-1. Estimated Sampling Variability of Sales and Inventories by Kind of Business for the United States

(Coefficients of variation in percent)

| 1972 SIC code | Kind of business | SALES | | | | | | INVENTORIES | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Preliminary sampling error of the monthly dollar estimates | | Final sampling error of the monthly dollar estimates | | Median sampling error of the ratio of: | | Preliminary sampling error of the monthly dollar estimates | | Final sampling error of the monthly dollar estimates | | Median sampling error of the ratio of: | |
| | | Range | Median | Range | Median | Two consecutive months | Same month a year ago | Range | Median | Range | Median | Two consecutive months | Same month a year ago |
| | Merchant wholesalers, total | 1.4-1.8 | 1.6 | 1.4-1.6 | 1.5 | 0.6 | 1.0 | 1.3-1.5 | 1.4 | 1.2-1.4 | 1.4 | 0.3 | 0.9 |
| | Total (excluding farm-product raw materials) | 1.4-1.9 | 1.6 | 1.3-1.6 | 1.4 | 0.6 | 1.1 | 1.4-1.7 | 1.5 | 1.2-1.5 | 1.5 | 0.3 | 0.9 |
| 50 | Durable goods, total | 1.5-3.2 | 2.0 | 1.4-2.4 | 1.6 | 1.0 | 1.7 | 1.0-1.5 | 1.4 | 1.0-1.4 | 1.3 | 0.4 | 1.1 |
| 501 | Motor vehicles and automotive parts and supplies | 3.6-4.6 | 3.9 | 3.2-4.4 | 3.6 | 1.7 | 2.8 | 2.2-3.5 | 3.0 | 2.6-3.5 | 2.7 | 0.8 | 2.6 |
| 5012 | Automobiles and other motor vehicles | (*) | (*) | (*) | (*) | 2.8 | 5.4 | (*) | (*) | (*) | (*) | 1.8 | 5.5 |
| 5013,4 | Automotive parts and supplies, tires and tubes | 3.3-4.7 | 4.0 | 3.0-4.9 | 3.6 | 1.7 | 3.1 | 3.0-4.1 | 3.7 | 2.8-3.9 | 3.4 | 1.2 | 3.0 |
| 5013 | Automotive parts and supplies | 3.8-5.9 | 4.7 | 3.6-5.9 | 4.2 | 2.1 | 3.8 | 3.8-5.0 | 4.5 | 3.5-4.6 | 4.2 | 1.3 | 3.2 |
| 502 | Furniture and home furnishings | 4.7-7.0 | 5.7 | 4.3-6.1 | 5.1 | 2.9 | 4.0 | 4.0-4.6 | 4.2 | 3.9-4.5 | 4.2 | 0.9 | 3.3 |
| 5021 | Furniture--household and office | 4.9-6.5 | 6.0 | 4.3-7.1 | 6.0 | 4.1 | 5.7 | (*) | (*) | (*) | (*) | 1.5 | 5.1 |
| 5021 pt. | Household furniture | (*) | (*) | (*) | (*) | 6.2 | 11.2 | (*) | (*) | (*) | (*) | 1.5 | 8.7 |
| 5021 pt. | Office furniture | (*) | (*) | (*) | (*) | 4.9 | 6.5 | (*) | (*) | (*) | (*) | 1.9 | 5.2 |
| 5023 | Home furnishings | 6.7-9.2 | 7.6 | 5.5-8.1 | 6.6 | 3.3 | 5.1 | 5.0-6.3 | 5.6 | 5.0-6.1 | 5.7 | 1.1 | 4.5 |
| 503 | Lumber and other construction materials | 4.2-5.8 | 4.8 | 4.4-5.4 | 4.7 | 2.3 | 3.5 | 5.0-6.7 | 5.6 | 5.0-6.6 | 5.9 | 0.9 | 2.9 |
| 5031 | Lumber, plywood, and millwork | 5.7-7.7 | 6.3 | 5.1-6.6 | 5.9 | 3.3 | 4.5 | 7.0-9.0 | 7.9 | 7.2-8.6 | 8.1 | 1.2 | 3.6 |
| 5039 | Construction materials, n.e.c. | 5.0-6.9 | 6.0 | 5.1-6.5 | 5.7 | 3.1 | 5.9 | (*) | (*) | (*) | (*) | 1.1 | 4.8 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | (*) | (*) | (*) | (*) | 3.5 | 5.1 | (*) | (*) | (*) | (*) | 1.6 | 4.6 |
| 505 | Metals and minerals, except petroleum | 4.3-16.8 | 8.7 | 5.1-14.4 | 8.2 | 2.4 | 5.4 | 6.2-9.3 | 7.6 | 5.7-10.2 | 8.1 | 1.2 | 5.2 |
| 5051 pt. | Ferrous metals service centers and offices | 4.3-6.2 | 5.2 | 3.9-6.5 | 4.6 | 2.5 | 3.3 | 3.9-4.7 | 4.3 | 4.0-4.5 | 4.2 | 0.8 | 3.0 |
| 5051 pt. | Ferrous metals service centers | 4.8-7.1 | 5.1 | 4.9-5.2 | 5.1 | 2.8 | 3.6 | 2.8-5.5 | 4.6 | 3.1-4.8 | 4.0 | 0.9 | 3.4 |
| 5051 pt. | Nonferrous metals service centers and offices | (*) | (*) | (*) | (*) | 4.1 | 23.3 | (*) | (*) | (*) | (*) | 5.2 | 22.5 |
| 506 | Electrical goods | 3.8-5.0 | 4.1 | 3.3-4.6 | 3.6 | 2.3 | 3.0 | 3.2-4.8 | 3.5 | 3.3-4.6 | 3.5 | 0.7 | 2.8 |
| 5063 | Electrical apparatus and equipment, wiring supplies, and construction materials | 3.7-6.7 | 4.5 | 3.3-6.9 | 4.1 | 3.1 | 4.5 | 3.2-5.1 | 3.5 | 3.2-4.5 | 3.3 | 0.8 | 2.9 |
| 5064,5 | Electrical appliances, TV and radio sets, and electronic parts and equipment | 5.2-7.4 | 6.0 | 5.0-6.6 | 5.6 | 2.8 | 4.4 | 3.9-6.9 | 4.4 | 3.8-6.5 | 4.7 | 1.2 | 4.1 |
| 5064 | Electrical appliances, TV and radio sets | 4.9-8.2 | 6.4 | 5.1-6.7 | 5.5 | 2.8 | 4.3 | (*) | (*) | (*) | (*) | 1.3 | 5.0 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 3.1-4.5 | 3.5 | 2.9-3.7 | 3.3 | 1.6 | 2.3 | 2.8-4.2 | 3.6 | 2.9-4.2 | 3.5 | 0.8 | 3.8 |
| 5072 | Hardware | 2.6-3.8 | 3.6 | 2.8-3.9 | 3.2 | 1.6 | 2.9 | 4.7-6.3 | 5.6 | 4.5-6.1 | 5.7 | 1.3 | 3.5 |
| 5074 | Plumbing and heating equipment and supplies (hydronics) | 5.4-7.7 | 6.4 | 5.1-6.6 | 5.9 | 2.9 | 5.4 | 5.0-6.0 | 5.4 | 4.7-5.6 | 5.3 | 1.3 | 8.6 |
| 5075 | Warm air heating and air conditioning equipment and supplies | (*) | (*) | (*) | (*) | 4.1 | 5.7 | (*) | (*) | (*) | (*) | 1.2 | 5.1 |
| 508 | Machinery, equipment, and supplies | 2.9-4.5 | 3.3 | 2.6-3.2 | 2.8 | 1.8 | 3.3 | 1.8-2.4 | 2.2 | 1.8-2.3 | 2.1 | 0.4 | 1.8 |
| 5081 | Commercial machines and equipment | (*) | (*) | (*) | (*) | 4.4 | 6.6 | (*) | (*) | (*) | (*) | 1.5 | 5.7 |
| 5082 | Construction and mining machinery and equipment | 4.8-6.6 | 5.4 | 4.1-5.1 | 4.5 | 3.9 | 5.4 | 3.8-5.3 | 4.2 | 3.9-4.9 | 4.1 | 1.1 | 4.1 |
| 5083 | Farm and garden machinery and equipment | (*) | (*) | (*) | (*) | 6.0 | 9.8 | (*) | (*) | (*) | (*) | 1.4 | 4.7 |
| 5084,5 | Industrial machinery, equipment, and supplies | 3.2-4.1 | 3.3 | 2.4-3.4 | 2.8 | 2.5 | 4.9 | 3.2-4.2 | 3.8 | 3.1-3.8 | 3.5 | 0.6 | 2.5 |
| 5086 | Professional equipment and supplies | (*) | (*) | (*) | (*) | 2.7 | 4.7 | (*) | (*) | (*) | (*) | 1.1 | 5.2 |
| 5093 | Scrap and waste materials | 4.2-5.4 | 5.1 | 4.2-5.3 | 4.7 | 2.2 | 3.9 | (*) | (*) | (*) | (*) | 1.3 | 3.2 |
| 5093 pt. | Iron and steel scrap | (*) | (*) | (*) | (*) | 2.2 | 5.0 | (*) | (*) | (*) | (*) | 1.5 | 4.3 |
| 5093 pt. | Waste materials | (*) | (*) | (*) | (*) | 3.9 | 6.9 | (*) | (*) | (*) | (*) | 2.2 | 5.4 |
| 51 | Nondurable goods, total | 1.8-2.1 | 1.9 | 1.6-2.0 | 1.9 | 0.8 | 1.2 | 2.6-3.0 | 2.8 | 2.6-2.8 | 2.7 | 0.5 | 1.3 |
| | Total (excluding farm-product raw materials) | 1.9-2.4 | 2.1 | 1.7-2.3 | 2.0 | 0.9 | 1.4 | 3.3-3.6 | 3.5 | 3.2-3.5 | 3.3 | 0.4 | 1.4 |
| 511 | Paper and paper products | 4.6-7.7 | 5.2 | 4.5-6.9 | 4.9 | 1.5 | 3.0 | 4.6-7.3 | 6.3 | 4.6-7.1 | 5.9 | 0.8 | 3.4 |
| 5111,3 | Printing, writing, industrial, and personal service paper | 3.0-5.1 | 3.3 | 3.0-4.6 | 3.2 | 1.1 | 2.3 | 5.0-6.9 | 6.4 | 4.9-6.9 | 6.3 | 0.8 | 3.1 |
| 5111 | Printing and writing paper | 2.6-3.9 | 2.8 | 2.4-3.4 | 2.7 | 1.3 | 2.7 | 3.9-4.9 | 4.3 | 3.7-4.8 | 4.2 | 0.7 | 3.2 |
| 5113 | Industrial and personal service paper | 4.4-7.7 | 5.0 | 4.4-6.8 | 4.5 | 1.9 | 4.8 | 7.3-11.4 | 9.9 | 6.9-11.2 | 9.7 | 1.3 | 4.2 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 2.3-3.1 | 2.7 | 2.2-2.9 | 2.7 | 1.5 | 3.1 | 3.6-5.1 | 4.4 | 4.0-5.1 | 4.6 | 1.4 | 4.0 |
| 5122 | Drugs, drug proprietaries, and druggists' sundries | 2.3-3.1 | 2.7 | 2.2-2.9 | 2.7 | 1.5 | 3.1 | (*) | (*) | (*) | (*) | 1.4 | 4.0 |
| 5122 pt. | General-line drugs | 6.0-6.9 | 6.6 | 6.0-6.9 | 6.6 | 1.1 | 4.1 | (*) | (*) | (*) | (*) | 0.9 | 6.6 |
| 513 | Apparel, piece goods, and notions | 12.0-15.7 | 13.2 | 10.9-14.6 | 13.4 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |
| 514 | Groceries and related products | 1.7-2.4 | 2.2 | 1.8-2.3 | 2.1 | 0.5 | 1.3 | 1.6-2.2 | 1.8 | 1.6-2.0 | 1.8 | 0.4 | 1.6 |
| 5141 | Groceries, general-line | 2.6-3.4 | 3.3 | 2.8-3.3 | 3.1 | 0.6 | 1.7 | 1.9-2.8 | 2.2 | 1.7-2.7 | 1.9 | 0.5 | 1.7 |
| 5141 pt. | Voluntary groups | (*) | (*) | (*) | (*) | 0.7 | 2.1 | (*) | (*) | (*) | (*) | 0.7 | 2.8 |
| 5141 pt. | Retailer cooperatives | (*) | (*) | (*) | (*) | 0.6 | 1.8 | (*) | (*) | (*) | (*) | 0.6 | 2.3 |
| 5141 pt. | Other general-lines | (*) | (*) | (*) | (*) | 1.3 | 2.8 | (*) | (*) | (*) | (*) | 1.0 | 3.7 |
| 5142,3,6,9 | Specialty-line groceries | (*) | (*) | (*) | (*) | 1.2 | 3.3 | (*) | (*) | (*) | (*) | 1.0 | 3.6 |
| 5144 | Poultry and poultry products | 5.6-7.2 | 6.5 | 5.4-7.2 | 6.7 | 1.8 | 3.2 | (*) | (*) | (*) | (*) | 1.5 | 5.2 |
| 5145 | Confectionery | 5.1-12.9 | 6.7 | 4.8-9.5 | 6.6 | 2.7 | 5.5 | (*) | (*) | (*) | (*) | 1.7 | 4.0 |
| 5147 | Meats and meat products | 5.6-7.0 | 6.8 | 5.4-6.9 | 6.5 | 1.5 | 4.2 | (*) | (*) | (*) | (*) | 1.4 | 6.3 |
| 5148 | Fresh fruits and vegetables | 4.0-5.7 | 4.4 | 3.5-5.0 | 4.7 | 2.3 | 3.2 | (*) | (*) | (*) | (*) | 2.6 | 6.2 |
| 515 | Farm-product raw materials | 2.6-5.2 | 3.0 | 2.1-4.6 | 3.4 | 2.3 | 2.9 | (*) | (*) | (*) | (*) | 1.5 | 4.0 |
| 5152 | Cotton | (*) | (*) | (*) | (*) | 6.9 | 10.2 | (*) | (*) | (*) | (*) | 1.0 | 2.5 |
| 5153 | Grain | 3.2-5.9 | 3.8 | 2.6-5.3 | 3.9 | 2.5 | 3.3 | (*) | (*) | (*) | (*) | 1.7 | 5.0 |
| 517 | Petroleum and petroleum products | 5.1-7.8 | 7.1 | 4.9-8.0 | 6.2 | 2.0 | 4.1 | 5.6-6.5 | 5.8 | 5.1-6.1 | 5.6 | 1.7 | 3.3 |
| 5171 | Petroleum bulk stations and terminals | 3.5-5.1 | 4.0 | 3.1-4.2 | 3.9 | 1.7 | 3.7 | (*) | (*) | (*) | (*) | 2.1 | 3.9 |
| 518 | Beer, wine, and distilled alcoholic beverages | 4.5-5.9 | 4.9 | 4.3-5.5 | 4.9 | 1.2 | 3.0 | 3.8-5.0 | 4.2 | 3.9-5.0 | 4.3 | 1.4 | 3.2 |
| 5181 | Beer and ale | 5.2-6.1 | 5.8 | 5.4-6.2 | 5.7 | 1.4 | 3.5 | 7.9-10.2 | 8.1 | 7.7-9.9 | 8.8 | 2.7 | 4.7 |
| 5182 | Wine and distilled alcoholic beverages | 5.1-7.2 | 5.7 | 5.1-6.9 | 5.7 | 1.9 | 4.1 | 3.4-5.0 | 4.4 | 3.7-4.6 | 4.0 | 1.3 | 4.5 |
| 519 | Miscellaneous nondurable goods | 2.5-4.9 | 3.9 | 2.5-3.9 | 3.4 | 1.9 | 3.2 | (*) | (*) | (*) | (*) | 0.9 | 2.7 |
| 5191 | Farm supplies | (*) | (*) | (*) | (*) | 4.4 | 5.7 | (*) | (*) | (*) | (*) | 1.6 | 4.5 |
| 5194 | Tobacco and tobacco products | 5.6-6.7 | 6.1 | 5.3-6.8 | 5.8 | 1.3 | 3.9 | (*) | (*) | (*) | (*) | 1.3 | 4.7 |
| 5198 | Paints, varnishes, and supplies | (*) | (*) | (*) | (*) | 2.4 | 6.8 | (*) | (*) | (*) | (*) | 1.1 | 5.8 |
| 5199 pt. | Books, periodicals, newspapers | (*) | (*) | (*) | (*) | 6.6 | 17.4 | (*) | (*) | (*) | (*) | 1.4 | 14.4 |

Note: Measures of sampling variability are based on data unadjusted for seasonal variations or trading-day differences. The range of sampling error of the monthly dollar estimates and the ratio of current month to previous month for sales and inventories is based on data for August 1979 through January 1980.

* Measures of sampling variability are not shown since sales and/or inventory estimates for these kinds of business are not published.

# APPENDIX B. Adjustment for Seasonal and Trading-Day Variations

Seasonal factors for adjusting data in this historical publication have been developed by the method described in the **X-11 Variant of the Census Method II Seasonal Adjustment Program**, U.S. Bureau of the Census Technical Paper No. 15, Revised 1967. Trading-day factors for adjusting sales were also derived from the X-11 program.

Adjustment of estimates is an approximation based on past experiences, and therefore, will be less precise to the extent that current competitive pressures, changes in economic condition, and other elements introduce significant changes in seasonal and trading-day patterns.

A description of trading-day adjustment factors may be found in **Estimating Trading-Day Variation in Monthly Economic Time Series**, Bureau of the Census Technical Paper No. 12, 1965. Additional details concerning the adjustment factors may be obtained from the Chief, Business Division, Bureau of the Census, Washington, D.C. 20233.

## Table B-1. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers: January 1980-December 1981

| 1972 SIC code | Kind of business | 1980 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| | | Seasonal and trading-day adjustment factors for sales | | | | | | | | | | | |
| | Merchant wholesalers, total | 96.2 | 95.1 | 101.4 | 102.6 | 103.3 | 100.1 | 101.1 | 99.4 | 100.5 | 106.6 | 96.5 | 101.1 |
| | Total (excluding farm-product raw materials) | 94.8 | 94.7 | 101.4 | 102.9 | 103.5 | 100.9 | 102.0 | 100.0 | 101.8 | 106.0 | 95.6 | 100.0 |
| 50 | Durable goods, total | 90.4 | 92.6 | 101.9 | 103.6 | 104.0 | 102.3 | 101.9 | 102.4 | 103.3 | 108.6 | 94.3 | 98.3 |
| 501 | Motor vehicle and automotive parts and supplies | 95.6 | 94.3 | 104.7 | 111.7 | 108.1 | 101.6 | 102.6 | 100.1 | 93.2 | 104.6 | 91.8 | 95.4 |
| 502 | Furniture and home furnishings | 89.7 | 93.0 | 101.5 | 103.4 | 99.4 | 99.4 | 96.7 | 99.1 | 103.8 | 115.9 | 101.9 | 100.8 |
| 503 | Lumber and other construction materials | 81.7 | 83.3 | 93.2 | 99.7 | 104.8 | 107.5 | 110.0 | 111.8 | 111.6 | 116.0 | 94.1 | 90.1 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 81.0 | 85.5 | 97.7 | 100.6 | 94.0 | 96.8 | 112.6 | 104.2 | 109.8 | 112.7 | 108.0 | 101.4 |
| 505 | Metals and minerals, except petroleum | 96.4 | 97.9 | 106.9 | 102.5 | 101.0 | 101.6 | 98.1 | 103.2 | 102.4 | 103.3 | 93.8 | 97.6 |
| 506 | Electrical goods | 91.7 | 90.4 | 99.0 | 95.5 | 98.5 | 102.0 | 102.9 | 101.8 | 105.8 | 109.9 | 101.4 | 105.0 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 93.5 | 87.9 | 96.2 | 103.1 | 104.6 | 104.1 | 107.7 | 103.3 | 102.4 | 111.6 | 95.9 | 93.7 |
| 508 | Machinery, equipment, and supplies | 90.0 | 92.5 | 102.4 | 104.9 | 106.8 | 103.4 | 100.9 | 100.4 | 104.9 | 107.3 | 91.4 | 98.6 |
| 509 | Miscellaneous durable goods | 91.8 | 97.5 | 108.3 | 102.0 | 98.0 | 95.1 | 91.6 | 100.4 | 108.1 | 112.4 | 96.5 | 101.0 |
| 51 | Nondurable goods, total | 99.9 | 96.1 | 101.2 | 100.9 | 102.4 | 99.4 | 100.8 | 97.2 | 98.7 | 105.3 | 98.2 | 104.0 |
| | Total (excluding farm-product raw materials) | 98.7 | 96.5 | 101.1 | 101.5 | 102.9 | 100.5 | 100.9 | 98.7 | 99.8 | 104.0 | 97.0 | 102.2 |
| 511 | Paper and paper products | 101.1 | 97.3 | 101.0 | 100.9 | 100.8 | 98.2 | 100.6 | 99.6 | 101.6 | 107.8 | 94.9 | 100.6 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 98.9 | 93.2 | 99.8 | 101.6 | 99.1 | 97.7 | 101.9 | 98.1 | 103.2 | 112.3 | 96.3 | 102.0 |
| 13 | Apparel, piece goods, and notions | 95.8 | 94.5 | 100.4 | 97.1 | 93.0 | 90.8 | 103.4 | 110.1 | 113.5 | 113.8 | 99.3 | 93.4 |
| 14 | Groceries and related products | 99.6 | 94.8 | 100.3 | 102.2 | 104.4 | 99.1 | 103.4 | 99.1 | 99.4 | 104.3 | 97.0 | 101.1 |
| 515 | Farm-product raw materials[1] | 102.8 | 96.7 | 102.6 | 101.9 | 104.5 | 93.7 | 96.2 | 92.8 | 96.0 | 108.9 | 102.1 | 106.7 |
| 516 | Chemicals and allied products | 96.8 | 92.8 | 99.3 | 97.3 | 104.8 | 104.5 | 91.3 | 103.3 | 98.6 | 110.6 | 100.8 | 104.8 |
| 517 | Petroleum and petroleum products | 106.1 | 104.2 | 99.6 | 97.4 | 99.7 | 96.6 | 97.9 | 97.6 | 96.9 | 101.1 | 102.5 | 104.4 |
| 518 | Beer, wine, and distilled alcoholic beverages | 84.1 | 85.8 | 94.4 | 99.5 | 103.5 | 106.6 | 106.3 | 103.4 | 98.7 | 106.5 | 97.8 | 117.7 |
| 519 | Miscellaneous nondurable goods | 95.2 | 94.8 | 109.2 | 107.8 | 115.1 | 104.8 | 95.0 | 93.3 | 99.2 | 98.9 | 91.7 | 96.7 |
| | | Seasonal adjustment factors for inventories | | | | | | | | | | | |
| | Merchant wholesalers, total | 100.3 | 101.6 | 102.4 | 101.4 | 100.3 | 99.1 | 98.4 | 98.3 | 98.3 | 99.9 | 100.4 | 99.9 |
| | Total (excluding farm-product raw materials) | 98.8 | 100.1 | 101.4 | 101.3 | 100.9 | 100.8 | 100.6 | 99.6 | 99.3 | 99.6 | 99.4 | 98.6 |
| 50 | Durable goods, total | 98.6 | 99.9 | 100.9 | 100.9 | 101.4 | 101.8 | 101.4 | 100.4 | 99.4 | 98.9 | 98.4 | 98.3 |
| 501 | Motor vehicles and automotive parts and supplies | 101.4 | 104.4 | 102.6 | 100.9 | 101.6 | 100.1 | 99.4 | 97.3 | 95.4 | 98.1 | 98.9 | 100.1 |
| 502 | Furniture and home furnishings | 98.1 | 98.1 | 100.9 | 99.9 | 100.4 | 102.9 | 101.6 | 100.3 | 102.4 | 100.6 | 98.3 | 96.9 |
| 503 | Lumber and other construction materials | 97.8 | 99.1 | 103.3 | 102.8 | 102.8 | 102.4 | 102.4 | 100.3 | 98.9 | 98.1 | 96.1 | 96.9 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 95.1 | 99.1 | 100.1 | 103.9 | 102.3 | 106.3 | 106.1 | 101.4 | 101.3 | 99.9 | 93.6 | 91.3 |
| 505 | Metals and minerals, except petroleum | 98.4 | 97.1 | 98.6 | 97.8 | 102.4 | 100.9 | 102.1 | 105.4 | 101.4 | 97.6 | 99.9 | 98.4 |
| 506 | Electrical goods | 96.3 | 95.6 | 98.1 | 99.3 | 101.9 | 102.1 | 102.1 | 102.4 | 101.6 | 101.6 | 100.1 | 99.4 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 97.6 | 99.9 | 102.6 | 105.4 | 103.9 | 103.1 | 101.9 | 99.3 | 97.6 | 97.9 | 95.1 | 95.8 |
| 508 | Machinery, equipment, and supplies | 98.1 | 99.9 | 101.6 | 100.9 | 101.4 | 102.1 | 100.6 | 100.8 | 100.6 | 98.1 | 98.4 | 98.1 |
| 509 | Miscellaneous durable goods | 99.6 | 99.1 | 98.4 | 99.6 | 98.3 | 99.9 | 102.6 | 100.9 | 101.4 | 102.1 | 99.1 | 99.3 |
| 51 | Nondurable goods, total | 104.4 | 102.9 | 105.3 | 100.9 | 96.9 | 95.1 | 94.8 | 94.3 | 96.4 | 102.1 | 104.1 | 103.4 |
| | Total (excluding farm-product raw materials) | 100.4 | 99.8 | 102.6 | 101.4 | 99.9 | 98.4 | 98.8 | 97.8 | 99.3 | 101.4 | 100.9 | 99.8 |
| 511 | Paper and paper products | 97.1 | 98.4 | 99.6 | 100.9 | 100.4 | 102.6 | 100.1 | 98.9 | 101.1 | 100.1 | 100.3 | 100.9 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 96.4 | 96.1 | 100.3 | 101.3 | 99.3 | 100.4 | 100.4 | 99.9 | 102.8 | 105.3 | 100.9 | 97.4 |
| 513 | Apparel, piece goods, and notions | 101.6 | 100.6 | 98.3 | 98.9 | 100.4 | 100.6 | 101.3 | 101.1 | 98.9 | 99.4 | 99.9 | 99.6 |
| 514 | Groceries and related products | 98.6 | 99.9 | 101.6 | 100.6 | 99.1 | 99.9 | 98.3 | 97.1 | 100.3 | 102.9 | 100.9 | 101.4 |
| 515 | Farm-product raw materials[1] | 119.2 | 117.1 | 114.9 | 101.6 | 86.8 | 82.4 | 78.9 | 79.3 | 84.8 | 103.4 | 116.3 | 115.6 |
| 516 | Chemicals and allied products | 98.6 | 100.6 | 100.8 | 100.8 | 103.9 | 101.9 | 102.4 | 100.3 | 100.6 | 96.6 | 96.3 | 97.6 |
| 517 | Petroleum and petroleum products | 102.6 | 99.1 | 100.1 | 95.4 | 97.8 | 94.8 | 97.9 | 99.9 | 102.4 | 103.9 | 104.3 | 101.8 |
| 518 | Beer, wine, and distilled alcoholic beverages | 97.3 | 94.6 | 101.1 | 104.6 | 103.3 | 102.4 | 100.8 | 96.6 | 99.3 | 104.1 | 103.4 | 93.1 |
| 519 | Miscellaneous nondurable goods | 104.3 | 106.4 | 109.3 | 103.9 | 98.8 | 92.8 | 94.8 | 96.1 | 95.3 | 98.8 | 100.1 | 99.6 |

See footnotes at end of table.

# Table B-1. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers: January 1980-December 1981—Continued

| 1972 SIC code | Kind of business | 1981 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| | | Seasonal and trading-day adjustment factors for sales | | | | | | | | | | | |
| | Merchant wholesalers, total | 93.7 | 91.1 | 104.8 | 102.1 | 100.5 | 103.2 | 100.5 | 98.5 | 101.0 | 104.6 | 98.2 | 102.1 |
| | Total (excluding farm-product raw materials) | 92.3 | 91.4 | 104.1 | 103.3 | 99.8 | 104.3 | 100.7 | 100.2 | 101.6 | 104.5 | 97.2 | 101.3 |
| 50 | Durable goods, total | 88.1 | 88.9 | 104.6 | 103.9 | 100.5 | 105.3 | 101.7 | 102.6 | 103.1 | 106.2 | 96.8 | 98.7 |
| 501 | Motor vehicles and automotive parts and supplies | 92.4 | 91.4 | 108.3 | 112.9 | 104.6 | 103.4 | 100.7 | 100.3 | 93.0 | 103.3 | 93.6 | 98.1 |
| 502 | Furniture and home furnishings | 87.0 | 89.5 | 103.7 | 103.0 | 98.3 | 100.8 | 96.4 | 98.0 | 106.3 | 112.7 | 102.4 | 101.8 |
| 503 | Lumber and other construction materials | 79.6 | 79.1 | 96.9 | 99.3 | 101.4 | 111.5 | 110.0 | 110.5 | 111.3 | 113.5 | 96.9 | 90.8 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 79.0 | 82.5 | 98.3 | 101.3 | 90.0 | 99.4 | 112.6 | 104.8 | 110.9 | 111.2 | 108.5 | 102.6 |
| 505 | Metals and minerals, except petroleum | 91.5 | 93.7 | 112.0 | 100.7 | 100.5 | 103.6 | 98.1 | 102.5 | 103.9 | 98.5 | 97.2 | 96.9 |
| 506 | Electrical goods | 88.4 | 88.9 | 99.9 | 95.8 | 95.3 | 104.7 | 100.3 | 103.8 | 106.9 | 108.9 | 101.4 | 106.5 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 90.5 | 85.6 | 98.4 | 103.9 | 101.6 | 106.3 | 106.0 | 104.3 | 102.6 | 109.7 | 97.6 | 94.9 |
| 508 | Machinery, equipment, and supplies | 88.5 | 88.9 | 104.3 | 105.9 | 102.0 | 107.3 | 100.6 | 100.8 | 104.2 | 105.8 | 93.2 | 99.3 |
| 509 | Miscellaneous durable goods | 90.7 | 92.5 | 114.4 | 100.2 | 93.0 | 101.6 | 90.5 | 99.0 | 106.2 | 112.0 | 99.0 | 101.2 |
| 51 | Nondurable goods, total | 97.5 | 91.9 | 104.8 | 100.6 | 99.5 | 102.6 | 99.9 | 96.0 | 98.6 | 103.7 | 99.8 | 105.7 |
| | Total (excluding farm-product raw materials) | 96.2 | 92.8 | 103.7 | 101.9 | 99.9 | 103.3 | 100.0 | 98.4 | 99.9 | 102.2 | 98.6 | 103.6 |
| 511 | Paper and paper products | 98.0 | 93.9 | 103.9 | 101.0 | 96.9 | 102.3 | 99.0 | 99.1 | 102.6 | 105.7 | 95.6 | 102.6 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 95.2 | 90.3 | 103.2 | 102.6 | 95.6 | 100.5 | 100.4 | 98.8 | 102.8 | 109.9 | 98.7 | 103.8 |
| 513 | Apparel, piece goods, and notions | 92.1 | 92.1 | 101.9 | 97.1 | 88.8 | 94.3 | 101.1 | 110.9 | 116.4 | 111.7 | 99.2 | 95.0 |
| 514 | Groceries and related products | 98.0 | 91.2 | 102.6 | 101.4 | 101.1 | 103.0 | 101.8 | 98.1 | 99.6 | 104.1 | 96.9 | 102.8 |
| 515 | Farm-product raw materials[1] | 101.3 | 90.6 | 108.3 | 98.8 | 101.7 | 99.4 | 95.1 | 90.0 | 95.4 | 109.1 | 103.1 | 108.0 |
| 516 | Chemicals and allied products | 93.5 | 88.3 | 102.3 | 97.0 | 103.6 | 105.3 | 92.0 | 102.7 | 100.0 | 104.9 | 105.3 | 104.8 |
| 517 | Petroleum and petroleum products | 103.6 | 100.6 | 103.3 | 95.9 | 97.9 | 99.8 | 94.5 | 96.8 | 96.6 | 101.6 | 102.9 | 107.3 |
| 518 | Beer, wine, and distilled alcoholic beverages | 81.5 | 81.1 | 98.9 | 99.7 | 100.0 | 109.7 | 107.3 | 101.5 | 99.7 | 102.2 | 101.3 | 119.0 |
| 519 | Miscellaneous nondurable goods | 94.9 | 89.7 | 111.5 | 109.4 | 111.8 | 106.8 | 96.0 | 92.5 | 97.9 | 98.0 | 94.0 | 97.8 |
| | | Seasonal adjustment factors for inventories | | | | | | | | | | | |
| | Merchant wholesalers, total | 100.3 | 101.6 | 102.4 | 101.4 | 100.4 | 99.1 | 98.4 | 98.3 | 98.3 | 99.9 | 100.4 | 99.9 |
| | Total (excluding farm-product raw materials) | 98.8 | 100.1 | 101.4 | 101.3 | 101.1 | 100.8 | 100.6 | 99.8 | 99.3 | 99.6 | 99.4 | 9 |
| 50 | Durable goods, total | 98.4 | 99.9 | 100.9 | 100.9 | 101.6 | 101.8 | 101.4 | 100.4 | 99.4 | 98.9 | 98.4 | 98.1 |
| 501 | Motor vehicles and automotive parts and supplies | 101.4 | 104.6 | 102.6 | 100.9 | 101.6 | 100.1 | 99.4 | 97.3 | 95.3 | 97.9 | 98.9 | 100.1 |
| 502 | Furniture and home furnishings | 98.1 | 98.1 | 100.9 | 100.1 | 100.4 | 102.9 | 101.6 | 100.1 | 102.4 | 100.6 | 98.3 | 96.9 |
| 503 | Lumber and other construction materials | 97.6 | 99.1 | 103.3 | 102.8 | 102.8 | 102.4 | 102.4 | 100.3 | 98.9 | 98.1 | 96.1 | 96.8 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 94.9 | 98.9 | 100.1 | 104.1 | 102.3 | 106.3 | 106.3 | 101.4 | 101.3 | 99.8 | 93.6 | 91.4 |
| 505 | Metals and minerals, except petroleum | 98.4 | 97.1 | 98.6 | 97.6 | 102.6 | 100.9 | 102.1 | 105.6 | 101.4 | 97.6 | 99.9 | 98.4 |
| 506 | Electrical goods | 96.3 | 95.6 | 98.1 | 99.3 | 101.9 | 102.1 | 102.1 | 102.4 | 101.6 | 101.6 | 100.1 | 99.3 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 97.6 | 100.1 | 102.8 | 105.4 | 103.9 | 103.1 | 101.9 | 99.1 | 97.6 | 98.1 | 95.1 | 95.8 |
| 508 | Machinery, equipment, and supplies | 97.9 | 99.9 | 101.6 | 100.9 | 101.6 | 102.1 | 100.6 | 100.8 | 100.6 | 98.1 | 98.3 | 98.1 |
| 509 | Miscellaneous durable goods | 99.8 | 99.1 | 98.6 | 99.6 | 98.4 | 99.9 | 102.6 | 100.9 | 101.3 | 102.1 | 99.1 | 99.3 |
| 51 | Nondurable goods, total | 104.4 | 102.9 | 105.4 | 101.1 | 97.1 | 95.1 | 94.8 | 94.1 | 96.3 | 102.1 | 104.1 | 103.3 |
| | Total (excluding farm-product raw materials) | 100.4 | 99.8 | 102.6 | 101.6 | 99.9 | 98.4 | 98.8 | 97.8 | 99.3 | 101.4 | 100.9 | 99.6 |
| 511 | Paper and paper products | 97.1 | 98.4 | 99.6 | 100.9 | 100.4 | 102.6 | 100.1 | 98.9 | 101.1 | 100.1 | 100.3 | 100.9 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 96.4 | 95.9 | 100.4 | 101.1 | 99.4 | 100.3 | 100.6 | 99.9 | 102.9 | 105.3 | 100.9 | 97.3 |
| 513 | Apparel, piece goods, and notions | 101.6 | 100.6 | 98.3 | 98.9 | 100.4 | 100.6 | 101.3 | 101.1 | 98.8 | 99.4 | 99.9 | 99.6 |
| 514 | Groceries and related products | 98.6 | 99.9 | 101.6 | 100.6 | 99.3 | 100.1 | 98.1 | 97.1 | 100.3 | 102.9 | 100.8 | 101.4 |
| 515 | Farm-product raw materials[1] | 119.4 | 117.2 | 115.3 | 101.9 | 86.8 | 82.3 | 78.8 | 79.0 | 84.8 | 103.6 | 116.2 | 115.6 |
| 516 | Chemicals and allied products | 98.6 | 100.8 | 100.8 | 100.8 | 104.1 | 101.9 | 102.4 | 100.4 | 100.6 | 96.6 | 96.1 | 97.6 |
| 517 | Petroleum and petroleum products | 102.4 | 99.1 | 100.1 | 95.6 | 98.1 | 94.8 | 98.1 | 99.9 | 102.4 | 103.9 | 104.3 | 101.8 |
| 518 | Beer, wine, and distilled alcoholic beverages | 97.4 | 94.4 | 101.4 | 104.8 | 103.3 | 102.3 | 100.8 | 96.6 | 99.1 | 103.9 | 103.4 | 93.1 |
| 519 | Miscellaneous nondurable goods | 104.3 | 106.4 | 109.4 | 104.1 | 98.9 | 92.8 | 94.8 | 96.1 | 95.3 | 98.8 | 100.1 | 99.4 |

Note: The adjustment factors shown above for sales are a combination of the seasonal and trading-day factors. These are separately available, however, upon request. Adjustment factors are included in this table for some kinds of business for which adjusted data are not published separately.

Adjusted sales and inventory data shown in table 4 are obtained by dividing the unadjusted data shown in tables 1 and 2 by the adjustment factors shown above for the corresponding kinds of business. Adjusted data for the summary trade totals are obtained by summarizing the adjusted data for the individual kinds of business. Seasonal factors shown for the summary trade totals provide an approximation to these totals but may show small differences from the published data.

[1]There are indications that the seasonal adjustment factors for the farm-product raw materials category may not reflect recent trends in this trade. The seasonally adjusted data for this category and also for the merchant wholesale and nondurable goods totals should, therefore, be used with caution.

# Table B-2. Average Month-to-Month Percent Changes and Related Summary Measures for Sales and Inventories of Merchant Wholesalers

| 1972 SIC code | Kind of business | $\bar{O}$ | $\bar{S}$ | $\bar{CI}$ | $\bar{I}$ | $\bar{C}$ | $\bar{I}/\bar{C}$ | MCD | Average duration of run | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | CI | I | C | MCD |
| | | Sales | | | | | | | | | | |
| | Merchant wholesalers, total | 4.89 | 3.09 | 1.47 | .85 | 1.12 | .75 | 1 | 2.98 | 1.49 | 13.92 | 2.98 |
| 50 | Durable goods, total | 5.43 | 4.75 | 1.61 | 1.05 | 1.17 | .90 | 1 | 3.48 | 1.53 | 20.87 | 3.48 |
| 501 | Motor vehicles and automotive parts and supplies | 5.73 | 4.39 | 2.76 | 2.37 | 1.27 | 1.86 | 3 | 2.09 | 1.61 | 23.86 | 4.23 |
| 502 | Furniture and home furnishings | 7.76 | 6.99 | 2.43 | 2.09 | 1.01 | 2.07 | 3 | 2.04 | 1.59 | 13.92 | 4.34 |
| 503 | Lumber and other construction materials | 7.69 | 6.40 | 2.77 | 1.99 | 1.72 | 1.15 | 2 | 3.09 | 1.62 | 18.56 | 4.61 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 9.44 | 8.63 | 4.18 | 3.85 | 1.26 | 3.06 | 4 | 1.69 | 1.50 | 7.59 | 3.73 |
| 505 | Metals and minerals, except petroleum | 7.02 | 4.10 | 3.22 | 2.50 | 1.85 | 1.35 | 2 | 1.88 | 1.43 | 8.35 | 3.07 |
| 506 | Electrical goods | 5.75 | 5.04 | 2.31 | 1.98 | 1.08 | 1.83 | 2 | 1.76 | 1.53 | 16.70 | 3.39 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 5.84 | 4.73 | 1.98 | 1.67 | 1.01 | 1.66 | 2 | 2.23 | 1.48 | 15.18 | 3.77 |
| 508 | Machinery, equipment, and supplies | 6.04 | 5.35 | 2.03 | 1.68 | 1.01 | 1.67 | 2 | 2.04 | 1.62 | 13.92 | 3.32 |
| 509 | Miscellaneous durable goods | 8.01 | 6.42 | 3.79 | 3.09 | 1.88 | 1.65 | 2 | 2.04 | 1.53 | 10.44 | 3.46 |
| 51 | Nondurable goods, total | 5.20 | 2.81 | 1.85 | 1.31 | 1.13 | 1.16 | 2 | 2.49 | 1.33 | 12.85 | 3.86 |
| 511 | Paper and paper products | 5.52 | 3.23 | 2.09 | 1.67 | 1.03 | 1.61 | 2 | 2.09 | 1.50 | 15.18 | 3.19 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 6.03 | 3.89 | 2.06 | 1.76 | .78 | 2.25 | 3 | 2.01 | 1.59 | 8.79 | 3.24 |
| 513 | Apparel, piece goods, and notions | 8.05 | 6.62 | 2.93 | 2.73 | 1.00 | 2.72 | 3 | 1.72 | 1.43 | 11.13 | 3.11 |
| 514 | Groceries and related products | 4.52 | 1.85 | 1.66 | 1.43 | .83 | 1.71 | 2 | 2.06 | 1.43 | 23.86 | 3.19 |
| 515 | Farm-product raw materials | 9.28 | 4.72 | 5.03 | 4.44 | 1.71 | 2.59 | 3 | 1.90 | 1.58 | 6.96 | 3.30 |
| 516 | Chemicals and allied products | 7.37 | 5.04 | 3.52 | 3.13 | 1.41 | 2.22 | 3 | 1.84 | 1.52 | 18.56 | 4.71 |
| 517 | Petroleum and petroleum products | 7.03 | 5.33 | 4.27 | 3.59 | 1.92 | 1.87 | 3 | 1.84 | 1.67 | 12.85 | 3.11 |
| 518 | Beer, wine, and distilled alcoholic beverages | 10.80 | 8.43 | 1.70 | 1.50 | .72 | 2.09 | 3 | 1.84 | 1.49 | 16.70 | 4.58 |
| 519 | Miscellaneous nondurable goods | 6.05 | 4.67 | 2.68 | 2.37 | 1.07 | 2.22 | 3 | 1.76 | 1.53 | 10.44 | 3.30 |
| | | Inventories | | | | | | | | | | |
| | Merchant wholesalers, total | 1.16 | .70 | .98 | .40 | .91 | .44 | 1 | 7.59 | 1.52 | 27.83 | 7.59 |
| 50 | Durable goods, total | 1.13 | .57 | .98 | .41 | .93 | .44 | 1 | 6.96 | 1.45 | 41.75 | 6.96 |
| 501 | Motor vehicles and automotive parts and supplies | 2.30 | 1.25 | 1.75 | 1.23 | 1.19 | 1.03 | 2 | 2.69 | 1.52 | 11.93 | 4.15 |
| 502 | Furniture and home furnishings | 2.22 | 1.32 | 1.64 | 1.26 | 1.01 | 1.25 | 2 | 2.14 | 1.49 | 13.92 | 4.26 |
| 503 | Lumber and other construction materials | 2.52 | 1.54 | 1.81 | 1.24 | 1.15 | 1.08 | 2 | 2.65 | 1.72 | 16.70 | 4.15 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 3.49 | 2.79 | 2.21 | 1.94 | 1.07 | 1.80 | 2 | 2.01 | 1.62 | 27.83 | 3.39 |
| 505 | Metals and minerals, except petroleum | 3.31 | 2.43 | 2.09 | 1.36 | 1.37 | 1.00 | 2 | 3.04 | 1.72 | 8.79 | 4.05 |
| 506 | Electrical goods | 1.78 | 1.15 | 1.44 | 1.08 | .94 | 1.15 | 2 | 2.49 | 1.40 | 33.40 | 4.37 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 1.74 | 1.28 | 1.22 | .86 | .88 | .97 | 1 | 2.53 | 1.55 | 18.56 | 2.53 |
| 508 | Machinery, equipment, and supplies | 1.43 | .85 | 1.14 | .71 | .92 | .77 | 1 | 2.78 | 1.64 | 41.75 | 2.78 |
| 509 | Miscellaneous durable goods | 2.32 | 1.31 | 1.94 | 1.35 | 1.27 | 1.06 | 2 | 2.09 | 1.58 | 18.56 | 4.49 |
| 51 | Nondurable goods, total | 2.58 | 2.11 | 1.48 | .92 | 1.05 | .88 | 1 | 3.48 | 1.86 | 9.28 | 3.48 |
| 511 | Paper and paper products | 1.90 | 1.02 | 1.41 | 1.05 | .79 | 1.32 | 2 | 1.96 | 1.37 | 8.35 | 4.05 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 2.55 | 1.60 | 1.72 | 1.49 | .74 | 2.01 | 3 | 1.69 | 1.55 | 20.87 | 3.24 |
| 513 | Apparel, piece goods, and notions | 2.22 | 1.30 | 1.84 | 1.48 | .97 | 1.53 | 2 | 2.06 | 1.55 | 8.35 | 2.96 |
| 514 | Groceries and related products | 1.94 | 1.37 | 1.40 | .97 | .97 | 1.01 | 2 | 2.42 | 1.45 | 16.70 | 4.37 |
| 515 | Farm-product raw materials | 8.85 | 7.57 | 4.51 | 3.64 | 2.15 | 1.69 | 3 | 2.42 | 2.04 | 7.59 | 4.12 |
| 516 | Chemicals and allied products | 3.17 | 1.64 | 2.45 | 1.87 | 1.43 | 1.30 | 2 | 2.26 | 1.52 | 16.70 | 3.95 |
| 517 | Petroleum and petroleum products | 5.01 | 2.95 | 3.67 | 2.65 | 2.06 | 1.29 | 2 | 2.29 | 1.65 | 10.44 | 3.95 |
| 518 | Beer, wine, and distilled alcoholic beverages | 4.28 | 3.68 | 1.83 | 1.46 | .86 | 1.70 | 2 | 2.14 | 1.49 | 8.79 | 3.46 |
| 519 | Miscellaneous nondurable goods | 2.85 | 1.88 | 1.96 | 1.55 | .91 | 1.71 | 2 | 1.92 | 1.50 | 8.35 | 3.07 |

## Description of Measures Shown Above

The following are brief descriptions of the measures shown in this table. More complete explanations appear in "Electronic Computers and Business Indicators," Occasional Paper 57, National Bureau of Economic Research, Inc., New York, 1957.

$\bar{O}$ is the average month-to-month percentage change, without regard to sign, in the original series before seasonal or trading-day adjustment.

$\bar{S}$ is the average month-to-month percentage change, without regard to sign, in the seasonal component. It is a measure of the average monthly seasonal change in the unadjusted series.

$\bar{CI}$ is the average month-to-month percentage change, without regard to sign, in the seasonally adjusted series.

$\bar{I}$ is the average month-to-month percentage change without regard to sign, for the irregular component. The irregular component is obtained by dividing the seasonally adjusted series by the cyclical component.

$\bar{C}$ is the average month-to-month percentage change, without regard to sign, for the cyclical component, which is a smooth, flexible moving average.

$\bar{I}/\bar{C}$ is a measure of the relative smoothness (small values) or irregularity (large values) of the seasonally adjusted series.

MCD (months for cyclical dominance) gives an estimate of the appropriate time span over which to observe cyclical movements in a monthly series. In deriving MCD, the average (without regard to sign) percentage changes in the irregular and cyclical components are computed for 1-month spans (Jan.-Feb., Feb.-Mar., etc.) 2-months spans (Jan.-Mar., Feb.-Apr., etc.), and so on. MCD is the shortest span for which the average change (without regard to sign) in the cyclical component is larger than the average change (without regard to sign) in the irregular component; that is, it indicates the point at which fluctuations begin to be more attributable to cyclical than to irregular movements. MCD is small for smooth series and large for erratic series.

Average duration of run (ADR) is a measure of smoothness, and is equal to the average number of consecutive monthly changes in the same direction in any series of observations. When there is no change between 2 months, a change in the same direction as the preceding change is assumed. The ADR is shown for the seasonally adjusted series CI, irregular component I, cyclical component C, and the MCD moving average. The MCD moving average is an unweighted moving average (with the number of terms equal to MCD) of the seasonally adjusted series.

A comparison of these measures with the expected ADR of a random series gives an indication of whether the changes approximate those of a random series. (The expected value of ADR for a random series is 1.5 and it falls between 1.36 and 1.75 about 95 percent of the time. For a moving average of a random series the expected value is 2.0). For example, the ADR of CI is 2.08 for electrical goods sales. This indicates that 1-month changes in the seasonally adjusted series, on the average, reverse sign slightly less often than a random series. In the next two columns, 1.46 for I and 10.58 for C indicate the separation of the seasonally adjusted series into an essentially random component and the cyclical (nonrandom) component. Finally, 3.32 for MCD indicates that a 2-month moving average of the seasonally adjusted series (2 months being the MCD span) reverses direction on the average about every 3 months. The increase in the average duration of run from 2.08 for CI to 3.32 for the MCD moving average indicates that for this series the use of MCD spans reduces the effect of the irregular component upon the seasonally adjusted series.

These averages are based on a seasonally adjusted series which is adjusted historically; that is, the months used to compute the measures were the same months used to estimate the seasonal factors. Current data, however, are adjusted by use of factors projected 1 year ahead, and are thus subject to additional error. Therefore, current data are probably somewhat more irregular and subject to larger MCD than shown above.

# APPENDIX C. Explanatory Material

## I. SCOPE OF THE SURVEY

Wholesale trade, as defined in Major Groups 50 and 51 of the 1972 edition of the Standard Industrial Classification (SIC) Manual[1] and as covered in the 1972 census, includes establishments or places of business primarily engaged in selling merchandise to retailers; to industrial, commercial, institutional, farm or professional business users; or to other wholesalers; or acting as agents or brokers in buying merchandise for or selling merchandise to such persons or companies.

The principal types of establishments included are: (1) merchant wholesalers who take title to the goods they sell, such as wholesale merchants or jobbers, industrial distributors, voluntary group wholesalers, exporters, importers, cash-and-carry wholesalers, drop shippers, major distributors, retailer cooperative warehouses, terminal elevators, and cooperative buying associations; (2) sales branches and sales offices (but not retail stores) maintained by domestic manufacturing or mining enterprises apart from their plants or mines for the purpose of marketing their products; (3) agents, merchandise or commodity brokers, and commission merchants.

This survey is limited to merchant wholesalers (described under category 1 above), which constitute the major portion of the broad field of wholesale trade, and excludes the other types of wholesale trade. All kinds of business in which merchant wholesalers operate are represented in this survey.

Kind-of-business classifications are not interchangeable with commodity classifications. Most businesses sell several kinds of commodities. The kind-of-business code assigned generally reflects either the individual commodity or the commodity group which is the primary source of the establishments receipts, or some mixture of commodities which characterizes the establishment's business. Thus, the classification of establishments by kind of business generally does not make it possible to determine either the number of establishments handling a particular commodity or the sales of that commodity. For example, the "grocery" classification excludes establishments selling groceries if the sale of groceries is not the primary source of receipts; moreover, even though establishments are classified as "grocery wholesalers" some of their sales may be derived from the sale of nonfood products.

A description of each kind of business included in the accompanying statistical data is shown in appendix D.

## II. SAMPLE DESIGN AND ESTIMATION PROCEDURES

**Framework of old series**–The first publication in this series based on probability sampling, was the January 1954 report. Effective with the July 1956 publication an entirely new sample was selected from the 1954 Census of Business. Other changes in the sample have been made since 1956, representing, for the most part, revisions to reflect the findings of successive censuses of wholesale trade and the benchmarking operation described in Section III.

**Selection of sample for new series**–The new sample[2] like the old is a probability sample, and the estimating procedures used are similar in many respects to the old sample.

The new sample originally was drawn from the Standard Statistical Establishment List (SSEL) as updated to December 31, 1974. The initial SSEL consisted of two lists. One list was composed of all Employer Identification (EI) numbers issued by the Internal Revenue Service (IRS) with reported payroll in at least one quarter of 1973 or 1974, with payroll in the 1972 census, or with sales/receipts greater than $100,000 in the 1972 census. The second list consisted of all establishments of known multiestablishment companies as of December 31, 1974. These lists contained information on sales/receipts, payroll, employment, name and address, kind-of-business classification, etc.

Before the 1974 SSEL was available, a study was made, using files from the 1972 Census of Wholesale Trade. This study determined the stratification of the sampling units based on 1972 sales, inventories, and kind of business, and also determined the optimal allocation of the sample necessary to meet specified variance objectives for sales and inventory estimates for different kind-of-business groups. The primary stratum boundary determined in the study was the certainty cutoff to be used for each kind of business. The cutoff was particularly important since it also determined the type of sampling unit.

The sampling units for the new sample consisted of both companies and EI's. To be eligible for the initial sampling, an EI had to be active, i.e., had payroll in 1974 and was on the Internal Revenue Service mailing list for Federal Insurance Contribution Act (FICA) taxpayers. If a known company had total merchant wholesale sales (on a 1972 basis) above the corresponding cutoff for its major kind of business, the company was selected for the sample with certainty. Single establishment companies, whether or not selected with certainty, were considered as EI sampling units.

All merchant wholesale companies below the certainty cutoff were treated on an EI basis; that is, the EI was the sampling unit. The EI's were then stratified according to their major kind of business and their estimated sales (on a 1972

[1] Executive Office of the President, Office of Management and Budget, **Standard Industrial Classification Manual**, 1972.

[2] For a complete exposition of the new sample, see C. T. Isaki et al., "Sample Redesign Aspects of the Census Bureau's Monthly Business Surveys" and K. M. Wolter et al., "Sample Selection and Estimation Aspects of the Census Bureau's Monthly Business Surveys," **Proceedings of the Business and Economic Statistics Section: American Statistical Association**, 1976.

basis). Within each stratum, a simple random sample of EI's was selected. The sampling rates for these EI's varied between 1 in 3 and 1 in 600.

For those EI's in the initial sample that did not have kind-of-business classifications and for all EI "births" after the initial selection, a two-phase selection procedure was used. EI "births," as used here, are new EI's recently assigned by Social Security Administration (SSA) and currently on the IRS mailing list for FICA taxpayers. In the first phase, "births" were stratified by kind of business and size (expected employment or quarterly payroll). A relatively large sample was drawn and canvassed in order to obtain a more reliable measure of size (sales in 2 recent months) and a more detailed kind-of-business code, if needed.

Using this more reliable information, the cases were restratified and the final sample drawn with overall probabilities equivalent to those used in drawing the initial sample from the 1974 SSEL. Because of the lag in reporting "births" to the IRS and SSA and the time needed to accomplish the two-phase birth-selection procedure, "births" are actually added to the sample approximately 1 year after they begin operation. The ongoing birth-selection procedure is carried out quarterly.

Since "births" are not represented in the sample until they go through the selection procedure described above, an interium procedure is required to account for "births" during the period between the onset of activity and the time of birth selection. This consists of imputing for all cases which go out of business, but which are still on the IRS mailing list. This imputation procedure was also used in the old series. However, because of recent delays in obtaining "births," this procedure now accounts for a larger percentage of the estimates.

To be eligible for the sample canvass and tabulation in a given month, a merchant wholesale business must meet both of the following requirements:

1. It must be on the IRS mailing list for FICA taxpayers from the previous quarter.

2. It must have been selected from either the SSEL or the file of employer "births." For this purpose, a universe file of all businesses ever given a chance of selection is maintained. This file shows, among other things, which EI numbers actually have been selected.

In the case of businesses that were selected into the sample with certainty, the first requirement is changed. These certainty sampling units are not dropped from canvass and tabulation if they are no longer on the IRS mailing list. If there are successor businesses, they are added to the survey. This is a tighter form of control used for these larger businesses.

**Use of the rotating sample and composite estimating procedures**–Rotating samples or panels are used except for very large businesses which are selected with certainty. For sampling units in the rotating panels, two months of data are obtained at each enumeration. For example, February rotating panel cases report data for February (the current month) and January (the previous month). In the following month, a different rotating panel (the March panel) reports figures for March and February. Three sample panels are used. This permits the use of a composite estimating procedure which provides estimates more reliable than those which would be obtained from a completely fixed sample of about twice the size. In addition, this procedure reduces the reporting burden of selected businesses.

The first estimate issued each month is called the preliminary estimate. The preliminary composite estimate at the detail level for the current month is a weighted average of two estimates: (1) the current month unbiased estimate (weight .35), and (2) an estimate (weight .65) obtained by multiplying the difference between the preliminary composite for the previous month and the unbiased estimate for the previous month from the current month panel by the current-to-previous-month ratio obtained from the current month reports. Preliminary inventory estimates have been modified, prior to publication, based on past relationships between preliminary and final estimates.

The differences between preliminary and final estimates of seasonally adjusted sales have ranged from approximately +1.7 percent to -0.9 percent for the past 12 months. During the same period, the absolute average of the differences was 0.5 percent. The corresponding range for inventories was approximately +1.2 percent to -0.7 percent for the past 12 months. The absolute average of the differences was 0.6 percent.

## III. BENCHMARKING

Wholesale sales estimates in this report reflect the results of a benchmarking operation which made use of data tabulated from the 1977 Census of Wholesale Trade and the 1978 and 1979 Annual Wholesale Trade Surveys (ATS). Monthly wholesale sales by kind of business for the United States were revised for the period January 1973 through January 1981 in a manner designed to minimize the changes to the month-to-month trends in the original series. As part of the revision process, revised monthly data for 1977, 1978, and 1979 were constrained to sum to 1977 census levels and 1978 and 1979 estimates, respectively.

End-of-month inventories were revised in a similar manner as sales. The constraints for the inventory estimates were the December 1972 estimates and the December ending inventories from 1976 through 1979 estimates from the ATS (the 1976 estimates were available from the 1977 ATS).

Through use of so-called "carry forward factors," the effect of the revision process at the U.S. level is applied to all estimates subsequent to December 1979. These factors were derived at the most detailed kind-of-business level and will be held constant until the next revision and benchmarking process. Aggregate level estimates are derived by summing appropriate detail level estimates, thereby assuring additivity.

Monthly wholesale sales and inventory estimates for published geographic areas also reflect the results of the revision process. In order to adjust geographic estimates, factors are

derived each month at specified United States kind-of-business levels by dividing the revised U.S. estimates (as published) by the unrevised U.S. estimates (without the "carry forward factors" applied) at the given kind-of-business level. These factors are then multiplicatively applied at each published geographic area for the kind of business for which the factor was derived.

## IV. CLASSIFICATION DIFFERENCES BETWEEN THE MONTHLY ESTIMATES AND THE 1977 CENSUS OF WHOLESALE TRADE

Ferrous Metals Service Centers (SIC 5051 part) with warehouse space greater than 5000 square feet are included in the monthly survey, regardless of the ownership of the products sold. However, if the establishments primarily sell the products manufactured by their own company, they are considered sales branches in the 1977 Census of Wholesale Trade.

In the 1977 Census of Wholesale Trade, establishments classified in the Farm-Product Raw Materials Group (SIC 515X) included as sales, products purchased and transferred to other company establishments. In the monthly survey inter-company transfers are not included in sales. Because of the differences shown above, the sales presented in this report for these kinds of business were obtained from the annual trade survey for 1977.

## V. REVISION TO PREVIOUSLY PUBLISHED DATA

The basic input inventory series for all the components of the Farm-Product Raw Materials Group[3] (SIC 515) and for Petroleum-Bulk Stations and Terminals (SIC 5171) have been revised. These data were revised to reflect improved methodology. SIC 5171 was revised from January 1967 through November 1972, while the SIC's in the 515 group were revised from January 1967 through July 1977. All summary groups which included inventories in these SIC's were also revised.

## VI. UNPUBLISHED DATA

Additional data, such as dollar volume estimates for some kinds of business not separately shown in this report, are produced as a byproduct of the regularly published statistics. These additional data have not been included in this publication because the sampling variability associated with these data does not meet the Census Bureau's publication criteria The Census Bureau, on written request will release unpublished data for individual use, though not for publication.

## VII. DEFINITION OF TERMS

**Sales**—Sales include the following: merchandise sold for cash or credit at wholesale and retail by establishments primarily engaged in merchant wholesale trade; receipts from customers for rental or leasing of equipment, instruments, tools, etc.; receipts for delivery, installation, alteration, maintenance, repair, storage, and other services; and gasoline, liquor, tobacco and other excise taxes which are paid by the manufacturer and passed along to the wholesaler. Sales are net after deductions for refunds and allowances for merchandise returned by customers. Sales which are made on an agency basis for others are included as gross sales. Direct shipments on orders from wholesalers are also included in sales. Total sales do not include nonoperating income from such sources as investments, rental or sale of real estate, etc.

In the new series, sales exclude sales and excise taxes collected directly from customers and paid directly to a local, State, or Federal tax agency. Also excluded are receipts from customers for carrying or other credit charges. In the old series respondents were requested to include these taxes and credit charges in the reported sales. The impact of this change is considered minimal.

**Inventories**—Inventories represent stocks, at cost, of merchandise on hand for sale at the end of the month regardless of location, except for goods outside the United States. Goods held on consignment and items not held for sale such as fixtures, equipment, and supplies are not included.

**Stock-sales ratios**—The stock-sales ratios are percentages derived by dividing the dollar value of inventories, at cost, by the dollar value of sales. No adjustment is made in these ratios for the markup in sales which may vary from trade to trade.

The sales and inventory figures represent total sales and inventories of all establishments primarily engaged in merchant wholesale trade. Also included are the sales and inventories of central administrative offices and auxiliaries of merchant wholesale establishments.

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[3] See appendix D, Kind-of-Business Classification for the SIC's included in this group.

# APPENDIX D. Kind-of-Business Classifications

## DURABLE GOODS (SIC Major Group 50)

This major group includes establishments primarily engaged in the wholesale distribution of durable goods.

### MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES (SIC 501)

**Automobiles and Other Motor Vehicles (SIC 5012)**[1]—Establishments primarily engaged in the wholesale distribution of new and used passenger automobiles, trucks, and other motor vehicles. Automotive distributors primarily engaged in selling at retail to individual consumers for personal use, and also selling a limited amount of new and used passenger automobiles and trucks at wholesale to dealers, are classified in retail trade, industry 5511.

**Automotive Parts and Supplies (SIC 5013)**—Establishments primarily engaged in the wholesale distribution of automotive parts, supplies, accessories, tools and equipment.

**Tires and Tubes (SIC 5014)**[1]—Establishments primarily engaged in the wholesale distribution of rubber tires and tubes for passenger and commercial vehicles.

### FURNITURE AND HOME FURNISHINGS (SIC 502)

**Furniture (SIC 5021)**—Establishments primarily engaged in the wholesale distribution of furniture, including bedsprings, mattresses, and other household furniture; office furniture; and furniture for public parks, buildings, etc.

SIC 5021 is subdivided into—

*1. Household and lawn furniture.*
*2. Office and business furniture.*

**Home Furnishings (SIC 5023)**—Establishments primarily engaged in the wholesale distribution of home furnishings and homewares, including antiques; china; glassware and earthenware; lamps; curtains and draperies; linens and towels; carpets, linoleum, and all other types of hard and soft surface floor coverings. Establishments primarily engaged in the wholesale distribution of electrical household goods are classified in industry 5064.

[1] Data for this kind of business are not shown separately but are included in the group total.

### LUMBER AND OTHER CONSTRUCTION MATERIALS (SIC 503)

**Lumber, Plywood, and Millwork (SIC 5031)**—Establishments, with or without yards, primarily engaged in the wholesale distribution of rough, dressed, and finished lumber (but not timber); plywood; door and window frames (wood or metal); and other wood and metal millwork. Establishments selling lumber, plywood and millwork to the general public and known as "retail" in the trade are classified in industry 521.

**Construction Materials, Not Elsewhere Classified (SIC 5039)**—Establishments primarily engaged in the wholesale distribution of such building materials as brick, building stone, cement, granite, gravel, lime, marble, plaster, building glass, roofing materials, sand, and tile. Establishments selling construction materials to the general public and known as "retail" in the trade are classified in industry 521. Establishments primarily engaged in marketing heavy structural metal products are classified in industry 5051. Establishments primarily selling readymade concrete are classified in manufacturing.

### SPORTING, RECREATIONAL, PHOTOGRAPHIC, AND HOBBY GOODS, TOYS, AND SUPPLIES (SIC 504)[1]

Establishments primarily engaged in the wholesale distribution of all types of amusement and sporting goods and accessories—billiard and pool supplies; cameras and photographic equipment; coin-operated game machines; games, toys; ammunition and fireworks; etc.

### METALS AND MINERALS, EXCEPT PETROLEUM (SIC 505)

**Ferrous Metals Service Centers and Offices (SIC 5051 pt.)**—Establishments primarily engaged in marketing ferrous metal semifinished products such as nails, pig iron, steel and tin bars. Establishments in this industry may operate with warehouses (ferrous metals service centers) or without warehouses (ferrous metals sales offices).

Sales branches of domestic manufacturers are included in this category if the establishment is separate from the manufacturing plant and has warehouse space greater than 5,000 square feet.

**Nonferrous Metals Service Centers and Offices and Other Minerals and Ores (SIC 5051 pt. and SIC 5052 pt.)**[1]—Establishments primarily engaged in marketing nonferrous metal semifinished products such as aluminum bars and copper rods. Establishments in this industry may operate with warehouses (nonferrous metals service centers) or without warehouses (nonferrous metals sales offices). Also included are establishments primarily engaged in the wholesale distribution of copper, iron, lead, and other metallic ores except precious; and crude nonmetallic minerals (including concentrates) except crude petroleum. Establishments primarily engaged in the wholesale distribution of nonmetallic minerals used in construction, such as sand and gravel, are included in industry 5039.

**Coal (SIC 5052 pt.)**[1]—Establishments primarily engaged in the wholesale distribution of coal and coke. Included are establishments which have products shipped direct from mine to customer, and establishments operating yards and dock space and making deliveries therefrom at wholesale as well as other coal merchants.

## ELECTRICAL GOODS (SIC 506)

**Electrical Apparatus and Equipment, Wiring Supplies, and Construction Materials (SIC 5063)**—Establishments primarily engaged in the wholesale distribution of electrical power equipment for the generation, transmission, or utilization of electric energy; and electrical construction materials for outside power transmission lines and for electrical systems. Construction contractors primarily engaged in installing electrical systems and equipment from their own stock are classified in industry 1731.

**Electrical Appliances, TV and Radio Sets (SIC 5064)**—Establishments primarily engaged in the wholesale distribution of radio and television sets and household electrical appliances.

**Electronic Parts and Equipment (SIC 5065)**[1]—Establishments primarily engaged in the wholesale distribution of electronic parts and equipment, such as industrial and radio and television receiving and transmitting electronic tubes; electronic intercommunication equipment; radio parts and accessories; and electronic sound equipment. Establishments primarily engaged in the wholesale distribution of radio and television receiving sets and phonographs are classified in industry 5064.

## HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES (SIC 507)

**Hardware (SIC 5072)**—Establishments primarily engaged in the wholesale distribution of hardware, such as builders; shelf or light hardware; handtools (except automotive and machinists' precision); handsaws and cutlery; brads, staples, and tacks; and bolts, nuts, rivets, and screws. Establishments primarily engaged in the wholesale distribution of nails, noninsulated wire, and screening are classified in industry 5051.

**Plumbing and Heating Equipment and Supplies (Hydronics) (SIC 5074)**—Establishments primarily engaged in the wholesale distribution of hydronic plumbing and heating equipment and supplies. Construction contractors primarily engaged in installing plumbing and heating equipment from their own stock are classified in industry 1711.

**Warm Air Heating and Air-Conditioning Equipment and Supplies (SIC 5075)**[1]—Establishments primarily engaged in the distribution of warm air heating and air-conditioning equipment and supplies. Construction contractors primarily engaged in installing warm air heating and air-conditioning equipment are classified in industry 1711.

**Refrigeration Equipment and Supplies (SIC 5078)**[1]—Establishments primarily engaged in the distribution of refrigeration equipment and supplies. Construction contractors primarily engaged in installing refrigeration equipment from their own stock are classified in industry 1711.

## MACHINERY, EQUIPMENT, AND SUPPLIES (SIC 508)

**Commercial Machines and Equipment (SIC 5081)**[1]—Establishments primarily engaged in wholesaling commercial machines and equipment, such as office, store, and business machines and equipment; commercial food service equipment; and fountain and store fixtures.

**Construction and Mining Machinery and Equipment (SIC 5082)**—Establishments primarily engaged in marketing cranes, excavating machinery and equipment, power shovels, road construction and maintenance machinery, tractor-mounting equipment and other specialized machinery and equipment used in the construction, mining, and logging industries. Establishments engaged in marketing oil well machinery and equipment are classified in industry 5084.

**Farm and Garden Machinery and Equipment (SIC 5083)**[1]—Establishments primarily engaged in marketing agricultural machinery and equipment for use in the preparation and maintenance of the soil, the planting and harvesting of crops, and other operations and processes pertaining to work on the farm or the lawn or garden; and dairy and other livestock equipment.

**Industrial Machinery and Equipment (SIC 5084)**[1]—Establishments primarily engaged in marketing industrial machinery and equipment, such as metal working tools, food industries machinery, oil well and oil refining machinery, industrial

[1] Data for this kind of business are not shown separately but are included in the group total.

trucks and tractors (except over-the-road types), printing machinery, and machinery and equipment for other manufacturing industries.

**Industrial Supplies (SIC 5085)**[1]—Establishments primarily engaged in marketing industrial supplies, such as abrasives and materials, rope and cordage, and mechanical rubber goods; welding supplies; mechanical power transmission supplies, including bearings; industrial valves and fittings; metal containers; industrial leather; and reconditioned barrels and drums.

**Professional Equipment and Supplies (SIC 5086)**—Establishments primarily engaged in the wholesale distribution of mechanical devices and other equipment used by architects, dentists, engineers, physicians, surgeons, veterinarians, optometrists, osteopaths, and other professional groups.

**Surgical, Medical, Hospital Supplies (SIC 5086 pt.)**[1]—Establishments primarily engaged in selling surgical and medical instruments; doctors' apparatus and equipment; orthopedic appliances; artifical limbs; operating room and other hospital equipment, X-ray machines and accessories and other scientific instruments used by physicians and in hospitals.

**Service Establishment Equipment and Supplies (SIC 5087)**[1]—Establishments primarily engaged in the wholesale distribution of equipment and supplies for barber shops, beauty parlors power laundries, dry-cleaning plants, upholsterers, undertakers, and related personal service establishments.

**Transportation Equipment and Supplies, Except Motor Vehicles (SIC 5088)**[1]—Establishments primarily engaged in the wholesale distribution of transportation equipment and supplies. Establishments primarily engaged in the wholesale distribution of motor vehicles and motor vehicle parts are classified in group 501.

### MISCELLANEOUS DURABLE GOODS (SIC 509)[1]

**Scrap and Waste Materials (SIC 5093)**—Establishments primarily engaged in assembling, breaking up, sorting and wholesale distribution of scrap and waste materials. This industry includes auto wreckers engaged in dismantling automobiles for scrap. However, those engaged in dismantling cars for the purpose of selling secondhand parts at retail are classified in industry 5931.

SIC 5093 is subdivided into—

1. *Iron and Steel scrap.*
2. *Waste and secondary materials dealers.*

[1] Data for this kind of business are not shown separately but are included in the group total.

**Jewelry, Watches, Diamonds, and Other Precious Stones (SIC 5094)**[1]—Establishments primarily engaged in the wholesale distribution of jewelry, precious stones and metals, costume jewelry, watches, clocks, silverware, and jewelers' findings.

**Durable Goods, Not Elsewhere Classified (SIC 5099)**[1]—Establishments primarily engaged in the wholesale distribution of durable goods, not elsewhere classified, such as musical instruments and forest products, except lumber.

## NONDURABLE GOODS (SIC Major Group 51)

This major group includes establishments primarily engaged in the wholesale distribution of nondurable goods.

### PAPER AND PAPER PRODUCTS (SIC 511)

**Printing and Writing Paper (SIC 5111)**[1]—Establishments primarily engaged in the wholesale distribution of writing paper, including envelope paper, fine paper, and ground wood, printing, and rotogravure paper.

**Stationery Supplies (SIC 5112)**[1]—Establishments primarily engaged in the wholesale distribution of stationery and office supplies, including envelopes, typewriter and mimeograph paper, file cards and folders, pens, social stationery, and greeting cards.

**Industrial and Personal Service Paper (SIC 5113)**[1]—Establishments primarily engaged in the wholesale distribution of wrapping and other coarse paper, paperboard, cellophane, and converted paper products, such as bags, boxes, dishes, napkins, and shipping supplies.

### DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES (SIC 512)

**Drugs, Drug Proprietaries, and Druggists' Sundries (SIC 5122)**—Establishments primarily engaged in the wholesale distribution of drugs, drug proprietaries, druggists' sundries, and toiletries. Establishments primarily engaged in the wholesale distribution of surgical, dental, and hospital equipment are classified in industry 5086.

SIC 5122 is subdivided into—

1. *General-line drugs*—These are distinguished from specialty-line drug and toiletries wholesalers on the basis of their commodity-line mix. Drug wholesalers were classified as general line if they reported a substantial portion of their sales in "pharmaceuticals, antibiotics, druggists' chemicals, biologicals, botanicals" and "proprietary products, toilet-

ries, druggists' sundries," and if annual sales volume was $1 million or more.

2. *Specialty-line pharmaceuticals, cosmetics, and toiletries.*

## APPAREL, PIECE GOODS, AND NOTIONS (SIC 513)

**Piece Goods (SIC 5133)**[1]—Establishments primarily engaged in the wholesale distribution of woven piece goods or yard goods of natural or manmade fibers. "Converters" who buy goods in the grey, have them finished on contract, and sell at wholesale are included here. This industry does not include establishments primarily engaged in the wholesale distribution of home furnishings, which are classified in industry 5023.

**Notions and Other Dry Goods (SIC 5134)**[1]—Establishments primarily engaged in the wholesale distribution of notions (sewing and hair accessories, etc.), knit goods, and other dry goods, except piece goods.

**Men's and Boys' Clothing and Furnishings (SIC 5136)**[1]—Establishments primarily engaged in the wholesale distribution of men's and boys' apparel and furnishings, sportswear, hosiery, underwear, nightwear, and work clothing.

**Women's Children's, and Infants' Clothing and Accessories (SIC 5137)**[1]—Establishments primarily engaged in the wholesale distribution of women's, children's, and infants' clothing and accessories, including hosiery, lingerie, millinery and millinery supplies, and furs.

**Footwear (SIC 5139)**[1]—Establishments primarily engaged in the wholesale distribution of footwear of leather, rubber, and other materials.

## GROCERIES AND RELATED PRODUCTS (SIC 514)

**Groceries, General-Line (SIC 5141)**—Establishments primarily engaged in the wholesale distribution of a general line of groceries. Establishments primarily engaged in roasting coffee and establishments primarily engaged in blending tea or grinding and packaging spices are classified in major group 20.

SIC 5141 is subdivided into—

1. *Voluntary group wholesalers.*
2. *Retailer cooperative wholesalers.*
3. *Other general-line wholesalers.*

**Frozen Foods (SIC 5142)**[1]—Establishments primarily engaged in the wholesale distribution of packaged quick-frozen vegetables, juices, meats, fish, poultry, pastries, and other "deep freeze" products. Establishments primarily engaged in the wholesale distribution of frozen dairy products are classified in industry 5143. Frozen poultry, fish, and meat which are not packaged are classified in industries 5144, 5146, and 5147, respectively.

**Dairy Products (SIC 5143)**[1]—Establishments primarily engaged in the wholesale distribution of dairy products, such as butter, cheese, ice cream and ices, and fluid milk and cream. This industry does not include establishments primarily engaged in pasteurizing and bottling milk, which are classified in group 202.

**Poultry and Poultry Products (SIC 5144)**—Establishments primarily engaged in the wholesale distribution of poultry and poultry products, except canned and packaged frozen products. This industry does not include establishments primarily engaged in the killing and dressing of poultry, which are classified in industry 2016. Establishments primarily engaged in the wholesale distribution of packaged frozen poultry are classified in industry 5142, and of canned poultry in industry 5149.

**Confectionery (SIC 5145)**—Establishments primarily engaged in the wholesale distribution of confectionery, such as candy, chewing gum, fountain fruits, salted or roasted nuts, popcorn, and fountain syrups; and potato, corn, and similar chips.

**Fish and Seafoods (SIC 5146)**[1]—Establishments primarily engaged in the wholesale distribution (not packaging) of fresh, cured, and frozen fish and seafoods, except canned (industry 5149) or packaged frozen (industry 5142). The preparation, packaging, and freezing of fresh fish and other seafood, and the shucking and packing of fresh oysters in nonsealed containers, are classified in industry 2092.

**Meats and Meat Products (SIC 5147)**—Establishments primarily engaged in the wholesale distribution of fresh, cured, and processed (but not canned) meats and lard. The wholesale distribution of frozen packaged meats is classified in industry 5142 and canned meats in industry 5149.

**Fresh Fruits and Vegetables (SIC 5148)**—Establishments primarily engaged in the wholesale distribution of fresh fruits and vegetables.

**Groceries and Related Products, Not Elsewhere Classified (SIC 5149)**[1]—Establishments primarily engaged in the wholesale distribution of groceries and related products, not elsewhere classified. Establishments primarily engaged in the wholesale distribution of soft drinks, and in bottling and distributing natural spring and mineral waters, are classified in this industry, but establishments primarily engaged in bottling soft drinks are classified in major group 20. This industry does not include farm-product raw materials (group 515), or beer, wine, and distilled alcholic beverages (group 518).

[1] Data for this kind of business are not shown separately but are included in the group total.

## FARM-PRODUCT RAW MATERIALS (SIC 515)

**Cotton (SIC 5152)**[1]—Establishments primarily engaged in buying and/or marketing cotton and cotton linters.

**Grain (SIC 5153)**—Establishments primarily engaged in buying and/or marketing grain (such as corn, wheat, oats, barley, and unpolished rice); dry beans; soybeans, and other inedible beans. Country grain elevators primarily engaged in buying or receiving grain from farmers are included as are terminal elevators and other merchants marketing grain.

**Livestock (SIC 5154)**[1]—Establishments primarily engaged in buying and/or marketing cattle, hogs, sheep, and goats.

**Farm-Product Raw Materials, Not Elsewhere Classified (SIC 5159)**[1]—Establishments primarily engaged in buying and/or marketing farm products not elsewhere classified, such as horses and mules, leaf tobacco, hides, skins, furs, wool, mohair, raw silk, hops, and nuts, except roasted or salted (industry 5145). Establishments primarily engaged in the wholesale distribution of milk are classified in industry 5143 and live poultry in industry 5144.

## CHEMICALS AND ALLIED PRODUCTS (SIC 516)[1]

**Chemicals and Allied Products (SIC 5161)**[1]—Establishments primarily engaged in the wholesale distribution of chemicals and allied products, not elsewhere classified, such as acids, industrial and heavy chemicals, dyestuffs, industrial salts, naval stores, plastics materials, rosin, and turpentine. Establishments primarily engaged in the wholesale distribution of ammunition are classified in industry 5041; agricultural chemicals and pesticides in industry 5191; drugs in industry 5122; and paints and varnishes in industry 5198.

## PETROLEUM AND PETROLEUM PRODUCTS (SIC 517)

**Petroleum Bulk Stations and Terminals (SIC 5171)**—Establishments primarily engaged in wholesaling petroleum products, including liquefied petroleum gas, from bulk liquid storage facilities.

**Petroleum and Petroleum Products Wholesalers, Except Bulk Stations and Terminals (SIC 5172)**[1]—Establishments primarily engaged in wholesaling petroleum and petroleum products, except those with bulk liquid storage facilities. Included are packaged and bottled petroleum products distributors, truck jobbers, and others marketing petroleum and products at wholesale but without bulk liquid storage facilities.

[1] Data for this kind of business are not shown separately but are included in the group total.

## BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES (SIC 518)

**Beer and Ale (SIC 5181)**—Establishments primarily engaged in the wholesale distribution of beer, ale, porter, and other fermented malt beverages.

**Wines and Distilled Alcoholic Beverages (SIC 5182)**—Establishments primarily engaged in the wholesale distribution of distilled spirits, including neutral spirits and ethyl alcohol used in blending wines and distilled liquors.

## MISCELLANEOUS NONDURABLE GOODS (SIC 519)

**Farm Supplies (SIC 5191)**[1]—Establishments primarily engaged in the wholesale distribution of animal feeds, fertilizers, agricultural chemicals, pesticides, seeds, and other farm supplies, except grains.

**Tobacco and Tobacco Products (SIC 5194)**—Establishments primarily engaged in the wholesale distribution of tobacco and tobacco products. Leaf tobacco wholesalers are classified in industry 5159 and establishments primarily engaged in stemming and redrying tobacco in industry 2141.

**Paints, Varnishes, and Supplies (SIC 5198)**[1]—Establishments primarily engaged in the wholesale distribution of paints, varnishes, wallpaper, and supplies, and sometimes glass. Establishments selling to the general public and known as "retail" in the trade are classified in industry 5231.

**Books, Periodicals, Newspapers (SIC 5199 pt.)**[1]—Establishments primarily engaged in the wholesale distribution of books, lithographed matter, magazines, newspapers, and all other forms of reading material.

**Nondurable Goods, Not Elsewhere Classified (SIC 5199 pt.)**[1]—Establishments primarily engaged in the wholesale distribution of nondurable goods, not elswhere classified, such as art goods, flowers and florist supplies, industrial yarn, textile bags, bagging and burlap.

## CHANGES IN WHOLESALE KIND-OF-BUSINESS CLASSIFICATIONS IN 1972 FROM 1967

The wholesale trade kind-of-business structure was expanded from one SIC major group (SIC 50) in 1967 to two major groups in 1972, "durable goods" (SIC 50) and "nondurable goods" (SIC 51). There were 61 four-digit industries in 1972 compared to 48 four-digit industries in 1967.

The definitions of some kinds of business also were changed in 1972. Establishments primarily selling farm supplies and equipment to farmers, and establishments primarily selling

plumbing, heating, and air-conditioning equipment and electrical supplies were classified in wholesale trade rather than retail trade. However, establishments primarily selling lumber and other building materials and paint, glass, and wallpaper were classified in retail trade if they sell to the public, even though sales to contractors account for a larger portion of the total. The change resulted in moving to wholesale trade those establishments primarily selling plumbing, heating, and air-conditioning equipment; electrical supplies; farm equipment; hay, grain, and feed; and other farm supplies. The change also theoretically could have shifted to wholesale trade some establishments primarily selling lumber and paint, glass and wallpaper to contractors, but not to the public.

In addition to the kind-of-business changes noted above the special nonmerchant classifications of farm assemblers and bulk petroleum were eliminated in the 1972 census. These establishments were classified in the appropriate merchant, or sales branch category.

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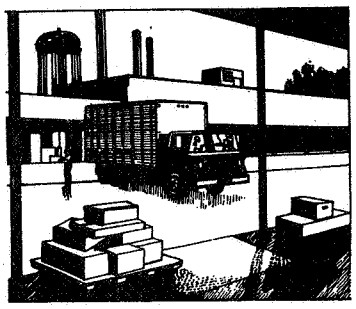
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CURRENT BUSINESS REPORTS

# Monthly Wholesale Trade

## SALES AND INVENTORIES

Issued April 1981

## February 1981

W-81-02

**Sales.** February 1981 sales of merchant wholesalers, after adjustment for seasonal variations and trading-day differences, but not for price changes were $97.6 billion, down 1 percent from the previous month, but up 17 percent from February 1980. Adjusted December-through-February total sales were up 6 percent from the September-through-November period and were 17 percent above the comparable months a year ago.

After adjustment, February sales in the durable goods trades were up 2 percent from the previous month and were up 10 percent from the year-ago level. Nondurable goods sales were down 3 percent from January but were 22 percent above February 1980. Total monthly sales in the durable goods group during the December-through-February period were up 6 percent from the prior 3 months and increased 9 percent from the comparable period a year ago. Three-month total sales for the nondurable goods group increased 5 percent from the September-through-November period and were 24 percent above the same period a year ago.

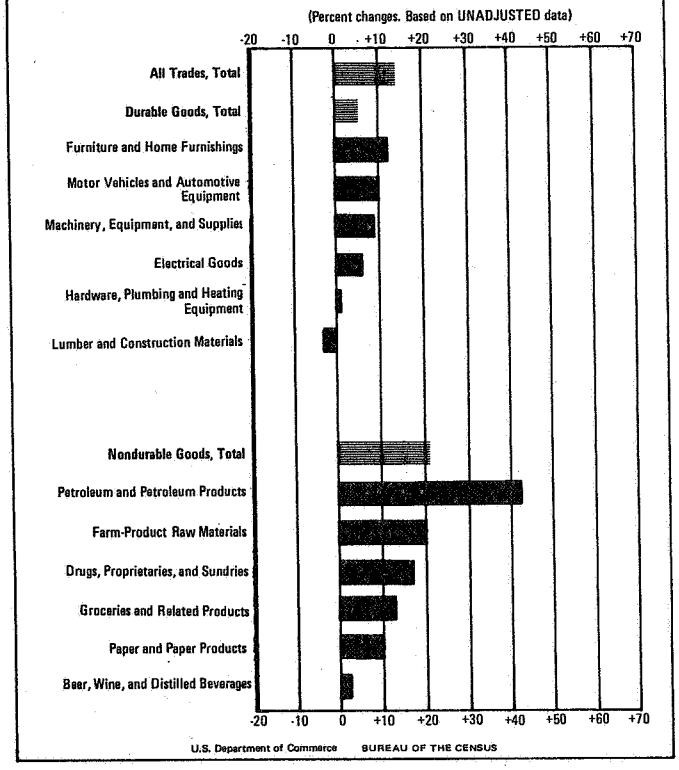
Based on adjusted data, comparisons with previous month sales levels showed the largest increase in sporting goods, toys, and hobby goods (9%). The largest month-to-month decrease was shown in petroleum and petroleum products (-10%). Compared with adjusted sales of a year ago, the sharpest increase was shown in petroleum and petroleum products (40%).

**Inventory.** Total inventories of merchant wholesalers after adjustment for seasonal variations but not for price changes were valued at $106.0 billion at the end of February, up 1 percent from the previous month and up 11 percent from February 1980. Durable goods stocks increased 2 percent from January and were up 11 percent from February 1980. Nondurable goods stocks were virtually unchanged from the previous month and were 10 percent above the year-ago level.

Based on adjusted data, comparisons with previous month inventory levels showed the largest increase in petroleum and petroleum products (7%). The largest decline was noted in farm-products raw materials (-5%). Compared with adjusted year-ago inventories, the sharpest increase was noted in petroleum and petroleum products (22%).

**Stock-Sales Ratios.** The February stock-sales ratio for merchant wholesalers, based on seasonally adjusted data, was 109, up 3 points from January, but down 6 points from February 1980. The stock-sales ratio for durable goods was 167 virtually unchanged from the previous month, but up 2 points from the year-ago ratio. The ratio for nondurable goods was 66, up 2 points from January, but down 8 points from February 1980.

**Percent Change in Sales of Merchant Wholesalers in Selected Kinds of Business**
**2 Months 1981 Compared With 2 Months 1980**




For the sampling errors associated with these data and the use of sampling errors in determining reliability of the estimates please see appendix A.

An advance release of February 1981 data was issued April 10, 1981.

U.S. Department of Commerce
BUREAU OF THE CENSUS

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# Table 1. Estimated Monthly Sales of Merchant Wholesalers by Kind of Business for the United States, Unadjusted: 1981 and 1980

(MILLIONS OF DOLLARS. DATA ARE NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | | 1980 | | | | | | | | | | | TOTAL 2 MONTHS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN. | FEB.[p] | FEB. | MAR. | APR. | MAY | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. | 1981 | 1980 |
| | MERCHANT WHOLESALERS, TOT. | 93,845 | 89,203 | 79,421 | 84,101 | 83,106 | 83,507 | 81,607 | 86,052 | 86,311 | 90,715 | 99,023 | 91,328 | 97,659 | 183,048 | 160,477 |
| | TOTAL (EX FARM-PROD RAW MATLS) | 81,300 | 78,770 | 70,285 | 74,422 | 73,613 | 73,896 | 73,107 | 76,952 | 76,933 | 80,580 | 87,102 | 80,363 | 85,305 | 160,070 | 141,389 |
| 50 | DURABLE GOODS, TOT. | 35,927 | 36,601 | 34,540 | 36,737 | 35,913 | 34,947 | 35,508 | 35,757 | 36,010 | 38,112 | 41,298 | 36,679 | 38,598 | 72,528 | 68,880 |
| 501 | MOTOR VEHICLES & AUTO PARTS & SUPPLIES | 7,085 | 7,209 | 6,597 | 6,759 | 7,045 | 6,700 | 6,716 | 6,867 | 7,026 | 6,449 | 7,638 | 6,621 | 6,816 | 14,294 | 12,992 |
| 5013,4 | AUTO PARTS & SUPPLIES, TIRES & TUBES | 3,079 | 2,990 | 2,646 | 2,842 | 2,873 | 2,813 | 2,929 | 2,946 | 3,028 | 3,117 | 3,451 | 3,012 | 3,053 | 6,069 | 5,352 |
| 5013 | AUTO PARTS & SUPPLIES | 2,639 | 2,589 | 2,271 | 2,394 | 2,443 | 2,387 | 2,454 | 2,459 | 2,543 | 2,581 | 2,889 | 2,530 | 2,576 | 5,228 | 4,558 |
| 502 | FURNITURE & HOME FURNISHINGS | 1,293 | 1,405 | 1,186 | 1,305 | 1,345 | 1,257 | 1,246 | 1,209 | 1,250 | 1,330 | 1,531 | 1,356 | 1,355 | 2,698 | 2,396 |
| 5021 | FURNITURE--HSEHLD & OFFICE[1] | 464 | 466 | 433 | 476 | 482 | 455 | 456 | 446 | 465 | 469 | 499 | 441 | 500 | 930 | 877 |
| 5023 | HOME FURNISHINGS[2] | 829 | 939 | 753 | 829 | 863 | 802 | 790 | 763 | 785 | 861 | 1,032 | 915 | 855 | 1,768 | 1,519 |
| 503 | LUMBER & OTHER CONSTRUCTION MATLS | 2,422 | 2,374 | 2,390 | 2,575 | 2,577 | 2,587 | 2,874 | 2,957 | 2,842 | 3,046 | 3,309 | 2,822 | 2,704 | 4,796 | 4,952 |
| 5031 | LUMBER, PLYWOOD & MILLWORK | 1,567 | 1,541 | 1,625 | 1,699 | 1,641 | 1,640 | 1,807 | 1,846 | 1,787 | 1,930 | 2,054 | 1,786 | 1,720 | 3,108 | 3,336 |
| 5039 | CONSTRUCTION MATLS, N.E.C. | 855 | 833 | 765 | 876 | 936 | 947 | 1,067 | 1,111 | 1,055 | 1,116 | 1,255 | 1,036 | 984 | 1,688 | 1,616 |
| 5051 PT. | FERROUS METALS SERV CTRS & OFFICES | 3,295 | 3,478 | 2,996 | 3,255 | 2,991 | 2,874 | 2,841 | 2,580 | 2,732 | 3,042 | 3,272 | 2,954 | 3,327 | 6,773 | 6,159 |
| 5051 PT. | FERROUS METALS SERV CTRS | 2,543 | 2,694 | 2,241 | 2,465 | 2,290 | 2,128 | 2,154 | 1,956 | 2,078 | 2,286 | 2,491 | 2,271 | 2,510 | 5,237 | 4,626 |
| 506 | ELECTRICAL GOODS | 3,762 | 3,839 | 3,671 | 3,698 | 3,496 | 3,525 | 3,770 | 3,908 | 3,802 | 4,207 | 4,299 | 4,236 | 4,299 | 7,601 | 7,196 |
| 5063 | ELECTRICAL APPARATUS & EQUIP, WIRING SUPPLIES & CONSTRUCTION MATLS[3] | 1,858 | 1,903 | 1,847 | 1,811 | 1,750 | 1,783 | 1,901 | 1,895 | 1,862 | 2,158 | 2,178 | 2,155 | 2,155 | 3,761 | 3,520 |
| 5064,5 | ELECTRICAL APPLIANCES, TV & RADIO SETS, & ELECTRONIC PARTS & EQUIP | 1,904 | 1,936 | 1,824 | 1,887 | 1,746 | 1,742 | 1,869 | 2,013 | 1,940 | 2,049 | 2,121 | 2,081 | 2,144 | 3,840 | 3,676 |
| 5064 | ELECTRICAL APPLIANCES, TV & RADIO SETS[4] | 1,013 | 980 | 915 | 979 | 882 | 869 | 989 | 1,098 | 1,069 | 1,142 | 1,200 | 1,130 | 1,194 | 1,993 | 1,881 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIP, & SUPPLIES | 2,274 | 2,209 | 2,111 | 2,278 | 2,162 | 2,162 | 2,262 | 2,393 | 2,312 | 2,405 | 2,645 | 2,328 | 2,259 | 4,483 | 4,417 |
| 5072 | HARDWARE | 889 | 842 | 822 | 865 | 832 | 823 | 867 | 823 | 832 | 895 | 932 | 859 | 863 | 1,731 | 1,691 |
| 5074 | PLUMBING & HEATING EQUIP & SUPPLIES (HYDRONICS) | 966 | 948 | 898 | 965 | 902 | 878 | 896 | 971 | 960 | 1,035 | 1,181 | 1,011 | 967 | 1,914 | 1,896 |
| 508 | MACHINERY, EQUIP, & SUPPLIES | 10,302 | 10,503 | 9,777 | 10,551 | 10,705 | 10,627 | 10,774 | 10,621 | 10,885 | 11,613 | 11,949 | 10,511 | 11,722 | 20,805 | 19,090 |
| 5082 | CONSTRUCTION & MINING MACHINERY & EQUIP | 1,111 | 1,182 | 1,211 | 1,332 | 1,307 | 1,402 | 1,321 | 1,339 | 1,602 | 1,473 | 1,414 | 1,341 | 1,377 | 2,293 | 2,268 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIP & SUPPLIES | 4,631 | 4,596 | 4,263 | 4,431 | 4,560 | 4,588 | 4,600 | 4,453 | 4,509 | 4,720 | 4,929 | 4,501 | 5,079 | 9,227 | 8,378 |
| 5086 | PROFESSIONAL EQUIP & SUPPLIES | 1,043 | 1,116 | 958 | 999 | 1,066 | 1,087 | 1,104 | 1,120 | 1,149 | 1,200 | 1,217 | 1,107 | 1,208 | 2,159 | 1,925 |
| 5093 | SCRAP & WASTE MATLS | 1,304 | 1,262 | 1,521 | 1,629 | 1,530 | 1,436 | 1,215 | 1,047 | 1,107 | 1,240 | 1,458 | 1,267 | 1,435 | 2,566 | 2,963 |
| 51 | NONDURABLE GOODS, TOT. | 57,918 | 52,602 | 44,881 | 47,364 | 47,193 | 48,560 | 46,099 | 50,295 | 50,301 | 52,603 | 57,725 | 54,649 | 59,061 | 110,520 | 91,597 |
| | TOTAL (EX FARM-PROD RAW MATLS) | 45,373 | 42,169 | 35,745 | 37,685 | 37,700 | 38,949 | 37,599 | 41,195 | 40,923 | 42,468 | 45,804 | 43,684 | 46,707 | 87,542 | 72,509 |
| 511 | PAPER & PAPER PROD | 1,949 | 1,933 | 1,738 | 1,761 | 1,747 | 1,725 | 1,696 | 1,763 | 1,775 | 1,879 | 2,009 | 1,822 | 1,929 | 3,882 | 3,537 |
| 5111,3 | PRINTING, WRITING, IND & PERSONAL SERV PAPER | 1,397 | 1,386 | 1,261 | 1,322 | 1,297 | 1,286 | 1,276 | 1,294 | 1,287 | 1,375 | 1,465 | 1,304 | 1,413 | 2,783 | 2,560 |
| 5111 | PRINTING & WRITING PAPER | 655 | 664 | 659 | 656 | 657 | 638 | 621 | 586 | 576 | 626 | 697 | 582 | 652 | 1,319 | 1,315 |
| 5113 | IND & PERSONAL SERV PAPER[5] | 742 | 722 | 602 | 666 | 640 | 648 | 655 | 708 | 711 | 749 | 768 | 722 | 761 | 1,464 | 1,245 |
| 512 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 1,195 | 1,131 | 958 | 1,019 | 1,019 | 1,026 | 1,034 | 1,090 | 1,074 | 1,159 | 1,313 | 1,134 | 1,197 | 2,326 | 1,986 |
| 5122 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 1,195 | 1,131 | 958 | 1,019 | 1,019 | 1,026 | 1,034 | 1,090 | 1,074 | 1,159 | 1,313 | 1,134 | 1,197 | 2,326 | 1,986 |
| 5122 PT. | GENERAL-LINE DRUGS | 367 | 352 | 324 | 348 | 332 | 341 | 336 | 350 | 341 | 383 | 394 | 349 | 410 | 719 | 652 |
| 513 | APPAREL, PIECE GDS & NOTIONS[6] | 2,019 | 2,270 | 2,027 | 2,103 | 2,022 | 1,777 | 1,953 | 2,318 | 2,445 | 2,541 | 2,486 | 2,141 | 1,921 | 4,289 | 4,083 |
| 514 | GROCERIES & RELATED PROD | 13,270 | 12,405 | 11,011 | 11,807 | 12,030 | 12,353 | 12,173 | 13,154 | 12,592 | 12,915 | 13,815 | 12,741 | 13,640 | 25,675 | 22,669 |
| 5141 | GROCERIES, GENERAL LINE | 4,366 | 4,075 | 3,595 | 3,894 | 3,923 | 4,072 | 3,936 | 4,281 | 4,103 | 4,066 | 4,462 | 4,173 | 4,407 | 8,441 | 7,367 |
| 5144 | POULTRY & POULTRY PROD | 651 | 592 | 550 | 579 | 597 | 589 | 583 | 638 | 652 | 659 | 725 | 670 | 691 | 1,243 | 1,125 |
| 5145 | CONFECTIONERY | 259 | 264 | 216 | 241 | 241 | 242 | 249 | 257 | 263 | 274 | 322 | 283 | 296 | 523 | 445 |
| 5147 | MEATS & MEAT PROD | 1,762 | 1,629 | 1,656 | 1,712 | 1,684 | 1,712 | 1,667 | 1,828 | 1,859 | 1,841 | 2,019 | 1,736 | 1,897 | 3,391 | 3,432 |
| 5148 | FRESH FRUITS & VEGETABLES | 1,232 | 1,161 | 1,039 | 1,155 | 1,254 | 1,343 | 1,337 | 1,354 | 1,206 | 1,217 | 1,258 | 1,200 | 1,258 | 2,393 | 2,070 |
| 515 | FARM PROD RAW MATERIALS | 12,545 | 10,433 | 9,136 | 9,679 | 9,493 | 9,611 | 8,500 | 9,100 | 9,378 | 10,135 | 11,921 | 10,965 | 12,354 | 22,978 | 19,088 |
| 5153 | GRAIN | 10,420 | 8,672 | 7,363 | 7,997 | 7,878 | 7,984 | 6,910 | 7,587 | 7,770 | 8,205 | 9,890 | 8,801 | 9,814 | 19,092 | 15,417 |
| 517 | PETROLEUM & PETROLEUM PROD | 17,548 | 15,402 | 11,419 | 11,238 | 11,138 | 11,610 | 10,823 | 13,275 | 13,530 | 14,007 | 15,657 | 16,626 | 17,185 | 32,950 | 23,101 |
| 5171 | PETROLEUM BULK STATIONS & TERMINALS | 6,165 | 5,422 | 4,360 | 4,256 | 4,062 | 4,129 | 3,937 | 4,246 | 4,306 | 4,752 | 5,446 | 5,546 | 6,249 | 11,587 | 8,892 |
| 518 | BEER, WINE, & DISTILLED ALCOHOLIC BEVERAGES | 2,185 | 2,198 | 2,145 | 2,315 | 2,502 | 2,664 | 2,738 | 3,001 | 2,831 | 2,638 | 2,906 | 2,667 | 3,162 | 4,383 | 4,273 |
| 5181 | BEER & ALE | 1,136 | 1,154 | 1,151 | 1,202 | 1,341 | 1,551 | 1,591 | 1,702 | 1,660 | 1,434 | 1,431 | 1,244 | 1,454 | 2,290 | 2,234 |
| 5182 | WINE & DISTILLED ALCOHOLIC BEVERAGES[7] | 1,049 | 1,044 | 994 | 1,113 | 1,161 | 1,113 | 1,147 | 1,299 | 1,171 | 1,204 | 1,475 | 1,423 | 1,708 | 2,093 | 2,039 |
| 519 | MISC NONDURABLE GOODS | 5,752 | 5,520 | 5,273 | 6,297 | 6,114 | 6,544 | 5,903 | 5,514 | 5,415 | 5,898 | 6,153 | 5,347 | 6,284 | 11,272 | 10,470 |
| 5194 | TOBACCO & TOBACCO PROD | 873 | 816 | 805 | 851 | 902 | 922 | 919 | 1,016 | 942 | 938 | 1,018 | 860 | 953 | 1,689 | 1,677 |

Note: Merchant wholesalers total and group totals include data for some kinds of business not shown separately.

[p]Preliminary estimates. See p. 16, Sample Design and Estimation Procedures.

[1]The furniture--household and office kind of business is subject to a sampling variability of 8 percent for February 1981.
[2]The home furnishings kind of business is subject to a sampling variability of 9 percent for February 1981.
[3]The electrical apparatus and equipment, wiring supplies, and construction materials kind of business is subject to a sampling variability of 8 percent for February 1981.
[4]The electrical appliances, TV and radio sets kind of business is subject to a sampling variability of 11 percent for February 1981.
[5]The industrial and personal service paper kind of business is subject to a sampling variability of 11 percent for February 1981.
[6]The apparel, piece goods, and notions group is subject to a sampling variability of 14 percent for February 1981.
[7]The wine and distilled alcoholic beverages kind of business is subject to a sampling variability of 9 percent for February 1981.

# Table 2. Estimated Monthly Inventories of Merchant Wholesalers by Kind of Business for the United States, Unadjusted: 1981 and 1980

(MILLIONS OF DOLLARS. DATA ARE NOT ADJUSTED FOR SEASONAL VARIATIONS)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | | 1980 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN. | FEB.[P] | FEB. | MAR. | APR. | MAY | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. |
| | MERCHANT WHOLESALERS, TOTAL | 105,446 | 107,167 | 96,956 | 97,808 | 97,467 | 97,480 | 97,785 | 98,387 | 100,205 | 101,310 | 104,277 | 105,866 | 105,449 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 96,142 | 98,508 | 88,611 | 90,177 | 90,998 | 91,846 | 92,451 | 92,382 | 93,682 | 93,901 | 94,861 | 95,869 | 96,235 |
| 50 | DURABLE GOODS, TOTAL | 66,230 | 68,254 | 61,500 | 62,489 | 63,506 | 64,620 | 65,133 | 64,730 | 65,894 | 65,273 | 65,137 | 65,857 | 66,716 |
| 501 | MOTOR VEHICLES & AUTOMOTIVE PARTS & SUPPLIES | 11,373 | 11,479 | 10,820 | 10,761 | 11,130 | 11,215 | 11,292 | 11,326 | 11,206 | 10,984 | 11,246 | 11,253 | 11,615 |
| 5013,4 | AUTOMOTIVE PARTS & SUPPLIES, TIRES & TUBES | 5,667 | 5,553 | 5,582 | 5,568 | 5,649 | 5,797 | 5,739 | 5,565 | 5,716 | 5,750 | 5,659 | 5,775 | 5,813 |
| 5013 | AUTOMOTIVE PARTS & SUPPLIES | 4,613 | 4,492 | 4,499 | 4,450 | 4,518 | 4,660 | 4,550 | 4,530 | 4,688 | 4,703 | 4,628 | 4,703 | 4,730 |
| 502 | FURNITURE & HOME FURNISHINGS | 2,186 | 2,292 | 1,978 | 2,077 | 2,115 | 2,057 | 2,112 | 2,165 | 2,106 | 2,212 | 2,188 | 2,126 | 2,168 |
| 5023 | HOME FURNISHINGS | 1,583 | 1,660 | 1,451 | 1,519 | 1,560 | 1,510 | 1,528 | 1,585 | 1,543 | 1,608 | 1,600 | 1,555 | 1,566 |
| 503 | LUMBER & OTHER CONSTRUCTION MATERIALS | 3,368 | 3,516 | 3,577 | 3,751 | 3,661 | 3,587 | 3,537 | 3,429 | 3,551 | 3,377 | 3,331 | 3,493 | 3,392 |
| 5031 | LUMBER, PLYWOOD, AND MILLWORK[1] | 2,211 | 2,312 | 2,371 | 2,427 | 2,395 | 2,370 | 2,258 | 2,207 | 2,324 | 2,172 | 2,168 | 2,268 | 2,206 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS & OFFICES | 5,519 | 5,685 | 4,987 | 5,073 | 4,946 | 5,390 | 5,341 | 5,044 | 5,369 | 5,297 | 5,074 | 5,420 | 5,721 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | 4,346 | 4,470 | 3,977 | 4,111 | 3,935 | 4,342 | 4,359 | 4,053 | 4,334 | 4,242 | 3,999 | 4,323 | 4,532 |
| 506 | ELECTRICAL GOODS | 6,462 | 6,684 | 6,057 | 6,004 | 6,243 | 6,433 | 6,444 | 6,578 | 6,659 | 6,643 | 6,720 | 6,560 | 6,611 |
| 5063 | ELECTRICAL APPARATUS & EQUIPMENT, WIRING SUPPLIES, & CONSTRUCTION MATERIALS | 2,787 | 2,880 | 2,796 | 2,733 | 2,784 | 2,890 | 2,796 | 2,820 | 2,888 | 2,890 | 2,889 | 2,875 | 2,881 |
| 5064,5 | ELECTRICAL APPLIANCES, TV & RADIO SETS, & ELECTRONIC PARTS & EQUIPMENT | 3,675 | 3,804 | 3,261 | 3,271 | 3,459 | 3,543 | 3,648 | 3,758 | 3,771 | 3,753 | 3,831 | 3,685 | 3,730 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT & SUPPLIES | 4,764 | 4,986 | 4,651 | 4,755 | 4,846 | 4,720 | 4,648 | 4,576 | 4,557 | 4,525 | 4,584 | 4,482 | 4,632 |
| 5072 | HARDWARE[2] | 1,925 | 2,021 | 1,809 | 1,863 | 1,844 | 1,794 | 1,773 | 1,749 | 1,824 | 1,853 | 1,842 | 1,806 | 1,885 |
| 5074 | PLUMBING & HEATING EQUIPMENT & SUPPLIES (HYDRONICS) | 1,866 | 1,916 | 1,830 | 1,869 | 1,978 | 1,941 | 1,888 | 1,899 | 1,840 | 1,767 | 1,819 | 1,770 | 1,788 |
| 508 | MACHINERY, EQUIPMENT, & SUPPLIES | 23,570 | 24,242 | 21,728 | 22,327 | 22,364 | 22,833 | 23,162 | 22,825 | 23,260 | 23,261 | 22,878 | 23,542 | 23,811 |
| 5082 | CONSTRUCTION & MINING MACHINERY & EQUIPMENT | 4,185 | 4,242 | 4,513 | 4,563 | 4,606 | 4,750 | 4,752 | 4,489 | 4,503 | 4,310 | 4,255 | 4,299 | 4,242 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, & SUPPLIES | 7,108 | 7,205 | 6,664 | 7,005 | 6,907 | 6,977 | 7,027 | 6,897 | 7,015 | 7,113 | 6,891 | 7,103 | 7,300 |
| 51 | NONDURABLE GOODS, TOTAL | 39,216 | 38,913 | 35,456 | 35,319 | 33,961 | 32,860 | 32,652 | 33,657 | 34,311 | 36,037 | 39,140 | 40,009 | 38,733 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 29,912 | 30,254 | 27,111 | 27,688 | 27,492 | 27,226 | 27,318 | 27,652 | 27,788 | 28,628 | 29,724 | 30,012 | 29,519 |
| 511 | PAPER & PAPER PRODUCTS | 1,847 | 1,859 | 1,671 | 1,717 | 1,744 | 1,752 | 1,777 | 1,741 | 1,712 | 1,750 | 1,773 | 1,820 | 1,849 |
| 5111,3 | PRINTING, WRITING, INDUSTRIAL, & PERSONAL SERVICE PAPER | 1,242 | 1,245 | 1,127 | 1,168 | 1,183 | 1,177 | 1,222 | 1,182 | 1,150 | 1,189 | 1,202 | 1,215 | 1,248 |
| 5111 | PRINTING & WRITING PAPER | 546 | 553 | 492 | 512 | 513 | 505 | 530 | 500 | 484 | 492 | 501 | 516 | 546 |
| 5113 | INDUSTRIAL & PERSONAL SERVICE PAPER[3] | 696 | 692 | 635 | 656 | 670 | 672 | 692 | 682 | 666 | 697 | 701 | 699 | 702 |
| 512 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 1,586 | 1,594 | 1,406 | 1,457 | 1,471 | 1,451 | 1,438 | 1,467 | 1,483 | 1,562 | 1,716 | 1,624 | 1,570 |
| 514 | GROCERIES & RELATED PRODUCTS | 7,837 | 7,936 | 6,926 | 7,098 | 7,058 | 6,854 | 7,076 | 6,916 | 6,810 | 7,284 | 7,711 | 7,729 | 7,978 |
| 5141 | GROCERIES, GENERAL-LINE | 2,796 | [r]2,912 | 2,548 | 2,637 | 2,606 | 2,535 | 2,548 | 2,614 | 2,572 | 2,760 | 2,979 | 2,891 | 2,895 |
| 517 | PETROLEUM & PETROLEUM PRODUCTS | 4,972 | 5,156 | 4,230 | 4,191 | 4,097 | 4,368 | 4,482 | 4,638 | 4,792 | 4,952 | 5,176 | 5,234 | 4,992 |
| 518 | BEER, WINE, & DISTILLED ALCOHOLIC BEVERAGES | 2,777 | 2,768 | 2,608 | 2,819 | 2,910 | 2,861 | 2,882 | 2,874 | 2,842 | 2,963 | 3,134 | 3,158 | 2,722 |
| 5181 | BEER & ALE | 1,015 | 1,053 | 970 | 1,173 | 1,229 | 1,206 | 1,203 | 1,148 | 1,084 | 1,134 | 1,115 | 1,156 | 1,018 |
| 5182 | WINE & DISTILLED ALCOHOLIC BEVERAGES | 1,762 | 1,715 | 1,638 | 1,646 | 1,681 | 1,655 | 1,679 | 1,726 | 1,758 | 1,829 | 2,019 | 2,002 | 1,704 |

Note: Merchant wholesalers total and group totals include data for some kinds of business not shown separately.

[P]Preliminary estimate. See p. 16, Sample Design and Estimation Procedures. [r]Revised.

[1]The lumber, plywood, and millwork kind of business is subject to a sampling variability of 8 percent for February 1981.
[2]The hardware kind of business is subject to a sampling variability of 8 percent for February 1981.
[3]The industrial and personal service paper kind of business is subject to a sampling variability of 12 percent for February 1981.

## Table 3. Stock-Sales Ratios of Merchant Wholesalers by Kind of Business for the United States, Unadjusted: 1981 and 1980

(Percent. Data are NOT ADJUSTED for seasonal variations or trading-day differences)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | | 1980 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN. | FEB.[P] | FEB. | MAR. | APR. | MAY | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. |
| | MERCHANT WHOLESALERS, TOTAL | 112 | 120 | 122 | 116 | 117 | 117 | 120 | 114 | 116 | 112 | 105 | 116 | 108 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 118 | 125 | 126 | 121 | 124 | 124 | 126 | 120 | 122 | 117 | 109 | 119 | 113 |
| 50 | DURABLE GOODS, TOTAL | 184 | 186 | 178 | 170 | 177 | 185 | 183 | 181 | 183 | 171 | 158 | 180 | 173 |
| 501 | MOTOR VEHICLES & AUTOMOTIVE PARTS & SUPPLIES | 161 | 159 | 164 | 159 | 158 | 167 | 168 | 165 | 159 | 170 | 147 | 170 | 170 |
| 5013,4 | AUTOMOTIVE PARTS & SUPPLIES, TIRES & TUBES | 184 | 186 | 211 | 196 | 197 | 206 | 196 | 189 | 189 | 184 | 164 | 192 | 190 |
| 5013 | AUTOMOTIVE PARTS & SUPPLIES | 175 | 174 | 198 | 186 | 185 | 195 | 185 | 184 | 184 | 182 | 160 | 186 | 184 |
| 502 | FURNITURE & HOME FURNISHINGS | 169 | 163 | 167 | 159 | 157 | 164 | 170 | 179 | 168 | 166 | 143 | 157 | 160 |
| 5023 | HOME FURNISHINGS | 191 | 177 | 193 | 183 | 181 | 188 | 193 | 208 | 197 | 187 | 155 | 170 | 183 |
| 503 | LUMBER & OTHER CONSTRUCTION MATERIALS | 139 | 148 | 150 | 146 | 142 | 139 | 123 | 116 | 125 | 111 | 101 | 124 | 125 |
| 5031 | LUMBER, PLYWOOD, AND MILLWORK | 141 | 150 | 146 | 143 | 146 | 145 | 125 | 120 | 130 | 113 | 106 | 127 | 128 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS & OFFICES | 167 | 163 | 166 | 156 | 165 | 188 | 188 | 196 | 197 | 174 | 155 | 183 | 172 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | 171 | 166 | 177 | 167 | 172 | 204 | 202 | 207 | 209 | 186 | 161 | 190 | 181 |
| 506 | ELECTRICAL GOODS | 172 | 174 | 165 | 162 | 179 | 182 | 171 | 168 | 175 | 158 | 156 | 155 | 154 |
| 5063 | ELECTRICAL APPARATUS & EQUIPMENT, WIRING SUPPLIES, & CONSTRUCTION MATERIALS | 150 | 151 | 151 | 151 | 159 | 162 | 147 | 149 | 155 | 134 | 133 | 133 | 134 |
| 5064,5 | ELECTRICAL APPLIANCES, TV & RADIO SETS, & ELECTRONIC PARTS & EQUIPMENT | 193 | 196 | 179 | 173 | 198 | 203 | 195 | 187 | 194 | 183 | 181 | 177 | 174 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT & SUPPLIES | 209 | 226 | 220 | 209 | 224 | 218 | 205 | 191 | 197 | 188 | 173 | 193 | 205 |
| 5072 | HARDWARE | 217 | 240 | 220 | 215 | 222 | 218 | 204 | 213 | 219 | 207 | 198 | 210 | 218 |
| 5074 | PLUMBING & HEATING EQUIPMENT & SUPPLIES (HYDRONICS) | 193 | 202 | 204 | 194 | 219 | 221 | 211 | 196 | 192 | 171 | 154 | 175 | 185 |
| 508 | MACHINERY, EQUIPMENT, & SUPPLIES | 229 | 231 | 222 | 212 | 209 | 215 | 215 | 215 | 214 | 200 | 191 | 224 | 203 |
| 5082 | CONSTRUCTION & MINING MACHINERY & EQUIPMENT | 377 | 359 | 373 | 343 | 352 | 339 | 360 | 335 | 281 | 293 | 301 | 321 | 308 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, & SUPPLIES | 153 | 157 | 156 | 158 | 151 | 152 | 153 | 155 | 156 | 151 | 140 | 158 | 144 |
| 51 | NONDURABLE GOODS, TOTAL | 68 | 74 | 79 | 75 | 72 | 68 | 71 | 67 | 68 | 69 | 68 | 73 | 66 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 66 | 72 | 76 | 73 | 73 | 70 | 73 | 67 | 68 | 67 | 65 | 69 | 63 |
| 511 | PAPER & PAPER PRODUCTS | 95 | 96 | 96 | 98 | 100 | 102 | 105 | 99 | 96 | 93 | 88 | 100 | 96 |
| 5111,3 | PRINTING, WRITING, INDUSTRIAL, & PERSONAL SERVICE PAPER | 89 | 90 | 89 | 88 | 91 | 92 | 96 | 91 | 89 | 86 | 82 | 93 | 88 |
| 5111 | PRINTING & WRITING PAPER | 83 | 83 | 75 | 78 | 78 | 79 | 85 | 85 | 84 | 79 | 72 | 89 | 84 |
| 5113 | INDUSTRIAL & PERSONAL SERVICE PAPER | 94 | 96 | 105 | 98 | 105 | 104 | 106 | 96 | 94 | 93 | 91 | 97 | 92 |
| 512 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 133 | 141 | 147 | 143 | 144 | 141 | 139 | 135 | 138 | 135 | 131 | 143 | 131 |
| 514 | GROCERIES & RELATED PRODUCTS | 59 | 64 | 63 | 60 | 59 | 55 | 58 | 53 | 54 | 56 | 56 | 61 | 58 |
| 5141 | GROCERIES, GENERAL-LINE | 64 | [r]71 | 71 | 68 | 66 | 62 | 65 | 61 | 63 | 68 | 67 | 69 | 66 |
| 517 | PETROLEUM & PETROLEUM PRODUCTS | 28 | 33 | 37 | 37 | 37 | 38 | 41 | 35 | 35 | 35 | 33 | 31 | 29 |
| 518 | BEER, WINE, & DISTILLED ALCOHOLIC BEVERAGES | 127 | 126 | 122 | 122 | 116 | 107 | 105 | 96 | 100 | 112 | 108 | 118 | 86 |
| 5181 | BEER & ALE | 89 | 91 | 84 | 98 | 92 | 78 | 76 | 67 | 65 | 79 | 78 | 93 | 70 |
| 5182 | WINE & DISTILLED ALCOHOLIC BEVERAGES | 168 | 164 | 165 | 148 | 145 | 149 | 146 | 133 | 150 | 152 | 137 | 141 | 100 |

Note: Merchant wholesalers total and group totals include data for some kinds of business not shown separately.

[r]Revised. [P]Preliminary estimate. See p. 16, Sample Design and Estimation Procedures.

# Table 4A. Estimated Monthly Sales, Inventories, and Stock-Sales Ratios of Merchant Wholesalers by Kind of Business for the United States, Adjusted: 1981 and 1980

(SALES AND INVENTORIES IN MILLIONS OF DOLLARS, STOCK-SALES RATIOS IN PERCENT)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | | 1980 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN. | FEB.[P] | FEB. | MAR. | APR. | MAY | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. |
| | | SALES ADJUSTED FOR SEASONAL VARIATIONS AND TRADING-DAY DIFFERENCES | | | | | | | | | | | | |
| | MERCHANT WHOLESALERS, TOTAL | 98,967 | 97,559 | 83,606 | 82,616 | 81,245 | 80,471 | 81,714 | 85,810 | 86,889 | 90,223 | 93,282 | 93,901 | 96,591 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 86,583 | 86,044 | 74,158 | 73,182 | 71,929 | 71,274 | 72,642 | 76,351 | 76,783 | 79,666 | 82,335 | 83,162 | 85,013 |
| 50 | DURABLE GOODS, TOTAL | 40,370 | 41,008 | 37,298 | 35,896 | 34,561 | 33,688 | 34,793 | 35,196 | 35,353 | 36,937 | 38,110 | 38,799 | 39,403 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | 7,668 | 7,887 | 6,996 | 6,456 | 6,307 | 6,198 | 6,610 | 6,693 | 7,019 | 6,920 | 7,302 | 7,212 | 7,145 |
| 502 | FURNITURE AND HOME FURNISHINGS | 1,486 | 1,570 | 1,275 | 1,286 | 1,301 | 1,265 | 1,254 | 1,250 | 1,261 | 1,281 | 1,321 | 1,331 | 1,344 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | 3,043 | 3,001 | 2,869 | 2,763 | 2,585 | 2,469 | 2,673 | 2,688 | 2,542 | 2,729 | 2,853 | 2,999 | 3,001 |
| 506 | ELECTRICAL GOODS | 4,256 | 4,318 | 4,061 | 3,735 | 3,661 | 3,579 | 3,696 | 3,798 | 3,735 | 3,976 | 3,912 | 4,178 | 4,094 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | 2,513 | 2,581 | 2,402 | 2,368 | 2,097 | 2,067 | 2,173 | 2,222 | 2,238 | 2,349 | 2,370 | 2,428 | 2,411 |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | 11,641 | 11,814 | 10,570 | 10,304 | 10,205 | 9,950 | 10,420 | 10,526 | 10,842 | 11,071 | 11,136 | 11,500 | 11,888 |
| 51 | NONDURABLE GOODS, TOTAL | 58,597 | 56,551 | 46,308 | 46,720 | 46,684 | 46,783 | 46,921 | 50,614 | 51,536 | 53,286 | 55,172 | 55,102 | 57,188 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 46,213 | 45,036 | 36,860 | 37,286 | 37,368 | 37,586 | 37,849 | 41,155 | 41,430 | 42,729 | 44,225 | 44,363 | 45,610 |
| 511 | PAPER AND PAPER PRODUCTS | 1,989 | 2,059 | 1,786 | 1,744 | 1,731 | 1,711 | 1,727 | 1,752 | 1,782 | 1,849 | 1,864 | 1,920 | 1,917 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | 1,255 | 1,252 | 1,028 | 1,021 | 1,003 | 1,035 | 1,058 | 1,070 | 1,095 | 1,123 | 1,169 | 1,178 | 1,174 |
| 513 | APPAREL, PIECE GOODS, AND NOTIONS | 2,192 | 2,465 | 2,145 | 2,095 | 2,082 | 1,911 | 2,151 | 2,242 | 2,221 | 2,239 | 2,185 | 2,156 | 2,057 |
| 514 | GROCERIES AND RELATED PRODUCTS | 13,541 | 13,602 | 11,615 | 11,772 | 11,771 | 11,832 | 12,284 | 12,721 | 12,706 | 12,993 | 13,245 | 13,135 | 13,492 |
| 515 | FARM-PRODUCT RAW MATERIALS[1] | 12,384 | 11,515 | 9,448 | 9,434 | 9,316 | 9,197 | 9,072 | 9,459 | 10,106 | 10,557 | 10,947 | 10,739 | 11,578 |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | 16,938 | 15,310 | 10,959 | 11,283 | 11,435 | 11,645 | 11,204 | 13,560 | 13,863 | 14,456 | 15,487 | 16,220 | 16,461 |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | 2,681 | 2,710 | 2,500 | 2,452 | 2,515 | 2,574 | 2,568 | 2,823 | 2,738 | 2,673 | 2,729 | 2,727 | 2,686 |
| 519 | MISCELLANEOUS NONDURABLE GOODS | 6,061 | 6,154 | 5,562 | 5,766 | 5,672 | 5,685 | 5,633 | 5,804 | 5,804 | 5,946 | 6,221 | 5,831 | 6,498 |
| | | INVENTORIES ADJUSTED FOR SEASONAL VARIATIONS | | | | | | | | | | | | |
| | MERCHANT WHOLESALERS, TOTAL | 104,909 | 106,017 | 95,813 | 95,594 | 96,654 | 97,351 | 98,328 | 99,618 | 101,920 | 102,953 | 104,293 | 105,203 | 105,529 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 97,117 | 98,629 | 88,687 | 88,953 | 90,287 | 90,860 | 91,855 | 92,007 | 93,694 | 94,216 | 95,187 | 96,607 | 97,558 |
| 50 | DURABLE GOODS, TOTAL | 67,319 | 68,472 | 61,680 | 61,878 | 62,996 | 63,553 | 64,025 | 63,938 | 65,387 | 65,461 | 65,951 | 66,955 | 67,938 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | 11,216 | 10,974 | 10,364 | 10,488 | 11,031 | 11,038 | 11,281 | 11,394 | 11,517 | 11,514 | 11,464 | 11,378 | 11,603 |
| 502 | FURNITURE AND HOME FURNISHINGS | 2,228 | 2,336 | 2,016 | 2,058 | 2,117 | 2,049 | 2,052 | 2,131 | 2,100 | 2,160 | 2,175 | 2,163 | 2,237 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | 3,451 | 3,548 | 3,609 | 3,631 | 3,561 | 3,489 | 3,454 | 3,349 | 3,540 | 3,415 | 3,396 | 3,635 | 3,501 |
| 506 | ELECTRICAL GOODS | 6,710 | 6,992 | 6,336 | 6,120 | 6,287 | 6,313 | 6,311 | 6,443 | 6,503 | 6,538 | 6,614 | 6,553 | 6,651 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | 4,881 | 4,981 | 4,656 | 4,635 | 4,598 | 4,543 | 4,508 | 4,491 | 4,589 | 4,636 | 4,682 | 4,713 | 4,835 |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | 24,076 | 24,266 | 21,750 | 21,975 | 22,165 | 22,518 | 22,686 | 22,689 | 23,075 | 23,122 | 23,321 | 23,925 | 24,272 |
| 51 | NONDURABLE GOODS, TOTAL | 37,590 | 37,545 | 34,133 | 33,716 | 33,658 | 33,798 | 34,303 | 35,680 | 36,533 | 37,492 | 38,342 | 38,248 | 37,591 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 29,798 | 30,157 | 27,007 | 27,075 | 27,291 | 27,307 | 27,830 | 28,069 | 28,307 | 28,755 | 29,236 | 29,652 | 29,620 |
| 511 | PAPER AND PAPER PRODUCTS | 1,902 | 1,889 | 1,698 | 1,724 | 1,728 | 1,745 | 1,732 | 1,739 | 1,731 | 1,731 | 1,771 | 1,815 | 1,833 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | 1,645 | 1,662 | 1,463 | 1,453 | 1,452 | 1,461 | 1,432 | 1,461 | 1,484 | 1,519 | 1,630 | 1,610 | 1,612 |
| 514 | GROCERIES AND RELATED PRODUCTS | 7,948 | 7,944 | 6,933 | 6,986 | 7,016 | 6,916 | 7,083 | 7,036 | 7,013 | 7,262 | 7,494 | 7,660 | 7,868 |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | 4,855 | 5,203 | 4,268 | 4,187 | 4,295 | 4,466 | 4,728 | 4,737 | 4,797 | 4,836 | 4,982 | 5,018 | 4,904 |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | 2,851 | 2,932 | 2,757 | 2,788 | 2,782 | 2,770 | 2,814 | 2,851 | 2,942 | 2,984 | 3,011 | 3,054 | 2,924 |
| | | STOCK-SALES RATIOS BASED ON ADJUSTED DATA | | | | | | | | | | | | |
| | MERCHANT WHOLESALERS, TOTAL | 106 | 109 | 115 | 116 | 119 | 121 | 120 | 116 | 117 | 114 | 112 | 112 | 109 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 112 | 115 | 120 | 122 | 126 | 127 | 126 | 121 | 122 | 118 | 116 | 116 | 115 |
| 50 | DURABLE GOODS, TOTAL | 167 | 167 | 165 | 172 | 182 | 189 | 184 | 182 | 185 | 177 | 173 | 173 | 172 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | 146 | 139 | 148 | 162 | 175 | 178 | 171 | 170 | 164 | 166 | 157 | 158 | 162 |
| 502 | FURNITURE AND HOME FURNISHINGS | 150 | 149 | 158 | 160 | 163 | 162 | 164 | 170 | 167 | 169 | 165 | 163 | 166 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | 113 | 118 | 126 | 131 | 138 | 141 | 129 | 125 | 139 | 125 | 119 | 121 | 117 |
| 506 | ELECTRICAL GOODS | 158 | 162 | 156 | 164 | 172 | 176 | 171 | 170 | 174 | 164 | 169 | 157 | 162 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | 194 | 193 | 194 | 196 | 219 | 220 | 207 | 202 | 205 | 197 | 198 | 194 | 201 |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | 207 | 205 | 206 | 213 | 217 | 226 | 218 | 216 | 213 | 209 | 209 | 208 | 204 |
| 51 | NONDURABLE GOODS, TOTAL | 64 | 66 | 74 | 72 | 72 | 72 | 73 | 70 | 71 | 70 | 69 | 69 | 66 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 64 | 67 | 73 | 73 | 73 | 73 | 74 | 68 | 68 | 67 | 66 | 67 | 65 |
| 511 | PAPER AND PAPER PRODUCTS | 96 | 92 | 95 | 99 | 100 | 102 | 100 | 99 | 97 | 94 | 95 | 95 | 96 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | 131 | 133 | 142 | 142 | 145 | 141 | 135 | 137 | 136 | 135 | 139 | 137 | 137 |
| 514 | GROCERIES AND RELATED PRODUCTS | 59 | 58 | 60 | 59 | 60 | 58 | 58 | 55 | 55 | 56 | 57 | 58 | 58 |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | 29 | 34 | 39 | 37 | 38 | 38 | 42 | 35 | 35 | 33 | 32 | 31 | 30 |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | 106 | 108 | 110 | 114 | 111 | 108 | 110 | 101 | 107 | 112 | 110 | 112 | 109 |

Note: Merchant wholesalers total and group totals include data for some kinds of business not shown separately.

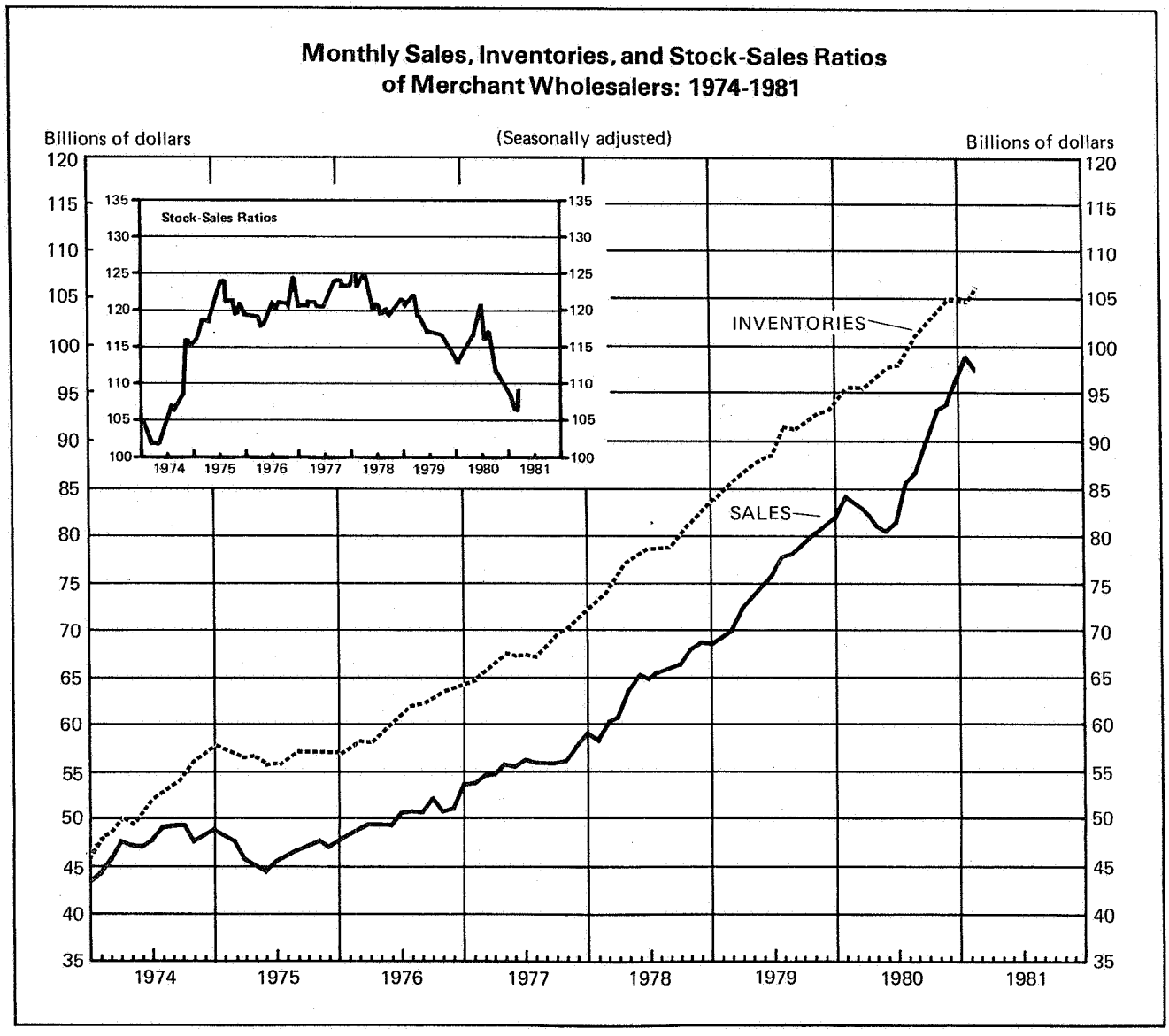
[P] Preliminary estimates. See p. 16, Sample Design and Estimation Procedures.

[1] There are indications that the seasonal adjustment factors for the farm-product raw materials category may not reflect recent trends in this trade. The seasonally adjusted data for this category and also for the merchant wholesale and nondurable goods totals should, therefore, be used with caution.

## Table 4B. Percent Change Between Selected 3-Month Periods Sales of Merchant Wholesalers, United States

(Based on seasonally-adjusted data)

| Item | 3 month period, December 1980-February 1981 from-- | | | |
|---|---|---|---|---|
| | Sep. 1980-Nov. 1980 (3 months ago) | June 1980-Aug. 1980 (6 months ago) | Mar. 1980-May 1980 (9 months ago) | Dec. 1979-Feb. 1980 (12 months ago) |
| Merchant wholesalers, total..... | +6 | +15 | +20 | +17 |
| Durable goods, total..... | +6 | +15 | +16 | +9 |
| Nondurable goods, total... | +5 | +16 | +23 | +24 |



# Table 5. Percent Changes in Sales and Inventories of Merchant Wholesalers by Kind of Business for the United States: February 1981

| 1972 SIC CODE | KIND OF BUSINESS | UNADJUSTED | | | | | ADJUSTED[1] | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | SALES | | | INVENTORIES, END-OF-MONTH (AT COST) | | SALES | | INVENTORIES, END-OF-MONTH (AT COST) | |
| | | FEB. 1981 FROM JAN. 1981 | FEB. 1981 FROM FEB. 1980 | 2 MONTHS 1981 FROM 2 MONTHS 1980 | FEB. 1981 FROM JAN. 1981 | FEB. 1981 FROM FEB. 1980 | FEB. 1981 FROM JAN. 1981 | FEB. 1981 FROM FEB. 1980 | FEB. 1981 FROM JAN. 1981 | FEB. 1981 FROM FEB. 1980 |
| | MERCHANT WHOLESALERS, TOTAL | -5 | +12 | +14 | +2 | +11 | -1 | +17 | +1 | +11 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | -3 | +12 | +13 | +2 | +11 | -1 | +16 | +2 | +11 |
| 50 | DURABLE GOODS, TOTAL | +2 | +6 | +5 | +3 | +11 | +2 | +10 | +2 | +11 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | +2 | +9 | +10 | +1 | +6 | +3 | +13 | -2 | +6 |
| 5012 | AUTOMOBILES AND OTHER MOTOR VEHICLES | +5 | +7 | +8 | +4 | +13 | (*) | (*) | (*) | (*) |
| 5013,4 | AUTOMOTIVE PARTS AND SUPPLIES, TIRES AND TUBES | -3 | +13 | +13 | -2 | -1 | (*) | (*) | (*) | (*) |
| 5013 | AUTOMOTIVE PARTS AND SUPPLIES | -2 | +14 | +15 | -3 | 0 | (*) | (*) | (*) | (*) |
| 502 | FURNITURE AND HOME FURNISHINGS | +9 | +18 | +13 | +5 | +16 | +6 | +23 | +5 | +16 |
| 5021 | FURNITURE--HOUSEHOLD AND OFFICE | 0 | +8 | +6 | +5 | +20 | (*) | (*) | (*) | (*) |
| 5021 PT. | HOUSEHOLD FURNITURE[3] | +1 | -11 | -12 | +10 | +21 | (*) | (*) | (*) | (*) |
| 5021 PT. | OFFICE FURNITURE | 0 | +16 | +14 | +2 | +19 | (*) | (*) | (*) | (*) |
| 5023 | HOME FURNISHINGS | +13 | +25 | +16 | +5 | +14 | (*) | (*) | (*) | (*) |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | -2 | -1 | -3 | +4 | -2 | -1 | +5 | +3 | -2 |
| 5031 | LUMBER, PLYWOOD, AND MILLWORK | -2 | -5 | -7 | +5 | -2 | (*) | (*) | (*) | (*) |
| 5039 | CONSTRUCTION MATERIALS, N.E.C. | -3 | +9 | +4 | +4 | 0 | (*) | (*) | (*) | (*) |
| 504 | SPORTING, RECREATIONAL, PHOTOGRAPHIC, AND HOBBY GOODS, TOYS AND SUPPLIES | +13 | +9 | +6 | +6 | -1 | +9 | +13 | +1 | -1 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS AND OFFICES | +6 | +16 | +10 | +3 | +14 | (*) | (*) | (*) | (*) |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | +6 | +20 | +13 | +3 | +12 | (*) | (*) | (*) | (*) |
| 506 | ELECTRICAL GOODS | +2 | +5 | +6 | +3 | +10 | +1 | +6 | +4 | +10 |
| 5063 | ELECTRICAL APPARATUS AND EQUIPMENT, WIRING SUPPLIES, AND CONSTRUCTION MATERIALS | +2 | +3 | +7 | +3 | +3 | (*) | (*) | (*) | (*) |
| 5064,5 | ELECTRICAL APPLIANCES, TV AND RADIO SETS, AND ELECTRONIC PARTS AND EQUIPMENT | +2 | +6 | +4 | +4 | +17 | (*) | (*) | (*) | (*) |
| 5064 | ELECTRICAL APPLIANCES, TV AND RADIO SETS | -3 | +7 | +6 | +5 | +10 | (*) | (*) | (*) | (*) |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | -3 | +5 | +1 | +5 | +7 | +3 | +7 | +2 | +7 |
| 5072 | HARDWARE | -5 | +2 | +2 | +5 | +12 | (*) | (*) | (*) | (*) |
| 5074 | PLUMBING AND HEATING EQUIPMENT AND SUPPLIES (HYDRONICS) | -2 | +6 | +1 | +3 | +5 | (*) | (*) | (*) | (*) |
| 5075 | WARM AIR HEATING AND AIR CONDITIONING EQUIPMENT AND SUPPLIES | -1 | +9 | 0 | +8 | +6 | (*) | (*) | (*) | (*) |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | +2 | +7 | +9 | +3 | +12 | +1 | +12 | +1 | +12 |
| 5081 | COMMERCIAL MACHINES AND EQUIPMENT | -10 | +11 | +17 | -1 | +14 | (*) | (*) | (*) | (*) |
| 5082 | CONSTRUCTION AND MINING MACHINERY AND EQUIPMENT | +6 | -2 | +1 | +1 | -6 | (*) | (*) | (*) | (*) |
| 5083 | FARM AND GARDEN MACHINERY AND EQUIPMENT | +15 | +2 | 0 | +3 | +25 | (*) | (*) | (*) | (*) |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, AND SUPPLIES | -1 | +8 | +10 | +1 | +8 | (*) | (*) | (*) | (*) |
| 5086 | PROFESSIONAL EQUIPMENT AND SUPPLIES | +7 | +16 | +12 | +12 | +20 | (*) | (*) | (*) | (*) |
| 5093 | SCRAP AND WASTE MATERIALS | -3 | -17 | -13 | +2 | +13 | (*) | (*) | (*) | (*) |
| 5093 PT. | IRON AND STEEL SCRAP | -5 | -14 | -9 | +2 | +15 | (*) | (*) | (*) | (*) |
| 5093 PT. | WASTE MATERIALS[4] | 0 | -21 | -19 | +1 | +9 | (*) | (*) | (*) | (*) |
| 51 | NONDURABLE GOODS, TOTAL | -9 | +17 | +21 | -1 | +10 | -3 | +22 | 0 | +10 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | -7 | +18 | +21 | +1 | +12 | -3 | +22 | +1 | +12 |
| 511 | PAPER AND PAPER PRODUCTS | -1 | +11 | +10 | +1 | +11 | +4 | +15 | -1 | +11 |
| 5111,3 | PRINTING, WRITING, INDUSTRIAL, AND PERSONAL SERVICE PAPER | -1 | +10 | +9 | 0 | +10 | (*) | (*) | (*) | (*) |
| 5111 | PRINTING, AND WRITING PAPER | +1 | +1 | 0 | +1 | +12 | (*) | (*) | (*) | (*) |
| 5113 | INDUSTRIAL AND PERSONAL SERVICE PAPER | -3 | +20 | +18 | -1 | +9 | (*) | (*) | (*) | (*) |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | -5 | +18 | +17 | +1 | +13 | 0 | +22 | +1 | +14 |
| 5122 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | -5 | +18 | +17 | +1 | +13 | (*) | (*) | (*) | (*) |
| 5122 PT. | GENERAL-LINE DRUGS | -4 | +9 | +10 | 0 | +8 | (*) | (*) | (*) | (*) |
| 514 | GROCERIES AND RELATED PRODUCTS | -7 | +13 | +13 | r+1 | +15 | 0 | +17 | 0 | +15 |
| 5141 | GROCERIES, GENERAL-LINE | -7 | +13 | +15 | r+4 | r+14 | (*) | (*) | (*) | (*) |
| 5141 PT. | VOLUNTARY GROUPS | -7 | +13 | +13 | +5 | +19 | (*) | (*) | (*) | (*) |
| 5141 PT. | RETAILER COOPERATIVES | -5 | +17 | +17 | +4 | +16 | (*) | (*) | (*) | (*) |
| 5141 PT. | OTHER GENERAL-LINES | -8 | +10 | +13 | +3 | +10 | (*) | (*) | (*) | (*) |
| 5142,3,6,9 | SPECIALTY-LINE GROCERIES | -6 | +18 | +18 | -2 | +15 | (*) | (*) | (*) | (*) |
| 5144 | POULTRY AND POULTRY PRODUCTS | -9 | +8 | +10 | +1 | +21 | (*) | (*) | (*) | (*) |
| 5145 | CONFECTIONERY | +2 | +22 | +18 | +1 | +12 | (*) | (*) | (*) | (*) |
| 5147 | MEATS AND MEAT PRODUCTS | -8 | -2 | -1 | -1 | 0 | (*) | (*) | (*) | (*) |
| 5148 | FRESH FRUITS AND VEGETABLES | -6 | +12 | +16 | +5 | (S) | (*) | (*) | (*) | (*) |
| 515 | FARM-PRODUCT RAW MATERIALS[2] | -17 | +14 | +20 | -7 | +4 | -7 | +22 | -5 | +4 |
| 5152 | COTTON | -25 | +8 | +17 | -5 | -26 | (*) | (*) | (*) | (*) |
| 5153 | GRAIN | -17 | +18 | +24 | -9 | +14 | (*) | (*) | (*) | (*) |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | -12 | +35 | +43 | +4 | +22 | -10 | +40 | +7 | +22 |
| 5171 | PETROLEUM BULK STATIONS AND TERMINALS | -12 | +24 | +30 | +8 | +21 | (*) | (*) | (*) | (*) |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | +1 | +2 | +3 | 0 | +6 | +1 | +8 | +3 | +6 |
| 5181 | BEER AND ALE | +2 | 0 | +3 | +4 | +9 | (*) | (*) | (*) | (*) |
| 5182 | WINE AND DISTILLED ALCOHOLIC BEVERAGES | 0 | +5 | +3 | -3 | +5 | (*) | (*) | (*) | (*) |
| 519 | MISCELLANEOUS NONDURABLE GOODS | -4 | +5 | +8 | 0 | +8 | +2 | +11 | -2 | +8 |
| 5191 | FARM SUPPLIES | -6 | +5 | +8 | +1 | +5 | (*) | (*) | (*) | (*) |
| 5194 | TOBACCO AND TOBACCO PRODUCTS | -7 | +1 | +1 | +2 | +5 | (*) | (*) | (*) | (*) |
| 5198 | PAINTS, VARNISHES, AND SUPPLIES | +7 | +1 | +1 | -3 | -1 | (*) | (*) | (*) | (*) |
| 5199 PT. | BOOKS, PERIODICALS, NEWSPAPERS | -5 | (S) | (S) | 0 | (S) | (*) | (*) | (*) | (*) |

*Adjusted data are available only for summary group totals. rRevised. (S) Does not meet publication standards because of extreme variability or high nonresponse rate.

[1]Adjusted for seasonal variations and, in the case of sales, also for trading-day differences. Adjusted data are only available for the summary kind-of-business groups shown.

[2]There are indications that the seasonal adjustment factors for this trade group may not reflect recent trends. The seasonally adjusted data for this trade group and also for the summary group totals should, therefore, be used with caution.

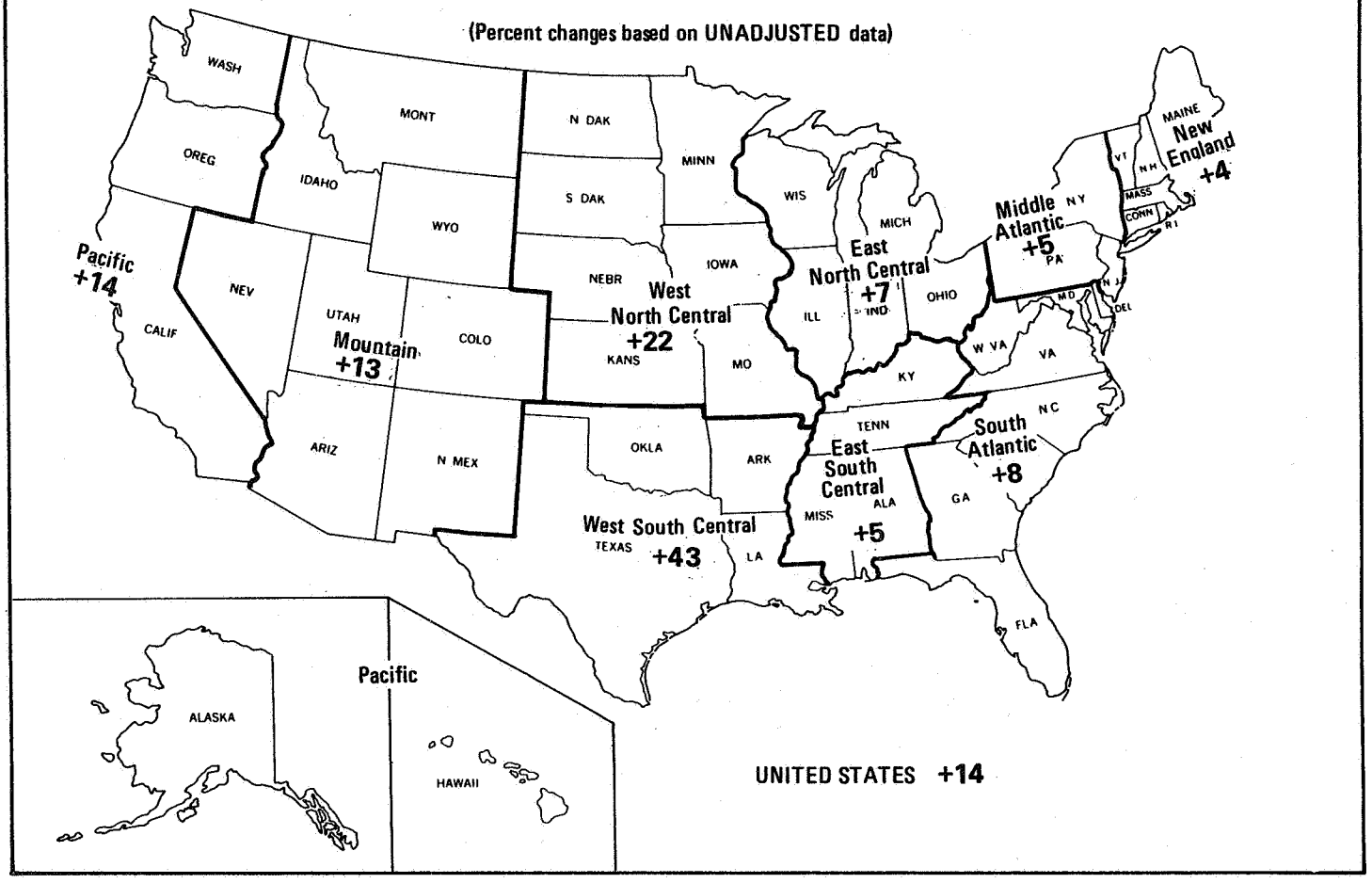
[3]Sampling variability of 15 percent for percent change between February 1981 and February 1980 for inventories.

[4]Sampling variability of 11 percent for percent change between February 1981 and February 1980 for inventories.

## Sales of Merchant Wholesalers by Geographic Division

## 2 Months 1981 Compared with 2 Months 1980

(Percent changes based on UNADJUSTED data)




## Table 6. Estimated Monthly Sales of Merchant Wholesalers and Sampling Errors, Geographic Division: 1981 and 1980

(Sales, in millions of dollars are not adjusted for seasonal variations or trading-day differences; sampling errors in percent)

| 1972 SIC CODE | KIND OF BUSINESS AND GEOGRAPHIC DIVISION | 1981 | | 1980 | | | | | | | | | | | TOTAL 2 MONTHS | | SAMPLING ERROR OF THE ESTIMATE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN. | FEB.[P] | FEB. | MAR. | APR. | MAY | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. | 1981 | 1980 | RANGE[1] | MEDIAN |
| | MERCHANT WHOLESALERS, TOTAL | 93,845 | 89,203 | 79,421 | 84,101 | 83,106 | 83,507 | 81,607 | 86,052 | 86,311 | 90,715 | 99,023 | 91,328 | 97,659 | 183,048 | 160,477 | 1.4-1.7 | 1.5 |
| | NEW ENGLAND | 4,445 | 4,142 | 4,046 | 4,338 | 3,881 | 4,059 | 4,125 | 4,368 | 4,109 | 4,400 | 4,668 | 4,524 | 4,786 | 8,587 | 8,240 | 4-6 | 5 |
| | MIDDLE ATLANTIC | 19,320 | 18,818 | 17,745 | 19,554 | 17,580 | 17,555 | 17,407 | 17,959 | 18,298 | 19,380 | 20,204 | 19,463 | 20,750 | 38,138 | 36,247 | 3-4 | 4 |
| | EAST NORTH CENTRAL | 14,031 | 12,628 | 12,181 | 12,604 | 12,989 | 13,286 | 12,504 | 12,775 | 13,122 | 13,600 | 15,510 | 13,852 | 14,147 | 26,659 | 24,946 | 2-3 | 2 |
| | WEST NORTH CENTRAL | 10,164 | 9,349 | 7,816 | 8,143 | 8,694 | 8,842 | 8,234 | 8,724 | 8,884 | 9,328 | 11,024 | 9,321 | 10,306 | 19,513 | 15,995 | 2-3 | 3 |
| | SOUTH ATLANTIC | 9,305 | 8,930 | 8,348 | 8,892 | 8,995 | 8,719 | 8,803 | 8,781 | 8,540 | 8,976 | 9,781 | 8,875 | 9,668 | 18,235 | 16,903 | 2-3 | 2 |
| | EAST SOUTH CENTRAL | 3,921 | 3,779 | 3,730 | 3,771 | 3,969 | 3,950 | 3,761 | 3,801 | 3,832 | 3,835 | 4,356 | 3,759 | 4,036 | 7,700 | 7,346 | 3-4 | 4 |
| | WEST SOUTH CENTRAL | 15,860 | 15,372 | 10,990 | 11,456 | 11,544 | 11,669 | 11,417 | 13,865 | 13,835 | 14,655 | 15,925 | 15,445 | 16,552 | 31,232 | 21,855 | 4-6 | 5 |
| | MOUNTAIN | 3,393 | 3,172 | 2,919 | 3,272 | 3,108 | 3,129 | 3,314 | 3,261 | 3,335 | 3,900 | 3,713 | 3,528 | 3,828 | 6,565 | 5,835 | 4-6 | 6 |
| | PACIFIC | 13,406 | 13,013 | 11,646 | 12,071 | 12,346 | 12,298 | 12,042 | 12,518 | 12,356 | 12,641 | 13,842 | 12,561 | 13,586 | 26,419 | 23,110 | 2-3 | 3 |
| 50 | DURABLE GOODS, TOTAL | 35,927 | 36,601 | 34,540 | 36,737 | 35,913 | 34,947 | 35,508 | 35,757 | 36,010 | 38,112 | 41,298 | 36,679 | 38,598 | 72,528 | 68,880 | 1.6-2.6 | 1.8 |
| | MIDDLE ATLANTIC | 7,412 | 7,646 | 7,596 | 8,224 | 7,752 | 7,430 | 7,488 | 7,429 | 7,340 | 7,911 | 8,727 | 7,960 | 8,146 | 15,058 | 15,376 | 6-8 | 6 |
| | EAST NORTH CENTRAL | 5,644 | 5,499 | 5,615 | 5,757 | 5,786 | 5,544 | 5,382 | 5,264 | 5,586 | 6,029 | 6,620 | 5,983 | 6,020 | 11,143 | 11,135 | 3-4 | 3 |
| | WEST NORTH CENTRAL | 2,515 | 2,586 | 2,658 | 2,742 | 2,649 | 2,637 | 2,590 | 2,661 | 2,818 | 2,872 | 3,214 | 2,718 | 2,830 | 5,101 | 5,321 | 5-7 | 5 |
| | SOUTH ATLANTIC | 4,137 | 4,448 | 3,856 | 4,308 | 4,424 | 4,091 | 4,375 | 4,360 | 4,265 | 4,377 | 4,834 | 4,128 | 4,327 | 8,585 | 7,894 | 2-4 | 3 |
| | WEST SOUTH CENTRAL | 4,738 | 4,852 | 4,054 | 4,302 | 4,279 | 4,292 | 4,386 | 4,653 | 4,530 | 4,758 | 5,027 | 4,665 | 4,916 | 9,590 | 7,917 | 4-5 | 4 |
| | MOUNTAIN | 1,469 | 1,357 | 1,214 | 1,388 | 1,381 | 1,261 | 1,376 | 1,360 | 1,415 | 1,744 | 1,702 | 1,415 | 1,747 | 2,826 | 2,442 | 7-9 | 8 |
| | PACIFIC | 6,938 | 7,213 | 6,457 | 6,731 | 6,592 | 6,644 | 6,728 | 6,738 | 6,818 | 6,887 | 7,503 | 6,664 | 7,249 | 14,151 | 12,589 | 4-5 | 4 |
| 51 | NONDURABLE GOODS, TOTAL | 57,918 | 52,602 | 44,881 | 47,364 | 47,193 | 48,560 | 46,099 | 50,295 | 50,301 | 52,603 | 57,725 | 54,649 | 59,061 | 110,520 | 91,597 | 1.6-2.0 | 1.8 |
| | NEW ENGLAND | 2,849 | 2,618 | 2,463 | 2,578 | 2,372 | 2,619 | 2,572 | 2,684 | 2,607 | 2,643 | 2,860 | 2,915 | 3,053 | 5,467 | 4,984 | 6-7 | 6 |
| | MIDDLE ATLANTIC | 11,908 | 11,172 | 10,149 | 11,330 | 9,828 | 10,125 | 9,919 | 10,530 | 10,958 | 11,469 | 11,477 | 11,503 | 12,604 | 23,080 | 20,871 | 3-4 | 4 |
| | EAST NORTH CENTRAL | 8,387 | 7,129 | 6,566 | 6,847 | 7,203 | 7,742 | 7,122 | 7,511 | 7,536 | 7,571 | 8,890 | 7,869 | 8,127 | 15,516 | 13,811 | 3-4 | 4 |
| | WEST NORTH CENTRAL | 7,649 | 6,763 | 5,158 | 5,401 | 6,045 | 6,205 | 5,644 | 6,063 | 6,066 | 6,456 | 7,810 | 6,603 | 7,476 | 14,412 | 10,674 | 3-4 | 4 |
| | SOUTH ATLANTIC | 5,168 | 4,482 | 4,492 | 4,584 | 4,571 | 4,628 | 4,428 | 4,421 | 4,275 | 4,599 | 4,947 | 4,747 | 5,341 | 9,650 | 9,009 | 3-5 | 4 |
| | EAST SOUTH CENTRAL | 2,443 | 2,303 | 2,223 | 2,246 | 2,428 | 2,342 | 2,131 | 2,193 | 2,096 | 2,058 | 2,493 | 2,222 | 2,406 | 4,746 | 4,396 | 3-5 | 4 |
| | WEST SOUTH CENTRAL | 11,122 | 10,520 | 6,936 | 7,154 | 7,265 | 7,377 | 7,031 | 9,212 | 9,305 | 9,897 | 10,898 | 10,780 | 11,636 | 21,642 | 13,938 | 6-10 | 8 |
| | PACIFIC | 6,468 | 5,800 | 5,189 | 5,340 | 5,754 | 5,654 | 5,314 | 5,780 | 5,538 | 5,754 | 6,339 | 5,897 | 6,337 | 12,268 | 10,521 | 4-5 | 5 |

[P]Preliminary estimate. See p. 16, Sample Design and Estimation Procedure.

[1]The range of sampling error of the estimate is based on data for the period September 1979 thru February 1980.

# Table 7. Percent Changes in Sales and Inventories of Merchant Wholesalers and Sampling Errors by Kind of Business for Geographic Divisions: February 1981

DATA ARE NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES

| 1972 SIC code | Kind of business and geographic division[1] | PERCENT CHANGE IN-- SALES: FEB. 1981 FROM JAN. 1981 | SALES: FEB. 1981 FROM FEB. 1980 | SALES: 2 MOS. 1981 FROM 2 MOS. 1980 | INVENTORIES: FEB. 1981 FROM JAN. 1981 | INVENTORIES: FEB. 1981 FROM FEB. 1980 | SAMPLING ERRORS OF THE RATIO CORRESPONDING TO THE PERCENT CHANGE IN COLUMNS -- A | B | D | E |
|---|---|---|---|---|---|---|---|---|---|---|
| | | A | B | C | D | E | | | | |
| | MERCHANT WHOLESALERS, TOTAL | -5 | +12 | +14 | +2 | +11 | 0.7 | 1.2 | 0.3 | 0.9 |
| | NEW ENGLAND | -7 | +2 | +4 | +3 | +9 | 2.1 | 4.8 | 0.9 | 4.2 |
| | MIDDLE ATLANTIC | -3 | +6 | +5 | +2 | +14 | 1.7 | 3.2 | 0.8 | 2.6 |
| | EAST NORTH CENTRAL | -10 | +4 | +7 | +1 | +8 | 1.3 | 2.5 | 0.5 | 2.4 |
| | WEST NORTH CENTRAL | -8 | +20 | +22 | 0 | +11 | 1.4 | 2.4 | 0.8 | 2.2 |
| | SOUTH ATLANTIC | -4 | +7 | +8 | +4 | +10 | 1.1 | 2.4 | 0.6 | 2.0 |
| | EAST SOUTH CENTRAL | -4 | +1 | +5 | 0 | -5 | 2.3 | 3.4 | 0.9 | 2.8 |
| | WEST SOUTH CENTRAL | -3 | +40 | +43 | +2 | +17 | 2.0 | 4.5 | 0.8 | 2.5 |
| | MOUNTAIN | -7 | +9 | +13 | -1 | +14 | 2.1 | 3.4 | 1.1 | 3.4 |
| | PACIFIC | -3 | +12 | +14 | +2 | +10 | 1.0 | 2.4 | 0.6 | 2.2 |
| 50 | DURABLE GOODS, TOTAL | +2 | +6 | +5 | +3 | +11 | 0.9 | 2.3 | 0.4 | 1.1 |
| | NEW ENGLAND | -5 | -4 | -4 | +4 | +12 | 4.3 | 10.7 | 1.1 | 6.0 |
| | MIDDLE ATLANTIC | +3 | +1 | -2 | +3 | +16 | 2.1 | 6.3 | 1.0 | 3.5 |
| | EAST NORTH CENTRAL | -3 | -2 | 0 | +3 | +7 | 1.6 | 3.1 | 0.6 | 3.2 |
| | WEST NORTH CENTRAL | +3 | -3 | -4 | +4 | +7 | 2.3 | 5.0 | 1.1 | 2.7 |
| | SOUTH ATLANTIC | +8 | +15 | +9 | +4 | +13 | 1.5 | 3.7 | 0.8 | 2.8 |
| | EAST SOUTH CENTRAL | 0 | -2 | 0 | +2 | +2 | 4.2 | 6.0 | 1.4 | 4.5 |
| | WEST SOUTH CENTRAL | +2 | +20 | +21 | +3 | +18 | 3.0 | 5.1 | 0.8 | 3.3 |
| | MOUNTAIN | -8 | +12 | +16 | 0 | +13 | 3.2 | 6.1 | 1.3 | 4.7 |
| | PACIFIC | +4 | +12 | +12 | +2 | +7 | 1.6 | 3.4 | 0.8 | 2.8 |
| 51 | NONDURABLE GOODS, TOTAL | -9 | +17 | +21 | -1 | +10 | 0.8 | 1.3 | 0.5 | 1.2 |
| | NEW ENGLAND | -8 | +6 | +10 | +2 | +5 | 1.9 | 3.8 | 1.2 | 4.5 |
| | MIDDLE ATLANTIC | -6 | +10 | +11 | 0 | +10 | 2.0 | 3.1 | 0.8 | 3.6 |
| | EAST NORTH CENTRAL | -15 | +9 | +12 | -2 | +9 | 2.1 | 2.8 | 1.0 | 3.3 |
| | WEST NORTH CENTRAL | -12 | +31 | +35 | -3 | +15 | 1.9 | 2.7 | 1.2 | 3.1 |
| | SOUTH ATLANTIC | -13 | 0 | +7 | +4 | +5 | 1.8 | 2.9 | 1.1 | 3.0 |
| | EAST SOUTH CENTRAL | -6 | +4 | +8 | -3 | -13 | 1.6 | 3.6 | 1.8 | 3.1 |
| | WEST SOUTH CENTRAL | -5 | +52 | +55 | -1 | +16 | 2.6 | 6.3 | 1.6 | 4.5 |
| | MOUNTAIN | -6 | +6 | +10 | -3 | +16 | 2.0 | 5.2 | 1.7 | 5.8 |
| | PACIFIC | -10 | +12 | +17 | +1 | +17 | 1.7 | 2.9 | 1.0 | 3.4 |
| 5013,4 | AUTOMOTIVE PARTS AND SUPPLIES, TIRES AND TUBES | -3 | +13 | +13 | -2 | -1 | 2 | 4 | 1 | 3 |
| | NEW ENGLAND | (S) | (S) | +4 | -8 | -5 | (*) | (*) | 3 | 14 |
| | MIDDLE ATLANTIC | -4 | (S) | +18 | -3 | +2 | 4 | 8 | 1 | 7 |
| | EAST NORTH CENTRAL | -7 | -11 | -4 | -2 | -14 | 3 | 8 | 1 | 5 |
| | WEST NORTH CENTRAL | -5 | (S) | 0 | 0 | -2 | 3 | 13 | 2 | 11 |
| | SOUTH ATLANTIC | +11 | +29 | +19 | +4 | +10 | 4 | 10 | 2 | 8 |
| | EAST SOUTH CENTRAL | -3 | +6 | +8 | 0 | +15 | 3 | 12 | 3 | 12 |
| | WEST SOUTH CENTRAL | -2 | (S) | +14 | +1 | -2 | 3 | 10 | 2 | 10 |
| | MOUNTAIN | -15 | +8 | +13 | -25 | +5 | 6 | (*) | 3 | (*) |
| | PACIFIC | -6 | +18 | +27 | -1 | +2 | 3 | 6 | 2 | 12 |
| 502 | FURNITURE AND HOME FURNISHINGS | +9 | +18 | +13 | +5 | +16 | 3 | 4 | 1 | 3 |
| | MIDDLE ATLANTIC | +16 | (S) | +21 | +5 | +23 | 6 | 10 | 1 | 8 |
| | EAST NORTH CENTRAL | +2 | -8 | -7 | +2 | -16 | 6 | 13 | 2 | 8 |
| | WEST NORTH CENTRAL | -2 | +3 | +2 | +6 | +4 | 6 | (*) | 3 | 10 |
| | WEST SOUTH CENTRAL | -6 | +11 | +11 | +4 | +19 | 4 | 10 | 2 | 10 |
| | PACIFIC | +11 | (S) | +23 | +9 | +43 | 6 | 12 | 2 | 10 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | -2 | -1 | -3 | +4 | -2 | 2 | 3 | 1 | 3 |
| | NEW ENGLAND | (S) | -5 | +2 | +11 | +18 | (*) | 14 | 3 | 12 |
| | MIDDLE ATLANTIC | +3 | -7 | -9 | +4 | -8 | 6 | 11 | 2 | 12 |
| | EAST NORTH CENTRAL | -3 | -13 | -15 | +3 | -13 | 4 | 8 | 2 | 9 |
| | WEST NORTH CENTRAL | -16 | (S) | -16 | +10 | -9 | 7 | 11 | 4 | 12 |
| | SOUTH ATLANTIC | -2 | +3 | +4 | +7 | +16 | 4 | 9 | 2 | 8 |
| | EAST SOUTH CENTRAL | -5 | +1 | -3 | +7 | -15 | 7 | 13 | 2 | 12 |
| | WEST SOUTH CENTRAL | +9 | +21 | +11 | +2 | +26 | 5 | 13 | 2 | 10 |
| | PACIFIC | -1 | +7 | +3 | 0 | -9 | 4 | 9 | 2 | 9 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | +6 | +20 | +13 | +3 | +12 | 3 | 4 | 1 | 3 |
| | NEW ENGLAND | +1 | (S) | -15 | -1 | (S) | 7 | (*) | 6 | (*) |
| | MIDDLE ATLANTIC | +6 | +17 | +10 | 0 | +5 | 6 | 9 | 2 | 12 |
| | EAST NORTH CENTRAL | +4 | +11 | +7 | +1 | +5 | 5 | 7 | 1 | 6 |
| | WEST NORTH CENTRAL | +14 | +19 | +4 | +3 | -8 | 5 | 10 | 2 | 9 |
| | SOUTH ATLANTIC | +2 | (S) | +20 | +5 | (S) | 5 | (*) | 2 | (*) |
| | EAST SOUTH CENTRAL | -4 | +11 | +8 | +4 | +9 | 3 | 11 | 2 | 14 |
| | WEST SOUTH CENTRAL | +12 | (S) | +39 | +7 | (S) | 4 | 10 | 2 | 9 |
| | MOUNTAIN | 0 | (S) | 0 | +1 | (S) | 3 | (*) | 3 | (*) |
| | PACIFIC | +4 | (S) | +20 | +8 | (S) | 5 | (*) | 4 | (*) |
| 5063 | ELECTRICAL APPARATUS AND EQUIPMENT, WIRING SUPPLIES, AND CONSTRUCTION MATERIALS | +2 | +3 | +7 | +3 | +3 | 3 | 4 | 1 | 3 |
| | NEW ENGLAND | +7 | +31 | +17 | +4 | (S) | 4 | 12 | 2 | 12 |
| | MIDDLE ATLANTIC | +5 | (S) | +18 | +5 | +7 | 4 | 11 | 2 | 7 |
| | EAST NORTH CENTRAL | 0 | +4 | +1 | +4 | +4 | 3 | 8 | 2 | 7 |
| | WEST NORTH CENTRAL | +2 | -9 | -3 | +6 | 0 | 5 | 12 | 3 | 12 |
| | SOUTH ATLANTIC | +1 | -4 | +1 | +3 | -7 | 3 | 8 | 2 | 8 |
| | EAST SOUTH CENTRAL | (S) | (S) | +22 | -2 | -10 | (*) | (*) | 3 | (*) |
| | WEST SOUTH CENTRAL | (S) | (S) | +13 | +1 | (S) | 7 | (*) | 3 | (*) |
| | MOUNTAIN | +7 | -6 | -3 | +1 | +5 | 4 | 14 | 2 | 11 |
| | PACIFIC | +11 | -1 | 0 | +4 | +1 | 4 | 10 | 2 | 6 |

See footnotes at end of table.

# Table 7. Percent Changes in Sales and Inventories of Merchant Wholesalers and Sampling Errors by Kind of Business for Geographic Divisions: February 1981—Continued

DATA ARE NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES

| 1972 SIC code | Kind of business and geographic division[1] | PERCENT CHANGE IN-- SALES: FEB. 1981 FROM JAN. 1981 | SALES: FEB. 1981 FROM FEB. 1980 | SALES: 2 MOS. 1981 FROM 2 MOS. 1980 | INVENTORIES: FEB. 1981 FROM JAN. 1981 | INVENTORIES: FEB. 1981 FROM FEB. 1980 | SAMPLING ERRORS OF THE RATIO CORRESPONDING TO THE PERCENT CHANGE IN COLUMNS[2]-- | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | A | B | C | D | E | A | B | D | E |
| 5064,5 | ELECTRICAL APPLIANCES, TV AND RADIO SETS, AND ELECTRONIC PARTS AND EQUIPMENT | +2 | +6 | +4 | +4 | +17 | 2 | 4 | 1 | 4 |
| | MIDDLE ATLANTIC | -1 | +11 | +13 | +2 | +14 | 4 | 9 | 2 | 10 |
| | EAST NORTH CENTRAL | +5 | (S) | +36 | +10 | (S) | 5 | 10 | 2 | 13 |
| | WEST NORTH CENTRAL | -8 | (S) | (S) | +2 | (S) | 5 | (*) | 2 | (*) |
| | SOUTH ATLANTIC | +4 | +24 | +24 | +5 | +25 | 4 | 12 | 2 | 7 |
| | WEST SOUTH CENTRAL | -3 | -8 | -9 | -3 | +22 | 4 | 13 | 2 | 12 |
| | MOUNTAIN | (S) | (S) | +15 | 0 | +32 | (*) | (*) | 3 | 13 |
| | PACIFIC | +9 | -5 | -14 | +4 | +14 | 7 | 11 | 3 | 9 |
| 5072 | HARDWARE | -5 | +2 | +2 | +5 | +12 | 2 | 3 | 1 | 3 |
| | NEW ENGLAND | (S) | (S) | -1 | +11 | -1 | 4 | 13 | 3 | 14 |
| | MIDDLE ATLANTIC | -14 | -2 | 0 | +5 | +11 | 3 | 9 | 2 | 11 |
| | EAST NORTH CENTRAL | -6 | -13 | -13 | +1 | (S) | 4 | 9 | 4 | 10 |
| | WEST NORTH CENTRAL | -9 | (S) | 0 | +10 | +8 | 4 | 7 | 2 | 6 |
| | SOUTH ATLANTIC | -6 | +13 | +9 | +5 | +22 | 3 | 8 | 2 | 10 |
| | EAST SOUTH CENTRAL | -4 | +10 | -4 | +9 | +24 | 4 | 10 | 2 | 9 |
| | PACIFIC | -4 | (S) | +14 | +6 | (S) | 3 | 10 | 2 | 11 |
| 5074 | PLUMBING AND HEATING EQUIPMENT AND SUPPLIES (HYDRONICS) | -2 | +6 | +1 | +3 | +5 | 2 | 5 | 1 | 9 |
| | MIDDLE ATLANTIC | -4 | -2 | -7 | -1 | (S) | 6 | 14 | 3 | (*) |
| | EAST NORTH CENTRAL | -2 | +19 | +16 | +3 | (S) | 7 | 14 | 2 | (*) |
| | SOUTH ATLANTIC | -1 | -3 | -4 | +4 | -5 | 3 | 11 | 2 | 9 |
| | MOUNTAIN | 0 | (S) | +18 | +6 | (S) | 4 | (*) | 2 | 14 |
| | PACIFIC | +5 | +11 | +1 | +1 | +1 | 4 | 14 | 2 | 11 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, AND SUPPLIES | -1 | +8 | +10 | +1 | +8 | 2 | 5 | 1 | 3 |
| | MIDDLE ATLANTIC | -1 | +7 | +8 | +5 | +18 | 5 | 9 | 2 | 7 |
| | EAST NORTH CENTRAL | -12 | -14 | -7 | +1 | +9 | 4 | 6 | 1 | 6 |
| | WEST SOUTH CENTRAL | 0 | (S) | +38 | +3 | +8 | 4 | (*) | 1 | 6 |
| | PACIFIC | +1 | +10 | +12 | -1 | -3 | 3 | 8 | 2 | 8 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | -5 | +18 | +17 | +1 | +13 | 2 | 3 | 1 | 4 |
| | NEW ENGLAND | -4 | 0 | -6 | +1 | -18 | 3 | 12 | 3 | 14 |
| | MIDDLE ATLANTIC | +11 | +27 | +17 | -2 | +3 | 4 | 8 | 2 | 7 |
| | EAST NORTH CENTRAL | -13 | (S) | +7 | +6 | (S) | 4 | 8 | 2 | 8 |
| | WEST NORTH CENTRAL | -13 | -3 | +4 | +6 | +16 | 5 | 12 | 2 | 9 |
| | SOUTH ATLANTIC | -9 | (S) | +33 | +2 | (S) | 2 | 10 | 2 | 8 |
| | EAST SOUTH CENTRAL | -14 | (S) | +23 | +4 | +14 | 2 | 9 | 2 | 10 |
| | WEST SOUTH CENTRAL | -14 | (S) | +31 | -9 | +16 | 2 | 12 | 2 | 14 |
| | MOUNTAIN | +2 | (S) | (S) | 0 | (S) | 1 | 7 | 1 | 6 |
| | PACIFIC | -9 | +12 | +12 | -2 | (S) | 2 | 13 | 1 | (*) |
| 5141 | GROCERIES, GENERAL-LINE | -7 | +13 | +15 | r+4 | r+14 | 1 | 2 | 0 | 2 |
| | NEW ENGLAND | -11 | +20 | +16 | +3 | +7 | 2 | 6 | 2 | 7 |
| | MIDDLE ATLANTIC | -7 | +3 | +6 | +5 | +7 | 1 | 3 | 1 | 7 |
| | EAST NORTH CENTRAL | -5 | +22 | +23 | +1 | +12 | 1 | 4 | 1 | 5 |
| | WEST NORTH CENTRAL | -5 | +17 | +15 | +1 | +16 | 2 | 5 | 2 | 7 |
| | SOUTH ATLANTIC | -6 | +1 | +2 | +4 | +6 | 2 | 5 | 1 | 4 |
| | WEST SOUTH CENTRAL | -8 | +17 | +19 | +18 | (S) | 2 | 7 | 2 | 6 |
| | MOUNTAIN | -4 | (S) | +22 | +10 | (S) | 2 | 6 | 2 | 9 |
| | PACIFIC | -9 | +14 | +16 | +5 | +17 | 0 | 3 | 1 | 3 |
| 5142,3,6,9 | SPECIALTY-LINE GROCERIES | -6 | +18 | +18 | -2 | +15 | 1 | 3 | 1 | 4 |
| | MIDDLE ATLANTIC | -13 | +4 | +5 | -4 | +20 | 2 | 5 | 2 | 7 |
| | EAST NORTH CENTRAL | -1 | +30 | +26 | -2 | +25 | 3 | 6 | 1 | 6 |
| | WEST NORTH CENTRAL | -3 | +73 | +73 | -4 | +24 | 3 | 5 | 1 | 6 |
| | SOUTH ATLANTIC | +1 | -8 | -6 | +4 | (S) | 4 | 13 | 2 | 13 |
| | EAST SOUTH CENTRAL | +3 | (S) | +46 | +21 | (S) | 4 | 12 | 2 | 13 |
| 5148 | FRESH FRUITS AND VEGATABLES | -6 | +12 | +16 | +5 | (S) | 2 | 3 | 2 | 7 |
| | MIDDLE ATLANTIC | -4 | +24 | +23 | -7 | +22 | 3 | 9 | 5 | 14 |
| | EAST NORTH CENTRAL | +3 | +24 | +22 | (S) | (S) | 3 | 8 | 3 | 10 |
| | WEST NORTH CENTRAL | -13 | +10 | +15 | 0 | (S) | 4 | 14 | 3 | (*) |
| | WEST SOUTH CENTRAL | +1 | +27 | +29 | 0 | (S) | 7 | 13 | 3 | (*) |
| | PACIFIC | -10 | +12 | +20 | -1 | +26 | 6 | 9 | 2 | 10 |
| 5194 | TOBACCO AND TOBACCO PRODUCTS | -7 | +1 | +1 | +2 | +5 | 1 | 4 | 1 | 5 |
| | NEW ENGLAND | +2 | -8 | -16 | +3 | (S) | 3 | 14 | 3 | (*) |
| | MIDDLE ATLANTIC | -6 | +2 | +2 | +1 | (S) | 4 | 14 | 3 | (*) |
| | EAST NORTH CENTRAL | -9 | +9 | +7 | -1 | +4 | 2 | 10 | 2 | 11 |
| | WEST NORTH CENTRAL | (S) | (S) | -3 | +9 | (S) | 6 | (*) | 6 | (*) |
| | SOUTH ATLANTIC | -6 | -6 | -1 | -4 | (S) | 4 | 14 | 3 | 12 |
| | EAST SOUTH CENTRAL | -9 | (S) | +9 | 0 | (S) | 3 | (*) | 4 | (*) |
| | WEST SOUTH CENTRAL | -5 | -30 | -24 | +8 | -25 | 3 | (*) | 4 | 11 |
| | MOUNTAIN | 0 | (S) | +43 | 0 | (S) | 3 | (*) | 5 | (*) |
| | PACIFIC | -10 | +2 | +2 | +5 | +42 | 2 | 10 | 3 | 12 |

Note: Data at the United States level are generally more reliable than data by geographic division. In those kinds of business where the geographic division trends are subject to a high sampling error, it may be desirable to use the United States total trends for the kinds of business rather than the geographic division trends.

(S) Does not meet publication standards because of extreme variability or high nonresponse rate. r Revised.

[1] See map on page 8.

[2] The sampling errors (in percent) shown in columns A, B, D and E are based on medians or measurements on data for September 1979 through February 1980.

# APPENDIX A. Reliability of Data

There are two types of errors possible in an estimate based on a sample survey—sampling and nonsampling. Sampling errors occur because observations are made only on a sample, not on the entire population. Nonsampling errors can be attributed to many sources in the collection and processing of data. The accuracy of a survey result is determined by the joint effects of sampling and nonsampling errors.

**Measures of sampling variability**—The particular sample used in this survey is one of a large number of all possible samples of the same size that could have been selected using the same design. Estimates derived from the different samples would differ from each other. The average of these estimates would be close to the estimate derived from a complete enumeration of the population (assuming that a complete enumeration has the same nonsampling errors as the sample survey). The average of the estimates differs from the estimate from a complete census because of the composite estimation technique. Disregarding this difference, the sampling error or standard error of the estimate is a measure of the variability among the estimates from all possible samples of the same size and design and, thus, is a measure of the precision with which an estimate from a particular sample approximates the results of a complete enumeration. The coefficient of variation (expressed as a percent) is the standard error of the estimate times 100 percent, divided by the value being estimated. Note that any measures of sampling variability, such as the standard error or coefficient of variation, are estimates derived from the sample and are also subject to sampling variability.

Estimates of sampling variability (the coefficients of variation in percent) for sales and inventories at the kind-of-business detail provided in this publication are shown in table A-1. These coefficients of variation permit certain confidence statements about the sample estimates. As noted above, the particular sample used in this survey is one of a large number of all possible samples of about the same size that could have been selected using the same design. In about two out of three (67 percent) of these samples, the estimate would differ from a complete enumeration by less than the corresponding percent for that estimate shown in the sampling variability table. In about 19 out of 20 (95 percent) of these samples, the estimate would differ from the results of a complete enumeration by less than twice the percentages shown.

To illustrate the computations involved in the above confidence statements for monthly dollar volume estimates, assume that an estimate for a kind of business published in table 1 for a particular month is $5,000 million and that the median coefficient of variation for this statistic, is 0.9 percent or .009. Multiplying $5,000 million by .009 yields $45 million. Therefore, a 67 percent confidence interval is $4,955 million to $5,045 million (i.e. $5,000 million plus or minus $45 million). If corresponding confidence intervals were constructed for all possible samples of the same size and design, approximately two out of three (67 percent) of these intervals would contain the figure obtained from a complete enumeration. Similarly a 95 percent confidence interval is $4,910 million to $5,090 million (i.e., $5,000 million plus or minus $90 million).

As an example of the use of the coefficients of variation with ratios, assume that an estimated month-to-month percent change published in table 5 is -1.0 percent for a particular kind of business. This is equivalent to a month-to-month ratio of .990. Assume the median coefficient of variation for this ratio as shown in table A-1 is 0.5 percent (or .005). Multiplying .990 by .005 yields .005. Therefore, a 67 percent confidence interval is .985 to .995 (i.e., .990 plus or minus .005) and a 95 percent confidence interval is .980 to 1.000 (i.e., .990 plus or minus .010).

**Nonsampling errors**—As calculated for this report, the coefficient of variation measures certain nonsampling errors but does not measure any systematic biases in the data. Bias is the difference, averaged over all possible samples of the same size and design, between the estimate and the true value being estimated. The accuracy of the tabulated data is determined by the joint effects of the sampling and nonsampling errors.

Nonsampling errors can be attributed to many sources: (1) inability to obtain information about all cases in the sample, (2) response errors, (3) definitional difficulties, (4) differences in the interpretation of questions, (5) mistakes in recording or coding the data obtained, and (6) other errors of collection, response, coverage, and estimation for missing data. These nonsampling errors also occur in complete censuses.

Although no direct measurement of the biases due to nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

A major source of bias in the published estimates is due to imputing data for nonrespondents, for late reporters, and for data which fail edit. For all kinds of business combined, imputed data amount to about 15 percent of the sales estimates and 25 percent for inventories.

# Table A-1. Estimated Sampling Variability of Sales and Inventories by Kind of Business for the United States

(Coefficients of variation in percent)

| 1972 SIC code | Kind of business | SALES | | | | | | INVENTORIES | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Preliminary sampling error of the monthly dollar estimates | | Final sampling error of the monthly dollar estimates | | Median sampling error of the ratio of: | | Preliminary sampling error of the monthly dollar estimates | | Final sampling error of the monthly dollar estimates | | Median sampling error of the ratio of: | |
| | | Range | Median | Range | Median | Two consecutive months | Same month a year ago | Range | Median | Range | Median | Two consecutive months | Same month a year ago |
| | Merchant wholesalers, total | 1.4-1.8 | 1.6 | 1.4-1.6 | 1.5 | 0.6 | 1.0 | 1.3-1.5 | 1.4 | 1.2-1.4 | 1.4 | 0.3 | 0.9 |
| | Total (excluding farm-product raw materials) | 1.4-1.9 | 1.6 | 1.3-1.6 | 1.4 | 0.6 | 1.1 | 1.4-1.7 | 1.5 | 1.2-1.5 | 1.5 | 0.3 | 0.9 |
| 50 | Durable goods, total | 1.5-3.2 | 2.0 | 1.4-2.4 | 1.6 | 1.0 | 1.7 | 1.0-1.5 | 1.4 | 1.0-1.4 | 1.3 | 0.4 | 1.1 |
| 501 | Motor vehicles and automotive parts and supplies | 3.6-4.6 | 3.9 | 3.2-4.4 | 3.6 | 1.7 | 2.8 | 2.2-3.5 | 3.0 | 2.6-3.5 | 2.7 | 0.8 | 2.6 |
| 5012 | Automobiles and other motor vehicles | (*) | (*) | (*) | (*) | 2.8 | 5.4 | (*) | (*) | (*) | (*) | 1.8 | 5.5 |
| 5013,4 | Automotive parts and supplies, tires and tubes | 3.3-4.7 | 4.0 | 3.0-4.9 | 3.6 | 1.7 | 3.1 | 3.0-4.1 | 3.7 | 2.8-3.9 | 3.4 | 1.2 | 3.0 |
| 5013 | Automotive parts and supplies | 3.8-5.9 | 4.7 | 3.6-5.9 | 4.2 | 2.1 | 3.8 | 3.8-5.0 | 4.5 | 3.5-4.6 | 4.2 | 1.3 | 3.2 |
| 502 | Furniture and home furnishings | 4.7-7.0 | 5.7 | 4.3-6.1 | 5.1 | 2.9 | 4.0 | 4.0-4.6 | 4.2 | 3.9-4.5 | 4.2 | 0.9 | 3.3 |
| 5021 | Furniture--household and office | 4.9-6.5 | 6.0 | 4.3-7.1 | 6.0 | 4.1 | 5.7 | (*) | (*) | (*) | (*) | 1.5 | 5.1 |
| 5021 pt. | Household furniture | (*) | (*) | (*) | (*) | 6.2 | 11.2 | (*) | (*) | (*) | (*) | 1.5 | 8.7 |
| 5021 pt. | Office furniture | (*) | (*) | (*) | (*) | 4.9 | 6.5 | (*) | (*) | (*) | (*) | 1.9 | 5.2 |
| 5023 | Home furnishings | 6.7-9.2 | 7.6 | 5.5-8.1 | 6.6 | 3.3 | 5.1 | 5.0-6.3 | 5.6 | 5.0-6.1 | 5.7 | 1.1 | 4.5 |
| 503 | Lumber and other construction materials | 4.2-5.8 | 4.8 | 4.4-5.4 | 4.7 | 2.3 | 3.5 | 5.0-6.7 | 5.6 | 5.0-6.6 | 5.9 | 0.9 | 2.9 |
| 5031 | Lumber, plywood, and millwork | 5.7-7.7 | 6.3 | 5.1-6.6 | 5.9 | 3.3 | 4.5 | 7.0-9.0 | 7.9 | 7.2-8.6 | 8.1 | 1.2 | 3.6 |
| 5039 | Construction materials, n.e.c. | 5.0-6.9 | 6.0 | 5.1-6.5 | 5.7 | 3.1 | 5.9 | (*) | (*) | (*) | (*) | 1.1 | 4.8 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | (*) | (*) | (*) | (*) | 3.5 | 5.1 | (*) | (*) | (*) | (*) | 1.6 | 4.6 |
| 505 | Metals and minerals, except petroleum | 4.3-16.8 | 8.7 | 5.1-14.4 | 8.2 | 2.4 | 5.4 | 6.2-9.3 | 7.6 | 5.7-10.2 | 8.1 | 1.2 | 5.2 |
| 5051 pt. | Ferrous metals service centers and offices | 4.3-6.2 | 5.2 | 3.9-6.5 | 4.6 | 2.5 | 3.3 | 3.9-4.7 | 4.3 | 4.0-4.5 | 4.2 | 0.8 | 3.0 |
| 5051 pt. | Ferrous metals service centers | 4.8-7.1 | 5.1 | 4.9-5.2 | 5.1 | 2.8 | 3.6 | 2.8-5.5 | 4.6 | 3.1-4.8 | 4.0 | 0.9 | 3.4 |
| 5051 pt. | Nonferrous metals service centers and offices | (*) | (*) | (*) | (*) | 4.1 | 23.3 | (*) | (*) | (*) | (*) | 5.2 | 22.5 |
| 506 | Electrical goods | 3.8-5.0 | 4.1 | 3.3-4.6 | 3.6 | 2.3 | 3.0 | 3.2-4.8 | 3.5 | 3.3-4.6 | 3.5 | 0.7 | 2.8 |
| 5063 | Electrical apparatus and equipment, wiring supplies, and construction materials | 3.7-6.7 | 4.5 | 3.3-6.9 | 4.1 | 3.1 | 4.5 | 3.2-5.1 | 3.5 | 3.2-4.5 | 3.3 | 0.8 | 2.9 |
| 5064,5 | Electrical appliances, TV and radio sets, and electronic parts and equipment | 5.2-7.4 | 6.0 | 5.0-6.6 | 5.6 | 2.8 | 4.4 | 3.9-6.9 | 4.4 | 3.8-6.5 | 4.7 | 1.2 | 4.1 |
| 5064 | Electrical appliances, TV and radio sets | 4.9-8.2 | 6.4 | 5.1-6.7 | 5.5 | 2.8 | 4.3 | (*) | (*) | (*) | (*) | 1.3 | 5.0 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 3.1-4.5 | 3.5 | 2.9-3.7 | 3.3 | 1.6 | 2.3 | 2.8-4.2 | 3.6 | 2.9-4.2 | 3.5 | 0.8 | 3.8 |
| 5072 | Hardware | 2.6-3.8 | 3.6 | 2.8-3.9 | 3.2 | 1.6 | 2.9 | 4.7-6.3 | 5.6 | 4.5-6.1 | 5.7 | 1.3 | 3.5 |
| 5074 | Plumbing and heating equipment and supplies (hydronics) | 5.4-7.7 | 6.4 | 5.1-6.6 | 5.9 | 2.9 | 5.4 | 5.0-6.0 | 5.4 | 4.7-5.6 | 5.3 | 1.3 | 8.6 |
| 5075 | Warm air heating and air conditioning equipment and supplies | (*) | (*) | (*) | (*) | 4.1 | 5.7 | (*) | (*) | (*) | (*) | 1.2 | 5.1 |
| 508 | Machinery, equipment, and supplies | 2.9-4.5 | 3.3 | 2.6-3.2 | 2.8 | 1.8 | 3.3 | 1.8-2.4 | 2.2 | 1.8-2.3 | 2.1 | 0.4 | 1.8 |
| 5081 | Commercial machines and equipment | (*) | (*) | (*) | (*) | 4.4 | 6.6 | (*) | (*) | (*) | (*) | 1.5 | 5.7 |
| 5082 | Construction and mining machinery and equipment | 4.8-6.6 | 5.4 | 4.1-5.1 | 4.5 | 3.9 | 5.4 | 3.8-5.3 | 4.2 | 3.9-4.9 | 4.1 | 1.1 | 4.1 |
| 5083 | Farm and garden machinery and equipment | (*) | (*) | (*) | (*) | 6.0 | 9.8 | (*) | (*) | (*) | (*) | 1.4 | 4.7 |
| 5084,5 | Industrial machinery, equipment, and supplies | 3.2-4.1 | 3.3 | 2.4-3.4 | 2.8 | 2.5 | 4.9 | 3.2-4.2 | 3.8 | 3.1-3.8 | 3.5 | 0.6 | 2.5 |
| 5086 | Professional equipment and supplies | (*) | (*) | (*) | (*) | 2.7 | 4.7 | (*) | (*) | (*) | (*) | 1.1 | 5.2 |
| 5093 | Scrap and waste materials | 4.2-5.4 | 5.1 | 4.2-5.3 | 4.7 | 2.2 | 3.9 | (*) | (*) | (*) | (*) | 1.3 | 3.2 |
| 5093 pt. | Iron and steel scrap | (*) | (*) | (*) | (*) | 2.2 | 5.0 | (*) | (*) | (*) | (*) | 1.5 | 4.3 |
| 5093 pt. | Waste materials | (*) | (*) | (*) | (*) | 3.9 | 6.9 | (*) | (*) | (*) | (*) | 2.2 | 5.4 |
| 51 | Nondurable goods, total | 1.8-2.1 | 1.9 | 1.6-2.0 | 1.9 | 0.8 | 1.2 | 2.6-3.0 | 2.8 | 2.6-2.8 | 2.7 | 0.5 | 1.3 |
| | Total (excluding farm-product raw materials) | 1.9-2.4 | 2.1 | 1.7-2.3 | 2.0 | 0.9 | 1.4 | 3.3-3.6 | 3.5 | 3.2-3.5 | 3.3 | 0.4 | 1.4 |
| 511 | Paper and paper products | 4.6-7.7 | 5.2 | 4.5-6.9 | 4.9 | 1.5 | 3.0 | 4.6-7.3 | 6.3 | 4.6-7.1 | 5.9 | 0.8 | 3.4 |
| 5111,3 | Printing, writing, industrial, and personal service paper | 3.0-5.1 | 3.3 | 3.0-4.6 | 3.2 | 1.1 | 2.3 | 5.0-6.9 | 6.4 | 4.9-6.9 | 6.3 | 0.8 | 3.1 |
| 5111 | Printing and writing paper | 2.6-3.9 | 2.8 | 2.4-3.4 | 2.7 | 1.3 | 2.7 | 3.9-4.9 | 4.3 | 3.7-4.8 | 4.2 | 0.7 | 3.2 |
| 5113 | Industrial and personal service paper | 4.4-7.7 | 5.0 | 4.4-6.8 | 4.5 | 1.9 | 4.8 | 7.3-11.4 | 9.9 | 6.9-11.2 | 9.7 | 1.3 | 4.2 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 2.3-3.1 | 2.7 | 2.2-2.9 | 2.7 | 1.5 | 3.1 | 3.6-5.1 | 4.4 | 4.0-5.1 | 4.6 | 1.4 | 4.0 |
| 5122 | Drugs, drug proprietaries, and druggists' sundries | 2.3-3.1 | 2.7 | 2.2-2.9 | 2.7 | 1.5 | 3.1 | (*) | (*) | (*) | (*) | 1.4 | 4.0 |
| 5122 pt. | General-line drugs | 6.0-6.9 | 6.6 | 6.0-6.9 | 6.6 | 1.1 | 4.1 | (*) | (*) | (*) | (*) | 0.9 | 6.6 |
| 513 | Apparel, piece goods, and notions | 12.0-15.7 | 13.2 | 10.9-14.6 | 13.4 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |
| 514 | Groceries and related products | 1.7-2.4 | 2.2 | 1.8-2.3 | 2.1 | 0.5 | 1.3 | 1.6-2.2 | 1.8 | 1.6-2.0 | 1.8 | 0.4 | 1.6 |
| 5141 | Groceries, general-line | 2.6-3.4 | 3.3 | 2.8-3.3 | 3.1 | 0.6 | 1.7 | 1.9-2.8 | 2.2 | 1.7-2.7 | 1.9 | 0.5 | 1.7 |
| 5141 pt. | Voluntary groups | (*) | (*) | (*) | (*) | 0.7 | 2.1 | (*) | (*) | (*) | (*) | 0.7 | 2.8 |
| 5141 pt. | Retailer cooperatives | (*) | (*) | (*) | (*) | 0.6 | 1.8 | (*) | (*) | (*) | (*) | 0.6 | 2.3 |
| 5141 pt. | Other general-lines | (*) | (*) | (*) | (*) | 1.3 | 2.8 | (*) | (*) | (*) | (*) | 1.0 | 3.7 |
| 5142,3,6,9 | Specialty-line groceries | (*) | (*) | (*) | (*) | 1.2 | 3.3 | (*) | (*) | (*) | (*) | 1.0 | 3.6 |
| 5144 | Poultry and poultry products | 5.6-7.2 | 6.5 | 5.4-7.2 | 6.7 | 1.8 | 3.2 | (*) | (*) | (*) | (*) | 1.5 | 5.2 |
| 5145 | Confectionery | 5.1-12.9 | 6.7 | 4.8-9.5 | 6.6 | 2.7 | 5.5 | (*) | (*) | (*) | (*) | 1.7 | 4.0 |
| 5147 | Meats and meat products | 5.6-7.0 | 6.8 | 5.4-6.9 | 6.5 | 1.5 | 4.2 | (*) | (*) | (*) | (*) | 1.4 | 6.3 |
| 5148 | Fresh fruits and vegetables | 4.0-5.7 | 4.4 | 3.5-5.0 | 4.7 | 2.3 | 3.2 | (*) | (*) | (*) | (*) | 2.6 | 6.2 |
| 515 | Farm-product raw materials | 2.6-5.2 | 3.0 | 2.1-4.6 | 3.4 | 2.3 | 2.9 | (*) | (*) | (*) | (*) | 1.5 | 4.0 |
| 5152 | Cotton | (*) | (*) | (*) | (*) | 6.9 | 10.2 | (*) | (*) | (*) | (*) | 1.0 | 2.5 |
| 5153 | Grain | 3.2-5.9 | 3.8 | 2.6-5.3 | 3.9 | 2.5 | 3.3 | (*) | (*) | (*) | (*) | 1.7 | 5.0 |
| 517 | Petroleum and petroleum products | 5.1-7.8 | 7.1 | 4.9-8.0 | 6.2 | 2.0 | 4.1 | 5.6-6.5 | 5.8 | 5.1-6.1 | 5.6 | 1.7 | 3.3 |
| 5171 | Petroleum bulk stations and terminals | 3.5-5.1 | 4.0 | 3.1-4.2 | 3.9 | 1.7 | 3.7 | (*) | (*) | (*) | (*) | 2.1 | 3.9 |
| 518 | Beer, wine, and distilled alcoholic beverages | 4.5-5.9 | 4.9 | 4.3-5.5 | 4.9 | 1.2 | 3.0 | 3.8-5.0 | 4.2 | 3.9-5.0 | 4.3 | 1.4 | 3.2 |
| 5181 | Beer and ale | 5.2-6.1 | 5.8 | 5.4-6.2 | 5.7 | 1.4 | 3.5 | 7.9-10.2 | 8.1 | 7.7-9.9 | 8.8 | 2.7 | 4.7 |
| 5182 | Wine and distilled alcoholic beverages | 5.1-7.2 | 5.7 | 5.1-6.9 | 5.7 | 1.9 | 4.1 | 3.4-5.0 | 4.4 | 3.7-4.6 | 4.0 | 1.3 | 4.5 |
| 519 | Miscellaneous nondurable goods | 2.5-4.9 | 3.9 | 2.5-3.9 | 3.4 | 1.9 | 3.2 | (*) | (*) | (*) | (*) | 0.9 | 2.7 |
| 5191 | Farm supplies | (*) | (*) | (*) | (*) | 4.4 | 5.7 | (*) | (*) | (*) | (*) | 1.6 | 4.5 |
| 5194 | Tobacco and tobacco products | 5.6-6.7 | 6.1 | 5.3-6.8 | 5.8 | 1.3 | 3.9 | (*) | (*) | (*) | (*) | 1.3 | 4.7 |
| 5198 | Paints, varnishes, and supplies | (*) | (*) | (*) | (*) | 2.4 | 6.8 | (*) | (*) | (*) | (*) | 1.1 | 5.8 |
| 5199 pt. | Books, periodicals, newspapers | (*) | (*) | (*) | (*) | 6.6 | 17.4 | (*) | (*) | (*) | (*) | 1.4 | 14.4 |

Note: Measures of sampling variability are based on data unadjusted for seasonal variations or trading-day differences. The range of sampling error of the monthly dollar estimates and the ratio of current month to previous month for sales and inventories is based on data for August 1979 through January 1980.

* Measures of sampling variability are not shown since sales and/or inventory estimates for these kinds of business are not published.

# APPENDIX B. Adjustment for Seasonal and Trading-Day Variations

Seasonal factors for adjusting data in this historical publication have been developed by the method described in the **X-11 Variant of the Census Method II Seasonal Adjustment Program**, U.S. Bureau of the Census Technical Paper No. 15, Revised 1967. Trading-day factors for adjusting sales were also derived from the X-11 program.

Adjustment of estimates is an approximation based on past experiences, and therefore, will be less precise to the extent that current competitive pressures, changes in economic condition, and other elements introduce significant changes in seasonal and trading-day patterns.

A description of trading-day adjustment factors may be found in **Estimating Trading-Day Variation in Monthly Economic Time Series**, Bureau of the Census Technical Paper No. 12, 1965. Additional details concerning the adjustment factors may be obtained from the Chief, Business Division, Bureau of the Census, Washington, D.C. 20233.

## Table B-1. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers: January 1980-December 1981

| 1972 SIC code | Kind of business | 1980 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| | | Seasonal and trading-day adjustment factors for sales | | | | | | | | | | | |
| | Merchant wholesalers, total | 96.2 | 95.1 | 101.4 | 102.6 | 103.3 | 100.1 | 101.1 | 99.4 | 100.5 | 106.6 | 96.5 | 101.1 |
| | Total (excluding farm-product raw materials) | 94.8 | 94.7 | 101.4 | 102.9 | 103.5 | 100.9 | 102.0 | 100.0 | 101.8 | 106.0 | 95.6 | 100.0 |
| 50 | Durable goods, total | 90.4 | 92.6 | 101.9 | 103.6 | 104.0 | 102.3 | 101.9 | 102.4 | 103.3 | 108.6 | 94.3 | 98.3 |
| 501 | Motor vehicle and automotive parts and supplies | 95.6 | 94.3 | 104.7 | 111.7 | 108.1 | 101.6 | 102.6 | 100.1 | 93.2 | 104.6 | 91.8 | 95.4 |
| 502 | Furniture and home furnishings | 89.7 | 93.0 | 101.5 | 103.4 | 99.4 | 99.4 | 96.7 | 99.1 | 103.8 | 115.9 | 101.9 | 100.8 |
| 503 | Lumber and other construction materials | 81.7 | 83.3 | 93.2 | 99.7 | 104.8 | 107.5 | 110.0 | 111.8 | 111.6 | 116.0 | 94.1 | 90.1 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 81.0 | 85.5 | 97.7 | 100.6 | 94.0 | 96.8 | 112.6 | 104.2 | 109.8 | 112.7 | 108.0 | 101.4 |
| 505 | Metals and minerals, except petroleum | 96.4 | 97.9 | 106.9 | 102.5 | 101.0 | 101.6 | 98.1 | 103.2 | 102.4 | 103.3 | 93.8 | 97.6 |
| 506 | Electrical goods | 91.7 | 90.4 | 99.0 | 95.5 | 98.5 | 102.0 | 102.9 | 101.8 | 105.8 | 109.9 | 101.4 | 105.0 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 93.5 | 87.9 | 96.2 | 103.1 | 104.6 | 104.1 | 107.7 | 103.3 | 102.4 | 111.6 | 95.9 | 93.7 |
| 508 | Machinery, equipment, and supplies | 90.0 | 92.5 | 102.4 | 104.9 | 106.8 | 103.4 | 100.9 | 100.4 | 104.9 | 107.3 | 91.4 | 98.6 |
| 509 | Miscellaneous durable goods | 91.8 | 97.5 | 108.3 | 102.0 | 98.0 | 95.1 | 91.6 | 100.4 | 108.1 | 112.4 | 96.5 | 101.0 |
| 51 | Nondurable goods, total | 99.9 | 96.1 | 101.2 | 100.9 | 102.4 | 99.4 | 100.8 | 97.2 | 98.7 | 105.3 | 98.2 | 104.0 |
| | Total (excluding farm-product raw materials) | 98.7 | 96.5 | 101.1 | 101.5 | 102.9 | 100.5 | 100.9 | 98.7 | 99.8 | 104.0 | 97.0 | 102.2 |
| 511 | Paper and paper products | 101.1 | 97.3 | 101.0 | 100.9 | 100.8 | 98.2 | 100.6 | 99.6 | 101.6 | 107.8 | 94.9 | 100.6 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 98.9 | 93.2 | 99.8 | 101.6 | 99.1 | 97.7 | 101.9 | 98.1 | 103.2 | 112.3 | 96.3 | 102.0 |
| 513 | Apparel, piece goods, and notions | 95.8 | 94.5 | 100.4 | 97.1 | 93.0 | 90.8 | 103.4 | 110.1 | 113.5 | 113.8 | 99.3 | 93.4 |
| 514 | Groceries and related products | 99.6 | 94.8 | 100.3 | 102.2 | 104.4 | 99.1 | 103.4 | 99.1 | 99.4 | 104.3 | 97.0 | 101.1 |
| 515 | Farm-product raw materials[1] | 102.8 | 96.7 | 102.6 | 101.9 | 104.5 | 93.7 | 96.2 | 92.8 | 96.0 | 108.9 | 102.1 | 106.7 |
| 516 | Chemicals and allied products | 96.8 | 92.8 | 99.3 | 97.3 | 104.8 | 104.5 | 91.3 | 103.3 | 98.6 | 110.6 | 100.8 | 104.8 |
| 517 | Petroleum and petroleum products | 106.1 | 104.2 | 99.6 | 97.4 | 99.7 | 96.6 | 97.9 | 97.6 | 96.9 | 101.1 | 102.5 | 104.4 |
| 518 | Beer, wine, and distilled alcoholic beverages | 84.1 | 85.8 | 94.4 | 99.5 | 103.5 | 106.6 | 106.3 | 103.4 | 98.7 | 106.5 | 97.8 | 117.7 |
| 519 | Miscellaneous nondurable goods | 95.2 | 94.8 | 109.2 | 107.8 | 115.1 | 104.8 | 95.0 | 93.3 | 99.2 | 98.9 | 91.7 | 96.7 |
| | | Seasonal adjustment factors for inventories | | | | | | | | | | | |
| | Merchant wholesalers, total | 100.3 | 101.6 | 102.4 | 101.4 | 100.3 | 99.1 | 98.4 | 98.3 | 98.3 | 99.9 | 100.4 | 99.9 |
| | Total (excluding farm-product raw materials) | 98.8 | 100.1 | 101.4 | 101.3 | 100.9 | 100.8 | 100.6 | 99.6 | 99.3 | 99.6 | 99.4 | 98.6 |
| 50 | Durable goods, total | 98.6 | 99.9 | 100.9 | 100.9 | 101.4 | 101.8 | 101.4 | 100.4 | 99.4 | 98.9 | 98.4 | 98.3 |
| 501 | Motor vehicles and automotive parts and supplies | 101.4 | 104.4 | 102.6 | 100.9 | 101.6 | 100.1 | 99.4 | 97.3 | 95.4 | 98.1 | 98.9 | 100.1 |
| 502 | Furniture and home furnishings | 98.1 | 98.1 | 100.9 | 99.9 | 100.4 | 102.9 | 101.6 | 100.3 | 102.4 | 100.6 | 98.3 | 96.9 |
| 503 | Lumber and other construction materials | 97.8 | 99.1 | 103.3 | 102.8 | 102.8 | 102.4 | 102.4 | 100.3 | 98.9 | 98.1 | 96.1 | 96.9 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 95.1 | 99.1 | 100.1 | 103.9 | 102.3 | 106.3 | 106.1 | 101.4 | 101.3 | 99.9 | 93.6 | 91.3 |
| 505 | Metals and minerals, except petroleum | 98.4 | 97.1 | 98.6 | 97.8 | 102.4 | 100.9 | 102.1 | 105.4 | 101.4 | 97.6 | 99.9 | 98.4 |
| 506 | Electrical goods | 96.3 | 95.6 | 98.1 | 99.3 | 101.9 | 102.1 | 102.1 | 102.4 | 101.6 | 101.6 | 100.1 | 99.4 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 97.6 | 99.9 | 102.6 | 105.4 | 103.9 | 103.1 | 101.9 | 99.3 | 97.6 | 97.9 | 95.1 | 95.8 |
| 508 | Machinery, equipment, and supplies | 98.1 | 99.9 | 101.6 | 100.9 | 101.4 | 102.1 | 100.6 | 100.8 | 100.6 | 98.1 | 98.4 | 98.1 |
| 509 | Miscellaneous durable goods | 99.6 | 99.1 | 98.4 | 99.6 | 98.3 | 99.9 | 102.6 | 100.9 | 101.4 | 102.1 | 99.1 | 99.3 |
| 51 | Nondurable goods, total | 104.4 | 102.9 | 105.3 | 100.9 | 96.9 | 95.1 | 94.8 | 94.3 | 96.4 | 102.1 | 104.1 | 103.4 |
| | Total (excluding farm-product raw materials) | 100.4 | 99.8 | 102.6 | 101.4 | 99.9 | 98.4 | 98.8 | 97.8 | 99.3 | 101.4 | 100.9 | 99.8 |
| 511 | Paper and paper products | 97.1 | 98.4 | 99.6 | 100.9 | 100.4 | 102.6 | 100.1 | 98.9 | 101.1 | 100.1 | 100.3 | 100.9 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 96.4 | 96.1 | 100.3 | 101.3 | 99.3 | 100.4 | 100.4 | 99.9 | 102.8 | 105.3 | 100.9 | 97.4 |
| 513 | Apparel, piece goods, and notions | 101.6 | 100.6 | 98.3 | 98.9 | 100.4 | 100.6 | 101.3 | 101.1 | 98.9 | 99.4 | 99.9 | 99.6 |
| 514 | Groceries and related products | 98.6 | 99.9 | 101.6 | 100.6 | 99.1 | 99.9 | 98.3 | 97.1 | 100.3 | 102.9 | 100.9 | 101.4 |
| 515 | Farm-product raw materials[1] | 119.2 | 117.1 | 114.9 | 101.6 | 86.8 | 82.4 | 78.9 | 79.3 | 84.8 | 103.4 | 116.3 | 115.6 |
| 516 | Chemicals and allied products | 98.6 | 100.6 | 100.8 | 100.8 | 103.9 | 101.9 | 102.4 | 100.3 | 100.6 | 96.6 | 96.3 | 97.6 |
| 517 | Petroleum and petroleum products | 102.6 | 99.1 | 100.1 | 95.4 | 97.8 | 94.8 | 97.9 | 99.9 | 102.4 | 103.9 | 104.3 | 101.8 |
| 518 | Beer, wine, and distilled alcoholic beverages | 97.3 | 94.6 | 101.1 | 104.6 | 103.3 | 102.4 | 100.8 | 96.6 | 99.3 | 104.1 | 103.4 | 93.1 |
| 519 | Miscellaneous nondurable goods | 104.3 | 106.4 | 109.3 | 103.9 | 98.8 | 92.8 | 94.8 | 96.1 | 95.3 | 98.8 | 100.1 | 99.6 |

See footnotes at end of table.

# Table B-1. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers: January 1980-December 1981—Continued

| 1972 SIC code | Kind of business | 1981 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| | | Seasonal and trading-day adjustment factors for sales | | | | | | | | | | | |
| | Merchant wholesalers, total | 93.7 | 91.1 | 104.8 | 102.1 | 100.5 | 103.2 | 100.5 | 98.5 | 101.0 | 104.6 | 98.2 | 102.1 |
| | Total (excluding farm-product raw materials) | 92.3 | 91.4 | 104.1 | 103.3 | 99.8 | 104.3 | 100.7 | 100.2 | 101.6 | 104.5 | 97.2 | 101.3 |
| 50 | Durable goods, total | 88.1 | 88.9 | 104.6 | 103.9 | 100.5 | 105.3 | 101.7 | 102.6 | 103.1 | 106.2 | 96.8 | 98.7 |
| 501 | Motor vehicles and automotive parts and supplies | 92.4 | 91.4 | 108.3 | 112.9 | 104.6 | 103.4 | 100.7 | 100.3 | 93.0 | 103.3 | 93.6 | 98.1 |
| 502 | Furniture and home furnishings | 87.0 | 89.5 | 103.7 | 103.0 | 98.3 | 100.8 | 96.4 | 98.0 | 106.3 | 112.7 | 102.4 | 101.8 |
| 503 | Lumber and other construction materials | 79.6 | 79.1 | 96.9 | 99.3 | 101.4 | 111.5 | 110.0 | 110.5 | 111.3 | 113.5 | 96.9 | 90.8 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 79.0 | 82.5 | 98.3 | 101.3 | 90.0 | 99.4 | 112.6 | 104.8 | 110.9 | 111.2 | 108.5 | 102.6 |
| 505 | Metals and minerals, except petroleum | 91.5 | 93.7 | 112.0 | 100.7 | 100.5 | 103.6 | 98.1 | 102.5 | 103.9 | 98.5 | 97.2 | 96.9 |
| 506 | Electrical goods | 88.4 | 88.9 | 99.9 | 95.8 | 95.3 | 104.7 | 100.3 | 103.8 | 106.9 | 108.9 | 101.4 | 106.5 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 90.5 | 85.6 | 98.4 | 103.9 | 101.6 | 106.3 | 106.0 | 104.3 | 102.6 | 109.7 | 97.6 | 94.9 |
| 508 | Machinery, equipment, and supplies | 88.5 | 88.9 | 104.3 | 105.9 | 102.0 | 107.3 | 100.6 | 100.8 | 104.2 | 105.8 | 93.2 | 99.3 |
| 509 | Miscellaneous durable goods | 90.7 | 92.5 | 114.4 | 100.2 | 93.0 | 101.6 | 90.5 | 99.0 | 106.2 | 112.0 | 99.0 | 101.2 |
| 51 | Nondurable goods, total | 97.5 | 91.9 | 104.8 | 100.6 | 99.5 | 102.6 | 99.9 | 96.0 | 98.6 | 103.7 | 99.8 | 105.7 |
| | Total (excluding farm-product raw materials) | 96.2 | 92.8 | 103.7 | 101.9 | 99.9 | 103.3 | 100.0 | 98.4 | 99.9 | 102.2 | 98.6 | 103.6 |
| 511 | Paper and paper products | 98.0 | 93.9 | 103.9 | 101.0 | 96.9 | 102.3 | 99.0 | 99.1 | 102.6 | 105.7 | 95.6 | 102.6 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 95.2 | 90.3 | 103.2 | 102.6 | 95.6 | 100.5 | 100.4 | 98.8 | 102.8 | 109.9 | 98.7 | 103.8 |
| 513 | Apparel, piece goods, and notions | 92.1 | 92.1 | 101.9 | 97.1 | 88.8 | 94.3 | 101.1 | 110.9 | 116.4 | 111.7 | 99.2 | 95.0 |
| 514 | Groceries and related products | 98.0 | 91.2 | 102.6 | 101.4 | 101.1 | 103.0 | 101.8 | 98.1 | 99.6 | 104.1 | 96.9 | 102.8 |
| 515 | Farm-product raw materials[1] | 101.3 | 90.6 | 108.3 | 98.8 | 101.7 | 99.4 | 95.1 | 90.0 | 95.4 | 109.1 | 103.1 | 108.0 |
| 516 | Chemicals and allied products | 93.5 | 88.3 | 102.3 | 97.0 | 103.6 | 105.3 | 92.0 | 102.7 | 100.0 | 104.9 | 105.3 | 104.8 |
| 517 | Petroleum and petroleum products | 103.6 | 100.6 | 103.3 | 95.9 | 97.9 | 99.8 | 94.5 | 96.8 | 96.6 | 101.6 | 102.9 | 107.3 |
| 518 | Beer, wine, and distilled alcoholic beverages | 81.5 | 81.1 | 98.9 | 99.7 | 100.0 | 109.7 | 107.3 | 101.5 | 99.7 | 102.2 | 101.3 | 119.0 |
| 519 | Miscellaneous nondurable goods | 94.9 | 89.7 | 111.5 | 109.4 | 111.8 | 106.8 | 96.0 | 92.5 | 97.9 | 98.0 | 94.0 | 97.8 |
| | | Seasonal adjustment factors for inventories | | | | | | | | | | | |
| | Merchant wholesalers, total | 100.3 | 101.6 | 102.4 | 101.4 | 100.4 | 99.1 | 98.4 | 98.3 | 98.3 | 99.9 | 100.4 | 99.9 |
| | Total (excluding farm-product raw materials) | 98.8 | 100.1 | 101.4 | 101.3 | 101.1 | 100.8 | 100.6 | 99.8 | 99.3 | 99.6 | 99.4 | 98.6 |
| 50 | Durable goods, total | 98.4 | 99.9 | 100.9 | 100.9 | 101.6 | 101.8 | 101.4 | 100.4 | 99.4 | 98.9 | 98.4 | 98.1 |
| 501 | Motor vehicles and automotive parts and supplies | 101.4 | 104.6 | 102.6 | 100.9 | 101.6 | 100.1 | 99.4 | 97.3 | 95.3 | 97.9 | 98.9 | 100.1 |
| 502 | Furniture and home furnishings | 98.1 | 98.1 | 100.9 | 100.1 | 100.4 | 102.9 | 101.6 | 100.1 | 102.4 | 100.6 | 98.3 | 96.9 |
| 503 | Lumber and other construction materials | 97.6 | 99.1 | 103.3 | 102.8 | 102.8 | 102.4 | 102.4 | 100.3 | 98.9 | 98.1 | 96.1 | 96.8 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 94.9 | 98.9 | 100.1 | 104.1 | 102.3 | 106.3 | 106.3 | 101.4 | 101.3 | 99.8 | 93.6 | 91.4 |
| 505 | Metals and minerals, except petroleum | 98.4 | 97.1 | 98.6 | 97.6 | 102.6 | 100.9 | 102.1 | 105.6 | 101.4 | 97.6 | 99.9 | 98.4 |
| 506 | Electrical goods | 96.3 | 95.6 | 98.1 | 99.3 | 101.9 | 102.1 | 102.1 | 102.4 | 101.6 | 101.6 | 100.1 | 99.3 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 97.6 | 100.1 | 102.8 | 105.4 | 103.9 | 103.1 | 101.9 | 99.1 | 97.6 | 98.1 | 95.1 | 95.8 |
| 508 | Machinery, equipment, and supplies | 97.9 | 99.9 | 101.6 | 100.9 | 101.6 | 102.1 | 100.6 | 100.8 | 100.6 | 98.1 | 98.3 | 98.1 |
| 509 | Miscellaneous durable goods | 99.8 | 99.1 | 98.6 | 99.6 | 98.4 | 99.9 | 102.6 | 100.9 | 101.3 | 102.1 | 99.1 | 99.3 |
| 51 | Nondurable goods, total | 104.4 | 102.9 | 105.4 | 101.1 | 97.1 | 95.1 | 94.8 | 94.1 | 96.3 | 102.1 | 104.1 | 103.3 |
| | Total (excluding farm-product raw materials) | 100.4 | 99.8 | 102.6 | 101.6 | 99.9 | 98.4 | 98.8 | 97.8 | 99.3 | 101.4 | 100.9 | 99.6 |
| 511 | Paper and paper products | 97.1 | 98.4 | 99.6 | 100.9 | 100.4 | 102.6 | 100.1 | 98.9 | 101.1 | 100.1 | 100.3 | 100.9 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 96.4 | 95.9 | 100.4 | 101.1 | 99.4 | 100.3 | 100.6 | 99.9 | 102.9 | 105.3 | 100.9 | 97.3 |
| 513 | Apparel, piece goods, and notions | 101.6 | 100.6 | 98.3 | 98.9 | 100.4 | 100.6 | 101.3 | 101.1 | 98.8 | 99.4 | 99.9 | 99.6 |
| 514 | Groceries and related products | 98.6 | 99.9 | 101.6 | 100.6 | 99.3 | 100.1 | 98.1 | 97.1 | 100.3 | 102.9 | 100.8 | 101.4 |
| 515 | Farm-product raw materials[1] | 119.4 | 117.2 | 115.3 | 101.9 | 86.8 | 82.3 | 78.8 | 79.0 | 84.8 | 103.6 | 116.2 | 115.6 |
| 516 | Chemicals and allied products | 98.6 | 100.8 | 100.8 | 100.8 | 104.1 | 101.9 | 102.4 | 100.4 | 100.6 | 96.6 | 96.1 | 97.6 |
| 517 | Petroleum and petroleum products | 102.4 | 99.1 | 100.1 | 95.6 | 98.1 | 94.8 | 98.1 | 99.9 | 102.4 | 103.9 | 104.3 | 101.8 |
| 518 | Beer, wine, and distilled alcoholic beverages | 97.4 | 94.4 | 101.4 | 104.8 | 103.3 | 102.3 | 100.8 | 96.6 | 99.1 | 103.9 | 103.4 | 93.1 |
| 519 | Miscellaneous nondurable goods | 104.3 | 106.4 | 109.4 | 104.1 | 98.9 | 92.8 | 94.8 | 96.1 | 95.3 | 98.8 | 100.1 | 99.4 |

Note: The adjustment factors shown above for sales are a combination of the seasonal and trading-day factors. These are separately available, however, upon request. Adjustment factors are included in this table for some kinds of business for which adjusted data are not published separately.

Adjusted sales and inventory data shown in table 4 are obtained by dividing the unadjusted data shown in tables 1 and 2 by the adjustment factors shown above for the corresponding kinds of business. Adjusted data for the summary trade totals are obtained by summarizing the adjusted data for the individual kinds of business. Seasonal factors shown for the summary trade totals provide an approximation to these totals but may show small differences from the published data.

[1]There are indications that the seasonal adjustment factors for the farm-product raw materials category may not reflect recent trends in this trade. The seasonally adjusted data for this category and also for the merchant wholesale and nondurable goods totals should, therefore, be used with caution.

# Table B-2. Average Month-to-Month Percent Changes and Related Summary Measures for Sales and Inventories of Merchant Wholesalers

| 1972 SIC code | Kind of business | $\bar{O}$ | $\bar{S}$ | $\overline{CI}$ | $\bar{I}$ | $\bar{C}$ | $\bar{I}/\bar{C}$ | MCD | Average duration of run | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | CI | I | C | MCD |
| | | Sales | | | | | | | | | | |
| | Merchant wholesalers, total | 4.89 | 3.09 | 1.47 | .85 | 1.12 | .75 | 1 | 2.98 | 1.49 | 13.92 | 2.98 |
| 50 | Durable goods, total | 5.43 | 4.75 | 1.61 | 1.05 | 1.17 | .90 | 1 | 3.48 | 1.53 | 20.87 | 3.48 |
| 501 | Motor vehicles and automotive parts and supplies | 5.73 | 4.39 | 2.76 | 2.37 | 1.27 | 1.86 | 3 | 2.09 | 1.61 | 23.86 | 4.23 |
| 502 | Furniture and home furnishings | 7.76 | 6.99 | 2.43 | 2.09 | 1.01 | 2.07 | 3 | 2.04 | 1.59 | 13.92 | 4.34 |
| 503 | Lumber and other construction materials | 7.69 | 6.40 | 2.77 | 1.99 | 1.72 | 1.15 | 2 | 3.09 | 1.62 | 18.56 | 4.61 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 9.44 | 8.63 | 4.18 | 3.85 | 1.26 | 3.06 | 4 | 1.69 | 1.50 | 7.59 | 3.73 |
| 505 | Metals and minerals, except petroleum | 7.02 | 4.10 | 3.22 | 2.50 | 1.85 | 1.35 | 2 | 1.88 | 1.43 | 8.35 | 3.07 |
| 506 | Electrical goods | 5.75 | 5.04 | 2.31 | 1.98 | 1.08 | 1.83 | 2 | 1.76 | 1.53 | 16.70 | 3.39 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 5.84 | 4.73 | 1.98 | 1.67 | 1.01 | 1.66 | 2 | 2.23 | 1.48 | 15.18 | 3.77 |
| 508 | Machinery, equipment, and supplies | 6.04 | 5.35 | 2.03 | 1.68 | 1.01 | 1.67 | 2 | 2.04 | 1.62 | 13.92 | 3.32 |
| 509 | Miscellaneous durable goods | 8.01 | 6.42 | 3.79 | 3.09 | 1.88 | 1.65 | 2 | 2.04 | 1.53 | 10.44 | 3.46 |
| 51 | Nondurable goods, total | 5.20 | 2.81 | 1.85 | 1.31 | 1.13 | 1.16 | 2 | 2.49 | 1.33 | 12.85 | 3.86 |
| 511 | Paper and paper products | 5.52 | 3.23 | 2.09 | 1.67 | 1.03 | 1.61 | 2 | 2.09 | 1.50 | 15.18 | 3.19 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 6.03 | 3.89 | 2.06 | 1.76 | .78 | 2.25 | 3 | 2.01 | 1.59 | 8.79 | 3.24 |
| 513 | Apparel, piece goods, and notions | 8.05 | 6.62 | 2.93 | 2.73 | 1.00 | 2.72 | 3 | 1.72 | 1.43 | 11.13 | 3.11 |
| 514 | Groceries and related products | 4.52 | 1.85 | 1.66 | 1.43 | .83 | 1.71 | 2 | 2.06 | 1.43 | 23.86 | 3.19 |
| 515 | Farm-product raw materials | 9.28 | 4.72 | 5.03 | 4.44 | 1.71 | 2.59 | 3 | 1.90 | 1.58 | 6.96 | 3.30 |
| 516 | Chemicals and allied products | 7.37 | 5.04 | 3.52 | 3.13 | 1.41 | 2.22 | 3 | 1.84 | 1.52 | 18.56 | 4.71 |
| 517 | Petroleum and petroleum products | 7.03 | 5.33 | 4.27 | 3.59 | 1.92 | 1.87 | 3 | 1.84 | 1.67 | 12.85 | 3.11 |
| 518 | Beer, wine, and distilled alcoholic beverages | 10.80 | 8.43 | 1.70 | 1.50 | .72 | 2.09 | 3 | 1.84 | 1.49 | 16.70 | 4.58 |
| 519 | Miscellaneous nondurable goods | 6.05 | 4.67 | 2.68 | 2.37 | 1.07 | 2.22 | 3 | 1.76 | 1.53 | 10.44 | 3.30 |
| | | Inventories | | | | | | | | | | |
| | Merchant wholesalers, total | 1.16 | .70 | .98 | .40 | .91 | .44 | 1 | 7.59 | 1.52 | 27.83 | 7.59 |
| 50 | Durable goods, total | 1.13 | .57 | .98 | .41 | .93 | .44 | 1 | 6.96 | 1.45 | 41.75 | 6.96 |
| 501 | Motor vehicles and automotive parts and supplies | 2.30 | 1.25 | 1.75 | 1.23 | 1.19 | 1.03 | 2 | 2.69 | 1.52 | 11.93 | 4.15 |
| 502 | Furniture and home furnishings | 2.22 | 1.32 | 1.64 | 1.26 | 1.01 | 1.25 | 2 | 2.14 | 1.49 | 13.92 | 4.26 |
| 503 | Lumber and other construction materials | 2.52 | 1.54 | 1.81 | 1.24 | 1.15 | 1.08 | 2 | 2.65 | 1.72 | 16.70 | 4.15 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 3.49 | 2.79 | 2.21 | 1.94 | 1.07 | 1.80 | 2 | 2.01 | 1.62 | 27.83 | 3.39 |
| 05 | Metals and minerals, except petroleum | 3.31 | 2.43 | 2.09 | 1.36 | 1.37 | 1.00 | 2 | 3.04 | 1.72 | 8.79 | 4.05 |
| 506 | Electrical goods | 1.78 | 1.15 | 1.44 | 1.08 | .94 | 1.15 | 2 | 2.49 | 1.40 | 33.40 | 4.37 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 1.74 | 1.28 | 1.22 | .86 | .88 | .97 | 1 | 2.53 | 1.55 | 18.56 | 2.53 |
| 508 | Machinery, equipment, and supplies | 1.43 | .85 | 1.14 | .71 | .92 | .77 | 1 | 2.78 | 1.64 | 41.75 | 2.78 |
| 509 | Miscellaneous durable goods | 2.32 | 1.31 | 1.94 | 1.35 | 1.27 | 1.06 | 2 | 2.09 | 1.58 | 18.56 | 4.49 |
| 51 | Nondurable goods, total | 2.58 | 2.11 | 1.48 | .92 | 1.05 | .88 | 1 | 3.48 | 1.86 | 9.28 | 3.48 |
| 511 | Paper and paper products | 1.90 | 1.02 | 1.41 | 1.05 | .79 | 1.32 | 2 | 1.96 | 1.37 | 8.35 | 4.05 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 2.55 | 1.60 | 1.72 | 1.49 | .74 | 2.01 | 3 | 1.69 | 1.55 | 20.87 | 3.24 |
| 513 | Apparel, piece goods, and notions | 2.22 | 1.30 | 1.84 | 1.48 | .97 | 1.53 | 2 | 2.06 | 1.55 | 8.35 | 2.96 |
| 514 | Groceries and related products | 1.94 | 1.37 | 1.40 | .97 | .97 | 1.01 | 2 | 2.42 | 1.45 | 16.70 | 4.37 |
| 515 | Farm-product raw materials | 8.85 | 7.57 | 4.51 | 3.64 | 2.15 | 1.69 | 3 | 2.42 | 2.04 | 7.59 | 4.12 |
| 516 | Chemicals and allied products | 3.17 | 1.64 | 2.45 | 1.87 | 1.43 | 1.30 | 2 | 2.26 | 1.52 | 16.70 | 3.95 |
| 517 | Petroleum and petroleum products | 5.01 | 2.95 | 3.67 | 2.65 | 2.06 | 1.29 | 2 | 2.29 | 1.65 | 10.44 | 3.95 |
| 518 | Beer, wine, and distilled alcoholic beverages | 4.28 | 3.68 | 1.83 | 1.46 | .86 | 1.70 | 2 | 2.14 | 1.49 | 8.79 | 3.46 |
| 519 | Miscellaneous nondurable goods | 2.85 | 1.88 | 1.96 | 1.55 | .91 | 1.71 | 2 | 1.92 | 1.50 | 8.35 | 3.07 |

## Description of Measures Shown Above

The following are brief descriptions of the measures shown in this table. More complete explanations appear in "Electronic Computers and Business Indicators," Occasional Paper 57, National Bureau of Economic Research, Inc., New York, 1957.

$\bar{O}$ is the average month-to-month percentage change, without regard to sign, in the original series before seasonal or trading-day adjustment.

$\bar{S}$ is the average month-to-month percentage change, without regard to sign, in the seasonal component. It is a measure of the average monthly seasonal change in the unadjusted series.

$\overline{CI}$ is the average month-to-month percentage change, without regard to sign, in the seasonally adjusted series.

$\bar{I}$ is the average month-to-month percentage change without regard to sign, for the irregular component. The irregular component is obtained by dividing the seasonally adjusted series by the cyclical component.

$\bar{C}$ is the average month-to-month percentage change, without regard to sign, for the cyclical component, which is a smooth, flexible moving average.

$\bar{I}/\bar{C}$ is a measure of the relative smoothness (small values) or irregularity (large values) of the seasonally adjusted series.

MCD (months for cyclical dominance) gives an estimate of the appropriate time span over which to observe cyclical movements in a monthly series. In deriving MCD, the average (without regard to sign) percentage changes in the irregular and cyclical components are computed for 1-month spans (Jan.-Feb., Feb.-Mar., etc.) 2-months spans (Jan.-Mar., Feb.-Apr., etc.), and so on. MCD is the shortest span for which the average change (without regard to sign) in the cyclical component is larger than the average change (without regard to sign) in the irregular component; that is, it indicates the point at which fluctuations begin to be more attributable to cyclical than to irregular movements. MCD is small for smooth series and large for erratic series.

Average duration of run (ADR) is a measure of smoothness, and is equal to the average number of consecutive monthly changes in the same direction in any series of observations. When there is no change between 2 months, a change in the same direction as the preceding change is assumed. The ADR is shown for the seasonally adjusted series CI, irregular component I, cyclical component C, and the MCD moving average. The MCD moving average is an unweighted moving average (with the number of terms equal to MCD) of the seasonally adjusted series.

A comparison of these measures with the expected ADR of a random series gives an indication of whether the changes approximate those of a random series. (The expected value of ADR for a random series is 1.5 and it falls between 1.36 and 1.75 about 95 percent of the time. For a moving average of a random series the expected value is 2.0). For example, the ADR of CI is 2.08 for electrical goods sales. This indicates that 1-month changes in the seasonally adjusted series, on the average, reverse sign slightly less often than a random series. In the next two columns, 1.46 for I and 10.58 for C indicate the separation of the seasonally adjusted series into an essentially random component and the cyclical (nonrandom) component. Finally, 3.32 for MCD indicates that a 2-month moving average of the seasonally adjusted series (2 months being the MCD span) reverses direction on the average about every 3 months. The increase in the average duration of run from 2.08 for CI to 3.32 for the MCD moving average indicates that for this series the use of MCD spans reduces the effect of the irregular component upon the seasonally adjusted series.

These averages are based on a seasonally adjusted series which is adjusted historically; that is, the months used to compute the measures were the same months used to estimate the seasonal factors. Current data, however, are adjusted by use of factors projected 1 year ahead, and are thus subject to additional error. Therefore, current data are probably somewhat more irregular and subject to larger MCD than shown above.

# APPENDIX C. Explanatory Material

## I. SCOPE OF THE SURVEY

Wholesale trade, as defined in Major Groups 50 and 51 of the 1972 edition of the Standard Industrial Classification (SIC) Manual[1] and as covered in the 1972 census, includes establishments or places of business primarily engaged in selling merchandise to retailers; to industrial, commercial, institutional, farm or professional business users; or to other wholesalers; or acting as agents or brokers in buying merchandise for or selling merchandise to such persons or companies.

The principal types of establishments included are: (1) merchant wholesalers who take title to the goods they sell, such as wholesale merchants or jobbers, industrial distributors, voluntary group wholesalers, exporters, importers, cash-and-carry wholesalers, drop shippers, major distributors, retailer cooperative warehouses, terminal elevators, and cooperative buying associations; (2) sales branches and sales offices (but not retail stores) maintained by domestic manufacturing or mining enterprises apart from their plants or mines for the purpose of marketing their products; (3) agents, merchandise or commodity brokers, and commission merchants.

This survey is limited to merchant wholesalers (described under category 1 above), which constitute the major portion of the broad field of wholesale trade, and excludes the other types of wholesale trade. All kinds of business in which merchant wholesalers operate are represented in this survey.

Kind-of-business classifications are not interchangeable with commodity classifications. Most businesses sell several kinds of commodities. The kind-of-business code assigned generally reflects either the individual commodity or the commodity group which is the primary source of the establishments receipts, or some mixture of commodities which characterizes the establishment's business. Thus, the classification of establishments by kind of business generally does not make it possible to determine either the number of establishments handling a particular commodity or the sales of that commodity. For example, the "grocery" classification excludes establishments selling groceries if the sale of groceries is not the primary source of receipts; moreover, even though establishments are classified as "grocery wholesalers" some of their sales may be derived from the sale of nonfood products.

A description of each kind of business included in the accompanying statistical data is shown in appendix D.

## II. SAMPLE DESIGN AND ESTIMATION PROCEDURES

**Framework of old series**—The first publication in this series based on probability sampling, was the January 1954 report. Effective with the July 1956 publication an entirely new sample was selected from the 1954 Census of Business. Other changes in the sample have been made since 1956, representing, for the most part, revisions to reflect the findings of successive censuses of wholesale trade and the benchmarking operation described in Section III.

**Selection of sample for new series**—The new sample[2] like the old is a probability sample, and the estimating procedures used are similar in many respects to the old sample.

The new sample originally was drawn from the Standard Statistical Establishment List (SSEL) as updated to December 31, 1974. The initial SSEL consisted of two lists. One list was composed of all Employer Identification (EI) numbers issued by the Internal Revenue Service (IRS) with reported payroll in at least one quarter of 1973 or 1974, with payroll in the 1972 census, or with sales/receipts greater than $100,000 in the 1972 census. The second list consisted of all establishments of known multiestablishment companies as of December 31, 1974. These lists contained information on sales/receipts, payroll, employment, name and address, kind-of-business classification, etc.

Before the 1974 SSEL was available, a study was made, using files from the 1972 Census of Wholesale Trade. This study determined the stratification of the sampling units based on 1972 sales, inventories, and kind of business, and also determined the optimal allocation of the sample necessary to meet specified variance objectives for sales and inventory estimates for different kind-of-business groups. The primary stratum boundary determined in the study was the certainty cutoff to be used for each kind of business. The cutoff was particularly important since it also determined the type of sampling unit.

The sampling units for the new sample consisted of both companies and EI's. To be eligible for the initial sampling, an EI had to be active, i.e., had payroll in 1974 and was on the Internal Revenue Service mailing list for Federal Insurance Contribution Act (FICA) taxpayers. If a known company had total merchant wholesale sales (on a 1972 basis) above the corresponding cutoff for its major kind of business, the company was selected for the sample with certainty. Single establishment companies, whether or not selected with certainty, were considered as EI sampling units.

All merchant wholesale companies below the certainty cutoff were treated on an EI basis; that is, the EI was the sampling unit. The EI's were then stratified according to their major kind of business and their estimated sales (on a 1972

[1] Executive Office of the President, Office of Management and Budget, **Standard Industrial Classification Manual**, 1972.

[2] For a complete exposition of the new sample, see C. T. Isaki et al., "Sample Redesign Aspects of the Census Bureau's Monthly Business Surveys" and K. M. Wolter et al., "Sample Selection and Estimation Aspects of the Census Bureau's Monthly Business Surveys," **Proceedings of the Business and Economic Statistics Section: American Statistical Association**, 1976.

basis). Within each stratum, a simple random sample of EI's was selected. The sampling rates for these EI's varied between 1 in 3 and 1 in 600.

For those EI's in the initial sample that did not have kind-of-business classifications and for all EI "births" after the initial selection, a two-phase selection procedure was used. EI "births," as used here, are new EI's recently assigned by Social Security Administration (SSA) and currently on the IRS mailing list for FICA taxpayers. In the first phase, "births" were stratified by kind of business and size (expected employment or quarterly payroll). A relatively large sample was drawn and canvassed in order to obtain a more reliable measure of size (sales in 2 recent months) and a more detailed kind-of-business code, if needed.

Using this more reliable information, the cases were restratified and the final sample drawn with overall probabilities equivalent to those used in drawing the initial sample from the 1974 SSEL. Because of the lag in reporting "births" to the IRS and SSA and the time needed to accomplish the two-phase birth-selection procedure, "births" are actually added to the sample approximately 1 year after they begin operation. The ongoing birth-selection procedure is carried out quarterly.

Since "births" are not represented in the sample until they go through the selection procedure described above, an interium procedure is required to account for "births" during the period between the onset of activity and the time of birth selection. This consists of imputing for all cases which go out of business, but which are still on the IRS mailing list. This imputation procedure was also used in the old series. However, because of recent delays in obtaining "births," this procedure now accounts for a larger percentage of the estimates.

To be eligible for the sample canvass and tabulation in a given month, a merchant wholesale business must meet both of the following requirements:

1. It must be on the IRS mailing list for FICA taxpayers from the previous quarter.

2. It must have been selected from either the SSEL or the file of employer "births." For this purpose, a universe file of all businesses ever given a chance of selection is maintained. This file shows, among other things, which EI numbers actually have been selected.

In the case of businesses that were selected into the sample with certainty, the first requirement is changed. These certainty sampling units are not dropped from canvass and tabulation if they are no longer on the IRS mailing list. If there are successor businesses, they are added to the survey. This is a tighter form of control used for these larger businesses.

**Use of the rotating sample and composite estimating procedures**—Rotating samples or panels are used except for very large businesses which are selected with certainty. For sampling units in the rotating panels, two months of data are obtained at each enumeration. For example, February rotating panel cases report data for February (the current month) and January (the previous month). In the following month, a different rotating panel (the March panel) reports figures for March and February. Three sample panels are used. This permits the use of a composite estimating procedure which provides estimates more reliable than those which would be obtained from a completely fixed sample of about twice the size. In addition, this procedure reduces the reporting burden of selected businesses.

The first estimate issued each month is called the preliminary estimate. The preliminary composite estimate at the detail level for the current month is a weighted average of two estimates: (1) the current month unbiased estimate (weight .35), and (2) an estimate (weight .65) obtained by multiplying the difference between the preliminary composite for the previous month and the unbiased estimate for the previous month from the current month panel by the current-to-previous-month ratio obtained from the current month reports. Preliminary inventory estimates have been modified, prior to publication, based on past relationships between preliminary and final estimates.

The differences between preliminary and final estimates of seasonally adjusted sales have ranged from approximately +1.7 percent to -0.9 percent for the past 12 months. During the same period, the absolute average of the differences was 0.5 percent. The corresponding range for inventories was approximately +1.2 percent to -0.7 percent for the past 12 months. The absolute average of the differences was 0.6 percent.

## III. BENCHMARKING

Wholesale sales estimates in this report reflect the results of a benchmarking operation which made use of data tabulated from the 1977 Census of Wholesale Trade and the 1978 and 1979 Annual Wholesale Trade Surveys (ATS). Monthly wholesale sales by kind of business for the United States were revised for the period January 1973 through January 1981 in a manner designed to minimize the changes to the month-to-month trends in the original series. As part of the revision process, revised monthly data for 1977, 1978, and 1979 were constrained to sum to 1977 census levels and 1978 and 1979 estimates, respectively.

End-of-month inventories were revised in a similar manner as sales. The constraints for the inventory estimates were the December 1972 estimates and the December ending inventories from 1976 through 1979 estimates from the ATS (the 1976 estimates were available from the 1977 ATS).

Through use of so-called "carry forward factors," the effect of the revision process at the U.S. level is applied to all estimates subsequent to December 1979. These factors were derived at the most detailed kind-of-business level and will be held constant until the next revision and benchmarking process. Aggregate level estimates are derived by summing appropriate detail level estimates, thereby assuring additivity.

Monthly wholesale sales and inventory estimates for published geographic areas also reflect the results of the revision process. In order to adjust geographic estimates, factors are

derived each month at specified United States kind-of-business levels by dividing the revised U.S. estimates (as published) by the unrevised U.S. estimates (without the "carry forward factors" applied) at the given kind-of-business level. These factors are then multiplicatively applied at each published geographic area for the kind of business for which the factor was derived.

## IV. CLASSIFICATION DIFFERENCES BETWEEN THE MONTHLY ESTIMATES AND THE 1977 CENSUS OF WHOLESALE TRADE

Ferrous Metals Service Centers (SIC 5051 part) with warehouse space greater than 5000 square feet are included in the monthly survey, regardless of the ownership of the products sold. However, if the establishments primarily sell the products manufactured by their own company, they are considered sales branches in the 1977 Census of Wholesale Trade.

In the 1977 Census of Wholesale Trade, establishments classified in the Farm-Product Raw Materials Group (SIC 515X) included as sales, products purchased and transferred to other company establishments. In the monthly survey inter-company transfers are not included in sales. Because of the differences shown above, the sales presented in this report for these kinds of business were obtained from the annual trade survey for 1977.

## V. REVISION TO PREVIOUSLY PUBLISHED DATA

The basic input inventory series for all the components of the Farm-Product Raw Materials Group[3] (SIC 515) and for Petroleum-Bulk Stations and Terminals (SIC 5171) have been revised. These data were revised to reflect improved methodology. SIC 5171 was revised from January 1967 through November 1972, while the SIC's in the 515 group were revised from January 1967 through July 1977. All summary groups which included inventories in these SIC's were also revised.

## VI. UNPUBLISHED DATA

Additional data, such as dollar volume estimates for some kinds of business not separately shown in this report, are produced as a byproduct of the regularly published statistics. These additional data have not been included in this publication because the sampling variability associated with these data does not meet the Census Bureau's publication criteria. The Census Bureau, on written request will release unpublished data for individual use, though not for publication.

## VII. DEFINITION OF TERMS

**Sales**—Sales include the following: merchandise sold for cash or credit at wholesale and retail by establishments primarily engaged in merchant wholesale trade; receipts from customers for rental or leasing of equipment, instruments, tools, etc.; receipts for delivery, installation, alteration, maintenance, repair, storage, and other services; and gasoline, liquor, tobacco and other excise taxes which are paid by the manufacturer and passed along to the wholesaler. Sales are net after deductions for refunds and allowances for merchandise returned by customers. Sales which are made on an agency basis for others are included as gross sales. Direct shipments on orders from wholesalers are also included in sales. Total sales do not include nonoperating income from such sources as investments, rental or sale of real estate, etc.

In the new series, sales exclude sales and excise taxes collected directly from customers and paid directly to a local, State, or Federal tax agency. Also excluded are receipts from customers for carrying or other credit charges. In the old series respondents were requested to include these taxes and credit charges in the reported sales. The impact of this change is considered minimal.

**Inventories**—Inventories represent stocks, at cost, of merchandise on hand for sale at the end of the month regardless of location, except for goods outside the United States. Goods held on consignment and items not held for sale such as fixtures, equipment, and supplies are not included.

**Stock-sales ratios**—The stock-sales ratios are percentages derived by dividing the dollar value of inventories, at cost, by the dollar value of sales. No adjustment is made in these ratios for the markup in sales which may vary from trade to trade.

The sales and inventory figures represent total sales and inventories of all establishments primarily engaged in merchant wholesale trade. Also included are the sales and inventories of central administrative offices and auxiliaries of merchant wholesale establishments.

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[3] See appendix D, Kind-of-Business Classification for the SIC's included in this group.

# APPENDIX D. Kind-of-Business Classifications

## DURABLE GOODS (SIC Major Group 50)

This major group includes establishments primarily engaged in the wholesale distribution of durable goods.

### MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES (SIC 501)

**Automobiles and Other Motor Vehicles (SIC 5012)**[1]—Establishments primarily engaged in the wholesale distribution of new and used passenger automobiles, trucks, and other motor vehicles. Automotive distributors primarily engaged in selling at retail to individual consumers for personal use, and also selling a limited amount of new and used passenger automobiles and trucks at wholesale to dealers, are classified in retail trade, industry 5511.

**Automotive Parts and Supplies (SIC 5013)**—Establishments primarily engaged in the wholesale distribution of automotive parts, supplies, accessories, tools and equipment.

**Tires and Tubes (SIC 5014)**[1]—Establishments primarily engaged in the wholesale distribution of rubber tires and tubes for passenger and commercial vehicles.

### FURNITURE AND HOME FURNISHINGS (SIC 502)

**Furniture (SIC 5021)**—Establishments primarily engaged in the wholesale distribution of furniture, including bedsprings, mattresses, and other household furniture; office furniture; and furniture for public parks, buildings, etc.

SIC 5021 is subdivided into—

*1. Household and lawn furniture.*
*2. Office and business furniture.*

**Home Furnishings (SIC 5023)**—Establishments primarily engaged in the wholesale distribution of home furnishings and homewares, including antiques; china; glassware and earthenware; lamps; curtains and draperies; linens and towels; carpets, linoleum, and all other types of hard and soft surface floor coverings. Establishments primarily engaged in the wholesale distribution of electrical household goods are classified in industry 5064.

[1] Data for this kind of business are not shown separately but are included in the group total.

### LUMBER AND OTHER CONSTRUCTION MATERIALS (SIC 503)

**Lumber, Plywood, and Millwork (SIC 5031)**—Establishments, with or without yards, primarily engaged in the wholesale distribution of rough, dressed, and finished lumber (but not timber); plywood; door and window frames (wood or metal); and other wood and metal millwork. Establishments selling lumber, plywood and millwork to the general public and known as "retail" in the trade are classified in industry 521.

**Construction Materials, Not Elsewhere Classified (SIC 5039)**—Establishments primarily engaged in the wholesale distribution of such building materials as brick, building stone, cement, granite, gravel, lime, marble, plaster, building glass, roofing materials, sand, and tile. Establishments selling construction materials to the general public and known as "retail" in the trade are classified in industry 521. Establishments primarily engaged in marketing heavy structural metal products are classified in industry 5051. Establishments primarily selling readymade concrete are classified in manufacturing.

### SPORTING, RECREATIONAL, PHOTOGRAPHIC, AND HOBBY GOODS, TOYS, AND SUPPLIES (SIC 504)[1]

Establishments primarily engaged in the wholesale distribution of all types of amusement and sporting goods and accessories—billiard and pool supplies; cameras and photographic equipment; coin-operated game machines; games, toys; ammunition and fireworks; etc.

### METALS AND MINERALS, EXCEPT PETROLEUM (SIC 505)

**Ferrous Metals Service Centers and Offices (SIC 5051 pt.)**—Establishments primarily engaged in marketing ferrous metal semifinished products such as nails, pig iron, steel and tin bars. Establishments in this industry may operate with warehouses (ferrous metals service centers) or without warehouses (ferrous metals sales offices).

Sales branches of domestic manufacturers are included in this category if the establishment is separate from the manufacturing plant and has warehouse space greater than 5,000 square feet.

**Nonferrous Metals Service Centers and Offices and Other Minerals and Ores (SIC 5051 pt. and SIC 5052 pt.)**[1]—Establishments primarily engaged in marketing nonferrous metal semifinished products such as aluminum bars and copper rods. Establishments in this industry may operate with warehouses (nonferrous metals service centers) or without warehouses (nonferrous metals sales offices). Also included are establishments primarily engaged in the wholesale distribution of copper, iron, lead, and other metallic ores except precious; and crude nonmetallic minerals (including concentrates) except crude petroleum. Establishments primarily engaged in the wholesale distribution of nonmetallic minerals used in construction, such as sand and gravel, are included in industry 5039.

**Coal (SIC 5052 pt.)**[1]—Establishments primarily engaged in the wholesale distribution of coal and coke. Included are establishments which have products shipped direct from mine to customer, and establishments operating yards and dock space and making deliveries therefrom at wholesale as well as other coal merchants.

## ELECTRICAL GOODS (SIC 506)

**Electrical Apparatus and Equipment, Wiring Supplies, and Construction Materials (SIC 5063)**—Establishments primarily engaged in the wholesale distribution of electrical power equipment for the generation, transmission, or utilization of electric energy; and electrical construction materials for outside power transmission lines and for electrical systems. Construction contractors primarily engaged in installing electrical systems and equipment from their own stock are classified in industry 1731.

**Electrical Appliances, TV and Radio Sets (SIC 5064)**—Establishments primarily engaged in the wholesale distribution of radio and television sets and household electrical appliances.

**Electronic Parts and Equipment (SIC 5065)**[1]—Establishments primarily engaged in the wholesale distribution of electronic parts and equipment, such as industrial and radio and television receiving and transmitting electronic tubes; electronic intercommunication equipment; radio parts and accessories; and electronic sound equipment. Establishments primarily engaged in the wholesale distribution of radio and television receiving sets and phonographs are classified in industry 5064.

## HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES (SIC 507)

**Hardware (SIC 5072)**—Establishments primarily engaged in the wholesale distribution of hardware, such as builders; shelf or light hardware; handtools (except automotive and machinists' precision); handsaws and cutlery; brads, staples, and tacks; and bolts, nuts, rivets, and screws. Establishments primarily engaged in the wholesale distribution of nails, noninsulated wire, and screening are classified in industry 5051.

**Plumbing and Heating Equipment and Supplies (Hydronics) (SIC 5074)**—Establishments primarily engaged in the wholesale distribution of hydronic plumbing and heating equipment and supplies. Construction contractors primarily engaged in installing plumbing and heating equipment from their own stock are classified in industry 1711.

**Warm Air Heating and Air-Conditioning Equipment and Supplies (SIC 5075)**[1]—Establishments primarily engaged in the distribution of warm air heating and air-conditioning equipment and supplies. Construction contractors primarily engaged in installing warm air heating and air-conditioning equipment are classified in industry 1711.

**Refrigeration Equipment and Supplies (SIC 5078)**[1]—Establishments primarily engaged in the distribution of refrigeration equipment and supplies. Construction contractors primarily engaged in installing refrigeration equipment from their own stock are classified in industry 1711.

## MACHINERY, EQUIPMENT, AND SUPPLIES (SIC 508)

**Commercial Machines and Equipment (SIC 5081)**[1]—Establishments primarily engaged in wholesaling commercial machines and equipment, such as office, store, and business machines and equipment; commercial food service equipment; and fountain and store fixtures.

**Construction and Mining Machinery and Equipment (SIC 5082)**—Establishments primarily engaged in marketing cranes, excavating machinery and equipment, power shovels, road construction and maintenance machinery, tractor-mounting equipment and other specialized machinery and equipment used in the construction, mining, and logging industries. Establishments engaged in marketing oil well machinery and equipment are classified in industry 5084.

**Farm and Garden Machinery and Equipment (SIC 5083)**[1]—Establishments primarily engaged in marketing agricultural machinery and equipment for use in the preparation and maintenance of the soil, the planting and harvesting of crops, and other operations and processes pertaining to work on the farm or the lawn or garden; and dairy and other livestock equipment.

**Industrial Machinery and Equipment (SIC 5084)**[1]—Establishments primarily engaged in marketing industrial machinery and equipment, such as metal working tools, food industries machinery, oil well and oil refining machinery, industrial

[1] Data for this kind of business are not shown separately but are included in the group total.

trucks and tractors (except over-the-road types), printing machinery, and machinery and equipment for other manufacturing industries.

**Industrial Supplies (SIC 5085)**[1]—Establishments primarily engaged in marketing industrial supplies, such as abrasives and materials, rope and cordage, and mechanical rubber goods; welding supplies; mechanical power transmission supplies, including bearings; industrial valves and fittings; metal containers; industrial leather; and reconditioned barrels and drums.

**Professional Equipment and Supplies (SIC 5086)**—Establishments primarily engaged in the wholesale distribution of mechanical devices and other equipment used by architects, dentists, engineers, physicians, surgeons, veterinarians, optometrists, osteopaths, and other professional groups.

**Surgical, Medical, Hospital Supplies (SIC 5086 pt.)**[1]—Establishments primarily engaged in selling surgical and medical instruments; doctors' apparatus and equipment; orthopedic appliances; artifical limbs; operating room and other hospital equipment, X-ray machines and accessories and other scientific instruments used by physicians and in hospitals.

**Service Establishment Equipment and Supplies (SIC 5087)**[1]—Establishments primarily engaged in the wholesale distribution of equipment and supplies for barber shops, beauty parlors power laundries, dry-cleaning plants, upholsterers, undertakers, and related personal service establishments.

**Transportation Equipment and Supplies, Except Motor Vehicles (SIC 5088)**[1]—Establishments primarily engaged in the wholesale distribution of transportation equipment and supplies. Establishments primarily engaged in the wholesale distribution of motor vehicles and motor vehicle parts are classified in group 501.

### MISCELLANEOUS DURABLE GOODS (SIC 509)[1]

**Scrap and Waste Materials (SIC 5093)**—Establishments primarily engaged in assembling, breaking up, sorting and wholesale distribution of scrap and waste materials. This industry includes auto wreckers engaged in dismantling automobiles for scrap. However, those engaged in dismantling cars for the purpose of selling secondhand parts at retail are classified in industry 5931.

SIC 5093 is subdivided into—

1. *Iron and Steel scrap.*
2. *Waste and secondary materials dealers.*

[1] Data for this kind of business are not shown separately but are included in the group total.

**Jewelry, Watches, Diamonds, and Other Precious Stones (SIC 5094)**[1]—Establishments primarily engaged in the wholesale distribution of jewelry, precious stones and metals, costume jewelry, watches, clocks, silverware, and jewelers' findings.

**Durable Goods, Not Elsewhere Classified (SIC 5099)**[1]—Establishments primarily engaged in the wholesale distribution of durable goods, not elsewhere classified, such as musical instruments and forest products, except lumber.

## NONDURABLE GOODS (SIC Major Group 51)

This major group includes establishments primarily engaged in the wholesale distribution of nondurable goods.

### PAPER AND PAPER PRODUCTS (SIC 511)

**Printing and Writing Paper (SIC 5111)**[1]—Establishments primarily engaged in the wholesale distribution of writing paper, including envelope paper, fine paper, and ground wood, printing, and rotogravure paper.

**Stationery Supplies (SIC 5112)**[1]—Establishments primarily engaged in the wholesale distribution of stationery and office supplies, including envelopes, typewriter and mimeograph paper, file cards and folders, pens, social stationery, and greeting cards.

**Industrial and Personal Service Paper (SIC 5113)**[1]—Establishments primarily engaged in the wholesale distribution of wrapping and other coarse paper, paperboard, cellophane, and converted paper products, such as bags, boxes, dishes, napkins, and shipping supplies.

### DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES (SIC 512)

**Drugs, Drug Proprietaries, and Druggists' Sundries (SIC 5122)**—Establishments primarily engaged in the wholesale distribution of drugs, drug proprietaries, druggists' sundries, and toiletries. Establishments primarily engaged in the wholesale distribution of surgical, dental, and hospital equipment are classified in industry 5086.

SIC 5122 is subdivided into—

1. *General-line drugs*—These are distinguished from specialty-line drug and toiletries wholesalers on the basis of their commodity-line mix. Drug wholesalers were classified as general line if they reported a substantial portion of their sales in "pharmaceuticals, antibiotics, druggists' chemicals, biologicals, botanicals" and "proprietary products, toilet-

ries, druggists' sundries," and if annual sales volume was $1 million or more.

2. *Specialty-line pharmaceuticals, cosmetics, and toiletries.*

## APPAREL, PIECE GOODS, AND NOTIONS (SIC 513)

**Piece Goods (SIC 5133)**[1]—Establishments primarily engaged in the wholesale distribution of woven piece goods or yard goods of natural or manmade fibers. "Converters" who buy goods in the grey, have them finished on contract, and sell at wholesale are included here. This industry does not include establishments primarily engaged in the wholesale distribution of home furnishings, which are classified in industry 5023.

**Notions and Other Dry Goods (SIC 5134)**[1]—Establishments primarily engaged in the wholesale distribution of notions (sewing and hair accessories, etc.), knit goods, and other dry goods, except piece goods.

**Men's and Boys' Clothing and Furnishings (SIC 5136)**[1]—Establishments primarily engaged in the wholesale distribution of men's and boys' apparel and furnishings, sportswear, hosiery, underwear, nightwear, and work clothing.

**Women's Children's, and Infants' Clothing and Accessories (SIC 5137)**[1]—Establishments primarily engaged in the wholesale distribution of women's, children's, and infants' clothing and accessories, including hosiery, lingerie, millinery and millinery supplies, and furs.

**Footwear (SIC 5139)**[1]—Establishments primarily engaged in the wholesale distribution of footwear of leather, rubber, and other materials.

## GROCERIES AND RELATED PRODUCTS (SIC 514)

**Groceries, General-Line (SIC 5141)**—Establishments primarily engaged in the wholesale distribution of a general line of groceries. Establishments primarily engaged in roasting coffee and establishments primarily engaged in blending tea or grinding and packaging spices are classified in major group 20.

SIC 5141 is subdivided into—

1. *Voluntary group wholesalers.*
2. *Retailer cooperative wholesalers.*
3. *Other general-line wholesalers.*

**Frozen Foods (SIC 5142)**[1]—Establishments primarily engaged in the wholesale distribution of packaged quick-frozen vegetables, juices, meats, fish, poultry, pastries, and other "deep freeze" products. Establishments primarily engaged in the wholesale distribution of frozen dairy products are classified in industry 5143. Frozen poultry, fish, and meat which are not packaged are classified in industries 5144, 5146, and 5147, respectively.

**Dairy Products (SIC 5143)**[1]—Establishments primarily engaged in the wholesale distribution of dairy products, such as butter, cheese, ice cream and ices, and fluid milk and cream. This industry does not include establishments primarily engaged in pasteurizing and bottling milk, which are classified in group 202.

**Poultry and Poultry Products (SIC 5144)**—Establishments primarily engaged in the wholesale distribution of poultry and poultry products, except canned and packaged frozen products. This industry does not include establishments primarily engaged in the killing and dressing of poultry, which are classified in industry 2016. Establishments primarily engaged in the wholesale distribution of packaged frozen poultry are classified in industry 5142, and of canned poultry in industry 5149.

**Confectionery (SIC 5145)**—Establishments primarily engaged in the wholesale distribution of confectionery, such as candy, chewing gum, fountain fruits, salted or roasted nuts, popcorn, and fountain syrups; and potato, corn, and similar chips.

**Fish and Seafoods (SIC 5146)**[1]—Establishments primarily engaged in the wholesale distribution (not packaging) of fresh, cured, and frozen fish and seafoods, except canned (industry 5149) or packaged frozen (industry 5142). The preparation, packaging, and freezing of fresh fish and other seafood, and the shucking and packing of fresh oysters in nonsealed containers, are classified in industry 2092.

**Meats and Meat Products (SIC 5147)**—Establishments primarily engaged in the wholesale distribution of fresh, cured, and processed (but not canned) meats and lard. The wholesale distribution of frozen packaged meats is classified in industry 5142 and canned meats in industry 5149.

**Fresh Fruits and Vegetables (SIC 5148)**—Establishments primarily engaged in the wholesale distribution of fresh fruits and vegetables.

**Groceries and Related Products, Not Elsewhere Classified (SIC 5149)**[1]—Establishments primarily engaged in the wholesale distribution of groceries and related products, not elsewhere classified. Establishments primarily engaged in the wholesale distribution of soft drinks, and in bottling and distributing natural spring and mineral waters, are classified in this industry, but establishments primarily engaged in bottling soft drinks are classified in major group 20. This industry does not include farm-product raw materials (group 515), or beer, wine, and distilled alcholic beverages (group 518).

[1] Data for this kind of business are not shown separately but are included in the group total.

## FARM-PRODUCT RAW MATERIALS (SIC 515)

**Cotton (SIC 5152)**[1]—Establishments primarily engaged in buying and/or marketing cotton and cotton linters.

**Grain (SIC 5153)**—Establishments primarily engaged in buying and/or marketing grain (such as corn, wheat, oats, barley, and unpolished rice); dry beans; soybeans, and other inedible beans. Country grain elevators primarily engaged in buying or receiving grain from farmers are included as are terminal elevators and other merchants marketing grain.

**Livestock (SIC 5154)**[1]—Establishments primarily engaged in buying and/or marketing cattle, hogs, sheep, and goats.

**Farm-Product Raw Materials, Not Elsewhere Classified (SIC 5159)**[1]—Establishments primarily engaged in buying and/or marketing farm products not elsewhere classified, such as horses and mules, leaf tobacco, hides, skins, furs, wool, mohair, raw silk, hops, and nuts, except roasted or salted (industry 5145). Establishments primarily engaged in the wholesale distribution of milk are classified in industry 5143 and live poultry in industry 5144.

## CHEMICALS AND ALLIED PRODUCTS (SIC 516)[1]

**Chemicals and Allied Products (SIC 5161)**[1]—Establishments primarily engaged in the wholesale distribution of chemicals and allied products, not elsewhere classified, such as acids, industrial and heavy chemicals, dyestuffs, industrial salts, naval stores, plastics materials, rosin, and turpentine. Establishments primarily engaged in the wholesale distribution of ammunition are classified in industry 5041; agricultural chemicals and pesticides in industry 5191; drugs in industry 5122; and paints and varnishes in industry 5198.

## PETROLEUM AND PETROLEUM PRODUCTS (SIC 517)

**Petroleum Bulk Stations and Terminals (SIC 5171)**—Establishments primarily engaged in wholesaling petroleum products, including liquefied petroleum gas, from bulk liquid storage facilities.

**Petroleum and Petroleum Products Wholesalers, Except Bulk Stations and Terminals (SIC 5172)**[1]—Establishments primarily engaged in wholesaling petroleum and petroleum products, except those with bulk liquid storage facilities. Included are packaged and bottled petroleum products distributors, truck jobbers, and others marketing petroleum and products at wholesale but without bulk liquid storage facilities.

[1] Data for this kind of business are not shown separately but are included in the group total.

## BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES (SIC 518)

**Beer and Ale (SIC 5181)**—Establishments primarily engaged in the wholesale distribution of beer, ale, porter, and other fermented malt beverages.

**Wines and Distilled Alcoholic Beverages (SIC 5182)**—Establishments primarily engaged in the wholesale distribution of distilled spirits, including neutral spirits and ethyl alcohol used in blending wines and distilled liquors.

## MISCELLANEOUS NONDURABLE GOODS (SIC 519)

**Farm Supplies (SIC 5191)**[1]—Establishments primarily engaged in the wholesale distribution of animal feeds, fertilizers, agricultural chemicals, pesticides, seeds, and other farm supplies, except grains.

**Tobacco and Tobacco Products (SIC 5194)**—Establishments primarily engaged in the wholesale distribution of tobacco and tobacco products. Leaf tobacco wholesalers are classified in industry 5159 and establishments primarily engaged in stemming and redrying tobacco in industry 2141.

**Paints, Varnishes, and Supplies (SIC 5198)**[1]—Establishments primarily engaged in the wholesale distribution of paints, varnishes, wallpaper, and supplies, and sometimes glass. Establishments selling to the general public and known as "retail" in the trade are classified in industry 5231.

**Books, Periodicals, Newspapers (SIC 5199 pt.)**[1]—Establishments primarily engaged in the wholesale distribution of books, lithographed matter, magazines, newspapers, and all other forms of reading material.

**Nondurable Goods, Not Elsewhere Classified (SIC 5199 pt.)**[1]—Establishments primarily engaged in the wholesale distribution of nondurable goods, not elswhere classified, such as art goods, flowers and florist supplies, industrial yarn, textile bags, bagging and burlap.

## CHANGES IN WHOLESALE KIND-OF-BUSINESS CLASSIFICATIONS IN 1972 FROM 1967

The wholesale trade kind-of-business structure was expanded from one SIC major group (SIC 50) in 1967 to two major groups in 1972, "durable goods" (SIC 50) and "nondurable goods" (SIC 51). There were 61 four-digit industries in 1972 compared to 48 four-digit industries in 1967.

The definitions of some kinds of business also were changed in 1972. Establishments primarily selling farm supplies and equipment to farmers, and establishments primarily selling

plumbing, heating, and air-conditioning equipment and electrical supplies were classified in wholesale trade rather than retail trade. However, establishments primarily selling lumber and other building materials and paint, glass, and wallpaper were classified in retail trade if they sell to the public, even though sales to contractors account for a larger portion of the total. The change resulted in moving to wholesale trade those establishments primarily selling plumbing, heating, and air-conditioning equipment; electrical supplies; farm equipment; hay, grain, and feed; and other farm supplies. The change also theoretically could have shifted to wholesale trade some establishments primarily selling lumber and paint, glass and wallpaper to contractors, but not to the public.

In addition to the kind-of-business changes noted above the special nonmerchant classifications of farm assemblers and bulk petroleum were eliminated in the 1972 census. These establishments were classified in the appropriate merchant, or sales branch category.

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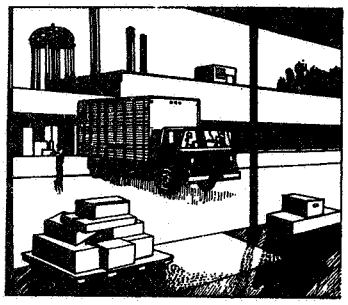
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CURRENT BUSINESS REPORTS

# Monthly Wholesale Trade

## SALES AND INVENTORIES

Issued May 1981

## March 1981

BW-81-03

Sales. March 1981 sales of merchant wholesalers, after adjustment for seasonal variations and trading-day differences, but not for price changes were $96.1 billion, down 2 percent from the previous month, but up 16 percent from March 1980. Adjusted January-through-March total sales were up 4 percent from the October-through-December period and were 18 percent above the comparable months a year ago.

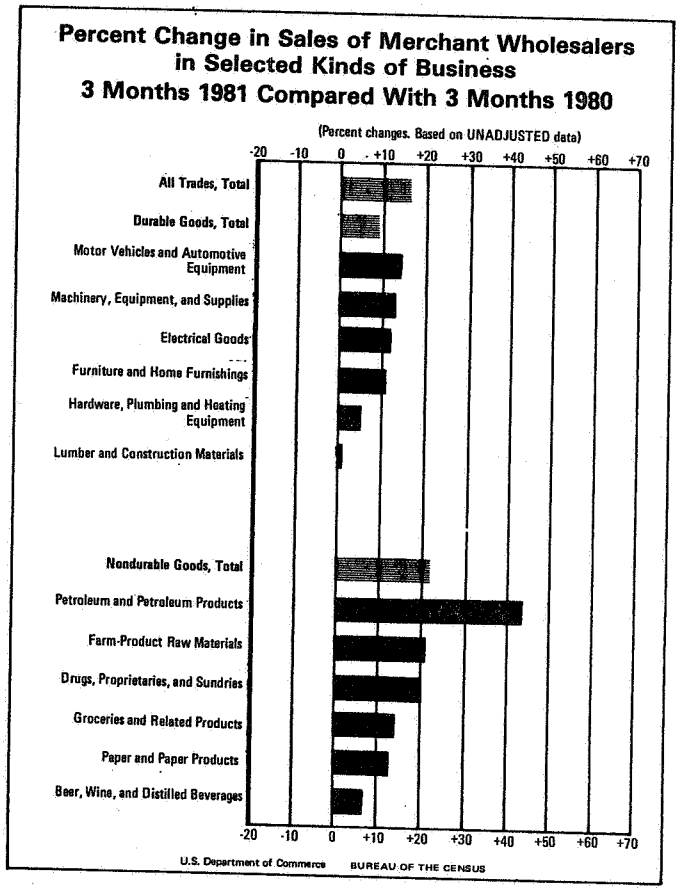
After adjustment, March sales in the durable goods trades were down 3 percent from the previous month but were 12 percent above the year-ago level. Nondurable goods sales decreased 1 percent from February but were 20 percent above March 1980. Total monthly sales in the durable goods group during the January-through-March period were up 5 percent from the prior 3 months and increased 10 percent from the comparable period a year ago. Three-month total sales for the nondurable goods group increased 3 percent from the October-through-December period and were 24 percent above the same period a year ago.

Based on adjusted data, comparisons with previous year sales levels showed the largest increase in petroleum and petroleum products (39%) and drugs, proprietaries, and sundries (21%).

Inventory. Total inventories of merchant wholesalers, after adjustment for seasonal variations but not for price changes, were valued at $105.2 billion at the end of March, down 1 percent from the previous month, but up 10 percent from March 1980. Durable goods stocks were virtually unchanged from February but were 11 percent above March 1980. Nondurable goods stocks were down 2 percent from the previous month but were 9 percent above the year-ago level.

Based on adjusted data, comparisons with previous month inventory levels showed the largest decrease in farm-product raw materials (-8%). Compared with adjusted year-ago inventories, the sharpest increase was noted in petroleum and petroleum products (21%).

Stock-Sales Ratios. The March stock-sales ratio for merchant wholesalers, based on seasonally adjusted data, was 109, up 1 point from February, but down 7 points from March 1980. The stock-sales ratio for durable goods was 171, up 6 points from the previous month, but down 1 point from the year-ago ratio. The ratio for nondurable goods was 65, down 2 points from February and down 7 points from March 1980.




For the sampling errors associated with these data and the use of sampling errors in determining reliability of the estimates please see appendix A.

An advance release of March 1981 data was issued May 7, 1981.

U.S. Department of Commerce
BUREAU OF THE CENSUS

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# Table 1. Estimated Monthly Sales of Merchant Wholesalers by Kind of Business for the United States, Unadjusted: 1981 and 1980

(MILLIONS OF DOLLARS. DATA ARE NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | | | 1980 | | | | | | | | | | TOTAL 3 MONTHS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN. | FEB. | MAR.[P] | MAR. | APR. | MAY | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. | 1981 | 1980 |
| | MERCHANT WHOLESALERS, TOT. | 93,845 | 89,641 | 100,897 | 84,101 | 83,106 | 83,507 | 81,607 | 86,052 | 86,311 | 90,715 | 99,023 | 91,328 | 97,659 | 284,383 | 244,578 |
| | TOTAL (EX FARM-PROD RAW MATLS)..... | 81,300 | 79,450 | 88,690 | 74,422 | 73,613 | 73,896 | 73,107 | 76,952 | 76,933 | 80,580 | 87,102 | 80,363 | 85,305 | 249,440 | 215,811 |
| 50 | DURABLE GOODS, TOT..... | 35,927 | 37,054 | 42,178 | 36,737 | 35,913 | 34,947 | 35,508 | 35,757 | 36,010 | 38,112 | 41,298 | 36,679 | 38,598 | 115,159 | 105,617 |
| 501 | MOTOR VEHICLES & AUTO PARTS & SUPPLIES..... | 7,085 | 7,248 | 8,214 | 6,759 | 7,045 | 6,700 | 6,716 | 6,867 | 7,026 | 6,449 | 7,638 | 6,621 | 6,616 | 22,547 | 19,751 |
| 5013,4 | AUTO PARTS & SUPPLIES, TIRES & TUBES..... | 3,079 | 3,067 | 3,537 | 2,842 | 2,873 | 2,813 | 2,929 | 2,946 | 3,028 | 3,117 | 3,451 | 3,012 | 3,053 | 9,683 | 8,194 |
| 5013 | AUTO PARTS & SUPPLIES... | 2,639 | 2,642 | 3,010 | 2,394 | 2,443 | 2,387 | 2,454 | 2,459 | 2,543 | 2,581 | 2,889 | 2,530 | 2,576 | 8,291 | 6,952 |
| 502 | FURNITURE & HOME FURNISHINGS | 1,293 | 1,334 | 1,474 | 1,305 | 1,345 | 1,257 | 1,246 | 1,209 | 1,250 | 1,330 | 1,531 | 1,356 | 1,355 | 4,101 | 3,701 |
| 5021 | FURNITURE--HSEHLD & OFFICE | 464 | 459 | 532 | 476 | 482 | 455 | 456 | 446 | 465 | 469 | 499 | 441 | 500 | 1,455 | 1,353 |
| 5023 | HOME FURNISHINGS..... | 829 | 875 | 942 | 829 | 863 | 802 | 790 | 763 | 785 | 861 | 1,032 | 915 | 855 | 2,646 | 2,348 |
| 503 | LUMBER & OTHER CONSTRUCTION MATLS..... | 2,422 | 2,388 | 2,767 | 2,575 | 2,577 | 2,587 | 2,874 | 2,957 | 2,842 | 3,046 | 3,309 | 2,822 | 2,704 | 7,577 | 7,527 |
| 5031 | LUMBER, PLYWOOD & MILLWORK | 1,567 | 1,569 | 1,741 | 1,699 | 1,641 | 1,640 | 1,807 | 1,846 | 1,787 | 1,930 | 2,054 | 1,786 | 1,720 | 4,877 | 5,035 |
| 5039 | CONSTRUCTION MATLS, N.E.C. | 855 | 819 | 1,026 | 876 | 936 | 947 | 1,067 | 1,111 | 1,055 | 1,116 | 1,255 | 1,036 | 984 | 2,700 | 2,492 |
| 5051 PT. | FERROUS METALS SERV CTRS & OFFICES..... | 3,295 | 3,577 | 3,978 | 3,255 | 2,991 | 2,874 | 2,841 | 2,580 | 2,732 | 3,042 | 3,272 | 2,954 | 3,327 | 10,850 | 9,414 |
| 5051 PT. | FERROUS METALS SERV CTRS | 2,543 | 2,751 | 3,079 | 2,465 | 2,290 | 2,128 | 2,154 | 1,956 | 2,078 | 2,286 | 2,491 | 2,271 | 2,510 | 8,373 | 7,091 |
| 506 | ELECTRICAL GOODS..... | 3,762 | 3,930 | 4,455 | 3,698 | 3,496 | 3,525 | 3,770 | 3,908 | 3,802 | 4,207 | 4,299 | 4,236 | 4,299 | 12,147 | 10,894 |
| 5063 | ELECTRICAL APPARATUS & EQUIP, WIRING SUPPLIES & CONSTRUCTION MATLS..... | 1,858 | 1,980 | 2,120 | 1,811 | 1,750 | 1,783 | 1,901 | 1,895 | 1,862 | 2,158 | 2,178 | 2,155 | 2,155 | 5,958 | 5,331 |
| 5064,5 | ELECTRICAL APPLIANCES, TV & RADIO SETS, & ELECTRONIC PARTS & EQUIP..... | 1,904 | 1,950 | 2,335 | 1,887 | 1,746 | 1,742 | 1,869 | 2,013 | 1,940 | 2,049 | 2,121 | 2,081 | 2,144 | 6,189 | 5,563 |
| 5064 | ELECTRICAL APPLIANCES, TV & RADIO SETS[1]..... | 1,013 | 1,012 | 1,218 | 979 | 882 | 869 | 989 | 1,098 | 1,069 | 1,142 | 1,200 | 1,130 | 1,194 | 3,243 | 2,860 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIP, & SUPPLIES..... | 2,274 | 2,202 | 2,530 | 2,278 | 2,162 | 2,162 | 2,262 | 2,393 | 2,312 | 2,405 | 2,645 | 2,328 | 2,259 | 7,006 | 6,695 |
| 5072 | HARDWARE..... | 889 | 851 | 994 | 865 | 832 | 823 | 867 | 823 | 832 | 895 | 932 | 859 | 863 | 2,734 | 2,556 |
| 5074 | PLUMBING & HEATING EQUIP & SUPPLIES (HYDRONICS)..... | 966 | 922 | 1,053 | 965 | 902 | 878 | 896 | 971 | 960 | 1,035 | 1,181 | 1,011 | 967 | 2,941 | 2,861 |
| 508 | MACHINERY, EQUIP, & SUPPLIES | 10,302 | 10,731 | 12,548 | 10,551 | 10,705 | 10,627 | 10,774 | 10,621 | 10,885 | 11,613 | 11,949 | 10,511 | 11,722 | 33,581 | 29,641 |
| 5082 | CONSTRUCTION & MINING MACHINERY & EQUIP..... | 1,111 | 1,218 | 1,435 | 1,332 | 1,307 | 1,402 | 1,321 | 1,339 | 1,602 | 1,473 | 1,414 | 1,341 | 1,377 | 3,764 | 3,600 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIP & SUPPLIES..... | 4,631 | 4,775 | 5,547 | 4,431 | 4,560 | 4,588 | 4,600 | 4,453 | 4,509 | 4,720 | 4,929 | 4,501 | 5,079 | 14,953 | 12,809 |
| 5086 | PROFESSIONAL EQUIP & SUPPLIES..... | 1,043 | 1,138 | 1,261 | 999 | 1,066 | 1,087 | 1,104 | 1,120 | 1,149 | 1,200 | 1,217 | 1,107 | 1,208 | 3,442 | 2,924 |
| 5093 | SCRAP & WASTE MATLS..... | 1,304 | 1,297 | 1,486 | 1,629 | 1,530 | 1,436 | 1,215 | 1,047 | 1,107 | 1,240 | 1,458 | 1,267 | 1,435 | 4,087 | 4,592 |
| 51 | NONDURABLE GOODS, TOT..... | 57,918 | 52,587 | 58,719 | 47,364 | 47,193 | 48,560 | 46,099 | 50,295 | 50,301 | 52,603 | 57,725 | 54,649 | 59,061 | 169,224 | 138,961 |
| | TOTAL (EX FARM-PROD RAW MATLS)..... | 45,373 | 42,396 | 46,512 | 37,685 | 37,700 | 38,949 | 37,599 | 41,195 | 40,923 | 42,468 | 45,804 | 43,684 | 46,707 | 134,281 | 110,194 |
| 511 | PAPER & PAPER PROD..... | 1,949 | 1,908 | 2,112 | 1,761 | 1,747 | 1,725 | 1,696 | 1,763 | 1,775 | 1,879 | 2,009 | 1,822 | 1,929 | 5,969 | 5,298 |
| 5111,3 | PRINTING, WRITING, IND & PERSONAL SERV PAPER..... | 1,397 | 1,356 | 1,545 | 1,322 | 1,297 | 1,286 | 1,276 | 1,294 | 1,287 | 1,375 | 1,465 | 1,304 | 1,413 | 4,298 | 3,882 |
| 5111 | PRINTING & WRITING PAPER.. | 655 | 648 | 728 | 656 | 657 | 638 | 621 | 586 | 576 | 626 | 697 | 582 | 652 | 2,031 | 1,971 |
| 5113 | IND & PERSONAL SERV PAPER[2] | 742 | 708 | 817 | 666 | 640 | 648 | 655 | 708 | 711 | 749 | 768 | 722 | 761 | 2,267 | 1,911 |
| 512 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES..... | 1,195 | 1,136 | 1,270 | 1,019 | 1,019 | 1,026 | 1,034 | 1,090 | 1,074 | 1,159 | 1,313 | 1,134 | 1,197 | 3,601 | 3,005 |
| 5122 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES..... | 1,195 | 1,136 | 1,270 | 1,019 | 1,019 | 1,026 | 1,034 | 1,090 | 1,074 | 1,159 | 1,313 | 1,134 | 1,197 | 3,601 | 3,005 |
| 5122 PT. | GENERAL-LINE DRUGS..... | 367 | 355 | 401 | 348 | 332 | 341 | 336 | 350 | 341 | 383 | 394 | 349 | 410 | 1,123 | 1,000 |
| 513 | APPAREL, PIECE GDS & NOTIONS[3] | 2,019 | 2,265 | 2,319 | 2,103 | 2,022 | 1,777 | 1,953 | 2,318 | 2,445 | 2,541 | 2,486 | 2,141 | 1,921 | 6,603 | 6,186 |
| 514 | GROCERIES & RELATED PROD.... | 13,270 | 12,317 | 13,730 | 11,807 | 12,030 | 12,353 | 12,173 | 13,154 | 12,592 | 12,915 | 13,815 | 12,741 | 13,640 | 39,317 | 34,476 |
| 5141 | GROCERIES, GENERAL LINE.... | 4,366 | 4,045 | 4,456 | 3,894 | 3,923 | 4,072 | 3,936 | 4,281 | 4,103 | 4,066 | 4,462 | 4,173 | 4,407 | 12,867 | 11,261 |
| 5144 | POULTRY & POULTRY PROD..... | 651 | 590 | 630 | 579 | 597 | 589 | 583 | 638 | 652 | 659 | 725 | 670 | 691 | 1,871 | 1,704 |
| 5145 | CONFECTIONERY..... | 259 | 257 | 285 | 241 | 241 | 242 | 249 | 257 | 263 | 274 | 322 | 283 | 296 | 801 | 686 |
| 5147 | MEATS & MEAT PROD..... | 1,762 | 1,610 | 1,758 | 1,712 | 1,684 | 1,712 | 1,667 | 1,828 | 1,859 | 1,841 | 2,019 | 1,736 | 1,897 | 5,130 | 5,144 |
| 5148 | FRESH FRUITS & VEGETABLES.. | 1,232 | 1,210 | 1,446 | 1,155 | 1,254 | 1,343 | 1,337 | 1,354 | 1,206 | 1,217 | 1,258 | 1,200 | 1,258 | 3,888 | 3,225 |
| 515 | FARM PROD RAW MATERIALS..... | 12,545 | 10,191 | 12,207 | 9,679 | 9,493 | 9,611 | 8,500 | 9,100 | 9,378 | 10,135 | 11,921 | 10,965 | 12,354 | 34,943 | 28,767 |
| 5153 | GRAIN..... | 10,420 | 8,436 | 10,240 | 7,997 | 7,878 | 7,984 | 6,910 | 7,587 | 7,770 | 8,205 | 9,890 | 8,801 | 9,814 | 29,096 | 23,414 |
| 517 | PETROLEUM & PETROLEUM PROD.. | 17,548 | 15,697 | 16,248 | 11,238 | 11,138 | 11,610 | 10,823 | 13,275 | 13,530 | 14,007 | 15,657 | 16,626 | 17,185 | 49,493 | 34,339 |
| 5171 | PETROLEUM BULK STATIONS & TERMINALS..... | 6,165 | 5,438 | 5,696 | 4,256 | 4,062 | 4,129 | 3,937 | 4,246 | 4,306 | 4,752 | 5,446 | 5,546 | 6,249 | 17,299 | 13,148 |
| 518 | BEER, WINE, & DISTILLED ALCOHOLIC BEVERAGES..... | 2,185 | 2,207 | 2,667 | 2,315 | 2,502 | 2,664 | 2,738 | 3,001 | 2,831 | 2,638 | 2,906 | 2,667 | 3,162 | 7,059 | 6,588 |
| 5181 | BEER & ALE..... | 1,136 | 1,174 | 1,421 | 1,202 | 1,341 | 1,551 | 1,591 | 1,702 | 1,660 | 1,434 | 1,431 | 1,244 | 1,454 | 3,731 | 3,436 |
| 5182 | WINE & DISTILLED ALCOHOLIC BEVERAGES[4]..... | 1,049 | 1,033 | 1,246 | 1,113 | 1,161 | 1,113 | 1,147 | 1,299 | 1,171 | 1,204 | 1,475 | 1,423 | 1,708 | 3,328 | 3,152 |
| 519 | MISC NONDURABLE GOODS..... | 5,752 | 5,517 | 6,851 | 6,297 | 6,114 | 6,544 | 5,903 | 5,514 | 5,415 | 5,898 | 6,153 | 5,347 | 6,284 | 18,120 | 16,767 |
| 5194 | TOBACCO & TOBACCO PROD..... | 873 | 834 | 956 | 851 | 902 | 922 | 919 | 1,016 | 942 | 938 | 1,018 | 860 | 953 | 2,663 | 2,528 |

Note: Merchant wholesalers total and group totals include data for some kinds of business not shown separately.

[P]Preliminary estimates. See p. 16, Sample Design and Estimation Procedures.

[1]The electrical appliances, TV and radio sets kind of business is subject to a sampling variability of 11 percent for March 1981.
[2]The industrial and personal service paper kind of business is subject to a sampling variability of 12 percent for March 1981.
[3]The apparel, piece goods, and notions group is subject to a sampling variability of 12 percent for March 1981.
[4]The wine and distilled alcoholic beverages kind of business is subject to a sampling variability of 10 percent for March 1981.

# Table 2. Estimated Monthly Inventories of Merchant Wholesalers by Kind of Business for the United States, Unadjusted: 1981 and 1980

(MILLIONS OF DOLLARS. DATA ARE NOT ADJUSTED FOR SEASONAL VARIATIONS)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | | | 1980 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN. | FEB. | MAR.[P] | MAR. | APR. | MAY | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. |
| | MERCHANT WHOLESALERS, TOTAL | 105,446 | 107,209 | 107,571 | 97,808 | 97,467 | 97,480 | 97,785 | 98,387 | 100,205 | 101,310 | 104,277 | 105,866 | 105,449 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 96,142 | 98,533 | 99,761 | 90,177 | 90,998 | 91,846 | 92,451 | 92,382 | 93,682 | 93,901 | 94,861 | 95,869 | 96,235 |
| 50 | DURABLE GOODS, TOTAL | 66,230 | 68,251 | 69,148 | 62,489 | 63,506 | 64,620 | 65,133 | 64,730 | 65,894 | 65,273 | 65,137 | 65,857 | 66,716 |
| 501 | MOTOR VEHICLES & AUTOMOTIVE PARTS & SUPPLIES | 11,373 | 11,287 | 11,213 | 10,761 | 11,130 | 11,215 | 11,292 | 11,326 | 11,206 | 10,984 | 11,246 | 11,253 | 11,615 |
| 5013,4 | AUTOMOTIVE PARTS & SUPPLIES, TIRES & TUBES | 5,667 | 5,619 | 5,699 | 5,568 | 5,649 | 5,797 | 5,739 | 5,565 | 5,716 | 5,750 | 5,659 | 5,775 | 5,813 |
| 5013 | AUTOMOTIVE PARTS & SUPPLIES | 4,613 | 4,549 | 4,580 | 4,450 | 4,518 | 4,660 | 4,550 | 4,530 | 4,688 | 4,703 | 4,628 | 4,703 | 4,730 |
| 502 | FURNITURE & HOME FURNISHINGS | 2,186 | 2,235 | 2,280 | 2,077 | 2,115 | 2,057 | 2,112 | 2,165 | 2,106 | 2,212 | 2,188 | 2,126 | 2,168 |
| 5023 | HOME FURNISHINGS | 1,583 | 1,623 | 1,652 | 1,519 | 1,560 | 1,510 | 1,528 | 1,585 | 1,543 | 1,608 | 1,600 | 1,555 | 1,566 |
| 503 | LUMBER & OTHER CONSTRUCTION MATERIALS | 3,368 | 3,483 | 3,578 | 3,751 | 3,661 | 3,587 | 3,537 | 3,429 | 3,551 | 3,377 | 3,331 | 3,493 | 3,392 |
| 5031 | LUMBER, PLYWOOD, AND MILLWORK[1] | 2,211 | 2,309 | 2,326 | 2,427 | 2,395 | 2,370 | 2,258 | 2,207 | 2,324 | 2,172 | 2,168 | 2,268 | 2,206 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS & OFFICES | 5,519 | 5,812 | 5,916 | 5,073 | 4,946 | 5,390 | 5,341 | 5,044 | 5,369 | 5,297 | 5,074 | 5,420 | 5,721 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | 4,346 | 4,627 | 4,723 | 4,111 | 3,935 | 4,342 | 4,359 | 4,053 | 4,334 | 4,242 | 3,999 | 4,323 | 4,532 |
| 506 | ELECTRICAL GOODS | 6,462 | 6,719 | 6,834 | 6,004 | 6,243 | 6,433 | 6,444 | 6,578 | 6,659 | 6,643 | 6,720 | 6,560 | 6,611 |
| 5063 | ELECTRICAL APPARATUS & EQUIPMENT, WIRING SUPPLIES, & CONSTRUCTION MATERIALS | 2,787 | 2,948 | 3,099 | 2,733 | 2,784 | 2,890 | 2,796 | 2,820 | 2,888 | 2,890 | 2,889 | 2,875 | 2,881 |
| 5064,5 | ELECTRICAL APPLIANCES, TV & RADIO SETS, & ELECTRONIC PARTS & EQUIPMENT | 3,675 | 3,771 | 3,735 | 3,271 | 3,459 | 3,543 | 3,648 | 3,758 | 3,771 | 3,753 | 3,831 | 3,685 | 3,730 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT & SUPPLIES | 4,764 | 4,853 | 4,963 | 4,755 | 4,846 | 4,720 | 4,648 | 4,576 | 4,557 | 4,525 | 4,584 | 4,482 | 4,632 |
| 5072 | HARDWARE | 1,925 | 1,976 | 1,959 | 1,863 | 1,844 | 1,794 | 1,773 | 1,749 | 1,824 | 1,853 | 1,842 | 1,806 | 1,885 |
| 5074 | PLUMBING & HEATING EQUIPMENT & SUPPLIES (HYDRONICS) | 1,866 | 1,862 | 1,940 | 1,869 | 1,978 | 1,941 | 1,888 | 1,899 | 1,840 | 1,767 | 1,819 | 1,770 | 1,788 |
| 508 | MACHINERY, EQUIPMENT, & SUPPLIES | 23,570 | 24,563 | 25,122 | 22,327 | 22,364 | 22,833 | 23,162 | 22,825 | 23,260 | 23,261 | 22,878 | 23,542 | 23,811 |
| 5082 | CONSTRUCTION & MINING MACHINERY & EQUIPMENT | 4,185 | 4,222 | 4,219 | 4,563 | 4,606 | 4,750 | 4,752 | 4,489 | 4,503 | 4,310 | 4,255 | 4,299 | 4,242 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, & SUPPLIES | 7,108 | 7,258 | 7,308 | 7,005 | 6,907 | 6,977 | 7,027 | 6,897 | 7,015 | 7,113 | 6,891 | 7,103 | 7,300 |
| 51 | NONDURABLE GOODS, TOTAL | 39,216 | 38,958 | 38,423 | 35,319 | 33,961 | 32,860 | 32,652 | 33,657 | 34,311 | 36,037 | 39,140 | 40,009 | 38,733 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 29,912 | 30,282 | 30,613 | 27,688 | 27,492 | 27,226 | 27,318 | 27,652 | 27,788 | 28,628 | 29,724 | 30,012 | 29,519 |
| 511 | PAPER & PAPER PRODUCTS | 1,847 | 1,903 | 1,894 | 1,717 | 1,744 | 1,752 | 1,777 | 1,741 | 1,712 | 1,750 | 1,773 | 1,820 | 1,849 |
| 5111,3 | PRINTING, WRITING, INDUSTRIAL, & PERSONAL SERVICE PAPER | 1,242 | 1,250 | 1,272 | 1,168 | 1,183 | 1,177 | 1,222 | 1,182 | 1,150 | 1,189 | 1,202 | 1,215 | 1,248 |
| 5111 | PRINTING & WRITING PAPER | 546 | 547 | 559 | 512 | 513 | 505 | 530 | 500 | 484 | 492 | 501 | 516 | 546 |
| 5113 | INDUSTRIAL & PERSONAL SERVICE PAPER[2] | 696 | 703 | 713 | 656 | 670 | 672 | 692 | 682 | 666 | 697 | 701 | 699 | 702 |
| 512 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 1,586 | 1,634 | 1,649 | 1,457 | 1,471 | 1,451 | 1,438 | 1,467 | 1,483 | 1,562 | 1,716 | 1,624 | 1,570 |
| 514 | GROCERIES & RELATED PRODUCTS | 7,837 | 7,745 | 7,994 | 7,098 | 7,058 | 6,854 | 7,076 | 6,916 | 6,810 | 7,284 | 7,711 | 7,729 | 7,978 |
| 5141 | GROCERIES, GENERAL-LINE | 2,796 | 2,841 | 2,953 | 2,637 | 2,606 | 2,535 | 2,548 | 2,614 | 2,572 | 2,760 | 2,979 | 2,891 | 2,895 |
| 517 | PETROLEUM & PETROLEUM PRODUCTS | 4,972 | 5,143 | 5,054 | 4,191 | 4,097 | 4,368 | 4,482 | 4,638 | 4,792 | 4,952 | 5,176 | 5,234 | 4,992 |
| 518 | BEER, WINE, & DISTILLED ALCOHOLIC BEVERAGES | 2,777 | 2,755 | 2,827 | 2,819 | 2,910 | 2,861 | 2,882 | 2,874 | 2,842 | 2,963 | 3,134 | 3,158 | 2,722 |
| 5181 | BEER & ALE | 1,015 | 1,070 | 1,153 | 1,173 | 1,229 | 1,206 | 1,203 | 1,148 | 1,084 | 1,134 | 1,115 | 1,156 | 1,018 |
| 5182 | WINE & DISTILLED ALCOHOLIC BEVERAGES | 1,762 | 1,685 | 1,674 | 1,646 | 1,681 | 1,655 | 1,679 | 1,726 | 1,758 | 1,829 | 2,019 | 2,002 | 1,704 |

Note: Merchant wholesalers total and group totals include data for some kinds of business not shown separately.

[P]Preliminary estimate. See p. 16, Sample Design and Estimation Procedures.

[1]The lumber, plywood, and millwork kind of business is subject to a sampling variability of 9 percent for March 1981.

[2]The industrial and personal service paper kind of business is subject to a sampling variability of 12 percent for March 1981.

## Table 3. Stock-Sales Ratios of Merchant Wholesalers by Kind of Business for the United States, Unadjusted: 1981 and 1980

(PERCENT. DATA ARE NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | | | 1980 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN. | FEB. | MAR.[P] | MAR. | APR. | MAY | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. |
| | MERCHANT WHOLESALERS, TOTAL | 112 | 120 | 107 | 116 | 117 | 117 | 120 | 114 | 116 | 112 | 105 | 116 | 108 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 118 | 124 | 112 | 121 | 124 | 124 | 126 | 120 | 122 | 117 | 109 | 119 | 113 |
| 50 | DURABLE GOODS, TOTAL | 184 | 184 | 164 | 170 | 177 | 185 | 183 | 181 | 183 | 171 | 158 | 180 | 173 |
| 501 | MOTOR VEHICLES & AUTOMOTIVE PARTS & SUPPLIES | 161 | 156 | 137 | 159 | 158 | 167 | 168 | 165 | 159 | 170 | 147 | 170 | 170 |
| 5013,4 | AUTOMOTIVE PARTS & SUPPLIES, TIRES & TUBES | 184 | 183 | 161 | 196 | 197 | 206 | 196 | 189 | 189 | 184 | 164 | 192 | 190 |
| 5013 | AUTOMOTIVE PARTS & SUPPLIES | 175 | 172 | 152 | 186 | 185 | 195 | 185 | 184 | 184 | 182 | 160 | 186 | 184 |
| 502 | FURNITURE & HOME FURNISHINGS | 169 | 168 | 155 | 159 | 157 | 164 | 170 | 179 | 168 | 166 | 143 | 157 | 160 |
| 5023 | HOME FURNISHINGS | 191 | 185 | 175 | 183 | 181 | 188 | 193 | 208 | 197 | 187 | 155 | 170 | 183 |
| 503 | LUMBER & OTHER CONSTRUCTION MATERIALS | 139 | 146 | 129 | 146 | 142 | 139 | 123 | 116 | 125 | 111 | 101 | 124 | 125 |
| 5031 | LUMBER, PLYWOOD, AND MILLWORK | 141 | 147 | 134 | 143 | 146 | 145 | 125 | 120 | 130 | 113 | 106 | 127 | 128 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS & OFFICES | 167 | 162 | 149 | 156 | 165 | 188 | 188 | 196 | 197 | 174 | 155 | 183 | 172 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | 171 | 168 | 153 | 167 | 172 | 204 | 202 | 207 | 209 | 186 | 161 | 190 | 181 |
| 506 | ELECTRICAL GOODS | 172 | 171 | 153 | 162 | 179 | 182 | 171 | 168 | 175 | 158 | 156 | 155 | 154 |
| 5063 | ELECTRICAL APPARATUS & EQUIPMENT, WIRING SUPPLIES, & CONSTRUCTION MATERIALS | 150 | 149 | 146 | 151 | 159 | 162 | 147 | 149 | 155 | 134 | 133 | 133 | 134 |
| 5064,5 | ELECTRICAL APPLIANCES, TV & RADIO SETS, & ELECTRONIC PARTS & EQUIPMENT | 193 | 193 | 160 | 173 | 198 | 203 | 195 | 187 | 194 | 183 | 181 | 177 | 174 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT & SUPPLIES | 209 | 220 | 196 | 209 | 224 | 218 | 205 | 191 | 197 | 188 | 173 | 193 | 205 |
| 5072 | HARDWARE | 217 | 232 | 197 | 215 | 222 | 218 | 204 | 213 | 219 | 207 | 198 | 210 | 218 |
| 5074 | PLUMBING & HEATING EQUIPMENT & SUPPLIES (HYDRONICS) | 193 | 202 | 184 | 194 | 219 | 221 | 211 | 196 | 192 | 171 | 154 | 175 | 185 |
| 508 | MACHINERY, EQUIPMENT, & SUPPLIES | 229 | 229 | 200 | 212 | 209 | 215 | 215 | 215 | 214 | 200 | 191 | 224 | 203 |
| 5082 | CONSTRUCTION & MINING MACHINERY & EQUIPMENT | 377 | 347 | 294 | 343 | 352 | 339 | 360 | 335 | 281 | 293 | 301 | 321 | 308 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, & SUPPLIES | 153 | 152 | 132 | 158 | 151 | 152 | 153 | 155 | 156 | 151 | 140 | 158 | 144 |
| 51 | NONDURABLE GOODS, TOTAL | 68 | 74 | 65 | 75 | 72 | 68 | 71 | 67 | 68 | 69 | 68 | 73 | 66 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 66 | 71 | 66 | 73 | 73 | 70 | 73 | 67 | 68 | 67 | 65 | 69 | 63 |
| 511 | PAPER & PAPER PRODUCTS | 95 | 100 | 90 | 98 | 100 | 102 | 105 | 99 | 96 | 93 | 88 | 100 | 96 |
| 5111,3 | PRINTING, WRITING, INDUSTRIAL, & PERSONAL SERVICE PAPER | 89 | 92 | 82 | 88 | 91 | 92 | 96 | 91 | 89 | 86 | 82 | 93 | 88 |
| 5111 | PRINTING & WRITING PAPER | 83 | 84 | 77 | 78 | 78 | 79 | 85 | 85 | 84 | 79 | 72 | 89 | 84 |
| 5113 | INDUSTRIAL & PERSONAL SERVICE PAPER | 94 | 99 | 87 | 98 | 105 | 104 | 106 | 96 | 94 | 93 | 91 | 97 | 92 |
| 512 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 133 | 144 | 130 | 143 | 144 | 141 | 139 | 135 | 138 | 135 | 131 | 143 | 131 |
| 514 | GROCERIES & RELATED PRODUCTS | 59 | 63 | 58 | 60 | 59 | 55 | 58 | 53 | 54 | 56 | 56 | 61 | 58 |
| 5141 | GROCERIES, GENERAL-LINE | 64 | 70 | 66 | 68 | 66 | 62 | 65 | 61 | 63 | 68 | 67 | 69 | 66 |
| 517 | PETROLEUM & PETROLEUM PRODUCTS | 28 | 33 | 31 | 37 | 37 | 38 | 41 | 35 | 35 | 35 | 33 | 31 | 29 |
| 518 | BEER, WINE, & DISTILLED ALCOHOLIC BEVERAGES | 127 | 125 | 106 | 122 | 116 | 107 | 105 | 96 | 100 | 112 | 108 | 118 | 86 |
| 5181 | BEER & ALE | 89 | 91 | 81 | 98 | 92 | 78 | 76 | 67 | 65 | 79 | 78 | 93 | 70 |
| 5182 | WINE & DISTILLED ALCOHOLIC BEVERAGES | 168 | 163 | 134 | 148 | 145 | 149 | 146 | 133 | 150 | 152 | 137 | 141 | 100 |

Note: Merchant wholesalers total and group totals include data for some kinds of business not shown separately.

[P]Preliminary estimate. See p. 16, Sample Design and Estimation Procedures.

# Table 4A. Estimated Monthly Sales, Inventories, and Stock-Sales Ratios of Merchant Wholesalers by Kind of Business for the United States, Adjusted: 1981 and 1980

(SALES AND INVENTORIES IN MILLIONS OF DOLLARS. STOCK-SALES RATIOS IN PERCENT)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | | | 1980 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN. | FEB. | MAR.[P] | MAR. | APR. | MAY | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. |
| | **SALES ADJUSTED FOR SEASONAL VARIATIONS AND TRADING-DAY DIFFERENCES** | | | | | | | | | | | | | |
| | MERCHANT WHOLESALERS, TOTAL | 98,967 | 98,016 | 96,125 | 82,616 | 81,245 | 80,471 | 81,714 | 85,810 | 86,889 | 90,223 | 93,282 | 93,901 | 96,591 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 86,583 | 86,768 | 84,854 | 73,182 | 71,929 | 71,274 | 72,642 | 76,351 | 76,783 | 79,666 | 82,335 | 83,162 | 85,013 |
| 50 | DURABLE GOODS, TOTAL | 40,370 | 41,511 | 40,077 | 35,896 | 34,561 | 33,688 | 34,793 | 35,196 | 35,353 | 36,937 | 38,110 | 38,799 | 39,403 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | 7,668 | 7,930 | 7,584 | 6,456 | 6,307 | 6,198 | 6,610 | 6,693 | 7,019 | 6,920 | 7,302 | 7,212 | 7,145 |
| 502 | FURNITURE AND HOME FURNISHINGS | 1,486 | 1,491 | 1,421 | 1,286 | 1,301 | 1,265 | 1,254 | 1,250 | 1,261 | 1,281 | 1,321 | 1,331 | 1,344 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | 3,043 | 3,019 | 2,856 | 2,763 | 2,585 | 2,469 | 2,673 | 2,688 | 2,542 | 2,729 | 2,853 | 2,999 | 3,001 |
| 506 | ELECTRICAL GOODS | 4,256 | 4,421 | 4,459 | 3,735 | 3,661 | 3,579 | 3,696 | 3,798 | 3,735 | 3,976 | 3,912 | 4,178 | 4,094 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | 2,513 | 2,572 | 2,571 | 2,368 | 2,097 | 2,067 | 2,173 | 2,222 | 2,238 | 2,349 | 2,370 | 2,428 | 2,411 |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | 11,641 | 12,071 | 12,031 | 10,304 | 10,205 | 9,950 | 10,420 | 10,526 | 10,842 | 11,071 | 11,136 | 11,500 | 11,888 |
| 51 | NONDURABLE GOODS, TOTAL | 58,597 | 56,505 | 56,048 | 46,720 | 46,684 | 46,783 | 46,921 | 50,614 | 51,536 | 53,286 | 55,172 | 55,102 | 57,188 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 46,213 | 45,257 | 44,777 | 37,286 | 37,368 | 37,586 | 37,849 | 41,155 | 41,430 | 42,729 | 44,225 | 44,363 | 45,610 |
| 511 | PAPER AND PAPER PRODUCTS | 1,989 | 2,032 | 2,033 | 1,744 | 1,731 | 1,711 | 1,727 | 1,752 | 1,782 | 1,849 | 1,864 | 1,920 | 1,917 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | 1,255 | 1,258 | 1,231 | 1,021 | 1,003 | 1,035 | 1,058 | 1,070 | 1,095 | 1,123 | 1,169 | 1,178 | 1,174 |
| 513 | APPAREL, PIECE GOODS, AND NOTIONS | 2,192 | 2,459 | 2,276 | 2,095 | 2,082 | 1,911 | 2,151 | 2,242 | 2,221 | 2,239 | 2,185 | 2,156 | 2,057 |
| 514 | GROCERIES AND RELATED PRODUCTS | 13,541 | 13,505 | 13,382 | 11,772 | 11,771 | 11,832 | 12,284 | 12,721 | 12,706 | 12,993 | 13,245 | 13,135 | 13,492 |
| 515 | FARM-PRODUCT RAW MATERIALS[1] | 12,384 | 11,248 | 11,271 | 9,434 | 9,316 | 9,197 | 9,072 | 9,459 | 10,106 | 10,557 | 10,947 | 10,739 | 11,578 |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | 16,938 | 15,603 | 15,729 | 11,283 | 11,435 | 11,645 | 11,204 | 13,560 | 13,863 | 14,455 | 15,487 | 16,220 | 16,461 |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | 2,681 | 2,721 | 2,697 | 2,452 | 2,515 | 2,574 | 2,568 | 2,823 | 2,738 | 2,673 | 2,729 | 2,727 | 2,686 |
| 519 | MISCELLANEOUS NONDURABLE GOODS | 6,061 | 6,151 | 6,144 | 5,766 | 5,672 | 5,685 | 5,633 | 5,804 | 5,804 | 5,946 | 6,221 | 5,831 | 6,498 |
| | **INVENTORIES ADJUSTED FOR SEASONAL VARIATIONS** | | | | | | | | | | | | | |
| | MERCHANT WHOLESALERS, TOTAL | 104,909 | 106,066 | 105,214 | 95,594 | 96,654 | 97,351 | 98,328 | 99,618 | 101,920 | 102,953 | 104,293 | 105,203 | 105,529 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 97,117 | 98,663 | 98,440 | 88,953 | 90,287 | 90,860 | 91,855 | 92,007 | 93,694 | 94,216 | 95,187 | 96,607 | 97,556 |
| 50 | DURABLE GOODS, TOTAL | 67,319 | 68,482 | 68,513 | 61,878 | 62,996 | 63,553 | 64,025 | 63,938 | 65,387 | 65,461 | 65,951 | 66,955 | 67,938 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | 11,216 | 10,791 | 10,929 | 10,488 | 11,031 | 11,038 | 11,281 | 11,394 | 11,517 | 11,514 | 11,464 | 11,378 | 11,603 |
| 502 | FURNITURE AND HOME FURNISHINGS | 2,228 | 2,278 | 2,260 | 2,058 | 2,117 | 2,049 | 2,052 | 2,131 | 2,100 | 2,160 | 2,175 | 2,163 | 2,237 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | 3,451 | 3,515 | 3,464 | 3,631 | 3,561 | 3,489 | 3,454 | 3,349 | 3,540 | 3,415 | 3,396 | 3,635 | 3,501 |
| 506 | ELECTRICAL GOODS | 6,710 | 7,028 | 6,966 | 6,120 | 6,287 | 6,313 | 6,311 | 6,443 | 6,503 | 6,538 | 6,614 | 6,553 | 6,651 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | 4,881 | 4,848 | 4,828 | 4,635 | 4,598 | 4,543 | 4,508 | 4,491 | 4,589 | 4,636 | 4,682 | 4,713 | 4,835 |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | 24,076 | 24,588 | 24,726 | 21,975 | 22,165 | 22,518 | 22,686 | 22,689 | 23,075 | 23,122 | 23,321 | 23,925 | 24,272 |
| 51 | NONDURABLE GOODS, TOTAL | 37,590 | 37,584 | 36,701 | 33,716 | 33,658 | 33,798 | 34,303 | 35,680 | 36,533 | 37,492 | 38,342 | 38,248 | 37,591 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 29,798 | 30,181 | 29,927 | 27,075 | 27,291 | 27,307 | 27,830 | 28,069 | 28,307 | 28,755 | 29,236 | 29,652 | 29,620 |
| 511 | PAPER AND PAPER PRODUCTS | 1,902 | 1,934 | 1,902 | 1,724 | 1,728 | 1,745 | 1,732 | 1,739 | 1,731 | 1,731 | 1,771 | 1,815 | 1,833 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | 1,645 | 1,704 | 1,642 | 1,453 | 1,452 | 1,461 | 1,432 | 1,461 | 1,484 | 1,519 | 1,630 | 1,610 | 1,612 |
| 514 | GROCERIES AND RELATED PRODUCTS | 7,948 | 7,753 | 7,868 | 6,986 | 7,016 | 6,916 | 7,083 | 7,036 | 7,013 | 7,262 | 7,494 | 7,660 | 7,868 |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | 4,855 | 5,190 | 5,049 | 4,187 | 4,295 | 4,466 | 4,728 | 4,737 | 4,797 | 4,836 | 4,982 | 5,018 | 4,904 |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | 2,851 | 2,918 | 2,788 | 2,788 | 2,782 | 2,770 | 2,814 | 2,851 | 2,942 | 2,984 | 3,011 | 3,054 | 2,924 |
| | **STOCK-SALES RATIOS BASED ON ADJUSTED DATA** | | | | | | | | | | | | | |
| | MERCHANT WHOLESALERS, TOTAL | 106 | 108 | 109 | 116 | 119 | 121 | 120 | 116 | 117 | 114 | 112 | 112 | 109 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 112 | 114 | 116 | 122 | 126 | 127 | 126 | 121 | 122 | 118 | 116 | 116 | 115 |
| 50 | DURABLE GOODS, TOTAL | 167 | 165 | 171 | 172 | 182 | 189 | 184 | 182 | 185 | 177 | 173 | 173 | 172 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | 146 | 136 | 144 | 162 | 175 | 178 | 171 | 170 | 164 | 166 | 157 | 158 | 162 |
| 502 | FURNITURE AND HOME FURNISHINGS | 150 | 153 | 159 | 160 | 163 | 162 | 164 | 170 | 167 | 169 | 165 | 163 | 166 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | 113 | 116 | 121 | 131 | 138 | 141 | 129 | 125 | 139 | 125 | 119 | 121 | 117 |
| 506 | ELECTRICAL GOODS | 158 | 159 | 156 | 164 | 172 | 176 | 171 | 170 | 174 | 164 | 169 | 157 | 162 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | 194 | 188 | 188 | 196 | 219 | 220 | 207 | 202 | 205 | 197 | 198 | 194 | 201 |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | 207 | 204 | 206 | 213 | 217 | 226 | 218 | 216 | 213 | 209 | 209 | 208 | 204 |
| 51 | NONDURABLE GOODS, TOTAL | 64 | 67 | 65 | 72 | 72 | 72 | 73 | 70 | 71 | 70 | 69 | 69 | 66 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 64 | 67 | 67 | 73 | 73 | 73 | 74 | 68 | 68 | 67 | 66 | 67 | 65 |
| 511 | PAPER AND PAPER PRODUCTS | 96 | 95 | 94 | 99 | 100 | 102 | 100 | 99 | 97 | 94 | 95 | 95 | 96 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | 131 | 135 | 133 | 142 | 145 | 141 | 135 | 137 | 136 | 135 | 139 | 137 | 137 |
| 514 | GROCERIES AND RELATED PRODUCTS | 59 | 57 | 59 | 59 | 60 | 58 | 58 | 55 | 55 | 56 | 57 | 58 | 58 |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | 29 | 33 | 32 | 37 | 38 | 38 | 42 | 35 | 35 | 33 | 32 | 31 | 30 |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | 106 | 107 | 103 | 114 | 111 | 108 | 110 | 101 | 107 | 112 | 110 | 112 | 109 |

Note: Merchant wholesalers total and group totals include data for some kinds of business not shown separately.

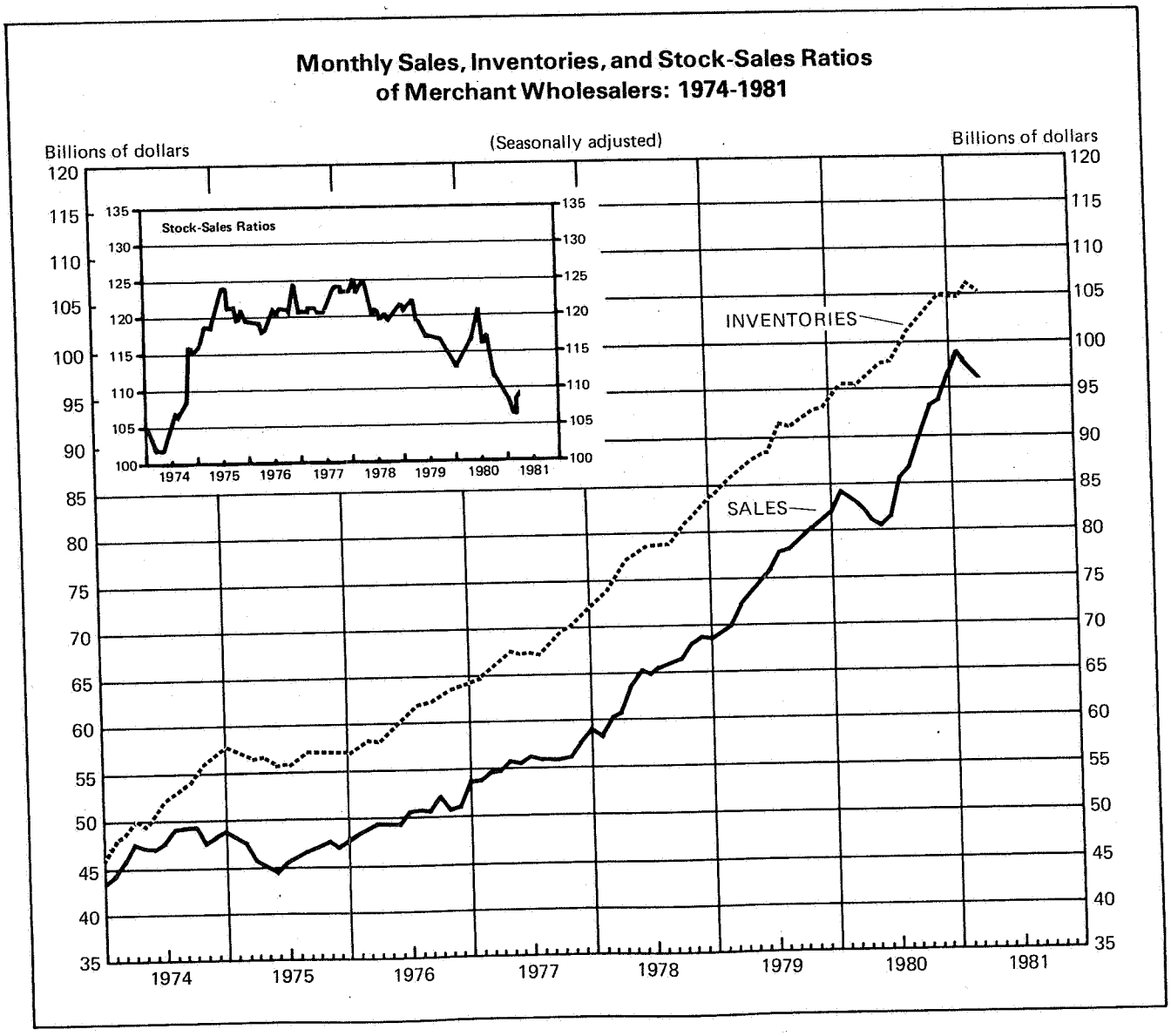
[P]Preliminary estimates. See p. 16, Sample Design and Estimation Procedures.

[1]There are indications that the seasonal adjustment factors for the farm-product raw materials category may not reflect recent trends in this trade. The seasonally adjusted data for this category and also for the merchant wholesale and nondurable goods totals should, therefore, be used with caution.

## Table 4B. Percent Change Between Selected 3-Month Periods Sales of Merchant Wholesalers, United States

(Based on seasonally-adjusted data)

| Item | 3 month period, January 1981-March 1981 from-- | | | |
|---|---|---|---|---|
| | Oct. 1980-Dec. 1980 (3 months ago) | July 1980-Sept.1980 (6 months ago) | April 1980-June 1980 (9 months ago) | Jan. 1980-Mar. 1980 (12 months ago) |
| Merchant wholesalers, total..... | +4 | +12 | +21 | +18 |
| Durable goods, total..... | +5 | +13 | +18 | +10 |
| Nondurable goods, total... | +3 | +11 | +23 | +24 |



# Table 5. Percent Change in Sales and Inventories of Merchant Wholesalers by Kind of Business for the United States: March 1981

| 1972 SIC CODE | KIND OF BUSINESS | UNADJUSTED | | | | | ADJUSTED[1] | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | SALES | | | INVENTORIES, END-OF-MONTH (AT COST) | | SALES | | INVENTORIES, END-OF-MONTH (AT COST) | |
| | | MAR. 1981 FROM FEB. 1981 | MAR. 1981 FROM MAR. 1980 | 3 MONTHS 1981 FROM 3 MONTHS 1980 | MAR. 1981 FROM FEB. 1981 | MAR. 1981 FROM MAR. 1980 | MAR. 1981 FROM FEB. 1981 | MAR. 1981 FROM MAR. 1980 | MAR. 1981 FROM FEB. 1981 | MAR. 1981 FROM MAR. 1980 |
| | MERCHANT WHOLESALERS, TOTAL | +13 | +20 | r+16 | 0 | +10 | -2 | +16 | -1 | +10 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | +12 | +19 | +16 | +1 | +11 | -2 | +16 | 0 | +11 |
| 50 | DURABLE GOODS, TOTAL | +14 | +15 | +9 | +1 | +11 | -3 | +12 | 0 | +11 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | +13 | +22 | +14 | -1 | +4 | -4 | +17 | +1 | +4 |
| 5012 | AUTOMOBILES AND OTHER MOTOR VEHICLES | +12 | +19 | +11 | -3 | +6 | (*) | (*) | (*) | (*) |
| 5013,4 | AUTOMOTIVE PARTS AND SUPPLIES, TIRES AND TUBES | +15 | +24 | +18 | +1 | +2 | (*) | (*) | (*) | (*) |
| 5013 | AUTOMOTIVE PARTS AND SUPPLIES | +14 | +26 | +19 | +1 | +3 | (*) | (*) | (*) | (*) |
| 502 | FURNITURE AND HOME FURNISHINGS | +10 | +13 | +11 | +2 | +10 | -5 | +10 | -1 | +10 |
| 5021 | FURNITURE--HOUSEHOLD AND OFFICE | +16 | +12 | +8 | +3 | +13 | (*) | (*) | (*) | (*) |
| 5021 PT. | HOUSEHOLD FURNITURE[2] | +22 | -1 | -7 | +4 | +25 | (*) | (*) | (*) | (*) |
| 5021 PT. | OFFICE FURNITURE | +14 | +18 | +14 | +2 | +5 | (*) | (*) | (*) | (*) |
| 5023 | HOME FURNISHINGS | +8 | +14 | +13 | +2 | +9 | (*) | (*) | (*) | (*) |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | +16 | +7 | +1 | +3 | -5 | -5 | +3 | -1 | -5 |
| 5031 | LUMBER, PLYWOOD, AND MILLWORK | +11 | +2 | -3 | +1 | -4 | (*) | (*) | (*) | (*) |
| 5039 | CONSTRUCTION MATERIALS, N.E.C. | +25 | +17 | +8 | +7 | -5 | (*) | (*) | (*) | (*) |
| 504 | SPORTING, RECREATIONAL, PHOTOGRAPHIC, AND HOBBY GOODS, TOYS AND SUPPLIES | +17 | +18 | +11 | +3 | +1 | -2 | +18 | +1 | +1 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS AND OFFICES | +11 | +22 | +15 | +2 | +17 | (*) | (*) | (*) | (*) |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | +12 | +25 | +18 | +2 | +15 | (*) | (*) | (*) | (*) |
| 506 | ELECTRICAL GOODS | +13 | +20 | +12 | +2 | +14 | +1 | +19 | -1 | +14 |
| 5063 | ELECTRICAL APPARATUS AND EQUIPMENT, WIRING SUPPLIES, AND CONSTRUCTION MATERIALS | +7 | +17 | +12 | +5 | +13 | (*) | (*) | (*) | (*) |
| 5064,5 | ELECTRICAL APPLIANCES, TV AND RADIO SETS, AND ELECTRONIC PARTS AND EQUIPMENT | +20 | +24 | +11 | -1 | +14 | (*) | (*) | (*) | (*) |
| 5064 | ELECTRICAL APPLIANCES, TV AND RADIO SETS | +20 | +24 | +13 | +2 | +10 | (*) | (*) | (*) | (*) |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | +15 | +11 | +5 | +2 | +4 | 0 | +9 | 0 | +4 |
| 5072 | HARDWARE | +17 | +15 | +7 | -1 | +5 | (*) | (*) | (*) | (*) |
| 5074 | PLUMBING AND HEATING EQUIPMENT AND SUPPLIES (HYDRONICS) | +14 | +9 | +3 | +4 | +4 | (*) | (*) | (*) | (*) |
| 5075 | WARM AIR HEATING AND AIR CONDITIONING EQUIPMENT AND SUPPLIES | +11 | +4 | +2 | +6 | +10 | (*) | (*) | (*) | (*) |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | +17 | +19 | +13 | +2 | +13 | 0 | +17 | +1 | +13 |
| 5081 | COMMERCIAL MACHINES AND EQUIPMENT | +15 | +20 | +19 | +1 | +23 | (*) | (*) | (*) | (*) |
| 5082 | CONSTRUCTION AND MINING MACHINERY AND EQUIPMENT | +18 | +8 | +5 | 0 | -8 | (*) | (*) | (*) | (*) |
| 5083 | FARM AND GARDEN MACHINERY AND EQUIPMENT | +28 | +8 | +2 | +4 | +29 | (*) | (*) | (*) | (*) |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, AND SUPPLIES | +16 | +25 | +17 | +1 | +4 | (*) | (*) | (*) | (*) |
| 5086 | PROFESSIONAL EQUIPMENT AND SUPPLIES | +11 | +26 | +18 | +5 | +29 | (*) | (*) | (*) | (*) |
| 5093 | SCRAP AND WASTE MATERIALS | +15 | -9 | -11 | +1 | +15 | (*) | (*) | (*) | (*) |
| 5093 PT. | IRON AND STEEL SCRAP | +17 | -6 | -7 | +1 | +18 | (*) | (*) | (*) | (*) |
| 5093 PT. | WASTE MATERIALS[2] | +11 | -13 | -17 | 0 | +9 | (*) | (*) | (*) | (*) |
| 51 | NONDURABLE GOODS, TOTAL | +12 | +24 | r+22 | -1 | +9 | -1 | +20 | -2 | +9 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | +10 | +23 | r+22 | +1 | +11 | -1 | +20 | -1 | +11 |
| 511 | PAPER AND PAPER PRODUCTS | +11 | +20 | +13 | 0 | +10 | 0 | +17 | -2 | +10 |
| 5111,3 | PRINTING, WRITING, INDUSTRIAL, AND PERSONAL SERVICE PAPER | +14 | +17 | +11 | +2 | +9 | (*) | (*) | (*) | (*) |
| 5111 | PRINTING, AND WRITING PAPER | +12 | +11 | +3 | +2 | +9 | (*) | (*) | (*) | (*) |
| 5113 | INDUSTRIAL AND PERSONAL SERVICE PAPER | +15 | +23 | +19 | +1 | +9 | (*) | (*) | (*) | (*) |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | +12 | +25 | +20 | +1 | +13 | -2 | +21 | -4 | +13 |
| 5122 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | +12 | +25 | +20 | +1 | +13 | (*) | (*) | (*) | (*) |
| 5122 PT. | GENERAL-LINE DRUGS | +13 | +15 | +12 | -1 | +6 | (*) | (*) | (*) | (*) |
| 514 | GROCERIES AND RELATED PRODUCTS | +11 | +16 | +14 | +3 | +13 | -1 | +14 | +1 | +13 |
| 5141 | GROCERIES, GENERAL-LINE | +10 | +14 | +14 | +4 | +12 | (*) | (*) | (*) | (*) |
| 5141 PT. | VOLUNTARY GROUPS | +10 | +14 | +13 | +6 | +18 | (*) | (*) | (*) | (*) |
| 5141 PT. | RETAILER COOPERATIVES | +10 | +16 | +17 | +4 | +14 | (*) | (*) | (*) | (*) |
| 5141 PT. | OTHER GENERAL-LINES | +10 | +14 | +13 | +2 | +6 | (*) | (*) | (*) | (*) |
| 5142,3,6,9 | SPECIALTY-LINE GROCERIES | +12 | +22 | +18 | +4 | +15 | (*) | (*) | (*) | (*) |
| 5144 | POULTRY AND POULTRY PRODUCTS | +7 | +9 | +10 | -1 | +12 | (*) | (*) | (*) | (*) |
| 5145 | CONFECTIONERY | +11 | +18 | +17 | -2 | +10 | (*) | (*) | (*) | (*) |
| 5147 | MEATS AND MEAT PRODUCTS | +9 | +3 | 0 | -4 | -6 | (*) | (*) | (*) | (*) |
| 5148 | FRESH FRUITS AND VEGETABLES | +20 | +25 | +21 | +6 | +36 | (*) | (*) | (*) | (*) |
| 515 | FARM-PRODUCT RAW MATERIALS | +20 | +26 | +21 | -10 | +2 | 0 | +19 | -8 | +2 |
| 5152 | COTTON | +2 | +10 | +13 | -17 | -26 | (*) | (*) | (*) | (*) |
| 5153 | GRAIN | +21 | +28 | +24 | -7 | +13 | (*) | (*) | (*) | (*) |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | +4 | +45 | +44 | -2 | +21 | +1 | +39 | -3 | +21 |
| 5171 | PETROLEUM BULK STATIONS AND TERMINALS | +5 | +34 | +32 | -7 | +16 | (*) | (*) | (*) | (*) |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | +21 | +15 | +7 | +3 | 0 | -1 | +10 | -4 | 0 |
| 5181 | BEER AND ALE | +21 | +18 | +9 | +8 | -2 | (*) | (*) | (*) | (*) |
| 5182 | WINES AND DISTILLED ALCOHOLIC BEVERAGES | +21 | +12 | +6 | -1 | +2 | (*) | (*) | (*) | (*) |
| 519 | MISCELLANEOUS NONDURABLE GOODS | +24 | +9 | +8 | +1 | +8 | 0 | +7 | -2 | +8 |
| 5191 | FARM SUPPLIES | +23 | +15 | +12 | 0 | +6 | (*) | (*) | (*) | (*) |
| 5194 | TOBACCO AND TOBACCO PRODUCTS | +15 | +12 | +5 | +7 | +11 | (*) | (*) | (*) | (*) |
| 5198 | PAINTS, VARNISHES, AND SUPPLIES | +9 | +4 | +2 | 0 | -5 | (*) | (*) | (*) | (*) |
| 5199 PT. | BOOKS, PERIODICALS, NEWSPAPERS | +19 | (S) | (S) | 0 | (S) | (*) | (*) | (*) | (*) |

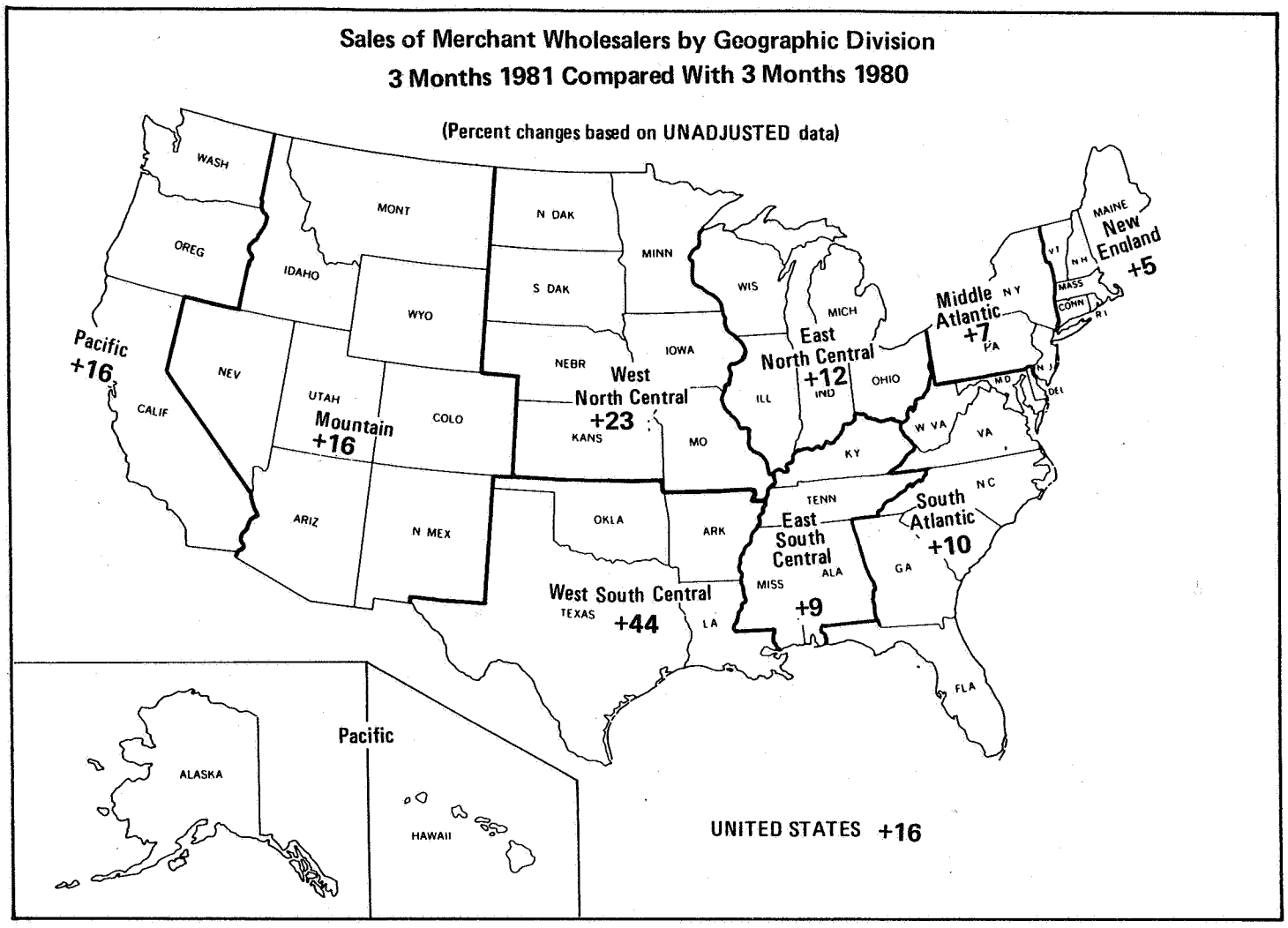
*Adjusted data are available only for summary group totals. (S) Does not meet publication standards because of extreme variability or high nonresponse rate. rRevised.

[1]Adjusted for seasonal variations and, in the case of sales, also for trading-day differences.

[2]There are indications that the seasonal adjustment factors for this trade group may not reflect recent trends. The seasonally adjusted data for this trade group and also for the summary group totals should, therefore, be used with caution.

[3]Sampling variability of 15 percent for percent change between March 1981 and March 1980 for both sales and inventories.

[4]Sampling variability of 11 percent for percent change between March 1981 and March 1980 for inventories.




## Table 6. Estimated Monthly Sales of Merchant Wholesalers and Sampling Errors, by Geographic Division: 1981 and 1980

(SALES, MILLIONS OF DOLLARS, ARE NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES)

| 1972 SIC CODE | KIND OF BUSINESS AND GEOGRAPHIC DIVISION[1] | 1981 JAN. | 1981 FEB. | 1981 MAR.[P] | 1980 MAR. | 1980 APR. | 1980 MAY | 1980 JUNE | 1980 JULY | 1980 AUG. | 1980 SEPT. | 1980 OCT. | 1980 NOV. | 1980 DEC. | TOTAL 3 MONTHS 1981 | TOTAL 3 MONTHS 1980 | MEDIAN SAMPLING ERROR[2] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MERCHANT WHOLESALERS, TOTAL | 93,845 | 89,641 | 100,897 | 84,101 | 83,106 | 83,507 | 81,607 | 86,052 | 86,311 | 90,715 | 99,023 | 91,328 | 97,659 | 284,383 | 244,578 | 1.5 |
| | NEW ENGLAND | 4,445 | 4,256 | 4,554 | 4,338 | 3,881 | 4,059 | 4,125 | 4,368 | 4,109 | 4,400 | 4,668 | 4,524 | 4,786 | 13,255 | 12,578 | 5 |
| | MIDDLE ATLANTIC | 19,320 | 19,046 | 21,336 | 19,554 | 17,580 | 17,555 | 17,407 | 17,959 | 18,298 | 19,380 | 20,204 | 19,463 | 20,750 | 59,702 | 55,801 | 4 |
| | EAST NORTH CENTRAL | 14,031 | 12,833 | 15,171 | 12,604 | 12,989 | 13,286 | 12,504 | 12,775 | 13,122 | 13,600 | 15,510 | 13,852 | 14,147 | 42,035 | 37,550 | 2 |
| | WEST NORTH CENTRAL | 10,164 | 9,279 | 10,351 | 8,143 | 8,694 | 8,842 | 8,234 | 8,724 | 8,884 | 9,328 | 11,024 | 9,321 | 10,306 | 29,794 | 24,138 | 3 |
| | SOUTH ATLANTIC | 9,305 | 8,860 | 10,101 | 8,892 | 8,995 | 8,719 | 8,803 | 8,781 | 8,540 | 8,976 | 9,781 | 8,875 | 9,668 | 28,266 | 25,795 | 2 |
| | EAST SOUTH CENTRAL | 3,921 | 3,760 | 4,421 | 3,771 | 3,969 | 3,950 | 3,761 | 3,801 | 3,832 | 3,835 | 4,356 | 3,759 | 4,036 | 12,102 | 11,117 | 4 |
| | WEST SOUTH CENTRAL | 15,860 | 15,383 | 16,574 | 11,456 | 11,544 | 11,669 | 11,417 | 13,865 | 13,835 | 14,655 | 15,925 | 15,445 | 16,552 | 47,817 | 33,311 | 5 |
| | MOUNTAIN | 3,393 | 3,283 | 3,931 | 3,272 | 3,108 | 3,129 | 3,314 | 3,261 | 3,335 | 3,900 | 3,713 | 3,528 | 3,828 | 10,607 | 9,107 | 6 |
| | PACIFIC | 13,406 | 12,941 | 14,458 | 12,071 | 12,346 | 12,298 | 12,042 | 12,518 | 12,356 | 12,641 | 13,842 | 12,561 | 13,586 | 40,805 | 35,181 | 3 |
| 50 | DURABLE GOODS, TOTAL | 35,927 | 37,054 | 42,178 | 36,737 | 35,913 | 34,947 | 35,508 | 35,757 | 36,010 | 38,112 | 41,298 | 36,679 | 38,598 | 115,159 | 105,617 | 1.8 |
| | MIDDLE ATLANTIC | 7,412 | 7,818 | 8,719 | 8,224 | 7,752 | 7,430 | 7,488 | 7,429 | 7,340 | 7,911 | 8,727 | 7,960 | 8,146 | 23,949 | 23,600 | 6 |
| | EAST NORTH CENTRAL | 5,644 | 5,704 | 6,802 | 5,757 | 5,786 | 5,544 | 5,382 | 5,264 | 5,586 | 6,029 | 6,620 | 5,983 | 6,020 | 18,150 | 16,892 | 3 |
| | WEST NORTH CENTRAL | 2,515 | 2,699 | 3,026 | 2,742 | 2,649 | 2,637 | 2,590 | 2,661 | 2,818 | 2,872 | 3,214 | 2,718 | 2,830 | 8,240 | 8,063 | 5 |
| | SOUTH ATLANTIC | 4,137 | 4,321 | 4,918 | 4,308 | 4,424 | 4,091 | 4,375 | 4,360 | 4,265 | 4,377 | 4,834 | 4,128 | 4,327 | 13,376 | 12,202 | 3 |
| | WEST SOUTH CENTRAL | 4,738 | 4,856 | 5,738 | 4,302 | 4,279 | 4,292 | 4,386 | 4,653 | 4,530 | 4,758 | 5,027 | 4,665 | 4,916 | 15,332 | 12,219 | 4 |
| | MOUNTAIN | 1,469 | 1,321 | 1,582 | 1,388 | 1,381 | 1,261 | 1,376 | 1,360 | 1,415 | 1,744 | 1,702 | 1,415 | 1,747 | 4,372 | 3,830 | 8 |
| | PACIFIC | 6,938 | 7,265 | 8,036 | 6,731 | 6,592 | 6,644 | 6,728 | 6,738 | 6,818 | 6,887 | 7,503 | 6,664 | 7,249 | 22,239 | 19,320 | 4 |
| 51 | NONDURABLE GOODS, TOTAL | 57,918 | 52,587 | 58,719 | 47,364 | 47,193 | 48,560 | 46,099 | 50,295 | 50,301 | 52,603 | 57,725 | 54,649 | 59,061 | 169,224 | 138,961 | 1.8 |
| | NEW ENGLAND | 2,849 | 2,697 | 2,912 | 2,578 | 2,372 | 2,619 | 2,572 | 2,684 | 2,607 | 2,643 | 2,860 | 2,915 | 3,053 | 8,458 | 7,562 | 6 |
| | MIDDLE ATLANTIC | 11,908 | 11,228 | 12,617 | 11,330 | 9,828 | 10,125 | 9,919 | 10,530 | 10,958 | 11,469 | 11,477 | 11,503 | 12,604 | 35,753 | 32,201 | 4 |
| | EAST NORTH CENTRAL | 8,387 | 7,129 | 8,369 | 6,847 | 7,203 | 7,742 | 7,122 | 7,511 | 7,536 | 7,571 | 8,890 | 7,869 | 8,127 | 23,885 | 20,658 | 4 |
| | WEST NORTH CENTRAL | 7,649 | 6,580 | 7,325 | 5,401 | 6,045 | 6,205 | 5,644 | 6,063 | 6,066 | 6,456 | 7,810 | 6,603 | 7,476 | 21,554 | 16,075 | 4 |
| | SOUTH ATLANTIC | 5,168 | 4,539 | 5,183 | 4,584 | 4,571 | 4,628 | 4,428 | 4,421 | 4,275 | 4,599 | 4,947 | 4,747 | 5,341 | 14,890 | 13,593 | 4 |
| | EAST SOUTH CENTRAL | 2,443 | 2,249 | 2,706 | 2,246 | 2,428 | 2,342 | 2,131 | 2,193 | 2,096 | 2,058 | 2,493 | 2,222 | 2,406 | 7,398 | 6,642 | 4 |
| | WEST SOUTH CENTRAL | 11,122 | 10,527 | 10,836 | 7,154 | 7,265 | 7,377 | 7,031 | 9,212 | 9,305 | 9,897 | 10,898 | 10,780 | 11,636 | 32,485 | 21,092 | 8 |
| | PACIFIC | 6,468 | 5,676 | 6,422 | 5,340 | 5,754 | 5,654 | 5,314 | 5,780 | 5,538 | 5,754 | 6,339 | 5,897 | 6,337 | 18,566 | 15,861 | 5 |

[P] Preliminary estimate. See p. 16, Sample Design and Estimation Procedure.

[1] See map above.

[2] The median sampling errors (in percent) are based on data for the period September 1979 thru February 1980.

# Table 7. Percent Change in Sales and Inventories of Merchant Wholesalers and Sampling Errors by Kind of Business for Geographic Divisions: March 1981

(BASED ON DATA NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES)

| 1972 SIC CODE | KIND OF BUSINESS AND GEOGRAPHIC DIVISION[1] | PERCENT CHANGE IN-- SALES | | | INVENTORIES | | SAMPLING ERRORS OF THE RATIO CORRESPONDING TO THE PERCENT CHANGE IN COLUMNS[2]-- | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | MAR. 1981 FROM FEB. 1981 | MAR. 1981 FROM MAR. 1980 | 3 MOS. 1981 FROM 3 MOS. 1980 | MAR. 1981 FROM FEB. 1981 | MAR. 1981 FROM MAR. 1980 | | | | |
| | | A | B | C | D | E | A | B | D | E |
| | MERCHANT WHOLESALERS, TOTAL | +13 | +20 | r+16 | 0 | +10 | 0.7 | 1.2 | 0.3 | 0.9 |
| | NEW ENGLAND | +7 | +5 | +5 | +1 | +8 | 2.1 | 4.8 | 0.9 | 4.2 |
| | MIDDLE ATLANTIC | +12 | +9 | +7 | 0 | +14 | 1.7 | 3.2 | 0.8 | 2.6 |
| | EAST NORTH CENTRAL | +18 | +20 | +12 | 0 | +10 | 1.3 | 2.5 | 0.5 | 2.4 |
| | WEST NORTH CENTRAL | +12 | +27 | +23 | -1 | +13 | 1.4 | 2.4 | 0.8 | 2.2 |
| | SOUTH ATLANTIC | +14 | +14 | +10 | 0 | +3 | 1.1 | 2.4 | 0.6 | 2.0 |
| | EAST SOUTH CENTRAL | +18 | +17 | +9 | 0 | -5 | 2.3 | 3.4 | 0.9 | 2.8 |
| | WEST SOUTH CENTRAL | +8 | +45 | +44 | 0 | +14 | 2.0 | 4.5 | 0.8 | 2.5 |
| | MOUNTAIN | +20 | +20 | +16 | +6 | +12 | 2.1 | 3.4 | 1.1 | 3.4 |
| | PACIFIC | +12 | +20 | +16 | +1 | +11 | 1.0 | 2.4 | 0.6 | 2.2 |
| 50 | DURABLE GOODS, TOTAL | +14 | +15 | +9 | +1 | +11 | 0.9 | 2.3 | 0.4 | 1.1 |
| | NEW ENGLAND | +5 | -7 | -4 | +2 | +9 | 4.3 | 10.7 | 1.1 | 6.0 |
| | MIDDLE ATLANTIC | +12 | +6 | +1 | 0 | +17 | 2.1 | 6.3 | 1.0 | 3.5 |
| | EAST NORTH CENTRAL | +19 | +18 | +7 | +1 | +11 | 1.6 | 3.1 | 0.6 | 3.2 |
| | WEST NORTH CENTRAL | +12 | +10 | +2 | +1 | +14 | 2.3 | 5.0 | 1.1 | 2.7 |
| | SOUTH ATLANTIC | +14 | +14 | +10 | +1 | +1 | 1.5 | 3.7 | 0.8 | 2.8 |
| | EAST SOUTH CENTRAL | +14 | +12 | +5 | +2 | +2 | 4.2 | 6.0 | 1.4 | 4.5 |
| | WEST SOUTH CENTRAL | +18 | +33 | +25 | +2 | +14 | 3.0 | 5.1 | 0.8 | 3.3 |
| | MOUNTAIN | +20 | +14 | +14 | +9 | +14 | 3.2 | 6.1 | 1.3 | 4.7 |
| | PACIFIC | +11 | +19 | +15 | +1 | +9 | 1.6 | 3.4 | 0.8 | 2.8 |
| 51 | NONDURABLE GOODS, TOTAL | +12 | +24 | r+22 | -1 | +9 | 0.8 | 1.3 | 0.5 | 1.2 |
| | NEW ENGLAND | +8 | +13 | +12 | +1 | +6 | 1.9 | 3.8 | 1.2 | 4.5 |
| | MIDDLE ATLANTIC | +12 | +11 | +11 | 0 | +10 | 2.0 | 3.1 | 0.8 | 3.6 |
| | EAST NORTH CENTRAL | +17 | +22 | +16 | -1 | +8 | 2.1 | 2.8 | 1.0 | 3.3 |
| | WEST NORTH CENTRAL | +11 | +36 | +34 | -3 | +12 | 1.9 | 2.7 | 1.2 | 3.1 |
| | SOUTH ATLANTIC | +14 | +13 | +10 | -3 | +7 | 1.8 | 2.9 | 1.1 | 3.0 |
| | EAST SOUTH CENTRAL | +20 | +20 | +11 | -4 | -15 | 1.6 | 3.6 | 1.8 | 3.1 |
| | WEST SOUTH CENTRAL | +3 | +51 | +54 | -4 | +15 | 2.6 | 6.3 | 1.6 | 4.5 |
| | MOUNTAIN | +20 | +25 | +16 | 0 | +9 | 2.0 | 5.2 | 1.7 | 5.8 |
| | PACIFIC | +13 | +20 | +17 | +1 | +15 | 1.7 | 2.9 | 1.0 | 3.4 |
| 5013,4 | AUTOMOTIVE PARTS AND SUPPLIES, TIRES AND TUBES | +15 | +24 | +18 | +1 | +2 | 2 | 4 | 1 | 3 |
| | NEW ENGLAND | (S) | (S) | +6 | 0 | +2 | (*) | (*) | 3 | 14 |
| | MIDDLE ATLANTIC | +23 | +42 | +30 | +2 | +6 | 4 | 8 | 1 | 7 |
| | EAST NORTH CENTRAL | +25 | +23 | +7 | 0 | -5 | 3 | 8 | 1 | 5 |
| | WEST NORTH CENTRAL | +16 | +31 | +16 | +2 | +25 | 3 | 13 | 2 | 11 |
| | SOUTH ATLANTIC | +10 | +16 | +17 | +4 | +4 | 4 | 10 | 2 | 8 |
| | EAST SOUTH CENTRAL | +18 | +13 | +10 | +3 | +4 | 3 | 12 | 3 | 12 |
| | WEST SOUTH CENTRAL | +8 | +9 | +11 | -3 | -10 | 3 | 10 | 2 | 10 |
| | MOUNTAIN | +11 | (S) | +6 | +1 | (S) | 6 | (*) | 3 | (*) |
| | PACIFIC | +16 | +32 | +29 | +2 | +6 | 3 | 6 | 2 | 12 |
| 502 | FURNITURE AND HOME FURNISHINGS | +10 | +13 | +11 | +2 | +10 | 3 | 4 | 1 | 3 |
| | MIDDLE ATLANTIC | +3 | +16 | +18 | +1 | +20 | 6 | 10 | 1 | 8 |
| | EAST NORTH CENTRAL | +18 | -5 | -7 | +6 | -11 | 6 | 13 | 2 | 8 |
| | WEST NORTH CENTRAL | +4 | (S) | -1 | +1 | -2 | 6 | (*) | 3 | 10 |
| | WEST SOUTH CENTRAL | +26 | +50 | +23 | +5 | +36 | 4 | 10 | 2 | 10 |
| | PACIFIC | +15 | +19 | +16 | -3 | +16 | 6 | 12 | 2 | 10 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | +16 | +7 | +1 | +3 | -5 | 2 | 3 | 1 | 3 |
| | NEW ENGLAND | (S) | +17 | +10 | +12 | -3 | (*) | 14 | 3 | 12 |
| | MIDDLE ATLANTIC | +24 | 0 | -6 | +1 | -10 | 6 | 11 | 2 | 12 |
| | EAST NORTH CENTRAL | +27 | +12 | -2 | +3 | -10 | 4 | 8 | 2 | 9 |
| | WEST NORTH CENTRAL | +11 | -20 | -18 | +6 | -18 | 7 | 11 | 4 | 12 |
| | SOUTH ATLANTIC | +14 | +11 | +6 | -2 | +10 | 4 | 9 | 2 | 8 |
| | EAST SOUTH CENTRAL | +34 | +32 | +7 | -3 | -19 | 7 | 13 | 2 | 12 |
| | WEST SOUTH CENTRAL | +7 | +21 | +12 | +11 | +33 | 5 | 13 | 2 | 10 |
| | PACIFIC | +7 | +7 | +4 | +1 | -7 | 4 | 9 | 2 | 9 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | +12 | +25 | +18 | +2 | +15 | 3 | 4 | 1 | 3 |
| | NEW ENGLAND | 0 | (S) | -21 | -2 | (S) | 7 | (*) | 6 | (*) |
| | MIDDLE ATLANTIC | +9 | +10 | +11 | +5 | +13 | 6 | 9 | 2 | 12 |
| | EAST NORTH CENTRAL | +18 | (S) | +21 | +3 | +15 | 5 | 7 | 1 | 6 |
| | WEST NORTH CENTRAL | +10 | +22 | +8 | +2 | -8 | 5 | 10 | 2 | 9 |
| | SOUTH ATLANTIC | +12 | (S) | +19 | -1 | (S) | 5 | (*) | 2 | (*) |
| | EAST SOUTH CENTRAL | +12 | +7 | +8 | +3 | +9 | 3 | 11 | 2 | 14 |
| | WEST SOUTH CENTRAL | +22 | +74 | +48 | +1 | +46 | 4 | 10 | 2 | 9 |
| | MOUNTAIN | 0 | (S) | -17 | -8 | (S) | 3 | (*) | 3 | (*) |
| | PACIFIC | -6 | (S) | +19 | +1 | (S) | 5 | (*) | 4 | (*) |
| 5063 | ELECTRICAL APPARATUS AND EQUIPMENT, WIRING SUPPLIES, AND CONSTRUCTION MATERIALS | +7 | +17 | +12 | +5 | +13 | 3 | 4 | 1 | 3 |
| | NEW ENGLAND | +4 | +27 | +17 | +3 | +28 | 4 | 12 | 2 | 12 |
| | MIDDLE ATLANTIC | +5 | +24 | +20 | +2 | +17 | 4 | 11 | 2 | 7 |
| | EAST NORTH CENTRAL | +9 | +1 | 0 | +2 | +2 | 3 | 8 | 2 | 7 |
| | WEST NORTH CENTRAL | +12 | +23 | +8 | +3 | +30 | 5 | 12 | 3 | 12 |
| | SOUTH ATLANTIC | +3 | +1 | +5 | +6 | +1 | 3 | 8 | 2 | 8 |
| | EAST SOUTH CENTRAL | (S) | (S) | (S) | +9 | (S) | (*) | (*) | 3 | (*) |
| | WEST SOUTH CENTRAL | +19 | (S) | +28 | +13 | (S) | 7 | (*) | 3 | (*) |
| | MOUNTAIN | +15 | +10 | +2 | 0 | +2 | 4 | 14 | 2 | 11 |
| | PACIFIC | 0 | +3 | +5 | +6 | +14 | 4 | 10 | 2 | 6 |

See footnotes at end of table.

# Table 7. Percent Change in Sales and Inventories of Merchant Wholesalers and Sampling Errors by Kind of Business for Geographic Divisions: March 1981—Continued

(BASED ON DATA NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES)

| 1972 SIC CODE | KIND OF BUSINESS AND GEOGRAPHIC DIVISION[1] | PERCENT CHANGE IN-- SALES: MAR. 1981 FROM FEB. 1981 (A) | SALES: MAR. 1981 FROM MAR. 1980 (B) | SALES: 3 MOS. 1981 FROM 3 MOS. 1980 (C) | INVENTORIES: MAR. 1981 FROM FEB. 1981 (D) | INVENTORIES: MAR. 1981 FROM MAR. 1980 (E) | SAMPLING ERRORS OF THE RATIO CORRESPONDING TO THE PERCENT CHANGE IN COLUMNS[2]-- A | B | D | E |
|---|---|---|---|---|---|---|---|---|---|---|
| 5064,5 | ELECTRICAL APPLIANCES, TV AND RADIO SETS, AND ELECTRONIC PARTS AND EQUIPMENT | +20 | +24 | +11 | -1 | +14 | 2 | 4 | 1 | 4 |
| | MIDDLE ATLANTIC | +21 | +26 | +18 | -3 | +9 | 4 | 9 | 2 | 10 |
| | EAST NORTH CENTRAL | +19 | (S) | +44 | -2 | (S) | 5 | 10 | 2 | 13 |
| | WEST NORTH CENTRAL | +28 | (S) | -25 | +3 | (S) | 5 | (*) | 2 | (*) |
| | SOUTH ATLANTIC | +14 | +32 | +26 | +2 | +10 | 4 | 12 | 2 | 7 |
| | WEST SOUTH CENTRAL | +12 | -7 | -8 | +6 | +4 | 4 | 13 | 2 | 12 |
| | MOUNTAIN | (S) | (S) | +4 | +2 | 0 | (*) | (*) | 3 | 13 |
| | PACIFIC | +19 | +10 | -7 | -3 | +5 | 7 | 11 | 3 | 9 |
| 5072 | HARDWARE | +17 | +15 | +7 | -1 | +5 | 2 | 3 | 1 | 3 |
| | NEW ENGLAND | +16 | +43 | +12 | 0 | +18 | 4 | 13 | 3 | 14 |
| | MIDDLE ATLANTIC | +10 | +11 | +5 | -4 | +7 | 3 | 9 | 2 | 11 |
| | EAST NORTH CENTRAL | +14 | +3 | -8 | -1 | -1 | 4 | 9 | 4 | 10 |
| | WEST NORTH CENTRAL | +15 | +15 | +7 | +4 | +15 | 4 | 7 | 2 | 6 |
| | SOUTH ATLANTIC | +28 | +18 | +11 | -3 | +4 | 3 | 8 | 2 | 10 |
| | EAST SOUTH CENTRAL | +12 | -4 | -6 | -5 | -8 | 4 | 10 | 2 | 9 |
| | PACIFIC | +16 | +9 | +11 | -1 | +2 | 3 | 10 | 2 | 11 |
| 5074 | PLUMBING AND HEATING EQUIPMENT AND SUPPLIES (HYDRONICS) | +14 | +9 | +3 | +4 | +4 | 2 | 5 | 1 | 9 |
| | MIDDLE ATLANTIC | +26 | +14 | +1 | +1 | (S) | 6 | 14 | 3 | (*) |
| | EAST NORTH CENTRAL | +8 | +35 | +20 | +4 | (S) | 7 | 14 | 2 | (*) |
| | SOUTH ATLANTIC | +11 | +4 | -3 | +2 | -9 | 3 | 11 | 2 | 9 |
| | MOUNTAIN | +20 | (S) | +7 | +9 | -4 | 4 | (*) | 2 | 14 |
| | PACIFIC | +9 | +5 | +2 | +8 | 0 | 4 | 14 | 2 | 11 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, AND SUPPLIES | +16 | +25 | +17 | +1 | +4 | 2 | 5 | 1 | 3 |
| | MIDDLE ATLANTIC | +12 | +22 | +13 | -3 | +4 | 5 | 9 | 2 | 7 |
| | EAST NORTH CENTRAL | +10 | +2 | -2 | +1 | +13 | 4 | 6 | 1 | 6 |
| | WEST SOUTH CENTRAL | +29 | (S) | +52 | +2 | +6 | 4 | (*) | 1 | 6 |
| | PACIFIC | +21 | +29 | +19 | +2 | +3 | 3 | 8 | 2 | 8 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | +12 | +25 | +20 | +1 | +13 | 2 | 3 | 1 | 4 |
| | NEW ENGLAND | +22 | -4 | -8 | +2 | -15 | 3 | 12 | 3 | 14 |
| | MIDDLE ATLANTIC | +6 | +25 | +18 | +3 | +2 | 4 | 8 | 2 | 7 |
| | EAST NORTH CENTRAL | +12 | 0 | +3 | -9 | +8 | 4 | 8 | 2 | 8 |
| | WEST NORTH CENTRAL | +9 | +16 | +10 | +2 | +24 | 5 | 12 | 2 | 9 |
| | SOUTH ATLANTIC | +19 | +60 | +48 | +5 | +35 | 2 | 10 | 2 | 8 |
| | EAST SOUTH CENTRAL | +12 | +23 | +22 | +5 | +15 | 2 | 9 | 2 | 10 |
| | WEST SOUTH CENTRAL | +12 | +55 | +42 | -1 | +42 | 2 | 12 | 2 | 14 |
| | MOUNTAIN | +6 | (S) | (S) | +2 | +45 | 1 | 7 | 1 | 6 |
| | PACIFIC | +12 | +12 | +12 | 0 | (S) | 2 | 13 | 1 | (*) |
| 5141 | GROCERIES, GENERAL-LINE | +10 | +14 | +14 | +4 | +12 | 1 | 2 | 0 | 2 |
| | NEW ENGLAND | +8 | +5 | +10 | 0 | -3 | 2 | 6 | 2 | 7 |
| | MIDDLE ATLANTIC | +14 | +11 | +7 | +3 | +5 | 1 | 3 | 1 | 7 |
| | EAST NORTH CENTRAL | +8 | +15 | +21 | +3 | +14 | 1 | 4 | 1 | 5 |
| | WEST NORTH CENTRAL | +13 | +22 | +17 | +10 | +18 | 2 | 5 | 2 | 7 |
| | SOUTH ATLANTIC | +11 | +12 | +6 | +6 | +10 | 2 | 5 | 1 | 4 |
| | WEST SOUTH CENTRAL | +10 | +26 | +21 | -1 | +14 | 2 | 7 | 2 | 6 |
| | MOUNTAIN | +10 | +13 | +19 | +2 | +12 | 2 | 6 | 2 | 9 |
| | PACIFIC | +9 | +14 | +15 | +5 | +19 | 0 | 3 | 1 | 3 |
| 5142,3,6,9 | SPECIALTY-LINE GROCERIES | +12 | +22 | +18 | +4 | +15 | 1 | 3 | 1 | 4 |
| | MIDDLE ATLANTIC | +14 | +7 | +5 | +11 | +31 | 2 | 5 | 2 | 7 |
| | EAST NORTH CENTRAL | +17 | +44 | +30 | -1 | +16 | 3 | 6 | 1 | 6 |
| | WEST NORTH CENTRAL | +4 | +56 | +61 | -2 | +15 | 3 | 5 | 1 | 6 |
| | SOUTH ATLANTIC | +13 | +2 | -1 | +9 | -20 | 4 | 13 | 2 | 13 |
| | EAST SOUTH CENTRAL | +5 | +40 | +36 | +4 | +31 | 4 | 12 | 2 | 13 |
| 5148 | FRESH FRUITS AND VEGATABLES | +20 | +25 | +21 | +6 | +36 | 2 | 3 | 2 | 7 |
| | MIDDLE ATLANTIC | +19 | +29 | +24 | -4 | +8 | 3 | 9 | 5 | 14 |
| | EAST NORTH CENTRAL | +17 | +41 | +30 | +2 | (S) | 3 | 8 | 3 | 10 |
| | WEST NORTH CENTRAL | +30 | +18 | +20 | +6 | (S) | 4 | 14 | 3 | (*) |
| | SOUTH ATLANTIC | +17 | +56 | +42 | +11 | (S) | 7 | 13 | 3 | (*) |
| | WEST SOUTH CENTRAL | +13 | +7 | +15 | +9 | +29 | 6 | 9 | 2 | 10 |
| | PACIFIC | | | | | | | | | |
| 5194 | TOBACCO AND TOBACCO PRODUCTS | +15 | +12 | +5 | +7 | +11 | 1 | 4 | 1 | 5 |
| | NEW ENGLAND | +14 | -4 | -14 | +9 | (S) | 3 | 14 | 3 | (*) |
| | MIDDLE ATLANTIC | +17 | +32 | +16 | +9 | (S) | 4 | 14 | 3 | (*) |
| | EAST NORTH CENTRAL | +14 | -2 | +3 | +4 | -16 | 2 | 10 | 2 | 11 |
| | WEST NORTH CENTRAL | +15 | (S) | +2 | -18 | (S) | 6 | (*) | 6 | (*) |
| | SOUTH ATLANTIC | +17 | +27 | +14 | 0 | +5 | 4 | 14 | 3 | 12 |
| | EAST SOUTH CENTRAL | +15 | (S) | 0 | +2 | (S) | 3 | (*) | 4 | (*) |
| | WEST SOUTH CENTRAL | +13 | (S) | -5 | +2 | +13 | 3 | (*) | 4 | 11 |
| | MOUNTAIN | +5 | (S) | +31 | 0 | (S) | 3 | (*) | 5 | (*) |
| | PACIFIC | +13 | +6 | +3 | +29 | +58 | 2 | 10 | 3 | 12 |

Note: Data at the United States level are generally more reliable than data by geographic division. In those kinds of business where the geographic division trends are subject to a high sampling error, it may be desirable to use the United States total trends for the kinds of business rather than the geographic division trends.

(S) Does not meet publication standards because of extreme variability or high nonresponse rate. [r]Revised.

[1]See map on page 8.

[2]The sampling errors (in percent) shown in columns A, B, D and E are based on medians or measurements on data for September 1979 through February 1980.

# APPENDIX A. Reliability of Data

There are two types of errors possible in an estimate based on a sample survey—sampling and nonsampling. Sampling errors occur because observations are made only on a sample, not on the entire population. Nonsampling errors can be attributed to many sources in the collection and processing of data. The accuracy of a survey result is determined by the joint effects of sampling and nonsampling errors.

**Measures of sampling variability**—The particular sample used in this survey is one of a large number of all possible samples of the same size that could have been selected using the same design. Estimates derived from the different samples would differ from each other. The average of these estimates would be close to the estimate derived from a complete enumeration of the population (assuming that a complete enumeration has the same nonsampling errors as the sample survey). The average of the estimates differs from the estimate from a complete census because of the composite estimation technique. Disregarding this difference, the sampling error or standard error of the estimate is a measure of the variability among the estimates from all possible samples of the same size and design and, thus, is a measure of the precision with which an estimate from a particular sample approximates the results of a complete enumeration. The coefficient of variation (expressed as a percent) is the standard error of the estimate times 100 percent, divided by the value being estimated. Note that any measures of sampling variability, such as the standard error or coefficient of variation, are estimates derived from the sample and are also subject to sampling variability.

Estimates of sampling variability (the coefficients of variation in percent) for sales and inventories at the kind-of-business detail provided in this publication are shown in table A-1. These coefficients of variation permit certain confidence statements about the sample estimates. As noted above, the particular sample used in this survey is one of a large number of all possible samples of about the same size that could have been selected using the same design. In about two out of three (67 percent) of these samples, the estimate would differ from a complete enumeration by less than the corresponding percent for that estimate shown in the sampling variability table. In about 19 out of 20 (95 percent) of these samples, the estimate would differ from the results of a complete enumeration by less than twice the percentages shown.

To illustrate the computations involved in the above confidence statements for monthly dollar volume estimates, assume that an estimate for a kind of business published in table 1 for a particular month is $5,000 million and that the median coefficient of variation for this statistic, is 0.9 percent or .009. Multiplying $5,000 million by .009 yields $45 million. Therefore, a 67 percent confidence interval is $4,955 million to $5,045 million (i.e. $5,000 million plus or minus $45 million). If corresponding confidence intervals were constructed for all possible samples of the same size and design, approximately two out of three (67 percent) of these intervals would contain the figure obtained from a complete enumeration. Similarly a 95 percent confidence interval is $4,910 million to $5,090 million (i.e., $5,000 million plus or minus $90 million).

As an example of the use of the coefficients of variation with ratios, assume that an estimated month-to-month percent change published in table 5 is -1.0 percent for a particular kind of business. This is equivalent to a month-to-month ratio of .990. Assume the median coefficient of variation for this ratio as shown in table A-1 is 0.5 percent (or .005). Multiplying .990 by .005 yields .005. Therefore, a 67 percent confidence interval is .985 to .995 (i.e., .990 plus or minus .005) and a 95 percent confidence interval is .980 to 1.000 (i.e., .990 plus or minus .010).

**Nonsampling errors**—As calculated for this report, the coefficient of variation measures certain nonsampling errors but does not measure any systematic biases in the data. Bias is the difference, averaged over all possible samples of the same size and design, between the estimate and the true value being estimated. The accuracy of the tabulated data is determined by the joint effects of the sampling and nonsampling errors.

Nonsampling errors can be attributed to many sources: (1) inability to obtain information about all cases in the sample, (2) response errors, (3) definitional difficulties, (4) differences in the interpretation of questions, (5) mistakes in recording or coding the data obtained, and (6) other errors of collection, response, coverage, and estimation for missing data. These nonsampling errors also occur in complete censuses.

Although no direct measurement of the biases due to nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

A major source of bias in the published estimates is due to imputing data for nonrespondents, for late reporters, and for data which fail edit. For all kinds of business combined, imputed data amount to about 15 percent of the sales estimates and 25 percent for inventories.

# Table A-1. Estimated Sampling Variability of Sales and Inventories by Kind of Business for the United States

(Coefficients of variation in percent)

| 1972 SIC code | Kind of business | SALES | | | | | | INVENTORIES | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Preliminary sampling error of the monthly dollar estimates | | Final sampling error of the monthly dollar estimates | | Median sampling error of the ratio of: | | Preliminary sampling error of the monthly dollar estimates | | Final sampling error of the monthly dollar estimates | | Median sampling error of the ratio of: | |
| | | Range | Median | Range | Median | Two consecutive months | Same month a year ago | Range | Median | Range | Median | Two consecutive months | Same month a year ago |
| | Merchant wholesalers, total | 1.4-1.8 | 1.6 | 1.4-1.6 | 1.5 | 0.6 | 1.0 | 1.3-1.5 | 1.4 | 1.2-1.4 | 1.4 | 0.3 | 0.9 |
| | Total (excluding farm-product raw materials) | 1.4-1.9 | 1.6 | 1.3-1.6 | 1.4 | 0.6 | 1.1 | 1.4-1.7 | 1.5 | 1.2-1.5 | 1.5 | 0.3 | 0.9 |
| 50 | Durable goods, total | 1.5-3.2 | 2.0 | 1.4-2.4 | 1.6 | 1.0 | 1.7 | 1.0-1.5 | 1.4 | 1.0-1.4 | 1.3 | 0.4 | 1.1 |
| 501 | Motor vehicles and automotive parts and supplies | 3.6-4.6 | 3.9 | 3.2-4.4 | 3.6 | 1.7 | 2.8 | 2.2-3.5 | 3.0 | 2.6-3.5 | 2.7 | 0.8 | 2.6 |
| 5012 | Automobiles and other motor vehicles | (*) | (*) | (*) | (*) | 2.8 | 5.4 | (*) | (*) | (*) | (*) | 1.8 | 5.5 |
| 5013,4 | Automotive parts and supplies, tires and tubes | 3.3-4.7 | 4.0 | 3.0-4.9 | 3.6 | 1.7 | 3.1 | 3.0-4.1 | 3.7 | 2.8-3.9 | 3.4 | 1.2 | 3.0 |
| 5013 | Automotive parts and supplies | 3.8-5.9 | 4.7 | 3.6-5.9 | 4.2 | 2.1 | 3.8 | 3.8-5.0 | 4.5 | 3.5-4.6 | 4.2 | 1.3 | 3.2 |
| 502 | Furniture and home furnishings | 4.7-7.0 | 5.7 | 4.3-6.1 | 5.1 | 2.9 | 4.0 | 4.0-4.6 | 4.2 | 3.9-4.5 | 4.2 | 0.9 | 3.3 |
| 5021 | Furniture--household and office | 4.9-6.5 | 6.0 | 4.3-7.1 | 6.0 | 4.1 | 5.7 | (*) | (*) | (*) | (*) | 1.5 | 5.1 |
| 5021 pt. | Household furniture | (*) | (*) | (*) | (*) | 6.2 | 11.2 | (*) | (*) | (*) | (*) | 1.5 | 8.7 |
| 5021 pt. | Office furniture | (*) | (*) | (*) | (*) | 4.9 | 6.5 | (*) | (*) | (*) | (*) | 1.9 | 5.2 |
| 5023 | Home furnishings | 6.7-9.2 | 7.6 | 5.5-8.1 | 6.6 | 3.3 | 5.1 | 5.0-6.3 | 5.6 | 5.0-6.1 | 5.7 | 1.1 | 4.5 |
| 503 | Lumber and other construction materials | 4.2-5.8 | 4.8 | 4.4-5.4 | 4.7 | 2.3 | 3.5 | 5.0-6.7 | 5.6 | 5.0-6.6 | 5.9 | 0.9 | 2.9 |
| 5031 | Lumber, plywood, and millwork | 5.7-7.7 | 6.3 | 5.1-6.6 | 5.9 | 3.3 | 4.5 | 7.0-9.0 | 7.9 | 7.2-8.6 | 8.1 | 1.2 | 3.6 |
| 5039 | Construction materials, n.e.c. | 5.0-6.9 | 6.0 | 5.1-6.5 | 5.7 | 3.1 | 5.9 | (*) | (*) | (*) | (*) | 1.1 | 4.8 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | (*) | (*) | (*) | (*) | 3.5 | 5.1 | (*) | (*) | (*) | (*) | 1.6 | 4.6 |
| 505 | Metals and minerals, except petroleum | 4.3-16.8 | 8.7 | 5.1-14.4 | 8.2 | 2.4 | 5.4 | 6.2-9.3 | 7.6 | 5.7-10.2 | 8.1 | 1.2 | 5.2 |
| 5051 pt. | Ferrous metals service centers and offices | 4.3-6.2 | 5.2 | 3.9-6.5 | 4.6 | 2.5 | 3.3 | 3.9-4.7 | 4.3 | 4.0-4.5 | 4.2 | 0.8 | 3.0 |
| 5051 pt. | Ferrous metals service centers | 4.8-7.1 | 5.1 | 4.9-5.2 | 5.1 | 2.8 | 3.6 | 2.8-5.5 | 4.6 | 3.1-4.8 | 4.0 | 0.9 | 3.4 |
| 5051 pt. | Nonferrous metals service centers and offices | (*) | (*) | (*) | (*) | 4.1 | 23.3 | (*) | (*) | (*) | (*) | 5.2 | 22.5 |
| 506 | Electrical goods | 3.8-5.0 | 4.1 | 3.3-4.6 | 3.6 | 2.3 | 3.0 | 3.2-4.8 | 3.5 | 3.3-4.6 | 3.5 | 0.7 | 2.8 |
| 5063 | Electrical apparatus and equipment, wiring supplies, and construction materials | 3.7-6.7 | 4.5 | 3.3-6.9 | 4.1 | 3.1 | 4.5 | 3.2-5.1 | 3.5 | 3.2-4.5 | 3.3 | 0.8 | 2.9 |
| 5064,5 | Electrical appliances, TV and radio sets, and electronic parts and equipment | 5.2-7.4 | 6.0 | 5.0-6.6 | 5.6 | 2.8 | 4.4 | 3.9-6.9 | 4.4 | 3.8-6.5 | 4.7 | 1.2 | 4.1 |
| 5064 | Electrical appliances, TV and radio sets | 4.9-8.2 | 6.4 | 5.1-6.7 | 5.5 | 2.8 | 4.3 | (*) | (*) | (*) | (*) | 1.3 | 5.0 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 3.1-4.5 | 3.5 | 2.9-3.7 | 3.3 | 1.6 | 2.3 | 2.8-4.2 | 3.6 | 2.9-4.2 | 3.5 | 0.8 | 3.8 |
| 5072 | Hardware | 2.6-3.8 | 3.6 | 2.8-3.9 | 3.2 | 1.6 | 2.9 | 4.7-6.3 | 5.6 | 4.5-6.1 | 5.7 | 1.3 | 3.5 |
| 5074 | Plumbing and heating equipment and supplies (hydronics) | 5.4-7.7 | 6.4 | 5.1-6.6 | 5.9 | 2.9 | 5.4 | 5.0-6.0 | 5.4 | 4.7-5.6 | 5.3 | 1.3 | 8.6 |
| 5075 | Warm air heating and air conditioning equipment and supplies | (*) | (*) | (*) | (*) | 4.1 | 5.7 | (*) | (*) | (*) | (*) | 1.2 | 5.1 |
| 508 | Machinery, equipment, and supplies | 2.9-4.5 | 3.3 | 2.6-3.2 | 2.8 | 1.8 | 3.3 | 1.8-2.4 | 2.2 | 1.8-2.3 | 2.1 | 0.4 | 1.8 |
| 5081 | Commercial machines and equipment | (*) | (*) | (*) | (*) | 4.4 | 6.6 | (*) | (*) | (*) | (*) | 1.5 | 5.7 |
| 5082 | Construction and mining machinery and equipment | 4.8-6.6 | 5.4 | 4.1-5.1 | 4.5 | 3.9 | 5.4 | 3.8-5.3 | 4.2 | 3.9-4.9 | 4.1 | 1.1 | 4.1 |
| 5083 | Farm and garden machinery and equipment | (*) | (*) | (*) | (*) | 6.0 | 9.8 | (*) | (*) | (*) | (*) | 1.4 | 4.7 |
| 5084,5 | Industrial machinery, equipment, and supplies | 3.2-4.1 | 3.3 | 2.4-3.4 | 2.8 | 2.5 | 4.9 | 3.2-4.2 | 3.8 | 3.1-3.8 | 3.5 | 0.6 | 2.5 |
| 5086 | Professional equipment and supplies | (*) | (*) | (*) | (*) | 2.7 | 4.7 | (*) | (*) | (*) | (*) | 1.1 | 5.2 |
| 5093 | Scrap and waste materials | 4.2-5.4 | 5.1 | 4.2-5.3 | 4.7 | 2.2 | 3.9 | (*) | (*) | (*) | (*) | 1.3 | 3.2 |
| 5093 pt. | Iron and steel scrap | (*) | (*) | (*) | (*) | 2.2 | 5.0 | (*) | (*) | (*) | (*) | 1.5 | 4.3 |
| 5093 pt. | Waste materials | (*) | (*) | (*) | (*) | 3.9 | 6.9 | (*) | (*) | (*) | (*) | 2.2 | 5.4 |
| 51 | Nondurable goods, total | 1.8-2.1 | 1.9 | 1.6-2.0 | 1.9 | 0.8 | 1.2 | 2.6-3.0 | 2.8 | 2.6-2.8 | 2.7 | 0.5 | 1.3 |
| | Total (excluding farm-product raw materials) | 1.9-2.4 | 2.1 | 1.7-2.3 | 2.0 | 0.9 | 1.4 | 3.3-3.6 | 3.5 | 3.2-3.5 | 3.3 | 0.4 | 1.4 |
| 511 | Paper and paper products | 4.6-7.7 | 5.2 | 4.5-6.9 | 4.9 | 1.5 | 3.0 | 4.6-7.3 | 6.3 | 4.6-7.1 | 5.9 | 0.8 | 3.4 |
| 5111,3 | Printing, writing, industrial, and personal service paper | 3.0-5.1 | 3.3 | 3.0-4.6 | 3.2 | 1.1 | 2.3 | 5.0-6.9 | 6.4 | 4.9-6.9 | 6.3 | 0.8 | 3.1 |
| 5111 | Printing and writing paper | 2.6-3.9 | 2.8 | 2.4-3.4 | 2.7 | 1.3 | 2.7 | 3.9-4.9 | 4.3 | 3.7-4.8 | 4.2 | 0.7 | 3.2 |
| 5113 | Industrial and personal service paper | 4.4-7.7 | 5.0 | 4.4-6.8 | 4.5 | 1.9 | 4.8 | 7.3-11.4 | 9.9 | 6.9-11.2 | 9.7 | 1.3 | 4.2 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 2.3-3.1 | 2.7 | 2.2-2.9 | 2.7 | 1.5 | 3.1 | 3.6-5.1 | 4.4 | 4.0-5.1 | 4.6 | 1.4 | 4.0 |
| 5122 | Drugs, drug proprietaries, and druggists' sundries | 2.3-3.1 | 2.7 | 2.2-2.9 | 2.7 | 1.5 | 3.1 | (*) | (*) | (*) | (*) | 1.4 | 4.0 |
| 5122 pt. | General-line drugs | 6.0-6.9 | 6.6 | 6.0-6.9 | 6.6 | 1.1 | 4.1 | (*) | (*) | (*) | (*) | 0.9 | 6.6 |
| 513 | Apparel, piece goods, and notions | 12.0-15.7 | 13.2 | 10.9-14.6 | 13.4 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |
| 514 | Groceries and related products | 1.7-2.4 | 2.2 | 1.8-2.3 | 2.1 | 0.5 | 1.3 | 1.6-2.2 | 1.8 | 1.6-2.0 | 1.8 | 0.4 | 1.6 |
| 5141 | Groceries, general-line | 2.6-3.4 | 3.3 | 2.8-3.3 | 3.1 | 0.6 | 1.7 | 1.9-2.8 | 2.2 | 1.7-2.7 | 1.9 | 0.5 | 1.7 |
| 5141 pt. | Voluntary groups | (*) | (*) | (*) | (*) | 0.7 | 2.1 | (*) | (*) | (*) | (*) | 0.7 | 2.8 |
| 5141 pt. | Retailer cooperatives | (*) | (*) | (*) | (*) | 0.6 | 1.8 | (*) | (*) | (*) | (*) | 0.6 | 2.3 |
| 5141 pt. | Other general-lines | (*) | (*) | (*) | (*) | 1.3 | 2.8 | (*) | (*) | (*) | (*) | 1.0 | 3.7 |
| 5142,3,6,9 | Specialty-line groceries | (*) | (*) | (*) | (*) | 1.2 | 3.3 | (*) | (*) | (*) | (*) | 1.0 | 3.6 |
| 5144 | Poultry and poultry products | 5.6-7.2 | 6.5 | 5.4-7.2 | 6.7 | 1.8 | 3.2 | (*) | (*) | (*) | (*) | 1.5 | 5.2 |
| 5145 | Confectionery | 5.1-12.9 | 6.7 | 4.8-9.5 | 6.6 | 2.7 | 5.5 | (*) | (*) | (*) | (*) | 1.7 | 4.0 |
| 5147 | Meats and meat products | 5.6-7.0 | 6.8 | 5.4-6.9 | 6.5 | 1.5 | 4.2 | (*) | (*) | (*) | (*) | 1.4 | 6.3 |
| 5148 | Fresh fruits and vegetables | 4.0-5.7 | 4.4 | 3.5-5.0 | 4.7 | 2.3 | 3.2 | (*) | (*) | (*) | (*) | 2.6 | 6.2 |
| 515 | Farm-product raw materials | 2.6-5.2 | 3.0 | 2.1-4.6 | 3.4 | 2.3 | 2.9 | (*) | (*) | (*) | (*) | 1.5 | 4.0 |
| 5152 | Cotton | (*) | (*) | (*) | (*) | 6.9 | 10.2 | (*) | (*) | (*) | (*) | 1.0 | 2.5 |
| 5153 | Grain | 3.2-5.9 | 3.8 | 2.6-5.3 | 3.9 | 2.5 | 3.3 | (*) | (*) | (*) | (*) | 1.7 | 5.0 |
| 517 | Petroleum and petroleum products | 5.1-7.8 | 7.1 | 4.9-8.0 | 6.2 | 2.0 | 4.1 | 5.6-6.5 | 5.8 | 5.1-6.1 | 5.6 | 1.7 | 3.3 |
| 5171 | Petroleum bulk stations and terminals | 3.5-5.1 | 4.0 | 3.1-4.2 | 3.9 | 1.7 | 3.7 | (*) | (*) | (*) | (*) | 2.1 | 3.9 |
| 518 | Beer, wine, and distilled alcoholic beverages | 4.5-5.9 | 4.9 | 4.3-5.5 | 4.9 | 1.2 | 3.0 | 3.8-5.0 | 4.2 | 3.9-5.0 | 4.3 | 1.4 | 3.2 |
| 5181 | Beer and ale | 5.2-6.1 | 5.8 | 5.4-6.2 | 5.7 | 1.4 | 3.5 | 7.9-10.2 | 8.1 | 7.7-9.9 | 8.8 | 2.7 | 4.7 |
| 5182 | Wine and distilled alcoholic beverages | 5.1-7.2 | 5.7 | 5.1-6.9 | 5.7 | 1.9 | 4.1 | 3.4-5.0 | 4.4 | 3.7-4.6 | 4.0 | 1.3 | 4.5 |
| 519 | Miscellaneous nondurable goods | 2.5-4.9 | 3.9 | 2.5-3.9 | 3.4 | 1.9 | 3.2 | (*) | (*) | (*) | (*) | 0.9 | 2.7 |
| 5191 | Farm supplies | (*) | (*) | (*) | (*) | 4.4 | 5.7 | (*) | (*) | (*) | (*) | 1.6 | 4.5 |
| 5194 | Tobacco and tobacco products | 5.6-6.7 | 6.1 | 5.3-6.8 | 5.8 | 1.3 | 3.9 | (*) | (*) | (*) | (*) | 1.3 | 4.7 |
| 5198 | Paints, varnishes, and supplies | (*) | (*) | (*) | (*) | 2.4 | 6.8 | (*) | (*) | (*) | (*) | 1.1 | 5.8 |
| 5199 pt. | Books, periodicals, newspapers | (*) | (*) | (*) | (*) | 6.6 | 17.4 | (*) | (*) | (*) | (*) | 1.4 | 14.4 |

Note: Measures of sampling variability are based on data unadjusted for seasonal variations or trading-day differences. The range of sampling error of the monthly dollar estimates and the ratio of current month to previous month for sales and inventories is based on data for August 1979 through January 1980.

* Measures of sampling variability are not shown since sales and/or inventory estimates for these kinds of business are not published.

# APPENDIX B. Adjustment for Seasonal and Trading-Day Variations

Seasonal factors for adjusting data in this historical publication have been developed by the method described in the **X-11 Variant of the Census Method II Seasonal Adjustment Program**, U.S. Bureau of the Census Technical Paper No. 15, Revised 1967. Trading-day factors for adjusting sales were also derived from the X-11 program.

Adjustment of estimates is an approximation based on past experiences, and therefore, will be less precise to the extent that current competitive pressures, changes in economic condition, and other elements introduce significant changes in seasonal and trading-day patterns.

A description of trading-day adjustment factors may be found in **Estimating Trading-Day Variation in Monthly Economic Time Series**, Bureau of the Census Technical Paper No. 12, 1965. Additional details concerning the adjustment factors may be obtained from the Chief, Business Division, Bureau of the Census, Washington, D.C. 20233.

## Table B-1. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers: January 1980-December 1981

| 1972 SIC code | Kind of business | 1980 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| | | Seasonal and trading-day adjustment factors for sales | | | | | | | | | | | |
| | Merchant wholesalers, total | 96.2 | 95.1 | 101.4 | 102.6 | 103.3 | 100.1 | 101.1 | 99.4 | 100.5 | 106.6 | 96.5 | 101.1 |
| | Total (excluding farm-product raw materials) | 94.8 | 94.7 | 101.4 | 102.9 | 103.5 | 100.9 | 102.0 | 100.0 | 101.8 | 106.0 | 95.6 | 100.0 |
| 50 | Durable goods, total | 90.4 | 92.6 | 101.9 | 103.6 | 104.0 | 102.3 | 101.9 | 102.4 | 103.3 | 108.6 | 94.3 | 98.3 |
| 501 | Motor vehicle and automotive parts and supplies | 95.6 | 94.3 | 104.7 | 111.7 | 108.1 | 101.6 | 102.6 | 100.1 | 93.2 | 104.6 | 91.8 | 95.4 |
| 502 | Furniture and home furnishings | 89.7 | 93.0 | 101.5 | 103.4 | 99.4 | 99.4 | 96.7 | 99.1 | 103.8 | 115.9 | 101.9 | 100.8 |
| 503 | Lumber and other construction materials | 81.7 | 83.3 | 93.2 | 99.7 | 104.8 | 107.5 | 110.0 | 111.8 | 111.6 | 116.0 | 94.1 | 90.1 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 81.0 | 85.5 | 97.7 | 100.6 | 94.0 | 96.8 | 112.6 | 104.2 | 109.8 | 112.7 | 108.0 | 101.4 |
| 505 | Metals and minerals, except petroleum | 96.4 | 97.9 | 106.9 | 102.5 | 101.0 | 101.6 | 98.1 | 103.2 | 102.4 | 103.3 | 93.8 | 97.6 |
| 506 | Electrical goods | 91.7 | 90.4 | 99.0 | 95.5 | 98.5 | 102.0 | 102.9 | 101.8 | 105.8 | 109.9 | 101.4 | 105.0 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 93.5 | 87.9 | 96.2 | 103.1 | 104.6 | 104.1 | 107.7 | 103.3 | 102.4 | 111.6 | 95.9 | 93.7 |
| 508 | Machinery, equipment, and supplies | 90.0 | 92.5 | 102.4 | 104.9 | 106.8 | 103.4 | 100.9 | 100.4 | 104.9 | 107.3 | 91.4 | 98.6 |
| 509 | Miscellaneous durable goods | 91.8 | 97.5 | 108.3 | 102.0 | 98.0 | 95.1 | 91.6 | 100.4 | 108.1 | 112.4 | 96.5 | 101.0 |
| 51 | Nondurable goods, total | 99.9 | 96.1 | 101.2 | 100.9 | 102.4 | 99.4 | 100.8 | 97.2 | 98.7 | 105.3 | 98.2 | 104.0 |
| | Total (excluding farm-product raw materials) | 98.7 | 96.5 | 101.1 | 101.5 | 102.9 | 100.5 | 100.9 | 98.7 | 99.8 | 104.0 | 97.0 | 102.2 |
| 511 | Paper and paper products | 101.1 | 97.3 | 101.0 | 100.9 | 100.8 | 98.2 | 100.6 | 99.6 | 101.6 | 107.8 | 94.9 | 100.6 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 98.9 | 93.2 | 99.8 | 101.6 | 99.1 | 97.7 | 101.9 | 98.1 | 103.2 | 112.3 | 96.3 | 102.0 |
| 513 | Apparel, piece goods, and notions | 95.8 | 94.5 | 100.4 | 97.1 | 93.0 | 90.8 | 103.4 | 110.1 | 113.5 | 113.8 | 99.3 | 93.4 |
| 514 | Groceries and related products | 99.6 | 94.8 | 100.3 | 102.2 | 104.4 | 99.1 | 103.4 | 99.1 | 99.4 | 104.3 | 97.0 | 101.1 |
| 515 | Farm-product raw materials[1] | 102.8 | 96.7 | 102.6 | 101.9 | 104.5 | 93.7 | 96.2 | 92.8 | 96.0 | 108.9 | 102.1 | 106.7 |
| 516 | Chemicals and allied products | 96.8 | 92.8 | 99.3 | 97.3 | 104.8 | 104.5 | 91.3 | 103.3 | 98.6 | 110.6 | 100.8 | 104.8 |
| 517 | Petroleum and petroleum products | 106.1 | 104.2 | 99.6 | 97.4 | 99.7 | 96.6 | 97.9 | 97.6 | 96.9 | 101.1 | 102.5 | 104.4 |
| 518 | Beer, wine, and distilled alcoholic beverages | 84.1 | 85.8 | 94.4 | 99.5 | 103.5 | 106.6 | 106.3 | 103.4 | 98.7 | 106.5 | 97.8 | 117.7 |
| 519 | Miscellaneous nondurable goods | 95.2 | 94.8 | 109.2 | 107.8 | 115.1 | 104.8 | 95.0 | 93.3 | 99.2 | 98.9 | 91.7 | 96.7 |
| | | Seasonal adjustment factors for inventories | | | | | | | | | | | |
| | Merchant wholesalers, total | 100.3 | 101.6 | 102.4 | 101.4 | 100.3 | 99.1 | 98.4 | 98.3 | 98.3 | 99.9 | 100.4 | 99.9 |
| | Total (excluding farm-product raw materials) | 98.8 | 100.1 | 101.4 | 101.3 | 100.9 | 100.8 | 100.6 | 99.6 | 99.3 | 99.6 | 99.4 | 98.6 |
| 50 | Durable goods, total | 98.6 | 99.9 | 100.9 | 100.9 | 101.4 | 101.8 | 101.4 | 100.4 | 99.4 | 98.9 | 98.4 | 98.3 |
| 501 | Motor vehicles and automotive parts and supplies | 101.4 | 104.4 | 102.6 | 100.9 | 101.6 | 100.1 | 99.4 | 97.3 | 95.4 | 98.1 | 98.9 | 100.1 |
| 502 | Furniture and home furnishings | 98.1 | 98.1 | 100.9 | 99.9 | 100.4 | 102.9 | 101.6 | 100.3 | 102.4 | 100.6 | 98.3 | 96.9 |
| 503 | Lumber and other construction materials | 97.8 | 99.1 | 103.3 | 102.8 | 102.8 | 102.4 | 102.4 | 100.3 | 98.9 | 98.1 | 96.1 | 96.9 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 95.1 | 99.1 | 100.1 | 103.9 | 102.3 | 106.3 | 106.1 | 101.4 | 101.3 | 99.9 | 93.6 | 91.3 |
| 505 | Metals and minerals, except petroleum | 98.4 | 97.1 | 98.6 | 97.8 | 102.4 | 100.9 | 102.1 | 105.4 | 101.4 | 97.6 | 99.9 | 98.4 |
| 506 | Electrical goods | 96.3 | 95.6 | 98.1 | 99.3 | 101.9 | 102.1 | 102.1 | 102.4 | 101.6 | 101.6 | 100.1 | 99.4 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 97.6 | 99.9 | 102.6 | 105.4 | 103.9 | 103.1 | 101.9 | 99.3 | 97.6 | 97.9 | 95.1 | 95.8 |
| 508 | Machinery, equipment, and supplies | 98.1 | 99.9 | 101.6 | 100.9 | 101.4 | 102.1 | 100.6 | 100.8 | 100.6 | 98.1 | 98.4 | 98.1 |
| 509 | Miscellaneous durable goods | 99.6 | 99.1 | 98.4 | 99.6 | 98.3 | 99.9 | 102.6 | 100.9 | 101.4 | 102.1 | 99.1 | 99.3 |
| 51 | Nondurable goods, total | 104.4 | 102.9 | 105.3 | 100.9 | 96.9 | 95.1 | 94.8 | 94.3 | 96.4 | 102.1 | 104.1 | 103.4 |
| | Total (excluding farm-product raw materials) | 100.4 | 99.8 | 102.6 | 101.4 | 99.9 | 98.4 | 98.8 | 97.8 | 99.3 | 101.4 | 100.9 | 99.8 |
| 511 | Paper and paper products | 97.1 | 98.4 | 99.6 | 100.9 | 100.4 | 102.6 | 100.1 | 98.9 | 101.1 | 100.1 | 100.3 | 100.9 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 96.4 | 96.1 | 100.3 | 101.3 | 99.3 | 100.4 | 100.4 | 99.9 | 102.8 | 105.3 | 100.9 | 97.4 |
| 513 | Apparel, piece goods, and notions | 101.6 | 100.6 | 98.3 | 98.9 | 100.4 | 100.6 | 101.3 | 101.1 | 98.9 | 99.4 | 99.9 | 99.6 |
| 514 | Groceries and related products | 98.6 | 99.9 | 101.6 | 100.6 | 99.1 | 99.9 | 98.3 | 97.1 | 100.3 | 102.9 | 100.9 | 101.4 |
| 515 | Farm-product raw materials[1] | 119.2 | 117.1 | 114.9 | 101.6 | 86.8 | 82.4 | 78.9 | 79.3 | 84.8 | 103.4 | 116.3 | 115.6 |
| 516 | Chemicals and allied products | 98.6 | 100.6 | 100.8 | 100.8 | 103.9 | 101.9 | 102.4 | 100.3 | 100.6 | 96.6 | 96.3 | 97.6 |
| 517 | Petroleum and petroleum products | 102.6 | 99.1 | 100.1 | 95.4 | 97.8 | 94.8 | 97.9 | 99.9 | 102.4 | 103.9 | 104.3 | 101.8 |
| 518 | Beer, wine, and distilled alcoholic beverages | 97.3 | 94.6 | 101.1 | 104.6 | 103.3 | 102.4 | 100.8 | 96.6 | 99.3 | 104.1 | 103.4 | 93.1 |
| 519 | Miscellaneous nondurable goods | 104.3 | 106.4 | 109.3 | 103.9 | 98.8 | 92.8 | 94.8 | 96.1 | 95.3 | 98.8 | 100.1 | 99.6 |

See footnotes at end of table.

## Table B-1. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers: January 1980-December 1981—Continued

| 1972 SIC code | Kind of business | 1981 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| | | Seasonal and trading-day adjustment factors for sales | | | | | | | | | | | |
| | Merchant wholesalers, total | 93.7 | 91.1 | 104.8 | 102.1 | 100.5 | 103.2 | 100.5 | 98.5 | 101.0 | 104.6 | 98.2 | 102.1 |
| | Total (excluding farm-product raw materials) | 92.3 | 91.4 | 104.1 | 103.3 | 99.8 | 104.3 | 100.7 | 100.2 | 101.6 | 104.5 | 97.2 | 101.3 |
| 50 | Durable goods, total | 88.1 | 88.9 | 104.6 | 103.9 | 100.5 | 105.3 | 101.7 | 102.6 | 103.1 | 106.2 | 96.8 | 98.7 |
| 501 | Motor vehicles and automotive parts and supplies | 92.4 | 91.4 | 108.3 | 112.9 | 104.6 | 103.4 | 100.7 | 100.3 | 93.0 | 103.3 | 93.6 | 98.1 |
| 502 | Furniture and home furnishings | 87.0 | 89.5 | 103.7 | 103.0 | 98.3 | 100.8 | 96.4 | 98.0 | 106.3 | 112.7 | 102.4 | 101.8 |
| 503 | Lumber and other construction materials | 79.6 | 79.1 | 96.9 | 99.3 | 101.4 | 111.5 | 110.0 | 110.5 | 111.3 | 113.5 | 96.9 | 90.8 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 79.0 | 82.5 | 98.3 | 101.3 | 90.0 | 99.4 | 112.6 | 104.8 | 110.9 | 111.2 | 108.5 | 102.6 |
| 505 | Metals and minerals, except petroleum | 91.5 | 93.7 | 112.0 | 100.7 | 100.5 | 103.6 | 98.1 | 102.5 | 103.9 | 98.5 | 97.2 | 96.9 |
| 506 | Electrical goods | 88.4 | 88.9 | 99.9 | 95.8 | 95.3 | 104.7 | 100.3 | 103.8 | 106.9 | 108.9 | 101.4 | 106.5 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 90.5 | 85.6 | 98.4 | 103.9 | 101.6 | 106.3 | 106.0 | 104.3 | 102.6 | 109.7 | 97.6 | 94.9 |
| 508 | Machinery, equipment, and supplies | 88.5 | 88.9 | 104.3 | 105.9 | 102.0 | 107.3 | 100.6 | 100.8 | 104.2 | 105.8 | 93.2 | 99.3 |
| 509 | Miscellaneous durable goods | 90.7 | 92.5 | 114.4 | 100.2 | 93.0 | 101.6 | 90.5 | 99.0 | 106.2 | 112.0 | 99.0 | 101.2 |
| 51 | Nondurable goods, total | 97.5 | 91.9 | 104.8 | 100.6 | 99.5 | 102.6 | 99.9 | 96.0 | 98.6 | 103.7 | 99.8 | 105.7 |
| | Total (excluding farm-product raw materials) | 96.2 | 92.8 | 103.7 | 101.9 | 99.9 | 103.3 | 100.0 | 98.4 | 99.9 | 102.2 | 98.6 | 103.6 |
| 511 | Paper and paper products | 98.0 | 93.9 | 103.9 | 101.0 | 96.9 | 102.3 | 99.0 | 99.1 | 102.6 | 105.7 | 95.6 | 102.6 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 95.2 | 90.3 | 103.2 | 102.6 | 95.6 | 100.5 | 100.4 | 98.8 | 102.8 | 109.9 | 98.7 | 103.8 |
| 513 | Apparel, piece goods, and notions | 92.1 | 92.1 | 101.9 | 97.1 | 88.8 | 94.3 | 101.1 | 110.9 | 116.4 | 111.7 | 99.2 | 95.0 |
| 514 | Groceries and related products | 98.0 | 91.2 | 102.6 | 101.4 | 101.1 | 103.0 | 101.8 | 98.1 | 99.6 | 104.1 | 96.9 | 102.8 |
| 515 | Farm-product raw materials[1] | 101.3 | 90.6 | 108.3 | 98.8 | 101.7 | 99.4 | 95.1 | 90.0 | 95.4 | 109.1 | 103.1 | 108.0 |
| 516 | Chemicals and allied products | 93.5 | 88.3 | 102.3 | 97.0 | 103.6 | 105.3 | 92.0 | 102.7 | 100.0 | 104.9 | 105.3 | 104.8 |
| 517 | Petroleum and petroleum products | 103.6 | 100.6 | 103.3 | 95.9 | 97.9 | 99.8 | 94.5 | 96.8 | 96.6 | 101.6 | 102.9 | 107.3 |
| 518 | Beer, wine, and distilled alcoholic beverages | 81.5 | 81.1 | 98.9 | 99.7 | 100.0 | 109.7 | 107.3 | 101.5 | 99.7 | 102.2 | 101.3 | 119.0 |
| 519 | Miscellaneous nondurable goods | 94.9 | 89.7 | 111.5 | 109.4 | 111.8 | 106.8 | 96.0 | 92.5 | 97.9 | 98.0 | 94.0 | 97.8 |
| | | Seasonal adjustment factors for inventories | | | | | | | | | | | |
| | Merchant wholesalers, total | 100.3 | 101.6 | 102.4 | 101.4 | 100.4 | 99.1 | 98.4 | 98.3 | 98.3 | 99.9 | 100.4 | 99.9 |
| | Total (excluding farm-product raw materials) | 98.8 | 100.1 | 101.4 | 101.3 | 101.1 | 100.8 | 100.6 | 99.8 | 99.3 | 99.6 | 99.4 | 98.6 |
| 50 | Durable goods, total | 98.4 | 99.9 | 100.9 | 100.9 | 101.6 | 101.8 | 101.4 | 100.4 | 99.4 | 98.9 | 98.4 | 98.1 |
| 501 | Motor vehicles and automotive parts and supplies | 101.4 | 104.6 | 102.6 | 100.9 | 101.6 | 100.1 | 99.4 | 97.3 | 95.3 | 97.9 | 98.9 | 100.1 |
| 502 | Furniture and home furnishings | 98.1 | 98.1 | 100.9 | 100.1 | 100.4 | 102.9 | 101.6 | 100.1 | 102.4 | 100.6 | 98.3 | 96.9 |
| 503 | Lumber and other construction materials | 97.6 | 99.1 | 103.3 | 102.8 | 102.8 | 102.4 | 102.4 | 100.3 | 98.9 | 98.1 | 96.1 | 96.8 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 94.9 | 98.9 | 100.1 | 104.1 | 102.3 | 106.3 | 106.3 | 101.4 | 101.3 | 99.8 | 93.6 | 91.4 |
| 505 | Metals and minerals, except petroleum | 98.4 | 97.1 | 98.6 | 97.6 | 102.6 | 100.9 | 102.1 | 105.6 | 101.4 | 97.6 | 99.9 | 98.4 |
| 506 | Electrical goods | 96.3 | 95.6 | 98.1 | 99.3 | 101.9 | 102.1 | 102.1 | 102.4 | 101.6 | 101.6 | 100.1 | 99.3 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 97.6 | 100.1 | 102.8 | 105.4 | 103.9 | 103.1 | 101.9 | 99.1 | 97.6 | 98.1 | 95.1 | 95.8 |
| 508 | Machinery, equipment, and supplies | 97.9 | 99.9 | 101.6 | 100.9 | 101.6 | 102.1 | 100.6 | 100.8 | 100.6 | 98.1 | 98.3 | 98.1 |
| 509 | Miscellaneous durable goods | 99.8 | 99.1 | 98.6 | 99.6 | 98.4 | 99.9 | 102.6 | 100.9 | 101.3 | 102.1 | 99.1 | 99.3 |
| 51 | Nondurable goods, total | 104.4 | 102.9 | 105.4 | 101.1 | 97.1 | 95.1 | 94.8 | 94.1 | 96.3 | 102.1 | 104.1 | 103.3 |
| | Total (excluding farm-product raw materials) | 100.4 | 99.8 | 102.6 | 101.6 | 99.9 | 98.4 | 98.8 | 97.8 | 99.3 | 101.4 | 100.9 | 99.6 |
| 511 | Paper and paper products | 97.1 | 98.4 | 99.6 | 100.9 | 100.4 | 102.6 | 100.1 | 98.9 | 101.1 | 100.1 | 100.3 | 100.9 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 96.4 | 95.9 | 100.4 | 101.1 | 99.4 | 100.3 | 100.6 | 99.9 | 102.9 | 105.3 | 100.9 | 97.3 |
| 513 | Apparel, piece goods, and notions | 101.6 | 100.6 | 98.3 | 98.9 | 100.4 | 100.6 | 101.3 | 101.1 | 98.8 | 99.4 | 99.9 | 99.6 |
| 514 | Groceries and related products | 98.6 | 99.9 | 101.6 | 100.6 | 99.3 | 100.1 | 98.1 | 97.1 | 100.3 | 102.9 | 100.8 | 101.4 |
| 515 | Farm-product raw materials[1] | 119.4 | 117.2 | 115.3 | 101.9 | 86.8 | 82.3 | 78.8 | 79.0 | 84.8 | 103.6 | 116.2 | 115.6 |
| 516 | Chemicals and allied products | 98.6 | 100.8 | 100.8 | 100.8 | 104.1 | 101.9 | 102.4 | 100.4 | 100.6 | 96.6 | 96.1 | 97.6 |
| 517 | Petroleum and petroleum products | 102.4 | 99.1 | 100.1 | 95.6 | 98.1 | 94.8 | 98.1 | 99.9 | 102.4 | 103.9 | 104.3 | 101.8 |
| 518 | Beer, wine, and distilled alcoholic beverages | 97.4 | 94.4 | 101.4 | 104.8 | 103.3 | 102.3 | 100.8 | 96.6 | 99.1 | 103.9 | 103.4 | 93.1 |
| 519 | Miscellaneous nondurable goods | 104.3 | 106.4 | 109.4 | 104.1 | 98.9 | 92.8 | 94.8 | 96.1 | 95.3 | 98.8 | 100.1 | 99.4 |

Note: The adjustment factors shown above for sales are a combination of the seasonal and trading-day factors. These are separately available, however, upon request. Adjustment factors are included in this table for some kinds of business for which adjusted data are not published separately.

Adjusted sales and inventory data shown in table 4 are obtained by dividing the unadjusted data shown in tables 1 and 2 by the adjustment factors shown above for the corresponding kinds of business. Adjusted data for the summary trade totals are obtained by summarizing the adjusted data for the individual kinds of business. Seasonal factors shown for the summary trade totals provide an approximation to these totals but may show small differences from the published data.

[1]There are indications that the seasonal adjustment factors for the farm-product raw materials category may not reflect recent trends in this trade. The seasonally adjusted data for this category and also for the merchant wholesale and nondurable goods totals should, therefore, be used with caution.

# Table B-2. Average Month-to-Month Percent Changes and Related Summary Measures for Sales and Inventories of Merchant Wholesalers

| 1972 SIC code | Kind of business | $\bar{O}$ | $\bar{S}$ | $\bar{CI}$ | $\bar{I}$ | $\bar{C}$ | $\bar{I}/\bar{C}$ | MCD | Average duration of run | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | CI | I | C | MCD |
| | | Sales | | | | | | | | | | |
| | Merchant wholesalers, total | 4.89 | 3.09 | 1.47 | .85 | 1.12 | .75 | 1 | 2.98 | 1.49 | 13.92 | 2.98 |
| 50 | Durable goods, total | 5.43 | 4.75 | 1.61 | 1.05 | 1.17 | .90 | 1 | 3.48 | 1.53 | 20.87 | 3.48 |
| 501 | Motor vehicles and automotive parts and supplies | 5.73 | 4.39 | 2.76 | 2.37 | 1.27 | 1.86 | 3 | 2.09 | 1.61 | 23.86 | 4.23 |
| 502 | Furniture and home furnishings | 7.76 | 6.99 | 2.43 | 2.09 | 1.01 | 2.07 | 3 | 2.04 | 1.59 | 13.92 | 4.34 |
| 503 | Lumber and other construction materials | 7.69 | 6.40 | 2.77 | 1.99 | 1.72 | 1.15 | 2 | 3.09 | 1.62 | 18.56 | 4.61 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 9.44 | 8.63 | 4.18 | 3.85 | 1.26 | 3.06 | 4 | 1.69 | 1.50 | 7.59 | 3.73 |
| 505 | Metals and minerals, except petroleum | 7.02 | 4.10 | 3.22 | 2.50 | 1.85 | 1.35 | 2 | 1.88 | 1.43 | 8.35 | 3.07 |
| 506 | Electrical goods | 5.75 | 5.04 | 2.31 | 1.98 | 1.08 | 1.83 | 2 | 1.76 | 1.53 | 16.70 | 3.39 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 5.84 | 4.73 | 1.98 | 1.67 | 1.01 | 1.66 | 2 | 2.23 | 1.48 | 15.18 | 3.77 |
| 508 | Machinery, equipment, and supplies | 6.04 | 5.35 | 2.03 | 1.68 | 1.01 | 1.67 | 2 | 2.04 | 1.62 | 13.92 | 3.32 |
| 509 | Miscellaneous durable goods | 8.01 | 6.42 | 3.79 | 3.09 | 1.88 | 1.65 | 2 | 2.04 | 1.53 | 10.44 | 3.46 |
| 51 | Nondurable goods, total | 5.20 | 2.81 | 1.85 | 1.31 | 1.13 | 1.16 | 2 | 2.49 | 1.33 | 12.85 | 3.86 |
| 511 | Paper and paper products | 5.52 | 3.23 | 2.09 | 1.67 | 1.03 | 1.61 | 2 | 2.09 | 1.50 | 15.18 | 3.19 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 6.03 | 3.89 | 2.06 | 1.76 | .78 | 2.25 | 3 | 2.01 | 1.59 | 8.79 | 3.24 |
| 513 | Apparel, piece goods, and notions | 8.05 | 6.62 | 2.93 | 2.73 | 1.00 | 2.72 | 3 | 1.72 | 1.43 | 11.13 | 3.11 |
| 514 | Groceries and related products | 4.52 | 1.85 | 1.66 | 1.43 | .83 | 1.71 | 2 | 2.06 | 1.43 | 23.86 | 3.19 |
| 515 | Farm-product raw materials | 9.28 | 4.72 | 5.03 | 4.44 | 1.71 | 2.59 | 3 | 1.90 | 1.58 | 6.96 | 3.30 |
| 516 | Chemicals and allied products | 7.37 | 5.04 | 3.52 | 3.13 | 1.41 | 2.22 | 3 | 1.84 | 1.52 | 18.56 | 4.71 |
| 517 | Petroleum and petroleum products | 7.03 | 5.33 | 4.27 | 3.59 | 1.92 | 1.87 | 3 | 1.84 | 1.67 | 12.85 | 3.11 |
| 518 | Beer, wine, and distilled alcoholic beverages | 10.80 | 8.43 | 1.70 | 1.50 | .72 | 2.09 | 3 | 1.84 | 1.49 | 16.70 | 4.58 |
| 519 | Miscellaneous nondurable goods | 6.05 | 4.67 | 2.68 | 2.37 | 1.07 | 2.22 | 3 | 1.76 | 1.53 | 10.44 | 3.30 |
| | | Inventories | | | | | | | | | | |
| | Merchant wholesalers, total | 1.16 | .70 | .98 | .40 | .91 | .44 | 1 | 7.59 | 1.52 | 27.83 | 7.59 |
| 50 | Durable goods, total | 1.13 | .57 | .98 | .41 | .93 | .44 | 1 | 6.96 | 1.45 | 41.75 | 6.96 |
| 501 | Motor vehicles and automotive parts and supplies | 2.30 | 1.25 | 1.75 | 1.23 | 1.19 | 1.03 | 2 | 2.69 | 1.52 | 11.93 | 4.15 |
| 502 | Furniture and home furnishings | 2.22 | 1.32 | 1.64 | 1.26 | 1.01 | 1.25 | 2 | 2.14 | 1.49 | 13.92 | 4.26 |
| 503 | Lumber and other construction materials | 2.52 | 1.54 | 1.81 | 1.24 | 1.15 | 1.08 | 2 | 2.65 | 1.72 | 16.70 | 4.15 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 3.49 | 2.79 | 2.21 | 1.94 | 1.07 | 1.80 | 2 | 2.01 | 1.62 | 27.83 | 3.39 |
| 505 | Metals and minerals, except petroleum | 3.31 | 2.43 | 2.09 | 1.36 | 1.37 | 1.00 | 2 | 3.04 | 1.72 | 8.79 | 4.05 |
| 506 | Electrical goods | 1.78 | 1.15 | 1.44 | 1.08 | .94 | 1.15 | 2 | 2.49 | 1.40 | 33.40 | 4.37 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 1.74 | 1.28 | 1.22 | .86 | .88 | .97 | 1 | 2.53 | 1.55 | 18.56 | 2.53 |
| 508 | Machinery, equipment, and supplies | 1.43 | .85 | 1.14 | .71 | .92 | .77 | 1 | 2.78 | 1.64 | 41.75 | 2.78 |
| 509 | Miscellaneous durable goods | 2.32 | 1.31 | 1.94 | 1.35 | 1.27 | 1.06 | 2 | 2.09 | 1.58 | 18.56 | 4.49 |
| 51 | Nondurable goods, total | 2.58 | 2.11 | 1.48 | .92 | 1.05 | .88 | 1 | 3.48 | 1.86 | 9.28 | 3.48 |
| 511 | Paper and paper products | 1.90 | 1.02 | 1.41 | 1.05 | .79 | 1.32 | 2 | 1.96 | 1.37 | 8.35 | 4.05 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 2.55 | 1.60 | 1.72 | 1.49 | .74 | 2.01 | 3 | 1.69 | 1.55 | 20.87 | 3.24 |
| 513 | Apparel, piece goods, and notions | 2.22 | 1.30 | 1.84 | 1.48 | .97 | 1.53 | 2 | 2.06 | 1.55 | 8.35 | 2.96 |
| 514 | Groceries and related products | 1.94 | 1.37 | 1.40 | .97 | .97 | 1.01 | 2 | 2.42 | 1.45 | 16.70 | 4.37 |
| 515 | Farm-product raw materials | 8.85 | 7.57 | 4.51 | 3.64 | 2.15 | 1.69 | 3 | 2.42 | 2.04 | 7.59 | 4.12 |
| 516 | Chemicals and allied products | 3.17 | 1.64 | 2.45 | 1.87 | 1.43 | 1.30 | 2 | 2.26 | 1.52 | 16.70 | 3.95 |
| 517 | Petroleum and petroleum products | 5.01 | 2.95 | 3.67 | 2.65 | 2.06 | 1.29 | 2 | 2.29 | 1.65 | 10.44 | 3.95 |
| 518 | Beer, wine, and distilled alcoholic beverages | 4.28 | 3.68 | 1.83 | 1.46 | .86 | 1.70 | 2 | 2.14 | 1.49 | 8.79 | 3.46 |
| 519 | Miscellaneous nondurable goods | 2.85 | 1.88 | 1.96 | 1.55 | .91 | 1.71 | 2 | 1.92 | 1.50 | 8.35 | 3.07 |

## Description of Measures Shown Above

The following are brief descriptions of the measures shown in this table. More complete explanations appear in "Electronic Computers and Business Indicators," Occasional Paper 57, National Bureau of Economic Research, Inc., New York, 1957.

$\bar{O}$ is the average month-to-month percentage change, without regard to sign, in the original series before seasonal or trading-day adjustment.

$\bar{S}$ is the average month-to-month percentage change, without regard to sign, in the seasonal component. It is a measure of the average monthly seasonal change in the unadjusted series.

$\bar{CI}$ is the average month-to-month percentage change, without regard to sign, in the seasonally adjusted series.

$\bar{I}$ is the average month-to-month percentage change without regard to sign, for the irregular component. The irregular component is obtained by dividing the seasonally adjusted series by the cyclical component.

$\bar{C}$ is the average month-to-month percentage change, without regard to sign, for the cyclical component, which is a smooth, flexible moving average.

$\bar{I}/\bar{C}$ is a measure of the relative smoothness (small values) or irregularity (large values) of the seasonally adjusted series.

MCD (months for cyclical dominance) gives an estimate of the appropriate time span over which to observe cyclical movements in a monthly series. In deriving MCD, the average (without regard to sign) percentage changes in the irregular and cyclical components are computed for 1-month spans (Jan.-Feb., Feb.-Mar., etc.) 2-months spans (Jan.-Mar., Feb.-Apr., etc.), and so on. MCD is the shortest span for which the average change (without regard to sign) in the cyclical component is larger than the average change (without regard to sign) in the irregular component; that is, it indicates the point at which fluctuations begin to be more attributable to cyclical than to irregular movements. MCD is small for smooth series and large for erratic series.

Average duration of run (ADR) is a measure of smoothness, and is equal to the average number of consecutive monthly changes in the same direction in any series of observations. When there is no change between 2 months, a change in the same direction as the preceding change is assumed. The ADR is shown for the seasonally adjusted series CI, irregular component I, cyclical component C, and the MCD moving average. The MCD moving average is an unweighted moving average (with the number of terms equal to MCD) of the seasonally adjusted series.

A comparison of these measures with the expected ADR of a random series gives an indication of whether the changes approximate those of a random series. (The expected value of ADR for a random series is 1.5 and it falls between 1.36 and 1.75 about 95 percent of the time. For a moving average of a random series the expected value is 2.0). For example, the ADR of CI is 2.08 for electrical goods sales. This indicates that 1-month changes in the seasonally adjusted series, on the average, reverse sign slightly less often than a random series. In the next two columns, 1.46 for I and 10.58 for C indicate the separation of the seasonally adjusted series into an essentially random component and the cyclical (nonrandom) component. Finally, 3.32 for MCD indicates that a 2-month moving average of the seasonally adjusted series (2 months being the MCD span) reverses direction on the average about every 3 months. The increase in the average duration of run from 2.08 for CI to 3.32 for the MCD moving average indicates that for this series the use of MCD spans reduces the effect of the irregular component upon the seasonally adjusted series.

These averages are based on a seasonally adjusted series which is adjusted historically; that is, the months used to compute the measures were the same months used to estimate the seasonal factors. Current data, however, are adjusted by use of factors projected 1 year ahead, and are thus subject to additional error. Therefore, current data are probably somewhat more irregular and subject to larger MCD than shown above.

# APPENDIX C. Explanatory Material

## I. SCOPE OF THE SURVEY

Wholesale trade, as defined in Major Groups 50 and 51 of the 1972 edition of the Standard Industrial Classification (SIC) Manual[1] and as covered in the 1972 census, includes establishments or places of business primarily engaged in selling merchandise to retailers; to industrial, commercial, institutional, farm or professional business users; or to other wholesalers; or acting as agents or brokers in buying merchandise for or selling merchandise to such persons or companies.

The principal types of establishments included are: (1) merchant wholesalers who take title to the goods they sell, such as wholesale merchants or jobbers, industrial distributors, voluntary group wholesalers, exporters, importers, cash-and-carry wholesalers, drop shippers, major distributors, retailer cooperative warehouses, terminal elevators, and cooperative buying associations; (2) sales branches and sales offices (but not retail stores) maintained by domestic manufacturing or mining enterprises apart from their plants or mines for the purpose of marketing their products; (3) agents, merchandise or commodity brokers, and commission merchants.

This survey is limited to merchant wholesalers (described under category 1 above), which constitute the major portion of the broad field of wholesale trade, and excludes the other types of wholesale trade. All kinds of business in which merchant wholesalers operate are represented in this survey.

Kind-of-business classifications are not interchangeable with commodity classifications. Most businesses sell several kinds of commodities. The kind-of-business code assigned generally reflects either the individual commodity or the commodity group which is the primary source of the establishments receipts, or some mixture of commodities which characterizes the establishment's business. Thus, the classification of establishments by kind of business generally does not make it possible to determine either the number of establishments handling a particular commodity or the sales of that commodity. For example, the "grocery" classification excludes establishments selling groceries if the sale of groceries is not the primary source of receipts; moreover, even though establishments are classified as "grocery wholesalers" some of their sales may be derived from the sale of nonfood products.

A description of each kind of business included in the accompanying statistical data is shown in appendix D.

## II. SAMPLE DESIGN AND ESTIMATION PROCEDURES

**Framework of old series**–The first publication in this series based on probability sampling, was the January 1954 report. Effective with the July 1956 publication an entirely new sample was selected from the 1954 Census of Business. Other changes in the sample have been made since 1956, representing, for the most part, revisions to reflect the findings of successive censuses of wholesale trade and the benchmarking operation described in Section III.

**Selection of sample for new series**–The new sample[2] like the old is a probability sample, and the estimating procedures used are similar in many respects to the old sample.

The new sample originally was drawn from the Standard Statistical Establishment List (SSEL) as updated to December 31, 1974. The initial SSEL consisted of two lists. One list was composed of all Employer Identification (EI) numbers issued by the Internal Revenue Service (IRS) with reported payroll in at least one quarter of 1973 or 1974, with payroll in the 1972 census, or with sales/receipts greater than $100,000 in the 1972 census. The second list consisted of all establishments of known multiestablishment companies as of December 31, 1974. These lists contained information on sales/receipts, payroll, employment, name and address, kind-of-business classification, etc.

Before the 1974 SSEL was available, a study was made, using files from the 1972 Census of Wholesale Trade. This study determined the stratification of the sampling units based on 1972 sales, inventories, and kind of business, and also determined the optimal allocation of the sample necessary to meet specified variance objectives for sales and inventory estimates for different kind-of-business groups. The primary stratum boundary determined in the study was the certainty cutoff to be used for each kind of business. The cutoff was particularly important since it also determined the type of sampling unit.

The sampling units for the new sample consisted of both companies and EI's. To be eligible for the initial sampling, an EI had to be active, i.e., had payroll in 1974 and was on the Internal Revenue Service mailing list for Federal Insurance Contribution Act (FICA) taxpayers. If a known company had total merchant wholesale sales (on a 1972 basis) above the corresponding cutoff for its major kind of business, the company was selected for the sample with certainty. Single establishment companies, whether or not selected with certainty, were considered as EI sampling units.

All merchant wholesale companies below the certainty cutoff were treated on an EI basis; that is, the EI was the sampling unit. The EI's were then stratified according to their major kind of business and their estimated sales (on a 1972

[1] Executive Office of the President, Office of Management and Budget, **Standard Industrial Classification Manual**, 1972.

[2] For a complete exposition of the new sample, see C. T. Isaki et al., "Sample Redesign Aspects of the Census Bureau's Monthly Business Surveys" and K. M. Wolter et al., "Sample Selection and Estimation Aspects of the Census Bureau's Monthly Business Surveys," **Proceedings of the Business and Economic Statistics Section: American Statistical Association**, 1976.

basis). Within each stratum, a simple random sample of EI's was selected. The sampling rates for these EI's varied between 1 in 3 and 1 in 600.

For those EI's in the initial sample that did not have kind-of-business classifications and for all EI "births" after the initial selection, a two-phase selection procedure was used. EI "births," as used here, are new EI's recently assigned by Social Security Administration (SSA) and currently on the IRS mailing list for FICA taxpayers. In the first phase, "births" were stratified by kind of business and size (expected employment or quarterly payroll). A relatively large sample was drawn and canvassed in order to obtain a more reliable measure of size (sales in 2 recent months) and a more detailed kind-of-business code, if needed.

Using this more reliable information, the cases were restratified and the final sample drawn with overall probabilities equivalent to those used in drawing the initial sample from the 1974 SSEL. Because of the lag in reporting "births" to the IRS and SSA and the time needed to accomplish the two-phase birth-selection procedure, "births" are actually added to the sample approximately 1 year after they begin operation. The ongoing birth-selection procedure is carried out quarterly.

Since "births" are not represented in the sample until they go through the selection procedure described above, an interium procedure is required to account for "births" during the period between the onset of activity and the time of birth selection. This consists of imputing for all cases which go out of business, but which are still on the IRS mailing list. This imputation procedure was also used in the old series. However, because of recent delays in obtaining "births," this procedure now accounts for a larger percentage of the estimates.

To be eligible for the sample canvass and tabulation in a given month, a merchant wholesale business must meet both of the following requirements:

1. It must be on the IRS mailing list for FICA taxpayers from the previous quarter.

2. It must have been selected from either the SSEL or the file of employer "births." For this purpose, a universe file of all businesses ever given a chance of selection is maintained. This file shows, among other things, which EI numbers actually have been selected.

In the case of businesses that were selected into the sample with certainty, the first requirement is changed. These certainty sampling units are not dropped from canvass and tabulation if they are no longer on the IRS mailing list. If there are successor businesses, they are added to the survey. This is a tighter form of control used for these larger businesses.

**Use of the rotating sample and composite estimating procedures**–Rotating samples or panels are used except for very large businesses which are selected with certainty. For sampling units in the rotating panels, two months of data are obtained at each enumeration. For example, February rotating panel cases report data for February (the current month) and January (the previous month). In the following month, a different rotating panel (the March panel) reports figures for March and February. Three sample panels are used. This permits the use of a composite estimating procedure which provides estimates more reliable than those which would be obtained from a completely fixed sample of about twice the size. In addition, this procedure reduces the reporting burden of selected businesses.

The first estimate issued each month is called the preliminary estimate. The preliminary composite estimate at the detail level for the current month is a weighted average of two estimates: (1) the current month unbiased estimate (weight .35), and (2) an estimate (weight .65) obtained by multiplying the difference between the preliminary composite for the previous month and the unbiased estimate for the previous month from the current month panel by the current-to-previous-month ratio obtained from the current month reports. Preliminary inventory estimates have been modified, prior to publication, based on past relationships between preliminary and final estimates.

The differences between preliminary and final estimates of seasonally adjusted sales have ranged from approximately +1.7 percent to -0.9 percent for the past 12 months. During the same period, the absolute average of the differences was 0.5 percent. The corresponding range for inventories was approximately +1.2 percent to -0.7 percent for the past 12 months. The absolute average of the differences was 0.6 percent.

## III. BENCHMARKING

Wholesale sales estimates in this report reflect the results of a benchmarking operation which made use of data tabulated from the 1977 Census of Wholesale Trade and the 1978 and 1979 Annual Wholesale Trade Surveys (ATS). Monthly wholesale sales by kind of business for the United States were revised for the period January 1973 through January 1981 in a manner designed to minimize the changes to the month-to-month trends in the original series. As part of the revision process, revised monthly data for 1977, 1978, and 1979 were constrained to sum to 1977 census levels and 1978 and 1979 estimates, respectively.

End-of-month inventories were revised in a similar manner as sales. The constraints for the inventory estimates were the December 1972 estimates and the December ending inventories from 1976 through 1979 estimates from the ATS (the 1976 estimates were available from the 1977 ATS).

Through use of so-called "carry forward factors," the effect of the revision process at the U.S. level is applied to all estimates subsequent to December 1979. These factors were derived at the most detailed kind-of-business level and will be held constant until the next revision and benchmarking process. Aggregate level estimates are derived by summing appropriate detail level estimates, thereby assuring additivity.

Monthly wholesale sales and inventory estimates for published geographic areas also reflect the results of the revision process. In order to adjust geographic estimates, factors are

derived each month at specified United States kind-of-business levels by dividing the revised U.S. estimates (as published) by the unrevised U.S. estimates (without the "carry forward factors" applied) at the given kind-of-business level. These factors are then multiplicatively applied at each published geographic area for the kind of business for which the factor was derived.

## IV. CLASSIFICATION DIFFERENCES BETWEEN THE MONTHLY ESTIMATES AND THE 1977 CENSUS OF WHOLESALE TRADE

Ferrous Metals Service Centers (SIC 5051 part) with warehouse space greater than 5000 square feet are included in the monthly survey, regardless of the ownership of the products sold. However, if the establishments primarily sell the products manufactured by their own company, they are considered sales branches in the 1977 Census of Wholesale Trade.

In the 1977 Census of Wholesale Trade, establishments classified in the Farm-Product Raw Materials Group (SIC 515X) included as sales, products purchased and transferred to other company establishments. In the monthly survey inter-company transfers are not included in sales. Because of the differences shown above, the sales presented in this report for these kinds of business were obtained from the annual trade survey for 1977.

## V. REVISION TO PREVIOUSLY PUBLISHED DATA

The basic input inventory series for all the components of the Farm-Product Raw Materials Group[3] (SIC 515) and for Petroleum-Bulk Stations and Terminals (SIC 5171) have been revised. These data were revised to reflect improved methodology. SIC 5171 was revised from January 1967 through November 1972, while the SIC's in the 515 group were revised from January 1967 through July 1977. All summary groups which included inventories in these SIC's were also revised.

## VI. UNPUBLISHED DATA

Additional data, such as dollar volume estimates for some kinds of business not separately shown in this report, are produced as a byproduct of the regularly published statistics. These additional data have not been included in this publication because the sampling variability associated with these data does not meet the Census Bureau's publication criteria. The Census Bureau, on written request will release unpublished data for individual use, though not for publication.

## VII. DEFINITION OF TERMS

**Sales**—Sales include the following: merchandise sold for cash or credit at wholesale and retail by establishments primarily engaged in merchant wholesale trade; receipts from customers for rental or leasing of equipment, instruments, tools, etc.; receipts for delivery, installation, alteration, maintenance, repair, storage, and other services; and gasoline, liquor, tobacco and other excise taxes which are paid by the manufacturer and passed along to the wholesaler. Sales are net after deductions for refunds and allowances for merchandise returned by customers. Sales which are made on an agency basis for others are included as gross sales. Direct shipments on orders from wholesalers are also included in sales. Total sales do not include nonoperating income from such sources as investments, rental or sale of real estate, etc.

In the new series, sales exclude sales and excise taxes collected directly from customers and paid directly to a local, State, or Federal tax agency. Also excluded are receipts from customers for carrying or other credit charges. In the old series respondents were requested to include these taxes and credit charges in the reported sales. The impact of this change is considered minimal.

**Inventories**—Inventories represent stocks, at cost, of merchandise on hand for sale at the end of the month regardless of location, except for goods outside the United States. Goods held on consignment and items not held for sale such as fixtures, equipment, and supplies are not included.

**Stock-sales ratios**—The stock-sales ratios are percentages derived by dividing the dollar value of inventories, at cost, by the dollar value of sales. No adjustment is made in these ratios for the markup in sales which may vary from trade to trade.

The sales and inventory figures represent total sales and inventories of all establishments primarily engaged in merchant wholesale trade. Also included are the sales and inventories of central administrative offices and auxiliaries of merchant wholesale establishments.

[3] See appendix D, Kind-of-Business Classification for the SIC's included in this group.

# APPENDIX D. Kind-of-Business Classifications

## DURABLE GOODS
## (SIC Major Group 50)

This major group includes establishments primarily engaged in the wholesale distribution of durable goods.

### MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES (SIC 501)

**Automobiles and Other Motor Vehicles (SIC 5012)**[1]—Establishments primarily engaged in the wholesale distribution of new and used passenger automobiles, trucks, and other motor vehicles. Automotive distributors primarily engaged in selling at retail to individual consumers for personal use, and also selling a limited amount of new and used passenger automobiles and trucks at wholesale to dealers, are classified in retail trade, industry 5511.

**Automotive Parts and Supplies (SIC 5013)**—Establishments primarily engaged in the wholesale distribution of automotive parts, supplies, accessories, tools and equipment.

**Tires and Tubes (SIC 5014)**[1]—Establishments primarily engaged in the wholesale distribution of rubber tires and tubes for passenger and commercial vehicles.

### FURNITURE AND HOME FURNISHINGS (SIC 502)

**Furniture (SIC 5021)**—Establishments primarily engaged in the wholesale distribution of furniture, including bedsprings, mattresses, and other household furniture; office furniture; and furniture for public parks, buildings, etc.

SIC 5021 is subdivided into—

*1. Household and lawn furniture.*
*2. Office and business furniture.*

**Home Furnishings (SIC 5023)**—Establishments primarily engaged in the wholesale distribution of home furnishings and homewares, including antiques; china; glassware and earthenware; lamps; curtains and draperies; linens and towels; carpets, linoleum, and all other types of hard and soft surface floor coverings. Establishments primarily engaged in the wholesale distribution of electrical household goods are classified in industry 5064.

[1] Data for this kind of business are not shown separately but are included in the group total.

### LUMBER AND OTHER CONSTRUCTION MATERIALS (SIC 503)

**Lumber, Plywood, and Millwork (SIC 5031)**—Establishments, with or without yards, primarily engaged in the wholesale distribution of rough, dressed, and finished lumber (but not timber); plywood; door and window frames (wood or metal); and other wood and metal millwork. Establishments selling lumber, plywood and millwork to the general public and known as "retail" in the trade are classified in industry 521.

**Construction Materials, Not Elsewhere Classified (SIC 5039)**—Establishments primarily engaged in the wholesale distribution of such building materials as brick, building stone, cement, granite, gravel, lime, marble, plaster, building glass, roofing materials, sand, and tile. Establishments selling construction materials to the general public and known as "retail" in the trade are classified in industry 521. Establishments primarily engaged in marketing heavy structural metal products are classified in industry 5051. Establishments primarily selling readymade concrete are classified in manufacturing.

### SPORTING, RECREATIONAL, PHOTOGRAPHIC, AND HOBBY GOODS, TOYS, AND SUPPLIES (SIC 504)[1]

Establishments primarily engaged in the wholesale distribution of all types of amusement and sporting goods and accessories—billiard and pool supplies; cameras and photographic equipment; coin-operated game machines; games, toys; ammunition and fireworks; etc.

### METALS AND MINERALS, EXCEPT PETROLEUM (SIC 505)

**Ferrous Metals Service Centers and Offices (SIC 5051 pt.)**—Establishments primarily engaged in marketing ferrous metal semifinished products such as nails, pig iron, steel and tin bars. Establishments in this industry may operate with warehouses (ferrous metals service centers) or without warehouses (ferrous metals sales offices).

Sales branches of domestic manufacturers are included in this category if the establishment is separate from the manufacturing plant and has warehouse space greater than 5,000 square feet.

**Nonferrous Metals Service Centers and Offices and Other Minerals and Ores (SIC 5051 pt. and SIC 5052 pt.)**[1]—Establishments primarily engaged in marketing nonferrous metal semifinished products such as aluminum bars and copper rods. Establishments in this industry may operate with warehouses (nonferrous metals service centers) or without warehouses (nonferrous metals sales offices). Also included are establishments primarily engaged in the wholesale distribution of copper, iron, lead, and other metallic ores except precious; and crude nonmetallic minerals (including concentrates) except crude petroleum. Establishments primarily engaged in the wholesale distribution of nonmetallic minerals used in construction, such as sand and gravel, are included in industry 5039.

**Coal (SIC 5052 pt.)**[1]—Establishments primarily engaged in the wholesale distribution of coal and coke. Included are establishments which have products shipped direct from mine to customer, and establishments operating yards and dock space and making deliveries therefrom at wholesale as well as other coal merchants.

## ELECTRICAL GOODS (SIC 506)

**Electrical Apparatus and Equipment, Wiring Supplies, and Construction Materials (SIC 5063)**—Establishments primarily engaged in the wholesale distribution of electrical power equipment for the generation, transmission, or utilization of electric energy; and electrical construction materials for outside power transmission lines and for electrical systems. Construction contractors primarily engaged in installing electrical systems and equipment from their own stock are classified in industry 1731.

**Electrical Appliances, TV and Radio Sets (SIC 5064)**—Establishments primarily engaged in the wholesale distribution of radio and television sets and household electrical appliances.

**Electronic Parts and Equipment (SIC 5065)**[1]—Establishments primarily engaged in the wholesale distribution of electronic parts and equipment, such as industrial and radio and television receiving and transmitting electronic tubes; electronic intercommunication equipment; radio parts and accessories; and electronic sound equipment. Establishments primarily engaged in the wholesale distribution of radio and television receiving sets and phonographs are classified in industry 5064.

## HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES (SIC 507)

**Hardware (SIC 5072)**—Establishments primarily engaged in the wholesale distribution of hardware, such as builders; shelf or light hardware; handtools (except automotive and machinists' precision); handsaws and cutlery; brads, staples, and tacks; and bolts, nuts, rivets, and screws. Establishments primarily engaged in the wholesale distribution of nails, noninsulated wire, and screening are classified in industry 5051.

**Plumbing and Heating Equipment and Supplies (Hydronics) (SIC 5074)**—Establishments primarily engaged in the wholesale distribution of hydronic plumbing and heating equipment and supplies. Construction contractors primarily engaged in installing plumbing and heating equipment from their own stock are classified in industry 1711.

**Warm Air Heating and Air-Conditioning Equipment and Supplies (SIC 5075)**[1]—Establishments primarily engaged in the distribution of warm air heating and air-conditioning equipment and supplies. Construction contractors primarily engaged in installing warm air heating and air-conditioning equipment are classified in industry 1711.

**Refrigeration Equipment and Supplies (SIC 5078)**[1]—Establishments primarily engaged in the distribution of refrigeration equipment and supplies. Construction contractors primarily engaged in installing refrigeration equipment from their own stock are classified in industry 1711.

## MACHINERY, EQUIPMENT, AND SUPPLIES (SIC 508)

**Commercial Machines and Equipment (SIC 5081)**[1]—Establishments primarily engaged in wholesaling commercial machines and equipment, such as office, store, and business machines and equipment; commercial food service equipment; and fountain and store fixtures.

**Construction and Mining Machinery and Equipment (SIC 5082)**—Establishments primarily engaged in marketing cranes, excavating machinery and equipment, power shovels, road construction and maintenance machinery, tractor-mounting equipment and other specialized machinery and equipment used in the construction, mining, and logging industries. Establishments engaged in marketing oil well machinery and equipment are classified in industry 5084.

**Farm and Garden Machinery and Equipment (SIC 5083)**[1]—Establishments primarily engaged in marketing agricultural machinery and equipment for use in the preparation and maintenance of the soil, the planting and harvesting of crops, and other operations and processes pertaining to work on the farm or the lawn or garden; and dairy and other livestock equipment.

**Industrial Machinery and Equipment (SIC 5084)**[1]—Establishments primarily engaged in marketing industrial machinery and equipment, such as metal working tools, food industries machinery, oil well and oil refining machinery, industrial

[1] Data for this kind of business are not shown separately but are included in the group total.

trucks and tractors (except over-the-road types), printing machinery, and machinery and equipment for other manufacturing industries.

**Industrial Supplies (SIC 5085)**[1]—Establishments primarily engaged in marketing industrial supplies, such as abrasives and materials, rope and cordage, and mechanical rubber goods; welding supplies; mechanical power transmission supplies, including bearings; industrial valves and fittings; metal containers; industrial leather; and reconditioned barrels and drums.

**Professional Equipment and Supplies (SIC 5086)**—Establishments primarily engaged in the wholesale distribution of mechanical devices and other equipment used by architects, dentists, engineers, physicians, surgeons, veterinarians, optometrists, osteopaths, and other professional groups.

**Surgical, Medical, Hospital Supplies (SIC 5086 pt.)**[1]—Establishments primarily engaged in selling surgical and medical instruments; doctors' apparatus and equipment; orthopedic appliances; artifical limbs; operating room and other hospital equipment, X-ray machines and accessories and other scientific instruments used by physicians and in hospitals.

**Service Establishment Equipment and Supplies (SIC 5087)**[1]—Establishments primarily engaged in the wholesale distribution of equipment and supplies for barber shops, beauty parlors power laundries, dry-cleaning plants, upholsterers, undertakers, and related personal service establishments.

**Transportation Equipment and Supplies, Except Motor Vehicles (SIC 5088)**[1]—Establishments primarily engaged in the wholesale distribution of transportation equipment and supplies. Establishments primarily engaged in the wholesale distribution of motor vehicles and motor vehicle parts are classified in group 501.

### MISCELLANEOUS DURABLE GOODS (SIC 509)[1]

**Scrap and Waste Materials (SIC 5093)**—Establishments primarily engaged in assembling, breaking up, sorting and wholesale distribution of scrap and waste materials. This industry includes auto wreckers engaged in dismantling automobiles for scrap. However, those engaged in dismantling cars for the purpose of selling secondhand parts at retail are classified in industry 5931.

SIC 5093 is subdivided into—

1. *Iron and Steel scrap.*
2. *Waste and secondary materials dealers.*

[1] Data for this kind of business are not shown separately but are included in the group total.

**Jewelry, Watches, Diamonds, and Other Precious Stones (SIC 5094)**[1]—Establishments primarily engaged in the wholesale distribution of jewelry, precious stones and metals, costume jewelry, watches, clocks, silverware, and jewelers' findings.

**Durable Goods, Not Elsewhere Classified (SIC 5099)**[1]—Establishments primarily engaged in the wholesale distribution of durable goods, not elsewhere classified, such as musical instruments and forest products, except lumber.

## NONDURABLE GOODS (SIC Major Group 51)

This major group includes establishments primarily engaged in the wholesale distribution of nondurable goods.

### PAPER AND PAPER PRODUCTS (SIC 511)

**Printing and Writing Paper (SIC 5111)**[1]—Establishments primarily engaged in the wholesale distribution of writing paper, including envelope paper, fine paper, and ground wood, printing, and rotogravure paper.

**Stationery Supplies (SIC 5112)**[1]—Establishments primarily engaged in the wholesale distribution of stationery and office supplies, including envelopes, typewriter and mimeograph paper, file cards and folders, pens, social stationery, and greeting cards.

**Industrial and Personal Service Paper (SIC 5113)**[1]—Establishments primarily engaged in the wholesale distribution of wrapping and other coarse paper, paperboard, cellophane, and converted paper products, such as bags, boxes, dishes, napkins, and shipping supplies.

### DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES (SIC 512)

**Drugs, Drug Proprietaries, and Druggists' Sundries (SIC 5122)**—Establishments primarily engaged in the wholesale distribution of drugs, drug proprietaries, druggists' sundries, and toiletries. Establishments primarily engaged in the wholesale distribution of surgical, dental, and hospital equipment are classified in industry 5086.

SIC 5122 is subdivided into—

1. *General-line drugs*—These are distinguished from specialty-line drug and toiletries wholesalers on the basis of their commodity-line mix. Drug wholesalers were classified as general line if they reported a substantial portion of their sales in "pharmaceuticals, antibiotics, druggists' chemicals, biologicals, botanicals" and "proprietary products, toilet-

ries, druggists' sundries," and if annual sales volume was $1 million or more.

2. *Specialty-line pharmaceuticals, cosmetics, and toiletries.*

## APPAREL, PIECE GOODS, AND NOTIONS (SIC 513)

**Piece Goods (SIC 5133)**[1]—Establishments primarily engaged in the wholesale distribution of woven piece goods or yard goods of natural or manmade fibers. "Converters" who buy goods in the grey, have them finished on contract, and sell at wholesale are included here. This industry does not include establishments primarily engaged in the wholesale distribution of home furnishings, which are classified in industry 5023.

**Notions and Other Dry Goods (SIC 5134)**[1]—Establishments primarily engaged in the wholesale distribution of notions (sewing and hair accessories, etc.), knit goods, and other dry goods, except piece goods.

**Men's and Boys' Clothing and Furnishings (SIC 5136)**[1]—Establishments primarily engaged in the wholesale distribution of men's and boys' apparel and furnishings, sportswear, hosiery, underwear, nightwear, and work clothing.

**Women's Children's, and Infants' Clothing and Accessories (SIC 5137)**[1]—Establishments primarily engaged in the wholesale distribution of women's, children's, and infants' clothing and accessories, including hosiery, lingerie, millinery and millinery supplies, and furs.

**Footwear (SIC 5139)**[1]—Establishments primarily engaged in the wholesale distribution of footwear of leather, rubber, and other materials.

## GROCERIES AND RELATED PRODUCTS (SIC 514)

**Groceries, General-Line (SIC 5141)**—Establishments primarily engaged in the wholesale distribution of a general line of groceries. Establishments primarily engaged in roasting coffee and establishments primarily engaged in blending tea or grinding and packaging spices are classified in major group 20.

SIC 5141 is subdivided into—

1. *Voluntary group wholesalers.*
2. *Retailer cooperative wholesalers.*
3. *Other general-line wholesalers.*

**Frozen Foods (SIC 5142)**[1]—Establishments primarily engaged in the wholesale distribution of packaged quick-frozen vegetables, juices, meats, fish, poultry, pastries, and other "deep freeze" products. Establishments primarily engaged in the wholesale distribution of frozen dairy products are classified in industry 5143. Frozen poultry, fish, and meat which are not packaged are classified in industries 5144, 5146, and 5147, respectively.

**Dairy Products (SIC 5143)**[1]—Establishments primarily engaged in the wholesale distribution of dairy products, such as butter, cheese, ice cream and ices, and fluid milk and cream. This industry does not include establishments primarily engaged in pasteurizing and bottling milk, which are classified in group 202.

**Poultry and Poultry Products (SIC 5144)**—Establishments primarily engaged in the wholesale distribution of poultry and poultry products, except canned and packaged frozen products. This industry does not include establishments primarily engaged in the killing and dressing of poultry, which are classified in industry 2016. Establishments primarily engaged in the wholesale distribution of packaged frozen poultry are classified in industry 5142, and of canned poultry in industry 5149.

**Confectionery (SIC 5145)**—Establishments primarily engaged in the wholesale distribution of confectionery, such as candy, chewing gum, fountain fruits, salted or roasted nuts, popcorn, and fountain syrups; and potato, corn, and similar chips.

**Fish and Seafoods (SIC 5146)**[1]—Establishments primarily engaged in the wholesale distribution (not packaging) of fresh, cured, and frozen fish and seafoods, except canned (industry 5149) or packaged frozen (industry 5142). The preparation, packaging, and freezing of fresh fish and other seafood, and the shucking and packing of fresh oysters in nonsealed containers, are classified in industry 2092.

**Meats and Meat Products (SIC 5147)**—Establishments primarily engaged in the wholesale distribution of fresh, cured, and processed (but not canned) meats and lard. The wholesale distribution of frozen packaged meats is classified in industry 5142 and canned meats in industry 5149.

**Fresh Fruits and Vegetables (SIC 5148)**—Establishments primarily engaged in the wholesale distribution of fresh fruits and vegetables.

**Groceries and Related Products, Not Elsewhere Classified (SIC 5149)**[1]—Establishments primarily engaged in the wholesale distribution of groceries and related products, not elsewhere classified. Establishments primarily engaged in the wholesale distribution of soft drinks, and in bottling and distributing natural spring and mineral waters, are classified in this industry, but establishments primarily engaged in bottling soft drinks are classified in major group 20. This industry does not include farm-product raw materials (group 515), or beer, wine, and distilled alcholic beverages (group 518).

[1] Data for this kind of business are not shown separately but are included in the group total.

## FARM-PRODUCT RAW MATERIALS (SIC 515)

**Cotton (SIC 5152)**[1]—Establishments primarily engaged in buying and/or marketing cotton and cotton linters.

**Grain (SIC 5153)**—Establishments primarily engaged in buying and/or marketing grain (such as corn, wheat, oats, barley, and unpolished rice); dry beans; soybeans, and other inedible beans. Country grain elevators primarily engaged in buying or receiving grain from farmers are included as are terminal elevators and other merchants marketing grain.

**Livestock (SIC 5154)**[1]—Establishments primarily engaged in buying and/or marketing cattle, hogs, sheep, and goats.

**Farm-Product Raw Materials, Not Elsewhere Classified (SIC 5159)**[1]—Establishments primarily engaged in buying and/or marketing farm products not elsewhere classified, such as horses and mules, leaf tobacco, hides, skins, furs, wool, mohair, raw silk, hops, and nuts, except roasted or salted (industry 5145). Establishments primarily engaged in the wholesale distribution of milk are classified in industry 5143 and live poultry in industry 5144.

## CHEMICALS AND ALLIED PRODUCTS (SIC 516)[1]

**Chemicals and Allied Products (SIC 5161)**[1]—Establishments primarily engaged in the wholesale distribution of chemicals and allied products, not elsewhere classified, such as acids, industrial and heavy chemicals, dyestuffs, industrial salts, naval stores, plastics materials, rosin, and turpentine. Establishments primarily engaged in the wholesale distribution of ammunition are classified in industry 5041; agricultural chemicals and pesticides in industry 5191; drugs in industry 5122; and paints and varnishes in industry 5198.

## PETROLEUM AND PETROLEUM PRODUCTS (SIC 517)

**Petroleum Bulk Stations and Terminals (SIC 5171)**—Establishments primarily engaged in wholesaling petroleum products, including liquefied petroleum gas, from bulk liquid storage facilities.

**Petroleum and Petroleum Products Wholesalers, Except Bulk Stations and Terminals (SIC 5172)**[1]—Establishments primarily engaged in wholesaling petroleum and petroleum products, except those with bulk liquid storage facilities. Included are packaged and bottled petroleum products distributors, truck jobbers, and others marketing petroleum and products at wholesale but without bulk liquid storage facilities.

[1] Data for this kind of business are not shown separately but are included in the group total.

## BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES (SIC 518)

**Beer and Ale (SIC 5181)**—Establishments primarily engaged in the wholesale distribution of beer, ale, porter, and other fermented malt beverages.

**Wines and Distilled Alcoholic Beverages (SIC 5182)**—Establishments primarily engaged in the wholesale distribution of distilled spirits, including neutral spirits and ethyl alcohol used in blending wines and distilled liquors.

## MISCELLANEOUS NONDURABLE GOODS (SIC 519)

**Farm Supplies (SIC 5191)**[1]—Establishments primarily engaged in the wholesale distribution of animal feeds, fertilizers, agricultural chemicals, pesticides, seeds, and other farm supplies, except grains.

**Tobacco and Tobacco Products (SIC 5194)**—Establishments primarily engaged in the wholesale distribution of tobacco and tobacco products. Leaf tobacco wholesalers are classified in industry 5159 and establishments primarily engaged in stemming and redrying tobacco in industry 2141.

**Paints, Varnishes, and Supplies (SIC 5198)**[1]—Establishments primarily engaged in the wholesale distribution of paints, varnishes, wallpaper, and supplies, and sometimes glass. Establishments selling to the general public and known as "retail" in the trade are classified in industry 5231.

**Books, Periodicals, Newspapers (SIC 5199 pt.)**[1]—Establishments primarily engaged in the wholesale distribution of books, lithographed matter, magazines, newspapers, and all other forms of reading material.

**Nondurable Goods, Not Elsewhere Classified (SIC 5199 pt.)**[1]—Establishments primarily engaged in the wholesale distribution of nondurable goods, not elswhere classified, such as art goods, flowers and florist supplies, industrial yarn, textile bags, bagging and burlap.

## CHANGES IN WHOLESALE KIND-OF-BUSINESS CLASSIFICATIONS IN 1972 FROM 1967

The wholesale trade kind-of-business structure was expanded from one SIC major group (SIC 50) in 1967 to two major groups in 1972, "durable goods" (SIC 50) and "nondurable goods" (SIC 51). There were 61 four-digit industries in 1972 compared to 48 four-digit industries in 1967.

The definitions of some kinds of business also were changed in 1972. Establishments primarily selling farm supplies and equipment to farmers, and establishments primarily selling

plumbing, heating, and air-conditioning equipment and electrical supplies were classified in wholesale trade rather than retail trade. However, establishments primarily selling lumber and other building materials and paint, glass, and wallpaper were classified in retail trade if they sell to the public, even though sales to contractors account for a larger portion of the total. The change resulted in moving to wholesale trade those establishments primarily selling plumbing, heating, and air-conditioning equipment; electrical supplies; farm equipment; hay, grain, and feed; and other farm supplies. The change also theoretically could have shifted to wholesale trade some establishments primarily selling lumber and paint, glass and wallpaper to contractors, but not to the public.

In addition to the kind-of-business changes noted above the special nonmerchant classifications of farm assemblers and bulk petroleum were eliminated in the 1972 census. These establishments were classified in the appropriate merchant, or sales branch category.

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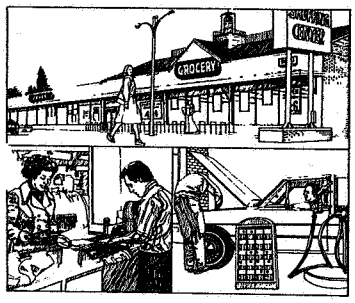
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CURRENT BUSINESS REPORTS

# Monthly Retail Trade

## SALES AND INVENTORIES

Issued June 1981

## April 1981

BR-81-04

**Sales.** Total sales of all retail stores in the United States for April 1981, adjusted for seasonal variations and trading-day differences but not for price changes, were estimated at $85.7 billion. This adjusted figure was about 2 percent below March 1981 but was 12 percent above April 1980. Excluding the automotive group, these estimates showed little change from March 1981 but were 11 percent above April 1980. The adjusted February-April total was 3 percent above the prior 3 months and 12 percent above the comparable period a year ago.

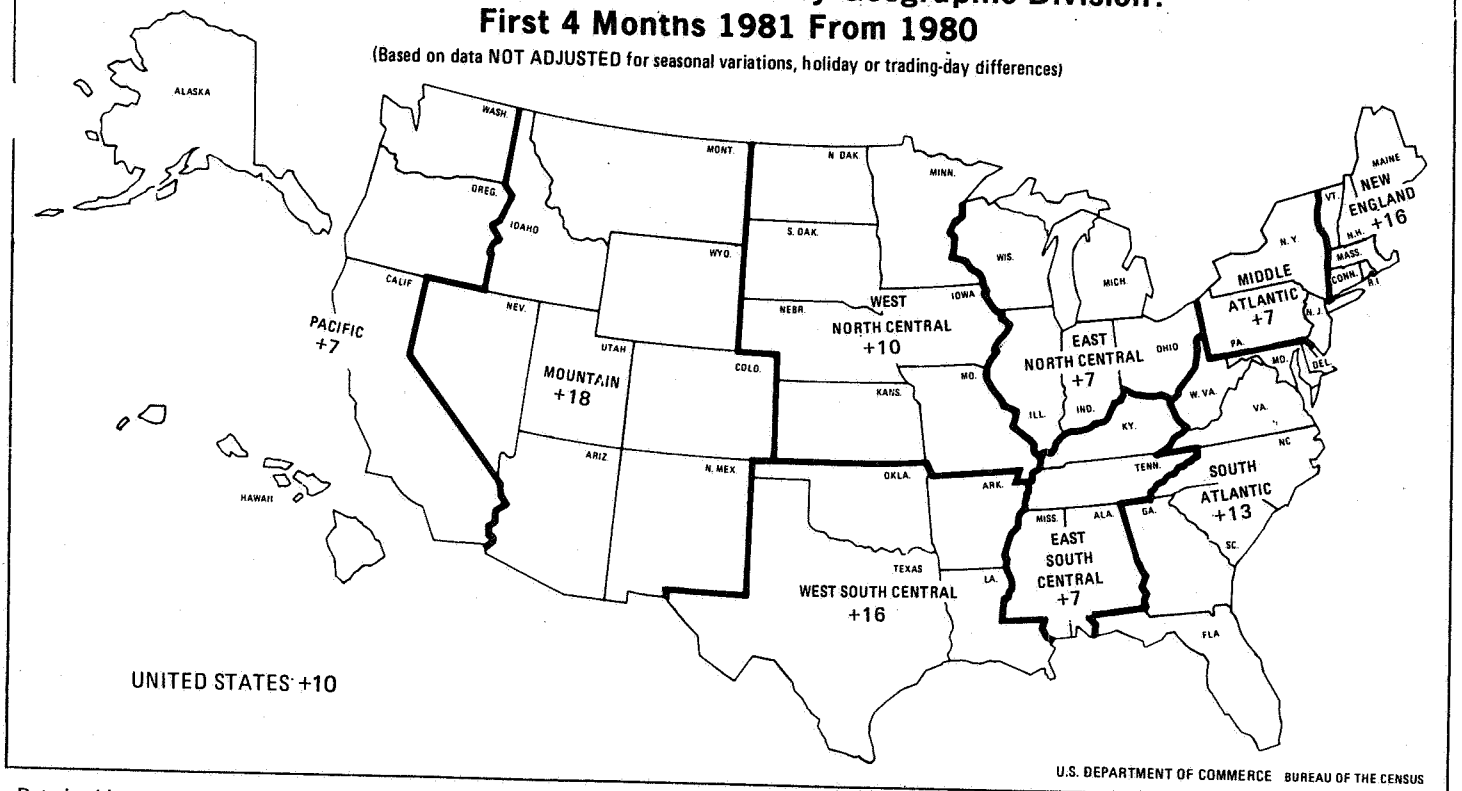
Adjusted sales of durable goods decreased 8 percent from March 1981 but increased 14 percent from April 1980. In comparison with April 1980, total adjusted sales of the groups of stores in the durable goods stores category were as follows: automotive dealers, up 16 percent; building materials, hardware, garden supply, and mobile home dealers, up 15 percent; and furniture, home furnishings, and equipment stores, up 9 percent.

Adjusted sales of nondurable goods stores showed little change from March 1981 but increased 11 percent from April 1980. In comparison with April 1980, total adjusted sales of the groups of stores in the nondurable goods category were as follows: general merchandise group stores, up 14 percent; food stores, up 11 percent; eating and drinking places, up 11 percent; and apparel and accessory stores, up 10 percent.

Based on unadjusted data, the four regions of the United States had total sales of all retail stores for April 1981 and year-ago comparisons as follows: the Northeastern States, $17.3 billion, up 11 percent; the North Central States, $21.7 billion, up 12 percent; the South, $29.3 billion, up 17 percent; the West, $17.4 billion, up 14 percent.

### Percent Change in Retail Sales by Geographic Division: First 4 Months 1981 From 1980

(Based on data NOT ADJUSTED for seasonal variations, holiday or trading-day differences)




Data in this report are based on a sample and, therefore, are subject to sampling and nonsampling errors. A discussion of the reliability of the data is in appendix B. Inquiries concerning this report should be addressed to **Irving True**, Business Division, Bureau of the Census, Washington, D.C. 20233. Telephone (301) 763-7128/7129.

U.S. Department of Commerce
BUREAU OF THE CENSUS

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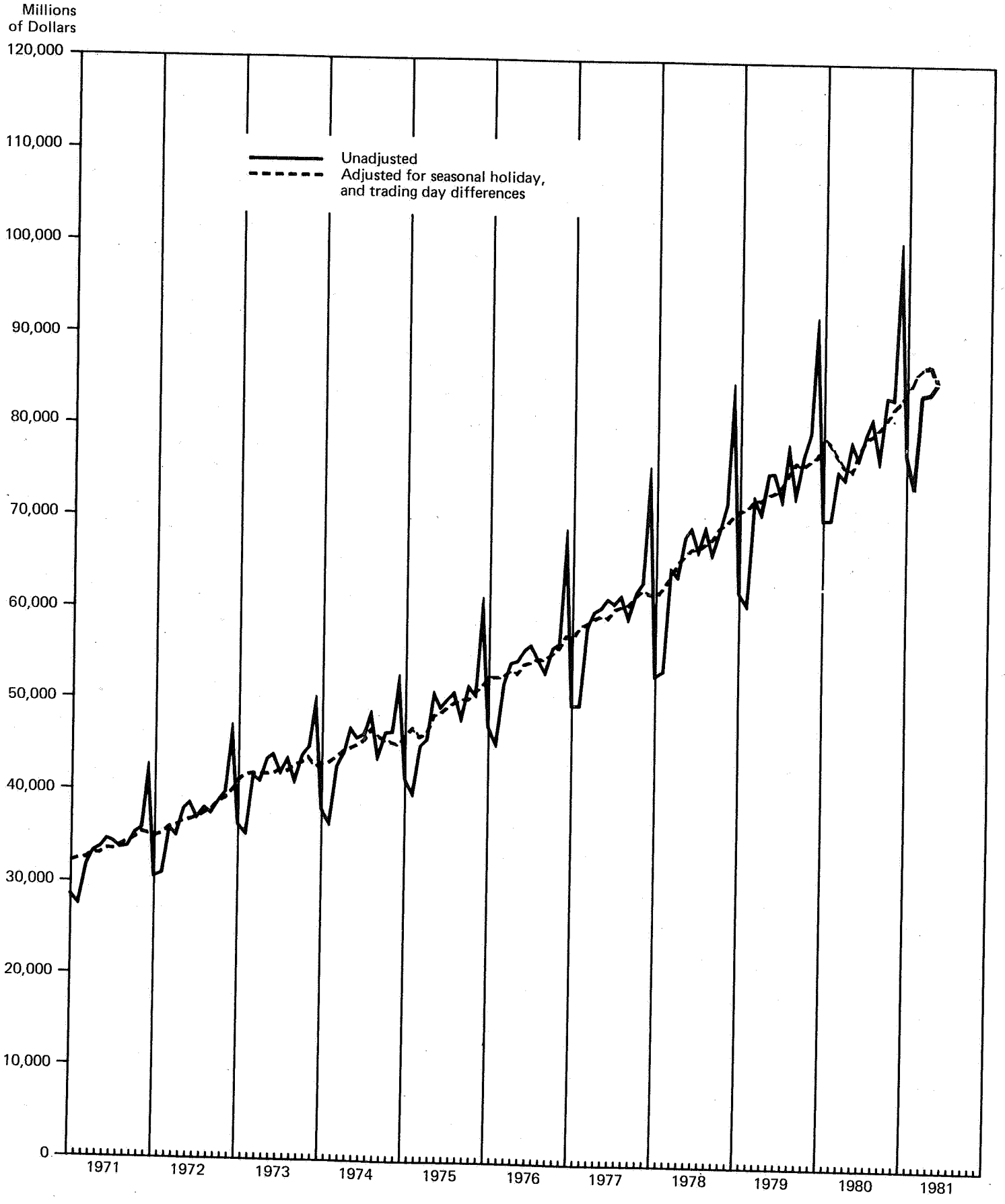
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Figure 1. **Estimated Monthly Retail Sales for the United States: January 1971—April 1981**



# Table 1. Estimated Monthly Retail Sales by Kind of Business for the United States

| 1972 SIC CODE | KIND OF BUSINESS | 1981 JAN. | 1981 FEB. | 1981 MAR. | 1981 APR.P | 1980 APR. | 1980 MAY | 1980 JUNE | 1980 JULY | 1980 AUG. | 1980 SEPT. | 1980 OCT. | 1980 NOV. | 1980 DEC. | TOTAL 4 MONTHS 1981 | TOTAL 4 MONTHS 1980 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | DATA IN MILLIONS OF DOLLARS, NOT ADJUSTED FOR SEASONAL VARIATIONS, HOLIDAY OR TRADING-DAY DIFFERENCES | | | | | | | | | | | | | | | |
| | RETAIL TRADE, TOTAL | 77,361 | 74,321 | 84,652 | 85,662 | 75,154 | 79,202 | 77,366 | 79,860 | 81,740 | 77,579 | 84,000 | 83,816 | 100755 | 321,996 | 292,337 |
| | TOTAL (EXCL. AUTO. GROUP) | 64,010 | 59,951 | 67,316 | 69,457 | 61,559 | 65,715 | 63,268 | 64,684 | 67,529 | 64,090 | 68,973 | 70,569 | 87,739 | 260,734 | 237,071 |
| | DURABLE GOODS, TOTAL | 23,239 | 23,857 | 28,295 | 27,604 | 23,652 | 24,247 | 24,747 | 26,032 | 25,256 | 24,506 | 26,698 | 25,121 | 28,093 | 102,995 | 93,226 |
| 52 | BLDG. MAT., HARDWARE, GARDEN SUPPLY & MOBILE HOME DEALERS | 3,351 | 3,359 | 4,043 | 4,533 | 3,899 | 4,287 | 4,259 | 4,247 | 4,289 | 4,434 | 4,672 | 4,152 | 3,971 | 15,286 | 13,899 |
| 521,3,5 | BLDG. MAT., SUPPLY, HARDWARE | 2,925 | 2,898 | 3,440 | 3,809 | 3,294 | 3,585 | 3,608 | 3,699 | 3,712 | 3,857 | 4,090 | 3,595 | 3,441 | 13,072 | 11,838 |
| 521,3 | BLDG. MAT., & SUPPLY STORES | 2,360 | 2,360 | 2,785 | 3,034 | 2,647 | 2,865 | 2,942 | 3,028 | 3,071 | 3,215 | 3,398 | 2,936 | 2,616 | 10,539 | 9,611 |
| 525 | HARDWARE STORES | 565 | 538 | 655 | 775 | 647 | 720 | 666 | 671 | 641 | 642 | 692 | 659 | 825 | 2,533 | 2,227 |
| 55 EX 554 | AUTOMOTIVE DEALERS | 13,351 | 14,370 | 17,336 | 16,205 | 13,595 | 13,487 | 14,098 | 15,176 | 14,211 | 13,489 | 15,027 | 13,247 | 13,016 | 61,262 | 55,266 |
| 551,2,5 / 6,7,9 | MOTOR VEHICLE AND MISC. AUTOMOTIVE DEALERS | 11,926 | 13,011 | 15,745 | 14,523 | 12,037 | 11,924 | 12,542 | 13,527 | 12,600 | 11,965 | 13,330 | 11,699 | 11,365 | 55,205 | 49,847 |
| 551,2 | MOTOR VEHICLE DEALERS | 11,470 | 12,508 | 14,871 | 13,372 | 11,129 | 10,983 | 11,575 | 12,570 | 11,742 | 11,237 | 12,709 | 11,266 | 10,911 | 52,221 | 47,088 |
| 551 | MOTOR VEH. (FRANCHISED) | 10,726 | 11,711 | 13,982 | 12,434 | 10,345 | 10,108 | 10,659 | 11,654 | 10,840 | 10,450 | 11,926 | 10,492 | 10,218 | 48,853 | 43,964 |
| 553 | AUTO & HOME SUPPLY STORES | 1,425 | 1,359 | 1,591 | 1,682 | 1,558 | 1,563 | 1,556 | 1,649 | 1,611 | 1,524 | 1,697 | 1,548 | 1,651 | 6,057 | 5,419 |
| 57 | FURNITURE,HOME FURN.&EQUIP STRS. | 3,616 | 3,351 | 3,716 | 3,619 | 3,326 | 3,444 | 3,389 | 3,636 | 3,712 | 3,626 | 3,822 | 4,048 | 4,905 | 14,302 | 13,336 |
| 571 | FURNITURE & HOME FURN. STORES | 2,152 | 2,020 | 2,260 | 2,249 | 2,048 | 2,123 | 2,053 | 2,172 | 2,244 | 2,170 | 2,309 | 2,421 | 2,566 | 8,681 | 8,170 |
| 5712 | FURNITURE STORES | 1,462 | 1,366 | 1,510 | 1,541 | 1,337 | 1,416 | 1,344 | 1,451 | 1,508 | 1,417 | 1,524 | 1,634 | 1,683 | 5,879 | 5,458 |
| 5722,32 | HOUSEHOLD APPLIANCE,RADIO& TV. | 1,074 | 976 | 1,088 | 1,038 | 956 | 1,006 | 1,044 | 1,139 | 1,119 | 1,083 | 1,126 | 1,207 | 1,634 | 4,176 | 3,832 |
| 5722 | HOUSEHOLD APPLIANCE STORES | 503 | 430 | 484 | 458 | 497 | 540 | 547 | 630 | 552 | 516 | 553 | 584 | 693 | 1,875 | 1,910 |
| 5944 | JEWELRY STORES | 451 | 479 | 476 | 532 | 427 | 505 | 458 | 420 | 450 | 445 | 515 | 649 | 1,678 | 1,938 | 1,768 |
| | NONDURABLE GOODS, TOTAL | 54,122 | 50,464 | 56,357 | 58,058 | 51,502 | 54,955 | 52,619 | 53,828 | 56,484 | 53,073 | 57,302 | 58,695 | 72,662 | 219,001 | 199,111 |
| 53 | GENERAL MDSE. GROUP STORES | 7,279 | 7,160 | 8,972 | 9,934 | 8,614 | 9,476 | 8,713 | 8,630 | 9,640 | 8,923 | 10,105 | 11,821 | 18,365 | 33,345 | 30,614 |
| 531,9 | DEPT. STORES, MISC. GEN. MDSE. | 6,713 | 6,603 | 8,309 | 9,156 | 7,902 | 8,739 | 8,034 | 7,951 | 8,899 | 8,288 | 9,370 | 11,034 | 16,968 | 30,781 | 28,148 |
| 531 | DEPARTMENT STORES[1] | 5,873 | 5,783 | 7,337 | 8,087 | 6,927 | 7,682 | 7,066 | 6,974 | 7,834 | 7,299 | 8,198 | 9,642 | 14,859 | 27,080 | 24,631 |
| 539 | MISC. GEN. MDSE. STORES | 840 | 820 | 972 | 1,069 | 975 | 1,057 | 968 | 977 | 1,065 | 989 | 1,172 | 1,392 | 2,109 | 3,701 | 3,517 |
| 533 | VARIETY STORES | 566 | 557 | 663 | 778 | 712 | 737 | 679 | 679 | 741 | 635 | 735 | 787 | 1,397 | 2,564 | 2,466 |
| 54 | FOOD STORES | 19,195 | 17,477 | 18,837 | 19,425 | 17,223 | 18,756 | 17,638 | 18,640 | 19,115 | 17,712 | 18,853 | 18,485 | 20,212 | 74,934 | 68,100 |
| 541 | GROCERY STORES | 17,830 | 16,133 | 17,410 | 17,817 | 15,951 | 17,478 | 16,356 | 17,343 | 17,812 | 16,474 | 17,561 | 17,195 | 18,506 | 69,190 | 63,340 |
| 546 | RETAIL BAKERIES | 271 | 266 | 270 | 261 | 255 | 268 | 254 | 259 | 269 | 249 | 279 | 303 | 309 | 1,068 | 948 |
| 554 | GASOLINE SERVICE STATIONS | 8,047 | 7,616 | 8,380 | 8,428 | 7,619 | 8,008 | 8,254 | 8,504 | 8,470 | 7,982 | 8,244 | 7,951 | 8,350 | 32,471 | 28,707 |
| 56 | APPAREL & ACCESSORY STORES | 3,279 | 2,911 | 3,448 | 3,982 | 3,475 | 3,523 | 3,295 | 3,263 | 3,913 | 3,586 | 3,931 | 4,179 | 6,335 | 13,620 | 12,462 |
| 561 | MENS&BOYS CLOTHING,FURNISHINGS | 565 | 494 | 552 | 628 | 574 | 615 | 633 | 563 | 683 | 608 | 702 | 801 | 1,283 | 2,239 | 2,137 |
| 562,3,8 | WOMEN'S CLOTHING SPEC.,FURRIER | 1,258 | 1,141 | 1,355 | 1,539 | 1,337 | 1,358 | 1,223 | 1,272 | 1,468 | 1,409 | 1,546 | 1,582 | 2,339 | 5,293 | 4,794 |
| 562 | WOMENS READY-TO-WEAR | 1,141 | 1,042 | 1,260 | 1,437 | 1,231 | 1,247 | 1,124 | 1,176 | 1,354 | 1,306 | 1,430 | 1,460 | 2,153 | 4,880 | 4,396 |
| 565 | FAMILY CLOTHING STORES | 644 | 567 | 668 | 791 | 681 | 714 | 666 | 684 | 836 | 685 | 785 | 840 | 1,456 | 2,670 | 2,461 |
| 566 | SHOE STORES | 614 | 530 | 665 | 820 | 697 | 656 | 604 | 577 | 724 | 693 | 724 | 750 | 942 | 2,629 | 2,370 |
| 58 | EATING AND DRINKING PLACES | 7,065 | 6,742 | 7,710 | 7,905 | 7,052 | 7,488 | 7,475 | 7,635 | 7,920 | 7,276 | 7,518 | 7,142 | 7,510 | 29,422 | 26,648 |
| 5812 | EATING PLACES | 6,200 | 5,910 | 6,826 | 7,009 | 6,208 | 6,600 | 6,601 | 6,754 | 7,020 | 6,444 | 6,604 | 6,245 | 6,573 | 25,945 | 23,446 |
| 5812 PART | RESTAURANTS,LUNCHROOMS,CAFE. | 3,883 | 3,684 | 4,272 | 4,379 | 3,915 | 4,070 | 4,031 | 4,110 | 4,245 | 3,922 | 4,071 | 3,848 | 4,012 | 16,218 | 14,929 |
| 5812 PART | REFRESHMENT PLACES | 2,262 | 2,172 | 2,485 | 2,563 | 2,211 | 2,432 | 2,466 | 2,564 | 2,688 | 2,442 | 2,457 | 2,326 | 2,474 | 9,482 | 8,241 |
| 5813 | DRINKING PLS. (ALCOHOLIC BEV). | 865 | 832 | 884 | 896 | 844 | 888 | 874 | 881 | 900 | 832 | 914 | 897 | 937 | 3,477 | 3,202 |
| 591 | DRUG & PROPRIETARY STORES | 2,722 | 2,530 | 2,701 | 2,762 | 2,483 | 2,598 | 2,499 | 2,518 | 2,563 | 2,507 | 2,693 | 2,655 | 3,775 | 10,715 | 9,749 |
| 592 | LIQUOR STORES | 1,275 | 1,195 | 1,247 | 1,287 | 1,269 | 1,394 | 1,348 | 1,398 | 1,420 | 1,277 | 1,347 | 1,407 | 1,926 | 5,004 | 5,039 |
| 596 | NONSTORE RETAILERS | 1,620 | 1,802 | 2,104 | 1,990 | 1,724 | 1,772 | 1,681 | 1,705 | 1,827 | 1,996 | 2,474 | 2,637 | 2,683 | 7,516 | 6,767 |
| 53, 56 / 57, 594 / 5961 PT | GAF PLUS MAIL-ORDER HOUSES (DEPT. STORE MDSE.)[3] | 16,696 | 15,852 | 18,864 | 20,399 | 17,879 | 19,050 | 17,970 | 18,090 | 19,932 | 18,777 | 20,846 | 23,560 | 35,596 | 71,811 | 65,960 |
| 53, 56 / 57, 594 | GAF, TOTAL[3] | 16,308 | 15,445 | 18,346 | 19,910 | 17,465 | 18,650 | 17,572 | 17,672 | 19,497 | 18,319 | 20,215 | 22,884 | 34,909 | 70,009 | 64,350 |
| | DATA IN MILLIONS OF DOLLARS, ADJUSTED FOR SEASONAL VARIATIONS, HOLIDAY AND TRADING-DAY DIFFERENCES | | | | | | | | | | | | | | | |
| | RETAIL TRADE, TOTAL | 85,463 | 86,810 | 87,608 | 85,745 | 76,404 | 75,975 | 77,843 | 79,491 | 79,829 | 80,620 | 81,552 | 82,764 | 83,443 | 345,626 | 312,467 |
| | TOTAL (EXCL. AUTO GROUP) | 70,498 | 70,495 | 71,278 | 71,242 | 63,896 | 63,833 | 64,669 | 65,040 | 65,889 | 66,447 | 67,294 | 68,171 | 69,030 | 283,513 | 256,302 |
| | DURABLE GOODS, TOTAL | 27,075 | 28,328 | 28,429 | 26,273 | 23,011 | 22,544 | 23,589 | 25,071 | 24,593 | 25,094 | 25,293 | 26,007 | 25,983 | 110,105 | 99,579 |
| 52 | BLDG. MAT., HARDWARE, GARDEN SUPPLY & MOBILE HOME DEALERS | 4,596 | 4,596 | 4,481 | 4,434 | 3,846 | 3,828 | 3,792 | 3,808 | 3,844 | 4,039 | 4,084 | 4,251 | 4,261 | 18,107 | 16,430 |
| 521,3 | BLDG. MAT., & SUPPLY STORES | 3,246 | 3,233 | 3,126 | 3,083 | 2,715 | 2,698 | 2,634 | 2,633 | 2,670 | 2,820 | 2,863 | 2,963 | 2,963 | 12,688 | 11,537 |
| 525 | HARDWARE STORES | 731 | 738 | 731 | 736 | 614 | 626 | 622 | 634 | 633 | 639 | 646 | 662 | 689 | 2,936 | 2,568 |
| 55 EX 554 | AUTOMOTIVE DEALERS | 14,965 | 16,315 | 16,330 | 14,503 | 12,508 | 12,142 | 13,174 | 14,451 | 13,940 | 14,173 | 14,258 | 14,593 | 14,413 | 62,113 | 56,165 |
| 551,2,5 / 6,7,9 | MOTOR VEHICLE AND MISC. AUTOMOTIVE DEALERS | 13,355 | 14,603 | 14,688 | 12,909 | 11,013 | 10,646 | 11,689 | 12,871 | 12,389 | 12,661 | 12,695 | 13,042 | 12,827 | 55,555 | 50,332 |
| 553 | AUTO & HOME SUPPLY STORES | 1,610 | 1,712 | 1,642 | 1,594 | 1,495 | 1,496 | 1,485 | 1,580 | 1,551 | 1,512 | 1,563 | 1,551 | 1,586 | 6,558 | 5,833 |
| 57 | FURNITURE,HOME FURN.&EQUIP STRS. | 4,016 | 3,888 | 3,897 | 3,833 | 3,524 | 3,524 | 3,484 | 3,626 | 3,628 | 3,702 | 3,682 | 3,802 | 3,817 | 15,634 | 14,431 |
| 571 | FURNITURE & HOME FURN. STORES | 2,404 | 2,319 | 2,313 | 2,307 | 2,109 | 2,115 | 2,059 | 2,144 | 2,168 | 2,233 | 2,210 | 2,267 | 2,241 | 9,343 | 8,716 |
| 5722,32 | HOUSEHOLD APPLIANCE,RADIO& TV. | 1,201 | 1,163 | 1,185 | 1,156 | 1,051 | 1,055 | 1,084 | 1,130 | 1,099 | 1,097 | 1,093 | 1,137 | 1,151 | 4,705 | 4,257 |
| | NONDURABLE GOODS, TOTAL | 58,388 | 58,482 | 59,179 | 59,472 | 53,393 | 53,431 | 54,254 | 54,420 | 55,236 | 55,526 | 56,259 | 56,757 | 57,460 | 235,521 | 212,888 |
| 53 | GENERAL MDSE. GROUP STORES | 9,994 | 10,306 | 10,306 | 10,534 | 9,266 | 9,410 | 9,417 | 9,506 | 9,722 | 9,649 | 9,940 | 10,025 | 10,093 | 41,140 | 37,652 |
| 531 | DEPARTMENT STORES[1] | 8,078 | 8,381 | 8,443 | 8,603 | 7,489 | 7,629 | 7,622 | 7,715 | 7,905 | 7,840 | 8,045 | 8,171 | 8,146 | 33,505 | 30,416 |
| 533 | VARIETY STORES | 775 | 770 | 762 | 783 | 726 | 736 | 736 | 731 | 740 | 722 | 739 | 732 | 738 | 3,090 | 2,955 |
| 539 | MISC. GEN. MDSE. STORES | 1,141 | 1,155 | 1,101 | 1,148 | 1,051 | 1,045 | 1,059 | 1,060 | 1,077 | 1,087 | 1,156 | 1,122 | 1,209 | 4,545 | 4,281 |
| 54 | FOOD STORES | 19,072 | 19,112 | 19,522 | 19,711 | 17,725 | 17,591 | 17,953 | 18,088 | 18,405 | 18,577 | 18,592 | 18,808 | 19,098 | 77,417 | 69,947 |
| 541 | GROCERY STORES | 17,601 | 17,632 | 18,098 | 18,162 | 16,478 | 16,365 | 16,690 | 16,805 | 17,078 | 17,250 | 17,267 | 17,457 | 17,709 | 71,493 | 65,059 |
| 554 | GASOLINE SERVICE STATIONS | 8,497 | 8,596 | 8,613 | 8,530 | 7,727 | 7,737 | 7,983 | 7,918 | 7,998 | 7,990 | 8,090 | 8,130 | 8,284 | 34,236 | 30,029 |
| 56 | APPAREL & ACCESSORY STORES | 3,945 | 4,022 | 3,947 | 3,943 | 3,574 | 3,633 | 3,687 | 3,675 | 3,785 | 3,724 | 3,771 | 3,777 | 3,789 | 15,857 | 14,419 |
| 561 | MENS&BOYS CLOTHING,FURNISHINGS | 642 | 681 | 660 | 653 | 613 | 654 | 679 | 674 | 736 | 699 | 702 | 683 | 666 | 2,636 | 2,509 |
| 562,3,8 | WOMEN'S CLOTHING,SPEC.,FURRIER | 1,549 | 1,557 | 1,502 | 1,555 | 1,393 | 1,387 | 1,399 | 1,404 | 1,435 | 1,416 | 1,431 | 1,438 | 1,450 | 6,163 | 5,548 |
| 566 | SHOE STORES | 728 | 755 | 745 | 724 | 648 | 664 | 667 | 663 | 677 | 670 | 672 | 687 | 677 | 2,952 | 2,635 |
| 58 | EATING & DRINKING PLACES | 7,885 | 7,876 | 8,006 | 7,850 | 7,102 | 7,044 | 7,085 | 7,096 | 7,135 | 7,276 | 7,371 | 7,416 | 7,563 | 31,617 | 28,495 |
| 591 | DRUG & PROPRIETARY STORES | 2,815 | 2,768 | 2,770 | 2,824 | 2,549 | 2,580 | 2,587 | 2,604 | 2,623 | 2,667 | 2,742 | 2,760 | 2,755 | 11,177 | 10,110 |
| 592 | LIQUOR STORES | 1,390 | 1,404 | 1,386 | 1,403 | 1,390 | 1,379 | 1,371 | 1,346 | 1,367 | 1,348 | 1,369 | 1,371 | 1,386 | 5,583 | 5,595 |

Note: U.S. and group totals include kinds of business not shown separately. Sampling variabilities for unadjusted data are shown in appendix B, table 1.

P Preliminary estimates (appendix B, table B-7 contains measures of revisions to preliminary estimates.)

[1] Beginning with February 1979, data may include a mixture of mail-order and department store sales reported on a combined basis by some firms. [2] Includes establishments primarily selling merchandise through coin-operated vending machines, by house-to-house canvass, and from mail-order. [3] GAF represents stores which specialize in department store types of merchandise (see appendix A). Beginning with February 1979, data for mail-order catalog desks located within department stores of some mail-order firms are included in the department store estimates.

# Table 2. Percent Change in Estimated Monthly Retail Sales by Kind of Business for the United States

| 1972 SIC CODE | KIND OF BUSINESS | PERCENT CHANGE IN TOTAL RETAIL SALES | | | 1972 SIC CODE | KIND OF BUSINESS | PERCENT CHANGE IN TOTAL RETAIL SALES | | |
|---|---|---|---|---|---|---|---|---|---|
| | | APR. 1981 FROM-- | | 4 MOS. 1981 FROM 4 MOS. 1980 | | | APR. 1981 FROM-- | | 4 MOS. 1981 FROM 4 MOS. 1980 |
| | | APR. 1980 | MAR. 1981 | | | | APR. 1980 | MAR. 1981 | |
| **DATA NOT ADJUSTED FOR SEASONAL VARIATIONS, HOLIDAY OR TRADING-DAY DIFFERENCES** | | | | | | | | | |
| | RETAIL TRADE, TOTAL | +14 | +1 | +10 | | NONDURABLE GOODS STORES, TOTAL--CONT'D | | | |
| | TOTAL (EXCL. AUTO. GROUP) | +13 | +3 | +10 | | | | | |
| | DURABLE GOODS STORES, TOTAL | +17 | -2 | +10 | 54 | FOOD STORES | +13 | +3 | +10 |
| | | | | | 541 | GROCERY STORES | +12 | +2 | +9 |
| 52 | BUILDING MATERIALS, HARDWARE, GARDEN SUPPLY, AND MOBILE HOMES DEALERS | +16 | +12 | +10 | 542 | MEAT AND FISH (SEAFOOD) MARKETS* | +25 | +10 | +22 |
| | | | | | 543 | FRUIT STORES & VEGETABLE MARKETS* | +11 | +10 | +11 |
| 521,3,5 | BLDG. MAT., SUPPLY, HARDWARE STORES. | +16 | +11 | +10 | 544 | CANDY, NUT, CONFECTIONERY STORES* | (NA) | (NA) | (NA) |
| 521,3 | BLDG. MATERIALS AND SUPPLY STORES. | +15 | +9 | +10 | 546 | RETAIL BAKERIES | +2 | -3 | +13 |
| 523 | PAINT, GLASS, WALLPAPER STORES*. | +13 | +3 | +11 | | | | | |
| 525 | HARDWARE STORES | +20 | +18 | +14 | 554 | GASOLINE SERVICE STATIONS | +11 | +1 | +13 |
| 55 EX 554 | AUTOMOTIVE DEALERS | +19 | -7 | +11 | | | | | |
| 551,2,5 6,7,9 | MOTOR VEHICLE AND MISC. AUTOMOTIVE DEALERS | +21 | -8 | +11 | 56 | APPAREL AND ACCESSORY STORES | +15 | +15 | +9 |
| 551,2 | MOTOR VEHICLE DEALERS | +20 | -10 | +11 | 561 | MENS & BOYS CLOTHING, FURNISHINGS | +9 | +14 | +5 |
| 551 | MOTOR VEHICLE DLRS.(FRANCHISED). | +20 | -11 | +11 | 562,3,8 | WOMEN'S CLOTH.,SPEC,STRS., FURRIERS. | +15 | +14 | +10 |
| 553 | AUTO AND HOME SUPPLY STORES | +8 | +6 | +12 | 562 | WOMEN'S READY-TO-WEAR STORES | +17 | +14 | +11 |
| | | | | | 565 | FAMILY CLOTHING STORES | +16 | +18 | +8 |
| 57 | FURNITURE,HOME FURN., & EQUIP. STORES. | +9 | -3 | +7 | 566 | SHOE STORES | +18 | +23 | +11 |
| 571 | FURNITURE, AND HOME FURN. STORES | +10 | 0 | +6 | 58 | EATING AND DRINKING PLACES | +12 | +3 | +10 |
| 5712 | FURNITURE STORES | +15 | +2 | +8 | 5812 | EATING PLACES | +13 | +3 | +11 |
| 5713 | FLOOR COVERINGS STORES* | -4 | -7 | -1 | 5812 PART | RESTAURANTS, LUNCHROOMS, CAFES | +12 | +3 | +9 |
| 5722,32 | HOUSEHOLD APPLIANCE, RADIO & TV | +9 | -5 | +9 | 5812 PART | REFRESHMENT PLACES | +16 | +3 | +15 |
| 5722 | HOUSEHOLD APPLIANCE STORES | -8 | -5 | -2 | 5813 | DRINKING PLACES (ALCOHOLIC BEVS.) | +6 | +1 | +9 |
| 5732 | RADIO AND TELEVISION STORES* | +26 | -4 | +20 | | | | | |
| 5733 | MUSIC STORES* | +3 | -10 | +8 | 591 | DRUG & PROPRIETARY STORES | +11 | +2 | +10 |
| 5941 | SPORTING GOODS STRS. & BICYCLE SHOPS*. | +14 | +17 | +9 | 592 | LIQUOR STORES | +1 | +3 | -1 |
| 5942 | BOOK STORES* | +9 | 0 | +10 | | | | | |
| 5944 | JEWELRY STORES | +25 | +12 | +10 | 5943 | STATIONERY STORES* | +11 | +4 | +12 |
| 5946 | CAMERA, PHOTOGRAPHIC SUPPLY STORES* | +4 | 0 | +7 | | | | | |
| 5999 PT. | OPTICAL GOODS STORES* | +40 | -3 | +38 | 596 | NONSTORE RETAILERS[2] | +15 | -5 | +11 |
| | NONDURABLE GOODS STORES, TOTAL | +13 | +3 | +10 | 598 | FUEL AND ICE DEALERS* | +20 | -29 | +11 |
| | | | | | 5983 | FUEL OIL DEALERS* | +23 | -30 | +7 |
| 53 | GENERAL MERCHANDISE GROUP STORES | +15 | +11 | +9 | 53, 56 | | | | |
| 531,9 | DEPT. STRS., MISC. GEN. MDSE. STRS. | +16 | +10 | +9 | 57,594 | GAF PLUS | | | |
| 531 | DEPARTMENT STORES[1] | +17 | +10 | +10 | 5961 PT | MAIL-ORDER HOUSES(DEPT. STR. MDSE.)[3] | +14 | +8 | +9 |
| 539 | MISC. GENERAL MDSE. STORES | +10 | +10 | +5 | 53, 56 | | | | |
| 533 | VARIETY STORES | +9 | +17 | +4 | 57,594 | GAF, TOTAL[3] | +14 | +9 | +9 |
| **DATA ADJUSTED FOR SEASONAL VARIATIONS, HOLIDAY AND TRADING-DAY DIFFERENCES** | | | | | | | | | |
| | RETAIL TRADE, TOTAL | +12 | -2 | +11 | | NONDURABLE GOODS STORES, TOTAL | +11 | 0 | +11 |
| | TOTAL (EX. AUTOMOTIVE GROUP) | +11 | 0 | +11 | 53 | GENERAL MERCHANDISE GROUP STORES | +14 | +2 | +9 |
| | | | | | 531 | DEPARTMENT STORES | +15 | +2 | +10 |
| | DURABLE GOODS STORES, TOTAL | +14 | -8 | +11 | 533 | VARIETY STORES | +8 | +3 | +5 |
| | | | | | 539 | MISC. GENERAL MDSE. STORES | +9 | +4 | +6 |
| 52 | BUILDING MATERIALS, HARDWARE, GARDEN SUPPLY, AND MOBILE HOMES DEALERS | +15 | -1 | +10 | 54 | FOOD STORES | +11 | +1 | +11 |
| | | | | | 541 | GROCERY STORES | +10 | 0 | +10 |
| 521,3 | BLDG. MATERIALS AND SUPPLY STORES. | +14 | -1 | +10 | | | | | |
| 525 | HARDWARE STORES | +20 | +1 | +14 | 554 | GASOLINE SERVICE STATIONS | +10 | -1 | +14 |
| 55 EX 554 | AUTOMOTIVE DEALERS | +16 | -11 | +11 | 56 | APPAREL AND ACCESSORY STORES | +10 | 0 | +10 |
| 551,2,5 6,7,9 | MOTOR VEHICLE AND MISC. AUTOMOTIVE DEALERS | | | | 561 | MENS & BOYS CLOTHING, FURNISHINGS | +7 | -1 | +5 |
| 553 | AUTO AND HOME SUPPLY STORES | +17 | -12 | +10 | 562,3,8 | WOMEN'S CLOTH.,SPEC.STRS., FURRIERS. | +12 | +4 | +11 |
| | | +7 | -3 | +12 | 566 | SHOE STORES | +12 | -3 | +12 |
| 57 | FURNITURE,HOME FURN., & EQUIP. STORES. | +9 | -2 | +8 | | | | | |
| 571 | FURNITURE, AND HOME FURN. STORES | +9 | 0 | +7 | 58 | EATING AND DRINKING PLACES | +11 | -2 | +11 |
| 5722,32 | HSHD. APPL., RADIO AND TV. STORES | +10 | -2 | +11 | 591 | DRUG & PROPRIETARY STORES | +11 | +2 | +11 |
| | | | | | 592 | LIQUOR STORES | +1 | +1 | 0 |

Note: Sampling variabilities for unadjusted data are shown in appendix B, table B-1.

*See appendix A, "Percent Change in Sales."

[1]Beginning with February 1979, data may include a mixture of mail-order and department store sales reported on a combined basis by some firms. [2]Includes establishments primarily selling merchandise through coin-operated vending machines, by house-to-house canvass, and from mail-order. [3]GAF represents stores which specialize in department store types of merchandise (see appendix A). Beginning with February 1979, data for mail-order catalog desks located within department stores of some mail-order firms are included in the department store estimates.

NA Not available.

# Table 2A. Month-to-Month and Long-Term Percent Changes in Total Retail Sales

(Based on seasonally adjusted data)

| Item | Month-to-month percent change | | | 3-month percent change | | Average monthly rates of changes | | |
|---|---|---|---|---|---|---|---|---|
| | Apr. 1981 from Mar. 1981 | Mar. 1981 from Feb. 1981 | Feb. 1981 from Jan. 1981 | Feb. 1981 through Apr. 1981 from-- Nov. 1980 through Jan. 1981 | Feb. 1980 through Apr. 1980 | Apr. 1981 from Jan. 1981 | Apr. 1981 from Oct. 1980 | Apr. 1981 from Apr. 1980 |
| Retail trade, total | -2 | +1 | +2 | +3 | +12 | +0.1 | +0.9 | +1.0 |
| Durable goods stores, total | -8 | 0 | +5 | +5 | +13 | -1.0 | +0.6 | +1.2 |
| Nondurable goods stores, total | 0 | +1 | 0 | +3 | +11 | +0.6 | +1.0 | +0.9 |

## Table 3. Estimated Monthly Retail Sales of Group II Companies by Kind of Business for the United States

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | | | | 1980 | | | | | | | | | PERCENT CHANGE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | APR. 1981 FROM-- | | 4 MOS. 1981 FROM 4 MOS. 1980 |
| | | JAN. | FEB. | MAR. | APR.[p] | APR. | MAY | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. | APR. 1980 | MAR. 1981 | |
| | | DATA IN MILLIONS OF DOLLARS, NOT ADJUSTED FOR SEASONAL VARIATIONS, HOLIDAY OR TRADING-DAY DIFFERENCES | | | | | | | | | | | | | | | |
| | RETAIL TRADE, TOTAL..... | 25,080 | 23,689 | 27,291 | 28,725 | 24,983 | 26,939 | 25,215 | 25,841 | 27,678 | 25,927 | 28,491 | 30,205 | 39,694 | +15 | +5 | +11 |
| | DURABLE GOODS, TOTAL..... | 1,606 | 1,565 | 1,863 | 2,033 | 1,792 | 1,938 | 1,887 | 1,910 | 1,935 | 1,904 | 2,057 | 2,175 | 3,101 | +13 | +9 | +9 |
| 553 | AUTO & HOME SUPPLY STORES..... | 260 | 250 | 288 | 321 | 302 | 303 | 305 | 313 | 306 | 293 | 321 | 303 | 320 | +6 | +11 | +8 |
| | NONDURABLE GOODS, TOTAL... | 23,474 | 22,124 | 25,428 | 26,692 | 23,191 | 25,001 | 23,328 | 23,931 | 25,743 | 24,023 | 26,434 | 28,030 | 36,593 | +15 | +5 | +11 |
| 53 | GENERAL MDSE. GROUP STORES.... | 6,314 | 6,268 | 7,955 | 8,767 | 7,514 | 8,302 | 7,642 | 7,546 | 8,477 | 7,842 | 8,837 | 10,448 | 16,193 | +17 | +10 | +10 |
| 531 | DEPARTMENT STORES..... | 5,564 | 5,491 | 6,977 | 7,670 | 6,559 | 7,280 | 6,700 | 6,616 | 7,438 | 6,914 | 7,757 | 9,127 | 14,054 | +17 | +10 | +10 |
| 533 | VARIETY STORES..... | 414 | 416 | 511 | 592 | 523 | 542 | 501 | 500 | 555 | 482 | 551 | 610 | 1,085 | +13 | +16 | +7 |
| 539 | MISC. GENERAL MDSE. STORES.. | 336 | 361 | 467 | 505 | 432 | 480 | 441 | 430 | 484 | 446 | 529 | 711 | 1,054 | +17 | +8 | +9 |
| 54 | FOOD STORES..... | 10,281 | 9,207 | 9,883 | 10,120 | 8,890 | 9,761 | 9,003 | 9,608 | 9,898 | 9,209 | 9,940 | 9,764 | 10,652 | +14 | +2 | +12 |
| 541 | GROCERY STORES..... | 10,153 | 9,058 | 9,743 | 9,930 | 8,775 | 9,653 | 8,897 | 9,497 | 9,788 | 9,105 | 9,832 | 9,653 | 10,486 | +13 | +2 | +11 |
| 56 | APPAREL & ACCESSORY STORES.... | 979 | 926 | 1,206 | 1,455 | 1,196 | 1,200 | 1,107 | 1,068 | 1,404 | 1,227 | 1,354 | 1,468 | 2,312 | +22 | +21 | +12 |
| 562,3,8 | WOMEN'S CLOTHING,SPEC.,FURS. | 384 | 384 | 501 | 590 | 491 | 503 | 450 | 467 | 554 | 496 | 555 | 595 | 912 | +20 | +18 | +12 |
| 562 | WOMEN'S READY-TO-WEAR..... | 371 | 373 | 488 | 575 | 478 | 491 | 439 | 455 | 539 | 481 | 540 | 580 | 888 | +20 | +18 | +12 |
| 565 | FAMILY CLOTHING STORES..... | 240 | 216 | 276 | 328 | 264 | 282 | 270 | 259 | 347 | 282 | 325 | 359 | 630 | +24 | +19 | +16 |
| 566 | SHOE STORES..... | 251 | 235 | 311 | 404 | 332 | 297 | 269 | 242 | 345 | 325 | 332 | 343 | 460 | +22 | +30 | +10 |
| 5812 | EATING PLACES..... | 1,413 | 1,336 | 1,548 | 1,542 | 1,398 | 1,457 | 1,409 | 1,493 | 1,567 | 1,427 | 1,502 | 1,447 | 1,505 | +10 | 0 | +12 |
| 591 | DRUG & PROPRIETARY STORES..... | 1,317 | 1,226 | 1,344 | 1,392 | 1,211 | 1,286 | 1,237 | 1,260 | 1,292 | 1,233 | 1,297 | 1,330 | 2,055 | +15 | +4 | +13 |
| | | DATA IN MILLIONS OF DOLLARS, ADJUSTED FOR SEASONAL VARIATIONS, HOLIDAY AND TRADING-DAY DIFFERENCES | | | | | | | | | | | | | | | |
| | RETAIL TRADE, TOTAL..... | 28,474 | 29,091 | 29,252 | 29,585 | 26,073 | 26,226 | 26,570 | 26,849 | 27,344 | 27,368 | 27,752 | 28,074 | 28,359 | +13 | +1 | +12 |
| 553 | AUTO & HOME SUPPLY STORES..... | 308 | 329 | 304 | 300 | 287 | 288 | 284 | 298 | 298 | 296 | 293 | 295 | 298 | +5 | -1 | +9 |
| 53 | GENERAL MDSE. GROUP STORES.... | 8,761 | 9,076 | 9,123 | 9,326 | 8,111 | 8,252 | 8,277 | 8,330 | 8,536 | 8,475 | 8,707 | 8,852 | 8,842 | +15 | +2 | +10 |
| 531 | DEPARTMENT STORES..... | 7,696 | 7,958 | 8,010 | 8,142 | 7,083 | 7,229 | 7,235 | 7,294 | 7,475 | 7,418 | 7,620 | 7,768 | 7,735 | +15 | +2 | +11 |
| 533 | VARIETY STORES..... | 572 | 585 | 575 | 613 | 543 | 545 | 549 | 546 | 556 | 550 | 565 | 558 | 557 | +13 | +7 | +8 |
| 541 | GROCERY STORES..... | 9,810 | 9,899 | 10,128 | 10,102 | 9,093 | 9,055 | 9,239 | 9,366 | 9,512 | 9,604 | 9,630 | 9,672 | 9,883 | +11 | 0 | +12 |
| 56 | APPAREL & ACCESSORY STORES.... | 1,328 | 1,387 | 1,402 | 1,404 | 1,210 | 1,233 | 1,244 | 1,255 | 1,278 | 1,257 | 1,291 | 1,297 | 1,324 | +16 | 0 | +13 |
| 562,3,8 | WOMEN'S CLOTHING,SPEC.,FURS. | 538 | 573 | 574 | 589 | 508 | 505 | 509 | 520 | 513 | 513 | 518 | 526 | 528 | +16 | +3 | +12 |
| 566 | SHOE STORES..... | 317 | 342 | 342 | 343 | 302 | 307 | 301 | 301 | 311 | 307 | 313 | 314 | 317 | +14 | 0 | +10 |
| 591 | DRUG & PROPRIETARY STORES..... | 1,395 | 1,390 | 1,393 | 1,444 | 1,250 | 1,282 | 1,295 | 1,318 | 1,328 | 1,340 | 1,360 | 1,361 | 1,361 | +16 | +4 | +14 |

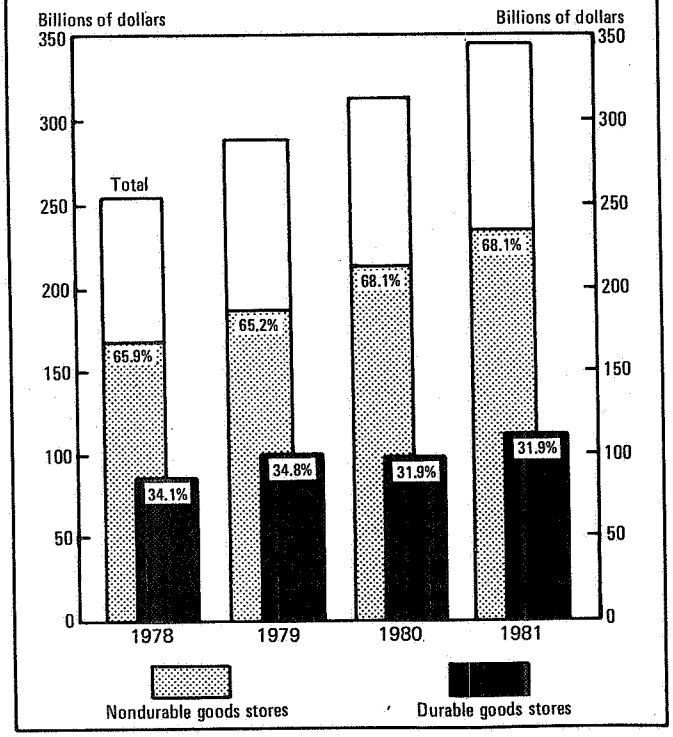
Note: The Group II component of the sample consists of companies which had 11 or more retail establishments according to the most recent update of multiestablishments files and which were selected with certainty (i.e., their sales size exceeded specified dollar volume cutoffs which varied by kind of business[1]). Group totals include kinds of business not shown separately.

[p]Preliminary estimates.

[1]Beginning with February 1979, data may include a mixture of mail-order and department store sales reported on a combined basis by some firms.

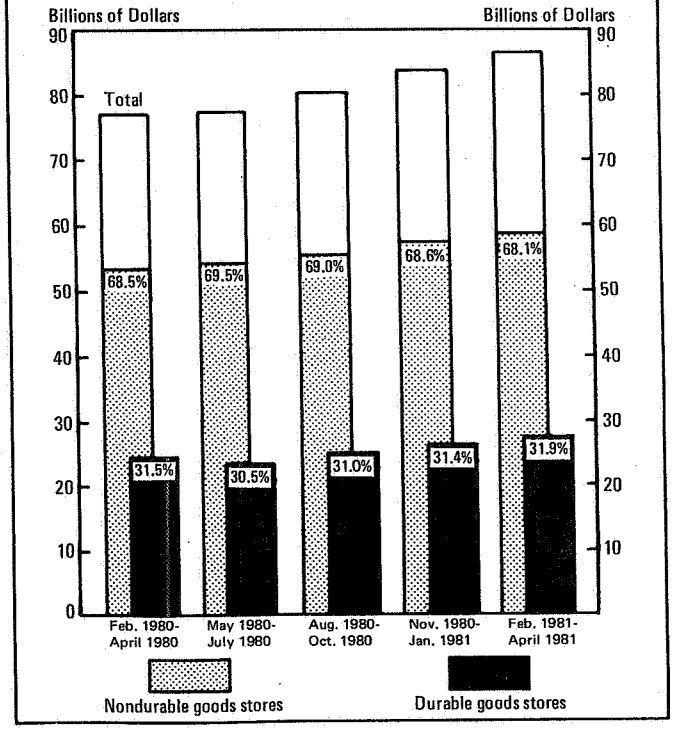
### FIGURE 2. Retail Sales in the United States: First 4 Months 1978 Through 1981

(Data ADJUSTED for seasonal variations, holiday, and trading-day differences)




### FIGURE 3. Average Monthly Retail Sales in the United States: February 1980–April 1981

(Monthly sales based on average of a 3-month period: Data ADJUSTED for seasonal variations, holiday and trading-day differences)



# Table 4. Estimated Monthly Retail Sales by Kind of Business for Regions

| REGION AND KIND OF BUSINESS | 1981 | | | | 1980 | | | | | | | | | PERCENT CHANGE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | APR. 1981 FROM-- | | 4 MOS. 1981 FROM 4 MOS. 1980 |
| | JAN. | FEB. | MAR. | APR.[P] | APR. | MAY | JUNE | JULY | AUG. | SEP. | OCT. | NOV. | DEC. | APR. 1980 | MAR. 1981 | |
| | DATA IN MILLIONS OF DOLLARS, NOT ADJUSTED FOR SEASONAL VARIATIONS, HOLIDAY OR TRADING-DAY DIFFERENCES | | | | | | | | | | | | | | | |
| THE NORTHEASTERN STATES | | | | | | | | | | | | | | | | |
| RETAIL TRADE, TOTAL..... | 16,204 | 15,360 | 17,480 | 17,283 | 15,595 | 16,332 | 15,927 | 16,082 | 16,554 | 15,953 | 17,409 | 17,516 | 21,243 | +11 | -1 | +9 |
| DURABLE GOODS, TOTAL... | 4,034 | 4,258 | 5,128 | 4,802 | 4,433 | 4,409 | 4,501 | 4,622 | 4,473 | 4,375 | 4,897 | 4,591 | 5,171 | +8 | -6 | +9 |
| BLDG. MAT.,HARDWARE,GARDEN SUPPLY,MOBILE HOME DEALERS | 437 | 453 | 538 | 604 | 540 | 626 | 601 | 616 | 606 | 615 | 653 | 552 | 495 | +12 | +12 | +10 |
| AUTOMOTIVE DEALERS..... | 2,221 | 2,489 | 3,068 | 2,767 | 2,657 | 2,476 | 2,532 | 2,678 | 2,462 | 2,392 | 2,762 | 2,303 | 2,028 | +4 | -10 | +6 |
| FURNITURE, HOME FURN. AND EQUIPMENT STORES..... | 714 | 697 | 780 | 785 | 680 | 708 | 720 | 754 | 775 | 779 | 829 | 894 | 1,115 | +15 | +1 | +8 |
| NONDURABLE GOODS, TOTAL | 12,170 | 11,102 | 12,352 | 12,481 | 11,162 | 11,923 | 11,426 | 11,460 | 12,081 | 11,578 | 12,512 | 12,925 | 16,072 | +12 | +1 | +9 |
| GENERAL MDSE. GROUP STORES. | 1,326 | 1,330 | 1,636 | 1,876 | 1,636 | 1,881 | 1,710 | 1,622 | 1,841 | 1,787 | 2,019 | 2,407 | 3,634 | +15 | +15 | +8 |
| DEPARTMENT STORES[1]..... | 1,110 | 1,123 | 1,389 | 1,593 | 1,389 | 1,609 | 1,454 | 1,363 | 1,556 | 1,526 | 1,722 | 2,075 | 3,118 | +15 | +15 | +8 |
| FOOD STORES..... | 4,257 | 3,832 | 4,124 | 4,140 | 3,780 | 4,089 | 3,938 | 4,105 | 4,222 | 3,920 | 4,178 | 4,070 | 4,410 | +10 | 0 | +10 |
| GROCERY STORES..... | 3,805 | 3,396 | 3,669 | 3,657 | 3,369 | 3,669 | 3,531 | 3,689 | 3,795 | 3,505 | 3,744 | 3,636 | 3,919 | +9 | 0 | +9 |
| GASOLINE SERVICE STATIONS.. | 1,489 | 1,372 | 1,567 | 1,540 | 1,449 | 1,521 | 1,512 | 1,562 | 1,555 | 1,450 | 1,490 | 1,432 | 1,557 | +6 | -2 | +7 |
| APPAREL & ACCESSORY STORES. | 778 | 716 | 833 | 1,003 | 887 | 916 | 833 | 759 | 969 | 949 | 1,042 | 1,108 | 1,565 | +13 | +20 | +10 |
| EATING & DRINKING PLACES... | 1,409 | 1,359 | 1,591 | 1,660 | 1,490 | 1,654 | 1,645 | 1,684 | 1,690 | 1,600 | 1,649 | 1,542 | 1,547 | +11 | +4 | +7 |
| DRUG & PROPRIETARY STORES.. | 470 | 442 | 467 | 492 | 442 | 450 | 455 | 451 | 452 | 443 | 468 | 450 | 621 | +11 | +5 | +7 |
| GAF, TOTAL[2]..... | 3,329 | 3,246 | 3,763 | 4,223 | 3,656 | 3,994 | 3,756 | 3,613 | 4,077 | 4,015 | 4,436 | 5,088 | 7,646 | +16 | +12 | +10 |
| THE NORTH CENTRAL STATES | | | | | | | | | | | | | | | | |
| RETAIL TRADE, TOTAL..... | 19,236 | 18,606 | 21,293 | 21,722 | 19,359 | 20,632 | 19,882 | 20,506 | 20,967 | 20,030 | 22,041 | 21,998 | 25,830 | +12 | +2 | +8 |
| DURABLE GOODS, TOTAL... | 5,714 | 5,923 | 7,086 | 7,006 | 6,074 | 6,216 | 6,300 | 6,665 | 6,396 | 6,261 | 6,924 | 6,591 | 7,109 | +15 | -1 | +9 |
| BLDG. MAT.,HARDWARE,GARDEN SUPPLY,MOBILE HOME DEALERS | 835 | 837 | 999 | 1,179 | 950 | 1,173 | 1,151 | 1,130 | 1,167 | 1,193 | 1,289 | 1,174 | 1,093 | +24 | +18 | +11 |
| AUTOMOTIVE DEALERS..... | 3,272 | 3,513 | 4,319 | 4,071 | 3,516 | 3,414 | 3,535 | 3,901 | 3,520 | 3,394 | 3,868 | 3,401 | 3,224 | +16 | -6 | +8 |
| FURNITURE, HOME FURN. AND EQUIPMENT STORES..... | 884 | 863 | 959 | 876 | 801 | 813 | 815 | 861 | 911 | 900 | 947 | 1,050 | 1,241 | +9 | -9 | +13 |
| NONDURABLE GOODS, TOTAL | 13,522 | 12,683 | 14,207 | 14,716 | 13,285 | 14,416 | 13,582 | 13,841 | 14,571 | 13,769 | 15,117 | 15,407 | 18,721 | +11 | +4 | +7 |
| GENERAL MDSE. GROUP STORES. | 1,967 | 1,872 | 2,419 | 2,672 | 2,371 | 2,613 | 2,361 | 2,353 | 2,629 | 2,452 | 2,835 | 3,253 | 4,972 | +13 | +10 | +7 |
| DEPARTMENT STORES[1]..... | 1,569 | 1,504 | 1,982 | 2,183 | 1,926 | 2,126 | 1,934 | 1,911 | 2,164 | 2,021 | 2,304 | 2,641 | 3,996 | +13 | +10 | +7 |
| FOOD STORES..... | 4,555 | 4,177 | 4,467 | 4,645 | 4,076 | 4,529 | 4,103 | 4,328 | 4,452 | 4,100 | 4,420 | 4,409 | 4,891 | +14 | +4 | +9 |
| GROCERY STORES..... | 4,295 | 3,892 | 4,188 | 4,303 | 3,849 | 4,289 | 3,890 | 4,111 | 4,225 | 3,893 | 4,190 | 4,155 | 4,506 | +12 | +3 | +8 |
| GASOLINE SERVICE STATIONS.. | 2,269 | 2,141 | 2,328 | 2,342 | 2,171 | 2,312 | 2,410 | 2,449 | 2,424 | 2,305 | 2,411 | 2,309 | 2,398 | +8 | +1 | +8 |
| APPAREL & ACCESSORY STORES. | 757 | 637 | 772 | 878 | 786 | 797 | 751 | 767 | 891 | 823 | 926 | 945 | 1,460 | +12 | +14 | +5 |
| EATING & DRINKING PLACES... | 1,895 | 1,792 | 2,064 | 2,105 | 1,976 | 2,113 | 2,086 | 2,061 | 2,204 | 2,047 | 2,129 | 1,987 | 2,066 | +7 | +2 | +5 |
| DRUG & PROPRIETARY STORES.. | 717 | 644 | 688 | 698 | 630 | 672 | 637 | 665 | 672 | 653 | 742 | 718 | 972 | +11 | +1 | +11 |
| GAF, TOTAL[2]..... | 4,055 | 3,807 | 4,644 | 4,974 | 4,461 | 4,751 | 4,444 | 4,489 | 4,952 | 4,663 | 5,234 | 5,915 | 8,903 | +11 | +7 | +7 |
| THE SOUTH | | | | | | | | | | | | | | | | |
| RETAIL TRADE, TOTAL..... | 26,153 | 25,228 | 28,809 | 29,279 | 24,969 | 26,210 | 25,717 | 26,902 | 27,295 | 25,648 | 27,718 | 27,417 | 33,372 | +17 | +2 | +13 |
| DURABLE GOODS, TOTAL... | 8,389 | 8,639 | 10,115 | 9,873 | 8,079 | 8,395 | 8,549 | 9,205 | 8,957 | 8,664 | 9,315 | 8,645 | 9,776 | +22 | -2 | +15 |
| BLDG. MAT.,HARDWARE,GARDEN SUPPLY,MOBILE HOME DEALERS | 1,230 | 1,244 | 1,561 | 1,724 | 1,448 | 1,478 | 1,477 | 1,496 | 1,494 | 1,576 | 1,646 | 1,448 | 1,421 | +19 | +10 | +14 |
| AUTOMOTIVE DEALERS..... | 5,269 | 5,654 | 6,606 | 6,151 | 4,899 | 5,011 | 5,210 | 5,658 | 5,429 | 5,120 | 5,596 | 4,991 | 5,183 | +26 | -7 | +16 |
| FURNITURE, HOME FURN. AND EQUIPMENT STORES..... | 1,150 | 1,050 | 1,157 | 1,161 | 1,039 | 1,113 | 1,104 | 1,244 | 1,219 | 1,164 | 1,199 | 1,220 | 1,500 | +12 | 0 | +7 |
| NONDURABLE GOODS, TOTAL | 17,764 | 16,589 | 18,694 | 19,406 | 16,890 | 17,815 | 17,168 | 17,697 | 18,338 | 16,984 | 18,403 | 18,772 | 23,596 | +15 | +4 | +12 |
| GENERAL MDSE. GROUP STORES. | 2,397 | 2,393 | 3,039 | 3,386 | 2,856 | 3,072 | 2,816 | 2,826 | 3,132 | 2,808 | 3,231 | 3,854 | 6,030 | +19 | +11 | +11 |
| DEPARTMENT STORES[1]..... | 1,826 | 1,813 | 2,350 | 2,598 | 2,140 | 2,327 | 2,131 | 2,157 | 2,382 | 2,144 | 2,454 | 2,936 | 4,545 | +21 | +11 | +13 |
| FOOD STORES..... | 6,567 | 5,990 | 6,535 | 6,786 | 5,865 | 6,378 | 6,108 | 6,436 | 6,548 | 6,064 | 6,371 | 6,223 | 6,897 | +16 | +4 | +11 |
| GROCERY STORES..... | 6,071 | 5,541 | 6,028 | 6,221 | 5,419 | 5,954 | 5,636 | 5,974 | 6,122 | 5,644 | 5,950 | 5,831 | 6,318 | +15 | +3 | +10 |
| GASOLINE SERVICE STATIONS.. | 2,765 | 2,671 | 2,966 | 3,035 | 2,641 | 2,727 | 2,816 | 2,899 | 2,860 | 2,682 | 2,757 | 2,671 | 2,800 | +15 | +2 | +19 |
| APPAREL & ACCESSORY STORES. | 1,080 | 945 | 1,145 | 1,352 | 1,122 | 1,092 | 994 | 1,034 | 1,227 | 1,080 | 1,242 | 1,319 | 2,092 | +21 | +18 | +13 |
| EATING & DRINKING PLACES... | 2,037 | 1,971 | 2,243 | 2,289 | 2,042 | 2,111 | 2,132 | 2,250 | 2,295 | 2,043 | 2,149 | 2,028 | 2,157 | +12 | +2 | +14 |
| DRUG & PROPRIETARY STORES.. | 944 | 896 | 952 | 959 | 842 | 891 | 846 | 828 | 866 | 856 | 899 | 902 | 1,292 | +14 | +1 | +13 |
| GAF, TOTAL..... | 5,236 | 4,926 | 5,955 | 6,558 | 5,585 | 5,915 | 5,505 | 5,693 | 6,218 | 5,669 | 6,369 | 7,231 | 11,176 | +17 | +10 | +11 |
| THE WEST | | | | | | | | | | | | | | | | |
| RETAIL TRADE, TOTAL..... | 15,768 | 15,127 | 17,070 | 17,378 | 15,231 | 16,028 | 15,840 | 16,370 | 16,924 | 15,948 | 16,832 | 16,885 | 20,310 | +14 | +2 | +9 |
| DURABLE GOODS, TOTAL... | 5,102 | 5,037 | 5,966 | 5,923 | 5,066 | 5,227 | 5,397 | 5,540 | 5,430 | 5,206 | 5,562 | 5,294 | 6,037 | +17 | -1 | +7 |
| BLDG. MAT.,HARDWARE,GARDEN SUPPLY,MOBILE HOME DEALERS | 849 | 825 | 945 | 1,026 | 961 | 1,010 | 1,030 | 1,005 | 1,022 | 1,050 | 1,084 | 978 | 962 | +7 | +9 | +4 |
| AUTOMOTIVE DEALERS..... | 2,589 | 2,714 | 3,343 | 3,216 | 2,523 | 2,586 | 2,821 | 2,939 | 2,800 | 2,583 | 2,801 | 2,552 | 2,581 | +27 | -4 | +9 |
| FURNITURE, HOME FURN. AND EQUIPMENT STORES..... | 868 | 741 | 820 | 797 | 806 | 810 | 750 | 777 | 807 | 783 | 847 | 884 | 1,049 | -1 | -3 | +2 |
| NONDURABLE GOODS, TOTAL | 10,666 | 10,090 | 11,104 | 11,455 | 10,165 | 10,801 | 10,443 | 10,830 | 11,494 | 10,742 | 11,270 | 11,591 | 14,273 | +13 | +3 | +11 |
| GENERAL MDSE. GROUP STORES. | 1,589 | 1,565 | 1,878 | 2,000 | 1,751 | 1,910 | 1,826 | 1,829 | 2,038 | 1,876 | 2,020 | 2,307 | 3,729 | +14 | +6 | +8 |
| DEPARTMENT STORES..... | 1,368 | 1,343 | 1,616 | 1,713 | 1,472 | 1,620 | 1,547 | 1,543 | 1,732 | 1,608 | 1,718 | 1,990 | 3,200 | +16 | +6 | +10 |
| FOOD STORES..... | 3,816 | 3,478 | 3,711 | 3,854 | 3,502 | 3,760 | 3,489 | 3,771 | 3,893 | 3,628 | 3,884 | 3,783 | 4,014 | +10 | +4 | +10 |
| GROCERY STORES..... | 3,659 | 3,304 | 3,525 | 3,636 | 3,314 | 3,566 | 3,299 | 3,569 | 3,670 | 3,432 | 3,677 | 3,573 | 3,763 | +10 | +3 | +9 |
| GASOLINE SERVICE STATIONS.. | 1,524 | 1,432 | 1,519 | 1,511 | 1,358 | 1,448 | 1,516 | 1,594 | 1,631 | 1,545 | 1,586 | 1,539 | 1,595 | +11 | -1 | +16 |
| APPAREL & ACCESSORY STORES. | 664 | 613 | 698 | 749 | 680 | 718 | 717 | 703 | 826 | 734 | 721 | 807 | 1,218 | +10 | +7 | +7 |
| EATING & DRINKING PLACES... | 1,724 | 1,620 | 1,812 | 1,851 | 1,544 | 1,610 | 1,612 | 1,640 | 1,731 | 1,586 | 1,591 | 1,585 | 1,740 | +20 | +2 | +16 |
| DRUG & PROPRIETARY STORES.. | 591 | 548 | 594 | 613 | 569 | 585 | 561 | 574 | 573 | 555 | 584 | 585 | 890 | +8 | +3 | +7 |
| GAF, TOTAL[2]..... | 3,688 | 3,466 | 3,984 | 4,155 | 3,763 | 3,990 | 3,867 | 3,877 | 4,250 | 3,972 | 4,176 | 4,650 | 7,184 | +10 | +4 | +7 |

Note: Totals include data for kinds of business not shown separately. Sampling variabilities are shown in appendix B, table B-2. States in geographic regions are shown in appendix E, part II.

[P]Preliminary estimates.

[1]Beginning with February 1979, data may include a mixture of mail-order and department store sales reported on a combined basis by some firms.

[2]GAF represents stores which specialize in department store types of merchandise (see appendix A.)

# Table 5. Estimated Monthly Retail Sales by Kind of Business for Geographic Divisions

| GEOGRAPHIC DIVISION AND KIND OF BUSINESS | 1981 | | | | 1980 | | | | | | | | | PERCENT CHANGE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | APR. 1981 FROM-- | | 4 MOS. 1981 FROM 4 MOS. 1980 |
| | JAN. | FEB. | MAR. | APR.[p] | APR. | MAY | JUNE | JULY | AUG. | SEP. | OCT. | NOV. | DEC. | APR. 1980 | MAR. 1981 | |
| | DATA IN MILLIONS OF DOLLARS, NOT ADJUSTED FOR SEASONAL VARIATIONS, HOLIDAY OR TRADING-DAY DIFFERENCES | | | | | | | | | | | | | | | |
| NEW ENGLAND DIV..... | 4,370 | 4,161 | 4,663 | 4,615 | 3,919 | 4,151 | 4,123 | 4,166 | 4,460 | 4,206 | 4,482 | 4,492 | 5,605 | +18 | -1 | +16 |
| DURABLE GOODS, TOTAL..... | 989 | 1,090 | 1,279 | 1,254 | 1,054 | 1,070 | 1,153 | 1,129 | 1,133 | 1,111 | 1,176 | 1,068 | 1,226 | +19 | -2 | +18 |
| NONDURABLE GOODS, TOTAL.... | 3,381 | 3,071 | 3,384 | 3,361 | 2,865 | 3,081 | 2,970 | 3,037 | 3,327 | 3,095 | 3,306 | 3,424 | 4,379 | +17 | -1 | +16 |
| GEN. MDSE. GROUP STORES.. | 330 | 333 | 412 | 473 | 411 | 472 | 438 | 409 | 482 | 458 | 512 | 608 | 956 | +15 | +15 | +11 |
| FOOD STORES..... | 1,028 | 946 | 1,018 | 1,031 | 905 | 1,004 | 946 | 1,019 | 1,065 | 960 | 1,028 | 995 | 1,054 | +14 | +1 | +12 |
| GAF, TOTAL[1]..... | 783 | 793 | 942 | 1,034 | 876 | 960 | 921 | 892 | 1,085 | 1,060 | 1,123 | 1,277 | 1,919 | +18 | +10 | +12 |
| MIDDLE ATLANTIC DIV..... | 11,834 | 11,199 | 12,817 | 12,668 | 11,676 | 12,181 | 11,804 | 11,916 | 12,094 | 11,747 | 12,927 | 13,024 | 15,638 | +8 | -1 | +7 |
| DURABLE GOODS, TOTAL..... | 3,045 | 3,168 | 3,849 | 3,548 | 3,379 | 3,339 | 3,348 | 3,493 | 3,340 | 3,264 | 3,721 | 3,523 | 3,945 | +5 | -8 | +6 |
| AUTOMOTIVE DEALERS..... | 1,726 | 1,894 | 2,324 | 2,086 | 2,067 | 1,906 | 1,887 | 2,090 | 1,918 | 1,865 | 2,178 | 1,825 | 1,567 | +1 | -10 | +2 |
| NONDURABLE GOODS, TOTAL.... | 8,789 | 8,031 | 8,968 | 9,120 | 8,297 | 8,842 | 8,456 | 8,423 | 8,754 | 8,483 | 9,206 | 9,501 | 11,693 | +10 | +2 | +7 |
| GEN. MDSE. GROUP STORES.. | 996 | 997 | 1,224 | 1,403 | 1,225 | 1,409 | 1,272 | 1,213 | 1,359 | 1,329 | 1,507 | 1,799 | 2,678 | +15 | +15 | +7 |
| FOOD STORES..... | 3,229 | 2,886 | 3,106 | 3,109 | 2,875 | 3,085 | 2,992 | 3,086 | 3,157 | 2,960 | 3,150 | 3,075 | 3,356 | +8 | 0 | +9 |
| GASOLINE SERVICE STATIONS | 1,044 | 971 | 1,130 | 1,104 | 1,086 | 1,106 | 1,099 | 1,142 | 1,115 | 1,055 | 1,085 | 1,032 | 1,093 | +2 | -2 | +2 |
| APPAREL & ACCESSORY STRS. | 585 | 535 | 608 | 743 | 676 | 694 | 626 | 564 | 687 | 685 | 765 | 817 | 1,143 | +10 | +22 | +8 |
| EATING & DRINKING PLACES. | 1,060 | 1,008 | 1,182 | 1,231 | 1,145 | 1,265 | 1,232 | 1,240 | 1,220 | 1,170 | 1,220 | 1,156 | 1,151 | +8 | +4 | +4 |
| DRUG & PROPRIETARY STORES | 333 | 310 | 324 | 341 | 320 | 324 | 330 | 323 | 322 | 311 | 330 | 315 | 434 | +7 | +5 | +5 |
| GAF, TOTAL[1]..... | 2,546 | 2,453 | 2,821 | 3,189 | 2,780 | 3,034 | 2,835 | 2,721 | 2,992 | 2,955 | 3,313 | 3,811 | 5,727 | +15 | +13 | +9 |
| EAST NORTH CENTRAL DIV.... | 13,507 | 13,078 | 14,965 | 15,186 | 13,637 | 14,531 | 13,885 | 14,267 | 14,575 | 13,962 | 15,423 | 15,511 | 18,308 | +11 | +1 | +7 |
| DURABLE GOODS, TOTAL..... | 3,893 | 4,073 | 4,880 | 4,740 | 4,138 | 4,216 | 4,226 | 4,501 | 4,270 | 4,238 | 4,776 | 4,550 | 4,952 | +15 | -3 | +9 |
| AUTOMOTIVE DEALERS..... | 2,150 | 2,357 | 2,945 | 2,674 | 2,307 | 2,250 | 2,272 | 2,531 | 2,263 | 2,220 | 2,573 | 2,281 | 2,094 | +16 | -9 | +9 |
| FURNITURE,HOME FURN. STRS | 617 | 617 | 689 | 624 | 587 | 581 | 586 | 620 | 635 | 635 | 670 | 759 | 887 | +6 | -9 | +13 |
| NONDURABLE GOODS, TOTAL.... | 9,614 | 9,005 | 10,085 | 10,446 | 9,499 | 10,315 | 9,659 | 9,766 | 10,305 | 9,724 | 10,647 | 10,961 | 13,356 | +10 | +4 | +6 |
| GEN. MDSE. GROUP STORES.. | 1,365 | 1,310 | 1,705 | 1,893 | 1,683 | 1,851 | 1,679 | 1,658 | 1,858 | 1,754 | 2,006 | 2,331 | 3,511 | +12 | +11 | +7 |
| FOOD STORES..... | 3,261 | 2,994 | 3,164 | 3,302 | 2,947 | 3,262 | 2,919 | 3,069 | 3,148 | 2,880 | 3,111 | 3,116 | 3,506 | +12 | +4 | +7 |
| GASOLINE SERVICE STATIONS | 1,620 | 1,525 | 1,609 | 1,607 | 1,509 | 1,619 | 1,714 | 1,732 | 1,739 | 1,631 | 1,715 | 1,648 | 1,681 | +6 | 0 | +9 |
| APPAREL & ACCESSORY STRS. | 547 | 449 | 562 | 637 | 559 | 564 | 535 | 536 | 611 | 574 | 653 | 660 | 1,038 | +14 | +13 | +6 |
| EATING & DRINKING PLACES. | 1,354 | 1,272 | 1,488 | 1,510 | 1,402 | 1,495 | 1,469 | 1,452 | 1,556 | 1,465 | 1,492 | 1,405 | 1,488 | +8 | +1 | +5 |
| DRUG & PROPRIETARY STORES | 541 | 488 | 528 | 534 | 492 | 526 | 492 | 506 | 517 | 503 | 567 | 557 | 753 | +9 | +1 | +8 |
| GAF, TOTAL[1]..... | 2,854 | 2,675 | 3,300 | 3,529 | 3,195 | 3,358 | 3,170 | 3,184 | 3,467 | 3,298 | 3,708 | 4,224 | 6,369 | +10 | +7 | +6 |
| WEST NORTH CENTRAL DIV.... | 5,729 | 5,528 | 6,328 | 6,536 | 5,722 | 6,101 | 5,997 | 6,239 | 6,392 | 6,068 | 6,618 | 6,487 | 7,522 | +14 | +3 | +10 |
| DURABLE GOODS, TOTAL..... | 1,821 | 1,850 | 2,206 | 2,266 | 1,936 | 2,000 | 2,074 | 2,164 | 2,126 | 2,023 | 2,148 | 2,041 | 2,157 | +17 | +3 | +9 |
| AUTOMOTIVE DEALERS..... | 1,122 | 1,156 | 1,374 | 1,397 | 1,209 | 1,164 | 1,263 | 1,370 | 1,257 | 1,174 | 1,295 | 1,120 | 1,130 | +16 | +2 | +7 |
| NONDURABLE GOODS, TOTAL.... | 3,908 | 3,678 | 4,122 | 4,270 | 3,786 | 4,101 | 3,923 | 4,075 | 4,266 | 4,045 | 4,470 | 4,446 | 5,365 | +13 | +4 | +10 |
| GEN. MDSE. GROUP STORES.. | 602 | 562 | 714 | 779 | 688 | 762 | 682 | 695 | 771 | 698 | 829 | 922 | 1,461 | +13 | +9 | +9 |
| FOOD STORES..... | 1,294 | 1,183 | 1,303 | 1,343 | 1,129 | 1,267 | 1,184 | 1,259 | 1,304 | 1,220 | 1,309 | 1,293 | 1,385 | +19 | +3 | +16 |
| GASOLINE SERVICE STATIONS | 649 | 616 | 719 | 735 | 662 | 693 | 696 | 717 | 685 | 674 | 696 | 661 | 717 | +11 | +2 | +5 |
| APPAREL & ACCESSORY STRS. | 210 | 188 | 210 | 241 | 227 | 233 | 216 | 231 | 280 | 249 | 273 | 285 | 422 | +6 | +15 | +3 |
| GAF, TOTAL[1]..... | 1,201 | 1,132 | 1,344 | 1,445 | 1,266 | 1,393 | 1,274 | 1,305 | 1,485 | 1,365 | 1,526 | 1,691 | 2,534 | +14 | +8 | +10 |
| SOUTH ATLANTIC DIV..... | 13,308 | 12,715 | 14,416 | 14,495 | 12,410 | 12,778 | 12,343 | 12,920 | 13,229 | 12,547 | 13,717 | 13,557 | 16,702 | +17 | +1 | +13 |
| DURABLE GOODS, TOTAL..... | 4,104 | 4,169 | 4,890 | 4,749 | 3,876 | 3,898 | 3,871 | 4,195 | 4,137 | 4,087 | 4,447 | 4,071 | 4,721 | +23 | -3 | +15 |
| AUTOMOTIVE DEALERS..... | 2,576 | 2,755 | 3,223 | 2,969 | 2,358 | 2,297 | 2,302 | 2,517 | 2,448 | 2,404 | 2,632 | 2,287 | 2,432 | +26 | -8 | +18 |
| FURNITURE,HOME FURN. STRS | 562 | 496 | 554 | 576 | 515 | 533 | 532 | 596 | 590 | 576 | 607 | 614 | 772 | +12 | +4 | +2 |
| NONDURABLE GOODS, TOTAL.... | 9,204 | 8,546 | 9,526 | 9,746 | 8,534 | 8,880 | 8,472 | 8,725 | 9,092 | 8,460 | 9,270 | 9,486 | 11,981 | +14 | +2 | +12 |
| GEN. MDSE. GROUP STORES.. | 1,144 | 1,148 | 1,449 | 1,611 | 1,392 | 1,466 | 1,343 | 1,319 | 1,481 | 1,349 | 1,551 | 1,866 | 2,937 | +16 | +11 | +9 |
| FOOD STORES..... | 3,324 | 3,040 | 3,249 | 3,336 | 2,949 | 3,175 | 2,977 | 3,134 | 3,227 | 2,969 | 3,176 | 3,146 | 3,466 | +13 | +3 | +9 |
| GASOLINE SERVICE STATIONS | 1,374 | 1,303 | 1,465 | 1,518 | 1,247 | 1,264 | 1,277 | 1,338 | 1,316 | 1,270 | 1,329 | 1,277 | 1,350 | +22 | +4 | +25 |
| APPAREL & ACCESSORY STRS. | 467 | 414 | 492 | 591 | 521 | 497 | 451 | 460 | 533 | 488 | 569 | 591 | 924 | +13 | +20 | +6 |
| GAF, TOTAL[1]..... | 2,531 | 2,349 | 2,828 | 3,144 | 2,710 | 2,799 | 2,630 | 2,683 | 2,943 | 2,754 | 3,111 | 3,530 | 5,463 | +16 | +11 | +8 |
| EAST SOUTH CENTRAL DIV.... | 4,063 | 3,902 | 4,520 | 4,698 | 4,145 | 4,466 | 4,396 | 4,677 | 4,723 | 4,367 | 4,608 | 4,609 | 5,435 | +13 | +4 | +7 |
| DURABLE GOODS, TOTAL..... | 1,239 | 1,227 | 1,435 | 1,465 | 1,237 | 1,288 | 1,335 | 1,471 | 1,471 | 1,420 | 1,461 | 1,374 | 1,517 | +18 | +2 | +7 |
| NONDURABLE GOODS, TOTAL.... | 2,824 | 2,675 | 3,085 | 3,233 | 2,908 | 3,178 | 3,061 | 3,206 | 3,252 | 2,947 | 3,147 | 3,235 | 3,918 | +11 | +5 | +7 |
| GEN. MDSE. GROUP STORES.. | 382 | 392 | 519 | 586 | 508 | 541 | 500 | 495 | 554 | 495 | 586 | 726 | 1,108 | +15 | +13 | +8 |
| APPAREL & ACCESSORY STRS. | 173 | 153 | 196 | 243 | 201 | 188 | 174 | 186 | 215 | 195 | 224 | 228 | 363 | +21 | +24 | +11 |
| GAF, TOTAL[1]..... | 810 | 786 | 988 | 1,098 | 975 | 1,021 | 941 | 988 | 1,066 | 973 | 1,106 | 1,295 | 1,941 | +13 | +11 | +5 |
| WEST SOUTH CENTRAL DIV.... | 8,782 | 8,611 | 9,873 | 10,086 | 8,414 | 8,966 | 8,978 | 9,305 | 9,343 | 8,734 | 9,393 | 9,251 | 11,235 | +20 | +2 | +16 |
| DURABLE GOODS, TOTAL..... | 3,046 | 3,243 | 3,790 | 3,659 | 2,966 | 3,209 | 3,343 | 3,539 | 3,349 | 3,157 | 3,407 | 3,200 | 3,538 | +23 | -3 | +18 |
| AUTOMOTIVE DEALERS..... | 1,943 | 2,156 | 2,509 | 2,327 | 1,854 | 2,003 | 2,139 | 2,298 | 2,124 | 1,919 | 2,143 | 1,956 | 1,981 | +26 | -7 | +18 |
| NONDURABLE GOODS, TOTAL.... | 5,736 | 5,368 | 6,083 | 6,427 | 5,448 | 5,757 | 5,635 | 5,766 | 5,994 | 5,577 | 5,986 | 6,051 | 7,697 | +18 | +6 | +15 |
| GEN. MDSE. GROUP STORES.. | 871 | 853 | 1,071 | 1,189 | 956 | 1,065 | 973 | 1,012 | 1,097 | 964 | 1,094 | 1,262 | 1,985 | +24 | +11 | +16 |
| FOOD STORES..... | 2,074 | 1,888 | 2,107 | 2,244 | 1,787 | 1,899 | 1,907 | 1,993 | 2,013 | 1,925 | 1,985 | 1,918 | 2,188 | +26 | +7 | +20 |
| APPAREL & ACCESSORY STRS. | 440 | 378 | 457 | 518 | 400 | 407 | 369 | 388 | 479 | 397 | 449 | 500 | 805 | +30 | +13 | +22 |
| GAF, TOTAL[1]..... | 1,895 | 1,791 | 2,139 | 2,316 | 1,900 | 2,095 | 1,934 | 2,022 | 2,209 | 1,942 | 2,152 | 2,406 | 3,772 | +22 | +8 | +18 |
| MOUNTAIN DIV..... | 4,171 | 4,015 | 4,494 | 4,686 | 3,832 | 4,161 | 4,095 | 4,335 | 4,466 | 4,165 | 4,502 | 4,442 | 5,191 | +22 | +4 | +18 |
| DURABLE GOODS, TOTAL..... | 1,583 | 1,537 | 1,778 | 1,865 | 1,420 | 1,517 | 1,522 | 1,615 | 1,541 | 1,486 | 1,665 | 1,560 | 1,744 | +31 | +5 | +21 |
| NONDURABLE GOODS, TOTAL.... | 2,588 | 2,478 | 2,716 | 2,821 | 2,412 | 2,644 | 2,573 | 2,720 | 2,925 | 2,679 | 2,837 | 2,882 | 3,447 | +17 | +4 | +16 |
| GEN. MDSE. GROUP STORES.. | 352 | 347 | 432 | 472 | 415 | 459 | 418 | 415 | 472 | 416 | 468 | 532 | 863 | +14 | +9 | +7 |
| FOOD STORES..... | 969 | 879 | 955 | 990 | 868 | 952 | 882 | 953 | 973 | 908 | 979 | 953 | 996 | +14 | +4 | +15 |
| GAF, TOTAL[1]..... | 1,018 | 913 | 1,059 | 1,120 | 936 | 1,000 | 941 | 957 | 1,063 | 984 | 1,089 | 1,202 | 1,845 | +20 | +6 | +16 |
| PACIFIC DIV..... | 11,597 | 11,112 | 12,576 | 12,692 | 11,399 | 11,867 | 11,745 | 12,035 | 12,458 | 11,783 | 12,330 | 12,443 | 15,119 | +11 | +1 | +7 |
| DURABLE GOODS, TOTAL..... | 3,519 | 3,500 | 4,188 | 4,058 | 3,646 | 3,710 | 3,875 | 3,925 | 3,889 | 3,720 | 3,897 | 3,734 | 4,293 | +11 | -3 | +2 |
| AUTOMOTIVE DEALERS..... | 1,758 | 1,815 | 2,291 | 2,125 | 1,758 | 1,770 | 1,983 | 2,028 | 1,961 | 1,834 | 1,925 | 1,781 | 1,807 | +21 | -7 | +3 |
| FURNITURE,HOME FURN. STRS | 582 | 511 | 569 | 557 | 584 | 572 | 529 | 550 | 573 | 563 | 592 | 599 | 732 | -5 | -2 | -2 |
| NONDURABLE GOODS, TOTAL.... | 8,078 | 7,612 | 8,388 | 8,634 | 7,753 | 8,157 | 7,870 | 8,110 | 8,569 | 8,063 | 8,433 | 8,709 | 10,826 | +11 | +3 | +9 |
| GEN. MDSE. GROUP STORES.. | 1,237 | 1,218 | 1,446 | 1,528 | 1,336 | 1,451 | 1,408 | 1,414 | 1,566 | 1,460 | 1,552 | 1,775 | 2,866 | +14 | +6 | +9 |
| FOOD STORES..... | 2,847 | 2,599 | 2,756 | 2,864 | 2,634 | 2,808 | 2,607 | 2,818 | 2,920 | 2,720 | 2,905 | 2,830 | 3,018 | +9 | +4 | +8 |
| GASOLINE SERVICE STATIONS | 1,057 | 995 | 1,087 | 1,084 | 945 | 991 | 1,003 | 1,026 | 1,040 | 1,013 | 1,046 | 1,049 | 1,108 | +15 | 0 | +14 |
| APPAREL & ACCESSORY STRS. | 461 | 431 | 497 | 528 | 507 | 539 | 556 | 538 | 612 | 551 | 517 | 598 | 895 | +4 | +6 | +4 |
| EATING & DRINKING PLACES. | 1,395 | 1,286 | 1,425 | 1,445 | 1,260 | 1,299 | 1,276 | 1,282 | 1,365 | 1,249 | 1,268 | 1,265 | 1,384 | +15 | +1 | +12 |
| DRUG & PROPRIETARY STORES | 458 | 424 | 463 | 478 | 441 | 452 | 439 | 455 | 447 | 434 | 460 | 453 | 682 | +8 | +3 | +7 |
| GAF, TOTAL[1]..... | 2,670 | 2,553 | 2,925 | 3,035 | 2,827 | 2,990 | 2,926 | 2,920 | 3,187 | 2,988 | 3,087 | 3,448 | 5,339 | +7 | +4 | +4 |

Note: Sampling variabilities are shown in appendix B, table B-3. States in geographic divisions are shown in appendix E, part II.

[p] Preliminary estimates.

[1] GAF represents stores which specialize in department store types of merchandise (see appendix A).

# Table 6. Estimated Monthly Retail Sales by Selected Kinds of Business for Specified Large States

| STATE AND KIND OF BUSINESS | 1981 | | | | 1980 | | | | | | | | | PERCENT CHANGE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | APR. 1981 FROM-- | | 4 MOS. 1981 FROM 4 MOS. 1980 |
| | JAN. | FEB. | MAR. | APR.[P] | APR. | MAY | JUNE | JULY | AUG. | SEP. | OCT. | NOV. | DEC. | APR. 1980 | MAR. 1981 | |
| | DATA IN MILLIONS OF DOLLARS, NOT ADJUSTED FOR SEASONAL VARIATIONS, HOLIDAY OR TRADING-DAY DIFFERENCES | | | | | | | | | | | | | | | |
| CALIFORNIA, TOTAL | 8,785 | 8,451 | 9,534 | 9,677 | 8,499 | 8,863 | 8,717 | 8,918 | 9,220 | 8,789 | 9,169 | 9,280 | 11,367 | +14 | +2 | +8 |
| DURABLE GOODS, TOTAL | 2,618 | 2,677 | 3,183 | 3,098 | 2,662 | 2,756 | 2,837 | 2,906 | 2,865 | 2,729 | 2,860 | 2,765 | 3,183 | +16 | -3 | +4 |
| NONDURABLE GOODS, TOTAL | 6,167 | 5,774 | 6,351 | 6,579 | 5,837 | 6,107 | 5,880 | 6,012 | 6,355 | 6,060 | 6,309 | 6,515 | 8,184 | +13 | +4 | +10 |
| GAF, TOTAL[1] | 2,062 | 1,959 | 2,223 | 2,338 | 2,158 | 2,273 | 2,206 | 2,196 | 2,384 | 2,266 | 2,345 | 2,614 | 4,087 | +8 | +5 | +4 |
| FLORIDA, TOTAL | 4,225 | 4,144 | 4,577 | 4,488 | 3,814 | 3,826 | 3,625 | 3,845 | 3,921 | 3,700 | 4,106 | 4,180 | 5,045 | +18 | -2 | +15 |
| DURABLE GOODS, TOTAL | 1,454 | 1,538 | 1,695 | 1,610 | 1,275 | 1,255 | 1,204 | 1,312 | 1,289 | 1,294 | 1,478 | 1,428 | 1,618 | +26 | -5 | +20 |
| NONDURABLE GOODS, TOTAL | 2,771 | 2,606 | 2,882 | 2,878 | 2,539 | 2,571 | 2,421 | 2,533 | 2,632 | 2,406 | 2,628 | 2,752 | 3,427 | +13 | 0 | +13 |
| GAF, TOTAL[1] | 830 | 787 | 934 | 941 | 829 | 831 | 782 | 803 | 866 | 787 | 872 | 1,012 | 1,527 | +14 | +1 | +8 |
| ILLINOIS, TOTAL | 3,777 | 3,712 | 4,237 | 4,184 | 3,784 | 4,092 | 3,855 | 3,837 | 3,985 | 3,854 | 4,270 | 4,347 | 5,119 | +11 | -1 | +8 |
| NONDURABLE GOODS, TOTAL | 2,696 | 2,573 | 2,850 | 2,950 | 2,645 | 2,898 | 2,672 | 2,635 | 2,791 | 2,677 | 2,991 | 3,084 | 3,765 | +12 | +4 | +8 |
| GAF, TOTAL[1] | 814 | 766 | 953 | 1,005 | 917 | 992 | 935 | 913 | 987 | 927 | 1,065 | 1,205 | 1,776 | +10 | +5 | +5 |
| INDIANA, TOTAL | 1,658 | 1,646 | 1,842 | 1,959 | 1,664 | 1,801 | 1,715 | 1,773 | 1,879 | 1,802 | 1,911 | 1,938 | 2,260 | +18 | +6 | +10 |
| NONDURABLE GOODS, TOTAL | 1,175 | 1,111 | 1,270 | 1,296 | 1,149 | 1,260 | 1,183 | 1,228 | 1,309 | 1,243 | 1,321 | 1,364 | 1,659 | +13 | +2 | +9 |
| GAF, TOTAL[1] | 305 | 295 | 374 | 385 | 347 | 369 | 340 | 351 | 387 | 338 | 400 | 486 | 746 | +11 | +3 | +10 |
| LOUISIANA, TOTAL | 1,298 | 1,320 | 1,522 | 1,545 | 1,262 | 1,343 | 1,330 | 1,350 | 1,398 | 1,272 | 1,427 | 1,410 | 1,682 | +22 | +2 | +17 |
| NONDURABLE GOODS, TOTAL | 861 | 814 | 908 | 940 | 834 | 884 | 829 | 863 | 917 | 814 | 899 | 910 | 1,144 | +13 | +4 | +10 |
| MARYLAND, TOTAL | 1,680 | 1,596 | 1,793 | 1,803 | 1,542 | 1,607 | 1,580 | 1,665 | 1,660 | 1,621 | 1,731 | 1,720 | 2,185 | +17 | +1 | +19 |
| NONDURABLE GOODS, TOTAL | 1,237 | 1,124 | 1,227 | 1,283 | 1,071 | 1,142 | 1,095 | 1,161 | 1,176 | 1,104 | 1,222 | 1,258 | 1,650 | +20 | +5 | +22 |
| GAF, TOTAL[1] | 304 | 299 | 344 | 391 | 346 | 378 | 340 | 333 | 365 | 367 | 412 | 468 | 709 | +13 | +14 | +7 |
| MASSACHUSETTS, TOTAL | 2,134 | 2,066 | 2,293 | 2,227 | 1,949 | 2,059 | 1,969 | 2,024 | 2,198 | 2,046 | 2,244 | 2,230 | 2,782 | +14 | -3 | +14 |
| NONDURABLE GOODS, TOTAL | 1,641 | 1,530 | 1,651 | 1,624 | 1,397 | 1,511 | 1,422 | 1,453 | 1,629 | 1,507 | 1,641 | 1,712 | 2,171 | +16 | -2 | +16 |
| GAF, TOTAL[1] | 403 | 421 | 495 | 537 | 436 | 486 | 467 | 448 | 544 | 534 | 547 | 630 | 969 | +23 | +8 | +15 |
| MICHIGAN, TOTAL | 3,195 | 3,027 | 3,537 | 3,590 | 3,183 | 3,295 | 3,262 | 3,461 | 3,323 | 3,202 | 3,579 | 3,463 | 4,153 | +13 | +1 | +8 |
| DURABLE GOODS, TOTAL | 1,014 | 1,028 | 1,287 | 1,278 | 1,110 | 1,053 | 1,063 | 1,226 | 1,002 | 1,041 | 1,250 | 1,133 | 1,277 | +15 | -1 | +8 |
| NONDURABLE GOODS, TOTAL | 2,181 | 1,999 | 2,250 | 2,312 | 2,073 | 2,242 | 2,199 | 2,235 | 2,321 | 2,161 | 2,329 | 2,330 | 2,876 | +12 | +3 | +8 |
| GAF, TOTAL[1] | 737 | 666 | 810 | 875 | 774 | 807 | 777 | 773 | 837 | 833 | 902 | 984 | 1,492 | +13 | +8 | +9 |
| MINNESOTA, TOTAL | 1,393 | 1,363 | 1,524 | 1,576 | 1,408 | 1,499 | 1,473 | 1,524 | 1,549 | 1,489 | 1,655 | 1,623 | 1,851 | +12 | +3 | +9 |
| NONDURABLE GOODS, TOTAL | 961 | 908 | 979 | 1,003 | 914 | 980 | 940 | 987 | 1,041 | 998 | 1,140 | 1,132 | 1,346 | +10 | +2 | +9 |
| GAF, TOTAL[1] | 294 | 282 | 337 | 373 | 339 | 344 | 316 | 320 | 373 | 356 | 390 | 403 | 640 | +10 | +11 | +7 |
| MISSOURI, TOTAL | 1,609 | 1,522 | 1,786 | 1,863 | 1,645 | 1,726 | 1,696 | 1,743 | 1,772 | 1,709 | 1,859 | 1,799 | 2,099 | +13 | +4 | +7 |
| NONDURABLE GOODS, TOTAL | 1,176 | 1,077 | 1,259 | 1,331 | 1,171 | 1,238 | 1,188 | 1,220 | 1,267 | 1,218 | 1,340 | 1,305 | 1,557 | +14 | +6 | +7 |
| GAF, TOTAL[1] | 318 | 305 | 365 | 401 | 363 | 399 | 357 | 366 | 402 | 367 | 406 | 468 | 689 | +10 | +10 | +5 |
| NEW JERSEY, TOTAL | 2,597 | 2,465 | 2,731 | 2,736 | 2,501 | 2,658 | 2,557 | 2,585 | 2,579 | 2,482 | 2,696 | 2,791 | 3,597 | +9 | 0 | +7 |
| NONDURABLE GOODS, TOTAL | 1,841 | 1,695 | 1,830 | 1,853 | 1,746 | 1,872 | 1,779 | 1,772 | 1,842 | 1,732 | 1,884 | 1,992 | 2,476 | +6 | +1 | +4 |
| GAF, TOTAL[1] | 617 | 584 | 626 | 698 | 612 | 662 | 605 | 589 | 638 | 641 | 724 | 905 | 1,501 | +14 | +12 | +10 |
| NEW YORK, TOTAL | 5,602 | 5,167 | 6,016 | 5,844 | 5,426 | 5,604 | 5,517 | 5,490 | 5,616 | 5,581 | 6,108 | 6,120 | 7,230 | +8 | -3 | +7 |
| DURABLE GOODS, TOTAL | 1,383 | 1,381 | 1,749 | 1,505 | 1,503 | 1,438 | 1,470 | 1,526 | 1,489 | 1,502 | 1,758 | 1,687 | 1,739 | 0 | -14 | +4 |
| NONDURABLE GOODS, TOTAL | 4,219 | 3,786 | 4,267 | 4,339 | 3,923 | 4,166 | 4,047 | 3,964 | 4,127 | 4,079 | 4,350 | 4,433 | 5,491 | +11 | +2 | +8 |
| GAF, TOTAL[1] | 1,207 | 1,155 | 1,336 | 1,524 | 1,335 | 1,486 | 1,417 | 1,342 | 1,457 | 1,457 | 1,591 | 1,719 | 2,498 | +14 | +14 | +9 |
| NORTH CAROLINA, TOTAL | 1,721 | 1,646 | 1,871 | 1,953 | 1,698 | 1,767 | 1,681 | 1,799 | 1,874 | 1,765 | 1,931 | 1,840 | 2,254 | +15 | +4 | +8 |
| NONDURABLE GOODS, TOTAL | 1,168 | 1,064 | 1,202 | 1,244 | 1,097 | 1,147 | 1,091 | 1,138 | 1,209 | 1,155 | 1,233 | 1,221 | 1,572 | +13 | +3 | +9 |
| GAF, TOTAL[1] | 338 | 305 | 381 | 487 | 396 | 397 | 389 | 419 | 445 | 419 | 471 | 489 | 790 | +23 | +28 | +9 |
| OHIO, TOTAL | 3,416 | 3,307 | 3,764 | 3,871 | 3,511 | 3,680 | 3,549 | 3,643 | 3,788 | 3,586 | 4,008 | 4,096 | 4,840 | +10 | +3 | +6 |
| DURABLE GOODS, TOTAL | 872 | 927 | 1,095 | 1,077 | 936 | 945 | 1,001 | 1,049 | 1,025 | 983 | 1,143 | 1,121 | 1,219 | +15 | -2 | +6 |
| NONDURABLE GOODS, TOTAL | 2,544 | 2,380 | 2,669 | 2,794 | 2,575 | 2,735 | 2,548 | 2,594 | 2,763 | 2,603 | 2,865 | 2,975 | 3,621 | +9 | +5 | +6 |
| GAF, TOTAL[1] | 680 | 653 | 808 | 880 | 814 | 840 | 789 | 795 | 878 | 837 | 951 | 1,128 | 1,725 | +8 | +9 | +3 |
| PENNSYLVANIA, TOTAL | 3,635 | 3,567 | 4,070 | 4,088 | 3,749 | 3,919 | 3,730 | 3,841 | 3,899 | 3,684 | 4,123 | 4,113 | 4,811 | +9 | 0 | +6 |
| DURABLE GOODS, TOTAL | 906 | 1,017 | 1,199 | 1,160 | 1,121 | 1,115 | 1,100 | 1,154 | 1,114 | 1,012 | 1,151 | 1,037 | 1,085 | +3 | -3 | +1 |
| NONDURABLE GOODS, TOTAL | 2,729 | 2,550 | 2,871 | 2,928 | 2,628 | 2,804 | 2,630 | 2,687 | 2,785 | 2,672 | 2,972 | 3,076 | 3,726 | +11 | +2 | +8 |
| GAF, TOTAL[1] | 722 | 714 | 859 | 967 | 833 | 886 | 813 | 790 | 897 | 857 | 998 | 1,187 | 1,728 | +16 | +13 | +9 |
| TENNESSEE, TOTAL | 1,346 | 1,305 | 1,551 | 1,592 | 1,351 | 1,441 | 1,421 | 1,437 | 1,464 | 1,430 | 1,513 | 1,554 | 1,883 | +18 | +3 | +11 |
| NONDURABLE GOODS, TOTAL | 943 | 907 | 1,074 | 1,114 | 989 | 1,039 | 997 | 987 | 1,016 | 979 | 1,044 | 1,094 | 1,360 | +13 | +4 | +7 |
| GAF, TOTAL[1] | 279 | 272 | 348 | 371 | 313 | 336 | 312 | 320 | 351 | 332 | 378 | 470 | 722 | +19 | +7 | +11 |
| TEXAS, TOTAL | 5,755 | 5,630 | 6,410 | 6,521 | 5,492 | 5,866 | 5,841 | 6,020 | 6,055 | 5,725 | 6,107 | 6,093 | 7,390 | +19 | +2 | +16 |
| DURABLE GOODS, TOTAL | 1,941 | 2,080 | 2,382 | 2,258 | 1,869 | 2,080 | 2,098 | 2,229 | 2,119 | 2,008 | 2,135 | 2,074 | 2,246 | +21 | -5 | +17 |
| NONDURABLE GOODS, TOTAL | 3,814 | 3,550 | 4,028 | 4,263 | 3,623 | 3,786 | 3,743 | 3,791 | 3,936 | 3,717 | 3,972 | 4,019 | 5,144 | +18 | +6 | +15 |
| GAF, TOTAL[1] | 1,234 | 1,182 | 1,389 | 1,507 | 1,254 | 1,397 | 1,292 | 1,336 | 1,459 | 1,290 | 1,412 | 1,591 | 2,488 | +20 | +8 | +15 |
| VIRGINIA, TOTAL | 2,152 | 1,901 | 2,250 | 2,230 | 1,826 | 1,940 | 1,924 | 1,964 | 1,997 | 1,877 | 2,053 | 2,007 | 2,547 | +22 | -1 | +19 |
| NONDURABLE GOODS, TOTAL | 1,514 | 1,325 | 1,477 | 1,503 | 1,251 | 1,351 | 1,339 | 1,329 | 1,370 | 1,279 | 1,424 | 1,478 | 1,904 | +20 | +2 | +19 |
| GAF, TOTAL[1] | 388 | 329 | 386 | 449 | 349 | 378 | 355 | 359 | 395 | 381 | 428 | 538 | 827 | +29 | +16 | +17 |
| WISCONSIN, TOTAL | 1,461 | 1,386 | 1,585 | 1,582 | 1,495 | 1,663 | 1,504 | 1,553 | 1,600 | 1,518 | 1,655 | 1,667 | 1,936 | +6 | 0 | +3 |
| DURABLE GOODS, TOTAL | 443 | 444 | 539 | 488 | 438 | 483 | 447 | 479 | 479 | 478 | 514 | 459 | 501 | +11 | -9 | +12 |
| NONDURABLE GOODS, TOTAL | 1,018 | 942 | 1,046 | 1,094 | 1,057 | 1,180 | 1,057 | 1,074 | 1,121 | 1,040 | 1,141 | 1,208 | 1,435 | +4 | +5 | -1 |
| GAF, TOTAL[1] | 318 | 295 | 355 | 384 | 343 | 350 | 329 | 352 | 378 | 363 | 390 | 421 | 630 | +12 | +8 | +7 |

Note: Sampling variabilities are shown in appendix B, table B-4.

[P] Preliminary estimates.

[1] GAF represents stores which specialize in department store types of merchandise (see appendix A).

# Table 7. Estimated Monthly Retail Sales by Selected Kinds of Business for Specified Areas and Cities

| AREA[1] AND KIND OF BUSINESS | 1981 | | | | 1980 | | | | | | | | | PERCENT CHANGE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | APR. 1981 FROM-- | | 4 MOS. 1981 FROM 4 MOS. 1980 |
| | JAN. | FEB. | MAR. | APR.[P] | APR. | MAY | JUNE | JULY | AUG. | SEP. | OCT. | NOV. | DEC. | APR. 1980 | MAR. 1981 | |
| | DATA IN MILLIONS OF DOLLARS, NOT ADJUSTED FOR SEASONAL VARIATIONS, HOLIDAY OR TRADING-DAY DIFFERENCES | | | | | | | | | | | | | | | |
| STANDARD CONSOLIDATED AREAS | | | | | | | | | | | | | | | | |
| CHICAGO, ILL.-NORTHWESTERN IND., TOTAL.. | 2,637 | 2,600 | 2,930 | 2,888 | 2,779 | 2,955 | 2,810 | 2,704 | 2,812 | 2,733 | 2,990 | 2,995 | 3,605 | +4 | -1 | +5 |
| NONDURABLE GOODS, TOTAL..... | 1,891 | 1,815 | 2,008 | 2,058 | 1,926 | 2,106 | 1,938 | 1,884 | 2,010 | 1,935 | 2,128 | 2,200 | 2,708 | +7 | +2 | +5 |
| GAF, TOTAL[2]..... | 596 | 550 | 686 | 722 | 686 | 739 | 705 | 669 | 734 | 694 | 784 | 835 | 1,274 | +5 | +5 | +4 |
| NEW YORK, N.Y.-NORTHEASTERN, N.J., TOTAL. | 5,282 | 4,924 | 5,652 | 5,483 | 4,895 | 5,140 | 5,078 | 4,838 | 4,919 | 5,012 | 5,493 | 5,698 | 7,000 | +12 | -3 | +9 |
| NONDURABLE GOODS, TOTAL..... | 3,868 | 3,530 | 3,929 | 3,977 | 3,500 | 3,720 | 3,600 | 3,376 | 3,511 | 3,543 | 3,781 | 3,984 | 4,990 | +14 | +1 | +9 |
| GAF, TOTAL[2]..... | 1,272 | 1,200 | 1,333 | 1,496 | 1,293 | 1,439 | 1,360 | 1,249 | 1,343 | 1,397 | 1,549 | 1,759 | 2,722 | +16 | +12 | +10 |
| STANDARD METROPOLITAN STATISTICAL AREAS | | | | | | | | | | | | | | | | |
| ANAHEIM-SANTA ANA-GAR. GROVE, CA., TOTAL. | 855 | 838 | 962 | 983 | 864 | 913 | 903 | 886 | 924 | 878 | 903 | 946 | 1,174 | +14 | +2 | +2 |
| NONDURABLE GOODS, TOTAL..... | 618 | 588 | 640 | 676 | 589 | 616 | 595 | 600 | 630 | 607 | 630 | 659 | 850 | +15 | +6 | +9 |
| GAF, TOTAL[2]..... | 223 | 212 | 244 | 255 | 221 | 238 | 237 | 234 | 254 | 241 | 252 | 294 | 464 | +15 | +5 | +9 |
| ATLANTA, GA., TOTAL..... | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) |
| NONDURABLE GOODS, TOTAL..... | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) |
| GAF, TOTAL[2]..... | 145 | 146 | 186 | 202 | 179 | 181 | 169 | 160 | 191 | 177 | 214 | 240 | 385 | +13 | +9 | -3 |
| BALTIMORE, MD., TOTAL..... | 775 | 738 | 830 | 818 | 737 | 769 | 747 | 767 | 764 | 753 | 815 | 817 | 1,011 | +11 | -1 | +12 |
| NONDURABLE GOODS, TOTAL..... | 565 | 518 | 556 | 567 | 521 | 549 | 511 | 533 | 538 | 505 | 576 | 601 | 750 | +9 | +2 | +11 |
| GAF, TOTAL[2]..... | 147 | 145 | 168 | 190 | 174 | 189 | 168 | 165 | 173 | 177 | 203 | 232 | 345 | +9 | +13 | +5 |
| BOSTON, MASS., TOTAL[3]..... | 1,382 | 1,350 | 1,492 | 1,449 | 1,303 | 1,372 | 1,290 | 1,288 | 1,415 | 1,330 | 1,490 | 1,484 | 1,849 | +11 | -3 | +12 |
| NONDURABLE GOODS, TOTAL..... | 1,066 | 999 | 1,070 | 1,061 | 923 | 981 | 923 | 906 | 1,023 | 975 | 1,075 | 1,132 | 1,435 | +15 | -1 | +15 |
| GAF, TOTAL[2]..... | 284 | 290 | 334 | 362 | 296 | 329 | 311 | 291 | 366 | 363 | 377 | 433 | 673 | +22 | +8 | +14 |
| BUFFALO, N.Y., TOTAL..... | 369 | 351 | 413 | 433 | 401 | 405 | 390 | 403 | 400 | 365 | 410 | 427 | 488 | +8 | +5 | +8 |
| NONDURABLE GOODS, TOTAL..... | 291 | 269 | 308 | 318 | 299 | 332 | 319 | 324 | 335 | 308 | 326 | 332 | 387 | +6 | +3 | +3 |
| GAF, TOTAL[2]..... | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) |
| CHICAGO, ILL., TOTAL..... | 2,412 | 2,377 | 2,682 | 2,639 | 2,547 | 2,711 | 2,574 | 2,481 | 2,582 | 2,511 | 2,753 | 2,758 | 3,335 | +4 | -2 | +5 |
| NONDURABLE GOODS, TOTAL..... | 1,737 | 1,670 | 1,844 | 1,888 | 1,779 | 1,943 | 1,780 | 1,728 | 1,844 | 1,776 | 1,964 | 2,032 | 2,503 | +6 | +2 | +5 |
| GAF, TOTAL[2]..... | 563 | 519 | 647 | 680 | 648 | 697 | 668 | 631 | 694 | 656 | 739 | 788 | 1,199 | +5 | +5 | +4 |
| CINCINNATI, OHIO-KY-IND., TOTAL..... | 458 | 441 | 521 | 526 | 482 | 505 | 475 | 482 | 502 | 497 | 556 | 566 | 654 | +9 | +1 | +4 |
| NONDURABLE GOODS, TOTAL..... | 386 | 357 | 418 | 429 | 388 | 406 | 388 | 401 | 418 | 397 | 453 | 459 | 552 | +11 | +3 | +6 |
| GAF, TOTAL[2]..... | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) |
| CLEVELAND, OHIO, TOTAL..... | 640 | 594 | 693 | 740 | 694 | 699 | 681 | 686 | 688 | 686 | 751 | 745 | 935 | +7 | +7 | 0 |
| NONDURABLE GOODS, TOTAL..... | 505 | 464 | 526 | 565 | 521 | 538 | 518 | 517 | 532 | 523 | 572 | 586 | 747 | +8 | +7 | +2 |
| GAF, TOTAL[2]..... | 149 | 143 | 175 | 192 | 184 | 188 | 178 | 175 | 189 | 192 | 207 | 236 | 352 | +4 | +10 | +1 |
| DALLAS-FORT WORTH, TEX., TOTAL..... | 1,341 | 1,300 | 1,545 | 1,567 | 1,156 | 1,301 | 1,357 | 1,337 | 1,366 | 1,374 | 1,485 | 1,510 | 1,778 | +36 | +1 | +24 |
| NONDURABLE GOODS, TOTAL..... | 843 | 784 | 922 | 963 | 726 | 779 | 806 | 774 | 858 | 858 | 941 | 971 | 1,214 | +33 | +4 | +25 |
| GAF, TOTAL[2]..... | 316 | 297 | 356 | 370 | 297 | 325 | 330 | 330 | 352 | 315 | 338 | 379 | 610 | +25 | +4 | +15 |
| DENVER-BOULDER, COLO., TOTAL..... | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) |
| NONDURABLE GOODS, TOTAL..... | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) |
| DETROIT, MICH., TOTAL..... | 1,828 | 1,729 | 2,098 | 2,127 | 1,774 | 1,799 | 1,842 | 1,905 | 1,815 | 1,776 | 2,011 | 1,975 | 2,411 | +20 | +1 | +12 |
| NONDURABLE GOODS, TOTAL..... | 1,182 | 1,078 | 1,264 | 1,301 | 1,083 | 1,157 | 1,203 | 1,177 | 1,212 | 1,150 | 1,235 | 1,219 | 1,575 | +20 | +3 | +13 |
| GAF, TOTAL[2]..... | 399 | 375 | 456 | 494 | 417 | 439 | 417 | 399 | 447 | 458 | 500 | 542 | 839 | +18 | +8 | +13 |
| HOUSTON, TEX., TOTAL..... | 1,442 | 1,343 | 1,624 | 1,627 | 1,348 | 1,407 | 1,429 | 1,451 | 1,425 | 1,373 | 1,487 | 1,425 | 1,827 | +21 | 0 | +18 |
| NONDURABLE GOODS, TOTAL..... | 962 | 870 | 1,055 | 1,104 | 889 | 912 | 918 | 948 | 945 | 898 | 975 | 950 | 1,276 | +24 | +5 | +21 |
| GAF, TOTAL[2]..... | 302 | 298 | 355 | 386 | 311 | 350 | 317 | 326 | 360 | 315 | 356 | 407 | 630 | +24 | +9 | +15 |
| KANSAS CITY, MO.-KANS., TOTAL..... | 573 | 563 | 666 | 667 | 573 | 616 | 596 | 618 | 618 | 611 | 694 | 682 | 813 | +16 | 0 | +10 |
| NONDURABLE GOODS, TOTAL..... | 410 | 392 | 447 | 461 | 399 | 433 | 410 | 423 | 446 | 424 | 483 | 499 | 600 | +16 | +3 | +11 |
| GAF, TOTAL[2]..... | 117 | 113 | 140 | 150 | 135 | 151 | 137 | 136 | 151 | 136 | 151 | 186 | 284 | +11 | +7 | +5 |
| LOS ANGELES-LONG BEACH, CALIF., TOTAL.. | 2,887 | 2,708 | 3,083 | 3,150 | 2,697 | 2,829 | 2,729 | 2,790 | 2,878 | 2,799 | 2,927 | 3,013 | 3,715 | +17 | +2 | +10 |
| NONDURABLE GOODS, TOTAL..... | 2,071 | 1,934 | 2,119 | 2,172 | 1,868 | 1,992 | 1,883 | 1,921 | 2,026 | 1,974 | 2,057 | 2,180 | 2,729 | +16 | +3 | +12 |
| GAF, TOTAL[2]..... | 693 | 653 | 742 | 795 | 714 | 745 | 727 | 707 | 748 | 742 | 751 | 824 | 1,316 | +11 | +7 | +9 |
| MIAMI, FLA., TOTAL..... | 815 | 831 | 850 | 825 | 697 | 708 | 685 | 730 | 779 | 728 | 824 | 837 | 968 | +18 | -3 | +21 |
| NONDURABLE GOODS, TOTAL..... | 511 | 489 | 496 | 492 | 460 | 487 | 450 | 481 | 524 | 477 | 503 | 525 | 635 | +7 | -1 | +12 |
| GAF, TOTAL[2]..... | 182 | 175 | 206 | 211 | 170 | 174 | 168 | 183 | 209 | 182 | 191 | 220 | 309 | +24 | +2 | +16 |
| MILWAUKEE, WIS., TOTAL..... | 567 | 515 | 621 | 598 | 563 | 605 | 563 | 589 | 583 | 558 | 605 | 570 | 689 | +6 | -4 | +10 |
| NONDURABLE GOODS, TOTAL..... | 334 | 309 | 347 | 357 | 348 | 358 | 334 | 337 | 349 | 332 | 370 | 365 | 464 | +3 | +3 | +4 |
| GAF, TOTAL[2]..... | 130 | 115 | 139 | 154 | 131 | 137 | 124 | 127 | 144 | 134 | 147 | 156 | 229 | +18 | +11 | +13 |
| MINNEAPOLIS-ST. PAUL, MINN.-WIS., TOTAL. | 810 | 834 | 968 | 972 | 907 | 938 | 914 | 902 | 948 | 923 | 1,014 | 997 | 1,100 | +7 | 0 | +4 |
| NONDURABLE GOODS, TOTAL..... | 560 | 556 | 632 | 643 | 588 | 622 | 593 | 585 | 646 | 629 | 698 | 697 | 789 | +9 | +2 | +5 |
| GAF, TOTAL[2]..... | 195 | 194 | 240 | 255 | 232 | 237 | 221 | 218 | 253 | 246 | 275 | 283 | 414 | +10 | +6 | +4 |
| NASSAU-SUFFOLK, N.Y., TOTAL..... | 1,216 | 1,097 | 1,319 | 1,144 | 1,037 | 1,081 | 1,057 | 1,039 | 1,077 | 1,070 | 1,183 | 1,240 | 1,523 | +10 | -13 | +12 |
| NONDURABLE GOODS, TOTAL..... | 830 | 726 | 844 | 809 | 700 | 739 | 714 | 680 | 718 | 678 | 742 | 767 | 1,042 | +16 | -4 | +11 |
| GAF, TOTAL[2]..... | 235 | 224 | 252 | 277 | 245 | 278 | 266 | 243 | 273 | 265 | 281 | 315 | 513 | +13 | +10 | +10 |
| NEW YORK, N.Y.-N.J., TOTAL..... | 2,829 | 2,652 | 3,014 | 2,977 | 2,689 | 2,813 | 2,826 | 2,628 | 2,681 | 2,828 | 3,076 | 3,159 | 3,756 | +11 | -1 | +7 |
| NONDURABLE GOODS, TOTAL..... | 2,167 | 1,993 | 2,194 | 2,235 | 1,957 | 2,090 | 2,056 | 1,888 | 1,963 | 2,063 | 2,163 | 2,280 | 2,790 | +14 | +2 | +9 |
| GAF, TOTAL[2]..... | 744 | 697 | 783 | 882 | 742 | 841 | 798 | 722 | 770 | 833 | 943 | 1,043 | 1,502 | +19 | +13 | +13 |

See footnotes at end of table.

# Table 7. Estimated Monthly Retail Sales by Selected Kinds of Business for Specified Areas and Cities—Continued

| AREA[1] AND KIND OF BUSINESS | 1981 | | | | 1980 | | | | | | | | | PERCENT CHANGE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | APR. 1981 FROM-- | | 4 MOS. 1981 FROM 4 MOS. 1980 |
| | JAN. | FEB. | MAR. | APR.[P] | APR. | MAY | JUNE | JULY | AUG. | SEP. | OCT. | NOV. | DEC. | APR. 1980 | MAR. 1981 | |
| | DATA IN MILLIONS OF DOLLARS, NOT ADJUSTED FOR SEASONAL VARIATIONS, HOLIDAY OR TRADING-DAY DIFFERENCES | | | | | | | | | | | | | | | |
| STANDARD METROPOLITAN STATISTICAL AREAS | | | | | | | | | | | | | | | | |
| NEWARK, N.J., TOTAL | 670 | 614 | 694 | 719 | 668 | 733 | 722 | 701 | 676 | 655 | 734 | 707 | 857 | +8 | +4 | +6 |
| NONDURABLE GOODS, TOTAL | 460 | 405 | 444 | 458 | 443 | 476 | 456 | 438 | 444 | 437 | 462 | 477 | 589 | +3 | +3 | +3 |
| GAF, TOTAL[2] | 157 | 149 | 167 | 190 | 170 | 182 | 171 | 165 | 173 | 176 | 196 | 221 | 336 | +12 | +14 | +11 |
| PATERSON-CLIFTON-PASSAIC, N.J., TOTAL | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) |
| NONDURABLE GOODS, TOTAL | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) |
| GAF, TOTAL[2] | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) |
| PHILADELPHIA, PA.-N.J., TOTAL | 1,496 | 1,440 | 1,665 | 1,594 | 1,572 | 1,600 | 1,474 | 1,483 | 1,448 | 1,417 | 1,584 | 1,567 | 1,978 | +1 | -4 | +4 |
| NONDURABLE GOODS, TOTAL | 1,119 | 1,014 | 1,159 | 1,130 | 1,060 | 1,122 | 1,042 | 1,005 | 1,018 | 1,007 | 1,127 | 1,167 | 1,511 | +7 | -3 | +5 |
| GAF, TOTAL[2] | 305 | 302 | 356 | 400 | 354 | 378 | 346 | 318 | 349 | 352 | 401 | 466 | 721 | +13 | +12 | +5 |
| PITTSBURGH, PA., TOTAL | 629 | 652 | 740 | 757 | 701 | 714 | 687 | 718 | 742 | 682 | 786 | 783 | 952 | +8 | +2 | +4 |
| NONDURABLE GOODS, TOTAL | 509 | 486 | 561 | 585 | 522 | 540 | 525 | 543 | 578 | 534 | 601 | 620 | 786 | +12 | +4 | +8 |
| GAF, TOTAL[2] | 179 | 178 | 216 | 235 | 201 | 210 | 195 | 195 | 237 | 216 | 265 | 314 | 448 | +17 | +9 | +12 |
| ST. LOUIS, MO.-IND., TOTAL | 660 | 635 | 725 | 735 | 621 | 693 | 635 | 668 | 730 | 702 | 747 | 771 | 906 | +18 | +1 | +12 |
| NONDURABLE GOODS, TOTAL | 514 | 483 | 540 | 556 | 497 | 542 | 491 | 501 | 540 | 520 | 566 | 593 | 715 | +12 | +3 | +6 |
| GAF, TOTAL[2] | 167 | 161 | 199 | 221 | 196 | 218 | 191 | 195 | 208 | 195 | 223 | 260 | 384 | +13 | +11 | +6 |
| SAN DIEGO, CALIF., TOTAL | 660 | 647 | 742 | 734 | 655 | 665 | 657 | 728 | 715 | 668 | 708 | 695 | 863 | +12 | -1 | +8 |
| NONDURABLE GOODS, TOTAL | 460 | 442 | 490 | 503 | 434 | 446 | 426 | 455 | 476 | 448 | 473 | 493 | 610 | +16 | +3 | +14 |
| GAF, TOTAL[2] | 169 | 164 | 188 | 196 | 173 | 183 | 173 | 181 | 197 | 190 | 193 | 215 | 328 | +13 | +4 | +7 |
| SAN FRANSISCO-OAKLAND, CALIF., TOTAL | 1,247 | 1,221 | 1,352 | 1,342 | 1,179 | 1,227 | 1,219 | 1,273 | 1,294 | 1,269 | 1,315 | 1,321 | 1,581 | +14 | -1 | +7 |
| NONDURABLE GOODS, TOTAL | 891 | 809 | 887 | 919 | 844 | 885 | 852 | 853 | 897 | 885 | 907 | 922 | 1,147 | +9 | +4 | +4 |
| GAF, TOTAL[2] | 315 | 304 | 355 | 365 | 307 | 333 | 325 | 332 | 370 | 342 | 371 | 425 | 629 | +19 | +3 | +11 |
| SEATTLE-EVERETT WASH., TOTAL | 667 | 610 | 700 | 706 | 697 | 699 | 678 | 718 | 754 | 689 | 713 | 705 | 855 | +1 | +1 | +2 |
| NONDURABLE GOODS, TOTAL | 443 | 405 | 466 | 463 | 451 | 455 | 438 | 467 | 484 | 450 | 458 | 481 | 620 | +3 | -1 | -1 |
| GAF, TOTAL[2] | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) |
| WASHINGTON, D.C.-MD.-VA., TOTAL | 1,299 | 1,216 | 1,375 | 1,400 | 1,242 | 1,283 | 1,257 | 1,322 | 1,323 | 1,287 | 1,350 | 1,313 | 1,636 | +13 | +2 | +11 |
| NONDURABLE GOODS, TOTAL | 920 | 838 | 924 | 968 | 880 | 936 | 914 | 953 | 956 | 891 | 938 | 953 | 1,206 | +10 | +5 | +9 |
| GAF, TOTAL[2] | 299 | 278 | 316 | 364 | 302 | 325 | 297 | 289 | 323 | 337 | 383 | 399 | 618 | +21 | +15 | +12 |
| CITIES | | | | | | | | | | | | | | | | |
| CHICAGO, ILL., TOTAL | 747 | 759 | 870 | 882 | 848 | 877 | 828 | 801 | 849 | 818 | 900 | 878 | 1,034 | +4 | +1 | 0 |
| NONDURABLE GOODS, TOTAL | 560 | 562 | 611 | 628 | 624 | 654 | 593 | 574 | 616 | 589 | 672 | 672 | 796 | +1 | +3 | -1 |
| GAF, TOTAL[2] | 180 | 177 | 219 | 231 | 210 | 222 | 221 | 206 | 234 | 221 | 241 | 249 | 362 | +10 | +5 | +3 |
| DETROIT, MICH., TOTAL | 306 | 321 | 368 | 361 | 306 | 291 | 281 | 294 | 266 | 262 | 304 | 270 | 331 | +18 | -2 | +9 |
| NONDURABLE GOODS, TOTAL | 213 | 215 | 239 | 241 | 195 | 199 | 186 | 187 | 190 | 185 | 199 | 177 | 231 | +24 | +1 | +11 |
| GAF, TOTAL[2] | 36 | 34 | 42 | 45 | 42 | 48 | 41 | 40 | 43 | 41 | 48 | 45 | 74 | +7 | +7 | 0 |
| LOS ANGELES, CALIF., TOTAL | 996 | 936 | 1,012 | 991 | 951 | 985 | 922 | 923 | 950 | 910 | 969 | 1,049 | 1,254 | +4 | -2 | +2 |
| NONDURABLE GOODS, TOTAL | 805 | 742 | 778 | 779 | 718 | 750 | 699 | 698 | 741 | 716 | 754 | 831 | 1,008 | +8 | 0 | +6 |
| GAF, TOTAL[2] | 232 | 222 | 250 | 258 | 245 | 258 | 247 | 242 | 247 | 247 | 252 | 279 | 412 | +5 | +3 | +6 |
| NEW YORK, N.Y., TOTAL | 1,989 | 1,856 | 2,149 | 2,133 | 1,935 | 2,006 | 2,049 | 1,845 | 1,874 | 2,005 | 2,151 | 2,195 | 2,580 | +10 | -1 | +5 |
| NONDURABLE GOODS, TOTAL | 1,582 | 1,455 | 1,625 | 1,669 | 1,425 | 1,507 | 1,505 | 1,353 | 1,406 | 1,509 | 1,535 | 1,619 | 1,992 | +17 | +3 | +11 |
| GAF, TOTAL[2] | 525 | 501 | 572 | 653 | 569 | 644 | 611 | 551 | 574 | 625 | 695 | 721 | 987 | +15 | +14 | +6 |
| PHILADELPHIA, PA., TOTAL | 381 | 374 | 424 | 429 | 409 | 431 | 403 | 382 | 372 | 372 | 423 | 432 | 528 | +5 | +1 | +3 |
| NONDURABLE GOODS, TOTAL | 327 | 307 | 351 | 355 | 353 | 370 | 347 | 328 | 320 | 322 | 365 | 368 | 453 | +1 | +1 | -1 |
| GAF, TOTAL[2] | 91 | 96 | 102 | 123 | 108 | 114 | 101 | 91 | 96 | 97 | 111 | 120 | 171 | +14 | +21 | +8 |

Note: Sampling variabilities are shown in appendix B, table B-5.

[P]Preliminary estimates. (S) Data do not meet publication standards because of high sampling error.

[1]For definitions of standard consolidated areas and standard metropolitan statistical areas, see appendix E, part I. [2]GAF represents stores which specialize in department store types of merchandise (see appendix A). [3]Statistics for the Boston SMSA include retail establishments in all of Essex, Middlesex, Norfolk, Plymouth, and Suffolk counties.

# Table 8. Department Store Sales in Selected Areas

(Area data in thousands of dollars and NOT ADJUSTED for seasonal variations, holiday or trading-day differences)

| Area | 1981 | | | | 1980 | | | | | | | | | Percent change | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | April 1981 from— | | 4 mos. 1981 from 4 mos. 1980 |
| | Jan. | Feb. | Mar. | Apr.P | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Apr. 1980 | Mar. 1981 | |
| STANDARD CONSOLIDATED AREAS[1] | | | | | | | | | | | | | | | | |
| Chicago, Ill.-Northwestern Indiana | 226,457 | 212,317 | 281,560 | 306,962 | 272,906 | 305,328 | 278,456 | 269,101 | 305,191 | 288,401 | 328,205 | 359,067 | 559,408 | +12 | +9 | +7 |
| New York, N.Y.-Northeastern New Jersey | 349,809 | 352,000 | 409,403 | 464,361 | 410,941 | 499,374 | 451,301 | 403,291 | 449,879 | 469,514 | 530,422 | 606,185 | 909,451 | +13 | +13 | +5 |
| STANDARD METROPOLITAN STATISTICAL AREAS[1] | | | | | | | | | | | | | | | | |
| Akron, Ohio | 17,193 | 16,499 | 21,993 | 24,637 | 21,095 | 24,813 | 22,219 | 21,681 | 25,969 | 23,240 | 26,294 | 31,410 | 50,174 | +17 | +12 | +6 |
| Albany-Schenectady-Troy, N.Y. | 15,369 | 15,525 | 19,094 | 22,910 | 21,364 | 24,411 | 21,848 | 21,248 | 23,947 | 22,291 | 25,504 | 32,821 | 47,160 | +7 | +20 | +1 |
| Albuquerque, N. Mex. | 14,567 | 13,950 | 17,198 | 18,898 | 15,999 | 18,439 | 17,205 | 17,163 | 20,003 | 17,199 | 19,609 | 22,322 | 35,780 | +18 | +10 | +10 |
| Allentown-Bethlehem-Easton, Pa.-N.J. | 17,461 | 18,196 | 21,307 | 24,895 | 22,595 | 24,426 | 22,112 | 21,356 | 24,174 | 23,145 | 26,699 | 34,795 | 47,937 | +10 | +17 | +4 |
| Anaheim-Santa Ana-Garden Grove, Calif. | 91,347 | 89,125 | 104,574 | 110,361 | 97,084 | 105,929 | 104,383 | 100,961 | 108,671 | 104,765 | 109,881 | 129,851 | 217,525 | +14 | +6 | +9 |
| Ann Arbor, Mich. | 11,864 | 10,550 | 13,014 | 13,841 | 11,832 | 13,329 | 12,418 | 11,844 | 14,011 | 14,411 | 15,715 | 16,771 | 24,334 | +17 | +6 | +11 |
| Appleton-Oshkosh, Wis. | 7,696 | 7,352 | 9,907 | 11,372 | 10,258 | 11,321 | 9,524 | 9,599 | 11,808 | 10,858 | 11,689 | 14,844 | 21,037 | +11 | +15 | +5 |
| Asheville, N.C. | 4,181 | 3,875 | 5,265 | 6,121 | 5,573 | 6,004 | 5,594 | 5,771 | 6,064 | 5,575 | 6,222 | 7,254 | 11,329 | +10 | +16 | +5 |
| Atlanta, Ga. | 70,536 | 72,110 | 97,541 | 104,022 | 88,356 | 92,852 | 87,079 | 84,693 | 98,552 | 92,707 | 105,254 | 122,552 | 192,141 | +18 | +7 | +11 |
| Augusta, Ga.-S.C. | 7,726 | 7,439 | 10,255 | 11,402 | 9,689 | 10,378 | 9,441 | 9,288 | 10,172 | 9,321 | 10,450 | 12,625 | 19,883 | +18 | +11 | +10 |
| Austin, Tex. | 15,406 | 15,062 | 19,579 | 21,111 | 15,337 | 17,686 | 15,609 | 16,478 | 18,357 | 16,430 | 17,818 | 23,505 | 36,188 | +38 | +8 | +26 |
| Bakersfield, Calif. | 9,599 | 9,499 | 11,683 | 13,881 | 11,249 | 12,234 | 11,394 | 11,346 | 13,166 | 11,366 | 12,469 | 15,176 | 22,498 | +23 | +19 | +13 |
| Baltimore, Md. | 52,769 | 52,964 | 64,655 | 75,416 | 66,201 | 76,219 | 65,698 | 63,053 | 66,594 | 68,318 | 81,187 | 95,915 | 142,772 | +14 | +17 | +6 |
| Baton Rouge, La. | 17,213 | 17,350 | 23,235 | 25,733 | 20,125 | 23,219 | 21,001 | 22,547 | 24,971 | 21,888 | 23,647 | 27,872 | 44,283 | +28 | +11 | +14 |
| Beaumont-Port Arthur-Orange, Tex. | 10,610 | 10,553 | 13,517 | 14,400 | 12,108 | 13,361 | 12,410 | 12,827 | 13,654 | 11,951 | 13,572 | 15,604 | 23,954 | +19 | +7 | +15 |
| Billings, Mont. | 4,100 | 3,850 | 4,962 | 5,302 | 4,540 | 5,069 | 4,645 | 4,785 | 6,135 | 5,314 | 5,888 | 6,668 | 9,893 | +17 | +7 | +18 |
| Binghamton, N.Y.-Pa. | 6,321 | 5,779 | 7,353 | 8,269 | 7,780 | 8,567 | 7,738 | 7,785 | 8,612 | 7,745 | 8,421 | 10,188 | 15,101 | +6 | +12 | +5 |
| Birmingham, Ala. | 16,442 | 16,466 | 23,068 | 26,054 | 21,985 | 23,896 | 21,848 | 22,001 | 23,656 | 21,859 | 22,581 | 27,982 | 46,248 | +19 | +13 | +4 |
| Boston, Mass. | 72,350 | 73,888 | 91,517 | 100,105 | 86,801 | 101,211 | 91,691 | 84,042 | 102,571 | 105,584 | 109,678 | 132,517 | 212,229 | +15 | +9 | +6 |
| Bridgeport, Conn. | 10,170 | 10,392 | 12,033 | 14,233 | 12,396 | 14,970 | 13,317 | 11,912 | 14,137 | 13,734 | 15,962 | 19,962 | 30,792 | +15 | +18 | +7 |
| Buffalo, N.Y. | 35,038 | 34,182 | 42,314 | 48,256 | 44,777 | 49,806 | 46,049 | 43,981 | 48,582 | 48,803 | 51,832 | 60,541 | 91,664 | +8 | +14 | +3 |
| Canton, Ohio | 11,521 | 11,231 | 15,127 | 17,203 | 15,133 | 16,964 | 15,029 | 14,691 | 17,253 | 15,294 | 17,605 | 22,464 | 33,768 | +14 | +14 | +7 |
| Cedar Rapids, Iowa | 7,658 | 6,816 | 9,671 | 10,369 | 9,356 | 10,741 | 9,458 | 9,870 | 11,111 | 10,101 | 11,794 | 13,777 | 19,456 | +11 | +7 | +4 |
| Charleston, S.C. | 7,951 | 7,580 | 10,100 | 12,098 | 10,996 | 11,480 | 10,423 | 10,722 | 11,279 | 10,050 | 10,858 | 12,490 | 19,839 | +10 | +20 | +4 |
| Charleston, W. Va. | 8,995 | 8,860 | 12,298 | 13,787 | 12,894 | 13,522 | 12,417 | 12,032 | 13,335 | 12,193 | 14,359 | 18,201 | 25,293 | +7 | +12 | +1 |
| Charlotte-Gastonia, N.C. | 17,620 | 17,031 | 23,897 | 27,086 | 23,529 | 24,671 | 22,802 | 21,519 | 25,063 | 22,676 | 26,388 | 30,856 | 51,453* | +15 | +13 | +9 |
| Chattanooga, Tenn.-Ga. | 9,199 | 9,075 | 13,066 | 14,560 | 12,433 | 13,049 | 11,723 | 12,246 | 13,309 | 12,937 | 15,083 | 17,316 | 27,447 | +17 | +11 | +7 |
| Chicago, Ill. | 208,497 | 195,846 | 259,166 | 282,221 | 250,126 | 280,525 | 256,840 | 247,784 | 281,323 | 266,243 | 302,387 | 330,399 | 512,715 | +13 | +9 | +7 |
| Cincinnati, Ohio-Ky.-Ind. | 52,059 | 51,375 | 67,740 | 75,916 | 67,575 | 70,430 | 67,171 | 64,478 | 69,981 | 66,389 | 83,021 | 92,552 | 136,439 | +12 | +12 | +6 |
| Cleveland, Ohio | 59,889 | 59,150 | 76,812 | 90,271 | 82,157 | 86,474 | 80,173 | 76,990 | 84,072 | 87,111 | 92,501 | 105,511 | 159,734 | +10 | +18 | +4 |
| Colorado Springs, Colo. | 10,333 | 10,115 | 12,819 | 14,190 | 10,958 | 13,078 | 12,301 | 12,256 | 13,809 | 12,197 | 14,463 | 16,146 | 25,176 | +29 | +11 | +18 |
| Columbia, S.C. | 12,165 | 11,927 | 16,361 | 19,659 | 16,385 | 17,728 | 15,846 | 14,978 | 17,159 | 15,192 | 17,145 | 20,517 | 33,057 | +20 | +20 | +8 |
| Columbus, Ohio | 37,982 | 38,914 | 49,406 | 54,253 | 47,794 | 51,916 | 47,999 | 46,784 | 54,751 | 50,242 | 57,937 | 71,502 | 105,275 | +14 | +10 | +7 |
| Corpus Christi, Tex. | 7,966 | 8,938 | 11,379 | 11,683 | 8,510 | 9,679 | 8,676 | 9,087 | 9,722 | 9,158 | 10,054 | 11,828 | 18,300 | +37 | +3 | +28 |
| Dallas-Fort Worth, Tex. | 108,149 | 106,157 | 134,868 | 145,189 | 119,562 | 138,066 | 124,835 | 127,546 | 140,292 | 124,009 | 141,218 | 164,226 | 262,040 | +21 | +8 | +12 |
| Davenport-Rock Island-Moline, Iowa-Ill. | 13,229 | 12,739 | 16,662 | 18,264 | 15,882 | 17,718 | 16,378 | 16,258 | 17,614 | 15,692 | 19,089 | 21,875 | 33,806 | +15 | +10 | +10 |
| Dayton, Ohio | 27,081 | 28,546 | 36,206 | 40,158 | 35,741 | 40,949 | 34,460 | 35,595 | 39,797 | 37,320 | 42,650 | 50,614 | 76,198 | +12 | +11 | +5 |
| Decatur, Ill. | 5,126 | 4,806 | 6,321 | 7,061 | 6,339 | 7,088 | 6,563 | 6,711 | 6,991 | 6,353 | 7,398 | 8,929 | 13,615 | +11 | +12 | +8 |
| Denver-Boulder, Colo. | 56,675 | 54,293 | 69,245 | 76,707 | 63,532 | 74,553 | 68,537 | 65,182 | 73,649 | 67,554 | 78,631 | 86,941 | 138,863 | +21 | +11 | +13 |
| Des Moines, Iowa | 15,184 | 13,677 | 17,991 | 18,759 | 17,489 | 19,404 | 17,908 | 18,170 | 20,742 | 17,592 | 21,322 | 24,397 | 36,880 | +7 | +4 | +5 |
| Detroit, Mich. | 129,603 | 121,874 | 159,383 | 173,367 | 156,275 | 177,079 | 160,901 | 152,715 | 168,758 | 172,006 | 192,736 | 208,668 | 321,696 | +11 | +9 | +4 |
| Dubuque, Iowa | 3,750 | 3,470 | 4,671 | 5,021 | 4,564 | 5,097 | 4,541 | 4,628 | 5,513 | 4,705 | 5,815 | 7,064 | 10,003 | +10 | +7 | +6 |
| Duluth-Superior, Minn.-Wis. | 7,697 | 6,811 | 9,573 | 10,960 | 10,035 | 10,391 | 9,378 | 9,356 | 11,194 | 10,802 | 11,490 | 12,744 | 19,684 | +9 | +14 | +2 |
| El Paso, Tex. | 17,544 | 17,731 | 21,470 | 24,284 | 18,977 | 21,496 | 18,691 | 19,975 | 22,588 | 20,723 | 23,331 | 25,058 | 39,419 | +28 | +13 | +17 |
| Erie, Pa. | 6,605 | 6,821 | 9,160 | 10,648 | 8,850 | 9,436 | 8,612 | 8,822 | 11,123 | 9,874 | 11,074 | 14,343 | 19,572 | +20 | +16 | +12 |
| Eugene-Springfield, Oreg. | [2]7,652 | [2]7,354 | [2]9,094 | [2]9,822 | [2]8,471 | [2]9,470 | [2]8,927 | [2]9,124 | [2]11,151 | [2]10,035 | [2]10,664 | [2]12,075 | [2]18,985 | +16 | +8 | +7 |
| Evansville, Ind.-Ky. | 8,190 | 8,922 | 11,847 | 12,967 | 11,466 | 11,660 | 10,941 | 10,725 | 11,699 | 10,571 | 12,375 | 15,837 | 22,381 | +13 | +9 | +9 |
| Fargo-Moorhead, N. Dak.-Minn. | 5,052 | 4,747 | 6,480 | 6,870 | 6,008 | 6,703 | 6,102 | 6,031 | 7,729 | 6,778 | 7,833 | 8,461 | 12,774 | +14 | +6 | +14 |
| Flint, Mich. | 19,197 | 18,037 | 24,290 | 26,522 | 23,918 | 26,435 | 23,434 | 22,928 | 25,887 | 25,279 | 26,895 | 31,774 | 46,825 | +11 | +9 | +5 |
| Fort Lauderdale-Hollywood, Fla. | 44,118 | 44,616 | 52,606 | 49,552 | 44,462 | 46,124 | 42,346 | 42,912 | 49,595 | 40,698 | 46,113 | 56,313 | 93,940 | +11 | -6 | +8 |
| Fort Smith, Ark.-Okla. | 5,744 | 5,549 | 7,120 | 7,839 | 6,440 | 7,434 | 7,008 | 7,174 | 7,511 | 6,368 | 7,346 | 8,618 | 13,306 | +22 | +10 | +13 |
| Fort Wayne, Ind. | 11,800 | 10,946 | 15,281 | 16,332 | 14,771 | 16,302 | 14,624 | 14,876 | 17,074 | 15,360 | 17,680 | 21,259 | 31,269 | +7 | +11 | +5 |
| Fresno, Calif. | 15,421 | 14,648 | 17,478 | 19,020 | 15,754 | 18,022 | 16,741 | 16,881 | 20,346 | 17,902 | 19,349 | 23,058 | 36,291 | +21 | +9 | +10 |
| Gary-Hammond-East Chicago, Ind. | 17,961 | 16,471 | 22,395 | 24,740 | 22,781 | 24,804 | 21,617 | 21,320 | 23,868 | 22,158 | 25,818 | 28,668 | 46,693 | +9 | +10 | +5 |
| Grand Rapids, Mich. | 30,638 | 27,572 | 34,313 | 36,399 | 33,293 | 36,037 | 34,158 | 33,666 | 36,166 | 36,281 | 37,752 | 43,144 | 57,654 | +9 | +6 | +7 |
| Great Falls, Mont. | 2,508 | 2,390 | 3,102 | 3,444 | 2,798 | 3,073 | 2,833 | 2,991 | 3,836 | 3,208 | 3,321 | 3,961 | 6,436 | +23 | +11 | +18 |
| Green Bay, Wis. | 7,316 | 7,130 | 9,339 | 11,539 | 9,562 | 10,602 | 9,038 | 9,146 | 11,712 | 10,600 | 11,205 | 14,687 | 20,347 | +21 | +24 | +10 |
| Greensboro-Winston-Salem-High Point, N.C. | 18,709 | 17,974 | 23,828 | 28,178 | 24,145 | 24,752 | 23,571 | 22,757 | 25,653 | 23,467 | 26,917 | 32,800 | 53,182 | +17 | +18 | +14 |
| Greenville-Spartanburg, S.C. | 13,314 | 12,395 | 17,399 | 20,136 | 17,273 | 17,725 | 16,635 | 16,580 | 19,724 | 16,683 | 19,165 | 22,784 | 36,689 | +17 | +16 | +9 |
| Harrisburg, Pa. | 11,239 | 11,784 | 14,963 | 17,113 | 14,752 | 16,433 | 14,522 | 13,750 | 15,935 | 15,425 | 17,815 | 22,721 | 31,722 | +16 | +14 | +12 |
| Hartford, Conn. | 20,515 | 20,364 | 25,807 | 30,147 | 27,360 | 30,880 | 27,579 | 24,562 | 28,030 | 27,786 | 31,888 | 38,168 | 60,157 | +10 | +17 | +6 |
| Honolulu, Hawaii | 29,886 | 29,715 | 34,378 | 29,695 | [2]29,892 | 33,335 | 32,233 | 38,651 | 36,731 | 31,049 | 35,398 | 35,569 | 60,355 | -1 | -14 | +2 |
| Houston, Tex. | 123,424 | 121,637 | 153,133 | 165,851 | 130,074 | 151,261 | 133,959 | 142,779 | 151,215 | 133,181 | 149,756 | 176,297 | 266,839 | +28 | +8 | +16 |
| Huntington-Ashland, W. Va.-Ky.-Ohio | 8,524 | 9,731 | 12,505 | 14,532 | 10,962 | 11,734 | 10,533 | 10,287 | 11,946 | 10,349 | 13,048 | 16,446 | 24,340 | +33 | +16 | +25 |
| Huntsville, Ala. | 6,598 | 6,602 | 8,997 | 10,151 | 8,531 | 8,959 | 7,989 | 8,437 | 9,071 | 8,266 | 9,190 | 10,957 | 17,183 | +19 | +13 | +13 |
| Indianapolis, Ind. | 38,371 | 38,329 | 52,940 | 56,791 | 49,598 | 54,741 | 48,020 | 49,149 | 55,703 | 49,217 | 59,591 | 73,728 | 112,079 | +15 | +7 | +8 |
| Jackson, Mich. | 7,751 | 6,971 | 8,762 | 9,566 | 8,730 | 9,442 | 8,907 | 8,847 | 9,538 | 9,213 | 9,618 | 11,055 | 15,028 | +10 | +9 | +5 |
| Jackson, Miss. | 9,524 | 9,699 | 12,952 | 15,549 | 11,671 | 13,092 | 11,540 | 12,522 | 14,015 | 12,613 | 13,736 | 17,067 | 26,619 | +33 | +20 | +10 |
| Jacksonville, Fla. | 15,526 | 16,667 | 22,327 | 23,135 | 19,342 | 20,701 | 19,791 | 19,771 | 21,983 | 18,887 | 21,716 | 26,359 | 43,263 | +20 | +4 | +13 |
| Jersey City, N.J. | 6,490 | 5,922 | 6,437 | 10,175 | 8,154 | 9,102 | 8,648 | 8,536 | 8,017 | 8,096 | 8,693 | 10,409 | 15,389 | +25 | +58 | -1 |
| Johnstown, Pa. | 5,854 | 5,969 | 7,759 | 9,150 | 8,318 | 8,487 | 7,809 | 7,894 | 9,175 | 8,491 | 9,803 | 12,567 | 16,221 | +10 | +18 | +5 |
| Kalamazoo-Portage, Mich. | 13,742 | 12,436 | 15,675 | 16,657 | 14,095 | 15,472 | 14,402 | 14,925 | 16,328 | 16,309 | 17,579 | 20,041 | 28,786 | +18 | +6 | +16 |
| Kansas City, Mo.-Kans. | 45,151 | 44,601 | 58,214 | 63,634 | 54,743 | 61,642 | 56,926 | 58,414 | 61,539 | 55,507 | 63,293 | 76,460 | 120,076 | +16 | +9 | +10 |
| Kingsport-Bristol, Tenn.-Va. | 6,634 | 5,886 | 8,739 | 9,692 | 8,280 | 8,903 | 8,031 | 8,416 | 9,151 | 8,068 | 9,685 | 12,202 | 18,385 | +17 | +11 | +11 |
| Knoxville, Tenn. | 13,961 | 13,982 | 19,531 | 21,893 | 19,233 | 20,076 | 18,034 | 18,533 | 20,828 | 20,851 | 21,881 | 26,668 | 40,474 | +14 | +12 | +5 |
| Lakeland-Winter Haven, Fla. | 8,218 | 8,554 | 10,910 | 10,705 | 9,176 | 9,273 | 8,729 | 8,940 | 9,376 | 8,530 | 9,482 | 11,953 | 19,506 | +17 | -2 | +9 |
| Lancaster, Pa. | 7,221 | 7,165 | 9,101 | 10,865 | 9,110 | 9,946 | 9,500 | 8,981 | 9,599 | 9,575 | 11,071 | 14,286 | 20,407 | +19 | +19 | +10 |

See footnotes at end of table.

# Table 8. Department Store Sales in Selected Areas—Continued

(Area data in thousands of dollars and NOT ADJUSTED for seasonal variations, holiday or trading-day differences)

| Area | 1981 | | | | 1980 | | | | | | | | | Percent change | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | April 1981 from— | | 4 mos. 1981 from 4 mos. 1980 |
| | Jan. | Feb. | Mar. | Apr.P | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Apr. 1980 | Mar. 1981 | |
| STANDARD METROPOLITAN STATISTICAL AREAS[1]--Con. | | | | | | | | | | | | | | | | |
| Lansing-East Lansing, Mich. | 21,283 | 19,273 | 23,030 | 25,058 | 24,055 | 26,648 | 24,851 | 23,803 | 25,636 | 26,015 | 26,768 | 28,460 | 38,979 | +4 | +9 | 0 |
| Las Vegas, Nev. | 22,352 | 24,967 | 31,146 | 32,266 | 24,878 | 26,700 | 23,781 | 23,699 | 27,480 | 26,092 | 28,926 | 34,075 | 54,535 | +30 | +4 | +24 |
| Lawrence-Haverhill, Mass.-N.H. | 5,942 | 6,199 | 7,973 | 9,252 | 8,011 | 9,447 | 8,864 | 8,080 | 9,158 | 8,658 | 9,800 | 11,723 | 18,313 | +15 | +16 | +9 |
| Lexington, Ky. | 11,054 | 10,797 | 14,495 | 17,380 | 14,665 | 15,115 | 14,478 | 14,910 | 15,990 | 15,178 | 18,164 | 20,586 | 30,738 | +19 | +20 | +9 |
| Lincoln, Nebr. | 6,305 | 6,097 | 7,981 | 8,337 | 8,000 | 8,968 | 8,014 | 8,329 | 9,215 | 8,208 | 8,850 | 10,173 | 15,924 | +4 | +4 | -1 |
| Little Rock-North Little Rock, Ark. | 13,756 | 14,313 | 18,399 | 20,441 | 17,794 | 19,392 | 17,561 | 18,521 | 19,855 | 17,306 | 19,698 | 22,640 | 36,074 | +15 | +11 | +10 |
| Long Branch-Asbury Park, N.J. | 13,484 | 14,028 | 16,828 | 19,765 | 16,773 | 20,148 | 18,081 | 17,468 | 20,104 | 18,949 | 21,027 | 26,030 | 40,596 | +18 | +17 | +8 |
| Lorain-Elyria, Ohio | 7,730 | 7,855 | 10,745 | 12,231 | 10,853 | 11,690 | 11,099 | 11,038 | 12,468 | 11,519 | 12,573 | 15,068 | 22,649 | +13 | +14 | +3 |
| Los Angeles-Long Beach, Calif. | 280,686 | 268,602 | 317,182 | 332,777 | 296,281 | 324,553 | 319,315 | 303,199 | 322,990 | 325,535 | 334,847 | 391,700 | 631,119 | +12 | +5 | +9 |
| Louisville, Ky.-Ind. | 27,914 | 26,514 | 36,462 | 42,981 | 36,961 | 38,129 | 35,415 | 34,688 | 38,867 | 35,755 | 42,859 | 52,872 | 77,725 | +16 | +18 | +6 |
| Lowell, Mass.-N.H. | 4,800 | 5,051 | 6,354 | 6,842 | 6,053 | 6,945 | 6,431 | 5,744 | 7,242 | 6,754 | 7,553 | 9,340 | 15,454 | +13 | +7 | +16 |
| Lynchburg, Va. | 3,810 | 3,716 | 4,742 | 5,437 | 4,536 | 4,574 | 4,247 | 4,283 | 5,644 | 4,866 | 5,721 | 7,322 | 10,575 | +20 | +15 | +21 |
| Macon, Ga. | 6,666 | 7,143 | 9,840 | 10,648 | 8,963 | 9,740 | 8,896 | 8,751 | 10,028 | 8,663 | 10,057 | 12,031 | 18,992 | +19 | +8 | +12 |
| Madison, Wis. | 11,473 | 10,258 | 13,423 | 15,012 | 12,888 | 13,938 | 12,627 | 12,364 | 15,463 | 16,055 | 16,409 | 18,384 | 29,209 | +16 | +12 | +12 |
| Memphis, Tenn.-Ark.-Miss. | 24,836 | 24,578 | 33,018 | 35,068 | 30,151 | 33,426 | 30,624 | 32,494 | 37,940 | 30,795 | 36,038 | 42,962 | 65,427 | +16 | +6 | +10 |
| Miami, Fla. | 66,501 | 65,690 | 76,569 | 76,177 | 67,293 | 71,224 | 69,311 | 72,260 | 80,390 | 67,796 | 76,327 | 87,530 | 139,940 | +13 | -1 | +10 |
| Milwaukee, Wis. | 50,729 | 45,418 | 59,908 | 64,083 | 60,494 | 65,007 | 56,944 | 56,027 | 64,915 | 60,969 | 73,458 | 76,713 | 120,931 | +6 | +7 | +3 |
| Minneapolis-St. Paul, Minn.-Wis. | 84,734 | 88,227 | 112,362 | 115,958 | 107,516 | 112,868 | 105,198 | 100,301 | 119,652 | 112,493 | 136,471 | 137,107 | 205,232 | +8 | +3 | +5 |
| Mobile, Ala. | 9,685 | 9,705 | 13,005 | 14,597 | 12,783 | 14,867 | 12,988 | 13,520 | 13,874 | 12,442 | 13,631 | 17,502 | 25,972 | +14 | +12 | 0 |
| Montgomery, Ala. | 6,836 | 6,625 | 8,797 | 9,876 | 8,456 | 9,297 | 8,382 | 8,959 | 9,360 | 8,389 | 8,938 | 11,563 | 17,953 | +17 | +12 | +4 |
| Muncie, Ind. | 3,585 | 3,480 | 4,835 | 5,392 | 4,674 | 5,069 | 4,496 | 4,730 | 5,285 | 4,926 | 5,614 | 7,111 | 11,447 | +15 | +12 | +7 |
| Muskegon-Muskegon Heights, Mich. | 7,038 | 6,585 | 8,423 | 9,069 | 8,308 | 8,961 | 8,405 | 8,354 | 9,357 | 8,704 | 9,133 | 10,606 | 15,323 | +9 | +8 | +4 |
| Nashville-Davidson, Tenn. | 21,180 | 21,820 | 31,985 | 34,440 | 28,515 | 30,683 | 27,404 | 27,763 | 31,239 | 28,362 | 34,001 | 43,128 | 65,478 | +21 | +8 | +13 |
| Nassau-Suffolk, N.Y. | 72,853 | 73,423 | 86,415 | 98,070 | 88,665 | 109,703 | 100,084 | 90,168 | 100,286 | 96,616 | 108,988 | 129,249 | 209,150 | +11 | +13 | +5 |
| New Brunswick-Perth Amboy-Sayreville,N.J | 20,232 | 21,544 | 25,133 | 28,599 | 25,169 | 30,260 | 26,349 | 23,825 | 27,017 | 27,442 | 31,235 | 39,640 | 58,027 | +14 | +14 | +5 |
| New Haven-West Haven, Conn. | 11,566 | 11,400 | 13,577 | 15,799 | 14,339 | 16,546 | 15,327 | 13,638 | 15,610 | 15,516 | 17,652 | 20,655 | 31,256 | +10 | +16 | +8 |
| New Orleans, La. | 35,316 | 34,813 | 45,671 | 51,805 | 42,647 | 48,412 | 44,808 | 44,257 | 47,900 | 42,906 | 49,575 | 59,125 | 87,114 | +21 | +13 | +11 |
| New York, N.Y.-N.J. | 200,628 | 201,343 | 230,960 | 258,610 | 228,373 | 279,589 | 254,191 | 223,060 | 250,211 | 271,315 | 307,248 | 334,111 | 488,675 | +13 | +12 | +4 |
| Newark, N.J. | 36,818 | 35,466 | 44,462 | 51,009 | 44,287 | 51,173 | 45,551 | 41,718 | 46,572 | 47,625 | 54,258 | 65,933 | 101,080 | +15 | +15 | +8 |
| Newport News-Hampton, Va. | 9,633 | 9,436 | 12,163 | 14,367 | 12,822 | 14,032 | 12,823 | 12,795 | 13,810 | 12,958 | 14,684 | 17,282 | 26,709 | +12 | +18 | +10 |
| Norfolk-Va. Beach-Portsmouth, Va.-N.C. | 19,375 | 18,883 | 25,258 | 29,538 | 23,413 | 25,409 | 23,310 | 23,160 | 25,221 | 23,531 | 27,887 | 33,672 | 52,238 | +26 | +17 | +22 |
| Northeast Pennsylvania | 15,860 | 16,101 | 20,309 | 23,679 | 20,147 | 23,438 | 20,601 | 20,424 | 25,273 | 22,483 | 26,142 | 33,569 | 45,204 | +18 | +17 | +10 |
| Oklahoma City, Okla. | 24,249 | 23,705 | 30,955 | 32,765 | 24,961 | 30,010 | 27,372 | 29,080 | 30,468 | 26,406 | 33,930 | 38,365 | 61,601 | +31 | +6 | +21 |
| Omaha, Nebr.-Iowa | 18,695 | 18,736 | 24,827 | 25,754 | 23,484 | 27,071 | 24,028 | 24,792 | 27,840 | 25,812 | 28,085 | 30,759 | 49,921 | +10 | +4 | +5 |
| Orlando, Fla. | 23,933 | 24,822 | 31,145 | 32,801 | 28,518 | 28,960 | 27,108 | 27,695 | 31,624 | 27,170 | 29,566 | 36,646 | 58,537 | +15 | +5 | +7 |
| Oxnard-Simi Valley-Ventura, Calif. | 19,400 | 19,400 | 22,574 | 24,395 | 20,568 | 22,793 | 21,920 | 21,141 | 23,612 | 22,870 | 23,980 | 28,245 | 45,667 | +19 | +8 | +12 |
| Paterson-Clifton-Passaic, N.J. | 12,788 | 14,302 | 15,996 | 17,899 | 16,293 | 19,547 | 16,478 | 15,983 | 17,776 | 18,421 | 19,999 | 26,843 | 37,130 | +10 | +12 | +6 |
| Pensacola, Fla. | 9,119 | 9,001 | 11,925 | 13,442 | 10,040 | 12,176 | 10,870 | 11,473 | 11,769 | 10,409 | 11,951 | 15,033 | 23,445 | +34 | +13 | +18 |
| Peoria, Ill. | 11,551 | 10,807 | 14,683 | 15,869 | 14,787 | 15,545 | 14,306 | 14,612 | 15,262 | 13,837 | 16,511 | 20,073 | 30,850 | +7 | +8 | +4 |
| Philadelphia, Pa.-N.J. | 112,462 | 111,507 | 142,956 | 163,870 | 134,233 | 153,415 | 133,968 | 122,997 | 139,933 | 143,328 | 169,584 | 207,486 | 319,602 | +22 | +15 | +12 |
| Phoenix, Ariz. | 54,169 | 54,739 | 69,447 | 69,696 | 60,377 | 62,341 | 56,022 | 53,273 | 58,774 | 55,393 | 62,947 | 74,187 | 124,151 | +15 | 0 | +10 |
| Pittsburgh, Pa. | 71,861 | 73,836 | 97,239 | 110,013 | 96,317 | 105,124 | 93,587 | 91,158 | 108,236 | 100,186 | 118,824 | 147,342 | 198,704 | +14 | +13 | +8 |
| Portland, Maine | 4,742 | 4,882 | 6,493 | 7,562 | 6,504 | 7,335 | 6,867 | 7,081 | 8,721 | 7,400 | 8,127 | 9,627 | 14,750 | +16 | +16 | +10 |
| Portland, Oreg.-Wash. | [2]53,733 | [2]54,082 | [2]65,892 | [2]73,393 | [2]62,381 | [2]67,743 | [2]63,947 | [2]65,718 | [2]76,022 | [2]69,281 | [2]74,557 | [2]84,210 | [2]134,616 | +18 | +11 | +10 |
| Providence-Warwick-Pawtucket, R.I.-Mass. | [2]20,065 | [2]20,022 | [2]25,964 | [2]29,698 | [2]26,265 | [2]28,518 | [2]27,325 | [2]24,615 | [2]28,785 | [2]27,660 | [2]30,215 | [2]38,031 | [2]61,760 | +14 | +13 | +7 |
| Raleigh-Durham, N.C. | 13,916 | 12,858 | 16,827 | 20,114 | 17,193 | 18,864 | 17,036 | 16,199 | 18,879 | 17,956 | 20,032 | 23,488 | 36,605 | +17 | +20 | +9 |
| Reading, Pa. | 8,619 | 8,811 | 10,979 | 12,938 | 11,466 | 12,356 | 10,681 | 10,973 | 12,108 | 10,994 | 12,509 | 16,958 | 24,255 | +13 | +18 | +6 |
| Richmond, Va. | 19,456 | 18,714 | 23,733 | 26,666 | 22,530 | 25,644 | 22,571 | 22,846 | 25,580 | 23,405 | 28,097 | 33,293 | 51,092 | +18 | +12 | +12 |
| Riverside-San Bernardino-Ontario, Calif. | 52,070 | 51,953 | 59,888 | 64,657 | 56,796 | 61,694 | 58,792 | 57,253 | 60,878 | 60,526 | 61,433 | 71,432 | 120,595 | +14 | +8 | +9 |
| Roanoke, Va. | 5,546 | 5,811 | 7,893 | 9,388 | 8,288 | 8,496 | 7,599 | 7,645 | 8,748 | 8,102 | 9,392 | 12,355 | 17,987 | +13 | +19 | +7 |
| Rochester, N.Y. | 23,353 | 21,883 | 29,474 | 35,013 | 29,790 | 32,791 | 29,512 | 28,211 | 30,948 | 31,460 | 36,003 | 41,659 | 66,536 | +18 | +19 | +9 |
| Rockford, Ill. | 9,411 | 9,022 | 12,025 | 13,419 | 11,392 | 12,706 | 11,555 | 11,198 | 12,600 | 11,876 | 13,531 | 16,348 | 25,414 | +18 | +12 | +10 |
| Sacramento, Calif. | 35,473 | 35,021 | 42,206 | 45,091 | 37,121 | 41,575 | 39,335 | 39,174 | 47,422 | 40,856 | 44,956 | 52,502 | 84,296 | +21 | +7 | +10 |
| St. Joseph, Mo. | 2,974 | 2,754 | 3,382 | 3,930 | 3,876 | 4,180 | 3,988 | 4,361 | 4,242 | 3,867 | 4,335 | 5,085 | 8,175 | +1 | +16 | -1 |
| St. Louis, Mo.-Ill. | 78,102 | 78,849 | 102,049 | 112,267 | 97,138 | 108,698 | 96,882 | 95,594 | 105,827 | 100,546 | 114,330 | 134,771 | 202,210 | +16 | +10 | +9 |
| Salem, Oreg. | 8,871 | 9,011 | 10,688 | 11,444 | 10,656 | 11,286 | 11,290 | 10,915 | 12,805 | 11,751 | 12,127 | 13,427 | 21,461 | +7 | +7 | (S) |
| Salinas-Seaside-Monterey, Calif. | 7,294 | 7,152 | 8,610 | 8,928 | 7,211 | 8,295 | 8,061 | 8,334 | 10,106 | 8,839 | 9,580 | 10,828 | 17,825 | +24 | +4 | +16 |
| Salt Lake City-Ogden, Utah | 25,186 | 25,275 | 29,681 | 34,671 | 30,282 | 33,899 | 30,012 | 33,572 | 37,721 | 32,635 | 35,952 | 45,070 | 74,047 | +14 | +17 | +8 |
| San Antonio, Tex. | 34,732 | 34,530 | 43,901 | 47,281 | 38,299 | 43,978 | 39,877 | 41,812 | 44,174 | 40,482 | 44,191 | 50,432 | 77,469 | +23 | +8 | +12 |
| San Diego, Calif. | 81,478 | 80,878 | 92,756 | 97,373 | 85,558 | 91,401 | 87,324 | 90,340 | 94,029 | 90,477 | 97,221 | 108,902 | 170,044 | +14 | +5 | +7 |
| San Francisco-Oakland, Calif. | 125,219 | 120,182 | 143,180 | 148,576 | 125,607 | 140,276 | 134,999 | 135,030 | 158,906 | 141,994 | 152,656 | 179,320 | 282,376 | +18 | +4 | +10 |
| San Jose, Calif. | 54,565 | 53,436 | 63,600 | 68,634 | 58,025 | 64,878 | 62,760 | 60,714 | 70,611 | 63,481 | 68,875 | 80,678 | 130,288 | +18 | +8 | +8 |
| Santa Barbara-Santa Maria-Lompoc, Calif. | 9,416 | 9,172 | 10,927 | 11,212 | 9,477 | 10,279 | 10,244 | 10,539 | 11,608 | 10,805 | 11,715 | 12,680 | 20,709 | +18 | +3 | +12 |
| Savannah, Ga. | 5,708 | 5,597 | 7,590 | 8,659 | 7,026 | 7,382 | 6,939 | 6,861 | 7,824 | 6,786 | 7,812 | [2]9,488 | 14,931 | +23 | +14 | +16 |
| Seattle-Everett, Wash. | [2]52,779 | [2]53,621 | [2]66,119 | [2]68,121 | [2]58,625 | [2]63,039 | [2]58,955 | 62,341 | 76,687 | 69,978 | 70,638 | 85,482 | [2]132,505 | +16 | +3 | +12 |
| Shreveport, La. | 9,669 | 9,679 | 12,481 | 14,119 | 11,748 | 12,785 | 11,722 | 12,177 | 13,507 | 11,370 | 13,019 | 15,149 | 23,739 | +20 | +13 | +12 |
| Sioux City, Iowa-Nebr. | 3,882 | 3,728 | 5,020 | 5,558 | 4,413 | 5,069 | 4,570 | 4,399 | 5,420 | 4,744 | 5,874 | 6,396 | 10,362 | +26 | +11 | +17 |
| Sioux Falls, S. Dak. | 4,660 | 4,338 | 5,744 | 6,027 | 4,933 | 5,674 | 5,259 | 5,836 | 6,999 | 5,964 | 7,188 | 7,962 | 11,663 | +22 | +5 | +15 |
| South Bend, Ind. | 8,715 | 8,262 | 10,984 | 11,850 | 10,964 | 12,182 | 11,114 | 11,189 | 12,546 | 11,551 | 12,922 | 15,182 | 23,035 | +8 | +8 | +3 |
| Spokane, Wash. | 10,844 | 11,847 | 14,585 | 15,911 | 13,070 | 13,073 | 13,285 | 13,915 | 16,836 | 14,918 | 16,602 | 17,500 | 27,102 | +22 | +9 | +13 |
| Springfield, Ill. | 6,330 | 6,256 | 8,172 | 8,904 | 7,974 | 8,756 | 8,184 | 8,287 | 8,936 | 8,168 | 9,366 | 11,401 | 17,591 | +12 | +9 | +7 |
| Springfield, Mo. | 7,549 | 6,850 | 9,200 | 10,399 | 8,837 | 9,750 | 8,751 | 9,892 | 10,282 | 9,121 | 10,581 | 12,573 | 18,317 | +18 | +13 | +11 |
| Springfield, Ohio | 4,771 | 5,129 | 6,610 | 7,391 | 6,193 | 7,229 | 6,489 | 6,440 | 7,744 | 6,519 | 8,021 | 9,697 | 15,493 | +19 | +12 | +7 |
| Springfield-Chicopee-Holyoke, Mass.-Conn | 13,796 | 13,812 | 16,999 | 20,659 | 16,985 | 19,232 | 17,440 | 16,634 | 20,314 | 18,412 | 21,392 | 25,045 | 40,703 | +22 | +22 | +15 |
| Stockton, Calif. | 9,659 | 9,640 | 11,592 | 12,181 | 10,336 | 11,812 | 11,066 | 11,052 | 13,440 | 11,740 | 12,273 | 14,074 | 22,574 | +18 | +5 | +8 |
| Syracuse, N.Y. | 10,780 | 11,015 | 14,032 | 16,788 | 14,648 | 16,752 | 15,729 | 14,504 | 16,629 | 16,425 | 16,970 | 22,445 | 33,149 | +15 | +20 | +6 |
| Tacoma, Wash. | [2]13,815 | [2]13,958 | [2]17,253 | [2]18,458 | [2]16,008 | [2]17,224 | [2]16,298 | [2]16,811 | [2]20,157 | [2]18,164 | [2]18,789 | [2]22,366 | [2]36,693 | +15 | +7 | +11 |
| Tampa-St. Petersburg, Fla. | 57,360 | 57,189 | 70,500 | 73,883 | 62,322 | 63,910 | 58,444 | 57,435 | 64,638 | 58,045 | 67,042 | 81,385 | 128,806 | +19 | +5 | +10 |
| Toledo, Ohio-Mich. | 23,856 | 23,238 | 31,514 | 33,795 | 30,801 | 32,920 | 30,230 | 29,047 | 35,051 | 33,108 | 36,697 | 43,119 | 63,839 | +10 | +7 | +6 |
| Topeka, Kans. | 5,046 | 4,963 | 6,665 | 7,374 | 6,563 | 6,956 | 6,617 | 7,068 | 7,114 | 6,244 | 7,576 | 8,434 | 13,349 | +12 | +11 | +7 |
| Trenton, N.J. | 9,006 | 8,968 | 11,287 | 12,676 | 11,149 | 12,529 | 11,175 | 10,395 | 11,637 | 11,492 | 13,533 | 15,900 | 25,552 | +14 | +12 | +8 |
| Tucson, Ariz. | 22,367 | 21,852 | 27,069 | 27,919 | 22,480 | 24,231 | 22,288 | 22,265 | 25,086 | 22,278 | 25,876 | 53,550 | 48,341 | +24 | +3 | +15 |
| Tulsa, Okla. | 17,953 | 17,479 | 22,918 | 25,227 | 20,837 | 24,837 | 22,108 | 22,543 | 24,425 | 21,301 | 24,127 | 28,562 | 44,338 | +21 | +10 | +13 |
| Utica-Rome, N.Y. | 6,818 | 6,806 | 9,123 | 10,238 | 8,384 | 9,761 | 8,837 | 9,040 | 10,037 | 9,427 | 10,160 | 13,291 | 18,971 | +22 | +12 | +20 |

See footnotes at end of table.

# Table 8. Department Store Sales in Selected Areas—Continued

(Area data in thousands of dollars and NOT ADJUSTED for seasonal variations, holiday or trading-day differences)

| Area | 1981 | | | | 1980 | | | | | | | | | Percent change | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | April 1981 from— | | 4 mos. 1981 from 4 mos. 1980 |
| | Jan. | Feb. | Mar. | Apr.P | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Apr. 1980 | Mar. 1981 | |
| STANDARD METROPOLITAN STATISTICAL AREAS[1]--Con. | | | | | | | | | | | | | | | | |
| Vallejo-Fairfield-Napa, Calif. | 6,752 | 6,705 | 8,867 | 9,730 | 7,444 | 8,164 | 7,689 | 7,730 | 9,085 | 7,915 | 8,198 | 9,668 | 16,081 | +31 | +10 | +16 |
| Waco, Tex. | 5,291 | 5,224 | 6,795 | 7,775 | 6,734 | 7,087 | 6,740 | 6,704 | 7,303 | 6,315 | 6,968 | 8,352 | 12,957 | +15 | +14 | +5 |
| Washington, D.C.-Md.-Va. | 106,267 | 106,832 | 127,782 | 147,427 | 125,200 | 140,663 | 124,490 | 119,951 | 135,586 | 136,138 | 151,120 | 170,647 | 260,085 | +18 | +15 | +10 |
| Waterloo-Cedar Falls, Iowa. | 4,619 | 4,260 | 5,709 | 6,361 | 5,816 | 6,320 | 5,752 | 5,824 | 6,446 | 5,609 | 6,516 | 7,799 | 11,726 | +9 | +11 | +5 |
| West Palm Beach-Boca Raton, Fla. | 26,836 | 27,620 | 32,655 | 31,063 | 24,690 | 24,699 | 22,325 | 22,424 | 25,936 | 22,464 | 25,786 | 33,874 | 55,671 | +26 | -5 | +21 |
| Wheeling, W. Va.-Ohio. | 5,504 | 5,650 | 7,687 | 8,630 | 7,759 | 8,587 | 7,662 | 7,463 | 8,957 | 7,719 | 9,822 | 12,264 | 17,428 | +11 | +12 | +6 |
| Wichita, Kans. | 14,367 | 13,977 | 18,959 | 20,075 | 16,137 | 18,305 | 17,154 | 17,158 | 21,776 | 17,338 | 20,547 | 23,554 | 36,670 | +24 | +6 | +17 |
| Wilmington, Del.-N.J.-Md. | 14,340 | 15,223 | 20,450 | 22,317 | 19,456 | 21,908 | 19,292 | 18,306 | 22,534 | 20,391 | 23,648 | 30,904 | 46,830 | +15 | +9 | +10 |
| Worcester, Mass. | 9,340 | 9,341 | 11,718 | 13,338 | 11,498 | 13,903 | 12,494 | 11,573 | 13,519 | 13,044 | 14,188 | 17,290 | 25,833 | +16 | +14 | +12 |
| York, Pa. | 8,267 | 8,346 | 10,635 | 12,168 | 10,390 | 11,373 | 9,923 | 10,318 | 11,545 | 10,911 | 12,898 | 17,132 | 23,631 | +17 | +14 | +9 |
| Youngstown-Warren, Ohio. | 19,278 | 19,173 | 24,964 | 27,578 | 23,860 | 26,238 | 23,280 | 24,030 | 27,605 | 24,643 | 27,991 | 36,205 | 53,007 | +16 | +10 | +9 |
| CITIES | | | | | | | | | | | | | | | | |
| Aberdeen, S. Dak. | 1,143 | 1,024 | 1,456 | 1,491 | 1,404 | 1,623 | 1,476 | 1,510 | 1,682 | 1,500 | 1,638 | 1,718 | 2,997 | +6 | +2 | +7 |
| Battle Creek, Mich. | (D) | (D) | (D) | (D) | 2,293 | 2,493 | 2,228 | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) |
| Bellingham, Wash. | 3,043 | 3,176 | 4,043 | 4,312 | 3,680 | 3,941 | 3,863 | 4,319 | 5,254 | 4,401 | 4,297 | 4,852 | 7,256 | +17 | +7 | (S) |
| Bridgeport, Conn. | 2,068 | 1,988 | 2,465 | 2,415 | 2,346 | 2,895 | 2,422 | 2,470 | 2,808 | 2,429 | 2,904 | 3,345 | 4,872 | +3 | -2 | +5 |
| Buffalo, N.Y. | 5,662 | 5,305 | 6,478 | 6,693 | 7,266 | 7,466 | 7,074 | 6,559 | 6,742 | 7,430 | 7,481 | 8,080 | 11,864 | -8 | +3 | -7 |
| Cambridge, Mass. | 2,683 | 2,989 | 3,149 | 3,027 | 2,745 | 3,152 | 3,182 | 3,097 | 3,297 | 4,160 | 3,637 | 3,759 | 5,646 | +10 | -4 | +11 |
| Danville, Ill. | 1,874 | 1,849 | 2,733 | 2,988 | 2,626 | 2,833 | 2,733 | 2,769 | 2,894 | 2,543 | 2,965 | 3,460 | 5,208 | +14 | +9 | +8 |
| Daytona Beach, Fla. | 5,840 | 6,233 | 8,220 | 8,209 | 7,367 | 7,034 | 6,755 | 7,285 | 7,497 | 6,288 | 6,810 | 8,297 | 13,643 | +11 | 0 | +7 |
| Enid, Okla. | 1,602 | 1,551 | 2,019 | 2,318 | 1,918 | 2,256 | 2,095 | 2,167 | 2,189 | 1,940 | 2,151 | 2,379 | 3,765 | +21 | +15 | +14 |
| Gary, Ind. | 1,672 | 1,448 | 2,091 | 2,345 | 2,654 | 2,948 | 2,523 | 2,335 | 2,521 | 2,336 | 2,514 | 2,604 | 4,448 | -12 | +12 | -13 |
| Grand Forks, N. Dak. | 2,823 | 2,602 | 3,722 | 3,942 | 3,386 | 3,873 | 3,457 | 3,604 | 4,902 | 3,781 | 4,662 | 4,761 | 7,298 | +16 | +6 | +15 |
| Greeley, Colo. | 2,574 | 2,403 | 3,006 | 3,455 | 2,580 | 2,968 | 2,826 | 2,677 | 3,062 | 2,634 | 2,958 | 4,587 | 6,526 | +34 | +15 | +27 |
| Hagerstown, Md. | 1,872 | 2,057 | 2,486 | 3,059 | 2,608 | 2,844 | 2,447 | 2,548 | 2,734 | 2,563 | 3,216 | 4,343 | 6,083 | +17 | +23 | +8 |
| Huntington, W. Va. | [2]1,774 | 1,734 | 2,301 | 2,591 | 4,202 | 4,618 | 4,235 | 4,141 | 4,942 | 4,105 | 5,326 | 6,514 | 9,476 | -38 | +13 | -43 |
| Hutchinson, Kans. | 2,007 | 1,794 | 2,326 | 2,675 | 2,578 | 2,901 | 2,640 | 2,481 | 2,710 | 2,451 | 2,749 | 3,067 | 4,721 | +4 | +15 | 0 |
| Idaho Falls, Idaho. | 2,057 | 1,902 | 2,513 | 2,738 | 2,502 | 2,843 | 2,608 | 2,818 | 3,424 | 2,748 | 3,014 | 3,545 | 5,855 | +9 | +9 | +6 |
| Joplin, Mo. | 2,718 | 2,623 | 3,477 | 3,677 | 3,041 | 3,251 | 3,260 | 3,838 | 3,528 | 3,220 | 3,777 | 4,551 | 6,940 | +21 | +6 | +16 |
| La Crosse, Wis. | 4,389 | 3,844 | 5,248 | 6,032 | 4,490 | 5,248 | 5,044 | 4,947 | 7,132 | 5,685 | 6,640 | 7,621 | 11,957 | +34 | +15 | +28 |
| Long Beach, Calif. | 8,009 | 7,973 | 9,199 | 10,158 | 9,901 | 10,175 | 9,825 | 9,303 | 9,538 | 9,602 | 9,781 | 10,856 | 17,925 | +3 | +10 | 0 |
| Louisville, Ky. | 7,407 | 5,903 | 8,060 | 8,983 | 9,000 | 9,150 | 8,387 | 8,420 | 9,105 | 8,574 | 9,786 | 11,556 | 16,844 | 0 | +11 | -3 |
| Mankato, Minn. | 1,809 | 1,671 | 2,308 | 2,522 | 2,031 | 2,297 | 2,030 | 2,094 | 2,406 | 2,421 | 2,511 | 2,990 | 4,601 | +24 | +9 | +21 |
| Minneapolis, Minn. | 14,439 | 15,599 | 18,016 | 18,360 | 17,196 | 18,509 | 17,130 | 17,411 | 20,188 | 18,477 | 22,805 | 22,325 | 29,591 | +7 | +2 | +6 |
| Minot, N. Dak. | 2,502 | 2,442 | 3,397 | 3,496 | 2,847 | 3,316 | 2,957 | 3,070 | 3,776 | 3,200 | 3,562 | 4,182 | 6,212 | +23 | +3 | +29 |
| New York, N.Y. | 138,211 | 137,606 | 158,226 | 175,133 | 152,753 | 186,909 | 171,195 | 149,751 | 165,450 | 184,046 | 210,350 | 220,935 | 315,843 | +15 | +11 | +4 |
| Newark, N.J. | 4,132 | 4,451 | 5,143 | 5,367 | 5,195 | 5,428 | 4,788 | 4,060 | 4,876 | 4,987 | 6,284 | 6,685 | 10,127 | +3 | +4 | -2 |
| Niagara Falls, N.Y. | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) |
| Oakland, Calif. | 7,345 | 6,926 | 7,704 | 8,139 | 6,999 | 7,718 | 7,760 | 7,575 | 8,999 | 8,079 | 8,514 | 9,368 | 14,612 | +16 | +6 | +5 |
| Paducah, Ky. | 2,159 | 2,195 | 2,845 | 3,630 | 3,072 | 3,420 | 3,045 | 3,169 | 3,244 | 2,967 | 3,430 | 4,167 | 6,313 | +18 | +28 | +6 |
| Parkersburg, W. Va. | 1,959 | 1,842 | 2,441 | 2,712 | 2,525 | 2,708 | 2,370 | 2,579 | 2,703 | 2,387 | 2,627 | 3,314 | 4,700 | +7 | +11 | 0 |
| Pasadena, Calif. | 12,971 | 12,316 | 14,595 | 15,120 | 11,668 | 12,721 | 13,618 | 14,168 | 15,039 | 15,649 | 15,507 | 17,730 | 27,781 | +30 | +4 | +28 |
| Portsmouth, Ohio. | [2]941 | 1,037 | 1,330 | 1,418 | 1,262 | 1,385 | 1,206 | 1,230 | 1,465 | 1,225 | 1,616 | 2,116 | 2,743 | +12 | +7 | +6 |
| Quincy, Ill. | 2,290 | 2,080 | 2,841 | 3,178 | 2,881 | 2,846 | 2,685 | 2,705 | 2,889 | 2,682 | 3,189 | 4,150 | 5,932 | +10 | +12 | +9 |
| Quincy, Mass. | 1,038 | 866 | 1,119 | 1,329 | 2,594 | 2,818 | 2,567 | 2,544 | 3,763 | 2,986 | 1,615 | 1,852 | 3,173 | -49 | +19 | -51 |
| Rapid City, S. Dak. | 2,735 | 2,591 | 3,523 | 3,592 | 2,493 | 2,928 | 2,871 | 3,108 | 3,907 | 3,200 | 3,519 | 4,802 | 6,848 | +44 | +2 | +34 |
| Rochester, Minn. | 4,187 | 4,062 | 5,201 | 5,482 | 4,771 | 5,227 | 5,020 | 4,759 | 6,021 | 5,370 | 6,691 | 6,382 | 10,101 | +15 | +5 | +12 |
| Rochester, N.Y. | 6,055 | 5,345 | 6,575 | 7,523 | 6,913 | 7,331 | 6,782 | 6,347 | 6,715 | 7,048 | 9,370 | 8,942 | 14,397 | +9 | +14 | +2 |
| Rome, Ga. | 1,912 | 1,849 | 2,748 | 3,053 | 2,354 | 2,459 | 2,352 | 2,376 | 2,896 | 2,460 | 2,814 | 3,176 | 5,424 | +30 | +11 | +22 |
| St. Louis, Mo. | 9,470 | 9,437 | 11,969 | 12,998 | 12,060 | 13,055 | 11,551 | 11,796 | 12,283 | 12,085 | 14,160 | 15,633 | 22,220 | +8 | +9 | 0 |
| St. Paul, Minn. | 10,487 | 10,965 | 13,675 | 14,443 | 12,594 | 13,945 | 13,021 | 12,656 | 14,472 | 14,451 | 17,658 | 17,211 | 24,439 | +15 | +6 | +12 |
| San Francisco, Calif. | 24,504 | 21,830 | 25,960 | 27,306 | 24,132 | 26,187 | 24,888 | 25,106 | 29,030 | 25,970 | 29,156 | 32,858 | 48,005 | +13 | +5 | +5 |
| Seattle, Wash. | 18,517 | 18,432 | 22,533 | 22,835 | 21,361 | 23,133 | 21,168 | 22,593 | 26,814 | 25,034 | 26,073 | 29,486 | 44,851 | +7 | +1 | +1 |
| Syracuse, N.Y. | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) |
| Twin Falls, Idaho. | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) |
| Walla Walla, Wash. | 843 | 827 | 1,123 | 1,111 | 1,014 | 1,148 | 1,039 | 1,063 | 1,303 | 1,185 | 1,307 | 1,350 | 1,955 | +10 | -1 | +10 |
| Yakima, Wash. | 2,982 | 2,790 | 3,750 | 3,892 | 3,464 | 3,228 | 3,592 | 3,711 | 4,398 | 4,150 | 4,500 | 4,816 | 7,634 | +12 | +4 | +9 |
| CENTRAL BUSINESS DISTRICTS | | | | | | | | | | | | | | | | |
| Baltimore, Md. | 1,840 | 1,681 | 2,228 | 2,377 | 2,311 | 2,647 | 2,250 | 2,058 | 2,194 | 2,302 | 2,991 | 3,020 | 4,381 | +3 | +7 | -6 |
| Chicago, Ill. | 22,388 | 22,193 | 25,908 | 27,963 | 27,105 | 28,210 | 25,167 | 25,233 | 30,443 | 27,481 | 33,058 | 35,004 | 49,827 | +3 | +8 | -2 |
| Cleveland, Ohio. | 6,504 | 5,885 | 6,581 | 8,000 | 7,991 | 7,184 | 6,408 | 6,711 | 7,040 | 8,587 | 8,800 | 8,944 | 13,626 | 0 | +22 | -2 |
| Los Angeles, Calif. | 11,432 | 7,604 | 10,181 | 10,923 | 8,466 | 9,797 | 11,027 | 8,621 | 8,821 | 11,366 | 10,657 | 11,198 | 16,895 | +29 | +7 | +13 |
| Oakland, Calif. | 3,944 | 3,495 | 3,776 | 3,981 | 3,369 | 3,761 | 4,014 | 3,492 | 4,401 | 4,036 | 4,416 | 4,806 | 7,621 | +18 | +5 | +2 |
| Philadelphia, Pa. | 11,143 | 9,891 | 10,214 | 14,207 | 13,614 | 13,624 | 12,268 | 10,428 | 11,867 | 13,863 | 15,692 | 18,356 | 25,989 | +4 | +39 | -8 |
| Pittsburgh, Pa. | 10,905 | 11,198 | 13,711 | 14,278 | 14,143 | 13,684 | 12,271 | 10,939 | 13,572 | 13,953 | 17,422 | 21,584 | 26,351 | +1 | +4 | -1 |
| Washington, D.C. | 7,652 | 6,747 | 7,684 | 9,731 | 8,959 | 8,835 | 7,709 | 7,370 | 7,788 | 9,524 | 9,450 | 9,941 | 14,809 | +9 | +27 | +1 |
| MISCELLANEOUS AREAS | | | | | | | | | | | | | | | | |
| Alameda County, Calif. | 39,404 | 38,098 | 44,977 | 46,433 | 37,491 | 42,523 | 40,841 | 40,804 | 49,839 | 44,851 | 47,462 | 57,858 | 91,683 | +24 | +3 | +15 |
| Boise and Nampa, Idaho. | 3,981 | 4,003 | 5,040 | 5,329 | 4,981 | 5,593 | 5,066 | 5,339 | 6,339 | 5,428 | 5,631 | 6,544 | 10,609 | +7 | +6 | +4 |
| Bristol-Kingsport-Johnson City, Tenn.-Va | 9,650 | 8,605 | 12,377 | 13,946 | 12,069 | 12,991 | 11,756 | 12,325 | 13,377 | 12,011 | 14,358 | 17,293 | 26,587 | +16 | +13 | +11 |
| Chicago City, excluding CBD. | 43,241 | 41,813 | 54,593 | 58,681 | 54,495 | 61,226 | 55,991 | 53,352 | 61,087 | 57,811 | 64,928 | 67,297 | 105,806 | +8 | +7 | +3 |
| Contra Costa County, Calif. | 26,910 | 26,853 | 32,368 | 34,769 | 28,904 | 32,564 | 31,382 | 30,373 | 36,360 | 32,119 | 33,873 | 40,913 | 66,771 | +20 | +7 | +10 |
| Cumberland-Hagerstown, Md. | 2,959 | 3,153 | 3,758 | 4,711 | 4,112 | 4,513 | 3,806 | 3,928 | 4,528 | 4,202 | 5,395 | 6,906 | 9,827 | +15 | +25 | +7 |
| Delaware (State). | 16,771 | 18,032 | 24,346 | 26,727 | 22,775 | 25,575 | 22,820 | 21,893 | 26,928 | 24,033 | 27,902 | 36,729 | 55,387 | +17 | +10 | +12 |
| Fairfield County, Conn. | 20,034 | 19,343 | 22,887 | 27,102 | 23,809 | 28,478 | 25,662 | 23,582 | 26,520 | 26,072 | 29,501 | 35,637 | 55,967 | +14 | +18 | +7 |
| Fairmont-Morgantown, W. Va. | 4,001 | 4,264 | 5,788 | 6,527 | 5,698 | 6,393 | 5,737 | 6,126 | 6,953 | 5,893 | 7,143 | 8,768 | 12,595 | +15 | +13 | +6 |
| Hennepin County, Minn. | 46,934 | 49,609 | 60,912 | 62,745 | 58,003 | 61,197 | 57,707 | 55,492 | 66,353 | 61,033 | 75,865 | 73,890 | 108,655 | +8 | +3 | +5 |
| Nassau County, N.Y. | 47,840 | 47,236 | 54,591 | 62,177 | 56,171 | 69,723 | 63,409 | 56,642 | 61,863 | 62,241 | 69,765 | 81,031 | 128,643 | +11 | +14 | +5 |
| Philadelphia SMSA, excluding CBD. | 101,319 | 101,616 | 132,742 | 149,663 | 120,619 | 139,791 | 121,700 | 112,569 | 128,066 | 129,465 | 153,892 | 189,130 | 293,613 | +24 | +13 | +14 |
| Ramsey County, Minn. | 21,359 | 23,001 | 29,410 | 30,118 | 27,175 | 28,584 | 26,869 | 25,589 | 30,240 | 29,834 | 36,259 | 36,339 | 54,919 | +11 | +2 | +7 |
| San Fernando Valley, Calif. | 47,589 | 46,294 | 53,008 | 54,469 | 51,034 | 56,275 | 55,645 | 51,767 | 54,915 | 54,960 | 58,139 | 69,248 | 108,322 | +7 | +3 | +6 |
| Westchester County, N.Y. | 26,310 | 27,251 | 31,705 | 36,770 | 31,370 | 38,899 | 35,768 | 30,424 | 36,043 | 37,642 | 42,045 | 46,549 | 74,971 | +17 | +16 | +9 |
| Westside Los Angeles, Calif. | 12,087 | 11,572 | 15,428 | 14,509 | 15,427 | 15,781 | 13,968 | 13,282 | 14,015 | 14,499 | 15,114 | 17,430 | 26,676 | -6 | -6 | +1 |

Note: Beginning with February 1979, data may include a mixture of mail-order and department store sales reported on a combined basis by some firms.

PPreliminary estimates. (D) Withheld to avoid disclosure. (S) Does not meet publication standards because of inadequate response.

[1]For definitions of standard consolidated areas and standard metropolitan statistical areas see appendix E. [2]Data are shown even though response is below the usual standard for publication.

# Table 8A. Number of Department Stores in Selected Areas

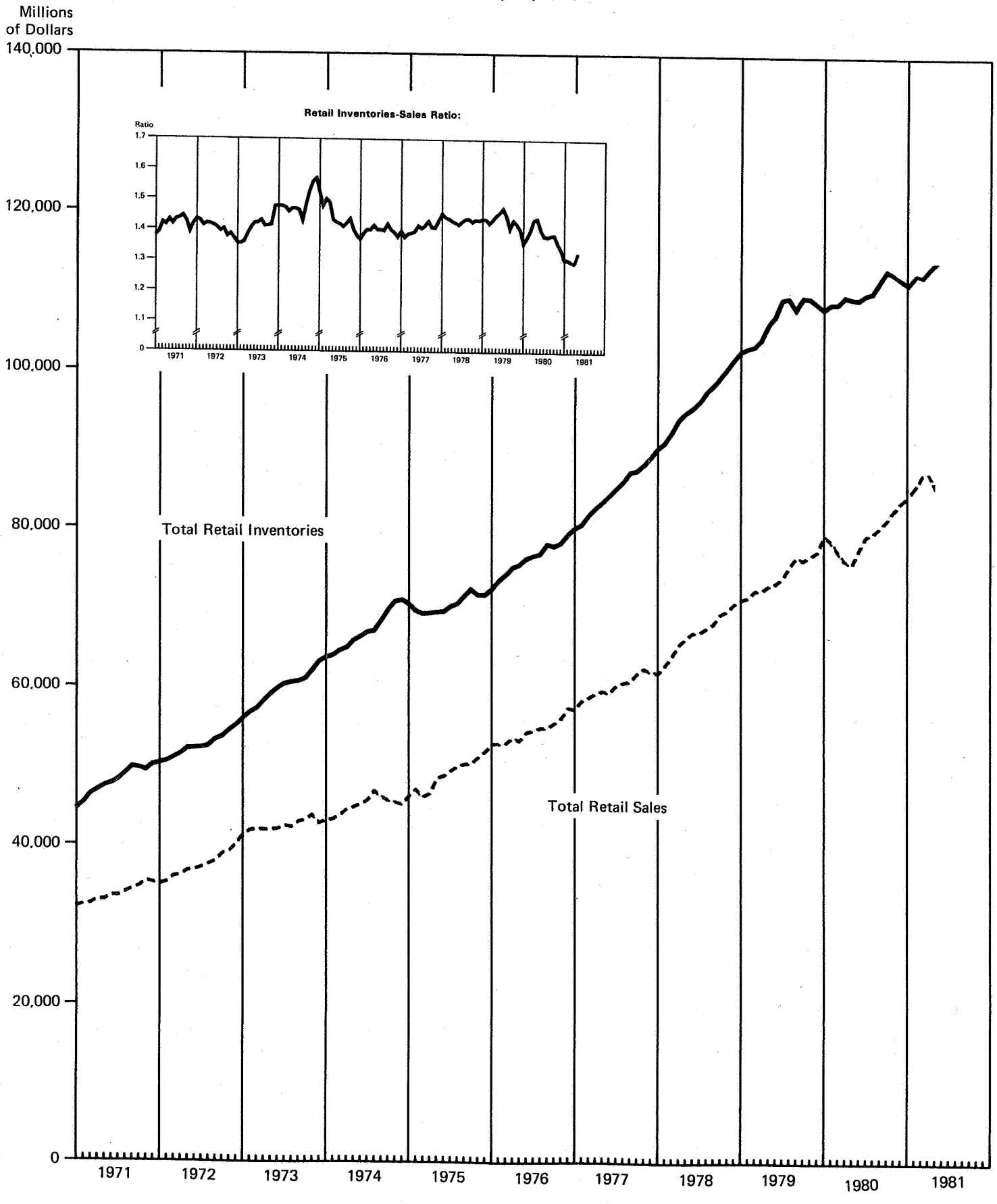
| Area | Number of stores | | |
|---|---|---|---|
| | Mar. 1981 | Apr. 1981 | Apr. 1980 |
| **STANDARD CONSOLIDATED AREAS[1]** | | | |
| Chicago, Ill.-Northwestern Indiana | r273 | 273 | 270 |
| New York, N.Y.-Northeastern New Jersey | 231 | 233 | 254 |
| **STANDARD METROPOLITAN STATISTICAL AREAS[1]** | | | |
| Akron, Ohio | 31 | 31 | 30 |
| Albany-Schenectady-Troy, N.Y. | 36 | 36 | 36 |
| Albuquerque, N. Mex. | 22 | 22 | 22 |
| Allentown-Bethlehem-Easton, Pa.-N.J. | 30 | 30 | 29 |
| Anaheim-Santa Ana-Garden Grove, Calif. | 87 | 87 | 86 |
| Ann Arbor, Mich. | 11 | 11 | 8 |
| Appleton-Oshkosh, Wis. | 14 | 14 | 14 |
| Asheville, N.C. | 9 | 9 | 9 |
| Atlanta, Ga. | 94 | 94 | 90 |
| Augusta, Ga.-S.C. | 14 | 14 | 14 |
| Austin, Tex. | 22 | 22 | 18 |
| Bakersfield, Calif. | 13 | 13 | 13 |
| Baltimore, Md. | 89 | 89 | 85 |
| Baton Rouge, La. | 25 | 26 | 26 |
| Beaumont-Port Arthur-Orange, Tex. | 17 | 17 | 17 |
| Billings, Mont. | 8 | 8 | 8 |
| Binghamton, N.Y.-Pa. | 15 | 15 | 16 |
| Birmingham, Ala. | 34 | 34 | 35 |
| Boston, Mass. | 110 | 110 | 108 |
| Bridgeport, Conn. | 18 | 18 | 16 |
| Buffalo, N.Y. | 82 | 82 | 82 |
| Canton, Ohio | 22 | 22 | 22 |
| Cedar Rapids, Iowa | 13 | 13 | 13 |
| Charleston, S.C. | 17 | 17 | 17 |
| Charleston, W. Va. | 17 | 17 | 17 |
| Charlotte-Gastonia, N.C. | 39 | 39 | 38 |
| Chattanooga, Tenn.-Ga. | 19 | 19 | 19 |
| Chicago, Ill. | r243 | 243 | 237 |
| Cincinnati, Ohio-Ky.-Ind. | 83 | 83 | 79 |
| Cleveland, Ohio | 102 | 102 | 102 |
| Colorado Springs, Colo. | 16 | 16 | 14 |
| Columbia, S.C. | 21 | 21 | 21 |
| Columbus, Ohio | 59 | 59 | 56 |
| Corpus Christi, Tex. | 11 | 11 | 9 |
| Dallas-Fort Worth, Tex. | 161 | 162 | 158 |
| Davenport-Rock Island-Moline, Iowa-Ill. | 23 | 23 | 23 |
| Dayton, Ohio | 59 | 59 | 58 |
| Decatur, Ill. | 8 | 8 | 10 |
| Denver-Boulder, Colo. | 70 | 70 | 68 |
| Des Moines, Iowa | 26 | 26 | 25 |
| Detroit, Mich. | 117 | 117 | 117 |
| Dubuque, Iowa | 8 | 8 | 8 |
| Duluth-Superior, Minn.-Wis. | 15 | 16 | 14 |
| El Paso, Tex. | 23 | 23 | 22 |
| Erie, Pa. | 15 | 15 | 15 |
| Eugene-Springfield, Oreg. | 10 | 10 | 10 |
| Evansville, Ind.-Ky. | 18 | 18 | 18 |
| Fargo-Moorhead, N. Dak.-Minn. | 10 | 10 | 9 |
| Flint, Mich. | 22 | 22 | 27 |
| Fort Lauderdale-Hollywood, Fla. | 50 | 50 | 47 |
| Fort Smith, Ark.-Okla. | 11 | 11 | 11 |
| Fort Wayne, Ind. | 25 | 25 | 25 |
| Fresno, Calif. | 16 | 16 | 15 |
| Gary-Hammond-East Chicago, Ind. | 30 | 30 | 33 |
| Grand Rapids, Mich. | 27 | 27 | 26 |
| Great Falls, Mont. | 7 | 7 | 6 |
| Green Bay, Wis. | 13 | 13 | 13 |
| Greensboro-Winston-Salem-High Point, N.C. | 50 | 50 | 48 |
| Greenville-Spartanburg, S.C. | 34 | 34 | 33 |
| Harrisburg, Pa. | 22 | 22 | 22 |
| Hartford, Conn. | 39 | 39 | 38 |
| Honolulu, Hawaii | 19 | 19 | 19 |
| Houston, Tex. | 114 | 114 | 108 |
| Huntington-Ashland, W. Va.-Ky.-Ohio | r19 | 20 | 17 |
| Huntsville, Ala. | 21 | 21 | 19 |
| Indianapolis, Ind. | 68 | 68 | 70 |
| Jackson, Mich. | 6 | 6 | 7 |
| Jackson, Miss. | 17 | 18 | 17 |
| Jacksonville, Fla. | 31 | 31 | 29 |
| Jersey City, N.J. | 6 | 7 | 6 |
| Johnstown, Pa. | 13 | 13 | 14 |
| Kalamazoo-Portage, Mich. | 18 | 18 | 15 |
| Kansas City, Mo.-Kans. | 74 | 74 | 70 |
| Kingsport-Bristol, Tenn.-Va. | 15 | 15 | 14 |
| Knoxville, Tenn. | 30 | 30 | 31 |
| Lakeland-Winter Haven, Fla. | 12 | 12 | 12 |
| Lancaster, Pa. | 13 | 13 | 13 |
| Lansing-East Lansing, Mich. | 14 | 14 | 17 |
| Las Vegas, Nev. | 33 | 33 | 27 |
| Lawrence-Haverhill, Mass.-N.H. | 17 | 17 | 17 |
| Lexington, Ky. | 23 | 23 | 24 |
| Lincoln, Nebr. | 11 | 11 | 12 |
| Little Rock-North Little Rock, Ark. | 29 | 29 | 29 |
| Long Branch-Asbury Park, N.J. | 21 | 21 | 21 |
| Lorain-Elyria, Ohio | 16 | 16 | 16 |
| Los Angeles-Long Beach, Calif. | 222 | 223 | 217 |
| Louisville, Ky.-Ind. | 51 | 53 | 52 |
| Lowell, Mass.-N.H. | 15 | 15 | 13 |
| Lynchburg, Va. | 9 | 9 | 9 |
| Macon, Ga. | 13 | 13 | 13 |
| Madison, Wis. | 20 | 20 | 20 |
| Memphis, Tenn.-Ark.-Miss. | 39 | 39 | 36 |
| Miami, Fla. | 59 | 59 | 57 |
| Milwaukee, Wis. | 59 | 59 | 61 |
| Minneapolis-St. Paul, Minn.-Wis. | 79 | 79 | 80 |
| Mobile, Ala. | 15 | 15 | 14 |
| Montgomery, Ala. | 12 | 12 | 13 |
| Muncie, Ind. | 11 | 11 | 11 |
| Muskegon-Muskegon Heights, Mich. | 7 | 7 | 7 |
| Nashville-Davidson, Tenn. | 55 | 55 | 50 |
| Nassau-Suffolk, N.Y. | 63 | 63 | 69 |
| New Brunswick-Perth Amboy-Sayreville, N.J. | 19 | 19 | 21 |
| New Haven-West Haven, Conn. | 22 | 22 | 22 |
| New Orleans, La. | 47 | 47 | 46 |
| New York, N.Y.-N.J. | 94 | 95 | 106 |
| Newark, N.J. | 38 | 38 | 40 |
| Newport News-Hampton, Va. | 21 | 21 | 21 |
| Norfolk-Va. Beach-Portsmouth, Va.-N.C. | 49 | 49 | 49 |
| Northeast Pennsylvania | 38 | 38 | 39 |
| Oklahoma City, Okla. | 38 | 38 | 34 |
| Omaha, Nebr.-Iowa | 32 | 33 | 32 |
| Orlando, Fla. | 34 | 34 | 32 |
| Oxnard-Simi Valley-Ventura, Calif. | 22 | 22 | 21 |
| Paterson-Clifton-Passaic, N.J. | 11 | 11 | 12 |
| Pensacola, Fla. | 14 | 14 | 11 |
| Peoria, Ill. | 16 | 17 | 16 |
| Philadelphia, Pa.-N.J. | 152 | 157 | 133 |
| Phoenix, Ariz. | 68 | 68 | 63 |
| Pittsburgh, Pa. | 115 | 115 | 113 |
| Portland, Maine | 12 | 12 | 12 |
| Portland, Oreg.-Wash. | 57 | 59 | 54 |
| Providence-Warwick-Pawtucket, R.I.-Mass. | 36 | 36 | 35 |
| Raleigh-Durham, N.C. | 27 | 27 | 26 |
| Reading, Pa. | 19 | 19 | 18 |
| Richmond, Va. | 33 | 33 | 30 |
| Riverside-San Bernardino-Ontario, Calif. | 59 | 59 | 57 |
| Roanoke, Va. | 16 | 16 | 16 |
| Rochester, N.Y. | 46 | 46 | 46 |
| Rockford, Ill. | 17 | 17 | 17 |
| Sacramento, Calif. | 40 | 40 | 38 |
| St. Joseph, Mo. | 7 | 7 | 7 |
| St. Louis, Mo.-Ill. | 98 | 101 | 95 |
| Salem, Oreg. | 11 | 11 | 11 |
| Salinas-Seaside-Monterey, Calif. | 8 | 8 | 8 |
| Salt Lake City-Ogden, Utah | 42 | 42 | 38 |
| San Antonio, Tex. | 45 | 45 | 43 |
| San Diego, Calif. | 70 | 70 | 69 |
| San Francisco-Oakland, Calif. | 97 | 97 | 91 |
| San Jose, Calif. | 50 | 50 | 49 |
| Santa Barbara-Santa Maria-Lompoc, Calif. | 12 | 12 | 12 |
| Savannah, Ga. | 9 | 9 | 8 |
| Seattle-Everett, Wash. | 47 | 47 | 44 |
| Shreveport, La. | 21 | 22 | 21 |
| Sioux City, Iowa-Nebr. | 7 | 7 | 6 |
| Sioux Falls, S. Dak. | 9 | 9 | 8 |
| South Bend, Ind. | 17 | 16 | 17 |
| Spokane, Wash. | 16 | 16 | 15 |
| Springfield, Ill. | 11 | 11 | 13 |
| Springfield, Mo. | 12 | 12 | 11 |
| Springfield, Ohio | 13 | 13 | 14 |
| Springfield-Chicopee-Holyoke, Mass.-Conn | 39 | 39 | 37 |
| Stockton, Calif. | 12 | 12 | 12 |
| Syracuse, N.Y. | 30 | 30 | 29 |
| Tacoma, Wash. | 15 | 15 | 15 |
| Tampa-St. Petersburg, Fla. | 79 | 79 | 76 |
| Toledo, Ohio-Mich. | 46 | 45 | 43 |
| Topeka, Kans. | 8 | 8 | 8 |
| Trenton, N.J. | 14 | 14 | 14 |
| Tucson, Ariz. | 21 | 21 | 20 |
| Tulsa, Okla. | 29 | 29 | 29 |
| Utica-Rome, N.Y. | 16 | 16 | 13 |
| Vallejo-Fairfield-Napa, Calif. | 11 | 11 | 10 |
| Waco, Tex. | 10 | 10 | 10 |
| Washington, D.C.-Md.-Va. | 111 | 111 | 108 |
| Waterloo-Cedar Falls, Iowa | 8 | 8 | 8 |
| West Palm Beach-Boca Raton, Fla. | 31 | 31 | 27 |
| Wheeling, W. Va.-Ohio | 15 | 15 | 15 |
| Wichita, Kans. | 23 | 23 | 17 |
| Wilmington, Del.-N.J.-Md. | 28 | 28 | 26 |
| Worcester, Mass. | 15 | 15 | 13 |
| York, Pa. | 20 | 20 | 20 |
| Youngstown-Warren, Ohio | 41 | 41 | 39 |
| **CITIES** | | | |
| Aberdeen, S. Dak. | 5 | 5 | 5 |
| Battle Creek, Mich. | 2 | 2 | 3 |
| Bellingham, Wash. | 5 | 5 | 5 |
| Bridgeport, Conn. | 4 | 4 | 4 |
| Buffalo, N.Y. | 10 | 10 | 10 |
| Cambridge, Mass. | 3 | 3 | 3 |
| Danville, Ill. | 5 | 5 | 5 |
| Daytona Beach, Fla. | 9 | 9 | 9 |
| Enid, Okla. | 3 | 3 | 3 |
| Gary, Ind. | 4 | 4 | 5 |
| Grand Forks, N. Dak. | 5 | 5 | 5 |
| Greeley, Colo. | 8 | 8 | 7 |
| Hagerstown, Md. | 5 | 5 | 5 |
| Huntington, W. Va. | 6 | 6 | 7 |
| Hutchinson, Kans. | 6 | 6 | 7 |
| Idaho Falls, Idaho | 6 | 6 | 6 |
| Joplin, Mo. | 5 | 5 | 6 |
| La Crosse, Wis. | 9 | 9 | 8 |
| Long Beach, Calif. | 11 | 11 | 11 |
| Louisville, Ky. | 11 | 11 | 12 |
| Mankato, Minn. | 4 | 4 | 4 |
| Minneapolis, Minn. | 8 | 8 | 8 |
| Minot, N. Dak. | 7 | 7 | 5 |
| New York, N.Y. | 42 | 42 | 51 |
| Newark, N.J. | 4 | 4 | 4 |
| Niagara Falls, N.Y. | 3 | 3 | 3 |
| Oakland, Calif. | 6 | 6 | 6 |
| Paducah, Ky. | 6 | 6 | 6 |
| Parkersburg, W. Va. | 4 | 4 | 4 |
| Pasadena, Calif. | 8 | 8 | 6 |
| Portsmouth, Ohio | 4 | 4 | 4 |
| Quincy, Ill. | 5 | 5 | 6 |
| Quincy, Mass. | 3 | 3 | 4 |
| Rapid City, S. Dak. | 5 | 5 | 4 |
| Rochester, Minn. | 6 | 6 | 6 |
| Rochester, N.Y. | 6 | 6 | 6 |
| Rome, Ga. | 5 | 5 | 4 |
| St. Louis, Mo. | 8 | 8 | 8 |
| St. Paul, Minn. | 10 | 10 | 10 |
| San Francisco, Calif. | 7 | 7 | 9 |
| Seattle, Wash. | 13 | 13 | 13 |
| Syracuse, N.Y. | 2 | 2 | 2 |
| Twin Falls, Idaho | 3 | 3 | 3 |
| Walla Walla, Wash. | 3 | 3 | 3 |
| Yakima, Wash. | 6 | 6 | 6 |
| **CENTRAL BUSINESS DISTRICTS** | | | |
| Baltimore, Md. | 5 | 5 | 5 |
| Chicago, Ill. | 6 | 6 | 6 |
| Cleveland, Ohio | 3 | 3 | 3 |
| Los Angeles, Calif. | 5 | 5 | 5 |
| Oakland, Calif. | 3 | 3 | 3 |
| Philadelphia, Pa. | 3 | 3 | 3 |
| Pittsburgh, Pa. | 3 | 3 | 3 |
| Washington, D.C. | 3 | 3 | 3 |
| **MISCELLANEOUS AREAS** | | | |
| Alameda County, Calif. | 38 | 38 | 32 |
| Boise and Nampa, Idaho | 12 | 12 | 12 |
| Bristol-Kingsport-Johnson City, Tenn.-Va | 23 | 23 | 23 |
| Chicago City, excluding CBD | r53 | 54 | 55 |
| Contra Costa County, Calif. | 25 | 25 | 24 |
| Cumberland-Hagerstown, Md. | 9 | 9 | 9 |
| Delaware (State) | 37 | 37 | 34 |
| Fairfield County, Conn. | 29 | 29 | 28 |
| Fairmont-Morgantown, W. Va. | 12 | 12 | 12 |
| Hennepin County, Minn. | 36 | 36 | 36 |
| Nassau County, N.Y. | 35 | 35 | 38 |
| Philadelphia SMSA, excluding CBD | 149 | 154 | 130 |
| Ramsey County, Minn. | 22 | 22 | 22 |
| San Fernando Valley, Calif. | 32 | 33 | 33 |
| Westchester County, N.Y. | 24 | 25 | 24 |
| Westside Los Angeles, Calif. | 9 | 9 | 9 |

r Revised.

[1] For definitions of standard consolidated areas and standard metropolitan statistical areas see appendix E.

## Figure 4. Estimated Monthly Retail Sales, End-of-Month Inventories, and Inventories-Sales Ratios for the United States: January 1971-April 1981

(Seasonally Adjusted)



## INVENTORIES

The book value of merchandise inventories in stores and warehouses of retail firms in the United States at the end of April 1981, after adjustment for seasonal variations but not for price changes, was estimated at $114.1 billion. This represents an increase of $0.7 billion, about 1 percent above March 1981. Compared to March levels, the value of April inventories of durable goods firms increased 1 percent while those of nondurable goods firms were little changed.

The retail total inventory-to-sales ratio at the end of April was 1.33 compared to 1.29 for the end of March.

### Table 9. Estimated End-of-Month Retail Inventories by Kind of Business for the United States

(Millions of dollars)

| 1972 SIC code | Kind of business | 1981 | | | | 1980 | | | | | | | | | Percent change in total inventory Apr. 1981 from-- | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Jan. | Feb. | Mar. | Apr.P | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Apr. 1980 | Mar. 1981 |
| | **Data NOT ADJUSTED for seasonal variations** | | | | | | | | | | | | | | | |
| | Retail trade, total | 108,147 | 110,635 | 113,741 | 115,112 | 110,867 | 109,997 | 109,454 | 109,268 | 108,482 | 111,826 | 117,264 | 119,039 | 108,717 | +4 | +1 |
| | Total (excl. automotive group) | 83,216 | 85,852 | 89,117 | 89,526 | 84,567 | 84,266 | 84,471 | 85,187 | 86,323 | 90,005 | 94,351 | 95,008 | 84,260 | +6 | 0 |
| | Durable goods stores, total | 51,904 | 52,409 | 53,018 | 54,031 | 53,895 | 53,108 | 52,418 | 51,306 | 49,619 | 49,678 | 51,457 | 52,807 | 51,159 | 0 | +2 |
| 52 | Building materials, hardware, garden supply, and mobile home dealers | 8,816 | 9,151 | 9,590 | 9,677 | 9,389 | 9,109 | 9,059 | 8,878 | 8,902 | 8,927 | 8,975 | 8,909 | 8,695 | +3 | +1 |
| 55 | Automotive dealers | 24,931 | 24,783 | 24,624 | 25,586 | 26,300 | 25,731 | 24,983 | 24,081 | 22,159 | 21,821 | 22,913 | 24,031 | 24,457 | -3 | +4 |
| 57 | Furniture, home furnishings, equipment stores | 7,975 | 8,146 | 8,374 | 8,366 | 8,413 | 8,391 | 8,463 | 8,269 | 8,380 | 8,420 | 8,671 | 8,525 | 8,008 | -1 | 0 |
| | Nondurable goods stores, total | 56,243 | 58,226 | 60,723 | 61,081 | 56,972 | 56,889 | 57,036 | 57,962 | 58,863 | 62,148 | 65,807 | 66,232 | 57,558 | +7 | +1 |
| 53 | General merchandise group stores | 19,397 | 20,593 | 22,054 | 22,485 | 21,181 | 21,082 | 21,066 | 21,363 | 21,898 | 23,439 | 25,328 | 25,460 | 19,894 | +6 | +2 |
| 531 | Department stores | 14,366 | 15,190 | 16,289 | 16,783 | 15,429 | 15,383 | 15,376 | 15,508 | 15,933 | 17,031 | 18,461 | 18,824 | 14,819 | +9 | +3 |
| 54 | Food stores | 12,167 | 12,527 | 12,892 | 12,871 | 11,586 | 11,570 | 11,710 | 11,745 | 11,791 | 12,003 | 12,673 | 12,957 | 12,471 | +11 | 0 |
| 56 | Apparel and accessory stores | 8,624 | 9,060 | 9,436 | 9,444 | 8,617 | 8,729 | 8,736 | 9,015 | 9,388 | 10,088 | 10,493 | 10,556 | 9,120 | +10 | 0 |
| | **Data ADJUSTED for seasonal variations** | | | | | | | | | | | | | | | |
| | Retail trade, total | 111,790 | 113,507 | 113,404 | 114,120 | 109,744 | 109,498 | 109,438 | 110,003 | 110,283 | 111,711 | 113,106 | 112,639 | 111,694 | +4 | +1 |
| | Total (excl. automotive group) | 87,299 | 89,234 | 90,019 | 89,891 | 84,839 | 85,132 | 85,393 | 86,136 | 86,091 | 87,573 | 88,808 | 88,192 | 87,431 | +6 | 0 |
| | Durable goods stores, total | 52,234 | 52,374 | 51,791 | 52,467 | 52,282 | 51,648 | 51,453 | 51,249 | 51,675 | 51,738 | 52,066 | 52,209 | 51,853 | 0 | +1 |
| 52 | Building materials, hardware, garden supply and mobile home dealers | 9,061 | 9,096 | 9,302 | 9,332 | 9,045 | 8,861 | 8,916 | 8,869 | 8,965 | 9,008 | 9,102 | 9,082 | 9,076 | +3 | 0 |
| 55 | Automotive dealers | 24,491 | 24,273 | 23,385 | 24,229 | 24,905 | 24,366 | 24,045 | 23,866 | 24,191 | 24,138 | 24,298 | 24,447 | 24,263 | -3 | +4 |
| 57 | Furniture, home furnishings, equipment stores | 8,196 | 8,346 | 8,450 | 8,324 | 8,379 | 8,383 | 8,438 | 8,344 | 8,372 | 8,328 | 8,346 | 8,285 | 8,163 | -1 | -1 |
| | Nondurable goods stores, total | 59,556 | 61,133 | 61,613 | 61,653 | 57,462 | 57,851 | 57,985 | 58,754 | 58,608 | 59,972 | 61,040 | 60,430 | 59,841 | +7 | 0 |
| 53 | General merchandise group stores | 21,614 | 22,386 | 22,646 | 22,629 | 21,308 | 21,315 | 21,365 | 21,603 | 21,549 | 21,991 | 22,581 | 22,310 | 21,861 | +6 | 0 |
| 531 | Department stores | 15,980 | 16,583 | 16,690 | 16,817 | 15,444 | 15,476 | 15,594 | 15,841 | 15,791 | 16,128 | 16,439 | 16,326 | 16,178 | +9 | +1 |
| 54 | Food stores | 12,315 | 12,795 | 12,840 | 12,909 | 11,609 | 11,652 | 11,722 | 11,876 | 11,983 | 12,112 | 12,292 | 12,411 | 12,372 | +11 | +1 |
| 56 | Apparel and accessory stores | 9,394 | 9,679 | 9,638 | 9,637 | 8,784 | 8,962 | 9,025 | 9,162 | 9,195 | 9,481 | 9,487 | 9,518 | 9,470 | +10 | 0 |

Note: Retail trade total and group totals include kinds-of-business estimates not shown separately. Sampling variability for unadjusted data are shown in appendix B, table B-6.

PPreliminary estimates (appendix B, table B-8 contains measures of revisions to preliminary estimates.)

# Table 10. Inventories/Sales Ratios

(Based on seasonally adjusted data)

| 1972 SIC code | Kind of business | 1981 | | | | 1980 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Jan. | Feb. | Mar. | Apr.[p] | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| | Retail trade, total | 1.31 | 1.31 | 1.29 | 1.33 | 1.44 | 1.44 | 1.41 | 1.38 | 1.38 | 1.39 | 1.39 | 1.36 | 1.34 |
| | Total (excl. automotive group) | 1.24 | 1.27 | 1.26 | 1.26 | 1.33 | 1.33 | 1.32 | 1.32 | 1.31 | 1.32 | 1.32 | 1.29 | 1.27 |
| | Durable goods stores, total | 1.93 | 1.85 | 1.82 | 2.00 | 2.27 | 2.29 | 2.18 | 2.04 | 2.10 | 2.06 | 2.06 | 2.01 | 2.00 |
| 52 | Building materials, hardware, garden supply, and mobile home dealers | 1.97 | 1.98 | 2.08 | 2.10 | 2.35 | 2.31 | 2.35 | 2.33 | 2.33 | 2.23 | 2.23 | 2.14 | 2.13 |
| 55 | Automotive dealers | 1.64 | 1.49 | 1.43 | 1.67 | 1.99 | 2.01 | 1.83 | 1.65 | 1.74 | 1.70 | 1.70 | 1.68 | 1.68 |
| 57 | Furniture, home furnishings, equipment dealers | 2.04 | 2.15 | 2.17 | 2.17 | 2.38 | 2.38 | 2.42 | 2.30 | 2.31 | 2.25 | 2.27 | 2.18 | 2.14 |
| | Nondurable goods stores, total | 1.02 | 1.05 | 1.04 | 1.04 | 1.08 | 1.08 | 1.07 | 1.08 | 1.06 | 1.08 | 1.08 | 1.06 | 1.04 |
| 53 | General merchandise group stores | 2.16 | 2.17 | 2.20 | 2.15 | 2.30 | 2.26 | 2.27 | 2.27 | 2.22 | 2.28 | 2.27 | 2.23 | 2.17 |
| 531 | Department stores | 1.98 | 1.98 | 1.98 | 1.95 | 2.06 | 2.03 | 2.05 | 2.05 | 2.00 | 2.06 | 2.04 | 2.00 | 1.99 |
| 54 | Food stores | 0.65 | 0.67 | 0.66 | 0.65 | 0.65 | 0.66 | 0.65 | 0.66 | 0.65 | 0.65 | 0.66 | 0.66 | 0.65 |
| 56 | Apparel and accessory stores | 2.38 | 2.41 | 2.44 | 2.44 | 2.46 | 2.47 | 2.45 | 2.49 | 2.43 | 2.55 | 2.52 | 2.52 | 2.50 |

## METHODS OF INVENTORY VALUATION

A supplementary form, requesting data on the methods that were used to value the inventory reported for December 1980, was sent to each firm in the monthly retail inventory sample. Based on the reports from those firms that reported a method of valuation, 24 percent of the December 1980 retail inventory was valued by using the last-in, first-out (LIFO) and LIFO retail methods. For nondurable goods stores, 33 percent of the inventory was valued by the LIFO methods, while only 13 percent of the inventory reported by durable goods stores was based on LIFO.

The above percentages were based on those firms that reported both end of December 1980 inventory and a method of valuation. Also included were firms that did not report a method of valuation in the 1980 supplement but did provide that information on the 1979 supplement or the 1979 Retail Trade Survey. For these firms the inventory valuation methods from the 1979 surveys were substituted and tabulated in the December 1980 supplement. The firms that did not indicate a valuation method in either 1979 or 1980 were not tabulated.

Percentages are based on a weighted estimate of inventory allocated to the valuation methods indicated by the respondents. The weight is the inverse of the probability of selection in the monthly sample. This procedure is slightly different from that used to estimate the dollar value of inventories. For a full description of the sample, see Appendix A, Explanatory Material, Description of Current Sample.

The LIFO method determines the value of the ending inventory based on the assumption that the last units purchased are the first to be sold. The LIFO retail method estimates the value of ending inventory from the selling price. Other methods include first-in, first-out (FIFO), average cost, specific cost, lower of cost or market, approximating cost, and approximating lower of cost or market.

### Table 11. Methods of Inventory Valuation: December 1980

| 1972 SIC code | Kind of business | Percentages of retail inventories | |
|---|---|---|---|
| | | LIFO and LIFO retail methods | Other methods |
| | Retail trade, total | 24 | 76 |
| | Total (excl. automotive group) | 27 | 73 |
| | Durable goods stores, total | 13 | 87 |
| 52 | Building materials, hardware, garden supply, and mobile home dealers | 13 | 87 |
| 55 ex. 554 | Automotive dealers | 13 | 87 |
| 57 | Furniture, home furnishings, and equipment stores | 8 | 92 |
| | Nondurable goods stores, total | 33 | 67 |
| 53 | General merchandise group stores | 54 | 46 |
| 5311 | Department stores | 59 | 41 |
| 54 | Food stores | 24 | 76 |
| 56 | Apparel and accessory stores | 12 | 88 |

Note: The inventories of the firms tabulated in this survey represented approximately 81 percent of the total retail inventory for December 1980.

# Appendix A. Explanatory Material

## INTRODUCTION

The Monthly Retail Trade report is issued by the Bureau of the Census to provide (1) estimates of sales of retail stores by kind of business for the United States and geographic areas—regions, divisions, selected States, standard consolidated areas (SCA's), standard metropolitan statistical areas (SMSA's), and cities, (2) national estimates of end-of-month inventories of retail establishments by kind of business. The retail sales and inventories estimates in this report are developed from samples representing all sizes of firms and kinds of business in retail trade throughout the Nation. The samples have been designed so that estimates can be evaluated in terms of their sampling errors.

## BACKGROUND OF PREVIOUS RETAIL SAMPLES

The first publication in this series was the Monthly Retail Trade report for March 1952. The initial report contained retail store sales estimates beginning with January 1951—the first month for which estimates based on probability sampling for all retail stores were available. Summary sales data for geographic areas were introduced effective with April 1962, and monthly department store sales estimates for approximately 200 selected areas in February 1966. End-of-month retail inventory statistics for periods prior to January 1979 were derived from data which were collected and tabulated by the Census Bureau but published by the Bureau of Economic Analysis in the Survey of Current Business report.

In May 1953, an entirely new sample was selected. Other changes in the sample have been made since May 1953, representing, for the most part, revisions to reflect the findings of successive censuses of retail trade.

A major change in the retail sample design was introduced beginning with data for January 1968, at which time primary dependence shifted from an area-sample, personal enumeration design to one based largely on a mail canvass of a sample drawn from updated lists of employers from administrative record sources; i.e., Internal Revenue Service (IRS) and Social Security Administration (SSA) files. (See the August 1968 Monthly Retail Trade report.) The resulting revision of the retail sample was introduced beginning with the August 1971 publication. The principal elements of this revision were—

1. Updating the sample to incorporate the results of the 1967 Census of Retail Trade, which provided new information on the industry classification and size of business firms. Also, the large-firm Group II component of the sample design was redefined to include all firms with 11 or more retail stores in the 1967 (rather than the 1963) census.

2. Changing sampling and collection procedures for Group II firms. Such firms were previously canvassed on a total organization basis, and the parent company requested to include in its report all retail stores of its subsidiaries. For all other retail firms with employees, a sample was selected from the employer identification (EI) numbers assigned in connection with the Federal Insurance Contributions Act (FICA). Under the latter design, sampling procedures for the Group II component were modified to conform to the EI approach. (This was intended to provide a more effective control to assure complete and unduplicated coverage, particularly in instances of mergers, acquisitions, and dissolutions. Subsequent studies, however, have shown that for larger companies, sales derived from an EI sample are lower than sales based on company reports beyond any difference that can be attributed to sampling.) As part of this sample update, a new subsample of stores of these large retail organizations was selected on the basis of 1967 Census of Business information.

3. Instituting a monthly match against the most current file of firms covered by the FICA to assure that the mail canvass includes all firms selected for the sample that are currently active, including those firms which had gone out of business but subsequently resumed operations.

## DESCRIPTION OF CURRENT SAMPLE

The current sales sample consists of two components:

1. The primary component is the list sample—a probability sample selected from the retail employers contained in the Bureau's Standard Statistical Establishment List (SSEL)—which effectively covers all employers who made social security payments for their employees under the Federal Insurance Contributions Act. The list sample is updated quarterly to account for business "births" and "deaths," and represents approximately 94 percent of retail sales. Canvass of this component is primarily by mail.

2. The secondary component is the area sample—a probability sample of land segments. All retailers not subjected to sampling in the list sample are represented by similar retail business establishments found in these land segments. Personal enumeration is used for this component.

**The List Sample.** The list sample originally was drawn from the SSEL as updated to December 31, 1974. The initial SSEL consisted of two lists. One list was composed of all EI numbers with reported payroll in at least one quarter of 1973 or 1974, with payroll in the 1972 census, or with sales/receipts greater than $100,000 in the 1972 census. The second list consisted of all establishments of known multi-establishment companies as of December 31, 1974. These lists contained information on sales/receipts, payroll, employment, name and address, kind-of-business classification, etc.

Before the 1974 SSEL was available, a study was made, using files from the 1972 Census of Retail Trade. This study determined the stratification of the sampling units based on 1972 sales and kind of business, and it also determined the optimal allocation of the sample necessary to meet specified variance objectives for sales estimates for different kind-of-business groups. The primary stratum boundary determined in the study was the certainty cutoff to be used for each kind of business. The cutoff was particularly important since it also determined the type of sampling unit.

Sampling units for the list sample consisted of both companies and EI's. To be eligible for the initial list sample, an EI had to be active; i.e., had payroll in 1974 and was on the Internal Revenue Service mailing list for FICA taxpayers. If a known multi-establishment company had total retail sales (on a 1972 basis) above the cutoff for its major kind of business, the company was selected for the sample with certainty. The company, which might consist of many EI's, was then the sampling unit; therefore, any new retail establishments that the company might acquire, even if under new or different EI's, were in the sample with certainty. Single establishment companies, whether or not selected with certainty, were considered as EI sampling units.

All retail companies below the certainty cutoff were treated on an EI basis; that is, the EI was the sampling unit. The EI's were then stratified according to their major kind of business and their estimated sales (on a 1972 basis). Within each stratum, a simple random sample of EI's was selected. The sampling rates for these EI's varied between 1 in 3 and 1 in 1,000.

For those EI's in the initial sample that were unclassified and for all EI "births" after the initial selection, a two-phase selection procedure was used. EI "births", as used here, are new EI's recently assigned by SSA and currently on the IRS mailing list for FICA taxpayers. In the first phase, "births" were stratified by kind of business and size (expected employment or quarterly payroll). A relatively large sample was drawn and canvassed for a more reliable measure of size (sales in 2 recent months) and a more detailed kind-of-business code, if needed.

Using this more reliable information, the cases were restratified and the final sample drawn with overall probabilities equivalent to those used in drawing the initial sample from the 1974 SSEL. Because of the lag in reporting "births" to the IRS and the SSA and the time needed to accomplish the two-phase birth-selection procedure, "births" are actually added to the sample about 8 or 9 months after they begin operation. During this period, they are represented by the area sample. The ongoing birth-selection procedure is carried out quarterly.

To be eligible for list sample canvass and tabulation in a given month, a retail business must meet both of the following requirements:

1. It must be on the IRS mailing list for FICA taxpayers from the previous quarter.

2. It must have been selected from either SSEL or the file of employer "births." For this purpose, a universe file of all businesses ever given a chance of selection is maintained. This file shows, among other things, which EI numbers actually have been selected.

In the case of businesses that were selected into the sample with certainty, the first requirement is changed. These certainty sampling units are not dropped from canvass and tabulation if they are no longer on the IRS mailing list. Rather, these businesses are contacted, and if there are successor businesses, they are added to the survey. This is a tighter form of control used for these larger businesses.

**The Area Sample.** The area sample is a two-stage sample. In the first stage, 10 primary sampling units (single counties or small groups of contiguous counties) were selected with certainty and 48 were drawn with probability proportionate to size (population). Each selected primary sampling unit (PSU) was then subdivided into small land segments containing, at the time of selection, an average of about four retail stores each. Twelve subsamples of these land segments were drawn in each PSU at an overall rate of 1 in 1,000 (1 in 2,000 or 1 in 3,000 in the smallest PSU's). A different subsample is included in the area sample for each month of the year. Each of these 12 subsamples include approximately 420 land segments.

All retail establishments in these selected land segments are canvassed. Sufficient information (mainly concerning the EI number) is obtained to determine whether the business has had a chance of selection in the list sample component. If it has no EI number or if its EI number fails to match either the list sample universe or the current FICA mailing list, it is tabulated in the area sample. The area sample thus includes businesses without employees and employers, mainly recent EI "births," not represented in the list sources.

## The Inventory Sample

The inventory sample is a subsample of the firms and companies included in the Bureau's Annual Retail Trade Survey. (This survey includes the entire "list" component of the monthly retail survey and one-fourth of the "area" component.) In total, the inventory sample consists of approximately 2,700 organizations operating about 48,000 retail establishments.

The sample was selected by first stratifying firms and companies by major kind-of-business groups by the dollar volume of inventories as reported in the 1977 Annual Retail Trade Survey. The desired number of cases in each stratum were then randomly selected on a probability basis. As a result, small as well as large retail firms are represented in the sample. Some firms, due to their relatively large impact on the inventories for the kind-of-business category in which they are classified, were selected with certainty in order to reduce the variance associ-

ated with estimates. All firms selected in the inventory sample are requested to report their end-of-month inventory each month.

## Benchmarking[1]

Retail sales estimates in this report reflect the results of a benchmarking operation which made use of data tabulated from the 1977 Census of Retail Trade and the 1978 and 1979 Annual Retail Trade Surveys (ARTS). The department store series were modified prior to the revision to reflect the kind-of-business classification information from the 1977 Census of Retail Trade. Corresponding modifications also affected the variety stores, miscellaneous general merchandise stores, women's ready-to-wear stores, and family clothing stores. Monthly retail sales by kind of business for the United States were revised for the period January 1977 through December 1980 in a manner designed to minimize the changes to the month-to-month trends in the original series. As part of the revision process, revised monthly data for 1977, 1978, and 1979 were constrained to sum to adjusted 1977 retail census levels and 1979 estimates, respectively. This revision had no impact on the series prior to January 1977.

Through use of so-called "carry forward factors." the effect of the revision process at the U.S. level is applied to all estimates subsequent to December 1979. These factors were derived at the most detailed kind-of-business level and will be held constant until the next revision and benchmarking process. Aggregate level estimates are derived by summing appropriate detail level estimates, thereby assuring additivity.

Monthly retail sales estimates for published geographic areas also reflect the results of the revision process. In order to adjust geographic estimates, factors are derived each month at specified United States kind-of-business levels by dividing the revised U.S. estimates (as published) by the unrevised U.S. estimates (without the "carry forward factors" applied) at the given kind-of-business level. These factors are then multiplicatively applied at each published geographic area for the kind of business for which the factor was derived.

Subsequent revisions of the monthly sales series will make use of later annual surveys of retail trade and the 1977 Census of Retail Trade. As previously noted, the series for department stores, variety stores, miscellaneous general merchandise stores, women's ready-to-wear stores, and family clothing stores make use of the 1977 Census classifications.

## Relationship of the Group I and Group II Components of the Sample

The Group II component consists of companies which had 11 or more retail establishments at the time the initial sample was selected from the 1974 SSEL and which, in addition, qualified for certainty selection. To qualify for certainty, total annual sales of these companies (on a 1974 basis) had to exceed specified dollar volume cutoffs which varied by kind of business. The certainty cutoff ranged from annual sales of $2 million to annual sales of $25 million or more.

In previous sample designs, the sole criteria for classifying a company into the Group II component was that the company had to have operated 11 or more retail stores at the time of the most recent retail census. Under the current sample design, a Group II company must meet both the establishment cutoff as well as the certainty sale-size cutoff. The Group I component consists of all other retail establishments.

Although separate tabulations are made for the Group I and Group II components of the list sample, only the data developed for the Group II component is published separately (table 3). Group I estimates are included in the "retail trade, total" figures shown in this report.

## Use of the Rotating Sample and Composite Estimate Procedures

Rotating sample panels are used for both the list and area sample components of the sample (except for very large businesses which are selected with certainty). For sampling units in the rotating panels, 2 months of data are obtained at each enumeration. For example, February list sample rotating panel cases and February land segment cases each report data for February (the current month) and January (the previous month). In the following month, different rotating panels (the March panels) report figures for March and February. Three list sample panels and 12 area sample panels are used. This permits the use of a composite estimating procedure which provides estimates more reliable than those which would be obtained from a completely fixed sample of about twice the size and reduces the reporting burden of selected businesses.

The first estimate issued each month, based on the full sample, is called the preliminary estimate. The preliminary composite estimate for the current month is a weighted average of two estimates: (1) the current month unbiased estimate (weight 0.25), and (2) a ratio estimate (weight 0.75) obtained by multiplying the preliminary composite estimate for the previous month by the current-to-previous-month ratio obtained from the current month reports.

A final estimate is developed 1 month later using information available from the following month's enumeration. The final composite estimate is also a weighted average of two estimates: (1) the preliminary composite estimate for a given month (weight 0.8), and (2) the unbiased estimate (weight 0.2) for the same month as obtained from the next month's reporting panel.

The preliminary composite estimates provide a measure of the dollar volume level that considerably more reliable than the unbiased estimates, and the final composite estimates are generally more reliable than the preliminary composite estimates. Except for the effect of early reporting bias, the indication of the month-to-month trend considered to be most reliable is the ratio of the current month's preliminary composite estimate divided by the previous month's final composite estimate. This is true, because the numerator and denominator of this ratio are more highly correlated than would be the case if the numerator and denominator were two preliminary estimates or two final estimates. The trend of the preliminary-final ratio, there-

[1] For a detailed description of the revision methodology, see the paper, "Historical Revision of Current Business Survey Estimates," by Sol D. Helfand, Nash J. Monsour, and Mitchell L. Trager in the Proceedings of the Business and Economic Statistics Section, American Statistical Association, 1977.

fore, has less variability than one based on two preliminary figures or two final figures.

Another advantage of the use of the rotating panel system is that the very large noncertainty cases in each enumeration are identified and recanvassed in the following month or months. This makes it possible to reduce their weights without biasing the results and thus lessen their influence on the estimates. This increases the reliability of the estimates, particularly the measure of month-to-month change.

### Inventory Estimates

End-of-month inventory estimates are obtained by computing the ratio of weighted current month to weighted base month inventory values for firms responding to the current month inquiry. The weights used are the inverse of the probability of selection for the reporting unit. The base month is the end-of-year period as reported in the 1979 ARTS. Current-to-base inventory ratios are calculated for selected kind-of-business categories. These ratios are then multiplied by end-of-year 1979 Annual Retail Trade Survey estimates for the corresponding kind-of-business category to derive a dollar level estimate of retail inventories for the current month.

### Department Store Sales in Selected Areas

The data on department store sales in selected areas are based on a canvass of all known department stores in the selected areas. Statistics are not shown for some areas if a sufficient number of reports are not received in time for publication. Data for these areas will be included in later issues if permitted by adequacy of reports.

In the case of multiunit firms, each of their establishments is separately classified and only data for those which qualify as department stores are included. For firms that have both department stores and separate mail-order distribution points, only their department stores are included in the department store area statistics.

### Percent Change in Sales

Month-to-month and year-to-year comparisons shown in this report are based on the total dollar volume of receipts for each of the periods being compared. These trends thus include the effect of stores starting operation or ceasing operation and are not limited to "identical stores", i.e., those in operation in both of the periods being compared.

The percentage changes in sales shown in table 2 for kinds of business not marked with an asterisk are derived directly from the dollar volume estimates in table 1. The sampling variability of dollar estimates for those kinds of business with an asterisk is relatively large. Therefore, such estimates are not published in table 1. However, the percentage changes which are derived from such estimates have a smaller sampling variability than the estimates themselves and are therefore published in table 2.

### Percent Change in Inventories

The month-to-month and year-to-year inventory comparisons shown in this report are based on the estimates of end-of-month inventories for each of the periods being compared. These trends include the effect of the stores associated with the sampling units in the inventory sample, but do not reflect the opening of new stores by firms not in the sample.

### Unpublished Data

Selected additional data, such as dollar volume estimates for some kinds of business and geographic areas not separately shown in this report, are produced as a byproduct of the regularly published statistics. These additional data have not been included in this publication because their sampling variability is so high, relative to the changes from month-to-month or between other periods, that might be anticipated actually to occur, as to make them potentially misleading. The Bureau of the Census, on request, will release such figures for individual use, though not for publication. Selected additional data, providing greater detail by geographic area and by kind of business, may be developed on a reimbursable basis. It should be noted that some unpublished figures can be derived directly from this report by subtracting published data from their respective totals. However, the figures obtained by such subtraction would be subject to the high sampling variability described previously for unpublished kinds of business.

### Special Tabulations

Complete county coverage by kind of business is restricted to two kinds of business—grocery stores and drug and proprietary stores. In general, separate county figures are limited to counties included in the standard metropolitan statistical areas (SMSA) shown in this report and the specified kinds of business shown for these SMSA's. It should be noted that the reliability of geographic area estimates depends upon the size of the area and the kind-of-business categories tabulated. Therefore, if special tabulations are requested, the areas generally should account for at least 3 percent of the U.S. population and the request should be limited to the kind-of-business categories mentioned before.

## DEFINITION OF TERMS

**Sales.** Sales include the following: Merchandise sold for cash or credit at retail and wholesale by establishments primarily engaged in retail trade; amounts received from customers for layaway purchases; receipts from rental or leasing of vehicles, equipment, instruments, tools, etc.; receipts for delivery, installation, maintenance, repair, alteration, storage, and other services; and gasoline, liquor, tobacco, and other excise taxes which are paid by the manufacturer or wholesaler and passed along to the retailer. Sales are net after deductions for refunds and allowances for merchandise returned by customers. Trade-in allowances are not deducted from total sales. Total sales do not include commissions from vending machine operators or nonoperating income from such sources as investments, rental or sale of real estate, etc.

Sales exclude sales and excise taxes collected directly from customers and paid directly to a local, State, or Federal tax agency. Also excluded are receipts from customers for carrying or other credit charges. In the old series, respondents were re-

quested to include these taxes and credit charges in their reported sales.

The sales figures represent total sales and receipts of all establishments primarily engaged in retail trade. They do not include sales at retail by manufacturers, wholesalers, service establishments, and others whose primary activity is other than retail trade.

**Inventories.** Inventories represent stocks of merchandise, valued at cost, on hand for sale by retail establishments at the end of the month. Methods of valuation may vary according to the accounting practices of the firm. Inventories are shown for retail stores and warehouses combined. Only those warehouses which maintain supplies of merchandise primarily intended for distribution to retail stores within the organization are included.

Inventories exclude the value of fixtures, furnishings, equipment, and supplies used in store and warehouse operations and not held for resale.

**Inventories-Sales Ratios.** The inventories-sales ratios shown in table 10 indicate the relationship of end-of-month inventories to sales during the month. The ratios shown are derived by dividing the seasonally-adjusted inventories estimates by the corresponding seasonally-adjusted sales estimates. No adjustment is made in these ratios for the markup in sales which may vary from one kind of business to another.

**Kind-Of-Business Classifications.** Retail trade, as defined in major groups 52 through 59 of the 1972 edition of the SIC manual, includes establishments engaged in selling merchandise for personal or household consumption and rendering services incidental to the sale of the goods. Exceptions to this general rule are made necessary by trade practices. For example, lumber yards and paint, glass, and wallpaper stores are included in retail trade if they sell to the general public, even if a higher proportion of their sales is made to contractors. Also, establishments engaged in selling products to the general public from displayed merchandise, such as typewriters, stationery, or gasoline are classified in retail trade, even though such products may not be used for personal or household consumption. However, even within these areas of exception to the general rule, establishments that sell exclusively to business establishments, institutional and industrial users, or contractors are classified in wholesale trade.

Additional characteristics of retail trade establishments are that they usually operate at fixed places of business; they are engaged in activities to attract the general public to buy; they buy or receive merchandise as well as sell; they may process their products, but such processing is incidental or subordinate to selling; and they are considered as retail in the trade. Not all of these characteristics need be present, and some are modified by trade practice.

Kind-of-business classifications are not interchangeable with commodity classifications. Most businesses sell several kinds of commodities. The kind-of-business code assigned generally reflects the individual commodity, the commodity group which is the primary source of the establishments' receipts, or some mixture of commodities which characterizes the establishment's business. Classification of establishments by kind of business generally does not make it possible to determine either the number of establishments handling a particular commodity or the sales of that commodity. For example, the "food group" classification excludes stores selling food if the sale of food is not the primary source of receipts; moreover, even though stores are classified as "food stores" some of their receipts may be derived from the sale of nonfood products.

A description of each kind of business included in the accompanying statistical data is shown in appendix D.

**GAF.** "GAF" includes the following: General merchandise group stores (SIC 53); apparel and accessory stores (SIC 56); furniture, home furnishings and equipment stores (SIC 57); and miscellaneous shopping goods stores (SIC 594). GAF represents stores which specialize in department store types of merchandise.

# Appendix B. Reliability of Data

There are two types of errors possible in an estimate based on a sample survey—sampling and nonsampling. Sampling errors occur because observations are made only on a sample, not on the entire population. Nonsampling errors can be attributed to many sources in the collection and processing of data. The accuracy of a survey result is determined by the joint effects of sampling and nonsampling errors.

**Measures of Sampling Variability.** The particular sample used in this survey is one of a large number of all possible samples of the same size that could have been selected using the same design. Estimates derived from the different samples would differ from each other. The average of these estimates would be close to the estimate derived from a complete enumeration of the population. This assumes that a complete enumeration has the same nonsampling errors as the sample survey. The average of the estimates differs from the estimate from a complete census because of the composite estimation technique. Disregarding this difference, the sampling error, or standard error of the estimate, is a measure of the variability among the estimates from all possible samples of the same size and design and, thus, is a measure of the precision with which an estimate from a particular sample approximates the results of a complete enumeration. The coefficient of variation (expressed as a percent) is the standard error of the estimate times 100 percent, divided by the value being estimated. Note that any measures of sampling variability, such as the standard error or coefficient of variation, are estimates derived from the sample and are also subject to sampling variability. Tables B-1 through B-5 in the appendix give the estimates of sampling variability (the coefficients of variation in percent) for the monthly dollar-volume sales estimates prepared by the Bureau of the Census and shown in this report.

The coefficients of variation presented in the tables permit certain confidence statements about the sample estimates. As noted before, the particular sample used in this survey is one of a large number of samples of the same size that could have been selected using the same design. In about 2 out of 3 (67 percent) of these samples, the estimate would differ from a complete enumeration by less than the corresponding percent for that estimate shown in the sampling variability tables. In about 19 out 20 (95 percent) of these samples, the estimates would differ from the results of a complete enumeration by less than twice the percentages shown.

To illustrate the computations involved in the above confidence statements as related to dollar volume sales estimates, assume that an estimate of sales published in table 1 is $10,750 million for a particular month and that the median coefficient of variation for this estimate, as given in table B-1 of this appendix, is 1.8 percent, or 0.018. Multiplying $10,750 million by 0.018 yields $194 million. Therefore, a 67-percent confidence interval is $10,556 million to $10,944 million (i.e., $10,750 million plus or minus $194 million). If corresponding confidence intervals were constructed for all possible samples of the same size and design, approximately 2 out of 3 (67 percent) of these intervals would contain the figure obtained from a complete enumeration. Similarly, a 95-percent confidence interval is $10,362 million to $11,138 million (i.e., $10,750 million plus or minus $388 million).

As an example of the use of the coefficients of variation with ratios, assume that an estimated month-to-month percent change published in table 2 is -3.5 percent. This is equivalent to a month-to-month ratio of 0.965. Assume that the median coefficient of variation for this ratio as shown in table B-1 is 0.3 percent (or 0.003). Multiplying 0.965 by 0.003 yields 0.003. Therefore, a 67-percent confidence interval is 0.962 to 0.968, or 0.965 plus or minus 0.003 and a 95-percent confidence interval is 0.959 to 0.971.

**Nonsampling errors.** As calculated for this report, the coefficient of variation measures certain nonsampling errors but does not measure any systematic biases in the data. Bias is the difference, averaged over all possible samples of the same size and design, between the estimate and the true value being estimated. The accuracy of the tabulated data is determined by the joint effects of the sampling and nonsampling errors.

Nonsampling errors can be attributed to many sources: (1) inability to obtain information about all cases in the sample, (2) response errors, (3) definitional difficulties, (4) differences in the interpretation of questions, (5) mistakes in recording or coding the data obtained, and (6) other errors of collection, response, coverage, and estimation for missing data. These nonsampling errors also occur in complete censuses.

Although no direct measurement of the biases due to nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

A major source of bias in the published estimates is due to imputing data for nonrespondents, for late reporters, and for data which fail edit. For all kinds of business combined, imputed sales amount to about 13 percent of the national sales estimates.

## Table B-1. Estimated Range of Sampling Variability of Retail Sales by Kind of Business for the United States

(Coefficients of variation in percent)

| 1972 SIC code | Kind of business | Preliminary estimates | | Final estimates | | Ratio of 2 consecutive months[1] | | Ratio to same month a year ago[2] |
|---|---|---|---|---|---|---|---|---|
| | | Range | Median | Range | Median | Range | Median | Median |
| | Retail trade, total | 0.7-0.9 | 0.8 | 0.7-0.9 | 0.8 | 0.2-0.4 | 0.3 | 0.5 |
| | Total (excluding automotive group) | 0.7-0.9 | 0.8 | 0.7-0.9 | 0.8 | 0.2-0.4 | 0.3 | 0.6 |
| | Durable goods stores, total | 1.2-2.0 | 1.5 | 1.2-1.6 | 1.3 | 0.5-1.0 | 0.8 | 1.1 |
| 52 | Building materials, hardware, garden supply, and mobile home dealers | 2.3-3.2 | 2.7 | 2.1-3.2 | 2.6 | 0.9-2.0 | 1.2 | 2.6 |
| 521,3,5 | Building materials and hardware stores | 2.3-2.9 | 2.7 | 2.1-2.8 | 2.3 | 0.7-1.8 | 1.3 | 2.5 |
| 521,3 | Building materials and supply stores | 2.7-3.6 | 3.2 | 2.3-3.4 | 2.7 | 0.8-2.1 | 1.5 | 3.0 |
| 523 | Paint, glass, wallpaper stores* | (*) | (*) | (*) | (*) | 1.9-7.0 | 2.3 | 7.8 |
| 525 | Hardware stores | 4.6-5.6 | 4.9 | 4.7-6.0 | 4.8 | 1.5-2.4 | 1.8 | 4.9 |
| 55 ex. 554 | Automotive dealers | 1.6-2.4 | 1.7 | 1.5-1.8 | 1.6 | 0.7-1.5 | 0.9 | 1.4 |
| 551,2,5, 6,7,9 | Motor vehicle and miscellaneous automotive dealers | 1.7-2.3 | 1.7 | 1.5-1.8 | 1.7 | 0.8-1.6 | 1.0 | 1.5 |
| 551,2 | Motor vehicle dealers | 1.6-2.4 | 1.7 | 1.4-1.9 | 1.6 | 0.8-1.7 | 1.0 | 1.6 |
| 551 | Motor vehicle dealers (franchised) | 1.5-2.0 | 1.6 | 1.3-1.7 | 1.6 | 0.8-1.6 | 1.0 | 1.5 |
| 553 | Auto and home supply stores | 3.8-5.8 | 4.4 | 3.9-5.0 | 4.1 | 1.2-2.1 | 1.7 | 3.3 |
| 57 | Furniture, home furnishings, and equipment stores | 2.0-2.8 | 2.3 | 1.9-2.4 | 2.2 | 0.8-1.6 | 1.2 | 2.3 |
| 571 | Furniture and home furnishings stores | 2.6-3.6 | 2.9 | 2.6-3.2 | 2.8 | 1.0-1.8 | 1.2 | 3.2 |
| 5712 | Furniture stores | 4.2-4.6 | 4.5 | 3.8-4.3 | 4.0 | 1.1-2.4 | 1.8 | 3.9 |
| 5713 | Floor coverings stores* | (*) | (*) | (*) | (*) | 2.3-5.1 | 2.6 | 6.5 |
| 5722,32 | Household appliance, radio, and television stores | 4.2-5.0 | 4.4 | 4.0-4.6 | 4.3 | 1.2-2.3 | 2.1 | 4.6 |
| 5722 | Household appliance stores | 6.3-8.3 | 7.5 | 6.8-7.6 | 7.2 | 1.8-4.5 | 2.3 | 4.1 |
| 5732 | Radio and television stores* | (*) | (*) | (*) | (*) | 1.7-4.5 | 2.7 | 8.4 |
| 5733 | Music stores* | (*) | (*) | (*) | (*) | 2.2-8.0 | 5.0 | 8.4 |
| 5941 | Sporting goods stores and bicycle shops* | (S) | (S) | (S) | (S) | 2.9-8.8 | 4.5 | 7.0 |
| 5942 | Book stores* | (S) | (S) | (S) | (S) | 2.6-9.6 | 5.4 | 9.9 |
| 5944 | Jewelry stores | 2.8-5.0 | 3.5 | 2.5-4.1 | 3.2 | 1.2-3.1 | 2.2 | 4.4 |
| 5946 | Camera, photographic supplies stores* | (S) | (S) | (S) | (S) | 1.1-14.1 | 2.8 | 6.9 |
| 5999 (pt.) | Optical goods stores* | (S) | (S) | (S) | (S) | 1.4-4.6 | 3.6 | 9.2 |
| | Nondurable goods stores, total | 0.7-0.9 | 0.8 | 0.7-0.9 | 0.8 | 0.2-0.3 | 0.3 | 0.5 |
| 53 | General merchandise group stores | 0.3-0.5 | 0.4 | 0.3-0.4 | 0.3 | 0.1-0.4 | 0.2 | 0.3 |
| 531,9 | Department stores and misc. gen. merchandise stores | 0.3-0.5 | 0.4 | 0.3-0.4 | 0.3 | 0.1-0.4 | 0.2 | 0.3 |
| 531 | Department stores[3] | 0.0-0.0 | 0.0 | 0.0-0.0 | 0.0 | 0.0-0.0 | 0.0 | 0.0 |
| 539 | Miscellaneous general merchandise stores | 2.4-4.6 | 3.5 | 2.7-3.8 | 3.3 | 0.9-3.5 | 1.7 | 2.5 |
| 533 | Variety stores | 2.1-3.2 | 2.6 | 2.0-3.0 | 2.6 | 0.3-1.1 | 0.6 | 2.7 |
| 54 | Food stores | 1.3-1.6 | 1.5 | 1.2-1.6 | 1.4 | 0.2-0.5 | 0.3 | 0.9 |
| 541 | Grocery stores | 1.1-1.2 | 1.2 | 1.1-1.3 | 1.1 | 0.2-0.3 | 0.3 | 0.9 |
| 542 | Meat and fish (seafood) markets* | (S) | (S) | (S) | (S) | 1.3-3.8 | 2.5 | 8.8 |
| 543 | Fruit stores, vegetable markets* | (S) | (S) | (S) | (S) | 2.1-4.6 | 3.5 | 10.0 |
| 544 | Candy, nut, confectionery stores* | (S) | (S) | (S) | (S) | 3.8-11.3 | 4.6 | 9.7 |
| 546 | Retail bakeries | 5.6-10.0 | 6.3 | 5.2-8.4 | 5.6 | 1.3-8.0 | 2.7 | 4.8 |
| 554 | Gasoline service stations | 2.8-3.1 | 3.0 | 2.8-3.1 | 2.8 | 0.6-0.8 | 0.7 | 2.2 |
| 56 | Apparel and accessory stores | 1.8-2.1 | 1.9 | 1.7-2.2 | 1.9 | 0.8-1.1 | 0.9 | 1.7 |
| 561 | Men's, boys' clothing and furnishings stores | 4.9-6.7 | 6.2 | 5.2-7.4 | 6.6 | 2.1-4.6 | 2.6 | 4.6 |
| 562,3,8 | Women's clothing, specialty stores, furriers | 2.6-3.2 | 3.0 | 2.4-3.0 | 2.7 | 0.8-1.8 | 1.1 | 2.8 |
| 562 | Women's ready-to-wear stores | 2.3-3.2 | 2.9 | 2.0-3.0 | 2.6 | 0.7-2.0 | 1.0 | 2.7 |
| 565 | Family clothing stores | 2.2-3.2 | 2.9 | 2.2-3.1 | 2.7 | 1.0-1.8 | 1.3 | 2.6 |
| 566 | Shoe stores | 3.2-4.5 | 3.7 | 3.0-4.3 | 3.6 | 0.8-3.6 | 1.3 | 2.5 |
| 58 | Eating and drinking places | 2.4-2.8 | 2.6 | 2.3-2.6 | 2.5 | 0.4-1.2 | 0.8 | 1.7 |
| 5812 | Eating places | 2.6-2.9 | 2.7 | 2.5-2.7 | 2.6 | 0.5-1.2 | 0.9 | 1.8 |
| 5812 (pt.) | Restaurants, lunchrooms, cafeterias | 3.4-4.0 | 3.7 | 3.3-3.7 | 3.5 | 0.7-1.6 | 1.3 | 2.5 |
| 5812 (pt.) | Refreshment places | 3.3-4.1 | 3.7 | 3.3-3.8 | 3.4 | 0.6-1.7 | 0.8 | 2.0 |
| 5813 | Drinking places (alcoholic beverages) | 5.1-6.8 | 6.2 | 4.6-6.4 | 5.6 | 0.8-4.0 | 1.4 | 4.2 |
| 591 | Drug stores and proprietary stores | 1.7-2.2 | 1.9 | 1.5-2.1 | 1.9 | 0.5-1.3 | 0.8 | 1.4 |
| 592 | Liquor stores | 3.6-4.9 | 4.2 | 3.5-4.7 | 4.1 | 0.5-1.3 | 0.9 | 4.0 |
| 5943 | Stationery stores* | 8.0-13.9 | 9.2 | 7.9-11.8 | 9.7 | 1.8-3.4 | 2.4 | 7.5 |
| 596 | Nonstore retailers[4] | 4.0-7.7 | 5.0 | 4.0-6.8 | 4.8 | 0.8-3.5 | 2.7 | 2.6 |
| 598 | Fuel and ice dealers | (*) | (*) | (*) | (*) | 3.5-8.8 | 4.6 | 7.4 |
| 5983 | Fuel oil dealers | (*) | (*) | (*) | (*) | 2.8-12.3 | 5.3 | 8.3 |
| 53, 56, 57, 594, 5961(pt) | GAF plus mail-order houses (department stores mdse.)[5] | 0.7-1.0 | 0.8 | 0.6-0.9 | 0.7 | 0.3-0.6 | 0.4 | 0.6 |
| 53, 56, 57, 594 | GAF, total | 0.7-1.0 | 0.8 | 0.7-0.9 | 0.7 | 0.3-0.6 | 0.4 | 0.6 |

Note: The ranges of sampling variability shown above for the preliminary and final estimates are based on sales estimates unadjusted for seasonal variations, holiday, and trading-day differences for the data months of July-December 1980. The unadjusted data for the same months were used in developing the ranges of sampling variability for the ratio of change in sales.

* Not shown because dollar volume sales estimates are not published for this kind of business. (S) The coefficients of variation for these kinds of business exceed publication standards.

[1]The ranges of sampling variability shown pertain to the ratio of the unadjusted preliminary estimate for the month over the unadjusted final estimate for the previous month. [2]The ratios shown are based on the median of the 1980 unadjusted preliminary estimates to the 1979 unadjusted final estimates for the 6-month period, July-December 1980. [3]May include a mixture of mail-order and department store sales reported on a combined basis by some firms. [4]Includes establishments primarily selling merchandise through coin-operated vending machines, by house-to-house canvass, and from mail order. [5]GAF represents stores which specialize in department store types of merchandise (see appendix A.) Data for mail-order catalog desks located within department stores of some mail-order firms are included in the department store estimates.

## Table B-2. Estimated Sampling Variability of Retail Sales by Kind of Business for Regions

(Median coefficients of variation in percent)

| 1972 SIC code | Kind of business | Dollar volume sales estimates | | | | Ratio of 2 consecutive months[1] | | | | Ratio to same month a year ago[2] | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | The Northeastern States | The North Central States | The South | The West | The Northeastern States | The North Central States | The South | The West | The Northeastern States | The North Central States | The South | The West |
| | Retail trade, total | 1.6 | 1.6 | 2.1 | 1.8 | 0.7 | 0.5 | 0.4 | 0.6 | 1.3 | 1.2 | 1.0 | 1.3 |
| | Durable goods stores, total | 3.6 | 3.6 | 3.2 | 3.3 | 1.9 | 1.3 | 1.2 | 1.6 | 3.4 | 2.3 | 1.9 | 2.6 |
| 52 | Building materials, hardware, garden supply, and mobile home dealers | 8.9 | 6.0 | 5.5 | 10.0 | 2.6 | 2.3 | 2.2 | 2.7 | 7.0 | 5.1 | 3.8 | 6.9 |
| 55 ex. 554 | Automotive dealers | 5.9 | 4.5 | 3.9 | 6.1 | 3.0 | 1.8 | 1.5 | 2.1 | 5.0 | 3.5 | 3.2 | 3.8 |
| 57 | Furniture, home furnishings, and equipment stores | 5.7 | 6.4 | 5.6 | 5.5 | 2.8 | 2.2 | 1.9 | 2.0 | 5.1 | 5.5 | 4.2 | 4.2 |
| | Nondurable goods stores, total | 1.6 | 1.3 | 2.3 | 1.7 | 0.5 | 0.4 | 0.4 | 0.5 | 1.2 | 1.1 | 1.2 | 1.2 |
| 53 | General merchandise group stores | 0.8 | 1.1 | 0.7 | 0.7 | 0.2 | 0.6 | 0.2 | 0.2 | 0.9 | 0.7 | 0.6 | 0.6 |
| 531 | Department stores[3] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| 54 | Food stores | 2.2 | 2.3 | 3.8 | 3.0 | 0.5 | 0.6 | 0.4 | 0.5 | 1.6 | 1.4 | 1.7 | 2.2 |
| 541 | Grocery stores | 2.5 | 2.4 | 3.0 | 2.8 | 0.5 | 0.4 | 0.4 | 0.4 | 1.8 | 1.4 | 1.5 | 2.0 |
| 554 | Gasoline service stations | 5.1 | 4.5 | 6.6 | 7.8 | 1.1 | 0.8 | 1.5 | 1.6 | 4.5 | 4.1 | 4.4 | 5.3 |
| 56 | Apparel and accessory stores | 4.0 | 3.3 | 3.8 | 6.7 | 1.6 | 1.4 | 1.4 | 1.8 | 3.8 | 3.2 | 2.6 | 3.4 |
| 58 | Eating and drinking places | 4.5 | 3.8 | 6.4 | 4.8 | 1.4 | 1.6 | 1.4 | 1.9 | 3.4 | 3.8 | 3.4 | 3.6 |
| 591 | Drug stores and proprietary stores | 4.5 | 5.1 | 3.7 | 3.5 | 0.9 | 0.9 | 0.7 | 0.5 | 2.8 | 4.4 | 1.8 | 1.7 |
| 53, 56, 57, 594 | GAF[4] | 1.5 | 1.9 | 1.8 | 1.9 | 0.7 | 0.8 | 0.6 | 0.6 | 1.7 | 1.4 | 1.1 | 1.3 |

Note: The median coefficients of variation are based on sales estimates unadjusted for seasonal variations, holiday, and trading-day differences for the data months July-December 1980.

[1]Based on the ratio of the preliminary estimate for the current month to the final estimate for the previous month.
[2]The ratios shown are based on the median of the 1980 unadjusted preliminary estimates to the 1979 unadjusted final estimates for the six-month periods, January-June.
[3]Data for mail-order catalog desks located within department stores of some mail-order firms are included in the department store estimates.
[4]GAF represents stores which specialize in department store types of merchandise (see appendix A.)

## Table B-3. Estimated Sampling Variability of Retail Sales by Kind of Business for Geographic Divisions

(Median coefficients of variation in percent)

| 1972 SIC code | Kind of business | New England | Middle Atlantic | East North Central | West North Central | South Atlantic | East South Central | West South Central | Mountain | Pacific |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Dollar volume sales estimates | | | | | | | | |
| | Retail trade, total | 3.2 | 2.1 | 1.8 | 2.7 | 2.6 | 4.2 | 3.4 | 4.2 | 2.0 |
| | Durable goods stores, total | 6.8 | 4.5 | 4.5 | 5.4 | 4.0 | 8.0 | 4.6 | 8.3 | 4.9 |
| 55 ex. 554 | Automotive dealers | (S) | 7.9 | 5.6 | 8.0 | 5.1 | (S) | 4.9 | (S) | 8.5 |
| 57 | Furniture, home furnishings, and equipment stores | (S) | (S) | 8.9 | (S) | 6.5 | (S) | (S) | (S) | 6.0 |
| | Nondurable goods stores, total | 2.8 | 1.9 | 1.4 | 2.7 | 3.0 | 3.9 | 4.4 | 4.2 | 1.7 |
| 53 | General merchandise group stores | 2.1 | 0.8 | 0.7 | 2.7 | 0.8 | 2.1 | 1.4 | 1.9 | 0.6 |
| 54 | Food stores | 4.7 | 2.7 | 2.5 | 4.1 | 3.5 | (S) | 7.6 | 6.1 | 3.2 |
| 554 | Gasoline service stations | (S) | 6.4 | 5.3 | 7.0 | 8.8 | (S) | (S) | (S) | 7.3 |
| 56 | Apparel and accessory stores | (S) | 4.5 | 4.0 | 8.2 | 3.7 | 10.5 | 6.0 | (S) | 8.7 |
| 58 | Eating and drinking places | (S) | 5.0 | 4.7 | (S) | (S) | (S) | (S) | (S) | 5.2 |
| 591 | Drug stores and proprietary stores | (S) | 4.8 | 5.5 | (S) | (S) | (S) | (S) | (S) | 3.8 |
| 53, 56, 57, 594 | GAF[3] | 3.1 | 1.7 | 2.5 | 2.7 | 2.2 | 3.9 | 3.0 | 5.9 | 2.2 |
| | | Ratio of 2 consecutive months[1] | | | | | | | | |
| | Retail trade, total | 1.3 | 0.9 | 0.6 | 0.8 | 0.6 | 0.8 | 0.9 | 1.3 | 0.6 |
| | Durable goods stores, total | 3.8 | 2.2 | 1.7 | 1.9 | 1.3 | 2.0 | 2.0 | 2.8 | 1.8 |
| 55 ex. 554 | Automotive dealers | (S) | 3.2 | 2.1 | 2.8 | 2.0 | (*) | 2.4 | (*) | 2.6 |
| 57 | Furniture, home furnishings, and equipment stores | (S) | (*) | 2.6 | (*) | 2.5 | (S) | (*) | (S) | 2.1 |
| | Nondurable goods stores, total | 0.9 | 0.5 | 0.5 | 0.8 | 0.7 | 0.8 | 0.7 | 1.2 | 0.5 |
| 53 | General merchandise group stores | 0.5 | 0.2 | 0.3 | 1.6 | 0.2 | 0.5 | 0.4 | 0.4 | 0.1 |
| 54 | Food stores | 1.1 | 0.5 | 0.7 | 0.8 | 0.7 | (*) | 0.8 | 0.8 | 0.5 |
| 554 | Gasoline service stations | (*) | 1.2 | 1.0 | 1.8 | 1.7 | (*) | (*) | (*) | 1.5 |
| 56 | Apparel and accessory stores | (*) | 1.9 | 1.6 | 2.4 | 1.7 | 3.2 | 1.7 | (*) | 2.2 |
| 58 | Eating and drinking places | (*) | 1.6 | 1.3 | (*) | (*) | (*) | (*) | (*) | 1.5 |
| 591 | Drug stores and proprietary stores | (*) | 1.2 | 0.8 | (*) | (*) | (*) | (*) | (*) | 0.5 |
| 53, 56, 57, 594 | GAF[3] | 1.7 | 0.8 | 0.9 | 1.3 | 0.9 | 1.1 | 0.9 | 1.9 | 0.7 |
| | | Ratio to same month a year ago[2] | | | | | | | | |
| | Retail trade, total | 2.2 | 1.7 | 1.3 | 2.0 | 1.4 | 2.5 | 2.1 | 2.2 | 1.6 |
| | Durable goods stores, total | 5.9 | 4.3 | 2.9 | 4.4 | 2.8 | 5.1 | 3.9 | 5.8 | 3.0 |
| 55 ex. 554 | Automotive dealers | (*) | 6.2 | 4.3 | 6.1 | 4.2 | (*) | 6.0 | (*) | 4.5 |
| 57 | Furniture, home furnishings, and equipment stores | (S) | (*) | 6.9 | (*) | 4.2 | (*) | (S) | (S) | 4.2 |
| | Nondurable goods stores, total | 2.0 | 1.5 | 1.2 | 2.0 | 1.6 | 2.5 | 2.3 | 2.5 | 1.4 |
| 53 | General merchandise group stores | 1.1 | 1.1 | 0.7 | 1.3 | 0.6 | 2.3 | 1.1 | 1.7 | 0.5 |
| 54 | Food stores | 2.5 | 1.9 | 1.9 | 3.0 | 2.0 | (*) | 4.3 | 4.1 | 2.4 |
| 554 | Gasoline service stations | (*) | 5.1 | 4.8 | 6.6 | 6.4 | (*) | (*) | (S) | 4.0 |
| 56 | Apparel and accessory stores | (*) | 5.1 | 3.7 | 4.8 | 3.7 | 8.5 | 3.4 | (*) | 3.5 |
| 58 | Eating and drinking places | (*) | 4.2 | 3.9 | (*) | (*) | (*) | (*) | (*) | 3.8 |
| 591 | Drug stores and proprietary stores | (*) | 3.2 | 4.9 | (*) | (*) | (*) | (*) | (*) | 2.3 |
| 53, 56, 57, 594 | GAF[3] | 3.0 | 1.8 | 1.6 | 2.1 | 1.4 | 3.7 | 2.5 | 3.5 | 1.2 |

Note: The median coefficients of variation are based on sales estimates unadjusted for seasonal variations, holiday, and trading-day differences for the data months July-December 1980.

*Not shown because dollar volume sales estimates are not published for this area. S The coefficients of variation for these kinds of business exceed publication standards.

[1]Based on the ratio of the preliminary estimate for the current month to the final estimate for the previous month.
[2]The ratios shown are based on the median of the 1980 unadjusted preliminary estimates to the 1979 unadjusted final estimates for the six-month periods, January-June.
[3]GAF represents stores which specialize in department store types of merchandise (see appendix A.)

## Table B-4. Estimated Sampling Variability of Retail Sales by Selected Kinds of Business for Specified Large States

(Median coefficients of variation in percent)

| State | Dollar volume sales estimates | | | | Ratio of 2 consecutive months[2] | | | | Ratio to same month a year ago[3] | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | Durable | Nondurable | GAF[1] | Total | Durable | Nondurable | GAF[1] | Total | Durable | Nondurable | GAF[1] |
| California | 2.1 | 5.8 | 1.9 | 2.3 | 0.7 | 1.9 | 0.5 | 0.7 | 1.6 | 3.7 | 1.4 | 1.3 |
| Florida | 2.9 | 6.7 | 2.8 | 3.7 | 1.1 | 2.8 | 0.8 | 1.4 | 1.9 | 4.1 | 1.6 | 2.6 |
| Illinois | 3.5 | (S) | 3.4 | 4.1 | 1.2 | (*) | 1.1 | 1.9 | 2.6 | (*) | 2.2 | 3.3 |
| Indiana | 5.1 | (S) | 4.5 | 3.6 | 1.2 | (*) | 0.8 | 2.0 | 2.9 | (*) | 2.6 | 6.9 |
| Louisiana | 7.0 | (S) | 7.1 | (S) | 1.8 | (*) | 1.0 | (*) | 4.3 | (*) | 2.3 | (*) |
| Maryland | 3.9 | (S) | 5.2 | 2.9 | 1.3 | (*) | 1.2 | 1.0 | 3.1 | (*) | 3.6 | 1.9 |
| Massachusetts | 4.4 | (S) | 4.6 | 4.0 | 1.7 | (*) | 1.6 | 1.5 | 3.0 | (*) | 2.9 | 3.7 |
| Michigan | 5.5 | 11.8 | 4.7 | 4.4 | 1.0 | 3.1 | 0.8 | 1.0 | 3.0 | 4.6 | 4.0 | 2.2 |
| Minnesota | 5.7 | (S) | 6.2 | 3.4 | 1.6 | 3.5 | 1.7 | 2.2 | 3.9 | (*) | 4.7 | 2.6 |
| Missouri | 3.9 | (S) | 3.5 | 3.0 | 1.3 | (S) | 1.3 | 1.2 | 4.4 | (S) | 2.8 | 2.4 |
| New Jersey | 3.7 | (S) | 4.0 | 4.7 | 1.2 | (*) | 1.0 | 1.8 | 2.9 | (*) | 2.9 | 4.2 |
| New York | 3.1 | 8.3 | 2.9 | 3.1 | 1.6 | 4.2 | 0.9 | 1.3 | 2.6 | 6.0 | 2.4 | 2.4 |
| North Carolina | 4.2 | (S) | 3.2 | 4.5 | 1.2 | (*) | 1.0 | 2.2 | 3.0 | (*) | 2.4 | 3.5 |
| Ohio | 3.7 | 7.8 | 3.3 | 3.6 | 1.1 | 3.0 | 0.7 | 1.2 | 2.3 | 6.2 | 2.0 | 2.8 |
| Pennsylvania | 2.3 | 7.2 | 2.9 | 2.8 | 0.9 | 2.6 | 0.8 | 0.9 | 2.3 | 5.6 | 1.8 | 2.6 |
| Tennessee | 4.9 | (S) | 4.5 | 5.2 | 1.2 | (*) | 1.4 | 2.1 | 3.0 | (*) | 3.2 | 3.5 |
| Texas | 4.3 | 6.0 | 5.5 | 3.2 | 1.2 | 2.4 | 1.0 | 1.1 | 2.8 | 5.1 | 3.0 | 3.5 |
| Virginia | 6.6 | (S) | 8.7 | 4.8 | 2.2 | (*) | 2.7 | 1.9 | 3.8 | (*) | 5.4 | 3.7 |
| Wisconsin | 5.0 | 10.3 | 5.0 | 4.4 | 1.8 | 3.2 | 1.8 | 2.0 | 3.1 | 7.9 | 3.6 | 3.2 |

See footnotes at bottom of table B-5.

## Table B-5. Estimated Sampling Variability of Retail Sales by Selected Kinds of Business for Specified Areas and Cities

(Median coefficients of variation in percent)

| Area | Dollar volume sales estimates | | | Ratio 2 consecutive months[2] | | | Ratio to same month a year ago[3] | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | Nondurable | GAF[1] | Total | Nondurable | GAF[1] | Total | Nondurable | GAF[1] |
| **Standard Consolidated Areas** | | | | | | | | | |
| Chicago, Ill.-Northwestern, Ind. | 3.4 | 3.2 | 3.3 | 1.0 | 0.9 | 1.1 | 2.5 | 2.5 | 2.1 |
| New York, N.Y.-Northeastern, N.J. | 3.4 | 2.8 | 2.5 | 1.8 | 1.0 | 0.8 | 2.4 | 2.5 | 2.6 |
| **Standard Metropolitan Statistical Areas** | | | | | | | | | |
| Anaheim-Santa Ana-Garden Grove, Calif. | 4.3 | 3.4 | 2.9 | 1.2 | 0.6 | 0.9 | 4.3 | 2.4 | 1.6 |
| Atlanta, Ga. | (S) | (S) | 18.7 | 2.0 | 1.7 | 3.5 | 3.7 | 4.5 | 6.0 |
| Baltimore, Md. | 6.7 | 7.0 | 3.4 | 1.8 | 1.0 | 1.6 | 3.5 | 3.2 | 1.9 |
| Boston, Mass. | 6.4 | 5.9 | 3.9 | 2.5 | 1.7 | 1.5 | 3.4 | 3.5 | 3.8 |
| Buffalo, N.Y. | 6.9 | 7.6 | 8.2 | 3.4 | 1.3 | 3.9 | 5.4 | 4.0 | 4.3 |
| Chicago, Ill. | 3.8 | 3.3 | 3.4 | 1.0 | 1.0 | 1.1 | 2.6 | 2.7 | 2.3 |
| Cincinnati, Ohio-Ky.-Ind. | 5.8 | 4.7 | 7.5 | 1.8 | 1.0 | 3.0 | 3.5 | 2.8 | 5.7 |
| Cleveland, Ohio | 5.7 | 5.7 | 2.9 | 1.3 | 1.0 | 0.7 | 3.5 | 3.5 | 1.5 |
| Dallas-Fort Worth, Tex. | 6.3 | 7.0 | 7.4 | 1.8 | 1.6 | 1.4 | 4.4 | 6.8 | 9.1 |
| Denver-Boulder, Colo. | (S) | 13.8 | (S) | 3.7 | 1.6 | 4.5 | 7.0 | 7.4 | (S) |
| Detroit, Mich. | 7.5 | 6.9 | 5.9 | 1.8 | 1.3 | 1.0 | 4.0 | 5.1 | 3.2 |
| Houston, Tex. | 10.1 | 13.0 | 1.7 | 1.5 | 1.1 | 0.7 | 4.3 | 4.5 | 1.4 |
| Kansas City, Mo.-Kans. | 7.0 | 5.2 | 1.8 | 2.0 | 0.9 | 0.7 | 4.9 | 1.9 | 1.4 |
| Los Angeles-Long Beach, Calif. | 3.0 | 3.3 | 2.7 | 0.9 | 0.6 | 1.0 | 3.0 | 2.4 | 1.7 |
| Miami, Fla. | 6.8 | 10.1 | 8.0 | 2.6 | 1.9 | 2.2 | 5.5 | 4.4 | 4.8 |
| Milwaukee, Wis. | 10.1 | 7.7 | 6.8 | 1.9 | 1.8 | 2.6 | 4.3 | 4.9 | 3.5 |
| Minneapolis-St. Paul, Minn.-Wis. | 6.6 | 6.4 | 2.7 | 1.8 | 1.2 | 1.0 | 3.4 | 4.1 | 1.3 |
| Nassau-Suffolk, N.Y. | 7.2 | 5.6 | 5.8 | 2.7 | 1.8 | 1.1 | 4.0 | 3.1 | 3.2 |
| New York, N.Y. | 4.1 | 3.7 | 4.1 | 3.0 | 1.6 | 1.3 | 3.3 | 3.7 | 3.5 |
| Newark, N.J. | 7.3 | 8.5 | 5.5 | 1.6 | 1.2 | 1.5 | 4.9 | 4.0 | 5.5 |
| Paterson-Clifton, Passaic, N.J. | (S) | (S) | 7.8 | 4.0 | 4.5 | 2.5 | 8.2 | 9.8 | 4.5 |
| Philadelphia, Pa. | 3.8 | 4.4 | 2.5 | 1.4 | 1.4 | 1.1 | 3.2 | 3.2 | 3.4 |
| Pittsburgh, Pa. | 7.0 | 7.1 | 7.6 | 1.6 | 1.3 | 1.4 | 5.4 | 4.1 | 7.3 |
| St. Louis, Mo.-Ill. | 5.6 | 6.5 | 1.9 | 1.5 | 0.7 | 0.7 | 4.9 | 2.7 | 1.9 |
| San Diego, Calif. | 5.3 | 4.9 | 1.9 | 2.6 | 0.8 | 1.2 | 5.4 | 4.2 | 1.7 |
| San Francisco-Oakland, Calif. | 3.3 | 3.8 | 3.6 | 1.6 | 1.2 | 1.1 | 3.4 | 3.9 | 2.9 |
| Seattle-Everett, Wash. | 5.9 | 4.7 | 4.9 | 2.3 | 1.9 | 2.1 | 3.4 | 2.9 | 4.9 |
| Washington, D.C.-Md.-Va. | 4.4 | 4.4 | 4.7 | 1.8 | 1.2 | 1.4 | 4.3 | 4.2 | 4.5 |
| **Cities** | | | | | | | | | |
| Chicago, Ill. | 5.3 | 6.3 | 4.0 | 1.6 | 1.7 | 1.9 | 3.8 | 3.6 | 3.3 |
| Detroit, Mich. | 10.9 | 10.9 | 6.9 | 3.6 | 2.2 | 1.9 | 6.9 | 8.7 | 4.4 |
| Los Angeles, Calif. | 4.3 | 5.3 | 5.1 | 1.2 | 0.9 | 1.6 | 5.6 | 3.2 | 3.3 |
| New York, N.Y. | 5.3 | 5.8 | 4.8 | 3.9 | 1.9 | 1.4 | 4.5 | 5.5 | 3.7 |
| Philadelphia, Pa. | 7.1 | 8.1 | 5.6 | 1.4 | 1.2 | 2.1 | 5.0 | 5.5 | 3.1 |

Note: The median coefficients of variation are based on sales estimates unadjusted for seasonal variations, holiday, and trading-day differences for the data months July-December 1980.

*Not shown because dollar volume sales estimates are not published for this area. S The coefficients of variation for these kinds of business exceed publication standards.

[1]GAF represents stores which specialize in department store types of merchandise (see appendix A.)

[2]Based on the ratio of the preliminary estimate for the current month to the final estimate for the previous month.

[3]The ratios shown are based on the median of the 1980 unadjusted preliminary estimates to the 1979 unadjusted final estimates for the six-month periods, January-June.

## Table B-6. Estimated Sampling Variability of Inventories by Kind of Business for the United States

(Mean coefficients of variation in percent)

| 1972 SIC code | Kind of business | Dollar volume inventories estimates | Ratio of 2 consecutive months | 1972 SIC code | Kind of business | Dollar volume inventories estimates | Ratio of 2 consecutive months |
|---|---|---|---|---|---|---|---|
| | Retail trade, total | 1.1 | 0.5 | | Nondurable goods stores, total | 1.0 | 0.6 |
| | Durable goods stores, total | 1.9 | 0.9 | 53 | General merchandise group stores | 1.1 | 0.3 |
| 52 | Building materials, hardware, garden supply, and mobile home dealers | 3.6 | 2.3 | 531 | Department stores | 0.3 | 0.2 |
| 55 | Automotive dealers | 3.2 | 1.1 | 54 | Food stores | 1.8 | 0.9 |
| 57 | Furniture, home furnishings, equipment dealers | 2.7 | 1.2 | 56 | Apparel and accessory stores | 3.5 | 2.4 |

Note: The sampling errors shown above are based on inventories estimates for the months, October and November 1978.

## MONTHLY REVISIONS TO ESTIMATES

Each month the Census Bureau issues three sets of estimates of retail sales—advance, preliminary, and final—and two estimates of retail inventories—preliminary and final. The advance sales estimates are based on early reporting of sales by a small subsample of the Bureau's retail survey panels. Because of the early reporting and the sampling variability between the subsample and the full sample, the advance estimates will differ from the subsequent estimates for the same month. There are also differences between the preliminary and final sales estimates because of the differences in the samples as described in the section, "Use of the Rotating Sample and Composite Estimate Procedures," and such nonsampling errors as indicated in Appendix B, "Reliability of Data." The inventories estimates are developed from a fixed sample of respondents, i.e., the same respondents are canvassed each month. Therefore, the differences between the preliminary and final inventories estimates for the same month are due to nonsampling errors.

For total retail sales, the range of the difference between the last 12 advance and final estimates for the same months was from —1.0 percent to +2.2 percent, with a median of +0.8 percent. The range of difference between preliminary and final estimates was from —0.3 percent to +0.5 percent, with a median of +0.2 percent. The preliminary-to-final difference for total retail inventories over the last 12 months ranged from —0.2 percent to +0.6 percent, with a median of 0 percent.

### Table B-7. **Seasonally Adjusted Advance, Preliminary, and Final Retail Sales Estimates**

| 1972 SIC code | Kind of business | March 1981 (millions of dollars) | | | Percent difference last 12 months | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Final/advance | | | Final/preliminary | | |
| | | Advance | Preliminary | Final | Range | | Median | Range | | Median |
| | | | | | From | To | | From | To | |
| | Retail trade, total | 86,943 | 87,174 | 87,608 | -.96 | 2.25 | .80 | -.30 | .53 | .18 |
| | Total (excluding auto group) | 70,410 | 70,991 | 71,278 | -1.01 | 1.86 | .51 | -.25 | .56 | .21 |
| | Durable goods stores, total | 28,457 | 28,233 | 28,429 | -3.59 | 3.75 | 1.83 | -.62 | .69 | .14 |
| 52 | Building materials, hardware, garden supply, and mobile home dealers | 4,417 | 4,488 | 4,481 | -5.18 | 8.59 | 1.83 | -.24 | 1.56 | .58 |
| 55ex.554 | Automotive dealers | 16,533 | 16,183 | 16,330 | -4.70 | 5.89 | 1.46 | -.53 | .91 | -.13 |
| 57 | Furniture, home furnishings, and equipment stores | 3,886 | 3,890 | 3,897 | -3.74 | 3.85 | -.44 | -1.69 | .44 | -.57 |
| | Nondurable goods stores, total | 58,486 | 58,941 | 59,179 | -1.11 | 2.12 | .26 | -.26 | .62 | .23 |
| 53 | General merchandise group stores | 10,312 | 10,301 | 10,306 | -2.90 | 3.55 | .44 | -.32 | .36 | -.05 |
| 531 | Department stores | 8,429 | 8,453 | 8,443 | -2.63 | 2.80 | .54 | -.75 | .27 | -.03 |
| 54 | Food stores | 19,329 | 19,506 | 19,522 | -.78 | 1.58 | -.17 | -.22 | .73 | .10 |
| 541 | Grocery stores | 17,870 | 18,059 | 18,098 | -1.21 | 1.80 | -.15 | -.18 | .52 | .13 |
| 554 | Gasoline service stations | 8,549 | 8,546 | 8,613 | -2.96 | 4.86 | .18 | -1.03 | 2.41 | -.07 |
| 56 | Apparel and accessory stores | 3,936 | 3,944 | 3,947 | -3.89 | 2.07 | .51 | -.77 | .73 | -.01 |
| 58 | Eating and drinking places | 7,836 | 7,958 | 8,006 | -1.44 | 4.02 | .72 | -.36 | 1.58 | .41 |
| 591 | Drug stores and proprietary stores | 2,812 | 2,749 | 2,770 | -2.26 | 5.71 | -.10 | -1.28 | .99 | -.16 |

### Table B-8. **Seasonally Adjusted Preliminary and Final Inventories Estimates**

| 1972 SIC code | Kind of business | March 1981 (millions of dollars) | | Percent difference last 12 months (final/preliminary) | | |
|---|---|---|---|---|---|---|
| | | Preliminary | Final | Range | | Median |
| | | | | From | To | |
| | Retail trade, total | 113,340 | 113,404 | -.24 | .63 | -.01 |
| | Total (excluding auto group) | 89,998 | 90,019 | -.30 | .81 | -.03 |
| | Durable goods stores, total | 51,757 | 51,791 | -.38 | .45 | .06 |
| 52 | Building materials, hardware, garden supply, and mobile home dealers | 9,285 | 9,302 | -1.55 | .79 | .00 |
| 55 ex.554 | Automotive dealers | 23,342 | 23,385 | -.21 | .39 | .06 |
| 57 | Furniture, home furnishings, and equipment stores | 8,458 | 8,450 | -1.67 | .56 | .00 |
| | Nondurable goods stores, total | 61,583 | 61,613 | -.48 | .97 | -.09 |
| 53 | General merchandise group stores | 22,606 | 22,646 | -1.65 | 2.01 | .00 |
| 531 | Department stores | 16,675 | 16,690 | -1.99 | 2.50 | .00 |
| 54 | Food stores | 12,832 | 12,840 | -.36 | .53 | .00 |
| 56 | Apparel and accessory stores | 9,656 | 9,638 | -.44 | .31 | .00 |

# Appendix C. Adjustment Factors for Seasonal and Other Variations

Seasonal factors for adjusting data in this publication have been developed by the method described in the *X-11 Variant of the Census Method II Seasonal Adjustment Program,* U.S. Bureau of the Census Technical Paper No. 15, Revised 1967. Trading-day factors for adjusting sales estimates were also derived from the X-11 Program.

Adjustment of estimates is an approximation based on past experiences, and, therefore, will be less precise to the extent that current competitive pressures, changes in consumer buying patterns during holiday periods, and other elements introduce significant changes in seasonal, trading-day, and holiday patterns. There is the further difficulty of developing satisfactory adjustment factors for shifting holidays such as Easter.

A description of trading-day adjustment factors may be found in *Estimating Trading-Day Variation in Monthly Economic Time Series,* Bureau of the Census Technical Paper No. 12, 1965. Holiday adjustment factors were developed by a method similar to that described in *Seasonal Adjustment on Electronic Computers,* pp. 356-359, Organization for Economic Cooperation and Development, Paris, 1961. Additional details concerning the adjustment factors may be obtained from the Chief, Business Division, Bureau of the Census, Washington, D.C. 20233.

Table C-1 presents, by kind of business, the combined seasonal, trading-day and holiday adjustment factors that are used to adjust sales estimates. The factors shown for data at the kind-of-business group and total levels are approximations and may show small differences from the published data. Summary measures of the seasonal, cyclical, and irregular components of the adjusted sales data are shown in table C-2. These measures provide a rough guide for use in interpreting current percentage changes in the adjusted data.

# Table C-1. Combined Seasonal, Trading-Day, and Holiday Adjustment Factors for U.S. Retail Sales and Retail Sales of Group II Companies by Kind of Business: January 1980-August 1981

| 1972 SIC code | Kind of business | 1980 | | | | | | | | | | | | 1981 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. |
| | | U.S. retail sales | | | | | | | | | | | | | | | | | | | |
| | Retail stores, total | 0.886 | 0.896 | 0.987 | 0.981 | 1.048 | 0.997 | 1.005 | 1.022 | 0.962 | 1.031 | 1.012 | 1.203 | 0.901 | 0.857 | 0.975 | 0.994 | 1.026 | 1.008 | 1.016 | 1.012 |
| | Durable goods stores, total | 0.854 | 0.875 | 1.006 | 1.040 | 1.084 | 1.054 | 1.042 | 1.029 | 0.968 | 1.052 | 0.961 | 1.067 | 0.856 | 0.844 | 1.001 | 1.057 | 1.050 | 1.066 | 1.048 | 1.038 |
| 52 | Bldg. materials, hardware, garden supply, and mobile home dealers | 0.730 | 0.760 | 0.900 | 1.019 | 1.116 | 1.129 | 1.120 | 1.117 | 1.097 | 1.141 | 0.976 | 0.929 | 0.725 | 0.731 | 0.902 | 1.028 | 1.089 | 1.144 | 1.127 | 1.125 |
| 521,3 | Bldg. materials and supply stores | 0.734 | 0.760 | 0.886 | 0.975 | 1.062 | 1.117 | 1.150 | 1.150 | 1.140 | 1.187 | 0.991 | 0.883 | 0.727 | 0.730 | 0.891 | 0.984 | 1.030 | 1.139 | 1.155 | 1.157 |
| 525 | Hardware stores | 0.767 | 0.765 | 0.898 | 1.054 | 1.151 | 1.070 | 1.059 | 1.012 | 1.004 | 1.072 | 0.995 | 1.197 | 0.773 | 0.729 | 0.896 | 1.053 | 1.126 | 1.093 | 1.067 | 0.996 |
| 55 ex. 554 | Automotive dealers | 0.891 | 0.913 | 1.074 | 1.085 | 1.114 | 1.071 | 1.049 | 1.021 | 0.949 | 1.052 | 0.907 | 0.901 | 0.892 | 0.882 | 1.062 | 1.117 | 1.071 | 1.077 | 1.057 | 1.041 |
| 551,2,5, 6,7,9 | Motor vehicle and miscellaneous automotive dealers | 0.895 | 0.920 | 1.083 | 1.093 | 1.120 | 1.073 | 1.051 | 1.017 | 0.945 | 1.050 | 0.897 | 0.886 | 0.893 | 0.891 | 1.072 | 1.125 | 1.075 | 1.077 | 1.059 | 1.037 |
| 553 | Auto and home supply stores | 0.878 | 0.826 | 0.970 | 1.042 | 1.045 | 1.048 | 1.044 | 1.039 | 1.008 | 1.086 | 0.998 | 1.041 | 0.885 | 0.794 | 0.969 | 1.055 | 1.011 | 1.071 | 1.048 | 1.041 |
| 57 | Furniture, home furnishings, equipment stores | 0.905 | 0.902 | 0.945 | 0.955 | 0.982 | 0.961 | 1.010 | 1.018 | 0.982 | 1.034 | 1.066 | 1.284 | 0.906 | 0.861 | 0.946 | 0.949 | 0.966 | 0.982 | 1.014 | 0.999 |
| 571 | Furniture, home furnishings stores | 0.894 | 0.914 | 0.974 | 0.971 | 1.004 | 0.997 | 1.013 | 1.035 | 0.972 | 1.045 | 1.068 | 1.145 | 0.895 | 0.871 | 0.977 | 0.975 | 0.990 | 1.006 | 1.030 | 1.018 |
| 5722,32 | Household appliance, radio, TV stores | 0.889 | 0.881 | 0.921 | 0.910 | 0.954 | 0.963 | 1.008 | 1.018 | 0.987 | 1.030 | 1.062 | 1.420 | 0.894 | 0.839 | 0.918 | 0.898 | 0.946 | 0.986 | 1.016 | 0.999 |
| | Nondurable goods stores, total | 0.898 | 0.902 | 0.970 | 0.964 | 1.028 | 0.967 | 0.985 | 1.023 | 0.956 | 1.021 | 1.038 | 1.274 | 0.921 | 0.859 | 0.953 | 0.974 | 1.013 | 0.979 | 0.999 | 0.995 |
| 53 | General merchandise group stores | 0.709 | 0.731 | 0.887 | 0.933 | 1.006 | 0.923 | 0.910 | 0.991 | 0.922 | 1.020 | 1.176 | 1.827 | 0.725 | 0.694 | 0.868 | 0.946 | 0.991 | 0.937 | 0.918 | 0.960 |
| 531 | Department stores[1] | 0.707 | 0.724 | 0.887 | 0.925 | 1.007 | 0.927 | 0.904 | 0.991 | 0.931 | 1.019 | 1.180 | 1.824 | 0.727 | 0.690 | 0.869 | 0.940 | 0.989 | 0.939 | 0.913 | 0.967 |
| 533 | Variety stores | 0.717 | 0.753 | 0.894 | 0.981 | 1.002 | 0.922 | 0.929 | 1.001 | 0.879 | 0.994 | 1.075 | 1.892 | 0.730 | 0.723 | 0.870 | 0.994 | 0.986 | 0.939 | 0.932 | 0.969 |
| 539 | Misc. general merchandise stores | 0.725 | 0.748 | 0.891 | 0.928 | 1.011 | 0.914 | 0.922 | 0.989 | 0.910 | 1.014 | 1.241 | 1.745 | 0.736 | 0.710 | 0.883 | 0.931 | 0.995 | 0.929 | 0.923 | 0.962 |
| 54 | Food stores | 0.964 | 0.966 | 0.994 | 0.973 | 1.063 | 0.985 | 1.030 | 1.039 | 0.953 | 1.014 | 0.983 | 1.054 | 1.004 | 0.914 | 0.968 | 0.984 | 1.046 | 0.997 | 1.056 | 0.994 |
| 541 | Grocery stores | 0.967 | 0.967 | 0.992 | 0.968 | 1.068 | 0.980 | 1.032 | 1.043 | 0.955 | 1.017 | 0.985 | 1.045 | 1.013 | 0.915 | 0.962 | 0.981 | 1.047 | 0.995 | 1.059 | 0.997 |
| 554 | Gasoline service stations | 0.943 | 0.918 | 0.975 | 0.986 | 1.035 | 1.034 | 1.074 | 1.059 | 0.999 | 1.019 | 0.978 | 1.008 | 0.947 | 0.886 | 0.973 | 0.988 | 1.026 | 1.042 | 1.074 | 1.056 |
| 56 | Apparel and accessory stores | 0.810 | 0.764 | 0.920 | 0.963 | 0.974 | 0.890 | 0.886 | 1.033 | 0.958 | 1.045 | 1.105 | 1.679 | 0.836 | 0.727 | 0.873 | 1.000 | 0.955 | 0.903 | 0.899 | 1.015 |
| 561 | Men's and boys' clothing and furnishing stores | 0.854 | 0.759 | 0.860 | 0.936 | 0.941 | 0.932 | 0.835 | 0.928 | 0.870 | 1.000 | 1.172 | 1.927 | 0.880 | 0.725 | 0.836 | 0.961 | 0.924 | 0.929 | 0.854 | 0.917 |
| 562,3,8 | Women's clothing, specialty stores, furriers | 0.794 | 0.770 | 0.934 | 0.960 | 0.979 | 0.874 | 0.906 | 1.023 | 0.995 | 1.080 | 1.100 | 1.613 | 0.812 | 0.733 | 0.902 | 0.990 | 0.958 | 0.893 | 0.911 | 0.998 |
| 566 | Shoe stores | 0.829 | 0.740 | 0.957 | 1.076 | 0.988 | 0.906 | 0.870 | 1.070 | 1.034 | 1.078 | 1.092 | 1.392 | 0.843 | 0.702 | 0.893 | 1.132 | 0.985 | 0.920 | 0.880 | 1.038 |
| 58 | Eating and drinking places | 0.881 | 0.890 | 0.978 | 0.993 | 1.063 | 1.055 | 1.076 | 1.110 | 1.000 | 1.020 | 0.963 | 0.993 | 0.896 | 0.856 | 0.963 | 1.007 | 1.056 | 1.047 | 1.093 | 1.102 |
| 591 | Drug stores and proprietary stores | 0.956 | 0.957 | 0.970 | 0.974 | 1.007 | 0.966 | 0.967 | 0.977 | 0.940 | 0.982 | 0.962 | 1.370 | 0.967 | 0.914 | 0.975 | 0.978 | 0.993 | 0.976 | 0.976 | 0.969 |
| 592 | Liquor stores | 0.881 | 0.890 | 0.919 | 0.913 | 1.011 | 0.983 | 1.039 | 1.039 | 0.947 | 0.984 | 1.026 | 1.390 | 0.917 | 0.851 | 0.900 | 0.917 | 0.989 | 0.999 | 1.052 | 1.013 |
| | | Retail sales of group II companies | | | | | | | | | | | | | | | | | | | |
| | Retail trade, total | 0.849 | 0.857 | 0.954 | 0.959 | 1.026 | 0.946 | 0.962 | 1.012 | 0.948 | 1.030 | 1.082 | 1.403 | 0.875 | 0.811 | 0.936 | 0.967 | 1.009 | 0.961 | 0.978 | 0.980 |
| 553 | Auto and home supply stores | 0.837 | 0.797 | 0.953 | 1.053 | 1.051 | 1.074 | 1.051 | 1.026 | 0.990 | 1.097 | 1.027 | 1.075 | 0.844 | 0.760 | 0.948 | 1.069 | 1.025 | 1.083 | 1.073 | 1.026 |
| 531 | Department stores[1] | 0.706 | 0.726 | 0.891 | 0.926 | 1.007 | 0.926 | 0.907 | 0.995 | 0.932 | 1.018 | 1.175 | 1.817 | 0.723 | 0.690 | 0.871 | 0.942 | 0.991 | 0.942 | 0.915 | 0.967 |
| 533 | Variety stores | 0.704 | 0.746 | 0.898 | 0.963 | 0.994 | 0.913 | 0.916 | 0.998 | 0.877 | 0.976 | 1.093 | 1.947 | 0.724 | 0.711 | 0.888 | 0.966 | 0.979 | 0.936 | 0.918 | 0.950 |
| 541 | Grocery stores | 0.978 | 0.970 | 1.004 | 0.965 | 1.066 | 0.963 | 1.014 | 1.029 | 0.948 | 1.021 | 0.998 | 1.061 | 1.035 | 0.915 | 0.962 | 0.983 | 1.039 | 0.980 | 1.047 | 0.976 |
| 56 | Apparel and accessory stores | 0.718 | 0.701 | 0.918 | 0.978 | 0.975 | 0.882 | 0.853 | 1.100 | 0.977 | 1.053 | 1.130 | 1.754 | 0.742 | 0.668 | 0.834 | 1.045 | 0.959 | 0.898 | 0.863 | 1.075 |
| 562,3,8 | Women's clothing, specialty stores, furriers | 0.690 | 0.703 | 0.920 | 0.967 | 0.996 | 0.884 | 0.898 | 1.080 | 0.967 | 1.071 | 1.131 | 1.727 | 0.714 | 0.670 | 0.873 | 1.001 | 0.975 | 0.897 | 0.910 | 1.042 |
| 566 | Shoe stores | 0.776 | 0.726 | 0.980 | 1.099 | 0.967 | 0.894 | 0.803 | 1.110 | 1.059 | 1.061 | 1.093 | 1.451 | 0.793 | 0.687 | 0.910 | 1.179 | 0.962 | 0.900 | 0.816 | 1.080 |
| 591 | Drug stores and proprietary stores | 0.933 | 0.926 | 0.953 | 0.969 | 1.003 | 0.955 | 0.956 | 0.973 | 0.920 | 0.954 | 0.977 | 1.510 | 0.944 | 0.882 | 0.965 | 0.964 | 0.992 | 0.969 | 0.959 | 0.949 |

Note: The adjustment factors shown above were developed from January 1967 through December 1980 unadjusted data. The X-11 version of the Census Method II Seasonal Adjustment Program was used in developing these factors. The sales adjustment factors are a combination of the seasonal holiday, and trading-day factors, and are separately available upon request, but in more limited kind-of-business detail than shown above. Adjustment factors are not included in this table for those kinds of business for which adjusted data are not published separately. Adjusted sales data shown in tables 1 and 3 are obtained by dividing the unadjusted data shown in these tables by the adjustment factors shown above for the corresponding kinds of business. Adjusted data for the summary trade totals are obtained by summarizing the adjusted data for the individual kinds of business. Seasonal factors for totals are approximations and may show small differences from published data.

[1]Data for mail-order catalog desks located within department store of some mail-order firms are included in the department store estimates.

# Table C-2. Average Month-to-Month Percent Changes and Related Summary Measures for Adjusted U.S. Retail Sales and Adjusted Retail Sales of Group II Companies by Kind of Business

| 1972 SIC code | Kind of business | $\bar{O}$ | $\bar{S}$ | Range of seasonal factor | $\overline{CI}$ | $\bar{I}$ | $\bar{C}$ | $\bar{I}/\bar{C}$ | MCD | Average duration of run (ADR) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | CI | I | C | MCD |
| | | U.S. retail sales | | | | | | | | | | | |
| | Retail trade, total | 7.38 | 5.73 | 33.7 | 1.08 | .71 | .77 | .93 | 1.08 | 3.37 | 1.55 | 19.37 | 3.37 |
| | Durable goods stores, total | 7.11 | 5.78 | 26.4 | 1.97 | 1.34 | 1.15 | 1.16 | 1.50 | 2.77 | 1.46 | 7.75 | 4.05 |
| 52 | Building materials, hardware, garden supply, and mobile home dealers | 8.83 | 7.96 | 42.4 | 1.88 | 1.46 | 1.18 | 1.24 | 1.38 | 2.15 | 1.38 | 9.69 | 4.67 |
| 521, 3 | Building materials and supply stores | 8.56 | 7.80 | 46.6 | 2.07 | 1.56 | 1.22 | 1.27 | 1.53 | 2.21 | 1.44 | 11.92 | 4.05 |
| 525 | Hardware stores | 11.83 | 10.32 | 42.0 | 2.33 | 2.01 | .97 | 2.07 | 1.27 | 2.12 | 1.70 | 14.09 | 3.92 |
| 55 ex. 554 | Automotive dealers | 7.63 | 6.58 | 26.9 | 2.82 | 2.31 | 1.23 | 1.87 | 1.73 | 2.35 | 1.55 | 9.69 | 3.92 |
| 551, 2, 5, 6, 7, 9 | Motor vehicle and miscellaneous automotive dealers | 8.07 | 6.80 | 28.1 | 3.00 | 2.52 | 1.31 | 1.92 | 1.84 | 2.15 | 1.49 | 9.69 | 3.92 |
| 553 | Auto and home supply stores | 8.34 | 6.68 | 28.0 | 2.11 | 1.75 | 1.03 | 1.71 | 1.39 | 1.94 | 1.49 | 17.22 | 3.50 |
| 57 | Furniture, home furnishings, and equipment stores | 7.62 | 6.38 | 38.0 | 1.44 | 1.22 | .81 | 1.50 | 1.09 | 1.82 | 1.58 | 22.14 | 3.42 |
| 571 | Furniture and home furnishing stores | 6.58 | 5.41 | 25.2 | 1.59 | 1.31 | .92 | 1.42 | 1.16 | 2.15 | 1.61 | 15.50 | 3.28 |
| 5722, 32 | Household appliance, radio, and TV stores | 10.03 | 8.65 | 53.4 | 2.43 | 2.21 | .78 | 2.82 | 1.05 | 1.96 | 1.65 | 8.16 | 4.11 |
| | Nondurable goods stores, total | 8.19 | 6.15 | 41.5 | .89 | .56 | .73 | .78 | .89 | 3.87 | 1.42 | 51.67 | 3.87 |
| 53 | General merchandise group stores | 16.32 | 14.77 | 111.0 | 1.38 | 1.18 | .73 | 1.62 | .88 | 2.04 | 1.44 | 51.67 | 3.76 |
| 531 | Department stores[1] | 16.56 | 14.78 | 111.7 | 1.42 | 1.22 | .76 | 1.61 | .91 | 1.96 | 1.50 | 31.00 | 4.40 |
| 533 | Variety stores | 18.77 | 17.39 | 118.9 | 2.13 | 2.01 | .66 | 3.04 | .85 | 1.60 | 1.45 | 11.92 | 2.68 |
| 539 | Miscellaneous general merchandise stores | 13.96 | 11.38 | 86.0 | 2.29 | 1.92 | .90 | 2.12 | 1.16 | 2.12 | 1.53 | 14.09 | 4.37 |
| 54 | Food stores | 5.66 | 2.45 | 15.1 | 1.09 | .81 | .71 | 1.14 | .80 | 3.04 | 1.38 | 31.00 | 5.70 |
| 541 | Grocery stores | 5.75 | 2.35 | 14.0 | 1.15 | .87 | .71 | 1.23 | .81 | 2.72 | 1.44 | 31.00 | 4.97 |
| 554 | Gasoline service stations | 4.17 | 2.40 | 18.8 | 1.24 | .81 | .87 | .93 | 1.24 | 2.63 | 1.46 | 22.14 | 2.63 |
| 56 | Apparel and accessory stores | 16.16 | 14.09 | 95.3 | 1.70 | 1.58 | .68 | 2.32 | .85 | 1.70 | 1.48 | 31.00 | 3.40 |
| 561 | Men's, boy's clothing and furnishing stores | 18.65 | 16.90 | 123.0 | 2.46 | 2.28 | .84 | 2.71 | 1.19 | 1.80 | 1.49 | 7.05 | 3.06 |
| 562, 3, 8 | Women's clothing, specialty stores, furriers | 14.45 | 12.43 | 88.2 | 2.02 | 1.87 | .65 | 2.86 | .95 | 1.60 | 1.57 | 11.07 | 3.06 |
| 566 | Shoe stores | 16.53 | 15.13 | 69.3 | 2.72 | 2.48 | .92 | 2.71 | 1.31 | 1.78 | 1.53 | 11.92 | 3.19 |
| 58 | Eating and drinking places | 5.18 | 3.98 | 26.8 | 1.18 | .79 | .84 | .95 | 1.18 | 2.77 | 1.50 | 25.83 | 2.77 |
| 591 | Drug stores and proprietary stores | 8.17 | 7.51 | 43.8 | 1.01 | .80 | .65 | 1.22 | .73 | 2.04 | 1.41 | 25.83 | 4.28 |
| 592 | Liquor stores | 10.40 | 7.88 | 57.0 | 1.52 | 1.37 | .61 | 2.25 | .74 | 1.91 | 1.60 | 17.22 | 3.26 |
| | | Retail sales of Group II companies | | | | | | | | | | | |
| | Retail trade, total | 10.15 | 8.07 | 33.7 | 1.33 | .98 | .79 | 1.23 | .97 | 2.51 | 1.51 | 47.67 | 4.90 |
| 553 | Auto and home supply stores | 10.40 | 8.89 | 28.0 | 3.12 | 2.94 | .77 | 3.80 | 1.06 | 1.61 | 1.55 | 7.05 | 2.62 |
| 531 | Department stores[1] | 16.53 | 14.71 | 111.7 | 1.57 | 1.28 | .93 | 1.38 | 1.05 | 2.31 | 1.42 | 31.00 | 4.40 |
| 533 | Variety stores | 19.49 | 17.94 | 118.9 | 2.49 | 2.30 | .81 | 2.83 | 1.06 | 1.63 | 1.42 | 17.22 | 3.92 |
| 539 | Miscellaneous general merchandise stores | 16.55 | 13.83 | 86.0 | 3.19 | 2.83 | 1.32 | 2.14 | 1.73 | 1.82 | 1.67 | 10.33 | 3.82 |
| 541 | Grocery stores | 7.05 | 2.16 | 14.0 | 1.84 | 1.61 | .74 | 2.17 | .93 | 2.12 | 1.50 | 22.14 | 4.94 |
| 56 | Apparel and accessory stores | 19.47 | 17.56 | 95.3 | 2.18 | 2.02 | .71 | 2.84 | 1.01 | 1.87 | 1.53 | 11.92 | 2.73 |
| 562, 3, 8 | Women's clothing, specialty stores, furriers | 18.46 | 16.41 | 88.2 | 2.91 | 2.76 | .85 | 3.23 | 1.26 | 1.61 | 1.49 | 8.16 | 2.89 |
| 566 | Shoe stores | 20.89 | 18.97 | 69.3 | 3.99 | 3.71 | 1.10 | 3.37 | 1.51 | 1.85 | 1.61 | 6.74 | 3.17 |
| 591 | Drug stores and proprietary stores | 11.61 | 9.71 | 43.8 | 2.02 | 1.76 | .97 | 1.82 | 1.28 | 1.94 | 1.58 | 22.14 | 3.67 |

Note: The adjustment factors shown in this table were developed from January 1967 through December 1979 unadjusted data. The X-11 version of the Census Method II seasonal adjustment program was used in developing these factors. The sales adjustment factors are a combination of the seasonal, holiday, and trading-day factors. These factors are available, separately, upon request, but in more limited kind-of-business detail than shown above. Adjustment factors are not included in this table for those kinds of business for which adjusted data are not published separately. Adjusted sales data shown in tables 1 and 3 are obtained by dividing the unadjusted data shown in these tables by the adjustment factors shown above for the corresponding kinds of business. Adjusted data for the summary trade totals are obtained by summarizing the adjusted data for the individual kinds of business. Seasonal factors for totals are approximations and may show small differences from published data.

[1]May include a mixture of mail-order and department store sales reported on a combined basis by some firms.
[2]Data for mail-order catalog desks located within department stores of some mail-order firms are included in the department store estimates.

The following are brief descriptions; more complete explanations appear in "Electronic Computers and Business Indicators," by Julius Shiskin, issued as Occasional Paper 57 by the National Bureau of Economic Research, Inc., New York, 1957.

$\bar{O}$ is the average month-to-month percentage change, without regard to sign, in the original series before seasonal or trading-day adjustment.

$\bar{S}$ is the average month-to-month percentage change, without regard to sign, in the seasonal component. It is a measure of the average monthly seasonal change in the unadjusted series.

$\overline{CI}$ is the average month-to-month percentage change, without regard to sign, in the seasonally adjusted series.

$\bar{I}$ is the average month-to-month percentage change, without regard to sign, for the irregular component. The irregular component is obtained by dividing the seasonally adjusted series by the cyclical component.

$\bar{C}$ is the average month-to-month percentage change, without regard to sign, for the cyclical component, which is a smooth, flexible moving average.

$\bar{I}/\bar{C}$ is a measure of the relative smoothness (small values) or irregularity (large values) of the seasonally adjusted series.

MCD (months for cyclical dominance) gives an estimate of the appropriate time span over which to observe cyclical movements in a monthly series. In deriving MCD, the average (without regard to sign) percentage changes in the irregular component and cyclical component are computed for 1-month spans (Jan.-Feb., Feb.-Mar., etc.) 2-month spans (Jan.-Mar., Feb.-Apr., etc.), up to 5-month spans. MCD is the shortest span for which the average change (without regard to sign) in the cyclical component is larger than the average change (without regard to sign) in the irregular component; that is, it indicates the point at which fluctuations begin to be more attributable to cyclical than to irregular movements. Since changes are not computed for spans greater than 5 months, all series with an MCD greater than "5" are shown as "6." MCD is small for smooth series and large for erratic series.

Average duration of run (ADR) is a measure of smoothness, and is equal to the average number of consecutive monthly changes in the same direction in any series of observations. When there is no change between 2 months, a change in the same direction as the preceding change is assumed. The ADR is shown for the seasonally adjusted series CI, irregular component I, cyclical component C, and the MCD moving average. The MCD moving average is a monthly average (with the number of terms equal to MCD) of the seasonally adjusted series.

A comparison of these ADR measures with the expected ADR of a random series gives an indication of whether the changes approximate those of a random series. Over 1-month intervals the expected ADR for a random series is 1.5, and the actual ADR falls between 1.36 and 1.75 about 95 percent of the time. Over spans greater than 1 month (MCD spans), the expected value is 2. For example, the ADR of CI is 1.96 for household appliances, radio, and TV stores. This indicates that 1-month changes in the seasonally adjusted series, on the average, reverse sign almost as often as a random series. In the next 2 columns, 1.65 for I and 8.16 for C indicates the separation of the seasonally adjusted series into an essentially random component and the cyclical (nonrandom) component. Finally, 4.11 for MCD indicates that a 4-month moving average of the seasonally adjusted series (4 months being the MCD span) reverses direction on the average about every 4 months. The increase in the ADR from 1.65 for CI to 4.11 for the MCD moving average indicates that for this series the use of MCD spans substantially reduces the effect of the irregular component upon the seasonally adjusted series.

These averages are based on a seasonally adjusted series which is adjusted historically; that is, the months used to compute the measures were the same months used to estimate the seasonal factors. Current data, however, are adjusted by use of factors projected from 3 to 8 months ahead, and are thus subject to additional error. Tests to date indicate the MCD are probably 2 months greater than those shown above for individual kinds of business and approximately 1 month greater for total retail sales; CI and I are approximately 1 1/2 times the averages shown for individual kinds of business, with the increase in irregularity somewhat smaller for total retail sales.

## Table C-3. Seasonal Adjustment Factors for U.S. Retail Inventories by Kind of Business: January to December 1981

| 1972 SIC Code | Kind of business | 1981 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Jan. | Feb. | March | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| | Retail trade, total | 96.9 | 97.6 | 100.1 | 101.4 | 100.6 | 100.1 | 99.4 | 98.4 | 99.9 | 103.4 | 105.3 | 97.3 |
| | Durable goods stores, total | 99.3 | 100.1 | 102.1 | 103.4 | 103.1 | 102.1 | 100.3 | 96.1 | 95.8 | 98.6 | 100.6 | 98.6 |
| 52 | Building materials, hardware, garden supply, and mobile home dealers | 97.3 | 100.6 | 103.1 | 103.7 | 102.7 | 101.6 | 100.0 | 99.2 | 99.1 | 98.5 | 98.1 | 95.7 |
| 55 | Automotive dealers | 101.7 | 102.0 | 105.2 | 105.6 | 105.6 | 104.1 | 100.8 | 91.5 | 90.4 | 94.2 | 98.2 | 100.6 |
| 57 | Furniture, home furnishings, equipment dealers | 97.2 | 97.6 | 99.1 | 100.5 | 100.1 | 100.3 | 99.1 | 100.2 | 101.1 | 103.8 | 102.8 | 98.0 |
| | Nondurable goods stores, total | 94.3 | 95.3 | 98.4 | 98.9 | 98.4 | 98.3 | 98.6 | 100.4 | 103.6 | 107.9 | 109.8 | 96.3 |
| 53 | General merchandise group stores | 89.7 | 92.0 | 97.2 | 99.4 | 98.7 | 98.3 | 98.7 | 102.1 | 106.3 | 112.3 | 114.1 | 90.9 |
| 531 | Department stores | 89.9 | 91.6 | 97.5 | 99.8 | 99.3 | 98.5 | 97.9 | 100.8 | 105.5 | 112.2 | 115.2 | 91.5 |
| 54 | Food stores | 98.7 | 97.9 | 100.3 | 99.6 | 99.2 | 99.8 | 98.8 | 98.4 | 99.0 | 103.0 | 104.3 | 100.7 |
| 56 | Apparel and accessory stores | 91.8 | 93.6 | 97.9 | 98.0 | 97.4 | 96.7 | 98.4 | 102.0 | 106.3 | 110.6 | 110.8 | 96.3 |

Note: The adjustment factors for 1981 were developed from January 1967 through December 1980. The X-11 version of the Census Method II seasonal adjustment program was used in developing these factors.

## Table C-4. Average Month-to-Month Percent Changes and Related Summary Measures for Adjusted U.S. Retail Inventories by Kind of Business

| 1972 SIC Code | Kind of business | $\bar{O}$ | $\bar{S}$ | Range of 1979 factors | $\overline{CI}$ | $\bar{I}$ | $\bar{C}$ | $\bar{I}/\bar{C}$ | MCD | Average duration of run (ADR) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | CI | I | C | MCD |
| | Retail trade, total | 2.16 | 1.98 | 7.8 | .87 | .35 | .78 | .46 | 1 | 5.74 | 1.63 | 19.37 | 5.74 |
| | Durable goods stores, total | 2.36 | 1.91 | 8.3 | 1.26 | .58 | 1.03 | .56 | 1 | 5.00 | 1.72 | 10.33 | 5.00 |
| 52 | Building materials, hardware, garden supply, and mobile home dealers | 1.80 | 1.27 | 7.8 | 1.48 | .96 | .98 | .98 | 1 | 3.16 | 1.48 | 19.37 | 3.16 |
| 55 | Automotive dealers | 4.00 | 3.12 | 15.9 | 2.06 | 1.29 | 1.32 | .97 | 1 | 3.97 | 1.76 | 8.16 | 3.97 |
| 57 | Furniture, home furnishings, equipment dealers | 1.74 | 1.35 | 5.5 | 1.02 | .59 | .78 | .75 | 1 | 2.92 | 1.60 | 22.14 | 2.92 |
| | Nondurable goods stores, total | 2.79 | 2.46 | 14.5 | .78 | .44 | .68 | .65 | 1 | 3.87 | 1.48 | 51.67 | 3.87 |
| 53 | General merchandise group stores | 4.17 | 3.73 | 24.2 | 1.15 | .71 | .86 | .83 | 1 | 2.72 | 1.55 | 22.14 | 2.72 |
| 531 | Department stores | 4.51 | 4.10 | 25.5 | 1.23 | .84 | .88 | .96 | 1 | 2.92 | 1.46 | 22.14 | 2.92 |
| 54 | Food stores | 1.57 | 1.18 | 5.6 | .95 | .69 | .65 | 1.06 | 2 | 2.42 | 1.48 | 38.75 | 4.40 |
| 56 | Apparel and accessory stores | 3.77 | 3.38 | 18.3 | 1.04 | .74 | .63 | 1.18 | 2 | 2.82 | 1.49 | 12.92 | 4.53 |

Note: The averages and summary measures shown in the table above are based on January 1967 through December 1979 data. For a description of the summary measures shown above, see explanatory notes at the end of table C-2.

# Appendix D. Kind-of-Business Classification

The kinds of business shown in this report parallel broad classifications defined in the 1972 edition of the Standard Industrial Classification (SIC) manual. The old series was based on the 1967 SIC. The conversion from the 1967 SIC for the old series to the 1972 SIC for the new series is discussed in greater detail in the introductory text.

Descriptions of each kind of business follow. Data for some kinds of business are not shown separately but are included in the major group or other totals.

## DURABLE GOODS

### Building Materials, Hardware, Garden Supply, and Mobile Home Dealers (SIC Major Group 52)

This major group includes retail establishments primarily engaged in selling lumber and other building materials; paint, glass, and wallpaper; hardware; nursery stock; lawn and garden supplies; and mobile homes.

It includes lumber and other building materials dealers and paint, glass, and wallpaper stores selling to the general public, even if sales to contractors account for a larger proportion of total sales. These establishments are known as "retail" in the trade. Establishments primarily selling these products but not selling to the general public are classified in wholesale trade.

**Lumber and Other Building Materials Dealers (SIC 521).**[1] Establishments engaged in selling primarily lumber, or lumber and a general line of building materials, to the general public. The lumber which they sell may include rough and dressed lumber, flooring, molding, doors, sashes, frames, and other millwork. The building materials may include roofing, siding, shingles, wallboard, paint, brick, tile, cement, sand, gravel, and other building materials and supplies. Hardware is often an important line of retail lumber and building materials dealers.

**Paint, Glass, and Wallpaper Stores (SIC 523).**[1] Establishments engaged in selling primarily paint, glass, and wallpaper, or any combination of these lines, to the general public.

**Hardware Stores (SIC 525).** Establishments primarily selling a number of basic hardware lines such as tools, builders' hardware, paint and glass, housewares and household appliances, cutlery, and roofing materials, no one of which accounts for 50 percent or more of the sales of the establishments.

**Retail Nurseries, Lawn and Garden Supply Stores (SIC 526).**[1] Establishments primarily engaged in selling trees, shrubs, other plants, seeds, bulbs, mulches, soil conditioners, fertilizers, pesticides, garden tools, and other garden supplies to the general public. These establishments primarily sell products purchased from others, but may sell some plants which they grow themselves.

**Mobile Home Dealers (SIC 527).**[1] Establishments primarily engaged in the retail sale of new and used mobile homes, including parts and accessories.

### Automotive Dealers (SIC Major Group 55 ex. 554)

This major group includes retail dealers selling new and used automobiles, boats, recreational and utility trailers, and motorcycles; and those selling new automobile parts and accessories. Automobile repair shops maintained by the establishments engaged in the sale of new automobiles are also included.

**Motor Vehicle Dealers (Franchised)—new and Used (SIC 551).** Establishments primarily engaged in the sale of new automobiles or new and used foreign or domestic automobiles. These establishments frequently maintain repair departments and used car lots and carry stocks of replacement parts, tires, batteries, and automotive accessories. Used car lots and repair departments operated by franchised new passenger car dealers are not considered separate locations.

**Motor Vehicle Dealers (Nonfranchised)—Used Cars Only (SIC 552).**[1] Establishments primarily selling used cars and not holding a franchise for the sale of new cars.

**Auto and Home Supply Stores (SIC 553).** Establishments primarily engaged in the retail sale of automobile tires, batteries, and other automobile parts and accessories. These establishments frequently sell additional lines of merchandise such as household appliances, radios and television sets, sporting goods, housewares, and hardware.

**Boat Dealers (SIC 555).**[1] Establishments primarily engaged in the retail sale of new and used motorboats and other watercraft, including parts, accessories, marine supplies, and outboard motors.

[1] Data for this kind of business are not shown separately but are included in the major group totals.

**Recreational and Utility Trailer Dealers (SIC 556).**[1] Establishments primarily engaged in the retail sale of new and used recreational trailers, campers (pickup coaches), utility trailers, and other trailers for passenger automobiles, and motor homes, including parts and accessories.

**Motorcycle Dealers (SIC 557).**[1] Establishments primarily engaged in the retail sale of new and used motorcycles and motor scooters, including parts and accessories.

**Automotive Dealers, Not Elsewhere Classified (SIC 559).**[1] Establishments primarily engaged in the retail sale of new and used automotive vehicles, such as snowmobiles, dunebuggies, gocarts, and new automotive equipment and supplies, not elsewhere classified.

## Furniture, Home Furnishings, and Equipment Stores (SIC Major Group 57)

This major group includes retail stores selling goods used for furnishing the home, such as furniture, floor coverings, draperies, glass and chinaware, domestic stoves, refrigerators, and other household electrical and gas appliances.

**Furniture Stores (SIC 5712).** Establishments primarily selling household furniture, beds, mattresses, springs, and other sleep equipment. Also included in this classification are establishments selling household appliances, phonographs, radio and TV sets, and floor coverings, provided the receipts from sales of furniture and sleep equipment exceed those from sales of other merchandise.

**Floor Coverings Stores (SIC 5713).**[1] Establishments primarily engaged in the retail sale of floor coverings and related products.

**Drapery, Curtain, and Upholstery Stores (SIC 5714).**[1] Establishments primarily selling draperies, curtains, slipcovers, and upholstery materials. Establishments primarily selling custom-made draperies and slipcovers for household use also are included.

**Miscellaneous Home Furnishing Stores (SIC 5719).**[1] Establishments primarily engaged in the retail sale of miscellaneous home furnishings, such as china, glassware, and metalware for kitchen and table use, bedding and linen, brooms, brushes, lamps and shades, mirrors and pictures, venetian blinds, and window shades.

**Household Appliance Stores (SIC 5722).** Establishments primarily engaged in the retail sale of electric and gas refrigerators, stoves, and other household appliances, such as electric irons, percolators, hot plates, and vacuum cleaners. Many such stores also sell radio and television sets. Retail stores operated by public utility companies and primarily engaged in the sale of electric and gas appliances for household use are classified here.

[1] Data for this kind of business are not shown separately but are included in the major group totals.

**Radio and Television Stores (SIC 5732).**[1] Establishments primarily engaged in the retail sale and installation of radios, television sets, record players, high fidelity (hi-fi), and sound reproducing equipment. Such establishments also may sell additional lines, such as household appliances, musical instruments, or records.

**Music Stores (SIC 5733).**[1] Establishments primarily engaged in the retail sale of musical instruments, phonograph records and albums, sheet music, and similar musical supplies.

## Miscellaneous Durable Goods Stores (SIC Major Group 59, part)

This includes all retail goods stores not elsewhere classified.

**Used Merchandise Stores (SIC 593).**[2] This industry includes stores primarily engaged in the retail sale of used merchandise, antiques, and secondhand goods such as clothing and shoes; furniture; books and rare manuscripts; automobile parts, accessories, tires, batteries; musical instruments; office furniture; phonographs and phonograph records; and store fixtures and equipment. This industry also includes pawnshops.

**Sporting Goods Stores and Bicycle Shops (SIC 5941).**[3] Establishments primarily selling a general or a specialized line of sporting goods and equipment for hunting, camping, fishing, skiing, riding, tennis, golf, and other sports; bicycles, bicycle parts and accessories; and gymnasium and playground equipment.

**Book Stores (SIC 5942).**[3] Establishments primarily selling new books and periodicals. Stationery and related items may also be sold.

**Jewelry Stores (SIC 5944).** Establishments primarily engaged in the retail sale of any combination of the lines of jewelry, such as diamonds and other precious stones; rings, bracelets, and brooches; sterling and plated silverware; and watches and clocks.

**Hobby, Toy, and Game Shops (SIC 5945).**[3] Establishments primarily engaged in the retail sale of toys, games, and hobby kits and supplies.

**Camera and Photographic Supply Stores (SIC 5946).**[3] Establishments primarily engaged in the retail sale of cameras, film, and other photographic supplies and equipment. Excluded are establishments primarily engaged in finishing films.

**Gift, Novelty, and Souvenir Shops (SIC 5947).**[3] Establishments primarily engaged in the retail sale of combined lines of gifts and novelty merchandise, souvenirs, and miscellaneous small art goods such as greeting cards and holiday decorations.

[2] Data for this kind of business are not shown separately but are included in the durable goods stores total.

[3] Data for this kind of business are not shown separately but are included in the GAF group.

**Optical Goods Stores (SIC 5999 part).**[2] Establishments primarily engaged in the retail sale of eyeglasses and related optical goods. Excluded are establishments whose receipts are primarily from examining eyes and prescribing eyeglasses or contact lenses.

**Luggage and Leather Goods Stores (SIC 5948).**[3] Establishments primarily engaged in the retail sale of luggage, trunks, and leather goods.

**Miscellaneous Retail Stores Not Elsewhere Classified (SIC 5999 part).**[2] Establishments primarily engaged in the retail sale of specialized lines of merchandise such as collectors' items and supplies, artists' supplies, orthopedic and artifical limbs, drafting materials, typewriters, pets, religious goods, hearing aids, rubber stamps, monuments and tombstones, and other merchandise not elsewhere classified.

## NONDURABLE GOODS

### General Merchandise Group Stores (SIC Major Group 53)

This major group includes retail stores which sell a number of lines of merchandise, such as dry goods, apparel and accessories, furniture and home furnishings, small wares, hardware, and food. The stores included in this group are known as department stores, variety stores, general merchandise stores, general stores, etc.

Nonstore retailers (mail-order houses, merchandising machine operators, and direct-selling establishments), dry goods stores, and sewing and needlework stores, previously classified in SIC major group 53, are classified in major group 59.

**Department Stores (SIC 531).** Establishments normally employing 25 people or more, having sales of apparel and softgoods combined amounting to 20 percent or more of total sales, and engaged in selling each of the following lines of merchandise:

*1. Furniture, home furnishings, appliances, radio and TV sets.*
*2. A general line of apparel for the family.*
*3. Household linens and dry goods.*

To qualify as a department store, sales of each of the lines listed above must be less than 80 percent of total sales. An establishment with total sales of $10 million or more is classified as a department store even if sales of one of the merchandise lines listed above exceed the maximum percent of total sales, provided that the combined sales of the other two groups is $1 million or more. So-called discount stores are included as department stores, provided they meet the criteria described above.

**Variety Stores (SIC 533).** Establishments primarily engaged in the retail sale of a variety of merchandise in the low and popular price ranges. Sales usually are made on a cash-and-carry basis with the open selling method of display and customer selection of merchandise. These stores generally do not carry a complete line of merchandise, are not departmentalized, do not carry their own charge service, and do not deliver merchandise.

**Miscellaneous General Merchandise Stores (SIC 539).** Establishments primarily engaged in the retail sale of a general line of apparel, dry goods, hardware, homewares or home furnishings, groceries, and other lines in limited amounts. Stores selling commodities covered in the definition for department stores, but normally having less than 25 employees, and stores usually known as country general stores are included here.

Also included in this classification are establishments whose sales of apparel or of furniture and home furnishings exceed half of their total sales providing that sales of the smaller of the two lines in combination with dry goods and household linens account for 20 percent or more of total sales.

### Food Stores (SIC Major Group 54)

This major group includes retail stores primarily engaged in selling food for home preparation and consumption.

**Grocery Stores (SIC 541).** Establishments primarily selling (1) a wide variety of canned or frozen foods, such as vegetable, fruits, and soups: (2) dry groceries, either packaged or in bulk, such as tea, coffee, cocoa, dried fruits, spices, sugar, flour, and crackers; and (3) other processed food and nonedible grocery items. In addition, these establishments often sell smoked and prepared meats, fresh fish and poultry, fresh vegetables and fruits, and fresh or frozen meats.

Establishments commonly known as supermarkets, food stores, and delicatessens are included in this classification if receipts from sales of groceries and food items for off-premise preparation and consumption are 50 percent or more of total sales.

**Meat and Fish (Seafood) Markets, Including Freezer Provisioners (SIC 542).**[1] Establishments primarily engaged in the retail sale of fresh, frozen, or cured meats, fish, shellfish, and other seafood. Frequently these establishments also sell poultry, dairy products, eggs, some groceries, and items commonly used in preparing seafood or consumed with seafood.

**Fruit Stores and Vegetable Markets (SIC 543).**[1] Establishments primarily selling fresh fruits and fresh vegetables. These establishments frequently carry a limited line of grocery items. Roadside stands of farmers selling only their own produce are not included.

**Candy, Nut, and Confectionery Stores (SIC 544).**[1] Establishments primarily selling candy, nuts, sweetmeats, and other confections. A soda fountain or lunch counter is frequently operated in these stores. Also included are candy and popcorn stands located in motion picture theaters.

**Dairy Products Stores (SIC 545).**[1] Establishments primarily engaged in the retail sale of dairy products, such as milk, cream, butter, cheese, and related products, to over-the-counter customers.

[1] Data for this kind of business are not shown separately but are included in the major group totals.

[2] Data for this kind of business are not shown separately but are included in the durable goods stores total.

[3] Data for this kind of business are not shown separately but are included in the GAF group.

**Retail Bakeries (SIC 546).** Establishments primarily engaged in the over-the-counter retail sale of bakery products such as bread, cakes, pies, or cookies, all or some of which may be baked on the premises.

**Other Miscellaneous Food Stores (SIC 549).**[1] Establishments primarily engaged in the retail sale of specialized foods, not elsewhere classified, such as eggs and poultry, health foods, spices, herbs, coffee, and tea. The poultry stores may sell live poultry, slaughter and clean poultry for their own account and sell dressed fowls, or sell fowl cleaned and dressed by others.

**Gasoline Service Stations (SIC 554).** Establishments primarily selling gasoline and automotive lubricants. Usually these establishments also sell tires, batteries, and accessories, and perform minor repair work and services. Establishments called garages but deriving more than half of their receipts from the sale of gasoline and automotive lubricants are included.

## Apparel and Accessory Stores (SIC Major Group 56)

Establishments in this major group are primarily engaged in selling clothing of all kinds and related articles for personal wear and adornment.

**Men's and Boys' Clothing and Furnishings Stores (SIC 561).** Establishments primarily selling men's and boys' ready-to-wear clothing and furnishings.

**Women's Ready-to-Wear Stores (SIC 562).** Establishments primarily selling women's and girls' ready-to-wear apparel.

**Women's Accessory and Specialty Stores (SIC 563).**[1] Establishments primarily selling a specialized line of women's and girls' apparel, such as sportswear, beachwear, blouses, hosiery, millinery, foundation garments, lingerie, robes, and other intimate wear.

**Children's and Infants' Wear Stores (SIC 564).**[1] Establishments primarily engaged in the retail sale of children's and infants' clothing, furnishings, and accessories. Such establishments may specialize in either children's or infants' wear or they may sell a combination of children's and infants' wear.

**Family Clothing Stores (SIC 565).** Establishments primarily selling clothing, furnishings, and accessories for men, women, and children, without specializing in any one line.

**Shoe Stores (SIC 566).** Establishments primarily engaged in the retail sale of any one line, or a combination of the lines, of men's, women's, and children's footwear. These establishments frequently carry accessory lines such as hosiery, gloves, and handbags.

**Furriers and Fur Shops (SIC 568).**[1] Retail establishments primarily engaged in selling fur coats and other fur apparel, including fur apparel made in the same establishment to custom order.

[1] Data for this kind of business are not shown separately but are included in the major group totals.

**Miscellaneous Apparel and Accessory Stores (SIC 569).**[1] Establishments primarily engaged in the retail sale of specialized lines of apparel and accessories not elsewhere classified, such as uniforms, bathing suits, raincoats, riding apparel, sports apparel, umbrellas, wigs, and toupees. This industry also includes custom tailors primarily engaged in making and selling men's and women's clothing (except fur apparel SIC 568) to individual order.

## Eating and Drinking Places (SIC Major Group 58)

This major group includes establishments primarily engaged in selling prepared foods and drinks for consumption on or near the premises, and lunch counters and refreshments stands selling prepared foods and drinks for immediate consumption. Also included are social caterers who sell prepared foods which are served on the premises or elsewhere, and in-plant feeding contractors. Eating and drinking places operated as leased concessions in theaters, hotels, motels, and places of amusement are included here, although candy and popcorn stands located in theaters are not.

**Restaurants and Lunchrooms (SIC 5812 part).**[4] Establishments engaged in serving prepared food and beverages selected by the patron from a full menu. Waiter or waitress service is provided and the establishment has seating facilities for at least 15 patrons. These establishments often serve alcoholic beverages, but receipts from the sale of alcoholic beverages may not exceed the receipts from prepared foods.

**Social Caterers (SIC 5812 part).**[5] Establishments primarily engaged in serving prepared food and beverages for weddings, banquets, etc., at a hall or similar place rather than at a fixed business location. Such establishments also may arrange for some entertainment but this should be a minor part of the business.

**Cafeterias (SIC 5812 part).**[4] Establishments engaged in serving prepared food and beverages primarily through the use of a cafeteria line where customers serve themselves from displayed selections. Some limited waiter or waitress service may be provided. Table and/or booth seating facilities are usually provided.

**Refreshment Places (SIC 5812 part).** Establishments primarily selling limited lines of refreshments and prepared food items. Included in this group are establishments which prepare refreshment items such as pizza, barbecued chicken, and hamburgers for consumption either on or near the premises or for "take-home" consumption.

**Contract Feeding (SIC 5812 part).**[4] Establishments primarily engaged in providing food service under contract to another company; hospital; or governmental, penal, or educational institution. The facilities and personnel of these establishments may be provided by the contracting company, institution, etc.; however, the management is always supplied by the contractor.

[4] Data for this kind of business are not shown separately, but are included in the larger group, "Restaurants, lunchrooms, cafeterias."

[5] Data for this kind of business are not shown separately but are included in the larger group "Eating Places," (SIC 5812).

**Ice Cream and Frozen Custard Stands (SIC 5812 part).**[6] Establishments primarily engaged in selling ice cream, frozen custard, or other frozen ices for consumption either on or near the premises. "Take-home" packages also may be provided for ice cream sold in bulk.

**Drinking Places (SIC 5813).** Establishments primarily engaged in the retail sale of drinks such as beer, ale, wine, liquor, and other alcoholic beverages for consumption on the premises. Prepared foods are frequently sold at these establishments, but receipts from the sale of prepared foods may not exceed receipts from sales of alcoholic beverages.

**Drug Stores and Proprietary Stores (SIC 591).** Establishments engaged in the retail sale of prescription drugs and patent medicines, and which may carry a number of related lines such as cosmetics, toiletries, tobacco, and novelty merchandise. Included are drug stores which also have a soda fountain or lunch counter.

These stores are included on the basis of their usual trade designation rather than on the more strict interpretation of commodities handled.

**Liquor Stores (SIC 592).** Establishments primarily selling packaged alcoholic beverages, such as ale, beer, wine, and whiskey, for consumption off the premises. Liquor stores operated by States, counties, and municipalities are included.

## Miscellaneous Nondurable Goods Stores (SIC Major Group 59, part)

**Stationery Stores (SIC 5943).**[3] Establishments primarily engaged in the retail sale of stationery, such as paper and paper products (including printing and engraving), post cards, novelties, and school and office supplies.

**Sewing, Needlework, and Piece Goods Stores (SIC 5949).**[3] Establishments primarily engaged in the retail sale of sewing supplies, fabrics, patterns, and other needlework accessories.

**Mail-Order Houses (Department Store Merchandise) (5961, part).**[7] Establishments with normally 25 or more employees primarily engaged in the retail sale by catalog and mail order of a general line of merchandise similar to that sold by department stores.

**Other Mail-Order Houses (SIC 5961 part).**[8] Establishments primarily engaged in the retail sale of a specialized or limited line of merchandise such as food, automotive merchandise, apparel, books, stationery, etc., by catalog and mail order.

**Automatic Merchandising Machine Operators (SIC 5962).**[8] Establishments primarily engaged in the retail sale of products by means of automatic merchandising units (vending machines) which are generally located on the premises of other businesses. Those products include candy, nut, and confectionery; milk and ice cream; other beverages; and tobacco products.

**Direct Selling Establishments (SIC 5963).**[8] Establishments primarily selling merchandise by house-to-house canvass, by party plan, by telephone, or from a truck. The merchandise includes building materials, hardware, and garden supplies; general merchandise; milk; other foods; apparel and accessories; furniture, home furnishings, and equipment; mobile food service; and books and stationery.

**Fuel and Ice Dealers, Not Elsewhere Classified (SIC 5982).**[9] Establishments primarily engaged in the retail sale of coal, coke, charcoal, wood, ice, or any combination of these lines.

**Fuel Oil Dealers (SIC 5983).**[9] Establishments primarily engaged in the retail sale of fuel oil.

**Liquefied Petroleum Gas Dealers (SIC 5984).**[9] Establishments primarily engaged in the retail sale of liquefied petroleum (LP) gas (bottled gas or in bulk.)

**Florists (SIC 5992).**[9] Establishments primarily engaged in the retail sale of cut flowers and growing plants. Greenhouses and nurseries are included if receipts are primarily from the sale of products not grown on the premises.

**Cigar Stores and Stands (SIC 5993).**[9] Establishments primarily engaged in the retail sale of cigars, cigarettes, tobacco, and smokers' supplies. Many of the establishments included in this classification are operated as concessions in places of amusement, railway stations, airports, and other public places.

**News Dealers and Newsstands (SIC 5994).**[9] Establishments primarily engaged in the retail sale of newspapers, magazines, and other periodicals.

[3] Data for this kind of business are not shown separately but are included in the GAF group.

[6] Data for this kind of business are not shown separately but are included in the larger group "Refreshment Places," (SIC 5812).

[7] Sales made by mail-order catalog desks located within department stores of mail-order firms and the free-standing catalog-order stores of department store firms are included here.

[8] Data for this kind of business are not shown separately but are included in the larger group "Nonstore Retailers," (SIC 596).

[9] Data for this kind of business are not shown separately but are included in the nondurable goods stores total.

# Appendix E. Geographic Areas Included in This Report

## Part I. Standard Metropolitan Statistical Areas

(As defined by the Office of Management and Budget as of August 15, 1973)

### STANDARD CONSOLIDATED AREAS

**Chicago, Ill.-Northwestern Indiana:**
Chicago, Ill., SMSA, and Gary-Hammond-East Chicago, Ind., SMSA

**New York, N.Y.-Northeastern New Jersey:**
New York, N.Y.-N.J., SMSA; Nassau-Suffolk, N.Y., SMSA; Newark, N.J., SMSA; Jersey City, N.J., SMSA; Paterson-Clifton-Passaic, N.J., SMSA; and New Brunswick-Perth Amboy-Sayreville, N.J., SMSA

### STANDARD METROPOLITAN STATISTICAL AREAS

**Akron, Ohio.** Portage and Summit Counties, Ohio

**Albany-Schenectady-Troy, N.Y.** Albany, Montgomery, Rensselaer, Saratoga, and Schenectady Counties, N.Y.

**Albuquerque, N. Mex.** Bernalillo and Sandoval Counties, N. Mex.

**Allentown-Bethlehem-Easton, Pa.-N.J.** Carbon, Lehigh, and Northampton Counties, Pa., and Warren County, N.J.

**Anaheim-Santa Ana-Garden Grove, Calif.** Coextensive with Orange County, Calif.

**Ann Arbor, Mich.** Coextensive with Washtenaw County, Mich.

**Appleton-Oshkosh, Wis.** Calumet, Outagamie, and Winnebago Counties, Wis.

**Asheville, N.C.** Buncombe and Madison Counties, N.C.

**Atlanta, Ga.** Butts, Cherokee, Clayton, Cobb, De Kalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Henry, Newton, Paulding, Rockdale, and Walton Counties, Ga.

**Augusta, Ga.-S.C.** Columbia and Richmond Counties, Ga., and Aiken County, S.C.

**Austin, Tex.** Hays and Travis Counties, Tex.

**Bakersfield, Calif.** Coextensive with Kern County, Calif.

**Baltimore, Md.** Baltimore city, and Anne Arundel, Baltimore, Carroll, Harford, and Howard Counties, Md.

**Baton Rouge, La.** Ascension, East Baton Rouge, Livingston, and West Baton Rouge Parishes, La.

**Beaumont-Port Arthur-Orange, Tex.** Hardin, Jefferson, and Orange Counties, Tex.

**Billings, Mont.** Coextensive with Yellowstone County, Mont.

**Binghamton, N.Y.-Pa.** Broome and Tioga Counties, N.Y., and Susquehanna County, Pa.

**Birmingham, Ala.** Jefferson, St. Clair, Shelby, and Walker Counties, Ala.

**Boston, Mass.**[1] Beverly, Lynn, Peabody, and Salem cities, and Boxford, Danvers, Hamilton, Lynnfield, Manchester, Marblehead, Middleton, Nahant, Saugus, Swampscott, Topsfield, and Wenham towns in Essex County; Cambridge, Everett, Malden, Medford, Melrose, Newton, Somerville, Waltham, and Woburn cities, and Acton, Arlington, Ashland, Bedford, Belmont, Boxborough, Burlington, Carlisle, Concord, Framingham, Holliston, Lexington, Lincoln, Natick, North Reading, Reading, Sherborn, Stoneham, Sudbury, Wakefield, Watertown, Wayland, Weston, Wilmington, and Winchester towns in Middlesex County; Quincy city, and Bellingham, Braintree, Brookline, Canton, Cohasset, Dedham, Dover, Foxborough, Franklin, Holbrook, Medfield, Medway, Millis, Milton, Needham, Norfolk, Norwood, Randolph, Sharon, Stoughton, Walpole, Wellesley, Westwood, Weymouth, and Wrentham towns in Norfolk County; Abington, Duxbury, Hanover, Hanson, Hingham, Hull, Kingston, Marshfield, Norwell, Pembroke, Rockland, Scituate towns in Plymouth County; and Boston, Chelsea, and Revere cities, and Winthrop town in Suffolk County, Mass.

**Bridgeport, Conn.** Bridgeport and Shelton cities, and Easton, Fairfield, Monroe, Stratford, and Trumbull towns in Fairfield County; and Derby and Milford cities in New Haven County, Conn.

**Buffalo, N.Y.** Erie and Niagara Counties, N.Y.

**Canton, Ohio.** Carroll and Stark Counties, Ohio

**Cedar Rapids, Iowa.** Coextensive with Linn County, Iowa

**Charleston, S.C.** Berkeley, Charleston, and Dorchester Counties, S.C.

**Charleston, W. Va.** Kanawha and Putnam Counties, W. Va.

**Charlotte-Gastonia, N.C.** Gaston, Mecklenburg, and Union Counties, N.C.

**Chattanooga, Tenn.-Ga.** Hamilton, Marion, and Sequatchie Counties, Tenn. and Catoosa, Dade, and Walker Counties, Ga.

**Chicago, Ill.** Cook, Du Page, Kane, Lake, McHenry, and Will Counties, Ill.

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[1] Statistics for the Boston SMSA in table 7 include retail establishments in all of Essex, Middlesex, Norfolk, Plymouth, and Suffolk Counties.

**Cincinnati, Ohio-Ky.-Ind.** Clermont, Hamilton, and Warren Counties, Ohio; Boone, Campbell, and Kenton Counties, Ky.; and Dearborn County, Ind.
**Cleveland, Ohio.** Cuyahoga, Geauga, Lake, and Medina Counties, Ohio
**Colorado Springs, Colo.** El Paso and Teller Counties, Colo.
**Columbia, S.C.** Lexington and Richland Counties, S.C.
**Columbus, Ohio.** Delaware, Fairfield, Franklin, Madison, and Pickaway Counties, Ohio
**Corpus Christi, Tex.** Nucces and San Patricio Counties, Tex.

**Dallas-Fort Worth, Tex.** Collin, Dallas, Denton, Ellis, Hood, Johnson, Kaufman, Parker, Rockwall, Tarrant, and Wise Counties, Tex.
**Davenport-Rock Island-Moline, Iowa-Ill.** Scott County, Iowa, and Henry and Rock Island Counties, Ill.
**Dayton, Ohio.** Greene, Miami, Montgomery, and Preble Counties, Ohio
**Deactur, Ill.** Coextensive with Macon County, Ill.
**Denver-Boulder, Colo.** Adams, Arapahoe, Boulder, Denver, Douglas, Gilpin, and Jefferson Counties, Colo.
**Des Moines, Iowa.** Polk and Warren Counties, Iowa
**Detroit, Mich.** Lapeer, Livingston, Macomb, Oakland, St. Clair, and Wayne Counties, Mich.
**Dubuque, Iowa.** Coextensive with Dubuque County, Iowa
**Duluth-Superior, Minn.-Wis.** St. Louis County, Minn., and Douglas County, Wis.

**El Paso, Tex.** Coextensive with El Paso County, Tex.
**Erie, Pa.** Coextensive with Erie County, Pa.
**Eugene-Springfield, Oreg.** Coextensive with Lane County, Oreg.
**Evansville, Ind.-Ky.** Gibson, Posey, Vanderburgh, and Warrick Counties, Ind., and Henderson County, Ky.

**Fargo-Moorhead, N. Dak.-Minn.** Cass County, N. Dak., and Clay County Minn.
**Flint, Mich.** Genesee and Shiawassee Counties, Mich.
**Fort Lauderdale-Hollywood, Fla.** Coextensive with Broward County, Fla.
**Fort Smith, Ark.-Okla.** Crawford and Sebastian Counties, Ark., and Le Flore and Sequoyah Counties, Okla.
**Fort Wayne, Ind.** Adams, Allen, De Kalb, and Wells Counties, Ind.
**Fresno, Calif.** Coextensive with Fresno County, Calif.

**Gary-Hammond-East Chicago, Ind.** Lake and Porter Counties, Ind.
**Grand Rapids, Mich.** Kent and Ottawa Counties, Mich.
**Great Falls, Mont.** Coextensive with Cascade County, Mont.
**Green Bay, Wis.** Coextensive with Brown County, Wis.
**Greensboro—Winston-Salem—High Point, N.C.** Davidson, Forsyth, Guilford, Randolph, Stokes, and Yadkin Counties, N.C.
**Greenville-Spartanburg, S.C.** Greenville, Pickens, and Spartanburg Counties, S.C.

**Harrisburg, Pa.** Cumberland, Dauphin, and Perry Counties, Pa.
**Hartford, Conn.** Hartford city, and Avon, Bloomfield, Canton, East Granby, East Hartford, East Windsor, Enfield, Farmington, Glastonbury, Granby, Manchester, Marlborough, Newington, Rocky Hill, Simsbury, South Windsor, Suffield, West Hartford, Wethersfield, Windsor, and Windsor Locks towns in Hartford County; New Hartford town in Litchfield County, Cromwell, East Hampton, and Portland towns in Middlesex County; Colchester town in New London County; and Andover, Bolton, Columbia, Coventry, Ellington, Hebron, Stafford, Tolland, Vernon, and Willington towns in Tolland County, Conn.
**Honolulu, Hawaii.** Coextensive with Honolulu County, Hawaii
**Houston, Tex.** Brazoria, Fort Bend, Harris, Liberty, Montgomery, and Waller Counties, Tex.
**Huntington-Ashland, W.Va.-Ky.-Ohio.** Cabell and Wayne Counties, W. Va.; Boyd and Greenup Counties, Ky.; and Lawrence County, Ohio
**Huntsville, Ala.** Limestone, Madison, and Marshall Counties, Ala.

**Indianapolis, Ind.** Boone, Hamilton, Hancock, Hendricks, Johnson, Marion, Morgan, and Shelby Counties, Ind.

**Jackson, Mich.** Coextensive with Jackson County, Mich.
**Jackson, Miss.** Hinds and Rankin Counties, Miss.
**Jacksonville, Fla.** Baker, Clay, Duval, Nassau, and St. Johns Counties, Fla.
**Jersey City, N.J.** Coextensive with Hudson County, N.J.
**Johnstown, Pa.** Cambria and Somerset Counties, Pa.

**Kalamazoo-Portage, Mich.** Kalamazoo and Van Buren Counties Mich.
**Kansas City, No.-Kans.** Consists of Cass, Clay, Jackson, Platte, and Ray Counties, Mo., and Johnson and Wyandotte Counties, Kans.
**Kingsport-Bristol, Tenn.-Va.** Hawkins and Sullivan Counties, Tenn., and Bristol city, and Scott and Washington Counties, Va.
**Knoxville, Tenn.** Consists of Anderson, Blount, Knox, and Union Counties, Tenn.

**Lakeland-Winter Haven, Fla.** Coextensive with Polk County, Fla.
**Lancaster, Pa.** Coextensive with Lancaster County, Pa.
**Lansing-East Lansing, Mich.** Clinton, Eaton, Ingham, and Ionia Counties, Mich.
**Las Vegas, Nev.** Coextensive with Clark County, Nev.
**Lawrence-Haverhill, Mass.-N.H.** Lawrence and Haverhill cities, and Amesbury, Andover, Georgetown, Groveland, Merrimac, Methuen, North Andover, Salisbury, and West Newbury towns in Essex County, Mass.; and Atkinson, Hampstead, Kingston, Newton, Plaistow, Salem, and Windham towns, in Rockingham County, N.H.
**Lexington, Ky.** Bourbon, Clark, Fayette, Jessamine, Scott, and Woodford Counties, Ky.
**Lincoln, Nebr.** Coextensive with Lancaster County, Nebr.
**Little Rock-North Little Rock, Ark.** Pulaski and Saline Counties, Ark.
**Long Branch-Asbury Park, N.J.** Coextensive with Monmouth County, N.J.
**Lorain-Elyria, Ohio.** Coextensive with Lorain County, Ohio

**Los Angeles-Long Beach, Calif.** Coextensive with Los Angeles County, Calif.

**Louisville, Ky.-Ind.** Bullitt, Jefferson, and Oldham Counties, Ky., and Clark and Floyd Counties, Ind.

**Lowell, Mass.-N.H.** Lowell city, and Billerica, Chelmsford, Dracut, Tewksbury, Tyngsborough, and Westford towns in Middlesex County, Mass.; and Pelham town in Hillsborough County, N.H.

**Lynchburg, Va.** Lynchburg city, and Amherst, Appomattox, and Campbell Counties, Va.

**Macon, Ga.** Bibb, Houston, Jones, and Twiggs Counties, Ga.

**Madison, Wis.** Coextensive with Dane County, Wis.

**Memphis, Tenn.-Ark.-Miss.** Shelby and Tipton Counties, Tenn.; Crittenden County, Ark.; and DeSoto County, Miss.

**Miami, Fla.** Coextensive with Dade County, Fla.

**Milwaukee, Wis.** Milwaukee, Ozaukee, Washington, and Waukesha Counties, Wis.

**Minneapolis-St. Paul, Minn.-Wis.** Anoka, Carver, Chisago, Dakota, Hennepin, Ramsey, Scott, Washington, and Wright Counties, Minn., and St. Croix County, Wis.

**Mobile, Ala.** Baldwin and Mobile Counties, Ala.

**Montgomery, Ala.** Autauga, Elmore, and Montgomery Counties, Ala.

**Muncie, Ind.** Coextensive with Delaware County, Ind.

**Muskegon-Muskegon Heights, Mich.** Muskegon and Oceana Counties, Mich.

**Nashville-Davidson, Tenn.** Cheatham, Davidson, Dickson, Robertson, Rutherford, Sumner, Williamson, and Wilson Counties, Tenn.

**Nassau-Suffolk, N.Y.** Nassau and Suffolk Counties, N.Y.

**New Brunswick-Perth Amboy-Sayreville, N.J.** Coextensive with Middlesex County, N.J.

**New Haven-West Haven, Conn.** Clinton and Killingworth towns in Middlesex County, New Haven and West Haven cities, and Bethany, Branford, East Haven, Guilford, Hamden, Madison, North Branford, North Haven, Orange, Wallingford, and Woodbridge towns in New Haven County, Conn.

**New Orleans, La.** Jefferson, Orleans, St. Bernard, and St. Tammany Parishes, La.

**New York, N.Y.-N.J.** Bronx, Kings, New York, Putnam, Queens, Richmond, Rockland, and Westchester Counties, N.Y., and Bergen County, N.J.

**Newark, N.J.** Essex, Morris, Somerset, and Union Counties, N.J.

**Newport News-Hampton, Va.** Hampton, Newport News, and Williamsburg cities, and Gloucester, James City, and York Counties, Va.

**Norfolk-Virginia Beach-Portsmouth, Va.-N.C.** Cheaspeake, Nansemond, Norfolk, Portsmouth, Suffolk, and Virginia Beach cities, Va., and Currituck County, N.C.

**Northeast Pennsylvania.** Lackawanna, Luzerne, and Monroe Counties, Pa.

**Oklahoma City, Okla.** Canadian, Cleveland, McClain, Oklahoma, and Pottawatomie Counties, Okla.

**Omaha, Nebr.-Iowa.** Douglas and Sarpy Counties, Nebr., and Pottawattamie County, Iowa

**Orlando, Fla.** Orange, Osceola, and Seminole Counties, Fla.

**Oxnard-Simi Valley-Ventura, Calif.** Coextensive with Ventura County, Calif.

**Paterson-Clifton-Passaic, N.J.** Coextensive with Passaic County, N.J.

**Pensacola, Fla.** Escambia and Santa Rosa Counties, Fla.

**Peoria, Ill.** Peoria, Tazewell, and Woodford Counties, Ill.

**Philadelphia, Pa.-N.J.** Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties, Pa.; and Burlington, Camden, and Gloucester Counties, N.J.

**Phoenix, Ariz.** Coextensive with Maricopa County, Ariz.

**Pittsburgh, Pa.** Allegheny, Beaver, Washington, and Westmoreland Counties, Pa.

**Portland, Maine.** Portland, South Portland, and Westbrook cities, and Cape Elizabeth, Cumberland, Falmouth, Freeport, Gorham, Scarborough, Windham, and Yarmouth towns in Cumberland County; and Saco city and Old Orchard Beach town in York County, Maine

**Portland, Oreg.-Wash.** Clackamas, Multnomah, and Washington Counties, Oreg., and Clark County, Wash.

**Providence-Warwick-Pawtucket, R.I.-Mass.** Barrington, Bristol, and Warren towns in Bristol County; Warwick city, and Coventry, East Greenwich, and West Warwick towns in Kent County; Jamestown town in Newport County; Central Falls, Cranston, East Providence, Pawtucket, Providence, and Woonsocket cities, and Burrillville, Cumberland, Johnston, Lincoln, North Providence, North Smithfield, Scituate, and Smithfield towns in Providence County; and Narragansett, North Kingstown, and South Kingstown towns in Washington County, R.I.; Attleboro city, and North Attleborough, Norton, Rehoboth, and Seekonk towns in Bristol County; Plainville town in Norfolk County; and Blackstone and Millville towns in Worcester County, Mass.

**Raleigh-Durham, N.C.** Durham, Orange, and Wake Counties, N.C.

**Reading, Pa.** Coextensive with Berks County, Pa.

**Richmond, Va.** Richmond city, and Charles City, Chesterfield, Goochland, Hanover, Henrico, and Powhatan Counties, Va.

**Riverside-San Bernardino-Ontario, Calif.** Riverside and San Bernardino Counties, Calif.

**Roanoke, Va.** Roanoke and Salem Cities, and Botetourt, Craig, and Roanoke Counties, Va.

**Rochester, N.Y.** Livingston, Monroe, Ontario, Orleans, and Wayne Counties, N.Y.

**Rockford, Ill.** Boone and Winnebago Counties, Ill.

**Sacramento, Calif.** Placer, Sacramento, and Yolo Counties, Calif.

**St. Joseph, Mo.** Andrew and Buchanan Counties, Mo.

**St. Louis, Mo.-Ill.** St. Louis city, and Franklin, Jefferson, St. Charles, and St. Louis Counties, Mo.; and Clinton, Madison, Monroe, and St. Clair Counties, Ill.

**Salem, Oreg.** Marion and Polk Counties, Oreg.

**Salinas-Seaside-Monterey, Calif.** Coextensive with Monterey County, Calif.

**Salt Lake City-Ogden, Utah.** Davis, Salt Lake, Tooele, and Weber Counties, Utah

**San Antonio, Tex.** Bexar, Comal, and Guadalupe Counties, Tex.

**San Diego, Calif.** Coextensive with San Diego County, Calif.

**San Francisco-Oakland, Calif.** Alameda, Contra Costa, Marin, San Francisco, and San Mateo Counties, Calif.

**San Jose, Calif.** Coextensive with Santa Clara County, Calif.

**Santa Barbara-Santa Maria-Lompoc, Calif.** Coextensive with Santa Barbara County, Calif.

**Savannah, Ga.** Bryan, Chatham, and Effingham Counties, Ga.

**Seattle-Everett, Wash.** King and Snohomish Counties, Wash.

**Shreveport, La.** Bossier, Caddo, and Webster Parishes, La.

**Sioux City, Iowa-Nebr.** Woodbury County, Iowa, and Dakota County, Nebr.

**Sioux Falls, S. Dak.** Coextensive with Minnehaha County, S. Dak.

**South Bend, Ind.** Marshall and St. Joseph Counties, Ind.

**Spokane, Wash.** Coextensive with Spokane County, Wash.

**Springfield, Ill.** Menard and Sangamon Counties, Ill.

**Springfield, Mo.** Christian and Greene Counties, Mo.

**Springfield, Ohio.** Champaign and Clark Counties, Ohio

**Springfield-Chicopee-Holyoke, Mass.-Conn.** Chicopee, Holyoke, Springfield, and Westfield cities, and Agawam, East Longmeadow, Hampton, Longmeadow, Ludlow, Monson, Palmer, Southwick, West Springfield, and Wilbraham towns in Hampden County; Northampton city, and Belchertown, Easthampton, Granby, Hadley, Hatfield, South Hadley, and Southhampton towns in Hampshire County; Warren town in Worcester County, Mass.; and Somers town in Tolland County, Conn.

**Stockton, Calif.** Coextensive with San Joaquin County, Calif.

**Syracuse, N.Y.** Madison, Onondaga, and Oswego Counties, N.Y.

**Tacoma, Wash.** Coextensive with Pierce County, Wash.

**Tampa-St. Petersburg, Fla.** Hillsborough, Pasco, and Pinellas Counties, Fla.

**Toledo, Ohio-Mich.** Fulton, Lucas, Ottawa, and Wood Counties, Ohio, and Monroe County, Mich.

**Topeka, Kans.** Jefferson, Osage, and Shawnee Counties, Kans.

**Trenton, N.J.** Coextensive with Mercer County, N.J.

**Tucson, Ariz.** Coextensive with Pima County, Ariz.

**Tulsa, Okal.** Consists of Creek, Mayes, Osage, Rogers, Tulsa, and Wagoner Counties, Okla.

**Utica-Rome, N.Y.** Herkimer and Oneida Counties, N.Y.

**Vallejo-Fairfield-Napa, Calif.** Napa and Solano Counties, Calif.

**Waco, Tex.** Coextensive with McLennan County, Tex.

**Washington, D.C.-Md.-Va.** District of Columbia; Charles, Montgomery, and Prince Georges Counties, Md.; and Alexandria, Fairfax, and Falls Church cities, and Arlington, Fairfax, Loudoun, and Prince William Counties, Va.

**Waterloo-Cedar Falls, Iowa.** Coextensive with Black Hawk County, Iowa

**West Palm Beach-Boca Raton, Fla.** Coextensive with Palm Beach County, Fla.

**Wheeling, W. Va.-Ohio.** Marshall and Ohio Counties, W. Va., and Belmont County, Ohio

**Wichita, Kans.** Butler and Sedgwick Counties, Kans.

**Wilmington, Del.-N.J.-Md.** New Castle County, Del.; Salem County, N.J.; and Cecil County, Md.

**Worcester, Mass.** Worcester city, and Auburn, Berlin, Boylston, Brookfield, Charlton, East Brookfield, Grafton, Holden, Leicester, Millbury, Northborough, Northbridge, North Brookfield, Oxford, Paxton, Shrewsbury, Spencer, Sterling, Sutton, Upton, Uxbridge, Webster, Westborough, and West Boylston towns in Worcester County, Mass.

**York, Pa.** Adams and York Counties, Pa.

**Youngstown-Warren, Ohio.** Consists of Mahoning and Trumbull Counties, Ohio

## Part II. Geographic Regions and Divisions

### THE NORTHEASTERN STATES

New England Division
- Maine
- New Hampshire
- Vermont
- Massachusetts
- Rhode Island
- Connecticut

Middle Atlantic Division
- New York
- New Jersey
- Pennsylvania

### THE NORTH CENTRAL STATES

West North Central Division
- Minnesota
- Iowa
- Missouri
- North Dakota
- South Dakota
- Nebraska
- Kansas

East North Central Division
- Ohio
- Indiana
- Illinois
- Michigan
- Wisconsin

### THE SOUTH

East South Central Division
- Kentucky
- Tennessee
- Alabama
- Mississippi

West South Central Division
- Arkansas
- Louisiana
- Oklahoma
- Texas

South Atlantic Division
- Delaware
- Maryland
- District of Columbia
- Virginia
- West Virginia
- North Carolina
- South Carolina
- Georgia
- Florida

### THE WEST

Mountain Division
- Montana
- Idaho
- Wyoming
- Colorado
- New Mexico
- Arizona
- Utah
- Nevada

Pacific Division
- Washington
- Oregon
- California
- Alaska
- Hawaii

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CURRENT BUSINESS REPORTS

# Monthly Wholesale Trade

## SALES AND INVENTORIES

Issued July 1981

## May 1981

BW-81-05

**Sales.** May 1981 sales of merchant wholesalers, after adjustment for seasonal variations and trading-day differences but not for price changes, were $95.4 billion, down 2 percent from the previous month but up 19 percent from May 1980. Adjusted March-through-May total sales were down 1 percent from the December-through-February period and were 18 percent above the comparable months a year ago.

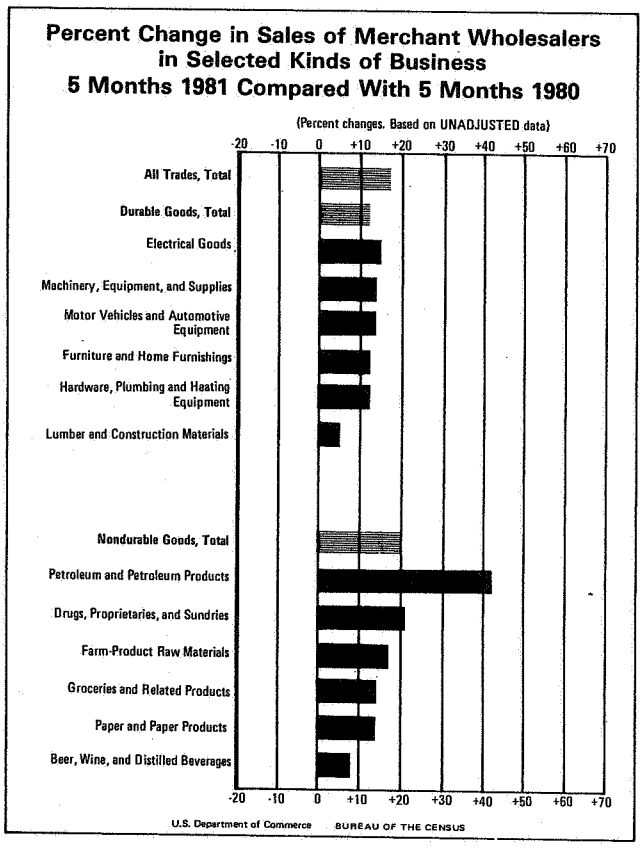
After adjustment, May sales in the durable goods trades were virtually unchanged from the previous month but were 20 percent above the year-ago level. Nondurable goods sales decreased 4 percent from April but were 18 percent above May 1980. Total monthly sales in the durable goods group during the March-through-May period were down 1 percent from the prior 3 months but were up 16 percent from the comparable period a year ago. Three-month total sales for the nondurable goods group decreased 2 percent from the December-through-February period but were up 21 percent from the same period a year ago.

Based on adjusted data, comparisons with previous month sales levels showed the largest decrease in lumber and construction materials (-7%). Compared with adjusted sales of a year ago, the sharpest increase was noted in petroleum and petroleum products (38%).

**Inventory.** Total inventories of merchant wholesalers after adjustment for seasonal variations but not for price changes, were valued at $105.9 billion at the end of May, virtually unchanged from the previous month, but up 9 percent from May 1980. Durable goods stocks were up 1 percent from April and were up 10 percent from May 1980. Nondurable goods stocks were down 2 percent from the previous month but were 6 percent above the year-ago level.

Based on adjusted data, comparisons with previous month inventory levels showed the largest increase in sporting goods, toys, and hobby goods (6%). The largest month-to-month decrease was in farm-product raw materials (-7%). Compared with adjusted year-ago inventories, the sharpest increase was noted in furniture and home furnishings (18%) and the sharpest decrease in farm-product raw materials (-10%).

**Stock-Sales Ratios.** The May stock-sales ratio for merchant wholesalers, based on seasonally adjusted data, was 111, up 3 points from April, but down 10 points from May 1980. The stock-sales ratio for durable goods was 174, up 2 points from the previous month, but down 15 points from the year-ago ratio. The ratio for nondurable goods was 65, up 1 point from April, but down 7 points from May 1980.




Data in this report are based on a sample and, therefore, are subject to sampling and nonsampling errors. A discussion of the reliability of the data is in appendix A.

An advance release of May 1981 data was issued July 6, 1981.

U.S. Department of Commerce
BUREAU OF THE CENSUS

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# Table 1. Estimated Monthly Sales of Merchant Wholesalers by Kind of Business for the United States, Unadjusted: 1981 and 1980

(MILLIONS OF DOLLARS. DATA ARE NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | | | | | 1980 | | | | | | | | TOTAL 5 MONTHS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN. | FEB. | MAR. | APR. | MAY[P] | MAY | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. | 1981 | 1980 |
| | MERCHANT WHOLESALERS, TOT. | 93,845 | 89,641 | 101,273 | 99,081 | 95,874 | 83,507 | 81,607 | 86,052 | 86,311 | 90,715 | 99,023 | 91,328 | 97,659 | 479,714 | 411,191 |
| | TOTAL (EX FARM-PROD RAW MATLS) | 81,300 | 79,450 | 88,833 | 88,407 | 85,595 | 73,896 | 73,107 | 76,952 | 76,933 | 80,580 | 87,102 | 80,363 | 85,305 | 423,585 | 363,320 |
| 50 | DURABLE GOODS, TOT | 35,927 | 37,054 | 41,991 | 41,934 | 40,428 | 34,947 | 35,508 | 35,757 | 36,010 | 38,112 | 41,298 | 36,679 | 38,598 | 197,334 | 176,477 |
| 501 | MOTOR VEHICLES & AUTO PARTS & SUPPLIES | 7,085 | 7,248 | 8,174 | 8,345 | 7,415 | 6,700 | 6,716 | 6,867 | 7,026 | 6,449 | 7,638 | 6,621 | 6,816 | 38,267 | 33,496 |
| 5013,4 | AUTO PARTS & SUPPLIES, TIRES & TUBES | 3,079 | 3,067 | 3,531 | 3,493 | 3,116 | 2,813 | 2,929 | 2,946 | 3,028 | 3,117 | 3,451 | 3,012 | 3,053 | 16,286 | 13,880 |
| 5013 | AUTO PARTS & SUPPLIES | 2,639 | 2,642 | 2,978 | 2,908 | 2,591 | 2,387 | 2,454 | 2,459 | 2,543 | 2,581 | 2,889 | 2,530 | 2,576 | 13,758 | 11,782 |
| 502 | FURNITURE & HOME FURNISHINGS | 1,293 | 1,334 | 1,465 | 1,476 | 1,465 | 1,257 | 1,246 | 1,209 | 1,250 | 1,330 | 1,531 | 1,356 | 1,355 | 7,033 | 6,303 |
| 5021 | FURNITURE--HSEHLD & OFFICE | 464 | 459 | 547 | 524 | 515 | 455 | 456 | 446 | 465 | 469 | 499 | 441 | 500 | 2,509 | 2,290 |
| 5023 | HOME FURNISHINGS[1] | 829 | 875 | 918 | 952 | 950 | 802 | 790 | 763 | 785 | 861 | 1,032 | 915 | 855 | 4,524 | 4,013 |
| 503 | LUMBER & OTHER CONSTRUCTION MATLS | 2,422 | 2,388 | 2,774 | 2,960 | 2,798 | 2,587 | 2,874 | 2,957 | 2,842 | 3,046 | 3,309 | 2,822 | 2,704 | 13,342 | 12,691 |
| 5031 | LUMBER, PLYWOOD & MILLWORK | 1,567 | 1,569 | 1,737 | 1,842 | 1,733 | 1,640 | 1,807 | 1,846 | 1,787 | 1,930 | 2,054 | 1,786 | 1,720 | 8,448 | 8,316 |
| 5039 | CONSTRUCTION MATLS, N.E.C. | 855 | 819 | 1,037 | 1,118 | 1,065 | 947 | 1,067 | 1,111 | 1,055 | 1,116 | 1,255 | 1,036 | 984 | 4,894 | 4,375 |
| 5051 PT. | FERROUS METALS SERV CTRS & OFFICES | 3,295 | 3,577 | 3,951 | 3,811 | 3,838 | 2,874 | 2,841 | 2,580 | 2,732 | 3,042 | 3,272 | 2,954 | 3,327 | 18,472 | 15,279 |
| 5051 PT. | FERROUS METALS SERV CTRS | 2,543 | 2,751 | 3,076 | 2,997 | 2,986 | 2,128 | 2,154 | 1,956 | 2,078 | 2,286 | 2,491 | 2,271 | 2,510 | 14,353 | 11,509 |
| 506 | ELECTRICAL GOODS | 3,762 | 3,930 | 4,403 | 4,191 | 4,231 | 3,525 | 3,770 | 3,908 | 3,802 | 4,207 | 4,299 | 4,236 | 4,299 | 20,517 | 17,915 |
| 5063 | ELECTRICAL APPARATUS & EQUIP, WIRING SUPPLIES & CONSTRUCTION MATLS | 1,858 | 1,980 | 2,088 | 2,076 | 2,048 | 1,783 | 1,901 | 1,895 | 1,862 | 2,158 | 2,178 | 2,155 | 2,155 | 10,050 | 8,864 |
| 5064,5 | ELECTRICAL APPLIANCES, TV & RADIO SETS, & ELECTRONIC PARTS & EQUIP[2] | 1,904 | 1,950 | 2,315 | 2,115 | 2,183 | 1,742 | 1,869 | 2,013 | 1,940 | 2,049 | 2,121 | 2,081 | 2,144 | 10,467 | 9,051 |
| 5064 | ELECTRICAL APPLIANCES, TV & RADIO SETS[3] | 1,013 | 1,012 | 1,235 | 1,129 | 1,184 | 869 | 989 | 1,098 | 1,069 | 1,142 | 1,200 | 1,130 | 1,194 | 5,573 | 4,611 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIP, & SUPPLIES | 2,274 | 2,202 | 2,528 | 2,677 | 2,609 | 2,162 | 2,262 | 2,393 | 2,312 | 2,405 | 2,645 | 2,328 | 2,259 | 12,290 | 11,019 |
| 5072 | HARDWARE | 889 | 851 | 982 | 991 | 927 | 823 | 867 | 823 | 832 | 895 | 932 | 859 | 863 | 4,640 | 4,211 |
| 5074 | PLUMBING & HEATING EQUIP & SUPPLIES (HYDRONICS) | 966 | 922 | 1,057 | 1,115 | 1,135 | 878 | 896 | 971 | 960 | 1,035 | 1,181 | 1,011 | 967 | 5,195 | 4,641 |
| 508 | MACHINERY, EQUIP, & SUPPLIES | 10,302 | 10,731 | 12,571 | 12,322 | 12,124 | 10,627 | 10,774 | 10,621 | 10,885 | 11,613 | 11,949 | 10,511 | 11,722 | 58,050 | 50,973 |
| 5082 | CONSTRUCTION & MINING MACHINERY & EQUIP | 1,111 | 1,218 | 1,401 | 1,571 | 1,436 | 1,402 | 1,321 | 1,339 | 1,602 | 1,473 | 1,414 | 1,341 | 1,377 | 6,737 | 6,309 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIP & SUPPLIES | 4,631 | 4,775 | 5,531 | 5,389 | 5,428 | 4,588 | 4,600 | 4,453 | 4,509 | 4,720 | 4,929 | 4,501 | 5,079 | 25,754 | 21,957 |
| 5086 | PROFESSIONAL EQUIP & SUPPLIES | 1,043 | 1,138 | 1,295 | 1,199 | 1,166 | 1,087 | 1,104 | 1,120 | 1,149 | 1,200 | 1,217 | 1,107 | 1,208 | 5,841 | 5,077 |
| 5093 | SCRAP & WASTE MATLS | 1,304 | 1,297 | 1,456 | 1,496 | 1,376 | 1,436 | 1,215 | 1,047 | 1,107 | 1,240 | 1,458 | 1,267 | 1,435 | 6,929 | 7,558 |
| 51 | NONDURABLE GOODS, TOT | 57,918 | 52,587 | 59,282 | 57,147 | 55,446 | 48,560 | 46,099 | 50,295 | 50,301 | 52,603 | 57,725 | 54,649 | 59,061 | 282,380 | 234,714 |
| | TOTAL (EX FARM-PROD RAW MATLS) | 45,373 | 42,396 | 46,842 | 46,473 | 45,167 | 38,949 | 37,599 | 41,195 | 40,923 | 42,468 | 45,804 | 43,684 | 46,707 | 226,251 | 186,843 |
| 511 | PAPER & PAPER PROD | 1,949 | 1,908 | 2,112 | 2,039 | 2,007 | 1,725 | 1,696 | 1,763 | 1,775 | 1,879 | 2,009 | 1,822 | 1,929 | 10,015 | 8,770 |
| 5111,3 | PRINTING, WRITING, IND & PERSONAL SERV PAPER | 1,397 | 1,356 | 1,549 | 1,476 | 1,458 | 1,286 | 1,276 | 1,294 | 1,287 | 1,375 | 1,465 | 1,304 | 1,413 | 7,236 | 6,465 |
| 5111 | PRINTING & WRITING PAPER | 655 | 648 | 733 | 719 | 679 | 638 | 621 | 586 | 576 | 626 | 697 | 582 | 652 | 3,434 | 3,266 |
| 5113 | IND & PERSONAL SERV PAPER | 742 | 708 | 816 | 757 | 779 | 648 | 655 | 708 | 711 | 749 | 768 | 722 | 761 | 3,802 | 3,199 |
| 512 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 1,195 | 1,136 | 1,278 | 1,274 | 1,204 | 1,026 | 1,034 | 1,090 | 1,074 | 1,159 | 1,313 | 1,134 | 1,197 | 6,087 | 5,050 |
| 5122 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 1,195 | 1,136 | 1,278 | 1,274 | 1,204 | 1,026 | 1,034 | 1,090 | 1,074 | 1,159 | 1,313 | 1,134 | 1,197 | 6,087 | 5,050 |
| 5122 PT. | GENERAL-LINE DRUGS | 367 | 355 | 413 | 395 | 380 | 341 | 336 | 350 | 341 | 383 | 394 | 349 | 410 | 1,910 | 1,673 |
| 513 | APPAREL, PIECE GDS & NOTIONS | 2,019 | 2,265 | 2,299 | 2,270 | 1,989 | 1,777 | 1,953 | 2,318 | 2,445 | 2,541 | 2,486 | 2,141 | 1,921 | 10,842 | 9,985 |
| 514 | GROCERIES & RELATED PROD | 13,270 | 12,317 | 13,931 | 13,941 | 13,566 | 12,353 | 12,173 | 13,154 | 12,592 | 12,915 | 13,815 | 12,741 | 13,640 | 67,025 | 58,859 |
| 5141 | GROCERIES, GENERAL LINE | 4,366 | 4,045 | 4,481 | 4,519 | 4,383 | 4,072 | 3,936 | 4,281 | 4,103 | 4,066 | 4,462 | 4,173 | 4,407 | 21,794 | 19,256 |
| 5144 | POULTRY & POULTRY PROD | 651 | 590 | 627 | 655 | 646 | 589 | 583 | 638 | 652 | 659 | 725 | 670 | 691 | 3,169 | 2,890 |
| 5145 | CONFECTIONERY | 259 | 257 | 294 | 300 | 270 | 242 | 249 | 257 | 263 | 274 | 322 | 283 | 296 | 1,380 | 1,169 |
| 5147 | MEATS & MEAT PROD | 1,762 | 1,610 | 1,785 | 1,742 | 1,777 | 1,712 | 1,667 | 1,828 | 1,859 | 1,841 | 2,019 | 1,736 | 1,897 | 8,676 | 8,540 |
| 5148 | FRESH FRUITS & VEGETABLES | 1,232 | 1,210 | 1,464 | 1,550 | 1,510 | 1,343 | 1,337 | 1,354 | 1,206 | 1,217 | 1,258 | 1,200 | 1,258 | 6,966 | 5,822 |
| 515 | FARM PROD RAW MATERIALS | 12,545 | 10,191 | 12,440 | 10,674 | 10,279 | 9,611 | 8,500 | 9,100 | 9,378 | 10,135 | 11,921 | 10,965 | 12,354 | 56,129 | 47,871 |
| 5153 | GRAIN | 10,420 | 8,436 | 10,444 | 9,055 | 8,759 | 7,984 | 6,910 | 7,587 | 7,770 | 8,205 | 9,890 | 8,801 | 9,814 | 47,114 | 39,276 |
| 517 | PETROLEUM & PETROLEUM PROD | 17,548 | 15,697 | 16,263 | 15,987 | 15,680 | 11,610 | 10,823 | 13,275 | 13,530 | 14,007 | 15,657 | 16,626 | 17,185 | 81,175 | 57,087 |
| 5171 | PETROLEUM BULK STATIONS & TERMINALS | 6,165 | 5,438 | 5,701 | 5,414 | 5,153 | 4,129 | 3,937 | 4,246 | 4,306 | 4,752 | 5,446 | 5,546 | 6,249 | 27,871 | 21,339 |
| 518 | BEER, WINE, & DISTILLED ALCOHOLIC BEVERAGES | 2,185 | 2,207 | 2,688 | 2,906 | 2,751 | 2,664 | 2,738 | 3,001 | 2,831 | 2,638 | 2,906 | 2,667 | 3,162 | 12,737 | 11,754 |
| 5181 | BEER & ALE | 1,136 | 1,174 | 1,425 | 1,548 | 1,572 | 1,551 | 1,591 | 1,702 | 1,660 | 1,434 | 1,431 | 1,244 | 1,454 | 6,855 | 6,328 |
| 5182 | WINE & DISTILLED ALCOHOLIC BEVERAGES[5] | 1,049 | 1,033 | 1,263 | 1,358 | 1,179 | 1,113 | 1,147 | 1,299 | 1,171 | 1,204 | 1,475 | 1,423 | 1,708 | 5,882 | 5,426 |
| 519 | MISC NONDURABLE GOODS | 5,752 | 5,517 | 6,929 | 6,544 | 6,517 | 6,544 | 5,903 | 5,514 | 5,415 | 5,898 | 6,153 | 5,347 | 6,284 | 31,259 | 29,425 |
| 5194 | TOBACCO & TOBACCO PROD | 873 | 834 | 972 | 994 | 982 | 922 | 919 | 1,016 | 942 | 938 | 1,018 | 860 | 953 | 4,655 | 4,352 |

Note: Merchant wholesalers total and group totals include data for some kinds of business not shown separately.

[P]Preliminary estimate. See Sample Design and Estimation Procedures.

[1]The home furnishings kind of business is subject to a sampling variability of 9 percent for May 1981.
[2]The electrical appliances, TV and radio sets, and electronic parts and equipment kinds of business are subject to a sampling variability of 9 percent for May 1981.
[3]The electrical appliances, TV and radio sets kind of business are subject to a sampling variability of 16 percent for May 1981.
[4]The apparel, piece goods and notions group is subject to a sampling variability of 12 percent for May 1981.
[5]The wine and distilled alcoholic beverages kind of business is subject to a sampling variability of 10 percent for May 1981.

# Table 2. Estimated Monthly Inventories of Merchant Wholesalers by Kind of Business for the United States, Unadjusted: 1981 and 1980

(MILLIONS OF DOLLARS, DATA ARE NOT ADJUSTED FOR SEASONAL VARIATIONS)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | | | | | 1980 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN. | FEB. | MAR. | APR. | MAY[p] | MAY | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. |
| | MERCHANT WHOLESALERS, TOTAL | 105,446 | 107,209 | 107,907 | 106,420 | 106,345 | 97,480 | 97,785 | 98,387 | 100,205 | 101,310 | 104,277 | 105,866 | 105,449 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 96,142 | 98,533 | 100,103 | 100,041 | 101,296 | 91,846 | 92,451 | 92,382 | 93,682 | 93,901 | 94,861 | 95,869 | 96,235 |
| 50 | DURABLE GOODS, TOTAL | 66,230 | 68,251 | 69,208 | 69,673 | 71,417 | 64,620 | 65,133 | 64,730 | 65,894 | 65,273 | 65,137 | 65,857 | 66,716 |
| 501 | MOTOR VEHICLES & AUTOMOTIVE PARTS & SUPPLIES | 11,373 | 11,287 | 11,298 | 11,178 | 10,858 | 11,215 | 11,292 | 11,326 | 11,206 | 10,984 | 11,246 | 11,253 | 11,615 |
| 5013,4 | AUTOMOTIVE PARTS & SUPPLIES, TIRES & TUBES | 5,667 | 5,619 | 5,838 | 5,670 | 5,860 | 5,797 | 5,739 | 5,565 | 5,716 | 5,750 | 5,659 | 5,775 | 5,813 |
| 5013 | AUTOMOTIVE PARTS & SUPPLIES | 4,613 | 4,549 | 4,699 | 4,603 | 4,768 | 4,660 | 4,550 | 4,530 | 4,688 | 4,703 | 4,628 | 4,703 | 4,730 |
| 502 | FURNITURE & HOME FURNISHINGS | 2,186 | 2,235 | 2,343 | 2,375 | 2,429 | 2,057 | 2,112 | 2,165 | 2,106 | 2,212 | 2,188 | 2,126 | 2,168 |
| 5023 | HOME FURNISHINGS | 1,583 | 1,623 | 1,697 | 1,735 | 1,774 | 1,510 | 1,528 | 1,585 | 1,543 | 1,608 | 1,600 | 1,555 | 1,566 |
| 503 | LUMBER & OTHER CONSTRUCTION MATERIALS | 3,368 | 3,483 | 3,544 | 3,653 | 3,807 | 3,587 | 3,537 | 3,429 | 3,551 | 3,377 | 3,331 | 3,493 | 3,392 |
| 5031 | LUMBER, PLYWOOD, AND MILLWORK[1] | 2,211 | 2,309 | 2,269 | 2,364 | 2,461 | 2,370 | 2,258 | 2,207 | 2,324 | 2,172 | 2,168 | 2,268 | 2,206 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS & OFFICES | 5,519 | 5,812 | 5,911 | 5,715 | 5,933 | 5,390 | 5,341 | 5,044 | 5,369 | 5,297 | 5,074 | 5,420 | 5,721 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | 4,346 | 4,627 | 4,708 | 4,529 | 4,734 | 4,342 | 4,359 | 4,053 | 4,334 | 4,242 | 3,999 | 4,323 | 4,532 |
| 506 | ELECTRICAL GOODS | 6,462 | 6,719 | 6,802 | 6,926 | 7,249 | 6,433 | 6,444 | 6,578 | 6,659 | 6,643 | 6,720 | 6,560 | 6,611 |
| 5063 | ELECTRICAL APPARATUS & EQUIPMENT, WIRING SUPPLIES, & CONSTRUCTION MATERIALS | 2,787 | 2,948 | 3,041 | 3,082 | 3,151 | 2,890 | 2,796 | 2,820 | 2,888 | 2,890 | 2,889 | 2,875 | 2,881 |
| 5064,5 | ELECTRICAL APPLIANCES, TV & RADIO SETS, & ELECTRONIC PARTS & EQUIPMENT | 3,675 | 3,771 | 3,761 | 3,844 | 4,054 | 3,543 | 3,648 | 3,758 | 3,771 | 3,753 | 3,831 | 3,685 | 3,730 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT & SUPPLIES | 4,764 | 4,853 | 4,990 | 5,179 | 5,292 | 4,720 | 4,648 | 4,576 | 4,557 | 4,525 | 4,584 | 4,482 | 4,632 |
| 5072 | HARDWARE | 1,925 | 1,976 | 2,014 | 2,015 | 2,005 | 1,794 | 1,773 | 1,749 | 1,824 | 1,853 | 1,842 | 1,806 | 1,885 |
| 5074 | PLUMBING & HEATING EQUIPMENT & SUPPLIES (HYDRONICS) | 1,866 | 1,862 | 1,888 | 2,023 | 2,075 | 1,941 | 1,888 | 1,899 | 1,840 | 1,767 | 1,819 | 1,770 | 1,788 |
| 508 | MACHINERY, EQUIPMENT, & SUPPLIES | 23,570 | 24,563 | 25,140 | 25,035 | 25,881 | 22,833 | 23,162 | 22,825 | 23,260 | 23,261 | 22,878 | 23,542 | 23,811 |
| 5082 | CONSTRUCTION & MINING MACHINERY & EQUIPMENT | 4,185 | 4,222 | 4,265 | 4,215 | 4,262 | 4,750 | 4,752 | 4,489 | 4,503 | 4,310 | 4,255 | 4,299 | 4,242 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, & SUPPLIES | 7,108 | 7,258 | 7,397 | 7,343 | 7,746 | 6,977 | 7,027 | 6,897 | 7,015 | 7,113 | 6,891 | 7,103 | 7,300 |
| 51 | NONDURABLE GOODS, TOTAL | 39,216 | 38,958 | 38,699 | 36,747 | 34,928 | 32,860 | 32,652 | 33,657 | 34,311 | 36,037 | 39,140 | 40,009 | 38,733 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 29,912 | 30,282 | 30,895 | 30,368 | 29,879 | 27,226 | 27,318 | 27,652 | 27,788 | 28,628 | 29,724 | 30,012 | 29,519 |
| 511 | PAPER & PAPER PRODUCTS | 1,847 | 1,903 | 1,927 | 1,921 | 1,943 | 1,752 | 1,777 | 1,741 | 1,712 | 1,750 | 1,773 | 1,820 | 1,849 |
| 5111,3 | PRINTING, WRITING, INDUSTRIAL, & PERSONAL SERVICE PAPER | 1,242 | 1,250 | 1,310 | 1,278 | 1,271 | 1,177 | 1,222 | 1,182 | 1,150 | 1,189 | 1,202 | 1,215 | 1,248 |
| 5111 | PRINTING & WRITING PAPER | 546 | 547 | 577 | 558 | 565 | 505 | 530 | 500 | 484 | 492 | 501 | 516 | 546 |
| 5113 | INDUSTRIAL & PERSONAL SERVICE PAPER[2] | 696 | 703 | 733 | 720 | 706 | 672 | 692 | 682 | 666 | 697 | 701 | 699 | 702 |
| 512 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 1,586 | 1,634 | 1,632 | 1,596 | 1,557 | 1,451 | 1,438 | 1,467 | 1,483 | 1,562 | 1,716 | 1,624 | 1,570 |
| 514 | GROCERIES & RELATED PRODUCTS | 7,837 | 7,745 | 8,262 | 8,251 | 7,987 | 6,854 | 7,076 | 6,916 | 6,810 | 7,284 | 7,711 | 7,729 | 7,978 |
| 5141 | GROCERIES, GENERAL-LINE | 2,796 | 2,841 | 3,011 | 3,065 | 2,928 | 2,535 | 2,548 | 2,614 | 2,572 | 2,760 | 2,979 | 2,891 | 2,895 |
| 517 | PETROLEUM & PETROLEUM PRODUCTS | 4,972 | 5,143 | 4,991 | 4,849 | 4,803 | 4,368 | 4,482 | 4,638 | 4,792 | 4,952 | 5,176 | 5,234 | 4,992 |
| 518 | BEER, WINE, & DISTILLED ALCOHOLIC BEVERAGES | 2,777 | 2,755 | 2,787 | 2,869 | 2,958 | 2,861 | 2,882 | 2,874 | 2,842 | 2,963 | 3,134 | 3,158 | 2,722 |
| 5181 | BEER & ALE | 1,015 | 1,070 | 1,142 | 1,193 | 1,254 | 1,206 | 1,203 | 1,148 | 1,084 | 1,134 | 1,115 | 1,156 | 1,018 |
| 5182 | WINE & DISTILLED ALCOHOLIC BEVERAGES | 1,762 | 1,685 | 1,645 | 1,676 | 1,704 | 1,655 | 1,679 | 1,726 | 1,758 | 1,829 | 2,019 | 2,002 | 1,704 |

Note: Merchant wholesalers total and group totals include data for some kinds of business not shown separately.

[p]Preliminary estimate. See Sample Design and Estimation Procedures.

[1]The lumber, plywood, and millwork kind of business is subject to a sampling variability of 9 percent for May 1981.

[2]The industrial and personal service paper kind of business is subject to a sampling variability of 12 percent for May 1981.

## Table 3. Stock-Sales Ratios of Merchant Wholesalers by Kind of Business for the United States, Unadjusted: 1981 and 1980

(PERCENT. DATA ARE NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | | | | | 1980 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN. | FEB. | MAR. | APR. | MAY[p] | MAY | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. |
| | MERCHANT WHOLESALERS, TOTAL | 112 | 120 | 107 | 107 | 111 | 117 | 120 | 114 | 116 | 112 | 105 | 116 | 108 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 118 | 124 | 113 | 113 | 118 | 124 | 126 | 120 | 122 | 117 | 109 | 119 | 113 |
| 50 | DURABLE GOODS, TOTAL | 184 | 184 | 165 | 166 | 177 | 185 | 183 | 181 | 183 | 171 | 156 | 180 | 173 |
| 501 | MOTOR VEHICLES & AUTOMOTIVE PARTS & SUPPLIES | 161 | 156 | 138 | 134 | 146 | 167 | 168 | 165 | 159 | 170 | 147 | 170 | 170 |
| 5013,4 | AUTOMOTIVE PARTS & SUPPLIES, TIRES & TUBES | 184 | 183 | 165 | 162 | 188 | 206 | 196 | 189 | 189 | 184 | 164 | 192 | 190 |
| 5013 | AUTOMOTIVE PARTS & SUPPLIES | 175 | 172 | 158 | 158 | 184 | 195 | 185 | 184 | 184 | 182 | 160 | 186 | 184 |
| 502 | FURNITURE & HOME FURNISHINGS | 169 | 168 | 160 | 161 | 166 | 164 | 170 | 179 | 168 | 166 | 143 | 157 | 160 |
| 5023 | HOME FURNISHINGS | 191 | 185 | 185 | 182 | 187 | 188 | 193 | 208 | 197 | 187 | 155 | 170 | 183 |
| 503 | LUMBER & OTHER CONSTRUCTION MATERIALS | 139 | 146 | 128 | 123 | 136 | 139 | 123 | 116 | 125 | 111 | 101 | 124 | 125 |
| 5031 | LUMBER, PLYWOOD, AND MILLWORK | 141 | 147 | 131 | 128 | 142 | 145 | 125 | 120 | 130 | 113 | 106 | 127 | 128 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS & OFFICES | 167 | 162 | 150 | 150 | 155 | 188 | 188 | 196 | 197 | 174 | 155 | 183 | 172 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | 171 | 168 | 153 | 151 | 159 | 204 | 202 | 207 | 209 | 186 | 161 | 190 | 181 |
| 506 | ELECTRICAL GOODS | 172 | 171 | 154 | 165 | 171 | 182 | 171 | 168 | 175 | 158 | 156 | 155 | 154 |
| 5063 | ELECTRICAL APPARATUS & EQUIPMENT, WIRING SUPPLIES, & CONSTRUCTION MATERIALS | 150 | 149 | 146 | 148 | 154 | 162 | 147 | 149 | 155 | 134 | 133 | 133 | 134 |
| 5064,5 | ELECTRICAL APPLIANCES, TV & RADIO SETS, & ELECTRONIC PARTS & EQUIPMENT | 193 | 193 | 162 | 182 | 186 | 203 | 195 | 187 | 194 | 183 | 181 | 177 | 174 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT & SUPPLIES | 209 | 220 | 197 | 193 | 203 | 218 | 205 | 191 | 197 | 188 | 173 | 193 | 205 |
| 5072 | HARDWARE | 217 | 232 | 205 | 203 | 216 | 218 | 204 | 213 | 219 | 207 | 198 | 210 | 218 |
| 5074 | PLUMBING & HEATING EQUIPMENT & SUPPLIES (HYDRONICS) | 193 | 202 | 179 | 181 | 183 | 221 | 211 | 196 | 192 | 171 | 154 | 175 | 185 |
| 508 | MACHINERY, EQUIPMENT, & SUPPLIES | 229 | 229 | 200 | 203 | 213 | 215 | 215 | 215 | 214 | 200 | 191 | 224 | 203 |
| 5082 | CONSTRUCTION & MINING MACHINERY & EQUIPMENT | 377 | 347 | 304 | 268 | 297 | 339 | 360 | 335 | 281 | 293 | 301 | 321 | 308 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, & SUPPLIES | 153 | 152 | 134 | 136 | 143 | 152 | 153 | 155 | 156 | 151 | 140 | 158 | 144 |
| 51 | NONDURABLE GOODS, TOTAL | 68 | 74 | 65 | 64 | 63 | 68 | 71 | 67 | 68 | 69 | 68 | 73 | 66 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 66 | 71 | 66 | 65 | 66 | 70 | 73 | 67 | 68 | 67 | 65 | 69 | 63 |
| 511 | PAPER & PAPER PRODUCTS | 95 | 100 | 91 | 94 | 97 | 102 | 105 | 99 | 96 | 93 | 88 | 100 | 96 |
| 5111,3 | PRINTING, WRITING, INDUSTRIAL, & PERSONAL SERVICE PAPER | 89 | 92 | 85 | 87 | 87 | 92 | 96 | 91 | 89 | 86 | 82 | 93 | 88 |
| 5111 | PRINTING & WRITING PAPER | 83 | 84 | 79 | 78 | 83 | 79 | 85 | 85 | 84 | 79 | 72 | 89 | 84 |
| 5113 | INDUSTRIAL & PERSONAL SERVICE PAPER | 94 | 99 | 90 | 95 | 91 | 104 | 106 | 96 | 94 | 93 | 91 | 97 | 92 |
| 512 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 133 | 144 | 128 | 125 | 129 | 141 | 139 | 135 | 138 | 135 | 131 | 143 | 131 |
| 514 | GROCERIES & RELATED PRODUCTS | 59 | 63 | 59 | 59 | 59 | 55 | 58 | 53 | 54 | 56 | 56 | 61 | 58 |
| 5141 | GROCERIES, GENERAL-LINE | 64 | 70 | 67 | 68 | 67 | 62 | 65 | 61 | 63 | 68 | 67 | 69 | 66 |
| 517 | PETROLEUM & PETROLEUM PRODUCTS | 28 | 33 | 31 | 30 | 31 | 38 | 41 | 35 | 35 | 35 | 33 | 31 | 29 |
| 518 | BEER, WINE, & DISTILLED ALCOHOLIC BEVERAGES | 127 | 125 | 104 | 99 | 108 | 107 | 105 | 96 | 100 | 112 | 108 | 118 | 86 |
| 5181 | BEER & ALE | 89 | 91 | 80 | 77 | 80 | 78 | 76 | 67 | 65 | 79 | 78 | 93 | 70 |
| 5182 | WINE & DISTILLED ALCOHOLIC BEVERAGES | 168 | 163 | 130 | 123 | 145 | 149 | 146 | 133 | 150 | 152 | 137 | 141 | 100 |

Note: Merchant wholesalers total and group totals include data for some kinds of business not shown separately.

[p]Preliminary estimate. See Sample Design and Estimation Procedures.

# Table 4A. Estimated Monthly Sales, Inventories, and Stock-Sales Ratios of Merchant Wholesalers by Kind of Business for the United States, Adjusted: 1981 and 1980

(SALES AND INVENTORIES IN MILLIONS OF DOLLARS, STOCK-SALES RATIOS IN PERCENT)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 JAN. | 1981 FEB. | 1981 MAR. | 1981 APR. | 1981 MAY[P] | 1980 MAY | 1980 JUNE | 1980 JULY | 1980 AUG. | 1980 SEPT. | 1980 OCT. | 1980 NOV. | 1980 DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SALES ADJUSTED FOR SEASONAL VARIATIONS AND TRADING-DAY DIFFERENCES | | | | | | | | | | | | |
| | MERCHANT WHOLESALERS, TOTAL | 98,967 | 98,016 | 96,486 | 97,577 | 95,439 | 80,471 | 81,714 | 85,810 | 86,889 | 90,223 | 93,282 | 93,901 | 96,591 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 86,583 | 86,768 | 84,999 | 86,773 | 85,332 | 71,274 | 72,642 | 76,351 | 76,783 | 79,666 | 82,335 | 83,162 | 85,013 |
| 50 | DURABLE GOODS, TOTAL | 40,370 | 41,511 | 39,907 | 40,299 | 40,345 | 33,688 | 34,793 | 35,196 | 35,353 | 36,937 | 38,110 | 38,799 | 39,403 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | 7,668 | 7,930 | 7,548 | 7,391 | 7,089 | 6,198 | 6,610 | 6,693 | 7,019 | 6,920 | 7,302 | 7,212 | 7,145 |
| 502 | FURNITURE AND HOME FURNISHINGS | 1,486 | 1,491 | 1,413 | 1,433 | 1,490 | 1,265 | 1,254 | 1,250 | 1,261 | 1,281 | 1,321 | 1,331 | 1,344 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | 3,043 | 3,019 | 2,863 | 2,981 | 2,759 | 2,469 | 2,673 | 2,688 | 2,542 | 2,729 | 2,853 | 2,999 | 3,001 |
| 506 | ELECTRICAL GOODS | 4,256 | 4,421 | 4,407 | 4,375 | 4,440 | 3,579 | 3,696 | 3,798 | 3,735 | 3,976 | 3,912 | 4,178 | 4,094 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | 2,513 | 2,572 | 2,569 | 2,577 | 2,568 | 2,067 | 2,173 | 2,222 | 2,238 | 2,349 | 2,370 | 2,428 | 2,411 |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | 11,641 | 12,071 | 12,053 | 11,636 | 11,886 | 9,950 | 10,420 | 10,526 | 10,842 | 11,071 | 11,136 | 11,500 | 11,888 |
| 51 | NONDURABLE GOODS, TOTAL | 58,597 | 56,505 | 56,579 | 57,278 | 55,094 | 46,783 | 46,921 | 50,614 | 51,536 | 53,286 | 55,172 | 55,102 | 57,188 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 46,213 | 45,257 | 45,092 | 46,474 | 44,987 | 37,586 | 37,849 | 41,155 | 41,430 | 42,729 | 44,225 | 44,363 | 45,610 |
| 511 | PAPER AND PAPER PRODUCTS | 1,989 | 2,032 | 2,033 | 2,019 | 2,071 | 1,711 | 1,727 | 1,752 | 1,782 | 1,849 | 1,864 | 1,920 | 1,917 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | 1,255 | 1,258 | 1,238 | 1,242 | 1,259 | 1,035 | 1,058 | 1,070 | 1,095 | 1,123 | 1,169 | 1,178 | 1,174 |
| 513 | APPAREL, PIECE GOODS, AND NOTIONS | 2,192 | 2,459 | 2,256 | 2,338 | 2,240 | 1,911 | 2,151 | 2,242 | 2,221 | 2,239 | 2,185 | 2,156 | 2,057 |
| 514 | GROCERIES AND RELATED PRODUCTS | 13,541 | 13,505 | 13,578 | 13,749 | 13,418 | 11,832 | 12,284 | 12,721 | 12,706 | 12,993 | 13,245 | 13,135 | 13,492 |
| 515 | FARM-PRODUCT RAW MATERIALS[1] | 12,384 | 11,248 | 11,487 | 10,804 | 10,107 | 9,197 | 9,072 | 9,459 | 10,106 | 10,557 | 10,947 | 10,739 | 11,578 |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | 16,938 | 15,603 | 15,743 | 16,670 | 16,016 | 11,645 | 11,204 | 13,560 | 13,863 | 14,455 | 15,487 | 16,220 | 16,461 |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | 2,681 | 2,721 | 2,718 | 2,915 | 2,751 | 2,574 | 2,568 | 2,823 | 2,738 | 2,673 | 2,729 | 2,727 | 2,686 |
| 519 | MISCELLANEOUS NONDURABLE GOODS | 6,061 | 6,151 | 6,214 | 5,982 | 5,829 | 5,685 | 5,633 | 5,804 | 5,804 | 5,946 | 6,221 | 5,831 | 6,498 |
| | | INVENTORIES ADJUSTED FOR SEASONAL VARIATIONS | | | | | | | | | | | | |
| | MERCHANT WHOLESALERS, TOTAL | 104,909 | 106,066 | 105,539 | 105,591 | 105,931 | 97,351 | 98,328 | 99,618 | 101,920 | 102,953 | 104,293 | 105,203 | 105,529 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 97,117 | 98,663 | 98,771 | 99,331 | 100,114 | 90,860 | 91,855 | 92,007 | 93,694 | 94,216 | 95,187 | 96,607 | 97,558 |
| 50 | DURABLE GOODS, TOTAL | 67,319 | 68,482 | 68,571 | 69,174 | 70,179 | 63,553 | 64,025 | 63,938 | 65,387 | 65,461 | 65,951 | 66,955 | 67,938 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | 11,216 | 10,791 | 11,012 | 11,078 | 10,687 | 11,038 | 11,281 | 11,394 | 11,517 | 11,514 | 11,464 | 11,378 | 11,603 |
| 502 | FURNITURE AND HOME FURNISHINGS | 2,228 | 2,278 | 2,322 | 2,373 | 2,419 | 2,049 | 2,052 | 2,131 | 2,100 | 2,160 | 2,175 | 2,163 | 2,237 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | 3,451 | 3,515 | 3,431 | 3,554 | 3,703 | 3,489 | 3,454 | 3,349 | 3,540 | 3,415 | 3,396 | 3,635 | 3,501 |
| 506 | ELECTRICAL GOODS | 6,710 | 7,028 | 6,934 | 6,975 | 7,114 | 6,313 | 6,311 | 6,443 | 6,503 | 6,538 | 6,614 | 6,553 | 6,651 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | 4,881 | 4,848 | 4,854 | 4,914 | 5,093 | 4,543 | 4,508 | 4,491 | 4,589 | 4,636 | 4,682 | 4,713 | 4,835 |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | 24,076 | 24,588 | 24,744 | 24,812 | 25,473 | 22,518 | 22,686 | 22,689 | 23,075 | 23,122 | 23,321 | 23,925 | 24,272 |
| 51 | NONDURABLE GOODS, TOTAL | 37,590 | 37,584 | 36,968 | 36,417 | 35,752 | 33,798 | 34,303 | 35,680 | 36,533 | 37,492 | 38,342 | 38,248 | 37,591 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 29,798 | 30,181 | 30,200 | 30,157 | 29,935 | 27,307 | 27,830 | 28,069 | 28,307 | 28,755 | 29,236 | 29,652 | 29,620 |
| 511 | PAPER AND PAPER PRODUCTS | 1,902 | 1,934 | 1,935 | 1,904 | 1,935 | 1,745 | 1,732 | 1,739 | 1,731 | 1,731 | 1,771 | 1,815 | 1,833 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | 1,645 | 1,704 | 1,625 | 1,579 | 1,566 | 1,461 | 1,432 | 1,461 | 1,484 | 1,519 | 1,630 | 1,610 | 1,612 |
| 514 | GROCERIES AND RELATED PRODUCTS | 7,948 | 7,753 | 8,132 | 8,202 | 8,043 | 6,916 | 7,083 | 7,036 | 7,013 | 7,262 | 7,494 | 7,660 | 7,868 |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | 4,855 | 5,190 | 4,986 | 5,072 | 4,896 | 4,466 | 4,728 | 4,737 | 4,797 | 4,836 | 4,982 | 5,018 | 4,904 |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | 2,851 | 2,918 | 2,749 | 2,738 | 2,864 | 2,770 | 2,814 | 2,851 | 2,942 | 2,984 | 3,011 | 3,054 | 2,924 |
| | | STOCK-SALES RATIOS BASED ON ADJUSTED DATA | | | | | | | | | | | | |
| | MERCHANT WHOLESALERS, TOTAL | 106 | 108 | 109 | 108 | 111 | 121 | 120 | 116 | 117 | 114 | 112 | 112 | 109 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 112 | 114 | 116 | 114 | 117 | 127 | 126 | 121 | 122 | 118 | 116 | 116 | 115 |
| 50 | DURABLE GOODS, TOTAL | 167 | 165 | 172 | 172 | 174 | 189 | 184 | 182 | 185 | 177 | 173 | 173 | 172 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | 146 | 136 | 146 | 150 | 151 | 178 | 171 | 170 | 164 | 166 | 157 | 158 | 162 |
| 502 | FURNITURE AND HOME FURNISHINGS | 150 | 153 | 164 | 166 | 162 | 162 | 164 | 170 | 167 | 169 | 165 | 163 | 166 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | 113 | 116 | 120 | 119 | 134 | 141 | 129 | 125 | 139 | 125 | 119 | 121 | 117 |
| 506 | ELECTRICAL GOODS | 158 | 159 | 157 | 159 | 160 | 176 | 171 | 170 | 174 | 164 | 169 | 157 | 162 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | 194 | 188 | 189 | 191 | 198 | 220 | 207 | 202 | 205 | 197 | 198 | 194 | 201 |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | 207 | 204 | 205 | 213 | 214 | 226 | 218 | 216 | 213 | 209 | 209 | 208 | 204 |
| 51 | NONDURABLE GOODS, TOTAL | 64 | 67 | 65 | 64 | 65 | 72 | 73 | 70 | 71 | 70 | 69 | 69 | 66 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 64 | 67 | 67 | 65 | 67 | 73 | 74 | 68 | 68 | 67 | 66 | 67 | 65 |
| 511 | PAPER AND PAPER PRODUCTS | 96 | 95 | 95 | 94 | 93 | 102 | 100 | 99 | 97 | 94 | 95 | 95 | 96 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | 131 | 135 | 131 | 127 | 124 | 141 | 135 | 137 | 136 | 135 | 139 | 137 | 137 |
| 514 | GROCERIES AND RELATED PRODUCTS | 59 | 57 | 60 | 60 | 60 | 58 | 58 | 55 | 55 | 56 | 57 | 58 | 58 |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | 29 | 33 | 32 | 30 | 31 | 38 | 42 | 35 | 35 | 33 | 32 | 31 | 30 |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | 106 | 107 | 101 | 94 | 104 | 108 | 110 | 101 | 107 | 112 | 110 | 112 | 109 |

Note: Merchant wholesalers total and group totals include data for some kinds of business not shown separately.

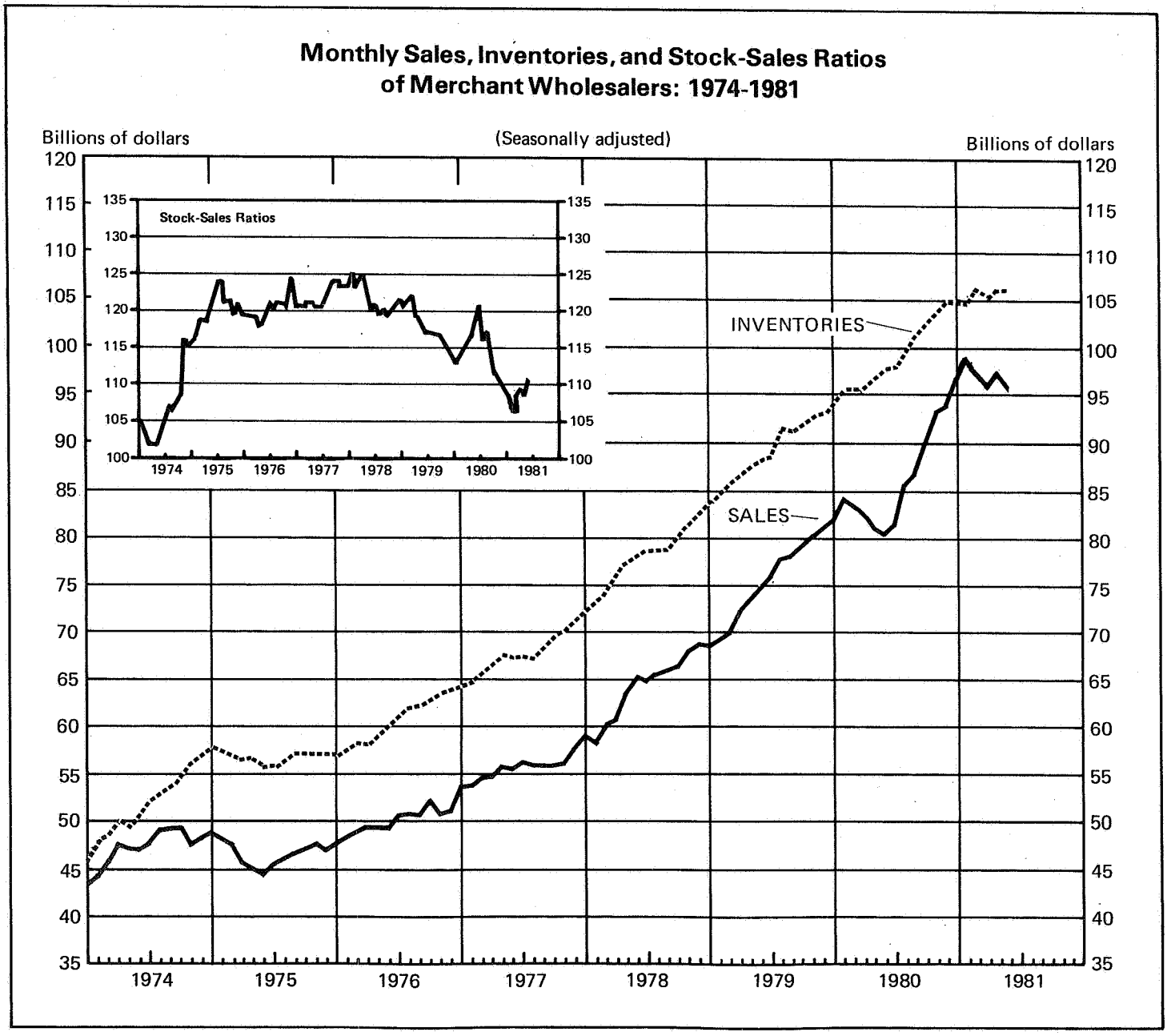
[P]Preliminary estimate. See Sample Design and Estimation Procedures.

[1]There are indications that the seasonal adjustment factors for the farm-product raw materials category may not reflect recent trends in this trade. The seasonally adjusted data for this category and also for the merchant wholesale and nondurable goods totals should, therefore, be used with caution.

Table 4B. **Percent Change Between Selected 3-Month Periods Sales of Merchant Wholesalers, United States**

(Based on seasonally-adjusted data)

| Item | 3 month period, March 1981-May 1981 from-- | | | |
|---|---|---|---|---|
| | Dec. 1980-Feb. 1981 (3 months ago) | Sep. 1980-Nov. 1980 (6 months ago) | June 1980-Aug. 1980 (9 months ago) | Mar. 1980-May 1980 (12 months ago) |
| Merchant wholesalers, total..... | -1 | +4 | +14 | +18 |
| Durable goods, total..... | -1 | +6 | +14 | +16 |
| Nondurable goods, total... | -2 | +3 | +13 | +21 |



# Table 5. Percent Change in Sales and Inventories of Merchant Wholesalers by Kind of Business for the United States: May 1981

| 1972 SIC CODE | KIND OF BUSINESS | UNADJUSTED | | | | | ADJUSTED[1] | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | SALES | | | INVENTORIES, END-OF-MONTH (AT COST) | | SALES | | INVENTORIES, END-OF-MONTH (AT COST) | |
| | | MAY 1981 FROM APR. 1981 | MAY 1981 FROM MAY 1980 | 5 MONTHS 1981 FROM 5 MONTHS 1980 | MAY 1981 FROM APR. 1981 | MAY 1981 FROM MAY 1980 | MAY 1981 FROM APR. 1981 | MAY 1981 FROM MAY 1980 | MAY 1981 FROM APR. 1981 | MAY 1981 FROM MAY 1980 |
| | MERCHANT WHOLESALERS, TOTAL | -3 | +15 | +17 | 0 | +9 | -2 | +19 | 0 | +9 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | -3 | +16 | +17 | +1 | +10 | -2 | +20 | +1 | +10 |
| 50 | DURABLE GOODS, TOTAL | -4 | +16 | +12 | +3 | +11 | 0 | +20 | +1 | +10 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | -11 | +11 | +14 | -3 | -3 | -4 | +14 | -4 | -3 |
| 5012 | AUTOMOBILES AND OTHER MOTOR VEHICLES | -11 | +11 | +12 | -9 | -8 | (*) | (*) | (*) | (*) |
| 5013,4 | AUTOMOTIVE PARTS AND SUPPLIES, TIRES AND TUBES | -11 | +11 | +17 | +3 | +1 | (*) | (*) | (*) | (*) |
| 5013 | AUTOMOTIVE PARTS AND SUPPLIES | -11 | +9 | +17 | +4 | +2 | (*) | (*) | (*) | (*) |
| 502 | FURNITURE AND HOME FURNISHINGS | -1 | +17 | +12 | +2 | +18 | +4 | +18 | +2 | +18 |
| 5021 | FURNITURE--HOUSEHOLD AND OFFICE | -2 | +13 | +10 | +2 | +20 | (*) | (*) | (*) | (*) |
| 5021 PT. | HOUSEHOLD FURNITURE[3] | -1 | +5 | -3 | +2 | +12 | (*) | (*) | (*) | (*) |
| 5021 PT. | OFFICE FURNITURE | -2 | +17 | +16 | +3 | +25 | (*) | (*) | (*) | (*) |
| 5023 | HOME FURNISHINGS | 0 | +18 | +13 | +2 | +17 | (*) | (*) | (*) | (*) |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | -5 | +8 | +5 | +4 | +6 | -7 | +12 | +4 | +6 |
| 5031 | LUMBER, PLYWOOD, AND MILLWORK | -6 | +6 | +2 | +4 | +4 | (*) | (*) | (*) | (*) |
| 5039 | CONSTRUCTION MATERIALS, N.E.C. | -5 | +12 | +12 | +4 | +11 | (*) | (*) | (*) | (*) |
| 504 | SPORTING, RECREATIONAL, PHOTOGRAPHIC, AND HOBBY GOODS, TOYS AND SUPPLIES | -6 | +14 | +12 | +5 | +6 | +5 | +19 | +6 | +6 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS AND OFFICES | +1 | +34 | +21 | +4 | +10 | (*) | (*) | (*) | (*) |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | 0 | +40 | +25 | +5 | +9 | (*) | (*) | (*) | (*) |
| 506 | ELECTRICAL GOODS | +1 | +20 | +15 | +5 | +13 | +1 | +24 | +2 | +13 |
| 5063 | ELECTRICAL APPARATUS AND EQUIPMENT, WIRING SUPPLIES, AND CONSTRUCTION MATERIALS | -1 | +15 | +13 | +2 | +9 | (*) | (*) | (*) | (*) |
| 5064,5 | ELECTRICAL APPLIANCES, TV AND RADIO SETS, AND ELECTRONIC PARTS AND EQUIPMENT | +3 | +25 | +16 | +5 | +14 | (*) | (*) | (*) | (*) |
| 5064 | ELECTRICAL APPLIANCES, TV AND RADIO SETS[4] | +5 | +36 | +21 | +7 | +11 | (*) | (*) | (*) | (*) |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | -3 | +21 | +12 | +2 | +12 | 0 | +24 | +4 | +12 |
| 5072 | HARDWARE | -6 | +13 | +10 | 0 | +12 | (*) | (*) | (*) | (*) |
| 5074 | PLUMBING AND HEATING EQUIPMENT AND SUPPLIES (HYDRONICS) | +2 | +29 | +12 | +3 | +7 | (*) | (*) | (*) | (*) |
| 5075 | WARM AIR HEATING AND AIR CONDITIONING EQUIPMENT AND SUPPLIES | -6 | +15 | +12 | +8 | +29 | (*) | (*) | (*) | (*) |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | -2 | +14 | +14 | +3 | +13 | +2 | +19 | +3 | +13 |
| 5081 | COMMERCIAL MACHINES AND EQUIPMENT | -11 | +9 | +18 | +4 | +20 | (*) | (*) | (*) | (*) |
| 5082 | CONSTRUCTION AND MINING MACHINERY AND EQUIPMENT | -9 | +2 | +7 | +1 | -10 | (*) | (*) | (*) | (*) |
| 5083 | FARM AND GARDEN MACHINERY AND EQUIPMENT | +1 | +15 | +5 | +3 | +28 | (*) | (*) | (*) | (*) |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, AND SUPPLIES | +1 | +18 | +17 | +5 | +11 | (*) | (*) | (*) | (*) |
| 5086 | PROFESSIONAL EQUIPMENT AND SUPPLIES | -3 | +7 | +15 | +4 | +25 | (*) | (*) | (*) | (*) |
| 5093 | SCRAP AND WASTE MATERIALS | -8 | -4 | -8 | +1 | +17 | (*) | (*) | (*) | (*) |
| 5093 PT. | IRON AND STEEL SCRAP | -9 | -1 | -4 | 0 | +19 | (*) | (*) | (*) | (*) |
| 5093 PT. | WASTE MATERIALS | -6 | -8 | -14 | +1 | +14 | (*) | (*) | (*) | (*) |
| 51 | NONDURABLE GOODS, TOTAL | -3 | +14 | +20 | -5 | +6 | -4 | +18 | -2 | +6 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | -3 | +16 | +21 | -2 | +10 | -3 | +20 | -1 | +10 |
| 511 | PAPER AND PAPER PRODUCTS | -2 | +16 | +14 | +1 | +11 | +3 | +21 | +2 | +11 |
| 5111,3 | PRINTING, WRITING, INDUSTRIAL, AND PERSONAL SERVICE PAPER | -1 | +13 | +12 | -1 | +8 | (*) | (*) | (*) | (*) |
| 5111 | PRINTING, AND WRITING PAPER | -6 | +6 | +5 | +1 | +12 | (*) | (*) | (*) | (*) |
| 5113 | INDUSTRIAL AND PERSONAL SERVICE PAPER | +3 | +20 | +19 | -2 | +5 | (*) | (*) | (*) | (*) |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | -5 | +17 | +21 | -2 | +7 | +1 | +22 | -1 | +7 |
| 5122 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | -5 | +17 | +21 | -2 | +7 | (*) | (*) | (*) | (*) |
| 5122 PT. | GENERAL-LINE DRUGS | -4 | +11 | +14 | -4 | +5 | (*) | (*) | (*) | (*) |
| 514 | GROCERIES AND RELATED PRODUCTS | -3 | +10 | +14 | -3 | +17 | -2 | +13 | -2 | +16 |
| 5141 | GROCERIES, GENERAL-LINE | -3 | +8 | +13 | -4 | +16 | (*) | (*) | (*) | (*) |
| 5141 PT. | VOLUNTARY GROUPS | -6 | +6 | +13 | -4 | +18 | (*) | (*) | (*) | (*) |
| 5141 PT. | RETAILER COOPERATIVES | 0 | +3 | +12 | -6 | +13 | (*) | (*) | (*) | (*) |
| 5141 PT. | OTHER GENERAL-LINES | -3 | +14 | +15 | -4 | +16 | (*) | (*) | (*) | (*) |
| 5142,3,6,9 | SPECIALTY-LINE GROCERIES | -4 | +13 | +18 | -4 | +19 | (*) | (*) | (*) | (*) |
| 5144 | POULTRY AND POULTRY PRODUCTS | -1 | +10 | +10 | -5 | +21 | (*) | (*) | (*) | (*) |
| 5145 | CONFECTIONERY | -10 | +12 | +18 | +3 | +17 | (*) | (*) | (*) | (*) |
| 5147 | MEATS AND MEAT PRODUCTS | +2 | +4 | +2 | -1 | -1 | (*) | (*) | (*) | (*) |
| 5148 | FRESH FRUITS AND VEGETABLES | -3 | +12 | +20 | +3 | +37 | (*) | (*) | (*) | (*) |
| 515 | FARM-PRODUCT RAW MATERIALS[2] | -4 | +7 | +17 | -21 | -10 | -6 | +10 | -7 | -10 |
| 5152 | COTTON | -10 | -9 | +5 | -21 | -30 | (*) | (*) | (*) | (*) |
| 5153 | GRAIN | -3 | +10 | +20 | -23 | -6 | (*) | (*) | (*) | (*) |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | -2 | +35 | +42 | -1 | +10 | -4 | +38 | -3 | +10 |
| 5171 | PETROLEUM BULK STATIONS AND TERMINALS | -5 | +25 | +31 | -5 | +7 | (*) | (*) | (*) | (*) |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | -5 | +3 | +8 | +3 | +3 | -6 | +7 | +5 | +3 |
| 5181 | BEER AND ALE | +2 | +1 | +8 | +5 | +4 | (*) | (*) | (*) | (*) |
| 5182 | WINE AND DISTILLED ALCOHOLIC BEVERAGES | -13 | +6 | +8 | +2 | +3 | (*) | (*) | (*) | (*) |
| 519 | MISCELLANEOUS NONDURABLE GOODS | 0 | 0 | +6 | -5 | +5 | -3 | +3 | 0 | +5 |
| 5191 | FARM SUPPLIES | -7 | -8 | +6 | -12 | -1 | (*) | (*) | (*) | (*) |
| 5194 | TOBACCO AND TOBACCO PRODUCTS | -1 | +7 | +7 | -5 | +3 | (*) | (*) | (*) | (*) |
| 5198 | PAINTS, VARNISHES, AND SUPPLIES | -9 | +2 | +4 | +4 | -2 | (*) | (*) | (*) | (*) |
| 5199 PT. | BOOKS, PERIODICALS, NEWSPAPERS | -3 | (S) | (S) | +6 | (S) | (*) | (*) | (*) | (*) |

*Adjusted data are available only for summary group totals. (S) Does not meet publication standards because of extreme variability or high nonresponse rate.

[1]Adjusted for seasonal variations and, in the case of sales, also for trading-day differences.

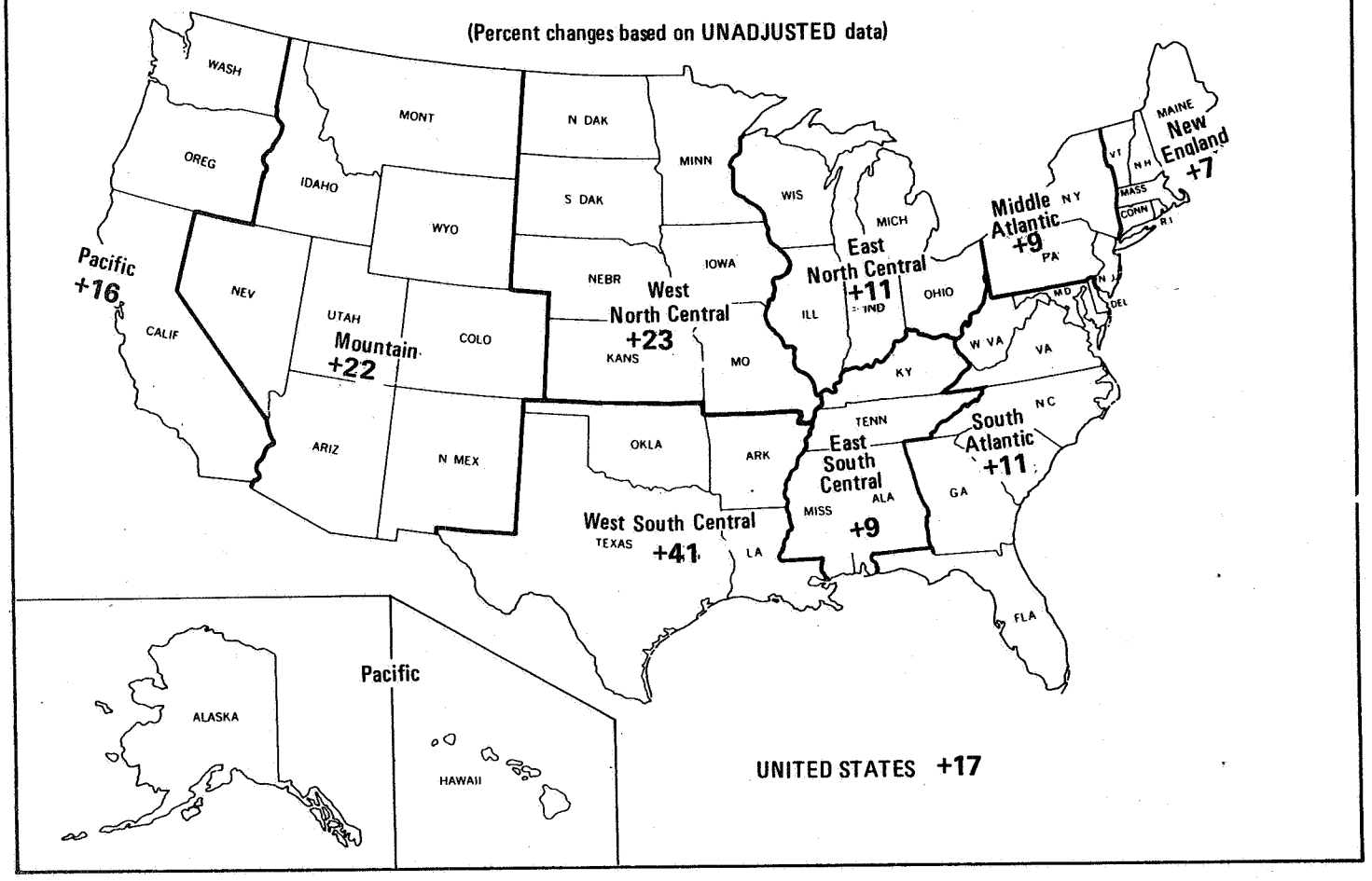
[2]There are indications that the seasonal adjustment factors for this trade group may not reflect recent trends. The seasonally adjusted data for this trade group and also for the summary group totals should, therefore, be used with caution.

[3]Sampling variability of 14 percent for percent change for sales and 12 percent for inventories between May 1981 and May 1980.

[4]Sampling variability of 8 percent for percent change between May 1981 and April 1981.

## Sales of Merchant Wholesalers by Geographic Division
## 5 Months 1981 Compared With 5 Months 1980

(Percent changes based on UNADJUSTED data)




## Table 6. Estimated Monthly Sales of Merchant Wholesalers and Sampling Errors, by Geographic Division: 1981 and 1980

(SALES, MILLIONS OF DOLLARS, ARE NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES)

| 1972 SIC CODE | KIND OF BUSINESS AND GEOGRAPHIC DIVISION[1] | 1981 JAN. | 1981 FEB. | 1981 MAR. | 1981 APR. | 1981 MAY[P] | 1980 MAY | 1980 JUNE | 1980 JULY | 1980 AUG. | 1980 SEPT. | 1980 OCT. | 1980 NOV. | 1980 DEC. | TOTAL 5 MONTHS 1981 | TOTAL 5 MONTHS 1980 | MEDIAN SAMPLING ERROR[2] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MERCHANT WHOLESALERS, TOTAL | 93,845 | 89,641 | 101,273 | 99,081 | 95,874 | 83,507 | 81,607 | 86,052 | 86,311 | 90,715 | 99,023 | 91,328 | 97,659 | 479,714 | 411,191 | 1.5 |
| | NEW ENGLAND | 4,445 | 4,256 | 4,487 | 4,406 | 4,287 | 4,059 | 4,125 | 4,368 | 4,109 | 4,400 | 4,668 | 4,524 | 4,786 | 21,881 | 20,518 | 5 |
| | MIDDLE ATLANTIC | 19,320 | 19,046 | 21,684 | 19,714 | 19,485 | 17,555 | 17,407 | 17,959 | 18,298 | 19,380 | 20,204 | 19,463 | 20,750 | 99,249 | 90,936 | 4 |
| | EAST NORTH CENTRAL | 14,031 | 12,833 | 14,865 | 14,818 | 14,083 | 13,286 | 12,504 | 12,775 | 13,122 | 13,600 | 15,510 | 13,852 | 14,147 | 70,570 | 63,825 | 2 |
| | WEST NORTH CENTRAL | 10,164 | 9,279 | 10,426 | 10,885 | 10,554 | 8,842 | 8,234 | 8,724 | 8,884 | 9,328 | 11,024 | 9,321 | 10,306 | 51,308 | 41,674 | 3 |
| | SOUTH ATLANTIC | 9,305 | 8,860 | 10,545 | 10,012 | 9,495 | 8,719 | 8,803 | 8,781 | 8,540 | 8,976 | 9,781 | 8,875 | 9,668 | 48,217 | 43,509 | 2 |
| | EAST SOUTH CENTRAL | 3,921 | 3,760 | 4,341 | 4,409 | 4,348 | 3,950 | 3,761 | 3,801 | 3,832 | 3,835 | 4,356 | 3,759 | 4,036 | 20,779 | 19,036 | 4 |
| | WEST SOUTH CENTRAL | 15,860 | 15,383 | 16,315 | 16,348 | 15,887 | 11,669 | 11,417 | 13,865 | 13,835 | 14,655 | 15,925 | 15,445 | 16,552 | 79,793 | 56,524 | 5 |
| | MOUNTAIN | 3,393 | 3,283 | 4,203 | 3,992 | 3,803 | 3,129 | 3,314 | 3,261 | 3,335 | 3,900 | 3,713 | 3,528 | 3,828 | 18,674 | 15,344 | 6 |
| | PACIFIC | 13,406 | 12,941 | 14,467 | 14,497 | 13,932 | 12,298 | 12,042 | 12,518 | 12,356 | 12,641 | 13,842 | 12,561 | 13,586 | 69,243 | 59,825 | 3 |
| 50 | DURABLE GOODS, TOTAL | 35,927 | 37,054 | 41,991 | 41,934 | 40,428 | 34,947 | 35,508 | 35,757 | 36,010 | 38,112 | 41,298 | 36,679 | 38,598 | 197,334 | 176,477 | 1.8 |
| | MIDDLE ATLANTIC | 7,412 | 7,818 | 8,789 | 8,607 | 8,412 | 7,430 | 7,488 | 7,429 | 7,340 | 7,911 | 8,727 | 7,960 | 8,146 | 41,038 | 38,782 | 6 |
| | EAST NORTH CENTRAL | 5,644 | 5,704 | 6,592 | 6,644 | 6,439 | 5,544 | 5,382 | 5,264 | 5,586 | 6,029 | 6,620 | 5,983 | 6,020 | 31,023 | 28,222 | 3 |
| | WEST NORTH CENTRAL | 2,515 | 2,699 | 2,925 | 2,943 | 2,697 | 2,637 | 2,590 | 2,661 | 2,818 | 2,872 | 3,214 | 2,718 | 2,830 | 13,779 | 13,349 | 5 |
| | SOUTH ATLANTIC | 4,137 | 4,321 | 5,003 | 4,863 | 4,666 | 4,091 | 4,375 | 4,360 | 4,265 | 4,377 | 4,834 | 4,128 | 4,327 | 22,990 | 20,717 | 3 |
| | WEST SOUTH CENTRAL | 4,738 | 4,856 | 5,654 | 5,844 | 5,825 | 4,292 | 4,386 | 4,653 | 4,530 | 4,758 | 5,027 | 4,665 | 4,916 | 26,917 | 20,790 | 4 |
| | MOUNTAIN | 1,469 | 1,321 | 1,658 | 1,638 | 1,563 | 1,261 | 1,376 | 1,360 | 1,415 | 1,744 | 1,702 | 1,415 | 1,747 | 7,649 | 6,472 | 8 |
| | PACIFIC | 6,938 | 7,265 | 7,966 | 7,861 | 7,489 | 6,644 | 6,728 | 6,738 | 6,818 | 6,887 | 7,503 | 6,664 | 7,249 | 37,519 | 32,556 | 4 |
| 51 | NONDURABLE GOODS, TOTAL | 57,918 | 52,587 | 59,282 | 57,147 | 55,446 | 48,560 | 46,099 | 50,295 | 50,301 | 52,603 | 57,725 | 54,649 | 59,061 | 282,380 | 234,714 | 1.8 |
| | NEW ENGLAND | 2,849 | 2,697 | 2,826 | 2,685 | 2,655 | 2,619 | 2,572 | 2,684 | 2,607 | 2,643 | 2,860 | 2,915 | 3,053 | 13,712 | 12,553 | 6 |
| | MIDDLE ATLANTIC | 11,908 | 11,228 | 12,895 | 11,107 | 11,073 | 10,125 | 9,919 | 10,530 | 10,958 | 11,469 | 11,477 | 11,503 | 12,604 | 58,211 | 52,154 | 4 |
| | EAST NORTH CENTRAL | 8,387 | 7,129 | 8,213 | 8,174 | 7,644 | 7,742 | 7,122 | 7,511 | 7,536 | 7,571 | 8,890 | 7,869 | 8,127 | 39,547 | 35,603 | 4 |
| | WEST NORTH CENTRAL | 7,649 | 6,580 | 7,501 | 7,942 | 7,857 | 6,205 | 5,644 | 6,063 | 6,066 | 6,456 | 7,810 | 6,603 | 7,476 | 37,529 | 28,325 | 4 |
| | SOUTH ATLANTIC | 5,168 | 4,539 | 5,542 | 5,149 | 4,829 | 4,628 | 4,428 | 4,421 | 4,275 | 4,599 | 4,947 | 4,747 | 5,341 | 25,227 | 22,792 | 4 |
| | EAST SOUTH CENTRAL | 2,443 | 2,249 | 2,598 | 2,596 | 2,643 | 2,342 | 2,131 | 2,193 | 2,096 | 2,058 | 2,493 | 2,222 | 2,406 | 12,529 | 11,412 | 4 |
| | WEST SOUTH CENTRAL | 11,122 | 10,527 | 10,661 | 10,504 | 10,062 | 7,377 | 7,031 | 9,212 | 9,305 | 9,897 | 10,898 | 10,780 | 11,636 | 52,876 | 35,734 | 8 |
| | PACIFIC | 6,468 | 5,676 | 6,501 | 6,636 | 6,443 | 5,654 | 5,314 | 5,780 | 5,538 | 5,754 | 6,339 | 5,897 | 6,337 | 31,724 | 27,269 | 5 |

[P]Preliminary estimate. See Sample Design and Estimation Procedure.

[1]See map above.

[2]The median sampling errors (in percent) are based on data for the period September 1979 through February 1980.

# Table 7. Percent Change in Sales and Inventories of Merchant Wholesalers and Sampling Errors by Kind of Business for Geographic Divisions: May 1981—Continued

(BASED ON DATA NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES)

| 1972 SIC CODE | KIND OF BUSINESS AND GEOGRAPHIC DIVISION[1] | PERCENT CHANGE IN-- SALES: MAY 1981 FROM APR. 1981 | SALES: MAY 1981 FROM MAY 1980 | SALES: 5 MOS. 1981 FROM 5 MOS. 1980 | INVENTORIES: MAY 1981 FROM APR. 1981 | INVENTORIES: MAY 1981 FROM MAY 1980 | SAMPLING ERRORS OF THE RATIO CORRESPONDING TO THE PERCENT CHANGE IN COLUMNS[2]-- A | B | D | E |
|---|---|---|---|---|---|---|---|---|---|---|
| | | A | B | C | D | E | | | | |
| | MERCHANT WHOLESALERS, TOTAL | -3 | +15 | +17 | 0 | +9 | 0.7 | 1.2 | 0.3 | 0.9 |
| | NEW ENGLAND | -3 | +6 | +7 | +2 | +8 | 2.1 | 4.8 | 0.9 | 4.2 |
| | MIDDLE ATLANTIC | -1 | +11 | +9 | +1 | +10 | 1.7 | 3.2 | 0.8 | 2.6 |
| | EAST NORTH CENTRAL | -5 | +6 | +11 | -1 | +6 | 1.3 | 2.5 | 0.5 | 2.4 |
| | WEST NORTH CENTRAL | -3 | +19 | +23 | -3 | +3 | 1.4 | 2.4 | 0.8 | 2.2 |
| | SOUTH ATLANTIC | -5 | +9 | +11 | +1 | +10 | 1.1 | 2.4 | 0.6 | 2.0 |
| | EAST SOUTH CENTRAL | -1 | +10 | +9 | 0 | +1 | 2.3 | 3.4 | 0.9 | 2.8 |
| | WEST SOUTH CENTRAL | -3 | +36 | +41 | 0 | +18 | 2.0 | 4.5 | 0.8 | 2.5 |
| | MOUNTAIN | -5 | +22 | +22 | +2 | +18 | 2.1 | 3.4 | 1.1 | 3.4 |
| | PACIFIC | -4 | +13 | +16 | 0 | +9 | 1.0 | 2.4 | 0.6 | 2.2 |
| 50 | DURABLE GOODS, TOTAL | -4 | +16 | +12 | +3 | +11 | 0.9 | 2.3 | 0.4 | 1.1 |
| | NEW ENGLAND | -5 | +13 | +3 | +3 | +12 | 4.3 | 10.7 | 1.1 | 6.0 |
| | MIDDLE ATLANTIC | -2 | +13 | +6 | +2 | +12 | 2.1 | 6.3 | 1.0 | 3.5 |
| | EAST NORTH CENTRAL | -3 | +16 | +10 | +3 | +8 | 1.6 | 3.1 | 0.6 | 3.2 |
| | WEST NORTH CENTRAL | -8 | +2 | +3 | +3 | +2 | 2.3 | 5.0 | 1.1 | 2.7 |
| | SOUTH ATLANTIC | -4 | +14 | +11 | +3 | +12 | 1.5 | 3.7 | 0.8 | 2.8 |
| | EAST SOUTH CENTRAL | -6 | +6 | +8 | +2 | +5 | 4.2 | 6.0 | 1.4 | 4.5 |
| | WEST SOUTH CENTRAL | 0 | +36 | +29 | +2 | +21 | 3.0 | 5.1 | 0.8 | 3.3 |
| | MOUNTAIN | -5 | +24 | +18 | +3 | +18 | 3.2 | 6.1 | 1.3 | 4.7 |
| | PACIFIC | -5 | +13 | +15 | +2 | +7 | 1.6 | 3.4 | 0.8 | 2.8 |
| 51 | NONDURABLE GOODS, TOTAL | -3 | +14 | +20 | -5 | +6 | 0.8 | 1.3 | 0.5 | 1.2 |
| | NEW ENGLAND | -1 | +1 | +9 | 0 | +3 | 1.9 | 3.8 | 1.2 | 4.5 |
| | MIDDLE ATLANTIC | 0 | +9 | +12 | -1 | +6 | 2.0 | 3.1 | 0.8 | 3.6 |
| | EAST NORTH CENTRAL | -6 | -1 | +11 | -9 | +3 | 2.1 | 2.8 | 1.0 | 3.3 |
| | WEST NORTH CENTRAL | -1 | +27 | +32 | -11 | +5 | 1.9 | 2.7 | 1.2 | 3.1 |
| | SOUTH ATLANTIC | -6 | +4 | +11 | -3 | +5 | 1.8 | 2.9 | 1.1 | 3.0 |
| | EAST SOUTH CENTRAL | +2 | +13 | +10 | -4 | -6 | 1.6 | 3.6 | 1.8 | 3.1 |
| | WEST SOUTH CENTRAL | -4 | +36 | +48 | -5 | +11 | 2.6 | 6.3 | 1.6 | 4.5 |
| | MOUNTAIN | -5 | +20 | +24 | -1 | +16 | 2.0 | 5.2 | 1.7 | 5.8 |
| | PACIFIC | -3 | +14 | +16 | -4 | +15 | 1.7 | 2.9 | 1.0 | 3.4 |
| 5013,4 | AUTOMOTIVE PARTS AND SUPPLIES, TIRES AND TUBES | -11 | +11 | +17 | +3 | +1 | 2 | 4 | 1 | 3 |
| | NEW ENGLAND | (S) | (S) | 0 | +10 | +20 | (*) | (*) | 3 | 14 |
| | MIDDLE ATLANTIC | -12 | +12 | +27 | 0 | 0 | 4 | 8 | 1 | 7 |
| | EAST NORTH CENTRAL | -7 | +5 | +8 | +2 | -8 | 3 | 8 | 1 | 5 |
| | WEST NORTH CENTRAL | -12 | -8 | +7 | 0 | -1 | 3 | 13 | 2 | 11 |
| | SOUTH ATLANTIC | -17 | +10 | +17 | +4 | +7 | 4 | 10 | 2 | 8 |
| | EAST SOUTH CENTRAL | -3 | +24 | +15 | +4 | +19 | 3 | 12 | 3 | 12 |
| | WEST SOUTH CENTRAL | -6 | +16 | +15 | +4 | -8 | 3 | 10 | 2 | 10 |
| | MOUNTAIN | -11 | (S) | +21 | +2 | (S) | 6 | (*) | 3 | (*) |
| | PACIFIC | -9 | +18 | +26 | +6 | -2 | 3 | 6 | 2 | 12 |
| 502 | FURNITURE AND HOME FURNISHINGS | -1 | +17 | +12 | +2 | +18 | 3 | 4 | 1 | 3 |
| | MIDDLE ATLANTIC | 0 | +9 | +12 | +4 | +19 | 6 | 10 | 1 | 8 |
| | EAST NORTH CENTRAL | -6 | -2 | -7 | 0 | +2 | 6 | 13 | 2 | 8 |
| | WEST NORTH CENTRAL | -4 | (S) | 0 | -3 | -2 | 6 | (*) | 3 | 10 |
| | WEST SOUTH CENTRAL | -1 | +32 | +26 | +4 | +19 | 4 | 10 | 2 | 10 |
| | PACIFIC | +1 | +49 | +26 | +3 | +41 | 6 | 12 | 2 | 10 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | -5 | +8 | +5 | +4 | +6 | 2 | 3 | 1 | 3 |
| | NEW ENGLAND | (S) | +6 | +7 | +11 | +28 | (*) | 14 | 3 | 12 |
| | MIDDLE ATLANTIC | +3 | +8 | 0 | +8 | 0 | 6 | 11 | 2 | 12 |
| | EAST NORTH CENTRAL | -2 | +2 | -1 | +4 | -6 | 4 | 8 | 2 | 9 |
| | WEST NORTH CENTRAL | -19 | -23 | -16 | +7 | -12 | 7 | 11 | 4 | 12 |
| | SOUTH ATLANTIC | -2 | +19 | +11 | +5 | +15 | 4 | 9 | 2 | 8 |
| | EAST SOUTH CENTRAL | -2 | +34 | +18 | +2 | -5 | 7 | 13 | 2 | 12 |
| | WEST SOUTH CENTRAL | -12 | +30 | +25 | +1 | +47 | 5 | 13 | 2 | 10 |
| | PACIFIC | -10 | +3 | +6 | +2 | +5 | 4 | 9 | 2 | 9 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | 0 | +40 | +25 | +5 | +9 | 3 | 4 | 1 | 3 |
| | NEW ENGLAND | -6 | (S) | -5 | -1 | (S) | 7 | (*) | 6 | (*) |
| | MIDDLE ATLANTIC | -1 | +29 | +17 | +2 | +8 | 6 | 9 | 2 | 12 |
| | EAST NORTH CENTRAL | -5 | +38 | +25 | +5 | -1 | 5 | 7 | 1 | 6 |
| | WEST NORTH CENTRAL | -7 | +27 | +15 | +7 | +7 | 5 | 10 | 2 | 9 |
| | SOUTH ATLANTIC | -2 | (S) | +20 | +1 | (S) | 5 | (*) | 2 | (*) |
| | EAST SOUTH CENTRAL | -2 | +15 | +10 | +1 | +9 | 3 | 11 | 2 | 14 |
| | WEST SOUTH CENTRAL | +14 | (S) | (S) | +10 | (S) | 4 | 10 | 2 | 9 |
| | MOUNTAIN | -4 | (S) | +34 | 0 | (S) | 3 | (*) | 3 | (*) |
| | PACIFIC | -5 | (S) | +15 | +5 | (S) | 5 | (*) | 4 | (*) |
| 5063 | ELECTRICAL APPARATUS AND EQUIPMENT, WIRING SUPPLIES, AND CONSTRUCTION MATERIALS | -1 | +15 | +13 | +2 | +9 | 3 | 4 | 1 | 3 |
| | NEW ENGLAND | -4 | +20 | +20 | +4 | +35 | 4 | 12 | 2 | 12 |
| | MIDDLE ATLANTIC | -4 | +17 | +18 | -2 | +6 | 4 | 11 | 2 | 7 |
| | EAST NORTH CENTRAL | -4 | +14 | +7 | +1 | +8 | 3 | 8 | 2 | 7 |
| | WEST NORTH CENTRAL | -2 | +9 | +2 | 0 | -9 | 5 | 12 | 3 | 12 |
| | SOUTH ATLANTIC | -8 | -11 | +2 | +1 | +2 | 3 | 8 | 2 | 8 |
| | EAST SOUTH CENTRAL | (S) | (S) | +26 | -2 | (S) | (*) | (*) | 3 | (*) |
| | WEST SOUTH CENTRAL | +15 | (S) | +44 | +6 | (S) | 7 | (*) | 3 | (*) |
| | MOUNTAIN | -5 | +1 | +5 | +6 | +8 | 4 | 14 | 2 | 11 |
| | PACIFIC | +1 | +3 | +5 | +6 | +18 | 4 | 10 | 2 | 6 |

See footnotes at end of table.

# Table 7. Percent Change in Sales and Inventories of Merchant Wholesalers and Sampling Errors by Kind of Business for Geographic Divisions: May 1981—Continued

(BASED ON DATA NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES)

| 1972 SIC CODE | KIND OF BUSINESS AND GEOGRAPHIC DIVISION[1] | PERCENT CHANGE IN-- SALES: MAY 1981 FROM APR. 1981 | SALES: MAY 1981 FROM MAY 1980 | SALES: 5 MOS. 1981 FROM 5 MOS. 1980 | INVENTORIES: MAY 1981 FROM APR. 1981 | INVENTORIES: MAY 1981 FROM MAY 1980 | SAMPLING ERRORS OF THE RATIO CORRESPONDING TO THE PERCENT CHANGE IN COLUMNS[2]-- | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | A | B | C | D | E | A | B | D | E |
| 5064,5 | ELECTRICAL APPLIANCES, TV AND RADIO SETS, AND ELECTRONIC PARTS AND EQUIPMENT | +3 | +25 | +16 | +5 | +14 | 2 | 4 | 1 | 4 |
| | MIDDLE ATLANTIC | +12 | +33 | +20 | +5 | +10 | 4 | 9 | 2 | 10 |
| | EAST NORTH CENTRAL | +5 | +47 | +43 | +10 | +36 | 5 | 10 | 2 | 13 |
| | WEST NORTH CENTRAL | -8 | (S) | -22 | +6 | (S) | 5 | (*) | 2 | (*) |
| | SOUTH ATLANTIC | -1 | +22 | +26 | +6 | +28 | 4 | 12 | 2 | 7 |
| | WEST SOUTH CENTRAL | -7 | +12 | +2 | +6 | +26 | 4 | 13 | 2 | 12 |
| | MOUNTAIN | (S) | (S) | +16 | 0 | +24 | (*) | (*) | 3 | 13 |
| | PACIFIC | 0 | +21 | +2 | +3 | +12 | 7 | 11 | 3 | 9 |
| 5072 | HARDWARE | -6 | +13 | +10 | 0 | +12 | 2 | 3 | 1 | 3 |
| | NEW ENGLAND | -17 | -10 | +3 | +4 | +1 | 4 | 13 | 3 | 14 |
| | MIDDLE ATLANTIC | +9 | +32 | +15 | -5 | +16 | 3 | 9 | 2 | 11 |
| | EAST NORTH CENTRAL | -10 | -7 | -6 | +2 | -2 | 4 | 9 | 4 | 10 |
| | WEST NORTH CENTRAL | -5 | +3 | +4 | +5 | +13 | 4 | 7 | 2 | 6 |
| | SOUTH ATLANTIC | -6 | +23 | +16 | -5 | +22 | 3 | 8 | 2 | 10 |
| | EAST SOUTH CENTRAL | -10 | +29 | +11 | +5 | +24 | 4 | 10 | 2 | 9 |
| | PACIFIC | -9 | +17 | +16 | -2 | +16 | 3 | 10 | 2 | 11 |
| 5074 | PLUMBING AND HEATING EQUIPMENT AND SUPPLIES (HYDRONICS) | +2 | +29 | +12 | +3 | +7 | 2 | 5 | 1 | 9 |
| | MIDDLE ATLANTIC | -8 | +12 | +8 | +1 | (S) | 6 | 14 | 3 | (*) |
| | EAST NORTH CENTRAL | +6 | +15 | +16 | -3 | (S) | 7 | 14 | 2 | (*) |
| | SOUTH ATLANTIC | +2 | +26 | +5 | +2 | +1 | 3 | 11 | 2 | 9 |
| | MOUNTAIN | +3 | (S) | +17 | +11 | +29 | 4 | (*) | 2 | 14 |
| | PACIFIC | +4 | +30 | +12 | -1 | +6 | 4 | 14 | 2 | 11 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, AND SUPPLIES | +1 | +18 | +17 | +5 | +11 | 2 | 5 | 1 | 3 |
| | MIDDLE ATLANTIC | -2 | +22 | +15 | +7 | +16 | 5 | 9 | 2 | 7 |
| | EAST NORTH CENTRAL | +2 | +17 | +3 | +5 | +11 | 4 | 6 | 1 | 6 |
| | WEST SOUTH CENTRAL | +5 | (S) | +46 | +6 | +17 | 4 | (*) | 1 | 6 |
| | PACIFIC | -1 | +6 | +15 | +4 | +2 | 3 | 8 | 2 | 8 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | -5 | +17 | +21 | -2 | +7 | 2 | 3 | 1 | 4 |
| | NEW ENGLAND | -5 | -1 | -5 | -7 | -15 | 3 | 12 | 3 | 14 |
| | MIDDLE ATLANTIC | 0 | +19 | +20 | -4 | -8 | 4 | 8 | 2 | 7 |
| | EAST NORTH CENTRAL | -5 | +7 | +8 | -1 | +18 | 4 | 8 | 2 | 8 |
| | WEST NORTH CENTRAL | -3 | +12 | +12 | -1 | +15 | 5 | 12 | 2 | 9 |
| | SOUTH ATLANTIC | -13 | +27 | +40 | -1 | +10 | 2 | 10 | 2 | 8 |
| | EAST SOUTH CENTRAL | -9 | +5 | +16 | +3 | +2 | 2 | 9 | 2 | 10 |
| | WEST SOUTH CENTRAL | -6 | +26 | +36 | -4 | +14 | 2 | 12 | 2 | 14 |
| | MOUNTAIN | +2 | (S) | (S) | 0 | +26 | 1 | 7 | 1 | 6 |
| | PACIFIC | -6 | +15 | +18 | -5 | (S) | 2 | 13 | 1 | (*) |
| 5141 | GROCERIES, GENERAL-LINE | -3 | +8 | +13 | -4 | +16 | 1 | 2 | 0 | 2 |
| | NEW ENGLAND | 0 | +18 | +13 | -13 | +19 | 2 | 6 | 2 | 7 |
| | MIDDLE ATLANTIC | 0 | +12 | +9 | +1 | +18 | 1 | 3 | 1 | 7 |
| | EAST NORTH CENTRAL | -2 | -1 | +13 | -6 | +9 | 1 | 4 | 1 | 5 |
| | WEST NORTH CENTRAL | -8 | +14 | +18 | -1 | +27 | 2 | 5 | 2 | 7 |
| | SOUTH ATLANTIC | -5 | 0 | +6 | -4 | +10 | 2 | 5 | 1 | 4 |
| | WEST SOUTH CENTRAL | -11 | +13 | +21 | -8 | +19 | 2 | 7 | 2 | 6 |
| | MOUNTAIN | -2 | +13 | +22 | -6 | +28 | 2 | 6 | 2 | 9 |
| | PACIFIC | +1 | +8 | +12 | -4 | +11 | 0 | 3 | 1 | 3 |
| 5142,3,6,9 | SPECIALTY-LINE GROCERIES | -4 | +13 | +18 | -4 | +19 | 1 | 3 | 1 | 4 |
| | MIDDLE ATLANTIC | -7 | +5 | +7 | -8 | +15 | 2 | 5 | 2 | 7 |
| | EAST NORTH CENTRAL | +1 | +19 | +25 | +2 | +37 | 3 | 6 | 1 | 6 |
| | WEST NORTH CENTRAL | 0 | +42 | +56 | -3 | +32 | 3 | 5 | 1 | 6 |
| | SOUTH ATLANTIC | -9 | +2 | +4 | -6 | -6 | 4 | 13 | 2 | 13 |
| | EAST SOUTH CENTRAL | +14 | (S) | +38 | -3 | +26 | 4 | 12 | 2 | 13 |
| 5148 | FRESH FRUITS AND VEGATABLES | -3 | +12 | +20 | +3 | +37 | 2 | 3 | 2 | 7 |
| | MIDDLE ATLANTIC | +5 | +19 | +22 | 0 | +39 | 3 | 9 | 5 | 14 |
| | EAST NORTH CENTRAL | +7 | +22 | +28 | +3 | +91 | 3 | 8 | 3 | 10 |
| | WEST NORTH CENTRAL | -5 | +7 | +20 | +6 | (S) | 4 | 14 | 3 | (*) |
| | WEST SOUTH CENTRAL | -2 | +20 | +34 | 0 | (S) | 7 | 13 | 3 | (*) |
| | PACIFIC | -10 | +4 | +14 | 0 | +38 | 6 | 9 | 2 | 10 |
| 5194 | TOBACCO AND TOBACCO PRODUCTS | -1 | +7 | +7 | -5 | +3 | 1 | 4 | 1 | 5 |
| | NEW ENGLAND | +15 | +13 | -7 | 0 | (S) | 3 | 14 | 3 | (*) |
| | MIDDLE ATLANTIC | +1 | +8 | +14 | -6 | (S) | 4 | 14 | 3 | (*) |
| | EAST NORTH CENTRAL | +3 | +13 | +8 | -2 | +5 | 2 | 10 | 2 | 11 |
| | WEST NORTH CENTRAL | -2 | (S) | +14 | +2 | (S) | 6 | (*) | 6 | (*) |
| | SOUTH ATLANTIC | -12 | -16 | +6 | -8 | -30 | 4 | 14 | 3 | 12 |
| | EAST SOUTH CENTRAL | -9 | (S) | +7 | -7 | (S) | 3 | (*) | 4 | (*) |
| | WEST SOUTH CENTRAL | -6 | (S) | -12 | 0 | -7 | 3 | (*) | 4 | 11 |
| | MOUNTAIN | +4 | (S) | +32 | -23 | (S) | 3 | (*) | 5 | (*) |
| | PACIFIC | -5 | +4 | +5 | -10 | +28 | 2 | 10 | 3 | 12 |

Note: Data at the United States level are generally more reliable than data by geographic division. In those kinds of business where the geographic division trends are subject to a high sampling error, it may be desirable to use the United States total trends for the kinds of business rather than the geographic division trends.

(S) Does not meet publication standards because of extreme variability or high nonresponse rate.

[1]See map on page 8.

[2]The sampling errors (in percent) shown in columns A, B, D, and E are based on medians or measurements on data for September 1979 through February 1980.

# APPENDIX A. Reliability of Data

There are two types of errors possible in an estimate based on a sample survey—sampling and nonsampling. Sampling errors occur because observations are made only on a sample, not on the entire population. Nonsampling errors can be attributed to many sources in the collection and processing of data. The accuracy of a survey result is determined by the joint effects of sampling and nonsampling errors.

**Measures of sampling variability**—The particular sample used in this survey is one of a large number of all possible samples of the same size that could have been selected using the same design. Estimates derived from the different samples would differ from each other. The average of these estimates would be close to the estimate derived from a complete enumeration of the population (assuming that a complete enumeration has the same nonsampling errors as the sample survey). The average of the estimates differs from the estimate from a complete census because of the composite estimation technique. Disregarding this difference, the sampling error or standard error of the estimate is a measure of the variability among the estimates from all possible samples of the same size and design and, thus, is a measure of the precision with which an estimate from a particular sample approximates the results of a complete enumeration. The coefficient of variation (expressed as a percent) is the standard error of the estimate times 100 percent, divided by the value being estimated. Note that any measures of sampling variability, such as the standard error or coefficient of variation, are estimates derived from the sample and are also subject to sampling variability.

Estimates of sampling variability (the coefficients of variation in percent) for sales and inventories at the kind-of-business detail provided in this publication are shown in table A-1. These coefficients of variation permit certain confidence statements about the sample estimates. As noted above, the particular sample used in this survey is one of a large number of all possible samples of about the same size that could have been selected using the same design. In about two out of three (67 percent) of these samples, the estimate would differ from a complete enumeration by less than the corresponding percent for that estimate shown in the sampling variability table. In about 19 out of 20 (95 percent) of these samples, the estimate would differ from the results of a complete enumeration by less than twice the percentages shown.

To illustrate the computations involved in the above confidence statements for monthly dollar volume estimates, assume that an estimate for a kind of business published in table 1 for a particular month is $5,000 million and that the median coefficient of variation for this statistic, is 0.9 percent or .009. Multiplying $5,000 million by .009 yields $45 million. Therefore, a 67 percent confidence interval is $4,955 million to $5,045 million (i.e. $5,000 million plus or minus $45 million). If corresponding confidence intervals were constructed for all possible samples of the same size and design, approximately two out of three (67 percent) of these intervals would contain the figure obtained from a complete enumeration. Similarly a 95 percent confidence interval is $4,910 million to $5,090 million (i.e., $5,000 million plus or minus $90 million).

As an example of the use of the coefficients of variation with ratios, assume that an estimated month-to-month percent change published in table 5 is -1.0 percent for a particular kind of business. This is equivalent to a month-to-month ratio of .990. Assume the median coefficient of variation for this ratio as shown in table A-1 is 0.5 percent (or .005). Multiplying .990 by .005 yields .005. Therefore, a 67 percent confidence interval is .985 to .995 (i.e., .990 plus or minus .005) and a 95 percent confidence interval is .980 to 1.000 (i.e., .990 plus or minus .010).

**Nonsampling errors**—As calculated for this report, the coefficient of variation measures certain nonsampling errors but does not measure any systematic biases in the data. Bias is the difference, averaged over all possible samples of the same size and design, between the estimate and the true value being estimated. The accuracy of the tabulated data is determined by the joint effects of the sampling and nonsampling errors.

Nonsampling errors can be attributed to many sources: (1) inability to obtain information about all cases in the sample, (2) response errors, (3) definitional difficulties, (4) differences in the interpretation of questions, (5) mistakes in recording or coding the data obtained, and (6) other errors of collection, response, coverage, and estimation for missing data. These nonsampling errors also occur in complete censuses.

Although no direct measurement of the biases due to nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

A major source of bias in the published estimates is due to imputing data for nonrespondents, for late reporters, and for data which fail edit. For all kinds of business combined, imputed data amount to about 15 percent of the sales estimates and 25 percent for inventories.

# Table A-1. Estimated Sampling Variability of Sales and Inventories by Kind of Business for the United States

(Coefficients of variation in percent)

| 1972 SIC code | Kind of business | SALES | | | | | | INVENTORIES | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Preliminary sampling error of the monthly dollar estimates | | Final sampling error of the monthly dollar estimates | | Median sampling error of the ratio of: | | Preliminary sampling error of the monthly dollar estimates | | Final sampling error of the monthly dollar estimates | | Median sampling error of the ratio of: | |
| | | Range | Median | Range | Median | Two consecutive months | Same month a year ago | Range | Median | Range | Median | Two consecutive months | Same month a year ago |
| | Merchant wholesalers, total | 1.4-1.8 | 1.6 | 1.4-1.6 | 1.5 | 0.6 | 1.0 | 1.3-1.5 | 1.4 | 1.2-1.4 | 1.4 | 0.3 | 0.9 |
| | Total (excluding farm-product raw materials) | 1.4-1.9 | 1.6 | 1.3-1.6 | 1.4 | 0.6 | 1.1 | 1.4-1.7 | 1.5 | 1.2-1.5 | 1.5 | 0.3 | 0.9 |
| 50 | Durable goods, total | 1.5-3.2 | 2.0 | 1.4-2.4 | 1.6 | 1.0 | 1.7 | 1.0-1.5 | 1.4 | 1.0-1.4 | 1.3 | 0.4 | 1.1 |
| 501 | Motor vehicles and automotive parts and supplies | 3.6-4.6 | 3.9 | 3.2-4.4 | 3.6 | 1.7 | 2.8 | 2.2-3.5 | 3.0 | 2.6-3.5 | 2.7 | 0.8 | 2.6 |
| 5012 | Automobiles and other motor vehicles | (*) | (*) | (*) | (*) | 2.8 | 5.4 | (*) | (*) | (*) | (*) | 1.8 | 5.5 |
| 5013,4 | Automotive parts and supplies, tires and tubes | 3.3-4.7 | 4.0 | 3.0-4.9 | 3.6 | 1.7 | 3.1 | 3.0-4.1 | 3.7 | 2.8-3.9 | 3.4 | 1.2 | 3.0 |
| 5013 | Automotive parts and supplies | 3.8-5.9 | 4.7 | 3.6-5.9 | 4.2 | 2.1 | 3.8 | 3.8-5.0 | 4.5 | 3.5-4.6 | 4.2 | 1.3 | 3.2 |
| 502 | Furniture and home furnishings | 4.7-7.0 | 5.7 | 4.3-6.1 | 5.1 | 2.9 | 4.0 | 4.0-4.6 | 4.2 | 3.9-4.5 | 4.2 | 0.9 | 3.3 |
| 5021 | Furniture--household and office | 4.9-6.5 | 6.0 | 4.3-7.1 | 6.0 | 4.1 | 5.7 | (*) | (*) | (*) | (*) | 1.5 | 5.1 |
| 5021 pt. | Household furniture | (*) | (*) | (*) | (*) | 6.2 | 11.2 | (*) | (*) | (*) | (*) | 1.5 | 8.7 |
| 5021 pt. | Office furniture | (*) | (*) | (*) | (*) | 4.9 | 6.5 | (*) | (*) | (*) | (*) | 1.9 | 5.2 |
| 5023 | Home furnishings | 6.7-9.2 | 7.6 | 5.5-8.1 | 6.6 | 3.3 | 5.1 | 5.0-6.3 | 5.6 | 5.0-6.1 | 5.7 | 1.1 | 4.5 |
| 503 | Lumber and other construction materials | 4.2-5.8 | 4.8 | 4.4-5.4 | 4.7 | 2.3 | 3.5 | 5.0-6.7 | 5.6 | 5.0-6.6 | 5.9 | 0.9 | 2.9 |
| 5031 | Lumber, plywood, and millwork | 5.7-7.7 | 6.3 | 5.1-6.6 | 5.9 | 3.3 | 4.5 | 7.0-9.0 | 7.9 | 7.2-8.6 | 8.1 | 1.2 | 3.6 |
| 5039 | Construction materials, n.e.c. | 5.0-6.9 | 6.0 | 5.1-6.5 | 5.7 | 3.1 | 5.9 | (*) | (*) | (*) | (*) | 1.1 | 4.8 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | (*) | (*) | (*) | (*) | 3.5 | 5.1 | (*) | (*) | (*) | (*) | 1.6 | 4.6 |
| 505 | Metals and minerals, except petroleum | 4.3-16.8 | 8.7 | 5.1-14.4 | 8.2 | 2.4 | 5.4 | 6.2-9.3 | 7.6 | 5.7-10.2 | 8.1 | 1.2 | 5.2 |
| 5051 pt. | Ferrous metals service centers and offices | 4.3-6.2 | 5.2 | 3.9-6.5 | 4.6 | 2.5 | 3.3 | 3.9-4.7 | 4.3 | 4.0-4.5 | 4.2 | 0.8 | 3.0 |
| 5051 pt. | Ferrous metals service centers | 4.8-7.1 | 5.1 | 4.9-5.2 | 5.1 | 2.8 | 3.6 | 2.8-5.5 | 4.6 | 3.1-4.8 | 4.0 | 0.9 | 3.4 |
| 5051 pt. | Nonferrous metals service centers and offices | (*) | (*) | (*) | (*) | 4.1 | 23.3 | (*) | (*) | (*) | (*) | 5.2 | 22.5 |
| 506 | Electrical goods | 3.8-5.0 | 4.1 | 3.3-4.6 | 3.6 | 2.3 | 3.0 | 3.2-4.8 | 3.5 | 3.3-4.6 | 3.5 | 0.7 | 2.8 |
| 5063 | Electrical apparatus and equipment, wiring supplies, and construction materials | 3.7-6.7 | 4.5 | 3.3-6.9 | 4.1 | 3.1 | 4.5 | 3.2-5.1 | 3.5 | 3.2-4.5 | 3.3 | 0.8 | 2.9 |
| 5064,5 | Electrical appliances, TV and radio sets, and electronic parts and equipment | 5.2-7.4 | 6.0 | 5.0-6.6 | 5.6 | 2.8 | 4.4 | 3.9-6.9 | 4.4 | 3.8-6.5 | 4.7 | 1.2 | 4.1 |
| 5064 | Electrical appliances, TV and radio sets | 4.9-8.2 | 6.4 | 5.1-6.7 | 5.5 | 2.8 | 4.3 | (*) | (*) | (*) | (*) | 1.3 | 5.0 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 3.1-4.5 | 3.5 | 2.9-3.7 | 3.3 | 1.6 | 2.3 | 2.8-4.2 | 3.6 | 2.9-4.2 | 3.5 | 0.8 | 3.8 |
| 5072 | Hardware | 2.6-3.8 | 3.6 | 2.8-3.9 | 3.2 | 1.6 | 2.9 | 4.7-6.3 | 5.6 | 4.5-6.1 | 5.7 | 1.3 | 3.5 |
| 5074 | Plumbing and heating equipment and supplies (hydronics) | 5.4-7.7 | 6.4 | 5.1-6.6 | 5.9 | 2.9 | 5.4 | 5.0-6.0 | 5.4 | 4.7-5.6 | 5.3 | 1.3 | 8.6 |
| 5075 | Warm air heating and air conditioning equipment and supplies | (*) | (*) | (*) | (*) | 4.1 | 5.7 | (*) | (*) | (*) | (*) | 1.2 | 5.1 |
| 508 | Machinery, equipment, and supplies | 2.9-4.5 | 3.3 | 2.6-3.2 | 2.8 | 1.8 | 3.3 | 1.8-2.4 | 2.2 | 1.8-2.3 | 2.1 | 0.4 | 1.8 |
| 5081 | Commercial machines and equipment | (*) | (*) | (*) | (*) | 4.4 | 6.6 | (*) | (*) | (*) | (*) | 1.5 | 5.7 |
| 5082 | Construction and mining machinery and equipment | 4.8-6.6 | 5.4 | 4.1-5.1 | 4.5 | 3.9 | 5.4 | 3.8-5.3 | 4.2 | 3.9-4.9 | 4.1 | 1.1 | 4.1 |
| 5083 | Farm and garden machinery and equipment | (*) | (*) | (*) | (*) | 6.0 | 9.8 | (*) | (*) | (*) | (*) | 1.4 | 4.7 |
| 5084,5 | Industrial machinery, equipment, and supplies | 3.2-4.1 | 3.3 | 2.4-3.4 | 2.8 | 2.5 | 4.9 | 3.2-4.2 | 3.8 | 3.1-3.8 | 3.5 | 0.6 | 2.5 |
| 5086 | Professional equipment and supplies | (*) | (*) | (*) | (*) | 2.7 | 4.7 | (*) | (*) | (*) | (*) | 1.1 | 5.2 |
| 5093 | Scrap and waste materials | 4.2-5.4 | 5.1 | 4.2-5.3 | 4.7 | 2.2 | 3.9 | (*) | (*) | (*) | (*) | 1.3 | 3.2 |
| 5093 pt. | Iron and steel scrap | (*) | (*) | (*) | (*) | 2.2 | 5.0 | (*) | (*) | (*) | (*) | 1.5 | 4.3 |
| 5093 pt. | Waste materials | (*) | (*) | (*) | (*) | 3.9 | 6.9 | (*) | (*) | (*) | (*) | 2.2 | 5.4 |
| 51 | Nondurable goods, total | 1.8-2.1 | 1.9 | 1.6-2.0 | 1.9 | 0.8 | 1.2 | 2.6-3.0 | 2.8 | 2.6-2.8 | 2.7 | 0.5 | 1.3 |
| | Total (excluding farm-product raw materials) | 1.9-2.4 | 2.1 | 1.7-2.3 | 2.0 | 0.9 | 1.4 | 3.3-3.6 | 3.5 | 3.2-3.5 | 3.3 | 0.4 | 1.4 |
| 511 | Paper and paper products | 4.6-7.7 | 5.2 | 4.5-6.9 | 4.9 | 1.5 | 3.0 | 4.6-7.3 | 6.3 | 4.6-7.1 | 5.9 | 0.8 | 3.4 |
| 5111,3 | Printing, writing, industrial, and personal service paper | 3.0-5.1 | 3.3 | 3.0-4.6 | 3.2 | 1.1 | 2.3 | 5.0-6.9 | 6.4 | 4.9-6.9 | 6.3 | 0.8 | 3.1 |
| 5111 | Printing and writing paper | 2.6-3.9 | 2.8 | 2.4-3.4 | 2.7 | 1.3 | 2.7 | 3.9-4.9 | 4.3 | 3.7-4.8 | 4.2 | 0.7 | 3.2 |
| 5113 | Industrial and personal service paper | 4.4-7.7 | 5.0 | 4.4-6.8 | 4.5 | 1.9 | 4.8 | 7.3-11.4 | 9.9 | 6.9-11.2 | 9.7 | 1.3 | 4.2 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 2.3-3.1 | 2.7 | 2.2-2.9 | 2.7 | 1.5 | 3.1 | 3.6-5.1 | 4.4 | 4.0-5.1 | 4.6 | 1.4 | 4.0 |
| 5122 | Drugs, drug proprietaries, and druggists' sundries | 2.3-3.1 | 2.7 | 2.2-2.9 | 2.7 | 1.5 | 3.1 | (*) | (*) | (*) | (*) | 1.4 | 4.0 |
| 5122 pt. | General-line drugs | 6.0-6.9 | 6.6 | 6.0-6.9 | 6.6 | 1.1 | 4.1 | (*) | (*) | (*) | (*) | 0.9 | 6.6 |
| 513 | Apparel, piece goods, and notions | 12.0-15.7 | 13.2 | 10.9-14.6 | 13.4 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |
| 514 | Groceries and related products | 1.7-2.4 | 2.2 | 1.8-2.3 | 2.1 | 0.5 | 1.3 | 1.6-2.2 | 1.8 | 1.6-2.0 | 1.8 | 0.4 | 1.6 |
| 5141 | Groceries, general-line | 2.6-3.4 | 3.3 | 2.8-3.3 | 3.1 | 0.6 | 1.7 | 1.9-2.8 | 2.2 | 1.7-2.7 | 1.9 | 0.5 | 1.7 |
| 5141 pt. | Voluntary groups | (*) | (*) | (*) | (*) | 0.7 | 2.1 | (*) | (*) | (*) | (*) | 0.7 | 2.8 |
| 5141 pt. | Retailer cooperatives | (*) | (*) | (*) | (*) | 0.6 | 1.8 | (*) | (*) | (*) | (*) | 0.6 | 2.3 |
| 5141 pt. | Other general-lines | (*) | (*) | (*) | (*) | 1.3 | 2.8 | (*) | (*) | (*) | (*) | 1.0 | 3.7 |
| 5142,3,6,9 | Specialty-line groceries | (*) | (*) | (*) | (*) | 1.2 | 3.3 | (*) | (*) | (*) | (*) | 1.0 | 3.6 |
| 5144 | Poultry and poultry products | 5.6-7.2 | 6.5 | 5.4-7.2 | 6.7 | 1.8 | 3.2 | (*) | (*) | (*) | (*) | 1.5 | 5.2 |
| 5145 | Confectionery | 5.1-12.9 | 6.7 | 4.8-9.5 | 6.6 | 2.7 | 5.5 | (*) | (*) | (*) | (*) | 1.7 | 4.0 |
| 5147 | Meats and meat products | 5.6-7.0 | 6.8 | 5.4-6.9 | 6.5 | 1.5 | 4.2 | (*) | (*) | (*) | (*) | 1.4 | 6.3 |
| 5148 | Fresh fruits and vegetables | 4.0-5.7 | 4.4 | 3.5-5.0 | 4.7 | 2.3 | 3.2 | (*) | (*) | (*) | (*) | 2.6 | 6.2 |
| 515 | Farm-product raw materials | 2.6-5.2 | 3.0 | 2.1-4.6 | 3.4 | 2.3 | 2.9 | (*) | (*) | (*) | (*) | 1.5 | 4.0 |
| 5152 | Cotton | (*) | (*) | (*) | (*) | 6.9 | 10.2 | (*) | (*) | (*) | (*) | 1.0 | 2.5 |
| 5153 | Grain | 3.2-5.9 | 3.8 | 2.6-5.3 | 3.9 | 2.5 | 3.3 | (*) | (*) | (*) | (*) | 1.7 | 5.0 |
| 517 | Petroleum and petroleum products | 5.1-7.8 | 7.1 | 4.9-8.0 | 6.2 | 2.0 | 4.1 | 5.6-6.5 | 5.8 | 5.1-6.1 | 5.6 | 1.7 | 3.3 |
| 5171 | Petroleum bulk stations and terminals | 3.5-5.1 | 4.0 | 3.1-4.2 | 3.9 | 1.7 | 3.7 | (*) | (*) | (*) | (*) | 2.1 | 3.9 |
| 518 | Beer, wine, and distilled alcoholic beverages | 4.5-5.9 | 4.9 | 4.3-5.5 | 4.9 | 1.2 | 3.0 | 3.8-5.0 | 4.2 | 3.9-5.0 | 4.3 | 1.4 | 3.2 |
| 5181 | Beer and ale | 5.2-6.1 | 5.8 | 5.4-6.2 | 5.7 | 1.4 | 3.5 | 7.9-10.2 | 8.1 | 7.7-9.9 | 8.8 | 2.7 | 4.7 |
| 5182 | Wine and distilled alcoholic beverages | 5.1-7.2 | 5.7 | 5.1-6.9 | 5.7 | 1.9 | 4.1 | 3.4-5.0 | 4.4 | 3.7-4.6 | 4.0 | 1.3 | 4.5 |
| 519 | Miscellaneous nondurable goods | 2.5-4.9 | 3.9 | 2.5-3.9 | 3.4 | 1.9 | 3.2 | (*) | (*) | (*) | (*) | 0.9 | 2.7 |
| 5191 | Farm supplies | (*) | (*) | (*) | (*) | 4.4 | 5.7 | (*) | (*) | (*) | (*) | 1.6 | 4.5 |
| 5194 | Tobacco and tobacco products | 5.6-6.7 | 6.1 | 5.3-6.8 | 5.8 | 1.3 | 3.9 | (*) | (*) | (*) | (*) | 1.3 | 4.7 |
| 5198 | Paints, varnishes, and supplies | (*) | (*) | (*) | (*) | 2.4 | 6.8 | (*) | (*) | (*) | (*) | 1.1 | 5.8 |
| 5199 pt. | Books, periodicals, newspapers | (*) | (*) | (*) | (*) | 6.6 | 17.4 | (*) | (*) | (*) | (*) | 1.4 | 14.4 |

Note: Measures of sampling variability are based on data unadjusted for seasonal variations or trading-day differences. The range of sampling error of the monthly dollar estimates and the ratio of current month to previous month for sales and inventories is based on data for August 1979 through January 1980.

* Measures of sampling variability are not shown since sales and/or inventory estimates for these kinds of business are not published.

# APPENDIX B. Adjustment for Seasonal and Trading-Day Variations

Seasonal factors for adjusting data in this historical publication have been developed by the method described in the **X-11 Variant of the Census Method II Seasonal Adjustment Program**, U.S. Bureau of the Census Technical Paper No. 15, Revised 1967. Trading-day factors for adjusting sales were also derived from the X-11 program.

Adjustment of estimates is an approximation based on past experiences, and therefore, will be less precise to the extent that current competitive pressures, changes in economic condition, and other elements introduce significant changes in seasonal and trading-day patterns.

A description of trading-day adjustment factors may be found in **Estimating Trading-Day Variation in Monthly Economic Time Series**, Bureau of the Census Technical Paper No. 12, 1965. Additional details concerning the adjustment factors may be obtained from the Chief, Business Division, Bureau of the Census, Washington, D.C. 20233.

## Table B-1. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers: January 1980-December 1981

| 1972 SIC code | Kind of business | 1980 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| | | Seasonal and trading-day adjustment factors for sales | | | | | | | | | | | |
| | Merchant wholesalers, total | 96.2 | 95.1 | 101.4 | 102.6 | 103.3 | 100.1 | 101.1 | 99.4 | 100.5 | 106.6 | 96.5 | 101.1 |
| | Total (excluding farm-product raw materials) | 94.8 | 94.7 | 101.4 | 102.9 | 103.5 | 100.9 | 102.0 | 100.0 | 101.8 | 106.0 | 95.6 | 100.0 |
| 50 | Durable goods, total | 90.4 | 92.6 | 101.9 | 103.6 | 104.0 | 102.3 | 101.9 | 102.4 | 103.3 | 108.6 | 94.3 | 98.3 |
| 501 | Motor vehicle and automotive parts and supplies | 95.6 | 94.3 | 104.7 | 111.7 | 108.1 | 101.6 | 102.6 | 100.1 | 93.2 | 104.6 | 91.8 | 95.4 |
| 502 | Furniture and home furnishings | 89.7 | 93.0 | 101.5 | 103.4 | 99.4 | 99.4 | 96.7 | 99.1 | 103.8 | 115.9 | 101.9 | 100.8 |
| 503 | Lumber and other construction materials | 81.7 | 83.3 | 93.2 | 99.7 | 104.8 | 107.5 | 110.0 | 111.8 | 111.6 | 116.0 | 94.1 | 90.1 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 81.0 | 85.5 | 97.7 | 100.6 | 94.0 | 96.8 | 112.6 | 104.2 | 109.8 | 112.7 | 108.0 | 101.4 |
| 505 | Metals and minerals, except petroleum | 96.4 | 97.9 | 106.9 | 102.5 | 101.0 | 101.6 | 98.1 | 103.2 | 102.4 | 103.3 | 93.8 | 97.6 |
| 506 | Electrical goods | 91.7 | 90.4 | 99.0 | 95.5 | 98.5 | 102.0 | 102.9 | 101.8 | 105.8 | 109.9 | 101.4 | 105.0 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 93.5 | 87.9 | 96.2 | 103.1 | 104.6 | 104.1 | 107.7 | 103.3 | 102.4 | 111.6 | 95.9 | 93.7 |
| 508 | Machinery, equipment, and supplies | 90.0 | 92.5 | 102.4 | 104.9 | 106.8 | 103.4 | 100.9 | 100.4 | 104.9 | 107.3 | 91.4 | 98.6 |
| 509 | Miscellaneous durable goods | 91.8 | 97.5 | 108.3 | 102.0 | 98.0 | 95.1 | 91.6 | 100.4 | 108.1 | 112.4 | 96.5 | 101.0 |
| 51 | Nondurable goods, total | 99.9 | 96.1 | 101.2 | 100.9 | 102.4 | 99.4 | 100.8 | 97.2 | 98.7 | 105.3 | 98.2 | 104.0 |
| | Total (excluding farm-product raw materials) | 98.7 | 96.5 | 101.1 | 101.5 | 102.9 | 100.5 | 100.9 | 98.7 | 99.8 | 104.0 | 97.0 | 102.2 |
| 511 | Paper and paper products | 101.1 | 97.3 | 101.0 | 100.9 | 100.8 | 98.2 | 100.6 | 99.6 | 101.6 | 107.8 | 94.9 | 100.6 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 98.9 | 93.2 | 99.8 | 101.6 | 99.1 | 97.7 | 101.9 | 98.1 | 103.2 | 112.3 | 96.3 | 102.0 |
| 513 | Apparel, piece goods, and notions | 95.8 | 94.5 | 100.4 | 97.1 | 93.0 | 90.8 | 103.4 | 110.1 | 113.5 | 113.8 | 99.3 | 93.4 |
| 514 | Groceries and related products | 99.6 | 94.8 | 100.3 | 102.2 | 104.4 | 99.1 | 103.4 | 99.1 | 99.4 | 104.3 | 97.0 | 101.1 |
| 515 | Farm-product raw materials[1] | 102.8 | 96.7 | 102.6 | 101.9 | 104.5 | 93.7 | 96.2 | 92.8 | 96.0 | 108.9 | 102.1 | 106.7 |
| 516 | Chemicals and allied products | 96.8 | 92.8 | 99.3 | 97.3 | 104.8 | 104.5 | 91.3 | 103.3 | 98.6 | 110.6 | 100.8 | 104.8 |
| 517 | Petroleum and petroleum products | 106.1 | 104.2 | 99.6 | 97.4 | 99.7 | 96.6 | 97.9 | 97.6 | 96.9 | 101.1 | 102.5 | 104.4 |
| 518 | Beer, wine, and distilled alcoholic beverages | 84.1 | 85.8 | 94.4 | 99.5 | 103.5 | 106.6 | 106.3 | 103.4 | 98.7 | 106.5 | 97.8 | 117.7 |
| 519 | Miscellaneous nondurable goods | 95.2 | 94.8 | 109.2 | 107.8 | 115.1 | 104.8 | 95.0 | 93.3 | 99.2 | 98.9 | 91.7 | 96.7 |
| | | Seasonal adjustment factors for inventories | | | | | | | | | | | |
| | Merchant wholesalers, total | 100.3 | 101.6 | 102.4 | 101.4 | 100.3 | 99.1 | 98.4 | 98.3 | 98.3 | 99.9 | 100.4 | 99.9 |
| | Total (excluding farm-product raw materials) | 98.8 | 100.1 | 101.4 | 101.3 | 100.9 | 100.8 | 100.6 | 99.6 | 99.3 | 99.6 | 99.4 | 98.6 |
| 50 | Durable goods, total | 98.6 | 99.9 | 100.9 | 100.9 | 101.4 | 101.8 | 101.4 | 100.4 | 99.4 | 98.9 | 98.4 | 98.3 |
| 501 | Motor vehicles and automotive parts and supplies | 101.4 | 104.4 | 102.6 | 100.9 | 101.6 | 100.1 | 99.4 | 97.3 | 95.4 | 98.1 | 98.9 | 100.1 |
| 502 | Furniture and home furnishings | 98.1 | 98.1 | 100.9 | 99.9 | 100.4 | 102.9 | 101.6 | 100.3 | 102.4 | 100.6 | 98.3 | 96.9 |
| 503 | Lumber and other construction materials | 97.8 | 99.1 | 103.3 | 102.8 | 102.8 | 102.4 | 102.4 | 100.3 | 98.9 | 98.1 | 96.1 | 96.9 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 95.1 | 99.1 | 100.1 | 103.9 | 102.3 | 106.3 | 106.1 | 101.4 | 101.3 | 99.9 | 93.6 | 91.3 |
| 505 | Metals and minerals, except petroleum | 98.4 | 97.1 | 98.6 | 97.8 | 102.4 | 100.9 | 102.1 | 105.4 | 101.4 | 97.6 | 99.9 | 98.4 |
| 506 | Electrical goods | 96.3 | 95.6 | 98.1 | 99.3 | 101.9 | 102.1 | 102.1 | 102.4 | 101.6 | 101.6 | 100.1 | 99.4 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 97.6 | 99.9 | 102.6 | 105.4 | 103.9 | 103.1 | 101.9 | 99.3 | 97.6 | 97.9 | 95.1 | 95.8 |
| 508 | Machinery, equipment, and supplies | 98.1 | 99.9 | 101.6 | 100.9 | 101.4 | 102.1 | 100.6 | 100.8 | 100.6 | 98.1 | 98.4 | 98.1 |
| 509 | Miscellaneous durable goods | 99.6 | 99.1 | 98.4 | 99.6 | 98.3 | 99.9 | 102.6 | 100.9 | 101.4 | 102.1 | 99.1 | 99.3 |
| 51 | Nondurable goods, total | 104.4 | 102.9 | 105.3 | 100.9 | 96.9 | 95.1 | 94.8 | 94.3 | 96.4 | 102.1 | 104.1 | 103.4 |
| | Total (excluding farm-product raw materials) | 100.4 | 99.8 | 102.6 | 101.4 | 99.9 | 98.4 | 98.8 | 97.8 | 99.3 | 101.4 | 100.9 | 99.8 |
| 511 | Paper and paper products | 97.1 | 98.4 | 99.6 | 100.9 | 100.4 | 102.6 | 100.1 | 98.9 | 101.1 | 100.1 | 100.3 | 100.9 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 96.4 | 96.1 | 100.3 | 101.3 | 99.3 | 100.4 | 100.4 | 99.9 | 102.8 | 105.3 | 100.9 | 97.4 |
| 513 | Apparel, piece goods, and notions | 101.6 | 100.6 | 98.3 | 98.9 | 100.4 | 100.6 | 101.3 | 101.1 | 98.9 | 99.4 | 99.9 | 99.6 |
| 514 | Groceries and related products | 98.6 | 99.9 | 101.6 | 100.6 | 99.1 | 99.9 | 98.3 | 97.1 | 100.3 | 102.9 | 100.9 | 101.4 |
| 515 | Farm-product raw materials[1] | 119.2 | 117.1 | 114.9 | 101.6 | 86.8 | 82.4 | 78.9 | 79.3 | 84.8 | 103.4 | 116.3 | 115.6 |
| 516 | Chemicals and allied products | 98.6 | 100.6 | 100.8 | 100.8 | 103.9 | 101.9 | 102.4 | 100.3 | 100.6 | 96.6 | 96.3 | 97.6 |
| 517 | Petroleum and petroleum products | 102.6 | 99.1 | 100.1 | 95.4 | 97.8 | 94.8 | 97.9 | 99.9 | 102.4 | 103.9 | 104.3 | 101.8 |
| 518 | Beer, wine, and distilled alcoholic beverages | 97.3 | 94.6 | 101.1 | 104.6 | 103.3 | 102.4 | 100.8 | 96.6 | 99.3 | 104.1 | 103.4 | 93.1 |
| 519 | Miscellaneous nondurable goods | 104.3 | 106.4 | 109.3 | 103.9 | 98.8 | 92.8 | 94.8 | 96.1 | 95.3 | 98.8 | 100.1 | 99.6 |

See footnotes at end of table.

# Table B-1. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers: January 1980-December 1981—Continued

| 1972 SIC code | Kind of business | 1981 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| | | Seasonal and trading-day adjustment factors for sales | | | | | | | | | | | |
| | Merchant wholesalers, total | 93.7 | 91.1 | 104.8 | 102.1 | 100.5 | 103.2 | 100.5 | 98.5 | 101.0 | 104.6 | 98.2 | 102.1 |
| | Total (excluding farm-product raw materials) | 92.3 | 91.4 | 104.1 | 103.3 | 99.8 | 104.3 | 100.7 | 100.2 | 101.6 | 104.5 | 97.2 | 101.3 |
| 50 | Durable goods, total | 88.1 | 88.9 | 104.6 | 103.9 | 100.5 | 105.3 | 101.7 | 102.6 | 103.1 | 106.2 | 96.8 | 98.7 |
| 501 | Motor vehicles and automotive parts and supplies | 92.4 | 91.4 | 108.3 | 112.9 | 104.6 | 103.4 | 100.7 | 100.3 | 93.0 | 103.3 | 93.6 | 98.1 |
| 502 | Furniture and home furnishings | 87.0 | 89.5 | 103.7 | 103.0 | 98.3 | 100.8 | 96.4 | 98.0 | 106.3 | 112.7 | 102.4 | 101.8 |
| 503 | Lumber and other construction materials | 79.6 | 79.1 | 96.9 | 99.3 | 101.4 | 111.5 | 110.0 | 110.5 | 111.3 | 113.5 | 96.9 | 90.8 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 79.0 | 82.5 | 98.3 | 101.3 | 90.0 | 99.4 | 112.6 | 104.8 | 110.9 | 111.2 | 108.5 | 102.6 |
| 505 | Metals and minerals, except petroleum | 91.5 | 93.7 | 112.0 | 100.7 | 100.5 | 103.6 | 98.1 | 102.5 | 103.9 | 98.5 | 97.2 | 96.9 |
| 506 | Electrical goods | 88.4 | 88.9 | 99.9 | 95.8 | 95.3 | 104.7 | 100.3 | 103.8 | 106.9 | 108.9 | 101.4 | 106.5 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 90.5 | 85.6 | 98.4 | 103.9 | 101.6 | 106.3 | 106.0 | 104.3 | 102.6 | 109.7 | 97.6 | 94.9 |
| 508 | Machinery, equipment, and supplies | 88.5 | 88.9 | 104.3 | 105.9 | 102.0 | 107.3 | 100.6 | 100.8 | 104.2 | 105.8 | 93.2 | 99.3 |
| 509 | Miscellaneous durable goods | 90.7 | 92.5 | 114.4 | 100.2 | 93.0 | 101.6 | 90.5 | 99.0 | 106.2 | 112.0 | 99.0 | 101.2 |
| 51 | Nondurable goods, total | 97.5 | 91.9 | 104.8 | 100.6 | 99.5 | 102.6 | 99.9 | 96.0 | 98.6 | 103.7 | 99.8 | 105.7 |
| | Total (excluding farm-product raw materials) | 96.2 | 92.8 | 103.7 | 101.9 | 99.9 | 103.3 | 100.0 | 98.4 | 99.9 | 102.2 | 98.6 | 103.6 |
| 511 | Paper and paper products | 98.0 | 93.9 | 103.9 | 101.0 | 96.9 | 102.3 | 99.0 | 99.1 | 102.6 | 105.7 | 95.6 | 102.6 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 95.2 | 90.3 | 103.2 | 102.6 | 95.6 | 100.5 | 100.4 | 98.8 | 102.8 | 109.9 | 98.7 | 103.8 |
| 513 | Apparel, piece goods, and notions | 92.1 | 92.1 | 101.9 | 97.1 | 88.8 | 94.3 | 101.1 | 110.9 | 116.4 | 111.7 | 99.2 | 95.0 |
| 514 | Groceries and related products | 98.0 | 91.2 | 102.6 | 101.4 | 101.1 | 103.0 | 101.8 | 98.1 | 99.6 | 104.1 | 96.9 | 102.8 |
| 515 | Farm-product raw materials[1] | 101.3 | 90.6 | 108.3 | 98.8 | 101.7 | 99.4 | 95.1 | 90.0 | 95.4 | 109.1 | 103.1 | 108.0 |
| 516 | Chemicals and allied products | 93.5 | 88.3 | 102.3 | 97.0 | 103.6 | 105.3 | 92.0 | 102.7 | 100.0 | 104.9 | 105.3 | 104.8 |
| 517 | Petroleum and petroleum products | 103.6 | 100.6 | 103.3 | 95.9 | 97.9 | 99.8 | 94.5 | 96.8 | 96.6 | 101.6 | 102.9 | 107.3 |
| 518 | Beer, wine, and distilled alcoholic beverages | 81.5 | 81.1 | 98.9 | 99.7 | 100.0 | 109.7 | 107.3 | 101.5 | 99.7 | 102.2 | 101.3 | 119.0 |
| 519 | Miscellaneous nondurable goods | 94.9 | 89.7 | 111.5 | 109.4 | 111.8 | 106.8 | 96.0 | 92.5 | 97.9 | 98.0 | 94.0 | 97.8 |
| | | Seasonal adjustment factors for inventories | | | | | | | | | | | |
| | Merchant wholesalers, total | 100.3 | 101.6 | 102.4 | 101.4 | 100.4 | 99.1 | 98.4 | 98.3 | 98.3 | 99.9 | 100.4 | 99.9 |
| | Total (excluding farm-product raw materials) | 98.8 | 100.1 | 101.4 | 101.3 | 101.1 | 100.8 | 100.6 | 99.8 | 99.3 | 99.6 | 99.4 | 98.6 |
| 50 | Durable goods, total | 98.4 | 99.9 | 100.9 | 100.9 | 101.6 | 101.8 | 101.4 | 100.4 | 99.4 | 98.9 | 98.4 | 98.1 |
| 501 | Motor vehicles and automotive parts and supplies | 101.4 | 104.6 | 102.6 | 100.9 | 101.6 | 100.1 | 99.4 | 97.3 | 95.3 | 97.9 | 98.9 | 100.1 |
| 502 | Furniture and home furnishings | 98.1 | 98.1 | 100.9 | 100.1 | 100.4 | 102.9 | 101.6 | 100.1 | 102.4 | 100.6 | 98.3 | 96.9 |
| 503 | Lumber and other construction materials | 97.6 | 99.1 | 103.3 | 102.8 | 102.8 | 102.4 | 102.4 | 100.3 | 98.9 | 98.1 | 96.1 | 96.8 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 94.9 | 98.9 | 100.1 | 104.1 | 102.3 | 106.3 | 106.3 | 101.4 | 101.3 | 99.8 | 93.6 | 91.4 |
| 505 | Metals and minerals, except petroleum | 98.4 | 97.1 | 98.6 | 97.6 | 102.6 | 100.9 | 102.1 | 105.6 | 101.4 | 97.6 | 99.9 | 98.4 |
| 506 | Electrical goods | 96.3 | 95.6 | 98.1 | 99.3 | 101.9 | 102.1 | 102.1 | 102.4 | 101.6 | 101.6 | 100.1 | 99.3 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 97.6 | 100.1 | 102.8 | 105.4 | 103.9 | 103.1 | 101.9 | 99.1 | 97.6 | 98.1 | 95.1 | 95.8 |
| 508 | Machinery, equipment, and supplies | 97.9 | 99.9 | 101.6 | 100.9 | 101.6 | 102.1 | 100.6 | 100.8 | 100.6 | 98.1 | 98.3 | 98.1 |
| 509 | Miscellaneous durable goods | 99.8 | 99.1 | 98.6 | 99.6 | 98.4 | 99.9 | 102.6 | 100.9 | 101.3 | 102.1 | 99.1 | 99.3 |
| 51 | Nondurable goods, total | 104.4 | 102.9 | 105.4 | 101.1 | 97.1 | 95.1 | 94.8 | 94.1 | 96.3 | 102.1 | 104.1 | 103.3 |
| | Total (excluding farm-product raw materials) | 100.4 | 99.8 | 102.6 | 101.6 | 99.9 | 98.4 | 98.8 | 97.8 | 99.3 | 101.4 | 100.9 | 99.6 |
| 511 | Paper and paper products | 97.1 | 98.4 | 99.6 | 100.9 | 100.4 | 102.6 | 100.1 | 98.9 | 101.1 | 100.1 | 100.3 | 100.9 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 96.4 | 95.9 | 100.4 | 101.1 | 99.4 | 100.3 | 100.6 | 99.9 | 102.9 | 105.3 | 100.9 | 97.3 |
| 513 | Apparel, piece goods, and notions | 101.6 | 100.6 | 98.3 | 98.9 | 100.4 | 100.6 | 101.3 | 101.1 | 98.8 | 99.4 | 99.9 | 99.6 |
| 514 | Groceries and related products | 98.6 | 99.9 | 101.6 | 100.6 | 99.3 | 100.1 | 98.1 | 97.1 | 100.3 | 102.9 | 100.8 | 101.4 |
| 515 | Farm-product raw materials[1] | 119.4 | 117.2 | 115.3 | 101.9 | 86.8 | 82.3 | 78.8 | 79.0 | 84.8 | 103.6 | 116.2 | 115.6 |
| 516 | Chemicals and allied products | 98.6 | 100.8 | 100.8 | 100.8 | 104.1 | 101.9 | 102.4 | 100.4 | 100.6 | 96.6 | 96.1 | 97.6 |
| 517 | Petroleum and petroleum products | 102.4 | 99.1 | 100.1 | 95.6 | 98.1 | 94.8 | 98.1 | 99.9 | 102.4 | 103.9 | 104.3 | 101.8 |
| 518 | Beer, wine, and distilled alcoholic beverages | 97.4 | 94.4 | 101.4 | 104.8 | 103.3 | 102.3 | 100.8 | 96.6 | 99.1 | 103.9 | 103.4 | 93.1 |
| 519 | Miscellaneous nondurable goods | 104.3 | 106.4 | 109.4 | 104.1 | 98.9 | 92.8 | 94.8 | 96.1 | 95.3 | 98.8 | 100.1 | 99.4 |

Note: The adjustment factors shown above for sales are a combination of the seasonal and trading-day factors. These are separately available, however, upon request. Adjustment factors are included in this table for some kinds of business for which adjusted data are not published separately.

Adjusted sales and inventory data shown in table 4 are obtained by dividing the unadjusted data shown in tables 1 and 2 by the adjustment factors shown above for the corresponding kinds of business. Adjusted data for the summary trade totals are obtained by summarizing the adjusted data for the individual kinds of business. Seasonal factors shown for the summary trade totals provide an approximation to these totals but may show small differences from the published data.

[1]There are indications that the seasonal adjustment factors for the farm-product raw materials category may not reflect recent trends in this trade. The seasonally adjusted data for this category and also for the merchant wholesale and nondurable goods totals should, therefore, be used with caution.

# Table B-2. Average Month-to-Month Percent Changes and Related Summary Measures for Sales and Inventories of Merchant Wholesalers

| 1972 SIC code | Kind of business | $\bar{O}$ | $\bar{S}$ | $\overline{CI}$ | $\bar{I}$ | $\bar{C}$ | $\bar{I}/\bar{C}$ | MCD | Average duration of run | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | CI | I | C | MCD |
| | | Sales | | | | | | | | | | |
| | Merchant wholesalers, total | 4.89 | 3.09 | 1.47 | .85 | 1.12 | .75 | 1 | 2.98 | 1.49 | 13.92 | 2.98 |
| 50 | Durable goods, total | 5.43 | 4.75 | 1.61 | 1.05 | 1.17 | .90 | 1 | 3.48 | 1.53 | 20.87 | 3.48 |
| 501 | Motor vehicles and automotive parts and supplies | 5.73 | 4.39 | 2.76 | 2.37 | 1.27 | 1.86 | 3 | 2.09 | 1.61 | 23.86 | 4.23 |
| 502 | Furniture and home furnishings | 7.76 | 6.99 | 2.43 | 2.09 | 1.01 | 2.07 | 3 | 2.04 | 1.59 | 13.92 | 4.34 |
| 503 | Lumber and other construction materials | 7.69 | 6.40 | 2.77 | 1.99 | 1.72 | 1.15 | 2 | 3.09 | 1.62 | 18.56 | 4.61 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 9.44 | 8.63 | 4.18 | 3.85 | 1.26 | 3.06 | 4 | 1.69 | 1.50 | 7.59 | 3.73 |
| 505 | Metals and minerals, except petroleum | 7.02 | 4.10 | 3.22 | 2.50 | 1.85 | 1.35 | 2 | 1.88 | 1.43 | 8.35 | 3.07 |
| 506 | Electrical goods | 5.75 | 5.04 | 2.31 | 1.98 | 1.08 | 1.83 | 2 | 1.76 | 1.53 | 16.70 | 3.39 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 5.84 | 4.73 | 1.98 | 1.67 | 1.01 | 1.66 | 2 | 2.23 | 1.48 | 15.18 | 3.77 |
| 508 | Machinery, equipment, and supplies | 6.04 | 5.35 | 2.03 | 1.68 | 1.01 | 1.67 | 2 | 2.04 | 1.62 | 13.92 | 3.32 |
| 509 | Miscellaneous durable goods | 8.01 | 6.42 | 3.79 | 3.09 | 1.88 | 1.65 | 2 | 2.04 | 1.53 | 10.44 | 3.46 |
| 51 | Nondurable goods, total | 5.20 | 2.81 | 1.85 | 1.31 | 1.13 | 1.16 | 2 | 2.49 | 1.33 | 12.85 | 3.86 |
| 511 | Paper and paper products | 5.52 | 3.23 | 2.09 | 1.67 | 1.03 | 1.61 | 2 | 2.09 | 1.50 | 15.18 | 3.19 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 6.03 | 3.89 | 2.06 | 1.76 | .78 | 2.25 | 3 | 2.01 | 1.59 | 8.79 | 3.24 |
| 513 | Apparel, piece goods, and notions | 8.05 | 6.62 | 2.93 | 2.73 | 1.00 | 2.72 | 3 | 1.72 | 1.43 | 11.13 | 3.11 |
| 514 | Groceries and related products | 4.52 | 1.85 | 1.66 | 1.43 | .83 | 1.71 | 2 | 2.06 | 1.43 | 23.86 | 3.19 |
| 515 | Farm-product raw materials | 9.28 | 4.72 | 5.03 | 4.44 | 1.71 | 2.59 | 3 | 1.90 | 1.58 | 6.96 | 3.30 |
| 516 | Chemicals and allied products | 7.37 | 5.04 | 3.52 | 3.13 | 1.41 | 2.22 | 3 | 1.84 | 1.52 | 18.56 | 4.71 |
| 517 | Petroleum and petroleum products | 7.03 | 5.33 | 4.27 | 3.59 | 1.92 | 1.87 | 3 | 1.84 | 1.67 | 12.85 | 3.11 |
| 518 | Beer, wine, and distilled alcoholic beverages | 10.80 | 8.43 | 1.70 | 1.50 | .72 | 2.09 | 3 | 1.84 | 1.49 | 16.70 | 4.58 |
| 519 | Miscellaneous nondurable goods | 6.05 | 4.67 | 2.68 | 2.37 | 1.07 | 2.22 | 3 | 1.76 | 1.53 | 10.44 | 3.30 |
| | | Inventories | | | | | | | | | | |
| | Merchant wholesalers, total | 1.16 | .70 | .98 | .40 | .91 | .44 | 1 | 7.59 | 1.52 | 27.83 | 7.59 |
| 50 | Durable goods, total | 1.13 | .57 | .98 | .41 | .93 | .44 | 1 | 6.96 | 1.45 | 41.75 | 6.96 |
| 501 | Motor vehicles and automotive parts and supplies | 2.30 | 1.25 | 1.75 | 1.23 | 1.19 | 1.03 | 2 | 2.69 | 1.52 | 11.93 | 4.15 |
| 502 | Furniture and home furnishings | 2.22 | 1.32 | 1.64 | 1.26 | 1.01 | 1.25 | 2 | 2.14 | 1.49 | 13.92 | 4.26 |
| 503 | Lumber and other construction materials | 2.52 | 1.54 | 1.81 | 1.24 | 1.15 | 1.08 | 2 | 2.65 | 1.72 | 16.70 | 4.15 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 3.49 | 2.79 | 2.21 | 1.94 | 1.07 | 1.80 | 2 | 2.01 | 1.62 | 27.83 | 3.39 |
| 505 | Metals and minerals, except petroleum | 3.31 | 2.43 | 2.09 | 1.36 | 1.37 | 1.00 | 2 | 3.04 | 1.72 | 8.79 | 4.05 |
| 506 | Electrical goods | 1.78 | 1.15 | 1.44 | 1.08 | .94 | 1.15 | 2 | 2.49 | 1.40 | 33.40 | 4.37 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 1.74 | 1.28 | 1.22 | .86 | .88 | .97 | 1 | 2.53 | 1.55 | 18.56 | 2.53 |
| 508 | Machinery, equipment, and supplies | 1.43 | .85 | 1.14 | .71 | .92 | .77 | 1 | 2.78 | 1.64 | 41.75 | 2.78 |
| 509 | Miscellaneous durable goods | 2.32 | 1.31 | 1.94 | 1.35 | 1.27 | 1.06 | 2 | 2.09 | 1.58 | 18.56 | 4.49 |
| 51 | Nondurable goods, total | 2.58 | 2.11 | 1.48 | .92 | 1.05 | .88 | 1 | 3.48 | 1.86 | 9.28 | 3.48 |
| 511 | Paper and paper products | 1.90 | 1.02 | 1.41 | 1.05 | .79 | 1.32 | 2 | 1.96 | 1.37 | 8.35 | 4.05 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 2.55 | 1.60 | 1.72 | 1.49 | .74 | 2.01 | 3 | 1.69 | 1.55 | 20.87 | 3.24 |
| 513 | Apparel, piece goods, and notions | 2.22 | 1.30 | 1.84 | 1.48 | .97 | 1.53 | 2 | 2.06 | 1.55 | 8.35 | 2.96 |
| 514 | Groceries and related products | 1.94 | 1.37 | 1.40 | .97 | .97 | 1.01 | 2 | 2.42 | 1.45 | 16.70 | 4.37 |
| 515 | Farm-product raw materials | 8.85 | 7.57 | 4.51 | 3.64 | 2.15 | 1.69 | 3 | 2.42 | 2.04 | 7.59 | 4.12 |
| 516 | Chemicals and allied products | 3.17 | 1.64 | 2.45 | 1.87 | 1.43 | 1.30 | 2 | 2.26 | 1.52 | 16.70 | 3.95 |
| 517 | Petroleum and petroleum products | 5.01 | 2.95 | 3.67 | 2.65 | 2.06 | 1.29 | 2 | 2.29 | 1.65 | 10.44 | 3.95 |
| 518 | Beer, wine, and distilled alcoholic beverages | 4.28 | 3.68 | 1.83 | 1.46 | .86 | 1.70 | 2 | 2.14 | 1.49 | 8.79 | 3.46 |
| 519 | Miscellaneous nondurable goods | 2.85 | 1.88 | 1.96 | 1.55 | .91 | 1.71 | 2 | 1.92 | 1.50 | 8.35 | 3.07 |

## Description of Measures Shown Above

The following are brief descriptions of the measures shown in this table. More complete explanations appear in "Electronic Computers and Business Indicators," Occasional Paper 57, National Bureau of Economic Research, Inc., New York, 1957.

$\bar{O}$ is the average month-to-month percentage change, without regard to sign, in the original series before seasonal or trading-day adjustment.

$\bar{S}$ is the average month-to-month percentage change, without regard to sign, in the seasonal component. It is a measure of the average monthly seasonal change in the unadjusted series.

$\overline{CI}$ is the average month-to-month percentage change, without regard to sign, in the seasonally adjusted series.

$\bar{I}$ is the average month-to-month percentage change without regard to sign, for the irregular component. The irregular component is obtained by dividing the seasonally adjusted series by the cyclical component.

$\bar{C}$ is the average month-to-month percentage change, without regard to sign, for the cyclical component, which is a smooth, flexible moving average.

$\bar{I}/\bar{C}$ is a measure of the relative smoothness (small values) or irregularity (large values) of the seasonally adjusted series.

MCD (months for cyclical dominance) gives an estimate of the appropriate time span over which to observe cyclical movements in a monthly series. In deriving MCD, the average (without regard to sign) percentage changes in the irregular and cyclical components are computed for 1-month spans (Jan.-Feb., Feb.-Mar., etc.) 2-months spans (Jan.-Mar., Feb.-Apr., etc.), and so on. MCD is the shortest span for which the average change (without regard to sign) in the cyclical component is larger than the average change (without regard to sign) in the irregular component; that is, it indicates the point at which fluctuations begin to be more attributable to cyclical than to irregular movements. MCD is small for smooth series and large for erratic series.

Average duration of run (ADR) is a measure of smoothness, and is equal to the average number of consecutive monthly changes in the same direction in any series of observations. When there is no change between 2 months, a change in the same direction as the preceding change is assumed. The ADR is shown for the seasonally adjusted series CI, irregular component I, cyclical component C, and the MCD moving average. The MCD moving average is an unweighted moving average (with the number of terms equal to MCD) of the seasonally adjusted series.

A comparison of these measures with the expected ADR of a random series gives an indication of whether the changes approximate those of a random series. (The expected value of ADR for a random series is 1.5 and it falls between 1.36 and 1.75 about 95 percent of the time. For a moving average of a random series the expected value is 2.0). For example, the ADR of CI is 2.08 for electrical goods sales. This indicates that 1-month changes in the seasonally adjusted series, on the average, reverse sign slightly less often than a random series. In the next two columns, 1.46 for I and 10.58 for C indicate the separation of the seasonally adjusted series into an essentially random component and the cyclical (nonrandom) component. Finally, 3.32 for MCD indicates that a 2-month moving average of the seasonally adjusted series (2 months being the MCD span) reverses direction on the average about every 3 months. The increase in the average duration of run from 2.08 for CI to 3.32 for the MCD moving average indicates that for this series the use of MCD spans reduces the effect of the irregular component upon the seasonally adjusted series.

These averages are based on a seasonally adjusted series which is adjusted historically; that is, the months used to compute the measures were the same months used to estimate the seasonal factors. Current data, however, are adjusted by use of factors projected 1 year ahead, and are thus subject to additional error. Therefore, current data are probably somewhat more irregular and subject to larger MCD than shown above.

# APPENDIX C. Explanatory Material

## I. SCOPE OF THE SURVEY

Wholesale trade, as defined in Major Groups 50 and 51 of the 1972 edition of the Standard Industrial Classification (SIC) Manual[1] and as covered in the 1972 census, includes establishments or places of business primarily engaged in selling merchandise to retailers; to industrial, commercial, institutional, farm or professional business users; or to other wholesalers; or acting as agents or brokers in buying merchandise for or selling merchandise to such persons or companies.

The principal types of establishments included are: (1) merchant wholesalers who take title to the goods they sell, such as wholesale merchants or jobbers, industrial distributors, voluntary group wholesalers, exporters, importers, cash-and-carry wholesalers, drop shippers, major distributors, retailer cooperative warehouses, terminal elevators, and cooperative buying associations; (2) sales branches and sales offices (but not retail stores) maintained by domestic manufacturing or mining enterprises apart from their plants or mines for the purpose of marketing their products; (3) agents, merchandise or commodity brokers, and commission merchants.

This survey is limited to merchant wholesalers (described under category 1 above), which constitute the major portion of the broad field of wholesale trade, and excludes the other types of wholesale trade. All kinds of business in which merchant wholesalers operate are represented in this survey.

Kind-of-business classifications are not interchangeable with commodity classifications. Most businesses sell several kinds of commodities. The kind-of-business code assigned generally reflects either the individual commodity or the commodity group which is the primary source of the establishments receipts, or some mixture of commodities which characterizes the establishment's business. Thus, the classification of establishments by kind of business generally does not make it possible to determine either the number of establishments handling a particular commodity or the sales of that commodity. For example, the "grocery" classification excludes establishments selling groceries if the sale of groceries is not the primary source of receipts; moreover, even though establishments are classified as "grocery wholesalers" some of their sales may be derived from the sale of nonfood products.

A description of each kind of business included in the accompanying statistical data is shown in appendix D.

## II. SAMPLE DESIGN AND ESTIMATION PROCEDURES

**Framework of old series**–The first publication in this series based on probability sampling, was the January 1954 report. Effective with the July 1956 publication an entirely new sample was selected from the 1954 Census of Business. Other changes in the sample have been made since 1956, representing, for the most part, revisions to reflect the findings of successive censuses of wholesale trade and the benchmarking operation described in Section III.

**Selection of sample for new series**–The new sample[2] like the old is a probability sample, and the estimating procedures used are similar in many respects to the old sample.

The new sample originally was drawn from the Standard Statistical Establishment List (SSEL) as updated to December 31, 1974. The initial SSEL consisted of two lists. One list was composed of all Employer Identification (EI) numbers issued by the Internal Revenue Service (IRS) with reported payroll in at least one quarter of 1973 or 1974, with payroll in the 1972 census, or with sales/receipts greater than $100,000 in the 1972 census. The second list consisted of all establishments of known multiestablishment companies as of December 31, 1974. These lists contained information on sales/receipts, payroll, employment, name and address, kind-of-business classification, etc.

Before the 1974 SSEL was available, a study was made, using files from the 1972 Census of Wholesale Trade. This study determined the stratification of the sampling units based on 1972 sales, inventories, and kind of business, and also determined the optimal allocation of the sample necessary to meet specified variance objectives for sales and inventory estimates for different kind-of-business groups. The primary stratum boundary determined in the study was the certainty cutoff to be used for each kind of business. The cutoff was particularly important since it also determined the type of sampling unit.

The sampling units for the new sample consisted of both companies and EI's. To be eligible for the initial sampling, an EI had to be active, i.e., had payroll in 1974 and was on the Internal Revenue Service mailing list for Federal Insurance Contribution Act (FICA) taxpayers. If a known company had total merchant wholesale sales (on a 1972 basis) above the corresponding cutoff for its major kind of business, the company was selected for the sample with certainty. Single establishment companies, whether or not selected with certainty, were considered as EI sampling units.

All merchant wholesale companies below the certainty cutoff were treated on an EI basis; that is, the EI was the sampling unit. The EI's were then stratified according to their major kind of business and their estimated sales (on a 1972

[1] Executive Office of the President, Office of Management and Budget, **Standard Industrial Classification Manual**, 1972.

[2] For a complete exposition of the new sample, see C. T. Isaki et al., "Sample Redesign Aspects of the Census Bureau's Monthly Business Surveys" and K. M. Wolter et al., "Sample Selection and Estimation Aspects of the Census Bureau's Monthly Business Surveys," **Proceedings of the Business and Economic Statistics Section: American Statistical Association**, 1976.

basis). Within each stratum, a simple random sample of EI's was selected. The sampling rates for these EI's varied between 1 in 3 and 1 in 600.

For those EI's in the initial sample that did not have kind-of-business classifications and for all EI "births" after the initial selection, a two-phase selection procedure was used. EI "births," as used here, are new EI's recently assigned by Social Security Administration (SSA) and currently on the IRS mailing list for FICA taxpayers. In the first phase, "births" were stratified by kind of business and size (expected employment or quarterly payroll). A relatively large sample was drawn and canvassed in order to obtain a more reliable measure of size (sales in 2 recent months) and a more detailed kind-of-business code, if needed.

Using this more reliable information, the cases were restratified and the final sample drawn with overall probabilities equivalent to those used in drawing the initial sample from the 1974 SSEL. Because of the lag in reporting "births" to the IRS and SSA and the time needed to accomplish the two-phase birth-selection procedure, "births" are actually added to the sample approximately 1 year after they begin operation. The ongoing birth-selection procedure is carried out quarterly.

Since "births" are not represented in the sample until they go through the selection procedure described above, an interium procedure is required to account for "births" during the period between the onset of activity and the time of birth selection. This consists of imputing for all cases which go out of business, but which are still on the IRS mailing list. This imputation procedure was also used in the old series. However, because of recent delays in obtaining "births," this procedure now accounts for a larger percentage of the estimates.

To be eligible for the sample canvass and tabulation in a given month, a merchant wholesale business must meet both of the following requirements:

1. It must be on the IRS mailing list for FICA taxpayers from the previous quarter.

2. It must have been selected from either the SSEL or the file of employer "births." For this purpose, a universe file of all businesses ever given a chance of selection is maintained. This file shows, among other things, which EI numbers actually have been selected.

In the case of businesses that were selected into the sample with certainty, the first requirement is changed. These certainty sampling units are not dropped from canvass and tabulation if they are no longer on the IRS mailing list. If there are successor businesses, they are added to the survey. This is a tighter form of control used for these larger businesses.

**Use of the rotating sample and composite estimating procedures**–Rotating samples or panels are used except for very large businesses which are selected with certainty. For sampling units in the rotating panels, two months of data are obtained at each enumeration. For example, February rotating panel cases report data for February (the current month) and January (the previous month). In the following month, a different rotating panel (the March panel) reports figures for March and February. Three sample panels are used. This permits the use of a composite estimating procedure which provides estimates more reliable than those which would be obtained from a completely fixed sample of about twice the size. In addition, this procedure reduces the reporting burden of selected businesses.

The first estimate issued each month is called the preliminary estimate. The preliminary composite estimate at the detail level for the current month is a weighted average of two estimates: (1) the current month unbiased estimate (weight .35), and (2) an estimate (weight .65) obtained by multiplying the difference between the preliminary composite for the previous month and the unbiased estimate for the previous month from the current month panel by the current-to-previous-month ratio obtained from the current month reports. Preliminary inventory estimates have been modified, prior to publication, based on past relationships between preliminary and final estimates.

The differences between preliminary and final estimates of seasonally adjusted sales have ranged from approximately +1.7 percent to -0.9 percent for the past 12 months. During the same period, the average of the absolute differences was 0.6 percent. The corresponding range for inventories was approximately +1.0 percent to -0.7 percent for the past 12 months. The average of the absolute differences was 0.5 percent.

## III. BENCHMARKING

Wholesale sales estimates in this report reflect the results of a benchmarking operation which made use of data tabulated from the 1977 Census of Wholesale Trade and the 1978 and 1979 Annual Wholesale Trade Surveys (ATS). Monthly wholesale sales by kind of business for the United States were revised for the period January 1973 through January 1981 in a manner designed to minimize the changes to the month-to-month trends in the original series. As part of the revision process, revised monthly data for 1977, 1978, and 1979 were constrained to sum to 1977 census levels and 1978 and 1979 estimates, respectively.

End-of-month inventories were revised in a similar manner as sales. The constraints for the inventory estimates were the December 1972 estimates and the December ending inventories from 1976 through 1979 estimates from the ATS (the 1976 estimates were available from the 1977 ATS).

Through use of so-called "carry forward factors," the effect of the revision process at the U.S. level is applied to all estimates subsequent to December 1979. These factors were derived at the most detailed kind-of-business level and will be held constant until the next revision and benchmarking process. Aggregate level estimates are derived by summing appropriate detail level estimates, thereby assuring additivity.

Monthly wholesale sales and inventory estimates for published geographic areas also reflect the results of the revision process. In order to adjust geographic estimates, factors are

derived each month at specified United States kind-of-business levels by dividing the revised U.S. estimates (as published) by the unrevised U.S. estimates (without the "carry forward factors" applied) at the given kind-of-business level. These factors are then multiplicatively applied at each published geographic area for the kind of business for which the factor was derived.

## IV. CLASSIFICATION DIFFERENCES BETWEEN THE MONTHLY ESTIMATES AND THE 1977 CENSUS OF WHOLESALE TRADE

Ferrous Metals Service Centers (SIC 5051 part) with warehouse space greater than 5000 square feet are included in the monthly survey, regardless of the ownership of the products sold. However, if the establishments primarily sell the products manufactured by their own company, they are considered sales branches in the 1977 Census of Wholesale Trade.

In the 1977 Census of Wholesale Trade, establishments classified in the Farm-Product Raw Materials Group (SIC 515X) included as sales, products purchased and transferred to other company establishments. In the monthly survey inter-company transfers are not included in sales. Because of the differences shown above, the sales presented in this report for these kinds of business were obtained from the annual trade survey for 1977.

## V. REVISION TO PREVIOUSLY PUBLISHED DATA

The basic input inventory series for all the components of the Farm-Product Raw Materials Group[3] (SIC 515) and for Petroleum-Bulk Stations and Terminals (SIC 5171) have been revised. These data were revised to reflect improved methodology. SIC 5171 was revised from January 1967 through November 1972, while the SIC's in the 515 group were revised from January 1967 through July 1977. All summary groups which included inventories in these SIC's were also revised.

## VI. UNPUBLISHED DATA

Additional data, such as dollar volume estimates for some kinds of business not separately shown in this report, are produced as a byproduct of the regularly published statistics. These additional data have not been included in this publication because the sampling variability associated with these data does not meet the Census Bureau's publication criteria. The Census Bureau, on written request will release unpublished data for individual use, though not for publication.

## VII. DEFINITION OF TERMS

**Sales**—Sales include the following: merchandise sold for cash or credit at wholesale and retail by establishments primarily engaged in merchant wholesale trade; receipts from customers for rental or leasing of equipment, instruments, tools, etc.; receipts for delivery, installation, alteration, maintenance, repair, storage, and other services; and gasoline, liquor, tobacco and other excise taxes which are paid by the manufacturer and passed along to the wholesaler. Sales are net after deductions for refunds and allowances for merchandise returned by customers. Sales which are made on an agency basis for others are included as gross sales. Direct shipments on orders from wholesalers are also included in sales. Total sales do not include nonoperating income from such sources as investments, rental or sale of real estate, etc.

In the new series, sales exclude sales and excise taxes collected directly from customers and paid directly to a local, State, or Federal tax agency. Also excluded are receipts from customers for carrying or other credit charges. In the old series respondents were requested to include these taxes and credit charges in the reported sales. The impact of this change is considered minimal.

**Inventories**—Inventories represent stocks, at cost, of merchandise on hand for sale at the end of the month regardless of location, except for goods outside the United States. Goods held on consignment and items not held for sale such as fixtures, equipment, and supplies are not included.

**Stock-sales ratios**—The stock-sales ratios are percentages derived by dividing the dollar value of inventories, at cost, by the dollar value of sales. No adjustment is made in these ratios for the markup in sales which may vary from trade to trade.

The sales and inventory figures represent total sales and inventories of all establishments primarily engaged in merchant wholesale trade. Also included are the sales and inventories of central administrative offices and auxiliaries of merchant wholesale establishments.

[3] See appendix D, Kind-of-Business Classification for the SIC's included in this group.

# APPENDIX D. Kind-of-Business Classifications

## DURABLE GOODS
## (SIC Major Group 50)

This major group includes establishments primarily engaged in the wholesale distribution of durable goods.

### MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES (SIC 501)

**Automobiles and Other Motor Vehicles (SIC 5012)**[1]—Establishments primarily engaged in the wholesale distribution of new and used passenger automobiles, trucks, and other motor vehicles. Automotive distributors primarily engaged in selling at retail to individual consumers for personal use, and also selling a limited amount of new and used passenger automobiles and trucks at wholesale to dealers, are classified in retail trade, industry 5511.

**Automotive Parts and Supplies (SIC 5013)**—Establishments primarily engaged in the wholesale distribution of automotive parts, supplies, accessories, tools and equipment.

**Tires and Tubes (SIC 5014)**[1]—Establishments primarily engaged in the wholesale distribution of rubber tires and tubes for passenger and commercial vehicles.

### FURNITURE AND HOME FURNISHINGS (SIC 502)

**Furniture (SIC 5021)**—Establishments primarily engaged in the wholesale distribution of furniture, including bedsprings, mattresses, and other household furniture; office furniture; and furniture for public parks, buildings, etc.

SIC 5021 is subdivided into—

*1. Household and lawn furniture.*
*2. Office and business furniture.*

**Home Furnishings (SIC 5023)**—Establishments primarily engaged in the wholesale distribution of home furnishings and homewares, including antiques; china; glassware and earthenware; lamps; curtains and draperies; linens and towels; carpets, linoleum, and all other types of hard and soft surface floor coverings. Establishments primarily engaged in the wholesale distribution of electrical household goods are classified in industry 5064.

[1] Data for this kind of business are not shown separately but are included in the group total.

### LUMBER AND OTHER CONSTRUCTION MATERIALS (SIC 503)

**Lumber, Plywood, and Millwork (SIC 5031)**—Establishments, with or without yards, primarily engaged in the wholesale distribution of rough, dressed, and finished lumber (but not timber); plywood; door and window frames (wood or metal); and other wood and metal millwork. Establishments selling lumber, plywood and millwork to the general public and known as "retail" in the trade are classified in industry 521.

**Construction Materials, Not Elsewhere Classified (SIC 5039)**—Establishments primarily engaged in the wholesale distribution of such building materials as brick, building stone, cement, granite, gravel, lime, marble, plaster, building glass, roofing materials, sand, and tile. Establishments selling construction materials to the general public and known as "retail" in the trade are classified in industry 521. Establishments primarily engaged in marketing heavy structural metal products are classified in industry 5051. Establishments primarily selling readymade concrete are classified in manufacturing.

### SPORTING, RECREATIONAL, PHOTOGRAPHIC, AND HOBBY GOODS, TOYS, AND SUPPLIES (SIC 504)[1]

Establishments primarily engaged in the wholesale distribution of all types of amusement and sporting goods and accessories—billiard and pool supplies; cameras and photographic equipment; coin-operated game machines; games, toys; ammunition and fireworks; etc.

### METALS AND MINERALS, EXCEPT PETROLEUM (SIC 505)

**Ferrous Metals Service Centers and Offices (SIC 5051 pt.)**—Establishments primarily engaged in marketing ferrous metal semifinished products such as nails, pig iron, steel and tin bars. Establishments in this industry may operate with warehouses (ferrous metals service centers) or without warehouses (ferrous metals sales offices).

Sales branches of domestic manufacturers are included in this category if the establishment is separate from the manufacturing plant and has warehouse space greater than 5,000 square feet.

**Nonferrous Metals Service Centers and Offices and Other Minerals and Ores (SIC 5051 pt. and SIC 5052 pt.)**[1]—Establishments primarily engaged in marketing nonferrous metal semifinished products such as aluminum bars and copper rods. Establishments in this industry may operate with warehouses (nonferrous metals service centers) or without warehouses (nonferrous metals sales offices). Also included are establishments primarily engaged in the wholesale distribution of copper, iron, lead, and other metallic ores except precious; and crude nonmetallic minerals (including concentrates) except crude petroleum. Establishments primarily engaged in the wholesale distribution of nonmetallic minerals used in construction, such as sand and gravel, are included in industry 5039.

**Coal (SIC 5052 pt.)**[1]—Establishments primarily engaged in the wholesale distribution of coal and coke. Included are establishments which have products shipped direct from mine to customer, and establishments operating yards and dock space and making deliveries therefrom at wholesale as well as other coal merchants.

## ELECTRICAL GOODS (SIC 506)

**Electrical Apparatus and Equipment, Wiring Supplies, and Construction Materials (SIC 5063)**—Establishments primarily engaged in the wholesale distribution of electrical power equipment for the generation, transmission, or utilization of electric energy; and electrical construction materials for outside power transmission lines and for electrical systems. Construction contractors primarily engaged in installing electrical systems and equipment from their own stock are classified in industry 1731.

**Electrical Appliances, TV and Radio Sets (SIC 5064)**—Establishments primarily engaged in the wholesale distribution of radio and television sets and household electrical appliances.

**Electronic Parts and Equipment (SIC 5065)**[1]—Establishments primarily engaged in the wholesale distribution of electronic parts and equipment, such as industrial and radio and television receiving and transmitting electronic tubes; electronic intercommunication equipment; radio parts and accessories; and electronic sound equipment. Establishments primarily engaged in the wholesale distribution of radio and television receiving sets and phonographs are classified in industry 5064.

## HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES (SIC 507)

**Hardware (SIC 5072)**—Establishments primarily engaged in the wholesale distribution of hardware, such as builders; shelf or light hardware; handtools (except automotive and machinists' precision); handsaws and cutlery; brads, staples, and tacks; and bolts, nuts, rivets, and screws. Establishments primarily engaged in the wholesale distribution of nails, noninsulated wire, and screening are classified in industry 5051.

**Plumbing and Heating Equipment and Supplies (Hydronics) (SIC 5074)**—Establishments primarily engaged in the wholesale distribution of hydronic plumbing and heating equipment and supplies. Construction contractors primarily engaged in installing plumbing and heating equipment from their own stock are classified in industry 1711.

**Warm Air Heating and Air-Conditioning Equipment and Supplies (SIC 5075)**[1]—Establishments primarily engaged in the distribution of warm air heating and air-conditioning equipment and supplies. Construction contractors primarily engaged in installing warm air heating and air-conditioning equipment are classified in industry 1711.

**Refrigeration Equipment and Supplies (SIC 5078)**[1]—Establishments primarily engaged in the distribution of refrigeration equipment and supplies. Construction contractors primarily engaged in installing refrigeration equipment from their own stock are classified in industry 1711.

## MACHINERY, EQUIPMENT, AND SUPPLIES (SIC 508)

**Commercial Machines and Equipment (SIC 5081)**[1]—Establishments primarily engaged in wholesaling commercial machines and equipment, such as office, store, and business machines and equipment; commercial food service equipment; and fountain and store fixtures.

**Construction and Mining Machinery and Equipment (SIC 5082)**—Establishments primarily engaged in marketing cranes, excavating machinery and equipment, power shovels, road construction and maintenance machinery, tractor-mounting equipment and other specialized machinery and equipment used in the construction, mining, and logging industries. Establishments engaged in marketing oil well machinery and equipment are classified in industry 5084.

**Farm and Garden Machinery and Equipment (SIC 5083)**[1]—Establishments primarily engaged in marketing agricultural machinery and equipment for use in the preparation and maintenance of the soil, the planting and harvesting of crops, and other operations and processes pertaining to work on the farm or the lawn or garden; and dairy and other livestock equipment.

**Industrial Machinery and Equipment (SIC 5084)**[1]—Establishments primarily engaged in marketing industrial machinery and equipment, such as metal working tools, food industries machinery, oil well and oil refining machinery, industrial

[1] Data for this kind of business are not shown separately but are included in the group total.

trucks and tractors (except over-the-road types), printing machinery, and machinery and equipment for other manufacturing industries.

**Industrial Supplies (SIC 5085)**[1]—Establishments primarily engaged in marketing industrial supplies, such as abrasives and materials, rope and cordage, and mechanical rubber goods; welding supplies; mechanical power transmission supplies, including bearings; industrial valves and fittings; metal containers; industrial leather; and reconditioned barrels and drums.

**Professional Equipment and Supplies (SIC 5086)**—Establishments primarily engaged in the wholesale distribution of mechanical devices and other equipment used by architects, dentists, engineers, physicians, surgeons, veterinarians, optometrists, osteopaths, and other professional groups.

**Surgical, Medical, Hospital Supplies (SIC 5086 pt.)**[1]—Establishments primarily engaged in selling surgical and medical instruments; doctors' apparatus and equipment; orthopedic appliances; artifical limbs; operating room and other hospital equipment, X-ray machines and accessories and other scientific instruments used by physicians and in hospitals.

**Service Establishment Equipment and Supplies (SIC 5087)**[1]—Establishments primarily engaged in the wholesale distribution of equipment and supplies for barber shops, beauty parlors power laundries, dry-cleaning plants, upholsterers, undertakers, and related personal service establishments.

**Transportation Equipment and Supplies, Except Motor Vehicles (SIC 5088)**[1]—Establishments primarily engaged in the wholesale distribution of transportation equipment and supplies. Establishments primarily engaged in the wholesale distribution of motor vehicles and motor vehicle parts are classified in group 501.

### MISCELLANEOUS DURABLE GOODS (SIC 509)[1]

**Scrap and Waste Materials (SIC 5093)**—Establishments primarily engaged in assembling, breaking up, sorting and wholesale distribution of scrap and waste materials. This industry includes auto wreckers engaged in dismantling automobiles for scrap. However, those engaged in dismantling cars for the purpose of selling secondhand parts at retail are classified in industry 5931.

SIC 5093 is subdivided into—

1. *Iron and Steel scrap.*
2. *Waste and secondary materials dealers.*

[1] Data for this kind of business are not shown separately but are included in the group total.

**Jewelry, Watches, Diamonds, and Other Precious Stones (SIC 5094)**[1]—Establishments primarily engaged in the wholesale distribution of jewelry, precious stones and metals, costume jewelry, watches, clocks, silverware, and jewelers' findings.

**Durable Goods, Not Elsewhere Classified (SIC 5099)**[1]—Establishments primarily engaged in the wholesale distribution of durable goods, not elsewhere classified, such as musical instruments and forest products, except lumber.

## NONDURABLE GOODS (SIC Major Group 51)

This major group includes establishments primarily engaged in the wholesale distribution of nondurable goods.

### PAPER AND PAPER PRODUCTS (SIC 511)

**Printing and Writing Paper (SIC 5111)**[1]—Establishments primarily engaged in the wholesale distribution of writing paper, including envelope paper, fine paper, and ground wood, printing, and rotogravure paper.

**Stationery Supplies (SIC 5112)**[1]—Establishments primarily engaged in the wholesale distribution of stationery and office supplies, including envelopes, typewriter and mimeograph paper, file cards and folders, pens, social stationery, and greeting cards.

**Industrial and Personal Service Paper (SIC 5113)**[1]—Establishments primarily engaged in the wholesale distribution of wrapping and other coarse paper, paperboard, cellophane, and converted paper products, such as bags, boxes, dishes, napkins, and shipping supplies.

### DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES (SIC 512)

**Drugs, Drug Proprietaries, and Druggists' Sundries (SIC 5122)**—Establishments primarily engaged in the wholesale distribution of drugs, drug proprietaries, druggists' sundries, and toiletries. Establishments primarily engaged in the wholesale distribution of surgical, dental, and hospital equipment are classified in industry 5086.

SIC 5122 is subdivided into—

1. *General-line drugs*—These are distinguished from specialty-line drug and toiletries wholesalers on the basis of their commodity-line mix. Drug wholesalers were classified as general line if they reported a substantial portion of their sales in "pharmaceuticals, antibiotics, druggists' chemicals, biologicals, botanicals" and "proprietary products, toilet-

ries, druggists' sundries," and if annual sales volume was $1 million or more.

2. *Specialty-line pharmaceuticals, cosmetics, and toiletries.*

## APPAREL, PIECE GOODS, AND NOTIONS (SIC 513)

**Piece Goods (SIC 5133)**[1]—Establishments primarily engaged in the wholesale distribution of woven piece goods or yard goods of natural or manmade fibers. "Converters" who buy goods in the grey, have them finished on contract, and sell at wholesale are included here. This industry does not include establishments primarily engaged in the wholesale distribution of home furnishings, which are classified in industry 5023.

**Notions and Other Dry Goods (SIC 5134)**[1]—Establishments primarily engaged in the wholesale distribution of notions (sewing and hair accessories, etc.), knit goods, and other dry goods, except piece goods.

**Men's and Boys' Clothing and Furnishings (SIC 5136)**[1]—Establishments primarily engaged in the wholesale distribution of men's and boys' apparel and furnishings, sportswear, hosiery, underwear, nightwear, and work clothing.

**Women's Children's, and Infants' Clothing and Accessories (SIC 5137)**[1]—Establishments primarily engaged in the wholesale distribution of women's, children's, and infants' clothing and accessories, including hosiery, lingerie, millinery and millinery supplies, and furs.

**Footwear (SIC 5139)**[1]—Establishments primarily engaged in the wholesale distribution of footwear of leather, rubber, and other materials.

## GROCERIES AND RELATED PRODUCTS (SIC 514)

**Groceries, General-Line (SIC 5141)**—Establishments primarily engaged in the wholesale distribution of a general line of groceries. Establishments primarily engaged in roasting coffee and establishments primarily engaged in blending tea or grinding and packaging spices are classified in major group 20.

SIC 5141 is subdivided into—

1. *Voluntary group wholesalers.*
2. *Retailer cooperative wholesalers.*
3. *Other general-line wholesalers.*

**Frozen Foods (SIC 5142)**[1]—Establishments primarily engaged in the wholesale distribution of packaged quick-frozen vegetables, juices, meats, fish, poultry, pastries, and other "deep freeze" products. Establishments primarily engaged in the wholesale distribution of frozen dairy products are classified in industry 5143. Frozen poultry, fish, and meat which are not packaged are classified in industries 5144, 5146, and 5147, respectively.

**Dairy Products (SIC 5143)**[1]—Establishments primarily engaged in the wholesale distribution of dairy products, such as butter, cheese, ice cream and ices, and fluid milk and cream. This industry does not include establishments primarily engaged in pasteurizing and bottling milk, which are classified in group 202.

**Poultry and Poultry Products (SIC 5144)**—Establishments primarily engaged in the wholesale distribution of poultry and poultry products, except canned and packaged frozen products. This industry does not include establishments primarily engaged in the killing and dressing of poultry, which are classified in industry 2016. Establishments primarily engaged in the wholesale distribution of packaged frozen poultry are classified in industry 5142, and of canned poultry in industry 5149.

**Confectionery (SIC 5145)**—Establishments primarily engaged in the wholesale distribution of confectionery, such as candy, chewing gum, fountain fruits, salted or roasted nuts, popcorn, and fountain syrups; and potato, corn, and similar chips.

**Fish and Seafoods (SIC 5146)**[1]—Establishments primarily engaged in the wholesale distribution (not packaging) of fresh, cured, and frozen fish and seafoods, except canned (industry 5149) or packaged frozen (industry 5142). The preparation, packaging, and freezing of fresh fish and other seafood, and the shucking and packing of fresh oysters in nonsealed containers, are classified in industry 2092.

**Meats and Meat Products (SIC 5147)**—Establishments primarily engaged in the wholesale distribution of fresh, cured, and processed (but not canned) meats and lard. The wholesale distribution of frozen packaged meats is classified in industry 5142 and canned meats in industry 5149.

**Fresh Fruits and Vegetables (SIC 5148)**—Establishments primarily engaged in the wholesale distribution of fresh fruits and vegetables.

**Groceries and Related Products, Not Elsewhere Classified (SIC 5149)**[1]—Establishments primarily engaged in the wholesale distribution of groceries and related products, not elsewhere classified. Establishments primarily engaged in the wholesale distribution of soft drinks, and in bottling and distributing natural spring and mineral waters, are classified in this industry, but establishments primarily engaged in bottling soft drinks are classified in major group 20. This industry does not include farm-product raw materials (group 515), or beer, wine, and distilled alcholic beverages (group 518).

[1] Data for this kind of business are not shown separately but are included in the group total.

## FARM-PRODUCT RAW MATERIALS (SIC 515)

**Cotton (SIC 5152)**[1]—Establishments primarily engaged in buying and/or marketing cotton and cotton linters.

**Grain (SIC 5153)**—Establishments primarily engaged in buying and/or marketing grain (such as corn, wheat, oats, barley, and unpolished rice); dry beans; soybeans, and other inedible beans. Country grain elevators primarily engaged in buying or receiving grain from farmers are included as are terminal elevators and other merchants marketing grain.

**Livestock (SIC 5154)**[1]—Establishments primarily engaged in buying and/or marketing cattle, hogs, sheep, and goats.

**Farm-Product Raw Materials, Not Elsewhere Classified (SIC 5159)**[1]—Establishments primarily engaged in buying and/or marketing farm products not elsewhere classified, such as horses and mules, leaf tobacco, hides, skins, furs, wool, mohair, raw silk, hops, and nuts, except roasted or salted (industry 5145). Establishments primarily engaged in the wholesale distribution of milk are classified in industry 5143 and live poultry in industry 5144.

## CHEMICALS AND ALLIED PRODUCTS (SIC 516)[1]

**Chemicals and Allied Products (SIC 5161)**[1]—Establishments primarily engaged in the wholesale distribution of chemicals and allied products, not elsewhere classified, such as acids, industrial and heavy chemicals, dyestuffs, industrial salts, naval stores, plastics materials, rosin, and turpentine. Establishments primarily engaged in the wholesale distribution of ammunition are classified in industry 5041; agricultural chemicals and pesticides in industry 5191; drugs in industry 5122; and paints and varnishes in industry 5198.

## PETROLEUM AND PETROLEUM PRODUCTS (SIC 517)

**Petroleum Bulk Stations and Terminals (SIC 5171)**—Establishments primarily engaged in wholesaling petroleum products, including liquefied petroleum gas, from bulk liquid storage facilities.

**Petroleum and Petroleum Products Wholesalers, Except Bulk Stations and Terminals (SIC 5172)**[1]—Establishments primarily engaged in wholesaling petroleum and petroleum products, except those with bulk liquid storage facilities. Included are packaged and bottled petroleum products distributors, truck jobbers, and others marketing petroleum and products at wholesale but without bulk liquid storage facilities.

[1] Data for this kind of business are not shown separately but are included in the group total.

## BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES (SIC 518)

**Beer and Ale (SIC 5181)**—Establishments primarily engaged in the wholesale distribution of beer, ale, porter, and other fermented malt beverages.

**Wines and Distilled Alcoholic Beverages (SIC 5182)**—Establishments primarily engaged in the wholesale distribution of distilled spirits, including neutral spirits and ethyl alcohol used in blending wines and distilled liquors.

## MISCELLANEOUS NONDURABLE GOODS (SIC 519)

**Farm Supplies (SIC 5191)**[1]—Establishments primarily engaged in the wholesale distribution of animal feeds, fertilizers, agricultural chemicals, pesticides, seeds, and other farm supplies, except grains.

**Tobacco and Tobacco Products (SIC 5194)**—Establishments primarily engaged in the wholesale distribution of tobacco and tobacco products. Leaf tobacco wholesalers are classified in industry 5159 and establishments primarily engaged in stemming and redrying tobacco in industry 2141.

**Paints, Varnishes, and Supplies (SIC 5198)**[1]—Establishments primarily engaged in the wholesale distribution of paints, varnishes, wallpaper, and supplies, and sometimes glass. Establishments selling to the general public and known as "retail" in the trade are classified in industry 5231.

**Books, Periodicals, Newspapers (SIC 5199 pt.)**[1]—Establishments primarily engaged in the wholesale distribution of books, lithographed matter, magazines, newspapers, and all other forms of reading material.

**Nondurable Goods, Not Elsewhere Classified (SIC 5199 pt.)**[1]—Establishments primarily engaged in the wholesale distribution of nondurable goods, not elswhere classified, such as art goods, flowers and florist supplies, industrial yarn, textile bags, bagging and burlap.

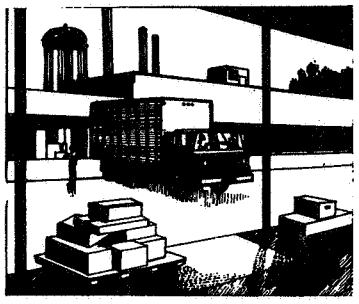
## CHANGES IN WHOLESALE KIND-OF-BUSINESS CLASSIFICATIONS IN 1972 FROM 1967

The wholesale trade kind-of-business structure was expanded from one SIC major group (SIC 50) in 1967 to two major groups in 1972, "durable goods" (SIC 50) and "nondurable goods" (SIC 51). There were 61 four-digit industries in 1972 compared to 48 four-digit industries in 1967.

The definitions of some kinds of business also were changed in 1972. Establishments primarily selling farm supplies and equipment to farmers, and establishments primarily selling

plumbing, heating, and air-conditioning equipment and electrical supplies were classified in wholesale trade rather than retail trade. However, establishments primarily selling lumber and other building materials and paint, glass, and wallpaper were classified in retail trade if they sell to the public, even though sales to contractors account for a larger portion of the total. The change resulted in moving to wholesale trade those establishments primarily selling plumbing, heating, and air-conditioning equipment; electrical supplies; farm equipment; hay, grain, and feed; and other farm supplies. The change also theoretically could have shifted to wholesale trade some establishments primarily selling lumber and paint, glass and wallpaper to contractors, but not to the public.

In addition to the kind-of-business changes noted above the special nonmerchant classifications of farm assemblers and bulk petroleum were eliminated in the 1972 census. These establishments were classified in the appropriate merchant, or sales branch category.



CURRENT BUSINESS REPORTS

# Monthly Wholesale Trade

## SALES AND INVENTORIES

Issued August 1981

## JUNE 1981

BW-81-06

**Sales.** June 1981 sales of merchant wholesalers, after adjustment for seasonal variations and trading-day differences but not for price changes, were $95.1 billion, down 1 percent from the previous month but 16 percent above June 1980. Adjusted April-through-June total sales were down 2 percent from the January-through-March period but were 19 percent above the comparable months a year ago.

After adjustment, June sales in the durable goods trades were up 1 percent from the previous month and 18 percent above the year-ago level. Nondurable goods sales decreased 3 percent from May but were 15 percent above June 1980. Total monthly sales in the durable goods group during the April-through-June period were virtually unchanged from the prior 3 months but increased 18 percent from the comparable period a year ago. Three-month total sales for the nondurable goods group were down 3 percent from the January-through-March period but were 19 percent above the same period a year ago.

Based on adjusted data, comparisons with previous month sales levels showed the largest increase in motor vehicles and automotive equipment (5%). The largest month-to-month decrease was in farm-product raw materials (-15%). Compared with adjusted sales of a year ago, the sharpest increase was noted in petroleum and petroleum products (45%) and the largest decrease was in farm-product raw materials (-5%).

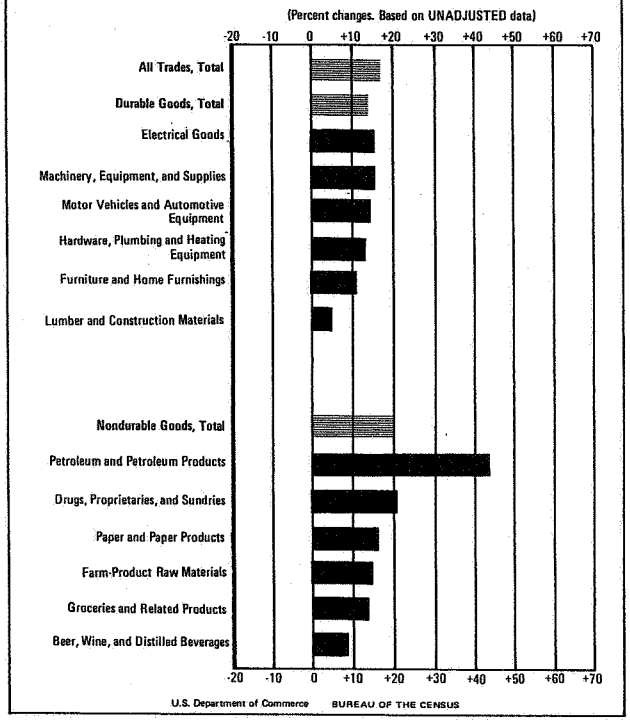
**Inventory.** Total inventories of merchant wholesalers after adjustment for seasonal variations but not for price changes, were valued at $106.7 billion at the end of June, up 1 percent from the previous month and up 9 percent from June 1980. Durable and nondurable goods stocks increased 1 percent from May and were up 11 and 5 percent, respectively, from the levels a year ago.

Based on adjusted data, comparisons with previous month inventory levels showed the largest increase in petroleum and petroleum products (10%). The largest month-to-month decrease was in farm-product raw materials (-8%). Compared with adjusted year-ago inventories, the sharpest increase was noted in drugs, proprietories, and sundries (15%) and the sharpest decrease in farm-product raw materials (-17%).

**Stock-Sales Ratios.** The June stock-sales ratio for merchant wholesalers, based on seasonally adjusted data, was 112, up 2 points from May but down 8 points from June 1980. The stock-sales ratio for durable goods was 172, virtually unchanged from the previous month but down 12 points from the year-ago ratio. The ratio for nondurable goods was 67, up 3 points from May but down 6 points from June 1980.

Data in this report are based on a sample and, therefore, are subject to sampling and nonsampling errors. A discussion of the reliability of the data is in appendix A.

**Percent Change in Sales of Merchant Wholesalers in Selected Kinds of Business**
**6 Months 1981 Compared With 6 Months 1980**




**NOTICE:** Effective with the August 1981 data month, this publication will no longer contain monthly sales and inventory estimates for geographic divisions (tables 6 and 7). The Bureau of the Census will discontinue the collection of monthly geographic data for merchant wholesalers.

**An advance release of June 1981 data was issued August 5, 1981.**

U.S. Department of Commerce
BUREAU OF THE CENSUS

**Inquiries concerning this report should be addressed to Ronald Piencykoski, Business Division, Bureau of the Census, Washington, D.C. 20233. Telephone (301) 763-3916/763-3917.**

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# Table 1. Estimated Monthly Sales of Merchant Wholesalers by Kind of Business for the United States, Unadjusted: 1981 and 1980

(MILLIONS OF DOLLARS. DATA ARE NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | | | | | | 1980 | | | | | | | TOTAL 6 MONTHS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN. | FEB. | MAR. | APR. | MAY | JUNE[P] | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. | 1981 | 1980 |
| | MERCHANT WHOLESALERS, TOT. | 93,845 | 89,641 | 101,273 | 99,081 | 96,676 | 98,135 | 81,607 | 86,052 | 86,311 | 90,715 | 99,023 | 91,328 | 97,659 | 578,651 | 492,798 |
| | TOTAL (EX FARM-PROD RAW MATLS) | 81,300 | 79,450 | 88,833 | 88,407 | 86,325 | 89,586 | 73,107 | 76,952 | 76,933 | 80,580 | 87,102 | 80,363 | 85,305 | 513,901 | 436,427 |
| 50 | DURABLE GOODS, TOT | 35,927 | 37,054 | 41,991 | 41,934 | 40,679 | 43,259 | 35,508 | 35,757 | 36,010 | 38,112 | 41,298 | 36,679 | 38,598 | 240,844 | 211,985 |
| 501 | MOTOR VEHICLES & AUTO PARTS & SUPPLIES | 7,085 | 7,248 | 8,174 | 8,345 | 7,552 | 7,855 | 6,716 | 6,867 | 7,026 | 6,449 | 7,638 | 6,621 | 6,816 | 46,259 | 40,212 |
| 5013,4 | AUTO PARTS & SUPPLIES, TIRES & TUBES | 3,079 | 3,067 | 3,531 | 3,493 | 3,184 | 3,560 | 2,929 | 2,946 | 3,028 | 3,117 | 3,451 | 3,012 | 3,053 | 19,914 | 16,809 |
| 5013 | AUTO PARTS & SUPPLIES | 2,639 | 2,642 | 2,978 | 2,908 | 2,651 | 2,987 | 2,454 | 2,459 | 2,543 | 2,581 | 2,889 | 2,530 | 2,576 | 16,805 | 14,236 |
| 502 | FURNITURE & HOME FURNISHINGS | 1,293 | 1,334 | 1,465 | 1,476 | 1,400 | 1,443 | 1,246 | 1,209 | 1,250 | 1,330 | 1,531 | 1,356 | 1,355 | 8,411 | 7,549 |
| 5021 | FURNITURE--HSEHLD & OFFICE | 464 | 459 | 547 | 524 | 509 | 529 | 456 | 446 | 465 | 469 | 499 | 441 | 500 | 3,032 | 2,746 |
| 5023 | HOME FURNISHINGS | 829 | 875 | 918 | 952 | 891 | 914 | 790 | 763 | 785 | 861 | 1,032 | 915 | 855 | 5,379 | 4,803 |
| 503 | LUMBER & OTHER CONSTRUCTION MATLS | 2,422 | 2,388 | 2,774 | 2,960 | 2,782 | 2,984 | 2,874 | 2,957 | 2,842 | 3,046 | 3,309 | 2,822 | 2,704 | 16,310 | 15,565 |
| 5031 | LUMBER, PLYWOOD & MILLWORK | 1,567 | 1,569 | 1,737 | 1,842 | 1,743 | 1,929 | 1,807 | 1,846 | 1,787 | 1,930 | 2,054 | 1,786 | 1,720 | 10,387 | 10,123 |
| 5039 | CONSTRUCTION MATLS, N.E.C.[1] | 855 | 819 | 1,037 | 1,118 | 1,039 | 1,055 | 1,067 | 1,111 | 1,055 | 1,116 | 1,255 | 1,036 | 984 | 5,923 | 5,442 |
| 5051 PT. | FERROUS METALS SERV CTRS & OFFICES | 3,295 | 3,577 | 3,951 | 3,811 | 3,911 | 4,134 | 2,841 | 2,580 | 2,732 | 3,042 | 3,272 | 2,954 | 3,327 | 22,679 | 18,120 |
| 5051 PT. | FERROUS METALS SERV CTRS | 2,543 | 2,751 | 3,076 | 2,997 | 3,059 | 3,214 | 2,154 | 1,956 | 2,078 | 2,286 | 2,491 | 2,271 | 2,510 | 17,640 | 13,663 |
| 506 | ELECTRICAL GOODS | 3,762 | 3,930 | 4,403 | 4,191 | 4,269 | 4,678 | 3,770 | 3,908 | 3,802 | 4,207 | 4,299 | 4,236 | 4,299 | 25,233 | 21,685 |
| 5063 | ELECTRICAL APPARATUS & EQUIP, WIRING SUPPLIES & CONSTRUCTION MATLS | 1,858 | 1,980 | 2,088 | 2,076 | 2,108 | 2,239 | 1,901 | 1,895 | 1,862 | 2,158 | 2,178 | 2,155 | 2,155 | 12,349 | 10,765 |
| 5064,5 | ELECTRICAL APPLIANCES, TV & RADIO SETS, & ELECTRONIC PARTS & EQUIP | 1,904 | 1,950 | 2,315 | 2,115 | 2,161 | 2,439 | 1,869 | 2,013 | 1,940 | 2,049 | 2,121 | 2,081 | 2,144 | 12,884 | 10,920 |
| 5064 | ELECTRICAL APPLIANCES, TV & RADIO SETS[2] | 1,013 | 1,012 | 1,235 | 1,129 | 1,186 | 1,290 | 989 | 1,098 | 1,069 | 1,142 | 1,200 | 1,130 | 1,194 | 6,865 | 5,600 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIP, & SUPPLIES | 2,274 | 2,202 | 2,528 | 2,677 | 2,576 | 2,806 | 2,262 | 2,393 | 2,312 | 2,405 | 2,645 | 2,328 | 2,259 | 15,063 | 13,281 |
| 5072 | HARDWARE | 889 | 851 | 982 | 991 | 922 | 984 | 867 | 823 | 832 | 895 | 932 | 859 | 863 | 5,619 | 5,078 |
| 5074 | PLUMBING & HEATING EQUIP & SUPPLIES (HYDRONICS) | 966 | 922 | 1,057 | 1,115 | 1,100 | 1,152 | 896 | 971 | 960 | 1,035 | 1,181 | 1,011 | 967 | 6,312 | 5,537 |
| 508 | MACHINERY, EQUIP, & SUPPLIES | 10,302 | 10,731 | 12,571 | 12,322 | 12,248 | 13,208 | 10,774 | 10,621 | 10,885 | 11,613 | 11,949 | 10,511 | 11,722 | 71,382 | 61,747 |
| 5082 | CONSTRUCTION & MINING MACHINERY & EQUIP | 1,111 | 1,218 | 1,401 | 1,571 | 1,441 | 1,633 | 1,321 | 1,339 | 1,602 | 1,473 | 1,414 | 1,341 | 1,377 | 8,375 | 7,630 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIP & SUPPLIES | 4,631 | 4,775 | 5,531 | 5,389 | 5,526 | 6,203 | 4,600 | 4,453 | 4,509 | 4,720 | 4,929 | 4,501 | 5,079 | 32,055 | 26,557 |
| 5086 | PROFESSIONAL EQUIP & SUPPLIES | 1,043 | 1,138 | 1,295 | 1,199 | 1,193 | 1,350 | 1,104 | 1,120 | 1,149 | 1,200 | 1,217 | 1,107 | 1,208 | 7,218 | 6,181 |
| 5093 | SCRAP & WASTE MATLS | 1,304 | 1,297 | 1,456 | 1,496 | 1,395 | 1,332 | 1,215 | 1,047 | 1,107 | 1,240 | 1,458 | 1,267 | 1,435 | 8,280 | 8,773 |
| 51 | NONDURABLE GOODS, TOT | 57,918 | 52,587 | 59,282 | 57,147 | 55,997 | 54,876 | 46,099 | 50,295 | 50,301 | 52,603 | 57,725 | 54,649 | 59,061 | 337,807 | 280,813 |
| | TOTAL (EX FARM-PROD RAW MATLS) | 45,373 | 42,396 | 46,842 | 46,473 | 45,646 | 46,327 | 37,599 | 41,195 | 40,923 | 42,468 | 45,804 | 43,684 | 46,707 | 273,057 | 224,442 |
| 511 | PAPER & PAPER PROD | 1,949 | 1,908 | 2,112 | 2,039 | 1,995 | 2,116 | 1,696 | 1,763 | 1,775 | 1,879 | 2,009 | 1,822 | 1,929 | 12,119 | 10,466 |
| 5111,3 | PRINTING, WRITING, IND & PERSONAL SERV PAPER | 1,397 | 1,356 | 1,549 | 1,476 | 1,437 | 1,535 | 1,276 | 1,294 | 1,287 | 1,375 | 1,465 | 1,304 | 1,413 | 8,750 | 7,741 |
| 5111 | PRINTING & WRITING PAPER | 655 | 648 | 733 | 719 | 668 | 715 | 621 | 586 | 576 | 626 | 697 | 582 | 652 | 4,138 | 3,887 |
| 5113 | IND & PERSONAL SERV PAPER | 742 | 708 | 816 | 757 | 769 | 820 | 655 | 708 | 711 | 749 | 768 | 722 | 761 | 4,612 | 3,854 |
| 512 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 1,195 | 1,136 | 1,278 | 1,274 | 1,212 | 1,252 | 1,034 | 1,090 | 1,074 | 1,159 | 1,313 | 1,134 | 1,197 | 7,347 | 6,084 |
| 5122 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 1,195 | 1,136 | 1,278 | 1,274 | 1,212 | 1,252 | 1,034 | 1,090 | 1,074 | 1,159 | 1,313 | 1,134 | 1,197 | 7,347 | 6,084 |
| 5122 PT. | GENERAL-LINE DRUGS | 367 | 355 | 413 | 395 | 388 | 399 | 336 | 350 | 341 | 383 | 394 | 349 | 410 | 2,317 | 2,009 |
| 513 | APPAREL, PIECE GDS & NOTIONS[3] | 2,019 | 2,265 | 2,299 | 2,270 | 1,995 | 2,355 | 1,953 | 2,318 | 2,445 | 2,541 | 2,486 | 2,141 | 1,921 | 13,203 | 11,938 |
| 514 | GROCERIES & RELATED PROD | 13,270 | 12,317 | 13,931 | 13,941 | 13,346 | 13,876 | 12,173 | 13,154 | 12,592 | 12,915 | 13,815 | 12,741 | 13,640 | 80,681 | 71,032 |
| 5141 | GROCERIES, GENERAL LINE | 4,366 | 4,045 | 4,481 | 4,519 | 4,338 | 4,461 | 3,936 | 4,281 | 4,103 | 4,066 | 4,462 | 4,173 | 4,407 | 26,210 | 23,192 |
| 5144 | POULTRY & POULTRY PROD | 651 | 590 | 627 | 655 | 638 | 655 | 583 | 638 | 652 | 659 | 725 | 670 | 691 | 3,816 | 3,473 |
| 5145 | CONFECTIONERY | 259 | 257 | 294 | 300 | 262 | 274 | 249 | 257 | 263 | 274 | 322 | 283 | 296 | 1,646 | 1,418 |
| 5147 | MEATS & MEAT PROD | 1,762 | 1,610 | 1,785 | 1,742 | 1,738 | 1,789 | 1,667 | 1,828 | 1,859 | 1,841 | 2,019 | 1,736 | 1,897 | 10,426 | 10,207 |
| 5148 | FRESH FRUITS & VEGETABLES | 1,232 | 1,210 | 1,464 | 1,550 | 1,509 | 1,585 | 1,337 | 1,354 | 1,206 | 1,217 | 1,258 | 1,200 | 1,258 | 8,550 | 7,159 |
| 515 | FARM PROD RAW MATERIALS | 12,545 | 10,191 | 12,440 | 10,674 | 10,351 | 8,549 | 8,500 | 9,100 | 9,378 | 10,135 | 11,921 | 10,965 | 12,354 | 64,750 | 56,371 |
| 5153 | GRAIN | 10,420 | 8,436 | 10,444 | 9,055 | 8,833 | 7,211 | 6,910 | 7,587 | 7,770 | 8,205 | 9,890 | 8,801 | 9,814 | 54,399 | 46,186 |
| 517 | PETROLEUM & PETROLEUM PROD | 17,548 | 15,697 | 16,263 | 15,987 | 16,094 | 16,255 | 10,823 | 13,275 | 13,530 | 14,007 | 15,657 | 16,626 | 17,185 | 97,844 | 67,910 |
| 5171 | PETROLEUM BULK STATIONS & TERMINALS | 6,165 | 5,438 | 5,701 | 5,414 | 5,126 | 5,100 | 3,937 | 4,246 | 4,306 | 4,752 | 5,446 | 5,546 | 6,249 | 32,944 | 25,276 |
| 518 | BEER, WINE, & DISTILLED ALCOHOLIC BEVERAGES | 2,185 | 2,207 | 2,688 | 2,906 | 2,788 | 3,020 | 2,738 | 3,001 | 2,831 | 2,638 | 2,906 | 2,667 | 3,162 | 15,794 | 14,492 |
| 5181 | BEER & ALE | 1,136 | 1,174 | 1,425 | 1,548 | 1,611 | 1,785 | 1,591 | 1,702 | 1,660 | 1,434 | 1,431 | 1,244 | 1,454 | 8,679 | 7,919 |
| 5182 | WINE & DISTILLED ALCOHOLIC BEVERAGES[4] | 1,049 | 1,033 | 1,263 | 1,358 | 1,177 | 1,235 | 1,147 | 1,299 | 1,171 | 1,204 | 1,475 | 1,423 | 1,708 | 7,115 | 6,573 |
| 519 | MISC NONDURABLE GOODS | 5,752 | 5,517 | 6,929 | 6,544 | 6,746 | 5,967 | 5,903 | 5,514 | 5,415 | 5,898 | 6,153 | 5,347 | 6,284 | 37,455 | 35,328 |
| 5194 | TOBACCO & TOBACCO PROD | 873 | 834 | 972 | 994 | 983 | 1,047 | 919 | 1,016 | 942 | 938 | 1,018 | 860 | 953 | 5,703 | 5,271 |

Note: Merchant wholesalers total and group totals include data for some kinds of business not shown separately.

[P] Preliminary estimates. See Sample Design and Estimation Procedures.

[1] The construction materials not elsewhere classified kind of business is subject to a sampling variability of 9 percent for June 1981.

[2] The electrical appliances, TV and radio sets kind of business is subject to a sampling variability of 10 percent for June 1981.

[3] The apparel, piece goods and notions group is subject to a sampling variability of 13 percent for June 1981.

[4] The wine and distilled alcoholic beverages kind of business is subject to a sampling variability of 9 percent for June 1981.

# Table 2. Estimated Monthly Inventories of Merchant Wholesalers by Kind of Business for the United States, Unadjusted: 1981 and 1980

(MILLIONS OF DOLLARS. DATA ARE NOT ADJUSTED FOR SEASONAL VARIATIONS)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | | | | | | 1980 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN. | FEB. | MAR. | APR. | MAY | JUNE[P] | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. |
| | MERCHANT WHOLESALERS, TOTAL | 105,446 | 107,209 | 107,907 | 106,420 | 105,985 | 106,488 | 97,785 | 98,387 | 100,205 | 101,310 | 104,277 | 105,866 | 105,449 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 96,142 | 98,533 | 100,103 | 100,041 | 100,957 | 102,091 | 92,451 | 92,382 | 93,682 | 93,901 | 94,861 | 95,869 | 96,235 |
| 50 | DURABLE GOODS, TOTAL | 66,230 | 68,251 | 69,208 | 69,673 | 71,113 | 72,017 | 65,133 | 64,730 | 65,894 | 65,273 | 65,137 | 65,857 | 66,716 |
| 501 | MOTOR VEHICLES & AUTOMOTIVE PARTS & SUPPLIES | 11,373 | 11,287 | 11,298 | 11,178 | 10,866 | 11,160 | 11,292 | 11,326 | 11,206 | 10,984 | 11,246 | 11,253 | 11,615 |
| 5013,4 | AUTOMOTIVE PARTS & SUPPLIES, TIRES & TUBES | 5,667 | 5,619 | 5,838 | 5,670 | 5,916 | 5,931 | 5,739 | 5,565 | 5,716 | 5,750 | 5,659 | 5,775 | 5,813 |
| 5013 | AUTOMOTIVE PARTS & SUPPLIES | 4,613 | 4,549 | 4,699 | 4,603 | 4,790 | 4,789 | 4,550 | 4,530 | 4,688 | 4,703 | 4,628 | 4,703 | 4,730 |
| 502 | FURNITURE & HOME FURNISHINGS | 2,186 | 2,235 | 2,343 | 2,375 | 2,342 | 2,378 | 2,112 | 2,165 | 2,106 | 2,212 | 2,188 | 2,126 | 2,168 |
| 5023 | HOME FURNISHINGS | 1,583 | 1,623 | 1,697 | 1,735 | 1,705 | 1,730 | 1,528 | 1,585 | 1,543 | 1,608 | 1,600 | 1,555 | 1,566 |
| 503 | LUMBER & OTHER CONSTRUCTION MATERIALS[1] | 3,368 | 3,483 | 3,544 | 3,653 | 3,705 | 3,794 | 3,537 | 3,429 | 3,551 | 3,377 | 3,331 | 3,493 | 3,392 |
| 5031 | LUMBER, PLYWOOD, AND MILLWORK[2] | 2,211 | 2,309 | 2,269 | 2,364 | 2,411 | 2,528 | 2,258 | 2,207 | 2,324 | 2,172 | 2,168 | 2,268 | 2,206 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS & OFFICES | 5,519 | 5,812 | 5,911 | 5,715 | 6,081 | 6,231 | 5,341 | 5,044 | 5,369 | 5,297 | 5,074 | 5,420 | 5,721 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | 4,346 | 4,627 | 4,708 | 4,529 | 4,884 | 5,020 | 4,359 | 4,053 | 4,334 | 4,242 | 3,999 | 4,323 | 4,532 |
| 506 | ELECTRICAL GOODS | 6,462 | 6,719 | 6,802 | 6,926 | 7,178 | 7,401 | 6,444 | 6,578 | 6,659 | 6,643 | 6,720 | 6,560 | 6,611 |
| 5063 | ELECTRICAL APPARATUS & EQUIPMENT, WIRING SUPPLIES, & CONSTRUCTION MATERIALS | 2,787 | 2,948 | 3,041 | 3,082 | 3,188 | 3,248 | 2,796 | 2,820 | 2,888 | 2,890 | 2,889 | 2,875 | 2,881 |
| 5064,5 | ELECTRICAL APPLIANCES, TV & RADIO SETS, & ELECTRONIC PARTS & EQUIPMENT | 3,675 | 3,771 | 3,761 | 3,844 | 3,990 | 4,153 | 3,648 | 3,758 | 3,771 | 3,753 | 3,831 | 3,685 | 3,730 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT & SUPPLIES | 4,764 | 4,853 | 4,990 | 5,179 | 5,141 | 5,140 | 4,648 | 4,576 | 4,557 | 4,525 | 4,584 | 4,482 | 4,632 |
| 5072 | HARDWARE | 1,925 | 1,976 | 2,014 | 2,015 | 1,958 | 1,999 | 1,773 | 1,749 | 1,824 | 1,853 | 1,842 | 1,806 | 1,885 |
| 5074 | PLUMBING & HEATING EQUIPMENT & SUPPLIES (HYDRONICS) | 1,866 | 1,862 | 1,888 | 2,023 | 2,038 | 1,998 | 1,888 | 1,899 | 1,840 | 1,767 | 1,819 | 1,770 | 1,788 |
| 508 | MACHINERY, EQUIPMENT, & SUPPLIES | 23,570 | 24,563 | 25,140 | 25,035 | 26,050 | 26,371 | 23,162 | 22,825 | 23,260 | 23,261 | 22,878 | 23,542 | 23,811 |
| 5082 | CONSTRUCTION & MINING MACHINERY & EQUIPMENT | 4,185 | 4,222 | 4,265 | 4,215 | 4,298 | 4,336 | 4,752 | 4,489 | 4,503 | 4,310 | 4,255 | 4,299 | 4,242 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, & SUPPLIES | 7,108 | 7,258 | 7,397 | 7,343 | 7,715 | 7,773 | 7,027 | 6,897 | 7,015 | 7,113 | 6,891 | 7,103 | 7,300 |
| 51 | NONDURABLE GOODS, TOTAL | 39,216 | 38,958 | 38,699 | 36,747 | 34,872 | 34,471 | 32,652 | 33,657 | 34,311 | 36,037 | 39,140 | 40,009 | 38,733 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 29,912 | 30,282 | 30,895 | 30,368 | 29,844 | 30,074 | 27,318 | 27,652 | 27,788 | 28,628 | 29,724 | 30,012 | 29,519 |
| 511 | PAPER & PAPER PRODUCTS[3] | 1,847 | 1,903 | 1,927 | 1,921 | 1,972 | 1,987 | 1,777 | 1,741 | 1,712 | 1,750 | 1,773 | 1,820 | 1,849 |
| 5111,3 | PRINTING, WRITING, INDUSTRIAL, & PERSONAL SERVICE PAPER[4] | 1,242 | 1,250 | 1,310 | 1,278 | 1,284 | 1,304 | 1,222 | 1,182 | 1,150 | 1,189 | 1,202 | 1,215 | 1,248 |
| 5111 | PRINTING & WRITING PAPER | 546 | 547 | 577 | 558 | 561 | 569 | 530 | 500 | 484 | 492 | 501 | 516 | 546 |
| 5113 | INDUSTRIAL & PERSONAL SERVICE PAPER[5] | 696 | 703 | 733 | 720 | 723 | 735 | 692 | 682 | 666 | 697 | 701 | 699 | 702 |
| 512 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 1,586 | 1,634 | 1,632 | 1,596 | 1,592 | 1,657 | 1,438 | 1,467 | 1,483 | 1,562 | 1,716 | 1,624 | 1,570 |
| 514 | GROCERIES & RELATED PRODUCTS | 7,837 | 7,745 | 8,262 | 8,251 | 7,787 | 7,752 | 7,076 | 6,916 | 6,810 | 7,284 | 7,711 | 7,729 | 7,978 |
| 5141 | GROCERIES, GENERAL-LINE | 2,796 | 2,841 | 3,011 | 3,065 | 2,868 | 2,907 | 2,548 | 2,614 | 2,572 | 2,760 | 2,979 | 2,891 | 2,895 |
| 517 | PETROLEUM & PETROLEUM PRODUCTS | 4,972 | 5,143 | 4,991 | 4,849 | 4,807 | 5,116 | 4,482 | 4,638 | 4,792 | 4,952 | 5,176 | 5,234 | 4,992 |
| 518 | BEER, WINE, & DISTILLED ALCOHOLIC BEVERAGES | 2,777 | 2,755 | 2,787 | 2,869 | 2,971 | 3,042 | 2,882 | 2,874 | 2,842 | 2,963 | 3,134 | 3,158 | 2,722 |
| 5181 | BEER & ALE[6] | 1,015 | 1,070 | 1,142 | 1,193 | 1,277 | 1,311 | 1,203 | 1,148 | 1,084 | 1,134 | 1,115 | 1,156 | 1,018 |
| 5182 | WINE & DISTILLED ALCOHOLIC BEVERAGES | 1,762 | 1,685 | 1,645 | 1,676 | 1,694 | 1,731 | 1,679 | 1,726 | 1,758 | 1,829 | 2,019 | 2,002 | 1,704 |

Note: Merchant wholesalers total and group totals include data for some kinds of business not shown separately.

[P] Preliminary estimates. See Sample Design and Estimation Procedures.

[1] The lumber and other construction materials group is subject to a sampling variability of 8 percent for June 1981.
[2] The lumber, plywood, and millwork kind of business is subject to a sampling variability of 9 percent for June 1981.
[3] The paper and paper products group is subject to a sampling variability of 8 percent for June 1981.
[4] The printing, writing, industrial, and personal service paper kinds of business are subject to a sampling variability of 8 percent for June 1981.
[5] The industrial and personal service paper kind of business is subject to a sampling variability of 12 percent for June 1981.
[6] The beer and ale kind of business is subject to a sampling variability of 8 percent for June 1981.

## Table 3. Stock-Sales Ratios of Merchant Wholesalers by Kind of Business for the United States, Unadjusted: 1981 and 1980

(PERCENT. DATA ARE NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | | | | | | 1980 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN. | FEB. | MAR. | APR. | MAY | JUNE[P] | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. |
| | MERCHANT WHOLESALERS, TOTAL | 112 | 120 | 107 | 107 | 110 | 109 | 120 | 114 | 116 | 112 | 105 | 116 | 108 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 118 | 124 | 113 | 113 | 117 | 114 | 126 | 120 | 122 | 117 | 109 | 119 | 113 |
| 50 | DURABLE GOODS, TOTAL | 184 | 184 | 165 | 166 | 175 | 166 | 183 | 181 | 183 | 171 | 158 | 180 | 173 |
| 501 | MOTOR VEHICLES & AUTOMOTIVE PARTS & SUPPLIES | 161 | 156 | 138 | 134 | 144 | 142 | 168 | 165 | 159 | 170 | 147 | 170 | 170 |
| 5013,4 | AUTOMOTIVE PARTS & SUPPLIES, TIRES & TUBES | 184 | 183 | 165 | 162 | 186 | 167 | 196 | 189 | 189 | 184 | 164 | 192 | 190 |
| 5013 | AUTOMOTIVE PARTS & SUPPLIES | 175 | 172 | 158 | 158 | 181 | 160 | 185 | 184 | 184 | 182 | 160 | 186 | 184 |
| 502 | FURNITURE & HOME FURNISHINGS | 169 | 168 | 160 | 161 | 167 | 165 | 170 | 179 | 168 | 166 | 143 | 157 | 160 |
| 5023 | HOME FURNISHINGS | 191 | 185 | 185 | 182 | 191 | 189 | 193 | 208 | 197 | 187 | 155 | 170 | 183 |
| 503 | LUMBER & OTHER CONSTRUCTION MATERIALS | 139 | 146 | 128 | 123 | 133 | 127 | 123 | 116 | 125 | 111 | 101 | 124 | 125 |
| 5031 | LUMBER, PLYWOOD, AND MILLWORK | 141 | 147 | 131 | 128 | 138 | 131 | 125 | 120 | 130 | 113 | 106 | 127 | 128 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS & OFFICES | 167 | 162 | 150 | 150 | 155 | 151 | 188 | 196 | 197 | 174 | 155 | 183 | 172 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | 171 | 168 | 153 | 151 | 160 | 156 | 202 | 207 | 209 | 186 | 161 | 190 | 181 |
| 506 | ELECTRICAL GOODS | 172 | 171 | 154 | 165 | 168 | 158 | 171 | 168 | 175 | 158 | 156 | 155 | 154 |
| 5063 | ELECTRICAL APPARATUS & EQUIPMENT, WIRING SUPPLIES, & CONSTRUCTION MATERIALS | 150 | 149 | 146 | 148 | 151 | 145 | 147 | 149 | 155 | 134 | 133 | 133 | 134 |
| 5064,5 | ELECTRICAL APPLIANCES, TV & RADIO SETS, & ELECTRONIC PARTS & EQUIPMENT | 193 | 193 | 162 | 182 | 185 | 170 | 195 | 187 | 194 | 183 | 181 | 177 | 174 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT & SUPPLIES | 209 | 220 | 197 | 193 | 200 | 183 | 205 | 191 | 197 | 188 | 173 | 193 | 205 |
| 5072 | HARDWARE | 217 | 232 | 205 | 203 | 212 | 203 | 204 | 213 | 219 | 207 | 198 | 210 | 218 |
| 5074 | PLUMBING & HEATING EQUIPMENT & SUPPLIES (HYDRONICS) | 193 | 202 | 179 | 181 | 185 | 173 | 211 | 196 | 192 | 171 | 154 | 175 | 185 |
| 508 | MACHINERY, EQUIPMENT, & SUPPLIES | 229 | 229 | 200 | 203 | 213 | 200 | 215 | 215 | 214 | 200 | 191 | 224 | 203 |
| 5082 | CONSTRUCTION & MINING MACHINERY & EQUIPMENT | 377 | 347 | 304 | 268 | 298 | 266 | 360 | 335 | 281 | 293 | 301 | 321 | 308 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, & SUPPLIES | 153 | 152 | 134 | 136 | 140 | 125 | 153 | 155 | 156 | 151 | 140 | 158 | 144 |
| 51 | NONDURABLE GOODS, TOTAL | 68 | 74 | 65 | 64 | 62 | 63 | 71 | 67 | 68 | 69 | 68 | 73 | 66 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 66 | 71 | 66 | 65 | 65 | 65 | 73 | 67 | 68 | 67 | 65 | 69 | 63 |
| 511 | PAPER & PAPER PRODUCTS | 95 | 100 | 91 | 94 | 99 | 94 | 105 | 99 | 96 | 93 | 88 | 100 | 96 |
| 5111,3 | PRINTING, WRITING, INDUSTRIAL, & PERSONAL SERVICE PAPER | 89 | 92 | 85 | 87 | 89 | 85 | 96 | 91 | 89 | 86 | 82 | 93 | 88 |
| 5111 | PRINTING & WRITING PAPER | 83 | 84 | 79 | 78 | 84 | 80 | 85 | 85 | 84 | 79 | 72 | 89 | 84 |
| 5113 | INDUSTRIAL & PERSONAL SERVICE PAPER | 94 | 99 | 90 | 95 | 94 | 90 | 106 | 96 | 94 | 93 | 91 | 97 | 92 |
| 512 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 133 | 144 | 128 | 125 | 131 | 132 | 139 | 135 | 138 | 135 | 131 | 143 | 131 |
| 514 | GROCERIES & RELATED PRODUCTS | 59 | 63 | 59 | 59 | 58 | 56 | 58 | 53 | 54 | 56 | 56 | 61 | 58 |
| 5141 | GROCERIES, GENERAL-LINE | 64 | 70 | 67 | 68 | 66 | 65 | 65 | 61 | 63 | 68 | 67 | 69 | 66 |
| 517 | PETROLEUM & PETROLEUM PRODUCTS | 28 | 33 | 31 | 30 | 30 | 31 | 41 | 35 | 35 | 35 | 33 | 31 | 29 |
| 518 | BEER, WINE, & DISTILLED ALCOHOLIC BEVERAGES | 127 | 125 | 104 | 99 | 107 | 101 | 105 | 96 | 100 | 112 | 108 | 118 | 86 |
| 5181 | BEER & ALE | 89 | 91 | 80 | 77 | 79 | 73 | 76 | 67 | 65 | 79 | 78 | 93 | 70 |
| 5182 | WINE & DISTILLED ALCOHOLIC BEVERAGES | 168 | 163 | 130 | 123 | 144 | 140 | 146 | 133 | 150 | 152 | 137 | 141 | 100 |

Note: Merchant wholesalers total and group totals include data for some kinds of business not shown separately.

[P]Preliminary estimates. See Sample Design and Estimation Procedures.

# Table 4A. Estimated Monthly Sales, Inventories, and Stock-Sales Ratios of Merchant Wholesalers by Kind of Business for the United States, Adjusted: 1981 and 1980

(SALES AND INVENTORIES IN MILLIONS OF DOLLARS. STOCK-SALES RATIOS IN PERCENT)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 JAN. | FEB. | MAR. | APR. | MAY | JUNE[P] | 1980 JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SALES ADJUSTED FOR SEASONAL VARIATIONS AND TRADING-DAY DIFFERENCES | | | | | | | | | | | | |
| | MERCHANT WHOLESALERS, TOTAL | 98,967 | 98,016 | 96,486 | 97,577 | 96,217 | 95,075 | 81,714 | 85,810 | 86,889 | 90,223 | 93,282 | 93,901 | 96,591 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 86,583 | 86,768 | 84,999 | 86,773 | 86,039 | 86,474 | 72,642 | 76,351 | 76,783 | 79,666 | 82,335 | 83,162 | 85,013 |
| 50 | DURABLE GOODS, TOTAL | 40,370 | 41,511 | 39,907 | 40,299 | 40,584 | 41,152 | 34,793 | 35,196 | 35,353 | 36,937 | 38,110 | 38,799 | 39,403 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | 7,668 | 7,930 | 7,548 | 7,391 | 7,220 | 7,597 | 6,610 | 6,693 | 7,019 | 6,920 | 7,302 | 7,212 | 7,145 |
| 502 | FURNITURE AND HOME FURNISHINGS | 1,486 | 1,491 | 1,413 | 1,433 | 1,424 | 1,432 | 1,254 | 1,250 | 1,261 | 1,281 | 1,321 | 1,331 | 1,344 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | 3,043 | 3,019 | 2,863 | 2,981 | 2,744 | 2,676 | 2,673 | 2,688 | 2,542 | 2,729 | 2,853 | 2,999 | 3,001 |
| 506 | ELECTRICAL GOODS | 4,256 | 4,421 | 4,407 | 4,375 | 4,480 | 4,468 | 3,696 | 3,798 | 3,735 | 3,976 | 3,912 | 4,178 | 4,094 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | 2,513 | 2,572 | 2,569 | 2,577 | 2,535 | 2,640 | 2,173 | 2,222 | 2,238 | 2,349 | 2,370 | 2,428 | 2,411 |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | 11,641 | 12,071 | 12,053 | 11,636 | 12,008 | 12,309 | 10,420 | 10,526 | 10,842 | 11,071 | 11,136 | 11,500 | 11,888 |
| 51 | NONDURABLE GOODS, TOTAL | 58,597 | 56,505 | 56,579 | 57,278 | 55,633 | 53,923 | 46,921 | 50,614 | 51,536 | 53,286 | 55,172 | 55,102 | 57,188 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 46,213 | 45,257 | 45,092 | 46,474 | 45,455 | 45,322 | 37,849 | 41,155 | 41,430 | 42,729 | 44,225 | 44,363 | 45,610 |
| 511 | PAPER AND PAPER PRODUCTS | 1,989 | 2,032 | 2,033 | 2,019 | 2,059 | 2,068 | 1,727 | 1,752 | 1,782 | 1,849 | 1,864 | 1,920 | 1,917 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | 1,255 | 1,258 | 1,238 | 1,242 | 1,268 | 1,246 | 1,058 | 1,070 | 1,095 | 1,123 | 1,169 | 1,178 | 1,174 |
| 513 | APPAREL, PIECE GOODS, AND NOTIONS | 2,192 | 2,459 | 2,256 | 2,338 | 2,247 | 2,497 | 2,151 | 2,242 | 2,221 | 2,239 | 2,185 | 2,156 | 2,057 |
| 514 | GROCERIES AND RELATED PRODUCTS | 13,541 | 13,505 | 13,578 | 13,749 | 13,201 | 13,472 | 12,284 | 12,721 | 12,706 | 12,993 | 13,245 | 13,135 | 13,492 |
| 515 | FARM-PRODUCT RAW MATERIALS[1] | 12,384 | 11,248 | 11,487 | 10,804 | 10,178 | 8,601 | 9,072 | 9,459 | 10,106 | 10,557 | 10,947 | 10,739 | 11,578 |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | 16,938 | 15,603 | 15,743 | 16,670 | 16,439 | 16,288 | 11,204 | 13,560 | 13,863 | 14,455 | 15,487 | 16,220 | 16,461 |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | 2,681 | 2,721 | 2,718 | 2,915 | 2,788 | 2,753 | 2,568 | 2,823 | 2,738 | 2,673 | 2,729 | 2,727 | 2,686 |
| 519 | MISCELLANEOUS NONDURABLE GOODS | 6,061 | 6,151 | 6,214 | 5,982 | 6,034 | 5,587 | 5,633 | 5,804 | 5,804 | 5,946 | 6,221 | 5,831 | 6,498 |
| | | INVENTORIES ADJUSTED FOR SEASONAL VARIATIONS | | | | | | | | | | | | |
| | MERCHANT WHOLESALERS, TOTAL | 104,909 | 106,066 | 105,539 | 105,591 | 105,568 | 106,740 | 98,328 | 99,618 | 101,920 | 102,953 | 104,293 | 105,203 | 105,529 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 97,117 | 98,663 | 98,771 | 99,331 | 99,775 | 101,397 | 91,855 | 92,007 | 93,694 | 94,216 | 95,187 | 96,607 | 97,558 |
| 50 | DURABLE GOODS, TOTAL | 67,319 | 68,482 | 68,571 | 69,174 | 69,876 | 70,781 | 64,025 | 63,938 | 65,387 | 65,461 | 65,951 | 66,955 | 67,938 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | 11,216 | 10,791 | 11,012 | 11,078 | 10,695 | 11,149 | 11,281 | 11,394 | 11,517 | 11,514 | 11,464 | 11,378 | 11,603 |
| 502 | FURNITURE AND HOME FURNISHINGS | 2,228 | 2,278 | 2,322 | 2,373 | 2,333 | 2,311 | 2,052 | 2,131 | 2,100 | 2,160 | 2,175 | 2,163 | 2,237 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | 3,451 | 3,515 | 3,431 | 3,554 | 3,604 | 3,705 | 3,454 | 3,349 | 3,540 | 3,415 | 3,396 | 3,635 | 3,501 |
| 506 | ELECTRICAL GOODS | 6,710 | 7,028 | 6,934 | 6,975 | 7,044 | 7,249 | 6,311 | 6,443 | 6,503 | 6,538 | 6,614 | 6,553 | 6,651 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | 4,881 | 4,848 | 4,854 | 4,914 | 4,948 | 4,985 | 4,508 | 4,491 | 4,589 | 4,636 | 4,682 | 4,713 | 4,835 |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | 24,076 | 24,588 | 24,744 | 24,812 | 25,640 | 25,829 | 22,686 | 22,689 | 23,075 | 23,122 | 23,321 | 23,925 | 24,272 |
| 51 | NONDURABLE GOODS, TOTAL | 37,590 | 37,584 | 36,968 | 36,417 | 35,692 | 35,959 | 34,303 | 35,680 | 36,533 | 37,492 | 38,342 | 38,248 | 37,591 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 29,798 | 30,181 | 30,200 | 30,157 | 29,899 | 30,616 | 27,830 | 28,069 | 28,307 | 28,755 | 29,236 | 29,652 | 29,620 |
| 511 | PAPER AND PAPER PRODUCTS | 1,902 | 1,934 | 1,935 | 1,904 | 1,964 | 1,937 | 1,732 | 1,739 | 1,731 | 1,731 | 1,771 | 1,815 | 1,833 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | 1,645 | 1,704 | 1,625 | 1,579 | 1,602 | 1,652 | 1,432 | 1,461 | 1,484 | 1,519 | 1,630 | 1,610 | 1,612 |
| 514 | GROCERIES AND RELATED PRODUCTS | 7,948 | 7,753 | 8,132 | 8,202 | 7,842 | 7,744 | 7,083 | 7,036 | 7,013 | 7,262 | 7,494 | 7,660 | 7,868 |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | 4,855 | 5,190 | 4,986 | 5,072 | 4,900 | 5,397 | 4,728 | 4,737 | 4,797 | 4,836 | 4,982 | 5,018 | 4,904 |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | 2,851 | 2,918 | 2,749 | 2,738 | 2,876 | 2,974 | 2,814 | 2,851 | 2,942 | 2,984 | 3,011 | 3,054 | 2,924 |
| | | STOCK-SALES RATIOS BASED ON ADJUSTED DATA | | | | | | | | | | | | |
| | MERCHANT WHOLESALERS, TOTAL | 106 | 108 | 109 | 108 | 110 | 112 | 120 | 116 | 117 | 114 | 112 | 112 | 109 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 112 | 114 | 116 | 114 | 116 | 117 | 126 | 121 | 122 | 118 | 116 | 116 | 115 |
| 50 | DURABLE GOODS, TOTAL | 167 | 165 | 172 | 172 | 172 | 172 | 184 | 182 | 185 | 177 | 173 | 173 | 172 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | 146 | 136 | 146 | 150 | 148 | 147 | 171 | 170 | 164 | 166 | 157 | 158 | 162 |
| 502 | FURNITURE AND HOME FURNISHINGS | 150 | 153 | 164 | 166 | 164 | 161 | 164 | 170 | 167 | 169 | 165 | 163 | 166 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | 113 | 116 | 120 | 119 | 131 | 138 | 129 | 125 | 139 | 125 | 119 | 121 | 117 |
| 506 | ELECTRICAL GOODS | 158 | 159 | 157 | 159 | 157 | 162 | 171 | 170 | 174 | 164 | 169 | 157 | 162 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | 194 | 188 | 189 | 191 | 195 | 189 | 207 | 202 | 205 | 197 | 198 | 194 | 201 |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | 207 | 204 | 205 | 213 | 214 | 210 | 218 | 216 | 213 | 209 | 209 | 208 | 204 |
| 51 | NONDURABLE GOODS, TOTAL | 64 | 67 | 65 | 64 | 64 | 67 | 73 | 70 | 71 | 70 | 69 | 69 | 66 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 64 | 67 | 67 | 65 | 66 | 68 | 74 | 68 | 68 | 67 | 66 | 67 | 65 |
| 511 | PAPER AND PAPER PRODUCTS | 96 | 95 | 95 | 94 | 95 | 94 | 100 | 99 | 97 | 94 | 95 | 95 | 96 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | 131 | 135 | 131 | 127 | 126 | 133 | 135 | 137 | 136 | 135 | 139 | 137 | 137 |
| 514 | GROCERIES AND RELATED PRODUCTS | 59 | 57 | 60 | 60 | 59 | 57 | 58 | 55 | 55 | 56 | 57 | 58 | 58 |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | 29 | 33 | 32 | 30 | 30 | 33 | 42 | 35 | 35 | 33 | 32 | 31 | 30 |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | 106 | 107 | 101 | 94 | 103 | 108 | 110 | 101 | 107 | 112 | 110 | 112 | 109 |

Note: Merchant wholesalers total and group totals include data for some kinds of business not shown separately.

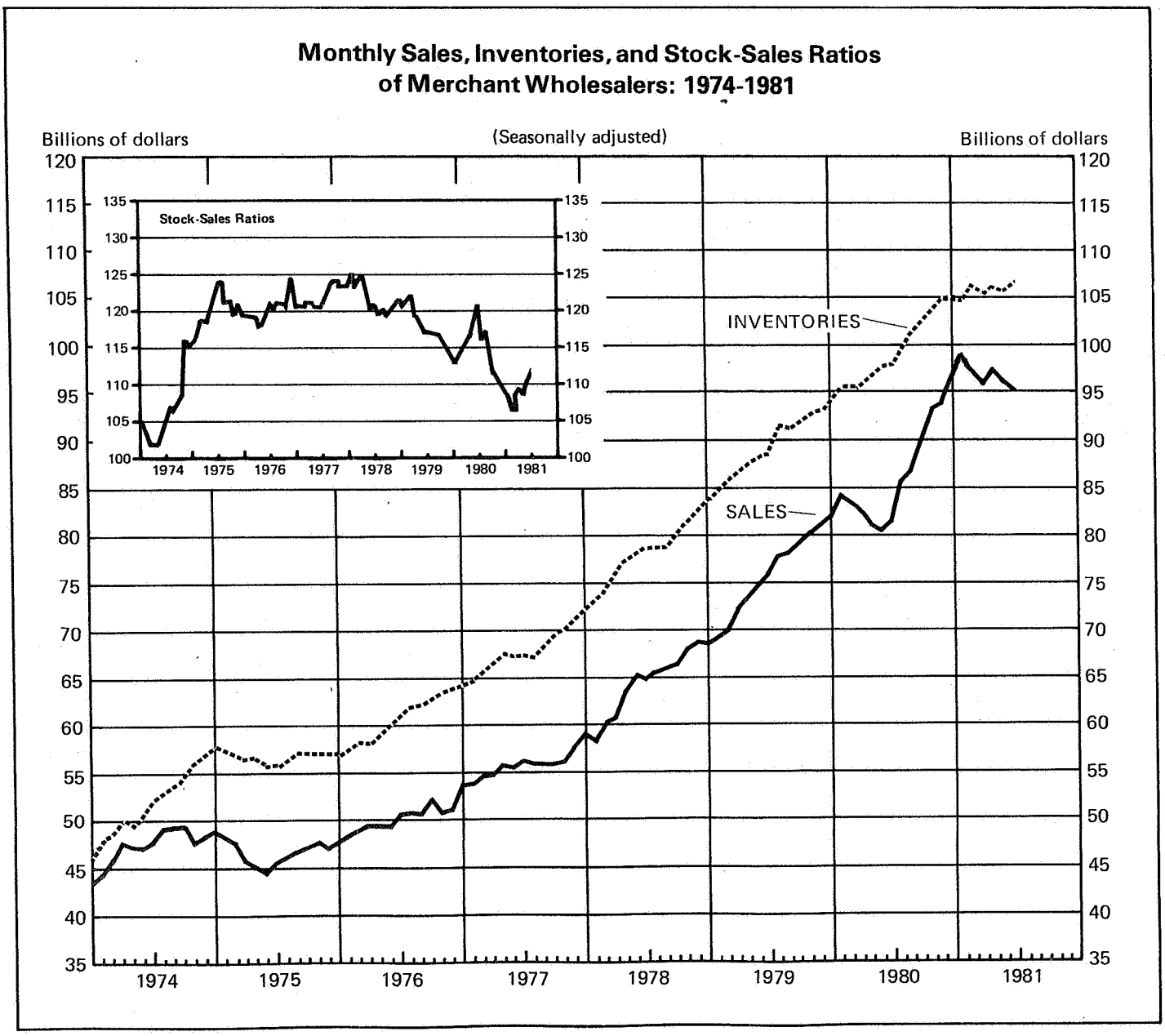
[P]Preliminary estimate. See Sample Design and Estimation Procedures.

[1]There are indications that the seasonal adjustment factors for the farm-product raw materials category may not reflect recent trends in this trade. The seasonally adjusted data for this category and also for the merchant wholesale and nondurable goods totals should, therefore, be used with caution.

Table 4B. **Percent Change Between Selected 3-Month Periods Sales of Merchant Wholesalers, United States**

(Based on seasonally-adjusted data)

| Item | 3 month period, April 1981-June 1981 from-- | | | |
|---|---|---|---|---|
| | Jan. 1981-Mar. 1981 (3 months ago) | Oct. 1980-Dec. 1980 (6 months ago) | July 1980-Sept. 1980 (9 months ago) | Apr. 1980-June 1980 (12 months ago) |
| Merchant wholesalers, total..... | -2 | +2 | +10 | +19 |
| Durable goods, total..... | 0 | +5 | +14 | +18 |
| Nondurable goods, total... | -3 | 0 | +7 | +19 |



# Table 5. Percent Change in Sales and Inventories of Merchant Wholesalers by Kind of Business for the United States: June 1981

| 1972 SIC CODE | KIND OF BUSINESS | UNADJUSTED | | | | | ADJUSTED[1] | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | SALES | | | INVENTORIES, END-OF-MONTH (AT COST) | | SALES | | INVENTORIES, END-OF-MONTH (AT COST) | |
| | | JUNE 1981 FROM MAY 1981 | JUNE 1981 FROM JUNE 1980 | 6 MONTHS 1981 FROM 6 MONTHS 1980 | JUNE 1981 FROM MAY 1981 | JUNE 1981 FROM JUNE 1980 | JUNE 1981 FROM MAY 1981 | JUNE 1981 FROM JUNE 1980 | JUNE 1981 FROM MAY 1981 | JUNE 1981 FROM JUNE 1980 |
| | MERCHANT WHOLESALERS, TOTAL | +2 | +20 | +17 | 0 | +9 | -1 | +16 | +1 | +9 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | +4 | +23 | +18 | +1 | +10 | +1 | +19 | +2 | +10 |
| 50 | DURABLE GOODS, TOTAL | +6 | +22 | +14 | +1 | +11 | +1 | +18 | +1 | +11 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | +4 | +17 | +15 | +3 | -1 | +5 | +15 | +4 | -1 |
| 5012 | AUTOMOBILES AND OTHER MOTOR VEHICLES | -2 | +13 | +13 | +6 | -6 | (*) | (*) | (*) | (*) |
| 5013,4 | AUTOMOTIVE PARTS AND SUPPLIES, TIRES AND TUBES | +12 | +22 | +18 | 0 | +3 | (*) | (*) | (*) | (*) |
| 5013 | AUTOMOTIVE PARTS AND SUPPLIES | +13 | +22 | +18 | 0 | +5 | (*) | (*) | (*) | (*) |
| 502 | FURNITURE AND HOME FURNISHINGS | +3 | +16 | +11 | +2 | +13 | +1 | +14 | -1 | +13 |
| 5021 | FURNITURE--HOUSEHOLD AND OFFICE | +4 | +16 | +10 | +2 | +11 | (*) | (*) | (*) | (*) |
| 5021 PT. | HOUSEHOLD FURNITURE[2] | +6 | +30 | +2 | +3 | +14 | (*) | (*) | (*) | (*) |
| 5021 PT. | OFFICE FURNITURE | +3 | +11 | +14 | +1 | +9 | (*) | (*) | (*) | (*) |
| 5023 | HOME FURNISHINGS | +3 | +16 | +12 | +1 | +13 | (*) | (*) | (*) | (*) |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | +7 | +4 | +5 | +2 | +7 | -2 | 0 | +3 | +7 |
| 5031 | LUMBER, PLYWOOD, AND MILLWORK | +11 | +7 | +3 | +5 | +12 | (*) | (*) | (*) | (*) |
| 5039 | CONSTRUCTION MATERIALS, N.E.C. | +2 | -1 | +9 | -2 | -1 | (*) | (*) | (*) | (*) |
| 504 | SPORTING, RECREATIONAL, PHOTOGRAPHIC, AND HOBBY GOODS, TOYS AND SUPPLIES | +8 | +29 | +15 | +1 | +1 | -3 | +26 | -3 | 0 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS AND OFFICES | +6 | +46 | +25 | +2 | +17 | (*) | (*) | (*) | (*) |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | +5 | +49 | +29 | +3 | +15 | (*) | (*) | (*) | (*) |
| 506 | ELECTRICAL GOODS | +10 | +24 | +16 | +3 | +15 | 0 | +21 | +3 | +15 |
| 5063 | ELECTRICAL APPARATUS AND EQUIPMENT, WIRING SUPPLIES, AND CONSTRUCTION MATERIALS | +6 | +18 | +15 | +2 | +16 | (*) | (*) | (*) | (*) |
| 5064,5 | ELECTRICAL APPLIANCES, TV AND RADIO SETS, AND ELECTRONIC PARTS AND EQUIPMENT | +13 | +30 | +18 | +4 | +14 | (*) | (*) | (*) | (*) |
| 5064 | ELECTRICAL APPLIANCES, TV AND RADIO SETS | +9 | +30 | +23 | +6 | +15 | (*) | (*) | (*) | (*) |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | +9 | +24 | +13 | 0 | +11 | +4 | +21 | +1 | +11 |
| 5072 | HARDWARE | +7 | +13 | +11 | +2 | +13 | (*) | (*) | (*) | (*) |
| 5074 | PLUMBING AND HEATING EQUIPMENT AND SUPPLIES (HYDRONICS) | +5 | +29 | +14 | -2 | +6 | (*) | (*) | (*) | (*) |
| 5075 | WARM AIR HEATING AND AIR CONDITIONING EQUIPMENT AND SUPPLIES | +23 | +34 | +16 | 0 | +23 | (*) | (*) | (*) | (*) |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | +8 | +23 | +16 | +1 | +14 | +3 | +18 | +1 | +14 |
| 5081 | COMMERCIAL MACHINES AND EQUIPMENT | +10 | +11 | +17 | +2 | +16 | (*) | (*) | (*) | (*) |
| 5082 | CONSTRUCTION AND MINING MACHINERY AND EQUIPMENT | +13 | +24 | +10 | +1 | -9 | (*) | (*) | (*) | (*) |
| 5083 | FARM AND GARDEN MACHINERY AND EQUIPMENT | -6 | +4 | +5 | +1 | +27 | (*) | (*) | (*) | (*) |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, AND SUPPLIES | +12 | +35 | +21 | +1 | +11 | (*) | (*) | (*) | (*) |
| 5086 | PROFESSIONAL EQUIPMENT AND SUPPLIES | +13 | +22 | +17 | +2 | +30 | (*) | (*) | (*) | (*) |
| 5093 | SCRAP AND WASTE MATERIALS | -5 | +10 | -6 | +1 | +18 | (*) | (*) | (*) | (*) |
| 5093 PT. | IRON AND STEEL SCRAP | -7 | +14 | -1 | +2 | +28 | (*) | (*) | (*) | (*) |
| 5093 PT. | WASTE MATERIALS | -1 | +4 | -12 | -2 | +1 | (*) | (*) | (*) | (*) |
| 51 | NONDURABLE GOODS, TOTAL | -2 | +19 | +20 | -1 | +6 | -3 | +15 | +1 | +5 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | +1 | +23 | +22 | +1 | +10 | 0 | +20 | +2 | +10 |
| 511 | PAPER AND PAPER PRODUCTS | +6 | +25 | +16 | +1 | +12 | 0 | +20 | -1 | +12 |
| 5111,3 | PRINTING, WRITING, INDUSTRIAL, AND PERSONAL SERVICE PAPER | +7 | +20 | +13 | +2 | +7 | (*) | (*) | (*) | (*) |
| 5111 | PRINTING, AND WRITING PAPER | +7 | +15 | +6 | +1 | +7 | (*) | (*) | (*) | (*) |
| 5113 | INDUSTRIAL AND PERSONAL SERVICE PAPER | +7 | +25 | +20 | +2 | +6 | (*) | (*) | (*) | (*) |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | +3 | +21 | +21 | +4 | +15 | -2 | +18 | +3 | +15 |
| 5122 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | +3 | +21 | +21 | +4 | +15 | (*) | (*) | (*) | (*) |
| 5122 PT. | GENERAL-LINE DRUGS | +3 | +19 | +15 | +5 | +12 | (*) | (*) | (*) | (*) |
| 514 | GROCERIES AND RELATED PRODUCTS | +4 | +14 | +14 | 0 | +10 | +2 | +10 | -1 | +9 |
| 5141 | GROCERIES, GENERAL-LINE | +3 | +13 | +13 | +1 | +14 | (*) | (*) | (*) | (*) |
| 5141 PT. | VOLUNTARY GROUPS | +1 | +13 | +13 | +1 | +16 | (*) | (*) | (*) | (*) |
| 5141 PT. | RETAILER COOPERATIVES | +6 | +12 | +12 | +3 | +13 | (*) | (*) | (*) | (*) |
| 5141 PT. | OTHER GENERAL-LINES | +1 | +16 | +15 | +1 | +14 | (*) | (*) | (*) | (*) |
| 5142,3,6,9 | SPECIALTY-LINE GROCERIES | +5 | +16 | +17 | +1 | +7 | (*) | (*) | (*) | (*) |
| 5144 | POULTRY AND POULTRY PRODUCTS | +3 | +12 | +10 | +5 | +19 | (*) | (*) | (*) | (*) |
| 5145 | CONFECTIONERY | +5 | +10 | +16 | -9 | +6 | (*) | (*) | (*) | (*) |
| 5147 | MEATS AND MEAT PRODUCTS | +3 | +7 | +2 | -1 | -3 | (*) | (*) | (*) | (*) |
| 5148 | FRESH FRUITS AND VEGETABLES | +5 | +19 | +19 | -5 | (S) | (*) | (*) | (*) | (*) |
| 515 | FARM-PRODUCT RAW MATERIALS[2] | -17 | +1 | +15 | -13 | -18 | -15 | -5 | -8 | -17 |
| 5152 | COTTON | -30 | -36 | 0 | -22 | -27 | (*) | (*) | (*) | (*) |
| 5153 | GRAIN | -18 | +4 | +18 | -12 | -18 | (*) | (*) | (*) | (*) |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | +1 | +50 | +44 | +6 | +14 | -1 | +45 | +10 | +14 |
| 5171 | PETROLEUM BULK STATIONS AND TERMINALS | -1 | +30 | +30 | +2 | 0 | (*) | (*) | (*) | (*) |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | +8 | +10 | +9 | +2 | +6 | -1 | +7 | +3 | +6 |
| 5181 | BEER AND ALE | +11 | +12 | +10 | +3 | +9 | (*) | (*) | (*) | (*) |
| 5182 | WINES AND DISTILLED ALCOHOLIC BEVERAGES | +5 | +8 | +8 | +2 | +3 | (*) | (*) | (*) | (*) |
| 519 | MISCELLANEOUS NONDURABLE GOODS | -12 | +1 | +6 | -6 | +5 | -7 | -1 | 0 | +5 |
| 5191 | FARM SUPPLIES | -23 | -2 | +6 | -11 | 0 | (*) | (*) | (*) | (*) |
| 5194 | TOBACCO AND TOBACCO PRODUCTS | +7 | +14 | +8 | +4 | +13 | (*) | (*) | (*) | (*) |
| 5198 | PAINTS, VARNISHES, AND SUPPLIES | +1 | +1 | +3 | +6 | +3 | (*) | (*) | (*) | (*) |
| 5199 PT. | BOOKS, PERIODICALS, NEWSPAPERS | -1 | (S) | (S) | -4 | (S) | (*) | (*) | (*) | (*) |

Adjusted data are available only for summary group totals. (S) Does not meet publication standards because of extreme variability or high nonresponse rate.

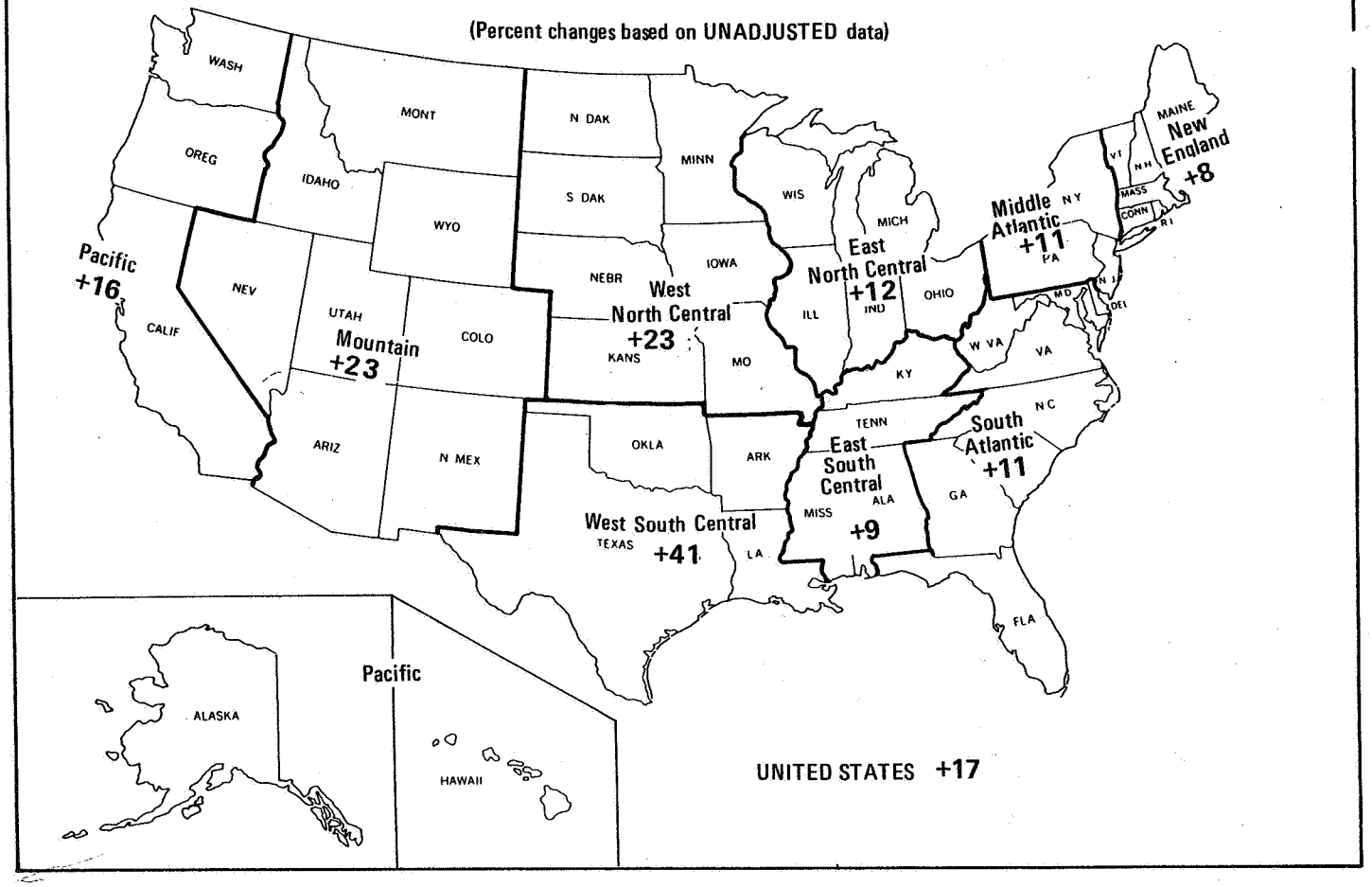
[1] Adjusted for seasonal variations and, in the case of sales, also for trading-day differences.

[2] There are indications that the seasonal adjustment factors for this trade group may not reflect recent trends. The seasonally adjusted data for this trade group and also for the summary group totals should, therefore, be used with caution.

[3] Sampling variability of 6 percent for percent change for sales between June 1981 and May 1981, and 14 percent for sales between June 1981 and June 1980.

## Sales of Merchant Wholesalers by Geographic Division
## 6 Months 1981 Compared With 6 Months 1980

(Percent changes based on UNADJUSTED data)




## Table 6. Estimated Monthly Sales of Merchant Wholesalers and Sampling Errors, by Geographic Division: 1981 and 1980

(SALES, MILLIONS OF DOLLARS, ARE NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES)

| 1972 SIC CODE | KIND OF BUSINESS AND GEOGRAPHIC DIVISION | 1981 | | | | | | 1980 | | | | | | | TOTAL 6 MONTHS | | MEDIAN SAMPLING ERROR[1] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN. | FEB. | MAR. | APR. | MAY | JUNE[P] | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. | 1981 | 1980 | |
| | MERCHANT WHOLESALERS, TOTAL | 93,845 | 89,641 | 101,273 | 99,081 | 96,676 | 98,135 | 81,607 | 86,052 | 86,311 | 90,715 | 99,023 | 91,328 | 97,659 | 578,651 | 492,798 | 1.5 |
| | NEW ENGLAND | 4,445 | 4,256 | 4,487 | 4,406 | 4,348 | 4,643 | 4,125 | 4,368 | 4,109 | 4,400 | 4,668 | 4,524 | 4,786 | 26,585 | 24,643 | 5 |
| | MIDDLE ATLANTIC | 19,320 | 19,046 | 21,684 | 19,714 | 19,716 | 20,388 | 17,407 | 17,959 | 18,298 | 19,380 | 20,204 | 19,463 | 20,750 | 119,868 | 108,343 | 4 |
| | EAST NORTH CENTRAL | 14,031 | 12,833 | 14,805 | 14,818 | 14,526 | 14,597 | 12,504 | 12,775 | 13,122 | 13,600 | 15,510 | 13,852 | 14,147 | 85,610 | 76,329 | 2 |
| | WEST NORTH CENTRAL | 10,164 | 9,279 | 10,426 | 10,885 | 10,581 | 10,054 | 8,234 | 8,724 | 8,884 | 9,328 | 11,024 | 9,321 | 10,306 | 61,389 | 49,908 | 3 |
| | SOUTH ATLANTIC | 9,305 | 8,860 | 10,545 | 10,012 | 9,560 | 9,714 | 8,803 | 8,781 | 8,540 | 8,976 | 9,781 | 8,875 | 9,668 | 57,996 | 52,312 | 2 |
| | EAST SOUTH CENTRAL | 3,921 | 3,760 | 4,341 | 4,409 | 4,248 | 4,260 | 3,761 | 3,801 | 3,832 | 3,835 | 4,356 | 3,759 | 4,036 | 24,939 | 22,797 | 4 |
| | WEST SOUTH CENTRAL | 15,860 | 15,383 | 16,315 | 16,348 | 15,868 | 16,315 | 11,417 | 13,865 | 13,835 | 14,655 | 15,925 | 15,445 | 16,552 | 96,089 | 67,941 | 5 |
| | MOUNTAIN | 3,393 | 3,283 | 4,203 | 3,992 | 3,879 | 4,107 | 3,314 | 3,261 | 3,335 | 3,900 | 3,713 | 3,528 | 3,828 | 22,857 | 18,658 | 6 |
| | PACIFIC | 13,406 | 12,941 | 14,467 | 14,497 | 13,950 | 14,057 | 12,042 | 12,518 | 12,356 | 12,641 | 13,842 | 12,561 | 13,586 | 83,318 | 71,867 | 3 |
| 50 | DURABLE GOODS, TOTAL | 35,927 | 37,054 | 41,991 | 41,934 | 40,679 | 43,259 | 35,508 | 35,757 | 36,010 | 38,112 | 41,298 | 36,679 | 38,598 | 240,844 | 211,985 | 1.8 |
| | MIDDLE ATLANTIC | 7,412 | 7,818 | 8,789 | 8,607 | 8,444 | 8,788 | 7,488 | 7,429 | 7,340 | 7,911 | 8,727 | 7,960 | 8,146 | 49,858 | 46,270 | 6 |
| | EAST NORTH CENTRAL | 5,644 | 5,704 | 6,592 | 6,644 | 6,617 | 6,938 | 5,382 | 5,264 | 5,586 | 6,029 | 6,620 | 5,983 | 6,020 | 38,139 | 33,604 | 3 |
| | WEST NORTH CENTRAL | 2,515 | 2,699 | 2,925 | 2,943 | 2,859 | 3,141 | 2,590 | 2,661 | 2,818 | 2,872 | 3,214 | 2,718 | 2,830 | 17,082 | 15,939 | 5 |
| | SOUTH ATLANTIC | 4,137 | 4,321 | 5,003 | 4,863 | 4,550 | 4,763 | 4,375 | 4,360 | 4,265 | 4,377 | 4,834 | 4,128 | 4,327 | 27,637 | 25,092 | 3 |
| | WEST SOUTH CENTRAL | 4,738 | 4,856 | 5,654 | 5,844 | 5,809 | 6,137 | 4,386 | 4,653 | 4,530 | 4,758 | 5,027 | 4,665 | 4,916 | 33,038 | 25,176 | 4 |
| | MOUNTAIN | 1,469 | 1,321 | 1,658 | 1,638 | 1,535 | 1,692 | 1,376 | 1,360 | 1,415 | 1,744 | 1,702 | 1,415 | 1,747 | 9,313 | 7,848 | 8 |
| | PACIFIC | 6,938 | 7,265 | 7,966 | 7,861 | 7,535 | 8,126 | 6,728 | 6,738 | 6,818 | 6,887 | 7,503 | 6,664 | 7,249 | 45,691 | 39,284 | 4 |
| 51 | NONDURABLE GOODS, TOTAL | 57,918 | 52,587 | 59,282 | 57,147 | 55,997 | 54,876 | 46,099 | 50,295 | 50,301 | 52,603 | 57,725 | 54,649 | 59,061 | 337,807 | 280,813 | 1.8 |
| | NEW ENGLAND | 2,849 | 2,697 | 2,826 | 2,685 | 2,721 | 2,801 | 2,572 | 2,684 | 2,607 | 2,643 | 2,860 | 2,915 | 3,053 | 16,579 | 15,125 | 6 |
| | MIDDLE ATLANTIC | 11,908 | 11,228 | 12,895 | 11,107 | 11,272 | 11,600 | 9,919 | 10,530 | 10,958 | 11,469 | 11,477 | 11,503 | 12,604 | 70,010 | 62,073 | 4 |
| | EAST NORTH CENTRAL | 8,387 | 7,129 | 8,213 | 8,174 | 7,909 | 7,659 | 7,122 | 7,511 | 7,536 | 7,571 | 8,890 | 7,869 | 8,127 | 47,471 | 42,725 | 4 |
| | WEST NORTH CENTRAL | 7,649 | 6,580 | 7,501 | 7,942 | 7,722 | 6,913 | 5,644 | 6,063 | 6,066 | 6,456 | 7,810 | 6,603 | 7,476 | 44,307 | 33,969 | 4 |
| | SOUTH ATLANTIC | 5,168 | 4,539 | 5,542 | 5,149 | 5,010 | 4,951 | 4,428 | 4,421 | 4,275 | 4,599 | 4,947 | 4,747 | 5,341 | 30,359 | 27,220 | 4 |
| | EAST SOUTH CENTRAL | 2,443 | 2,249 | 2,598 | 2,596 | 2,545 | 2,428 | 2,131 | 2,193 | 2,096 | 2,058 | 2,493 | 2,222 | 2,406 | 14,859 | 13,543 | 4 |
| | WEST SOUTH CENTRAL | 11,122 | 10,527 | 10,661 | 10,504 | 10,059 | 10,178 | 7,031 | 9,212 | 9,305 | 9,897 | 10,898 | 10,780 | 11,636 | 63,051 | 42,765 | 8 |
| | PACIFIC | 6,468 | 5,676 | 6,501 | 6,636 | 6,415 | 5,931 | 5,314 | 5,780 | 5,538 | 5,754 | 6,339 | 5,897 | 6,337 | 37,627 | 32,583 | 5 |

[P]Preliminary estimate. See Sample Design and Estimation Procedure.

[1]The median sampling errors (in percent) are based on data for the period September 1979 thru February 1980.

# Table 7. Percent Change in Sales and Inventories of Merchant Wholesalers and Sampling Errors by Kind of Business for Geographic Divisions: June 1981

(BASED ON DATA NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES)

| 1972 SIC CODE | KIND OF BUSINESS AND GEOGRAPHIC DIVISION[1] | PERCENT CHANGE IN-- SALES: JUNE 1981 FROM MAY 1981 | SALES: JUNE 1981 FROM JUNE 1980 | SALES: 6 MOS. 1981 FROM 6 MOS. 1980 | INVENTORIES: JUNE 1981 FROM MAY 1981 | INVENTORIES: JUNE 1981 FROM JUNE 1980 | SAMPLING ERRORS OF THE RATIO CORRESPONDING TO THE PERCENT CHANGE IN COLUMNS[2]-- | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | A | B | C | D | E | A | B | D | E |
| | MERCHANT WHOLESALERS, TOTAL | +2 | +20 | +17 | 0 | +9 | 0.7 | 1.2 | 0.3 | 0.9 |
| | NEW ENGLAND | +7 | +13 | +8 | +2 | +7 | 2.1 | 4.8 | 0.9 | 4.2 |
| | MIDDLE ATLANTIC | +3 | +17 | +11 | +2 | +8 | 1.7 | 3.2 | 0.8 | 2.6 |
| | EAST NORTH CENTRAL | 0 | +17 | +12 | -1 | +8 | 1.3 | 2.5 | 0.5 | 2.4 |
| | WEST NORTH CENTRAL | -5 | +22 | +23 | -2 | +6 | 1.4 | 2.4 | 0.8 | 2.2 |
| | SOUTH ATLANTIC | +2 | +10 | +11 | +1 | +5 | 1.1 | 2.4 | 0.6 | 2.0 |
| | EAST SOUTH CENTRAL | 0 | +13 | +9 | +1 | +6 | 2.3 | 3.4 | 0.9 | 2.8 |
| | WEST SOUTH CENTRAL | +3 | +43 | +41 | +1 | +18 | 2.0 | 4.5 | 0.8 | 2.5 |
| | MOUNTAIN | +6 | +24 | +23 | -1 | +12 | 2.1 | 3.4 | 1.1 | 3.4 |
| | PACIFIC | +1 | +17 | +16 | +1 | +10 | 1.0 | 2.4 | 0.6 | 2.2 |
| 50 | DURABLE GOODS, TOTAL | +6 | +22 | +14 | +1 | +11 | 0.9 | 2.3 | 0.4 | 1.1 |
| | NEW ENGLAND | +13 | +19 | +5 | -1 | +8 | 4.3 | 10.7 | 1.1 | 6.0 |
| | MIDDLE ATLANTIC | +4 | +17 | +8 | +2 | +11 | 2.1 | 6.3 | 1.0 | 3.5 |
| | EAST NORTH CENTRAL | +5 | +29 | +13 | +1 | +13 | 1.6 | 3.1 | 0.6 | 3.2 |
| | WEST NORTH CENTRAL | +10 | +21 | +7 | 0 | +10 | 2.3 | 5.0 | 1.1 | 2.7 |
| | SOUTH ATLANTIC | +5 | +9 | +10 | +1 | +3 | 1.5 | 3.7 | 0.8 | 2.8 |
| | EAST SOUTH CENTRAL | +8 | +12 | +9 | +4 | +8 | 4.2 | 6.0 | 1.4 | 4.5 |
| | WEST SOUTH CENTRAL | +6 | +40 | +31 | +1 | +19 | 3.0 | 5.1 | 0.8 | 3.3 |
| | MOUNTAIN | +10 | +23 | +19 | -1 | +12 | 3.2 | 6.1 | 1.3 | 4.7 |
| | PACIFIC | +8 | +21 | +16 | +2 | +9 | 1.6 | 3.4 | 0.8 | 2.8 |
| 51 | NONDURABLE GOODS, TOTAL | -2 | +19 | +20 | -1 | +6 | 0.8 | 1.3 | 0.5 | 1.2 |
| | NEW ENGLAND | +3 | +9 | +10 | +6 | +5 | 1.9 | 3.8 | 1.2 | 4.5 |
| | MIDDLE ATLANTIC | +3 | +17 | +13 | +2 | +4 | 2.0 | 3.1 | 0.8 | 3.6 |
| | EAST NORTH CENTRAL | -3 | +8 | +11 | -5 | -1 | 2.1 | 2.8 | 1.0 | 3.3 |
| | WEST NORTH CENTRAL | -10 | +22 | +30 | -5 | +1 | 1.9 | 2.7 | 1.2 | 3.1 |
| | SOUTH ATLANTIC | -1 | +12 | +12 | 0 | +9 | 1.8 | 2.9 | 1.1 | 3.0 |
| | EAST SOUTH CENTRAL | -5 | +14 | +10 | -3 | +3 | 1.6 | 3.6 | 1.8 | 3.1 |
| | WEST SOUTH CENTRAL | +1 | +45 | +47 | 0 | +15 | 2.6 | 6.3 | 1.6 | 4.5 |
| | MOUNTAIN | +3 | +25 | +25 | +1 | +10 | 2.0 | 5.2 | 1.7 | 5.8 |
| | PACIFIC | -8 | +12 | +15 | -3 | +12 | 1.7 | 2.9 | 1.0 | 3.4 |
| 5013,4 | AUTOMOTIVE PARTS AND SUPPLIES, TIRES AND TUBES | +12 | +22 | +18 | 0 | +3 | 2 | 4 | 1 | 3 |
| | NEW ENGLAND | (S) | (S) | -3 | -2 | +16 | (*) | (*) | 3 | 14 |
| | MIDDLE ATLANTIC | +11 | +31 | +28 | +2 | +3 | 4 | 8 | 1 | 7 |
| | EAST NORTH CENTRAL | +17 | +30 | +12 | +1 | +1 | 3 | 8 | 1 | 5 |
| | WEST NORTH CENTRAL | +18 | +36 | +16 | +3 | +28 | 3 | 13 | 2 | 11 |
| | SOUTH ATLANTIC | +11 | +12 | +16 | -1 | +4 | 4 | 10 | 2 | 8 |
| | EAST SOUTH CENTRAL | +11 | +18 | +15 | +2 | +9 | 3 | 12 | 3 | 12 |
| | WEST SOUTH CENTRAL | +11 | +23 | +15 | -2 | -9 | 3 | 10 | 2 | 10 |
| | MOUNTAIN | +6 | (S) | +18 | -2 | (S) | 6 | (*) | 3 | (*) |
| | PACIFIC | +11 | +21 | +25 | 0 | -2 | 3 | 6 | 2 | 12 |
| 502 | FURNITURE AND HOME FURNISHINGS | +3 | +16 | +11 | +2 | +13 | 3 | 4 | 1 | 3 |
| | MIDDLE ATLANTIC | -4 | +12 | +11 | +1 | +16 | 6 | 10 | 1 | 8 |
| | EAST NORTH CENTRAL | -4 | -10 | -7 | +7 | +10 | 6 | 13 | 2 | 8 |
| | WEST NORTH CENTRAL | +4 | (S) | +1 | +5 | +4 | 6 | (*) | 3 | 10 |
| | WEST SOUTH CENTRAL | +7 | +52 | +30 | -2 | +19 | 4 | 10 | 2 | 10 |
| | PACIFIC | +4 | +24 | +23 | -1 | +22 | 6 | 12 | 2 | 10 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | +7 | +4 | +5 | +2 | +7 | 2 | 3 | 1 | 3 |
| | NEW ENGLAND | (S) | +7 | +8 | -6 | 0 | (*) | 14 | 3 | 12 |
| | MIDDLE ATLANTIC | -3 | -18 | -4 | -1 | -2 | 6 | 11 | 2 | 12 |
| | EAST NORTH CENTRAL | +3 | +5 | +2 | +1 | +9 | 4 | 8 | 2 | 9 |
| | WEST NORTH CENTRAL | +18 | -21 | -17 | +1 | -13 | 7 | 11 | 4 | 12 |
| | SOUTH ATLANTIC | +4 | +18 | +12 | 0 | +19 | 4 | 9 | 2 | 8 |
| | EAST SOUTH CENTRAL | -3 | +8 | +14 | 0 | -3 | 7 | 13 | 2 | 12 |
| | WEST SOUTH CENTRAL | +5 | +15 | +22 | -3 | +24 | 5 | 13 | 2 | 10 |
| | PACIFIC | +11 | +2 | +5 | +15 | +15 | 4 | 9 | 2 | 9 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | +5 | +49 | +29 | +3 | +15 | 3 | 4 | 1 | 3 |
| | NEW ENGLAND | -4 | (S) | -7 | +1 | (S) | 7 | (*) | 6 | (*) |
| | MIDDLE ATLANTIC | +1 | +26 | +19 | +3 | +15 | 6 | 9 | 2 | 12 |
| | EAST NORTH CENTRAL | +12 | +78 | +35 | +2 | +15 | 5 | 7 | 1 | 6 |
| | WEST NORTH CENTRAL | -1 | +20 | +16 | +6 | +11 | 5 | 10 | 2 | 9 |
| | SOUTH ATLANTIC | +2 | (S) | +24 | +2 | (S) | 5 | (*) | 2 | (*) |
| | EAST SOUTH CENTRAL | +2 | +28 | +15 | -1 | +15 | 3 | 11 | 2 | 14 |
| | WEST SOUTH CENTRAL | +8 | (S) | +68 | +2 | +38 | 4 | 10 | 2 | 9 |
| | MOUNTAIN | +2 | (S) | +22 | -4 | (S) | 3 | (*) | 3 | (*) |
| | PACIFIC | -2 | (S) | +18 | +6 | (S) | 5 | (*) | 4 | (*) |
| 5063 | ELECTRICAL APPARATUS AND EQUIPMENT, WIRING SUPPLIES, AND CONSTRUCTION MATERIALS | +6 | +18 | +15 | +2 | +16 | 3 | 4 | 1 | 3 |
| | NEW ENGLAND | +11 | +30 | +20 | +1 | +29 | 4 | 12 | 2 | 12 |
| | MIDDLE ATLANTIC | +8 | +25 | +19 | 0 | +13 | 4 | 11 | 2 | 7 |
| | EAST NORTH CENTRAL | +8 | +8 | +7 | +1 | +3 | 3 | 8 | 2 | 7 |
| | WEST NORTH CENTRAL | +9 | +43 | +9 | +2 | +26 | 5 | 12 | 3 | 12 |
| | SOUTH ATLANTIC | +13 | +8 | +4 | +4 | +15 | 3 | 8 | 2 | 8 |
| | EAST SOUTH CENTRAL | (S) | (S) | +20 | +9 | (S) | (*) | (*) | 3 | (*) |
| | WEST SOUTH CENTRAL | +1 | (S) | +46 | +2 | (S) | 7 | (*) | 3 | (*) |
| | MOUNTAIN | +5 | +3 | +5 | +3 | +5 | 4 | 14 | 2 | 11 |
| | PACIFIC | +2 | +13 | +7 | -1 | +24 | 4 | 10 | 2 | 6 |

See footnotes at end of table.

## Table 7. Percent Change in Sales and Inventories of Merchant Wholesalers and Sampling Errors by Kind of Business for Geographic Divisions: June 1981—Continued

(BASED ON DATA NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES)

| 1972 SIC CODE | KIND OF BUSINESS AND GEOGRAPHIC DIVISION[1] | PERCENT CHANGE IN-- SALES: JUNE 1981 FROM MAY 1981 | SALES: JUNE 1981 FROM JUNE 1980 | SALES: 6 MOS. 1981 FROM 6 MOS. 1980 | INVENTORIES: JUNE 1981 FROM MAY 1981 | INVENTORIES: JUNE 1981 FROM JUNE 1980 | SAMPLING ERRORS OF THE RATIO CORRESPONDING TO THE PERCENT CHANGE IN COLUMNS[2]-- |
|---|---|---|---|---|---|---|---|
| | | A | B | C | D | E | A B D E |
| 5064,5 | ELECTRICAL APPLIANCES, TV AND RADIO SETS, AND ELECTRONIC PARTS AND EQUIPMENT | +13 | +30 | +18 | +4 | +14 | 2 4 1 4 |
| | MIDDLE ATLANTIC | +9 | +35 | +22 | +7 | +8 | 4 9 2 10 |
| | EAST NORTH CENTRAL | +8 | +56 | +45 | +6 | +39 | 5 10 2 13 |
| | WEST NORTH CENTRAL | +25 | (S) | -13 | +2 | (S) | 5 (*) 2 (*) |
| | SOUTH ATLANTIC | +16 | +26 | +25 | +2 | +8 | 4 12 2 7 |
| | WEST SOUTH CENTRAL | +12 | +9 | +3 | +2 | +9 | 4 13 2 12 |
| | MOUNTAIN | (S) | (S) | +6 | +1 | -8 | (*) (*) 3 13 |
| | PACIFIC | +17 | +23 | +5 | +1 | +9 | 7 11 3 9 |
| 5072 | HARDWARE | +7 | +13 | +11 | +2 | +13 | 2 3 1 3 |
| | NEW ENGLAND | +16 | +19 | +6 | -3 | +21 | 4 13 3 14 |
| | MIDDLE ATLANTIC | -9 | +23 | +16 | +5 | +30 | 3 9 2 11 |
| | EAST NORTH CENTRAL | +9 | -5 | -6 | +2 | 0 | 4 9 4 10 |
| | WEST NORTH CENTRAL | -2 | +13 | +6 | +3 | +33 | 4 7 2 6 |
| | SOUTH ATLANTIC | +5 | 0 | +12 | +3 | +7 | 3 8 2 10 |
| | EAST SOUTH CENTRAL | +7 | +18 | +11 | 0 | +7 | 4 10 2 9 |
| | PACIFIC | +18 | +18 | +15 | +1 | +3 | 3 10 2 11 |
| 5074 | PLUMBING AND HEATING EQUIPMENT AND SUPPLIES (HYDRONICS) | +5 | +29 | +14 | -2 | +6 | 2 5 1 9 |
| | MIDDLE ATLANTIC | -12 | -1 | +8 | 0 | (S) | 6 14 3 (*) |
| | EAST NORTH CENTRAL | +22 | +56 | +22 | -9 | (S) | 7 14 2 (*) |
| | SOUTH ATLANTIC | +7 | +26 | +8 | -1 | +4 | 3 11 2 9 |
| | MOUNTAIN | +5 | (S) | +13 | -4 | -9 | 4 (*) 2 14 |
| | PACIFIC | +5 | +34 | +15 | -2 | +2 | 4 14 2 11 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, AND SUPPLIES | +12 | +35 | +21 | +1 | +11 | 2 5 1 3 |
| | MIDDLE ATLANTIC | +20 | +31 | +17 | -1 | 0 | 5 9 2 7 |
| | EAST NORTH CENTRAL | +6 | +29 | +7 | +2 | +16 | 4 6 1 6 |
| | WEST SOUTH CENTRAL | +10 | (S) | +52 | +1 | +25 | 4 (*) 1 6 |
| | PACIFIC | +6 | +20 | +16 | +2 | +7 | 3 8 2 8 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | +3 | +21 | +21 | +4 | +15 | 2 3 1 4 |
| | NEW ENGLAND | +9 | -6 | -6 | +5 | -6 | 3 12 3 14 |
| | MIDDLE ATLANTIC | -1 | +17 | +19 | +8 | +3 | 4 8 2 7 |
| | EAST NORTH CENTRAL | +5 | +5 | +6 | -2 | 0 | 4 8 2 8 |
| | WEST NORTH CENTRAL | +5 | +34 | +16 | +3 | +31 | 5 12 2 9 |
| | SOUTH ATLANTIC | -2 | +20 | +38 | +11 | +32 | 2 10 2 8 |
| | EAST SOUTH CENTRAL | +8 | +46 | +21 | +3 | +38 | 2 9 2 10 |
| | WEST SOUTH CENTRAL | +3 | +57 | +40 | +4 | +52 | 2 12 2 14 |
| | MOUNTAIN | +4 | (S) | (S) | 0 | +39 | 1 7 1 6 |
| | PACIFIC | +9 | +12 | +16 | 0 | (S) | 2 13 1 (*) |
| 5141 | GROCERIES, GENERAL-LINE | +3 | +13 | +13 | +1 | +14 | 1 2 0 2 |
| | NEW ENGLAND | +2 | +12 | +11 | -1 | +5 | 2 6 2 7 |
| | MIDDLE ATLANTIC | -1 | +8 | +9 | 0 | +10 | 1 3 1 7 |
| | EAST NORTH CENTRAL | +7 | +10 | +13 | +3 | +13 | 1 4 1 5 |
| | WEST NORTH CENTRAL | +4 | +22 | +19 | -1 | +21 | 2 5 2 7 |
| | SOUTH ATLANTIC | +3 | +12 | +7 | 0 | +12 | 2 5 1 4 |
| | WEST SOUTH CENTRAL | 0 | +26 | +22 | +1 | +28 | 2 7 2 6 |
| | MOUNTAIN | 0 | +2 | +17 | +1 | +1 | 2 6 2 9 |
| | PACIFIC | +5 | +17 | +12 | +5 | +16 | 0 3 1 3 |
| 5142,3,6,9 | SPECIALTY-LINE GROCERIES | +5 | +16 | +17 | +1 | +7 | 1 3 1 4 |
| | MIDDLE ATLANTIC | +16 | +18 | +9 | +3 | +2 | 2 5 2 7 |
| | EAST NORTH CENTRAL | -1 | +21 | +22 | -1 | +16 | 3 6 1 6 |
| | WEST NORTH CENTRAL | +2 | +54 | +55 | -5 | +19 | 3 5 1 6 |
| | SOUTH ATLANTIC | -2 | -4 | +3 | +3 | -2 | 4 13 2 13 |
| | EAST SOUTH CENTRAL | -4 | +44 | +35 | +2 | +14 | 4 12 2 13 |
| 5148 | FRESH FRUITS AND VEGATABLES | +5 | +19 | +19 | -5 | (S) | 2 3 2 7 |
| | MIDDLE ATLANTIC | +10 | +30 | +23 | -10 | +8 | 3 9 5 14 |
| | EAST NORTH CENTRAL | +3 | +28 | +27 | -5 | +76 | 3 8 3 10 |
| | WEST NORTH CENTRAL | +21 | +14 | +21 | 0 | (S) | 4 14 3 (*) |
| | WEST SOUTH CENTRAL | +2 | +35 | +34 | -5 | (S) | 7 13 3 (*) |
| | PACIFIC | +4 | +4 | +12 | -3 | +22 | 6 9 2 10 |
| 5194 | TOBACCO AND TOBACCO PRODUCTS | +7 | +14 | +8 | +4 | +13 | 1 4 1 5 |
| | NEW ENGLAND | +11 | +13 | -5 | +8 | (S) | 3 14 3 (*) |
| | MIDDLE ATLANTIC | +1 | +28 | +18 | +3 | (S) | 4 14 3 (*) |
| | EAST NORTH CENTRAL | +7 | +7 | +7 | +2 | -11 | 2 10 2 11 |
| | WEST NORTH CENTRAL | +2 | (S) | +14 | +17 | (S) | 6 (*) 6 (*) |
| | SOUTH ATLANTIC | +17 | +28 | +13 | +7 | +9 | 4 14 3 12 |
| | EAST SOUTH CENTRAL | +11 | (S) | +3 | +2 | (S) | 3 (*) 4 (*) |
| | WEST SOUTH CENTRAL | +6 | (S) | -6 | +3 | +15 | 3 (*) 4 11 |
| | MOUNTAIN | 0 | (S) | +22 | 0 | (S) | 3 (*) 5 (*) |
| | PACIFIC | +9 | +2 | +4 | -2 | +26 | 2 10 3 12 |

Note: Data at the United States level are generally more reliable than data by geographic division. In those kinds of business where the geographic division trends are subject to a high sampling error, it may be desirable to use the United States total trends for the kinds of business rather than the geographic division trends.

(S) Does not meet publication standards because of extreme variability or high nonresponse rate.

[1]See map on page 8.

[2]The sampling errors (in percent) shown in columns A, B, D, and E are based on medians or measurements on data for September 1979 through February 1980.

# Appendix A. Reliability of Data

There are two types of errors possible in an estimate based on a sample survey—sampling and nonsampling. Sampling errors occur because observations are made only on a sample, not on the entire population. Nonsampling errors can be attributed to many sources in the collection and processing of data. The accuracy of a survey result is determined by the joint effects of sampling and nonsampling errors.

**Measures of Sampling Variability.** The particular sample used in this survey is one of a large number of all possible samples of the same size that could have been selected using the same design. Estimates derived from the different samples would differ from each other. The average of these estimates would be close to the estimate derived from a complete enumeration of the population (assuming that a complete enumeration has the same nonsampling errors as the sample survey). The average of the estimates differs from the estimate from a complete census because of the composite estimation technique. Disregarding this difference, the sampling error or standard error of the estimate is a measure of the variability among the estimates from all possible samples of the same size and design and, thus, is a measure of the precision with which an estimate from a particular sample approximates the results of a complete enumeration. The coefficient of variation (expressed as a percent) is the standard error of the estimate times 100 percent, divided by the value being estimated. Note that any measures of sampling variability, such as the standard error or coefficient of variation, are estimates derived from the sample and are also subject to sampling variability.

Estimates of sampling variability (the coefficients of variation in percent) for sales and inventories at the kind-of-business detail provided in this publication are shown in table A-1. These coefficients of variation permit certain confidence statements about the sample estimates. As noted above, the particular sample used in this survey is one of a large number of all possible samples of about the same size that could have been selected using the same design. In about two out of three (67 percent) of these samples, the estimate would differ from a complete enumeration by less than the corresponding percent for that estimate shown in the sampling variability table. In about 19 out of 20 (95 percent) of these samples, the estimate would differ from the results of a complete enumeration by less than twice the percentages shown.

To illustrate the computations involved in the above confidence statements for monthly dollar volume estimates, assume that an estimate for a kind of business published in table 1 for a particular month is $5,000 million and that the median coefficient of variation for this statistic, is 0.9 percent or 0.009. Multiplying $5,000 million by 0.009 yields $45 million. Therefore, a 67-percent confidence interval is $4,955 million to $5,045 million (i.e. $5,000 million plus or minus $45 million). If corresponding confidence intervals were constructed for all possible samples of the same size and design, approximately 2 out of 3 (67 percent) of these intervals would contain the figure obtained from a complete enumeration. Similarly, a 95-percent confidence interval is $4,910 million to $5,090 million (i.e., $5,000 million plus or minus $90 million).

As an example of the use of the coefficients of variation with ratios, assume that an estimated month-to-month percent change published in table 5 is -1.0 percent for a particular kind of business. This is equivalent to a month-to-month ratio of 0.990. Then assume the median coefficient of variation for this ratio as shown in table A-1 is 0.5 percent (or 0.005). Multiplying 0.990 by 0.005 yields 0.005. Therefore, a 67-percent confidence interval is 0.985 to 0.995 (i.e., 0.990 plus or minus 0.005) and a 95-percent confidence interval is 0.980 to 1.000 (i.e., 0.990 plus or minus 0.010).

**Nonsampling Errors.** As calculated for this report, the coefficient of variation measures certain nonsampling errors but does not measure any systematic biases in the data. Bias is the difference, averaged over all possible samples of the same size and design, between the estimate and the true value being estimated. The accuracy of the tabulated data is determined by the joint effects of the sampling and nonsampling errors.

Nonsampling errors can be attributed to many sources: (1) inability to obtain information about all cases in the sample, (2) response errors, (3) definitional difficulties, (4) differences in the interpretation of questions, (5) mistakes in recording or coding the data obtained, and (6) other errors of collection, response, coverage, and estimation for missing data. These nonsampling errors also occur in complete censuses.

Although no direct measurement of the biases due to nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

A major source of bias in the published estimates is due to imputing data for nonrespondents, for late reporters, and for data which fail edit. For all kinds of business combined, imputed data amount to about 15 percent of the sales estimates and 25 percent for inventories.

# Table A-1. Estimated Sampling Variability of Sales and Inventories by Kind of Business for the United States

(Coefficients of variation in percent)

| 1972 SIC code | Kind of business | SALES | | | | | | INVENTORIES | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Preliminary sampling error of the monthly dollar estimates | | Final sampling error of the monthly dollar estimates | | Median sampling error of the ratio of: | | Preliminary sampling error of the monthly dollar estimates | | Final sampling error of the monthly dollar estimates | | Median sampling error of the ratio of: | |
| | | Range | Median | Range | Median | Two consecutive months | Same month a year ago | Range | Median | Range | Median | Two consecutive months | Same month a year ago |
| | Merchant wholesalers, total | 1.4-1.8 | 1.6 | 1.4-1.6 | 1.5 | 0.6 | 1.0 | 1.3-1.5 | 1.4 | 1.2-1.4 | 1.4 | 0.3 | 0.9 |
| | Total (excluding farm-product raw materials) | 1.4-1.9 | 1.6 | 1.3-1.6 | 1.4 | 0.6 | 1.1 | 1.4-1.7 | 1.5 | 1.2-1.5 | 1.5 | 0.3 | 0.9 |
| 50 | Durable goods, total | 1.5-3.2 | 2.0 | 1.4-2.4 | 1.6 | 1.0 | 1.7 | 1.0-1.5 | 1.4 | 1.0-1.4 | 1.3 | 0.4 | 1.1 |
| 501 | Motor vehicles and automotive parts and supplies | 3.6-4.6 | 3.9 | 3.2-4.4 | 3.6 | 1.7 | 2.8 | 2.2-3.5 | 3.0 | 2.6-3.5 | 2.7 | 0.8 | 2.6 |
| 5012 | Automobiles and other motor vehicles | (*) | (*) | (*) | (*) | 2.8 | 5.4 | (*) | (*) | (*) | (*) | 1.8 | 5.5 |
| 5013,4 | Automotive parts and supplies, tires and tubes | 3.3-4.7 | 4.0 | 3.0-4.9 | 3.6 | 1.7 | 3.1 | 3.0-4.1 | 3.7 | 2.8-3.9 | 3.4 | 1.2 | 3.0 |
| 5013 | Automotive parts and supplies | 3.8-5.9 | 4.7 | 3.6-5.9 | 4.2 | 2.1 | 3.8 | 3.8-5.0 | 4.5 | 3.5-4.6 | 4.2 | 1.3 | 3.2 |
| 502 | Furniture and home furnishings | 4.7-7.0 | 5.7 | 4.3-6.1 | 5.1 | 2.9 | 4.0 | 4.0-4.6 | 4.2 | 3.9-4.5 | 4.2 | 0.9 | 3.3 |
| 5021 | Furniture--household and office | 4.9-6.5 | 6.0 | 4.3-7.1 | 6.0 | 4.1 | 5.7 | (*) | (*) | (*) | (*) | 1.5 | 5.1 |
| 5021 pt. | Household furniture | (*) | (*) | (*) | (*) | 6.2 | 11.2 | (*) | (*) | (*) | (*) | 1.5 | 8.7 |
| 5021 pt. | Office furniture | (*) | (*) | (*) | (*) | 4.9 | 6.5 | (*) | (*) | (*) | (*) | 1.9 | 5.2 |
| 5023 | Home furnishings | 6.7-9.2 | 7.6 | 5.5-8.1 | 6.6 | 3.3 | 5.1 | 5.0-6.3 | 5.6 | 5.0-6.1 | 5.7 | 1.1 | 4.5 |
| 503 | Lumber and other construction materials | 4.2-5.8 | 4.8 | 4.4-5.4 | 4.7 | 2.3 | 3.5 | 5.0-6.7 | 5.6 | 5.0-6.6 | 5.9 | 0.9 | 2.9 |
| 5031 | Lumber, plywood, and millwork | 5.7-7.7 | 6.3 | 5.1-6.6 | 5.9 | 3.3 | 4.5 | 7.0-9.0 | 7.9 | 7.2-8.6 | 8.1 | 1.2 | 3.6 |
| 5039 | Construction materials, n.e.c. | 5.0-6.9 | 6.0 | 5.1-6.5 | 5.7 | 3.1 | 5.9 | (*) | (*) | (*) | (*) | 1.1 | 4.8 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | (*) | (*) | (*) | (*) | 3.5 | 5.1 | (*) | (*) | (*) | (*) | 1.6 | 4.6 |
| 505 | Metals and minerals, except petroleum | 4.3-16.8 | 8.7 | 5.1-14.4 | 8.2 | 2.4 | 5.4 | 6.2-9.3 | 7.6 | 5.7-10.2 | 8.1 | 1.2 | 5.2 |
| 5051 pt. | Ferrous metals service centers and offices | 4.3-6.2 | 5.2 | 3.9-6.5 | 4.6 | 2.5 | 3.3 | 3.9-4.7 | 4.3 | 4.0-4.5 | 4.2 | 0.8 | 3.0 |
| 5051 pt. | Ferrous metals service centers | 4.8-7.1 | 5.1 | 4.9-5.2 | 5.1 | 2.8 | 3.6 | 2.8-5.5 | 4.6 | 3.1-4.8 | 4.0 | 0.9 | 3.4 |
| 5051 pt. | Nonferrous metals service centers and offices | (*) | (*) | (*) | (*) | 4.1 | 23.3 | (*) | (*) | (*) | (*) | 5.2 | 22.5 |
| 506 | Electrical goods | 3.8-5.0 | 4.1 | 3.3-4.6 | 3.6 | 2.3 | 3.0 | 3.2-4.8 | 3.5 | 3.3-4.6 | 3.5 | 0.7 | 2.8 |
| 5063 | Electrical apparatus and equipment, wiring supplies, and construction materials | 3.7-6.7 | 4.5 | 3.3-6.9 | 4.1 | 3.1 | 4.5 | 3.2-5.1 | 3.5 | 3.2-4.5 | 3.3 | 0.8 | 2.9 |
| 5064,5 | Electrical appliances, TV and radio sets, and electronic parts and equipment | 5.2-7.4 | 6.0 | 5.0-6.6 | 5.6 | 2.8 | 4.4 | 3.9-6.9 | 4.4 | 3.8-6.5 | 4.7 | 1.2 | 4.1 |
| 5064 | Electrical appliances, TV and radio sets | 4.9-8.2 | 6.4 | 5.1-6.7 | 5.5 | 2.8 | 4.3 | (*) | (*) | (*) | (*) | 1.3 | 5.0 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 3.1-4.5 | 3.5 | 2.9-3.7 | 3.3 | 1.6 | 2.3 | 2.8-4.2 | 3.6 | 2.9-4.2 | 3.5 | 0.8 | 3.8 |
| 5072 | Hardware | 2.6-3.8 | 3.6 | 2.8-3.9 | 3.2 | 1.6 | 2.9 | 4.7-6.3 | 5.6 | 4.5-6.1 | 5.7 | 1.3 | 3.5 |
| 5074 | Plumbing and heating equipment and supplies (hydronics) | 5.4-7.7 | 6.4 | 5.1-6.6 | 5.9 | 2.9 | 5.4 | 5.0-6.0 | 5.4 | 4.7-5.6 | 5.3 | 1.3 | 8.6 |
| 5075 | Warm air heating and air conditioning equipment and supplies | (*) | (*) | (*) | (*) | 4.1 | 5.7 | (*) | (*) | (*) | (*) | 1.2 | 5.1 |
| 508 | Machinery, equipment, and supplies | 2.9-4.5 | 3.3 | 2.6-3.2 | 2.8 | 1.8 | 3.3 | 1.8-2.4 | 2.2 | 1.8-2.3 | 2.1 | 0.4 | 1.8 |
| 5081 | Commercial machines and equipment | (*) | (*) | (*) | (*) | 4.4 | 6.6 | (*) | (*) | (*) | (*) | 1.5 | 5.7 |
| 5082 | Construction and mining machinery and equipment | 4.8-6.6 | 5.4 | 4.1-5.1 | 4.5 | 3.9 | 5.4 | 3.8-5.3 | 4.2 | 3.9-4.9 | 4.1 | 1.1 | 4.1 |
| 5083 | Farm and garden machinery and equipment | (*) | (*) | (*) | (*) | 6.0 | 9.8 | (*) | (*) | (*) | (*) | 1.4 | 4.7 |
| 5084,5 | Industrial machinery, equipment, and supplies | 3.2-4.1 | 3.3 | 2.4-3.4 | 2.8 | 2.5 | 4.9 | 3.2-4.2 | 3.8 | 3.1-3.8 | 3.5 | 0.6 | 2.5 |
| 5086 | Professional equipment and supplies | (*) | (*) | (*) | (*) | 2.7 | 4.7 | (*) | (*) | (*) | (*) | 1.1 | 5.2 |
| 5093 | Scrap and waste materials | 4.2-5.4 | 5.1 | 4.2-5.3 | 4.7 | 2.2 | 3.9 | (*) | (*) | (*) | (*) | 1.3 | 3.2 |
| 5093 pt. | Iron and steel scrap | (*) | (*) | (*) | (*) | 2.2 | 5.0 | (*) | (*) | (*) | (*) | 1.5 | 4.3 |
| 5093 pt. | Waste materials | (*) | (*) | (*) | (*) | 3.9 | 6.9 | (*) | (*) | (*) | (*) | 2.2 | 5.4 |
| 51 | Nondurable goods, total | 1.8-2.1 | 1.9 | 1.6-2.0 | 1.9 | 0.8 | 1.2 | 2.6-3.0 | 2.8 | 2.6-2.8 | 2.7 | 0.5 | 1.3 |
| | Total (excluding farm-product raw materials) | 1.9-2.4 | 2.1 | 1.7-2.3 | 2.0 | 0.9 | 1.4 | 3.3-3.6 | 3.5 | 3.2-3.5 | 3.3 | 0.4 | 1.4 |
| 511 | Paper and paper products | 4.6-7.7 | 5.2 | 4.5-6.9 | 4.9 | 1.5 | 3.0 | 4.6-7.3 | 6.3 | 4.6-7.1 | 5.9 | 0.8 | 3.4 |
| 5111,3 | Printing, writing, industrial, and personal service paper | 3.0-5.1 | 3.3 | 3.0-4.6 | 3.2 | 1.1 | 2.3 | 5.0-6.9 | 6.4 | 4.9-6.9 | 6.3 | 0.8 | 3.1 |
| 5111 | Printing and writing paper | 2.6-3.9 | 2.8 | 2.4-3.4 | 2.7 | 1.3 | 2.7 | 3.9-4.9 | 4.3 | 3.7-4.8 | 4.2 | 0.7 | 3.2 |
| 5113 | Industrial and personal service paper | 4.4-7.7 | 5.0 | 4.4-6.8 | 4.5 | 1.9 | 4.8 | 7.3-11.4 | 9.9 | 6.9-11.2 | 9.7 | 1.3 | 4.2 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 2.3-3.1 | 2.7 | 2.2-2.9 | 2.7 | 1.5 | 3.1 | 3.6-5.1 | 4.4 | 4.0-5.1 | 4.6 | 1.4 | 4.0 |
| 5122 | Drugs, drug proprietaries, and druggists' sundries | 2.3-3.1 | 2.7 | 2.2-2.9 | 2.7 | 1.5 | 3.1 | (*) | (*) | (*) | (*) | 1.4 | 4.0 |
| 5122 pt. | General-line drugs | 6.0-6.9 | 6.6 | 6.0-6.9 | 6.6 | 1.1 | 4.1 | (*) | (*) | (*) | (*) | 0.9 | 6.6 |
| 513 | Apparel, piece goods, and notions | 12.0-15.7 | 13.2 | 10.9-14.6 | 13.4 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |
| 514 | Groceries and related products | 1.7-2.4 | 2.2 | 1.8-2.3 | 2.1 | 0.5 | 1.3 | 1.6-2.2 | 1.8 | 1.6-2.0 | 1.8 | 0.4 | 1.6 |
| 5141 | Groceries, general-line | 2.6-3.4 | 3.3 | 2.8-3.3 | 3.1 | 0.6 | 1.7 | 1.9-2.8 | 2.2 | 1.7-2.7 | 1.9 | 0.5 | 1.7 |
| 5141 pt. | Voluntary groups | (*) | (*) | (*) | (*) | 0.7 | 2.1 | (*) | (*) | (*) | (*) | 0.7 | 2.8 |
| 5141 pt. | Retailer cooperatives | (*) | (*) | (*) | (*) | 0.6 | 1.8 | (*) | (*) | (*) | (*) | 0.6 | 2.3 |
| 5141 pt. | Other general-lines | (*) | (*) | (*) | (*) | 1.3 | 2.8 | (*) | (*) | (*) | (*) | 1.0 | 3.7 |
| 5142,3,6,9 | Specialty-line groceries | (*) | (*) | (*) | (*) | 1.2 | 3.3 | (*) | (*) | (*) | (*) | 1.0 | 3.6 |
| 5144 | Poultry and poultry products | 5.6-7.2 | 6.5 | 5.4-7.2 | 6.7 | 1.8 | 3.2 | (*) | (*) | (*) | (*) | 1.5 | 5.2 |
| 5145 | Confectionery | 5.1-12.9 | 6.7 | 4.8-9.5 | 6.6 | 2.7 | 5.5 | (*) | (*) | (*) | (*) | 1.7 | 4.0 |
| 5147 | Meats and meat products | 5.6-7.0 | 6.8 | 5.4-6.9 | 6.5 | 1.5 | 4.2 | (*) | (*) | (*) | (*) | 1.4 | 6.3 |
| 5148 | Fresh fruits and vegetables | 4.0-5.7 | 4.4 | 3.5-5.0 | 4.7 | 2.3 | 3.2 | (*) | (*) | (*) | (*) | 2.6 | 6.2 |
| 515 | Farm-product raw materials | 2.6-5.2 | 3.0 | 2.1-4.6 | 3.4 | 2.3 | 2.9 | (*) | (*) | (*) | (*) | 1.5 | 4.0 |
| 5152 | Cotton | (*) | (*) | (*) | (*) | 6.9 | 10.2 | (*) | (*) | (*) | (*) | 1.0 | 2.5 |
| 5153 | Grain | 3.2-5.9 | 3.8 | 2.6-5.3 | 3.9 | 2.5 | 3.3 | (*) | (*) | (*) | (*) | 1.7 | 5.0 |
| 517 | Petroleum and petroleum products | 5.1-7.8 | 7.1 | 4.9-8.0 | 6.2 | 2.0 | 4.1 | 5.6-6.5 | 5.8 | 5.1-6.1 | 5.6 | 1.7 | 3.3 |
| 5171 | Petroleum bulk stations and terminals | 3.5-5.1 | 4.0 | 3.1-4.2 | 3.9 | 1.7 | 3.7 | (*) | (*) | (*) | (*) | 2.1 | 3.9 |
| 518 | Beer, wine, and distilled alcoholic beverages | 4.5-5.9 | 4.9 | 4.3-5.5 | 4.9 | 1.2 | 3.0 | 3.8-5.0 | 4.2 | 3.9-5.0 | 4.3 | 1.4 | 3.2 |
| 5181 | Beer and ale | 5.2-6.1 | 5.8 | 5.4-6.2 | 5.7 | 1.4 | 3.5 | 7.9-10.2 | 8.1 | 7.7-9.9 | 8.8 | 2.7 | 4.7 |
| 5182 | Wine and distilled alcoholic beverages | 5.1-7.2 | 5.7 | 5.1-6.9 | 5.7 | 1.9 | 4.1 | 3.4-5.0 | 4.4 | 3.7-4.6 | 4.0 | 1.3 | 4.5 |
| 519 | Miscellaneous nondurable goods | 2.5-4.9 | 3.9 | 2.5-3.9 | 3.4 | 1.9 | 3.2 | (*) | (*) | (*) | (*) | 0.9 | 2.7 |
| 5191 | Farm supplies | (*) | (*) | (*) | (*) | 4.4 | 5.7 | (*) | (*) | (*) | (*) | 1.6 | 4.5 |
| 5194 | Tobacco and tobacco products | 5.6-6.7 | 6.1 | 5.3-6.8 | 5.8 | 1.3 | 3.9 | (*) | (*) | (*) | (*) | 1.3 | 4.7 |
| 5198 | Paints, varnishes, and supplies | (*) | (*) | (*) | (*) | 2.4 | 6.8 | (*) | (*) | (*) | (*) | 1.1 | 5.8 |
| 5199 pt. | Books, periodicals, newspapers | (*) | (*) | (*) | (*) | 6.6 | 17.4 | (*) | (*) | (*) | (*) | 1.4 | 14.4 |

Note: Measures of sampling variability are based on data unadjusted for seasonal variations or trading-day differences. The range of sampling error of the monthly dollar estimates and the ratio of current month to previous month for sales and inventories is based on data for August 1979 through January 1980.

* Measures of sampling variability are not shown since sales and/or inventory estimates for these kinds of business are not published.

# Appendix B. Adjustment for Seasonal and Trading-Day Variations

Seasonal factors for adjusting data in this historical publication have been developed by the method described in the *X-11 Variant of the Census Method II Seasonal Adjustment Program,* U.S. Bureau of the Census Technical Paper No. 15, Revised 1967. Trading-day factors for adjusting sales were also derived from the X-11 program.

Adjustment of estimates is an approximation based on past experiences, and therefore, will be less precise to the extent that current competitive pressures, changes in economic condition, and other elements introduce significant changes in seasonal and trading-day patterns.

A description of trading-day adjustment factors may be found in *Estimating Trading-Day Variation in Monthly Economic Time Series,* Bureau of the Census Technical Paper No. 12, 1965. Additional details concerning the adjustment factors may be obtained from the Chief, Business Division, Bureau of the Census, Washington, D.C. 20233.

## Table B-1. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers: January 1980-December 1981

| 1972 SIC code | Kind of business | 1980 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| | | Seasonal and trading-day adjustment factors for sales | | | | | | | | | | | |
| | Merchant wholesalers, total | 96.2 | 95.1 | 101.4 | 102.6 | 103.3 | 100.1 | 101.1 | 99.4 | 100.5 | 106.6 | 96.5 | 101.1 |
| | Total (excluding farm-product raw materials) | 94.8 | 94.7 | 101.4 | 102.9 | 103.5 | 100.9 | 102.0 | 100.0 | 101.8 | 106.0 | 95.6 | 100.0 |
| 50 | Durable goods, total | 90.4 | 92.6 | 101.9 | 103.6 | 104.0 | 102.3 | 101.9 | 102.4 | 103.3 | 108.6 | 94.3 | 98.3 |
| 501 | Motor vehicle and automotive parts and supplies | 95.6 | 94.3 | 104.7 | 111.7 | 108.1 | 101.6 | 102.6 | 100.1 | 93.2 | 104.6 | 91.8 | 95.4 |
| 502 | Furniture and home furnishings | 89.7 | 93.0 | 101.5 | 103.4 | 99.4 | 99.4 | 96.7 | 99.1 | 103.8 | 115.9 | 101.9 | 100.8 |
| 503 | Lumber and other construction materials | 81.7 | 83.3 | 93.2 | 99.7 | 104.8 | 107.5 | 110.0 | 111.8 | 111.6 | 116.0 | 94.1 | 90.1 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 81.0 | 85.5 | 97.7 | 100.6 | 94.0 | 96.8 | 112.6 | 104.2 | 109.8 | 112.7 | 108.0 | 101.4 |
| 505 | Metals and minerals, except petroleum | 96.4 | 97.9 | 106.9 | 102.5 | 101.0 | 101.6 | 98.1 | 103.2 | 102.4 | 103.3 | 93.8 | 97.6 |
| 506 | Electrical goods | 91.7 | 90.4 | 99.0 | 95.5 | 98.5 | 102.0 | 102.9 | 101.8 | 105.8 | 109.9 | 101.4 | 105.0 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 93.5 | 87.9 | 96.2 | 103.1 | 104.6 | 104.1 | 107.7 | 103.3 | 102.4 | 111.6 | 95.9 | 93.7 |
| 508 | Machinery, equipment, and supplies | 90.0 | 92.5 | 102.4 | 104.9 | 106.8 | 103.4 | 100.9 | 100.4 | 104.9 | 107.3 | 91.4 | 98.6 |
| 509 | Miscellaneous durable goods | 91.8 | 97.5 | 108.3 | 102.0 | 98.0 | 95.1 | 91.6 | 100.4 | 108.1 | 112.4 | 96.5 | 101.0 |
| 51 | Nondurable goods, total | 99.9 | 96.1 | 101.2 | 100.9 | 102.4 | 99.4 | 100.8 | 97.2 | 98.7 | 105.3 | 98.2 | 104.0 |
| | Total (excluding farm-product raw materials) | 98.7 | 96.5 | 101.1 | 101.5 | 102.9 | 100.5 | 100.9 | 98.7 | 99.8 | 104.0 | 97.0 | 102.2 |
| 511 | Paper and paper products | 101.1 | 97.3 | 101.0 | 100.9 | 100.8 | 98.2 | 100.6 | 99.6 | 101.6 | 107.8 | 94.9 | 100.6 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 98.9 | 93.2 | 99.8 | 101.6 | 99.1 | 97.7 | 101.9 | 98.1 | 103.2 | 112.3 | 96.3 | 102.0 |
| 513 | Apparel, piece goods, and notions | 95.8 | 94.5 | 100.4 | 97.1 | 93.0 | 90.8 | 103.4 | 110.1 | 113.5 | 113.8 | 99.3 | 93.4 |
| 514 | Groceries and related products | 99.6 | 94.8 | 100.3 | 102.2 | 104.4 | 99.1 | 103.4 | 99.1 | 99.4 | 104.3 | 97.0 | 101.1 |
| 515 | Farm-product raw materials[1] | 102.8 | 96.7 | 102.6 | 101.9 | 104.5 | 93.7 | 96.2 | 92.8 | 96.0 | 108.9 | 102.1 | 106.7 |
| 516 | Chemicals and allied products | 96.8 | 92.8 | 99.3 | 97.3 | 104.8 | 104.5 | 91.3 | 103.3 | 98.6 | 110.6 | 100.8 | 104.8 |
| 517 | Petroleum and petroleum products | 106.1 | 104.2 | 99.6 | 97.4 | 99.7 | 96.6 | 97.9 | 97.6 | 96.9 | 101.1 | 102.5 | 104.4 |
| 518 | Beer, wine, and distilled alcoholic beverages | 84.1 | 85.8 | 94.4 | 99.5 | 103.5 | 106.6 | 106.3 | 103.4 | 98.7 | 106.5 | 97.8 | 117.7 |
| 519 | Miscellaneous nondurable goods | 95.2 | 94.8 | 109.2 | 107.8 | 115.1 | 104.8 | 95.0 | 93.3 | 99.2 | 98.9 | 91.7 | 96.7 |
| | | Seasonal adjustment factors for inventories | | | | | | | | | | | |
| | Merchant wholesalers, total | 100.3 | 101.6 | 102.4 | 101.4 | 100.3 | 99.1 | 98.4 | 98.3 | 98.3 | 99.9 | 100.4 | 99.9 |
| | Total (excluding farm-product raw materials) | 98.8 | 100.1 | 101.4 | 101.3 | 100.9 | 100.8 | 100.6 | 99.6 | 99.3 | 99.6 | 99.4 | 98.6 |
| 50 | Durable goods, total | 98.6 | 99.9 | 100.9 | 100.9 | 101.4 | 101.8 | 101.4 | 100.4 | 99.4 | 98.9 | 98.4 | 98.3 |
| 501 | Motor vehicles and automotive parts and supplies | 101.4 | 104.4 | 102.6 | 100.9 | 101.6 | 100.1 | 99.4 | 97.3 | 95.4 | 98.1 | 98.9 | 100.1 |
| 502 | Furniture and home furnishings | 98.1 | 98.1 | 100.9 | 99.9 | 100.4 | 102.9 | 101.6 | 100.3 | 102.4 | 100.6 | 98.3 | 96.9 |
| 503 | Lumber and other construction materials | 97.8 | 99.1 | 103.3 | 102.8 | 102.8 | 102.4 | 102.4 | 100.3 | 98.9 | 98.1 | 96.1 | 96.9 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 95.1 | 99.1 | 100.1 | 103.9 | 102.3 | 106.3 | 106.1 | 101.4 | 101.3 | 99.9 | 93.6 | 91.3 |
| 505 | Metals and minerals, except petroleum | 98.4 | 97.1 | 98.6 | 97.8 | 102.4 | 100.9 | 102.1 | 105.4 | 101.4 | 97.6 | 99.9 | 98.4 |
| 506 | Electrical goods | 96.3 | 95.6 | 98.1 | 99.3 | 101.9 | 102.1 | 102.1 | 102.4 | 101.6 | 101.6 | 100.1 | 99.4 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 97.6 | 99.9 | 102.6 | 105.4 | 103.9 | 103.1 | 101.9 | 99.3 | 97.6 | 97.9 | 95.1 | 95.8 |
| 508 | Machinery, equipment, and supplies | 98.1 | 99.9 | 101.6 | 100.9 | 101.4 | 102.1 | 100.6 | 100.8 | 100.6 | 98.1 | 98.4 | 98.1 |
| 509 | Miscellaneous durable goods | 99.6 | 99.1 | 98.4 | 99.6 | 98.3 | 99.9 | 102.6 | 100.9 | 101.4 | 102.1 | 99.1 | 99.3 |
| 51 | Nondurable goods, total | 104.4 | 102.9 | 105.3 | 100.9 | 96.9 | 95.1 | 94.8 | 94.3 | 96.4 | 102.1 | 104.1 | 103.4 |
| | Total (excluding farm-product raw materials) | 100.4 | 99.8 | 102.6 | 101.4 | 99.9 | 98.4 | 98.8 | 97.8 | 99.3 | 101.4 | 100.9 | 99.8 |
| 511 | Paper and paper products | 97.1 | 98.4 | 99.6 | 100.9 | 100.4 | 102.6 | 100.1 | 98.9 | 101.1 | 100.1 | 100.3 | 100.9 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 96.4 | 96.1 | 100.3 | 101.3 | 99.3 | 100.4 | 100.4 | 99.9 | 102.8 | 105.3 | 100.9 | 97.4 |
| 513 | Apparel, piece goods, and notions | 101.6 | 100.6 | 98.3 | 98.9 | 100.4 | 100.6 | 101.3 | 101.1 | 98.9 | 99.4 | 99.9 | 99.6 |
| 514 | Groceries and related products | 98.6 | 99.9 | 101.6 | 100.6 | 99.1 | 99.9 | 98.3 | 97.1 | 100.3 | 102.9 | 100.9 | 101.4 |
| 515 | Farm-product raw materials[1] | 119.2 | 117.1 | 114.9 | 101.6 | 86.8 | 82.4 | 78.9 | 79.3 | 84.8 | 103.4 | 116.3 | 115.6 |
| 516 | Chemicals and allied products | 98.6 | 100.6 | 100.8 | 100.8 | 103.9 | 101.9 | 102.4 | 100.3 | 100.6 | 96.6 | 96.3 | 97.6 |
| 517 | Petroleum and petroleum products | 102.6 | 99.1 | 100.1 | 95.4 | 97.8 | 94.8 | 97.9 | 99.9 | 102.4 | 103.9 | 104.3 | 101.8 |
| 518 | Beer, wine, and distilled alcoholic beverages | 97.3 | 94.6 | 101.1 | 104.6 | 103.3 | 102.4 | 100.8 | 96.6 | 99.3 | 104.1 | 103.4 | 93.1 |
| 519 | Miscellaneous nondurable goods | 104.3 | 106.4 | 109.3 | 103.9 | 98.8 | 92.8 | 94.8 | 96.1 | 95.3 | 98.8 | 100.1 | 99.6 |

See footnotes at end of table.

## Table B-1. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers: January 1980-December 1981—Continued

| 1972 SIC code | Kind of business | 1981 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| | | Seasonal and trading-day adjustment factors for sales | | | | | | | | | | | |
| | Merchant wholesalers, total | 93.7 | 91.1 | 104.8 | 102.1 | 100.5 | 103.2 | 100.5 | 98.5 | 101.0 | 104.6 | 98.2 | 102.1 |
| | Total (excluding farm-product raw materials) | 92.3 | 91.4 | 104.1 | 103.3 | 99.8 | 104.3 | 100.7 | 100.2 | 101.6 | 104.5 | 97.2 | 101.3 |
| 50 | Durable goods, total | 88.1 | 88.9 | 104.6 | 103.9 | 100.5 | 105.3 | 101.7 | 102.6 | 103.1 | 106.2 | 96.8 | 98.7 |
| 501 | Motor vehicles and automotive parts and supplies | 92.4 | 91.4 | 108.3 | 112.9 | 104.6 | 103.4 | 100.7 | 100.3 | 93.0 | 103.3 | 93.6 | 98.1 |
| 502 | Furniture and home furnishings | 87.0 | 89.5 | 103.7 | 103.0 | 98.3 | 100.8 | 96.4 | 98.0 | 106.3 | 112.7 | 102.4 | 101.8 |
| 503 | Lumber and other construction materials | 79.6 | 79.1 | 96.9 | 99.3 | 101.4 | 111.5 | 110.0 | 110.5 | 111.3 | 113.5 | 96.9 | 90.8 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 79.0 | 82.5 | 98.3 | 101.3 | 90.0 | 99.4 | 112.6 | 104.8 | 110.9 | 111.2 | 108.5 | 102.6 |
| 505 | Metals and minerals, except petroleum | 91.5 | 93.7 | 112.0 | 100.7 | 100.5 | 103.6 | 98.1 | 102.5 | 103.9 | 98.5 | 97.2 | 96.9 |
| 506 | Electrical goods | 88.4 | 88.9 | 99.9 | 95.8 | 95.3 | 104.7 | 100.3 | 103.8 | 106.9 | 108.9 | 101.4 | 106.5 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 90.5 | 85.6 | 98.4 | 103.9 | 101.6 | 106.3 | 106.0 | 104.3 | 102.6 | 109.7 | 97.6 | 94.9 |
| 508 | Machinery, equipment, and supplies | 88.5 | 88.9 | 104.3 | 105.9 | 102.0 | 107.3 | 100.6 | 100.8 | 104.2 | 105.8 | 93.2 | 99.3 |
| 509 | Miscellaneous durable goods | 90.7 | 92.5 | 114.4 | 100.2 | 93.0 | 101.6 | 90.5 | 99.0 | 106.2 | 112.0 | 99.0 | 101.2 |
| 51 | Nondurable goods, total | 97.5 | 91.9 | 104.8 | 100.6 | 99.5 | 102.6 | 99.9 | 96.0 | 98.6 | 103.7 | 99.8 | 105.7 |
| | Total (excluding farm-product raw materials) | 96.2 | 92.8 | 103.7 | 101.9 | 99.9 | 103.3 | 100.0 | 98.4 | 99.9 | 102.2 | 98.6 | 103.6 |
| 511 | Paper and paper products | 98.0 | 93.9 | 103.9 | 101.0 | 96.9 | 102.3 | 99.0 | 99.1 | 102.6 | 105.7 | 95.6 | 102.6 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 95.2 | 90.3 | 103.2 | 102.6 | 95.6 | 100.5 | 100.4 | 98.8 | 102.8 | 109.9 | 98.7 | 103.8 |
| 513 | Apparel, piece goods, and notions | 92.1 | 92.1 | 101.9 | 97.1 | 88.8 | 94.3 | 101.1 | 110.9 | 116.4 | 111.7 | 99.2 | 95.0 |
| 514 | Groceries and related products | 98.0 | 91.2 | 102.6 | 101.4 | 101.1 | 103.0 | 101.8 | 98.1 | 99.6 | 104.1 | 96.9 | 102.8 |
| 515 | Farm-product raw materials[1] | 101.3 | 90.6 | 108.3 | 98.8 | 101.7 | 99.4 | 95.1 | 90.0 | 95.4 | 109.1 | 103.1 | 108.0 |
| 516 | Chemicals and allied products | 93.5 | 88.3 | 102.3 | 97.0 | 103.6 | 105.3 | 92.0 | 102.7 | 100.0 | 104.9 | 105.3 | 104.8 |
| 517 | Petroleum and petroleum products | 103.6 | 100.6 | 103.3 | 95.9 | 97.9 | 99.8 | 94.5 | 96.8 | 96.6 | 101.6 | 102.9 | 107.3 |
| 518 | Beer, wine, and distilled alcoholic beverages | 81.5 | 81.1 | 98.9 | 99.7 | 100.0 | 109.7 | 107.3 | 101.5 | 99.7 | 102.2 | 101.3 | 119.0 |
| 519 | Miscellaneous nondurable goods | 94.9 | 89.7 | 111.5 | 109.4 | 111.8 | 106.8 | 96.0 | 92.5 | 97.9 | 98.0 | 94.0 | 97.8 |
| | | Seasonal adjustment factors for inventories | | | | | | | | | | | |
| | Merchant wholesalers, total | 100.3 | 101.6 | 102.4 | 101.4 | 100.4 | 99.1 | 98.4 | 98.3 | 98.3 | 99.9 | 100.4 | 99.9 |
| | Total (excluding farm-product raw materials) | 98.8 | 100.1 | 101.4 | 101.3 | 101.1 | 100.8 | 100.6 | 99.8 | 99.3 | 99.6 | 99.4 | 98.6 |
| 50 | Durable goods, total | 98.4 | 99.9 | 100.9 | 100.9 | 101.6 | 101.8 | 101.4 | 100.4 | 99.4 | 98.9 | 98.4 | 98.1 |
| 501 | Motor vehicles and automotive parts and supplies | 101.4 | 104.6 | 102.6 | 100.9 | 101.6 | 100.1 | 99.4 | 97.3 | 95.3 | 97.9 | 98.9 | 100.1 |
| 502 | Furniture and home furnishings | 98.1 | 98.1 | 100.9 | 100.1 | 100.4 | 102.9 | 101.6 | 100.1 | 102.4 | 100.6 | 98.3 | 96.9 |
| 503 | Lumber and other construction materials | 97.6 | 99.1 | 103.3 | 102.8 | 102.8 | 102.4 | 102.4 | 100.3 | 98.9 | 98.1 | 96.1 | 96.8 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 94.9 | 98.9 | 100.1 | 104.1 | 102.3 | 106.3 | 106.3 | 101.4 | 101.3 | 99.8 | 93.6 | 91.4 |
| 505 | Metals and minerals, except petroleum | 98.4 | 97.1 | 98.6 | 97.6 | 102.6 | 100.9 | 102.1 | 105.6 | 101.4 | 97.6 | 99.9 | 98.4 |
| 506 | Electrical goods | 96.3 | 95.6 | 98.1 | 99.3 | 101.9 | 102.1 | 102.1 | 102.4 | 101.6 | 101.6 | 100.1 | 99.3 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 97.6 | 100.1 | 102.8 | 105.4 | 103.9 | 103.1 | 101.9 | 99.1 | 97.6 | 98.1 | 95.1 | 95.8 |
| 508 | Machinery, equipment, and supplies | 97.9 | 99.9 | 101.6 | 100.9 | 101.6 | 102.1 | 100.6 | 100.8 | 100.6 | 98.1 | 98.3 | 98.1 |
| 509 | Miscellaneous durable goods | 99.8 | 99.1 | 98.6 | 99.6 | 98.4 | 99.9 | 102.6 | 100.9 | 101.3 | 102.1 | 99.1 | 99.3 |
| 51 | Nondurable goods, total | 104.4 | 102.9 | 105.4 | 101.1 | 97.1 | 95.1 | 94.8 | 94.1 | 96.3 | 102.1 | 104.1 | 103.3 |
| | Total (excluding farm-product raw materials) | 100.4 | 99.8 | 102.6 | 101.6 | 99.9 | 98.4 | 98.8 | 97.8 | 99.3 | 101.4 | 100.9 | 99.6 |
| 511 | Paper and paper products | 97.1 | 98.4 | 99.6 | 100.9 | 100.4 | 102.6 | 100.1 | 98.9 | 101.1 | 100.1 | 100.3 | 100.9 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 96.4 | 95.9 | 100.4 | 101.1 | 99.4 | 100.3 | 100.6 | 99.9 | 102.9 | 105.3 | 100.9 | 97.3 |
| 513 | Apparel, piece goods, and notions | 101.6 | 100.6 | 98.3 | 98.9 | 100.4 | 100.6 | 101.3 | 101.1 | 98.8 | 99.4 | 99.9 | 99.6 |
| 514 | Groceries and related products | 98.6 | 99.9 | 101.6 | 100.6 | 99.3 | 100.1 | 98.1 | 97.1 | 100.3 | 102.9 | 100.8 | 101.4 |
| 515 | Farm-product raw materials[1] | 119.4 | 117.2 | 115.3 | 101.9 | 86.8 | 82.3 | 78.8 | 79.0 | 84.8 | 103.6 | 116.2 | 115.6 |
| 516 | Chemicals and allied products | 98.6 | 100.8 | 100.8 | 100.8 | 104.1 | 101.9 | 102.4 | 100.4 | 100.6 | 96.6 | 96.1 | 97.6 |
| 517 | Petroleum and petroleum products | 102.4 | 99.1 | 100.1 | 95.6 | 98.1 | 94.8 | 98.1 | 99.9 | 102.4 | 103.9 | 104.3 | 101.8 |
| 518 | Beer, wine, and distilled alcoholic beverages | 97.4 | 94.4 | 101.4 | 104.8 | 103.3 | 102.3 | 100.8 | 96.6 | 99.1 | 103.9 | 103.4 | 93.1 |
| 519 | Miscellaneous nondurable goods | 104.3 | 106.4 | 109.4 | 104.1 | 98.9 | 92.8 | 94.8 | 96.1 | 95.3 | 98.8 | 100.1 | 99.4 |

Note: The adjustment factors shown above for sales are a combination of the seasonal and trading-day factors. These are separately available, however, upon request. Adjustment factors are included in this table for some kinds of business for which adjusted data are not published separately.

Adjusted sales and inventory data shown in table 4 are obtained by dividing the unadjusted data shown in tables 1 and 2 by the adjustment factors shown above for the corresponding kinds of business. Adjusted data for the summary trade totals are obtained by summarizing the adjusted data for the individual kinds of business. Seasonal factors shown for the summary trade totals provide an approximation to these totals but may show small differences from the published data.

[1]There are indications that the seasonal adjustment factors for the farm-product raw materials category may not reflect recent trends in this trade. The seasonally adjusted data for this category and also for the merchant wholesale and nondurable goods totals should, therefore, be used with caution.

# Table B-2. Average Month-to-Month Percent Changes and Related Summary Measures for Sales and Inventories of Merchant Wholesalers

| 1972 SIC code | Kind of business | $\bar{O}$ | $\bar{S}$ | $\overline{CI}$ | $\bar{I}$ | $\bar{C}$ | $\bar{I}/\bar{C}$ | MCD | Average duration of run | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | CI | I | C | MCD |
| | | Sales | | | | | | | | | | |
| | Merchant wholesalers, total | 4.89 | 3.09 | 1.47 | .85 | 1.12 | .75 | 1 | 2.98 | 1.49 | 13.92 | 2.98 |
| 50 | Durable goods, total | 5.43 | 4.75 | 1.61 | 1.05 | 1.17 | .90 | 1 | 3.48 | 1.53 | 20.87 | 3.48 |
| 501 | Motor vehicles and automotive parts and supplies | 5.73 | 4.39 | 2.76 | 2.37 | 1.27 | 1.86 | 3 | 2.09 | 1.61 | 23.86 | 4.23 |
| 502 | Furniture and home furnishings | 7.76 | 6.99 | 2.43 | 2.09 | 1.01 | 2.07 | 3 | 2.04 | 1.59 | 13.92 | 4.34 |
| 503 | Lumber and other construction materials | 7.69 | 6.40 | 2.77 | 1.99 | 1.72 | 1.15 | 2 | 3.09 | 1.62 | 18.56 | 4.61 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 9.44 | 8.63 | 4.18 | 3.85 | 1.26 | 3.06 | 4 | 1.69 | 1.50 | 7.59 | 3.73 |
| 505 | Metals and minerals, except petroleum | 7.02 | 4.10 | 3.22 | 2.50 | 1.85 | 1.35 | 2 | 1.88 | 1.43 | 8.35 | 3.07 |
| 506 | Electrical goods | 5.75 | 5.04 | 2.31 | 1.98 | 1.08 | 1.83 | 2 | 1.76 | 1.53 | 16.70 | 3.39 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 5.84 | 4.73 | 1.98 | 1.67 | 1.01 | 1.66 | 2 | 2.23 | 1.48 | 15.18 | 3.77 |
| 508 | Machinery, equipment, and supplies | 6.04 | 5.35 | 2.03 | 1.68 | 1.01 | 1.67 | 2 | 2.04 | 1.62 | 13.92 | 3.32 |
| 509 | Miscellaneous durable goods | 8.01 | 6.42 | 3.79 | 3.09 | 1.88 | 1.65 | 2 | 2.04 | 1.53 | 10.44 | 3.46 |
| 51 | Nondurable goods, total | 5.20 | 2.81 | 1.85 | 1.31 | 1.13 | 1.16 | 2 | 2.49 | 1.33 | 12.85 | 3.86 |
| 511 | Paper and paper products | 5.52 | 3.23 | 2.09 | 1.67 | 1.03 | 1.61 | 2 | 2.09 | 1.50 | 15.18 | 3.19 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 6.03 | 3.89 | 2.06 | 1.76 | .78 | 2.25 | 3 | 2.01 | 1.59 | 8.79 | 3.24 |
| 513 | Apparel, piece goods, and notions | 8.05 | 6.62 | 2.93 | 2.73 | 1.00 | 2.72 | 3 | 1.72 | 1.43 | 11.13 | 3.11 |
| 514 | Groceries and related products | 4.52 | 1.85 | 1.66 | 1.43 | .83 | 1.71 | 2 | 2.06 | 1.43 | 23.86 | 3.19 |
| 515 | Farm-product raw materials | 9.28 | 4.72 | 5.03 | 4.44 | 1.71 | 2.59 | 3 | 1.90 | 1.58 | 6.96 | 3.30 |
| 516 | Chemicals and allied products | 7.37 | 5.04 | 3.52 | 3.13 | 1.41 | 2.22 | 3 | 1.84 | 1.52 | 18.56 | 4.71 |
| 517 | Petroleum and petroleum products | 7.03 | 5.33 | 4.27 | 3.59 | 1.92 | 1.87 | 3 | 1.84 | 1.67 | 12.85 | 3.11 |
| 518 | Beer, wine, and distilled alcoholic beverages | 10.80 | 8.43 | 1.70 | 1.50 | .72 | 2.09 | 3 | 1.84 | 1.49 | 16.70 | 4.58 |
| 519 | Miscellaneous nondurable goods | 6.05 | 4.67 | 2.68 | 2.37 | 1.07 | 2.22 | 3 | 1.76 | 1.53 | 10.44 | 3.30 |
| | | Inventories | | | | | | | | | | |
| | Merchant wholesalers, total | 1.16 | .70 | .98 | .40 | .91 | .44 | 1 | 7.59 | 1.52 | 27.83 | 7.59 |
| 50 | Durable goods, total | 1.13 | .57 | .98 | .41 | .93 | .44 | 1 | 6.96 | 1.45 | 41.75 | 6.96 |
| 501 | Motor vehicles and automotive parts and supplies | 2.30 | 1.25 | 1.75 | 1.23 | 1.19 | 1.03 | 2 | 2.69 | 1.52 | 11.93 | 4.15 |
| 502 | Furniture and home furnishings | 2.22 | 1.32 | 1.64 | 1.26 | 1.01 | 1.25 | 2 | 2.14 | 1.49 | 13.92 | 4.26 |
| 503 | Lumber and other construction materials | 2.52 | 1.54 | 1.81 | 1.24 | 1.15 | 1.08 | 2 | 2.65 | 1.72 | 16.70 | 4.15 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 3.49 | 2.79 | 2.21 | 1.94 | 1.07 | 1.80 | 2 | 2.01 | 1.62 | 27.83 | 3.39 |
| 505 | Metals and minerals, except petroleum | 3.31 | 2.43 | 2.09 | 1.36 | 1.37 | 1.00 | 2 | 3.04 | 1.72 | 8.79 | 4.05 |
| 506 | Electrical goods | 1.78 | 1.15 | 1.44 | 1.08 | .94 | 1.15 | 2 | 2.49 | 1.40 | 33.40 | 4.37 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 1.74 | 1.28 | 1.22 | .86 | .88 | .97 | 1 | 2.53 | 1.55 | 18.56 | 2.53 |
| 508 | Machinery, equipment, and supplies | 1.43 | .85 | 1.14 | .71 | .92 | .77 | 1 | 2.78 | 1.64 | 41.75 | 2.78 |
| 509 | Miscellaneous durable goods | 2.32 | 1.31 | 1.94 | 1.35 | 1.27 | 1.06 | 2 | 2.09 | 1.58 | 18.56 | 4.49 |
| 51 | Nondurable goods, total | 2.58 | 2.11 | 1.48 | .92 | 1.05 | .88 | 1 | 3.48 | 1.86 | 9.28 | 3.48 |
| 511 | Paper and paper products | 1.90 | 1.02 | 1.41 | 1.05 | .79 | 1.32 | 2 | 1.96 | 1.37 | 8.35 | 4.05 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 2.55 | 1.60 | 1.72 | 1.49 | .74 | 2.01 | 3 | 1.69 | 1.55 | 20.87 | 3.24 |
| 513 | Apparel, piece goods, and notions | 2.22 | 1.30 | 1.84 | 1.48 | .97 | 1.53 | 2 | 2.06 | 1.55 | 8.35 | 2.96 |
| 514 | Groceries and related products | 1.94 | 1.37 | 1.40 | .97 | .97 | 1.01 | 2 | 2.42 | 1.45 | 16.70 | 4.37 |
| 515 | Farm-product raw materials | 8.85 | 7.57 | 4.51 | 3.64 | 2.15 | 1.69 | 3 | 2.42 | 2.04 | 7.59 | 4.12 |
| 516 | Chemicals and allied products | 3.17 | 1.64 | 2.45 | 1.87 | 1.43 | 1.30 | 2 | 2.26 | 1.52 | 16.70 | 3.95 |
| 517 | Petroleum and petroleum products | 5.01 | 2.95 | 3.67 | 2.65 | 2.06 | 1.29 | 2 | 2.29 | 1.65 | 10.44 | 3.95 |
| 518 | Beer, wine, and distilled alcoholic beverages | 4.28 | 3.68 | 1.83 | 1.46 | .86 | 1.70 | 2 | 2.14 | 1.49 | 8.79 | 3.46 |
| 519 | Miscellaneous nondurable goods | 2.85 | 1.88 | 1.96 | 1.55 | .91 | 1.71 | 2 | 1.92 | 1.50 | 8.35 | 3.07 |

## Description of Measures Shown Above

The following are brief descriptions of the measures shown in this table. More complete explanations appear in "Electronic Computers and Business Indicators," Occasional Paper 57, National Bureau of Economic Research, Inc., New York, 1957.

$\bar{O}$ is the average month-to-month percentage change, without regard to sign, in the original series before seasonal or trading-day adjustment.

$\bar{S}$ is the average month-to-month percentage change, without regard to sign, in the seasonal component. It is a measure of the average monthly seasonal change in the unadjusted series.

$\overline{CI}$ is the average month-to-month percentage change, without regard to sign, in the seasonally adjusted series.

$\bar{I}$ is the average month-to-month percentage change without regard to sign, for the irregular component. The irregular component is obtained by dividing the seasonally adjusted series by the cyclical component.

$\bar{C}$ is the average month-to-month percentage change, without regard to sign, for the cyclical component, which is a smooth, flexible moving average.

$\bar{I}/\bar{C}$ is a measure of the relative smoothness (small values) or irregularity (large values) of the seasonally adjusted series.

MCD (months for cyclical dominance) gives an estimate of the appropriate time span over which to observe cyclical movements in a monthly series. In deriving MCD, the average (without regard to sign) percentage changes in the irregular and cyclical components are computed for 1-month spans (Jan.-Feb., Feb.-Mar., etc.) 2-months spans (Jan.-Mar., Feb.-Apr., etc.), and so on. MCD is the shortest span for which the average change (without regard to sign) in the cyclical component is larger than the average change (without regard to sign) in the irregular component; that is, it indicates the point at which fluctuations begin to be more attributable to cyclical than to irregular movements. MCD is small for smooth series and large for erratic series.

Average duration of run (ADR) is a measure of smoothness, and is equal to the average number of consecutive monthly changes in the same direction in any series of observations. When there is no change between 2 months, a change in the same direction as the preceding change is assumed. The ADR is shown for the seasonally adjusted series CI, irregular component I, cyclical component C, and the MCD moving average. The MCD moving average is an unweighted moving average (with the number of terms equal to MCD) of the seasonally adjusted series.

A comparison of these measures with the expected ADR of a random series gives an indication of whether the changes approximate those of a random series. (The expected value of ADR for a random series is 1.5 and it falls between 1.36 and 1.75 about 95 percent of the time. For a moving average of a random series the expected value is 2.0). For example, the ADR of CI is 2.08 for electrical goods sales. This indicates that 1-month changes in the seasonally adjusted series, on the average, reverse sign slightly less often than a random series. In the next two columns, 1.46 for I and 10.58 for C indicate the separation of the seasonally adjusted series into an essentially random component and the cyclical (nonrandom) component. Finally, 3.32 for MCD indicates that a 2-month moving average of the seasonally adjusted series (2 months being the MCD span) reverses direction on the average about every 3 months. The increase in the average duration of run from 2.08 for CI to 3.32 for the MCD moving average indicates that for this series the use of MCD spans reduces the effect of the irregular component upon the seasonally adjusted series.

These averages are based on a seasonally adjusted series which is adjusted historically; that is, the months used to compute the measures were the same months used to estimate the seasonal factors. Current data, however, are adjusted by use of factors projected 1 year ahead, and are thus subject to additional error. Therefore, current data are probably somewhat more irregular and subject to larger MCD than shown above.

# Appendix C. Explanatory Material

## SCOPE OF THE SURVEY

Wholesale trade, as defined in Major Groups 50 and 51 of the 1972 edition of the Standard Industrial Classification (SIC) Manual[1] and as covered in the 1972 and 1977 censuses, includes establishments or places of business primarily engaged in selling merchandise to retailers; to industrial, commercial, institutional, farm or professional business users; or to other wholesalers; or acting as agents or brokers in buying merchandise for or selling merchandise to such persons or companies.

The principal types of establishments included are: (1) merchant wholesalers who take title to the goods they sell, such as wholesale merchants or jobbers, industrial distributors, voluntary group wholesalers, exporters, importers, cash-and-carry wholesalers, drop shippers, major distributors, retailer cooperative warehouses, terminal elevators, and cooperative buying associations; (2) sales branches and sales offices (but not retail stores) maintained by domestic manufacturing or mining enterprises apart from their plants or mines for the purpose of marketing their products; (3) agents, merchandise or commodity brokers, and commission merchants.

This survey is limited to merchant wholesalers (described under category 1 above), which constitute the major portion of the broad field of wholesale trade, and excludes the other types of wholesale trade. All kinds of business in which merchant wholesalers operate are represented in this survey.

Kind-of-business classifications are not interchangeable with commodity classifications. Most businesses sell several kinds of commodities. The kind-of-business code assigned generally reflects either the individual commodity or the commodity group which is the primary source of the establishment's receipts, or some mixture of commodities which characterizes the establishment's business. Thus, the classification of establishments by kind of business generally does not make it possible to determine either the number of establishments handling a particular commodity or the sales of that commodity. For example, the "grocery" classification excludes establishments selling groceries if the sale of groceries is not the primary source of receipts; moreover, even though establishments are classified as "grocery wholesalers" some of their sales may be derived from the sale of nonfood products.

A description of each kind of business included in the accompanying statistical data is shown in appendix D.

## SAMPLE DESIGN AND ESTIMATION PROCEDURES

**Framework of Old Series.** The first publication in this series based on probability sampling, was the January 1954 report. Effective with the July 1956 publication an entirely new sample was selected from the 1954 Census of Business. Other changes in the sample have been made since 1956, representing, for the most part, revisions to reflect the findings of successive censuses of wholesale trade and the benchmarking operation described in the benchmarking section.

**Selection of Sample for New Series.** The new sample[2] like the old is a probability sample, and the estimating procedures used are similar in many respects to the old sample.

The new sample originally was drawn from the Standard Statistical Establishment List (SSEL) as updated to December 31, 1974. The initial SSEL consisted of two lists. One list was composed of all Employer Identification (EI) numbers issued by the Internal Revenue Service (IRS) with reported payroll in at least one quarter of 1973 or 1974, with payroll in the 1972 census, or with sales/receipts greater than $100,000 in the 1972 census. The second list consisted of all establishments of known multiestablishment companies as of December 31, 1974. These lists contained information on sales/receipts, payroll, employment, name and address, kind-of-business classification, etc.

Before the 1974 SSEL was available a study was made using files from the 1972 Census of Wholesale Trade. This study determined the stratification of the sampling units based on 1972 sales, inventories, and kind of business, and also determined the optimal allocation of the sample necessary to meet specified variance objectives for sales and inventory estimates for different kind-of-business groups. The primary stratum boundary determined in the study was the certainty cutoff to be used for each kind of business. The cutoff was particularly important since it also determined the type of sampling unit.

The sampling units for the new sample consisted of both companies and EI's. To be eligible for the initial sampling, an EI had to be active, i.e., had payroll in 1974 and was on the Internal Revenue Service mailing list for Federal Insurance Contribution Act (FICA) taxpayers. If a known multiestablishment company had total merchant wholesale sales (on a 1972 basis) above the cutoff for its major kind of business, the company was selected for the sample with certainty. Single establishment companies, whether or not selected with certainty, were considered as EI sampling units.

All merchant wholesale companies below the certainty cutoff were treated on an EI basis; that is, the EI was the sampling unit. The EI's were then stratified according to their major kind of business and their estimated sales (on a 1972 basis). Within each stratum, a simple random sample of EI's

[1] Executive Office of the President, Office of Management and Budget, *Standard Industrial Classification Manual, 1972.*

[2] For a complete explosition of the new sample, see C.T. Isaki et al., "Sample Redesign Aspects of the Census Bureau's Monthly Business Surveys" and K. M. Wolter et al., "Sample Selection and Estimation Aspects of the Census Bureau's Monthly Business Surveys," *Proceedings of the Business and Economic Statistics Section: American Statistical Association, 1976.*

was selected. The sampling rates for these EI's varied between 1 in 3 and 1 in 600.

For those EI's in the initial sample that did not have kind-of-business classifications and for all EI "births" after the initial selection, a two-phase selection procedure was used. EI "births," as used here, are new EI's recently assigned by Social Security Administration (SSA) and currently on the IRS mailing list for FICA taxpaxers. In the first phase, "births" were stratified by kind of business and size (expected employment or quarterly payroll). A relatively large sample was drawn and canvassed in order to obtain a more reliable measure of size (sales in 2 recent months) and a more detailed kind-of-business code, if needed.

Using this more reliable information, the cases were re-stratified and the final sample drawn with overall probabilities equivalent to those used in drawing the initial sample from the 1974 SSEL. Because of the lag in reporting "births" to the IRS and SSA and the time needed to accomplish the two-phase birth-selection procedure, "births" are actually added to the sample approximately 1 year after they begin operation. The ongoing birth-selection procedure is carried out quarterly.

Since "births" are not represented in the sample, until they go through the selection procedure described above, an interium procedure is required to account for "births" during the period between the onset of activity and the time of birth selection. This consists of imputing for all cases which go out of business, but which are still on the IRS mailing list. This imputation procedure was also used in the old series. However, because of recent delays in obtaining "births," this procedure now accounts for a larger percentage of the estimates.

To be eligible for the sample canvass and tabulation in a given month, a merchant wholesale business must meet both of the following requirements:

1. It must be on the IRS mailing list for FICA taxpayers from the previous quarter.

2. It must have been selected from either the SSEL or the file of employer "births." For this purpose, a universe file of all businesses ever given a chance of selection is maintained. This file shows, among other things, which EI numbers actually have been selected.

In the case of businesses that were selected into the sample with certainty, the first requirement is changed. These certainty sampling units are not dropped from canvass and tabulation if they are no longer on the IRS mailing list. If there are successor businesses, they are added to the survey. This is a tighter form of control used for these larger businesses.

**Use of the Rotating Sample and Composite Estimating Procedures.** Rotating samples or panels are used except for very large businesses which are selected with certainty. For sampling units in the rotating panels, 2 months of data are obtained at each enumeration. For example, February rotating panel cases report data for February (the current month) and January (the previous month). In the following month, a different rotating panel (the March panel) reports figures for March and February. Three sample panels are used. This permits the use of a composite estimating procedure which provides estimates more reliable than those which would be obtained from a completely fixed sample of about twice the size. In addition, this procedure reduces the reporting burden of selected businesses.

The first estimate issued each month is called the preliminary estimate. The preliminary composite estimate at the detail level for the current month is a weighted average of two estimates: (1) the current month unbiased estimate (weight 0.35), and (2) an estimate (weight 0.65) obtained by multiplying the difference between the preliminary composite for the previous month and the unbiased estimate for the previous month from the current month panel by the current-to-previous-month ratio obtained from the current month reports. Preliminary inventory estimates have been modified, prior to publication, based on past relationships between preliminary and final estimates.

A final estimate is developed 1 month later using information available from the following month's enumeration. The final composite estimate is also a weighted average of two estimates: (1) the preliminary composite estimate for a given month (weight 0.7), and (2) the unbiased estimate (weight 0.3) for the same month as obtained from the next month's reporting panel.

The preliminary composite estimates provide a measure of the dollar volume level that is considerably more reliable than the unbiased estimates, and the final composite estimates are generally more reliable than the preliminary composite estimates. The indication of the month-to-month trend considered to be most reliable is the ratio of the current month's preliminary composite estimate divided by the previous month's final complete estimate. This is true because the numerator and denominator of this ratio are more highly correlated than would be the case if the numerator and denominator were two preliminary estimates or two final estimates. The trend of the preliminary/final ratio, therefore, has less variability than one based on two preliminary figures or two final figures.

Another advantage of the use of the rotating panel system is that the frequency of canvass of very large noncertainty cases can be increased with a consequent reduction in an unbiased manner, of their statistical weight. This increases the reliability of the estimates, particularly the measure of month-to-month change.

The differences between preliminary and final estimates of seasonally adjusted sales have ranged from approximately +1.7 percent to -0.9 percent for the past 12 months. During the same period, the average of the absolute differences was 0.6 percent. The corresponding range for inventories was approximately +1.0 percent to -0.7 percent for the past 12 months. The average of the absolute differences was 0.4 percent.

## BENCHMARKING

Wholesale sales estimates in this report reflect the results of a benchmaking operation which made use of data tabulated from the 1977 Census of Wholesale Trade and the 1978 and 1979 Annual Wholesale Trade Surveys (ATS). Monthly wholesale sales by kind of business for the United States were revised for the period January 1973 through January 1981 in a manner designed to minimize the changes to the month-to-month trends in the original series. As part of the revision process,

revised monthly data for 1977, 1978, and 1979 were constrained to sum to 1977 census levels and 1978 and 1979 estimates, respectively.

End-of-month inventories were revised in a similar manner as sales. The constraints for the inventory estimates were the December 1972 estimates and the December ending inventories from 1976 through 1979 estimates from the ATS (the 1976 estimates were available from the 1977 ATS).

Through use of so-called "carry forward factors," the effect of the revision process at the U.S. level is applied to all estimates subsequent to December 1979. These factors were derived at the most detailed kind-of-business level and will be held constant until the next revision and benchmarking process. Aggregate level estimates are derived by summing appropriate detail level estimates, thereby assuring additivity.

Monthly wholesale sales and inventory estimates for published geographic areas also reflect the results of the revision process. In order to adjust geographic estimates, factors are derived each month at specified United States kind-of-business levels by dividing the revised U.S. estimates (as published) by the unrevised U.S. estimates (without the "carry forward factors" applied) at the given kind-of-business level. These factors are then multiplicatively applied at each published geographic area for the kind of business for which the factor was derived.

## CLASSIFICATION DIFFERENCES BETWEEN THE MONTHLY ESTIMATES AND THE 1977 CENSUS OF WHOLESALE TRADE

Ferrous Metals Service Centers (SIC 5051 part) with warehouse space greater than 5000 square feet are included in the monthly survey, regardless of the ownership of the products sold. However, if the establishments primarily sell the products manufactured by their own company, they are considered sales branches in the 1977 Census of Wholesale Trade.

In the 1977 Census of Wholesale Trade, establishments classified in the Farm-Product Raw Materials Group (SIC 515X) included as sales, products purchased and transferred to other company establishments. In the monthly survey inter-company transfers are not included in sales. Because of the differences shown above, the sales presented in this report for these kinds of business were obtained from the annual trade survey for 1977.

## REVISION TO PREVIOUSLY PUBLISHED DATA

The basic input inventory series for all the components of the Farm-Product Raw Materials Group[3] (SIC 515) and for Petroleum-Bulk Stations and Terminals (SIC 5171) have been revised. These data were revised to reflect improved methodology. SIC 5171 was revised from January 1967 through November 1972, while the SIC's in the 515 group were revised from January 1967 through July 1977. All summary groups which included inventories in these SIC's were also revised.

[3] See appendix D, Kind-of-Business Classification for the SIC's included in this group.

## UNPUBLISHED DATA

Additional data, such as dollar volume estimates for some kinds of business not separately shown in this report, are produced as a byproduct of the regularly published statistics. These additional data have not been included in this publication because the sampling variability associated with these data does not meet the Census Bureau's publication criteria. The Census Bureau, on written request will release these data for individual use, though not for publication.

## DEFINITION OF TERMS

**Sales.** Sales include the following: merchandise sold for cash or credit at wholesale and retail by establishments primarily engaged in merchant wholesale trade; receipts from customers for rental or leasing of equipment, instruments, tools, etc.; receipts for delivery, installation, alteration, maintenance, repair, storage, and other services; and gasoline, liquor, tobacco, and other excise taxes which are paid by the manufacturer and passed along to the wholesaler. Sales are net after deductions for refunds and allowances for merchandise returned by customers. Sales which are made on an agency basis for others are included as gross sales. Direct shipments on orders from wholesalers are also included in sales. Total sales do not include nonoperating income from sources as investments, rental or sale of real estate, etc.

In this series, sales exclude sales and excise taxes collected directly from customers and paid directly to a local, State, or Federal tax agency. Also excluded are receipts from customers for carrying or other credit charges. In the old series respondents were requested to include these taxes and credit charges in the reported sales. The impact of this change is considered minimal.

**Inventories.** Inventories represent stocks, at cost, of merchandise on hand for sale at the end of the month regardless of location, except for goods outside the United States. Goods held on consignment and items not held for sale such as fixtures, equipment, and supplies are not included.

**Stock-Sales Ratios.** The stock-sales ratios are percentages derived by dividing the dollar value of inventories, at cost, by the dollar value of sales. No adjustment is made in these ratios for the markup in sales which may vary from trade to trade.

The sales and inventory figures represent total sales and inventories of all establishments primarily engaged in merchant wholesale trade. Also included are the sales and inventories of central administrative offices and auxiliaries of merchant wholesale establishments.

# Appendix D. Kind-of-Business Classifications

## DURABLE GOODS (SIC Major Group 50)

This major group includes establishments primarily engaged in the wholesale distribution of durable goods.

### Motor Vehicles and Automotive Parts and Supplies (SIC 501)

**Automobiles and Other Motor Vehicles (SIC 5012)**[1]. Establishments primarily engaged in the wholesale distribution of new and used passenger automobiles, trucks, and other motor vehicles. Automotive distributors primarily engaged in selling at retail to individual consumers for personal use, and also selling a limited amount of new and used passenger automobiles and trucks at wholesale to dealers, are classified in retail trade, industry 5511.

**Automotive Parts and Supplies (SIC 5013).** Establishments primarily engaged in the wholesale distribution of automotive parts, supplies, accessories, tools and equipment.

**Tires and Tubes (SIC 5014)**[1]. Establishments primarily engaged in the wholesale distribution of rubber tires and tubes for passenger and commercial vehicles

### Furniture and Home Furnishings (SIC 502)

**Furniture (SIC 5021).** Establishments primarily engaged in the wholesale distribution of furniture, including bedsprings, mattresses, and other household furniture; office furniture; and furniture for public parks, buildings, etc.

SIC 5021 is subdivided into:

1. *Household and lawn furniture.*
2. *Office and business furniture.*

**Home Furnishings (SIC 5023).** Establishments primarily engaged in the wholesale distribution of home furnishings and homewares, including antiques; china; glassware and earthenware; lamps; curtains and draperies; linens and towels; carpets, linoleum, and all other types of hard and soft surface floor coverings. Establishments primarily engaged in the wholesale distribution of electrical household goods are classified in industry 5064.

[1] Data for this kind of business are not shown separately but are included in the group total.

### Lumber and Other Construction Materials (SIC 503)

**Lumber, Plywood, and Millwork (SIC 5031).** Establishments, with or without yards, primarily engaged in the wholesale distribution of rough, dressed, and finished lumber (but not timber); plywood; door and window frames (wood or metal); and other wood and metal millwork. Establishments selling lumber, plywood and millwork to the general public and known as "retail" in the trade are classified in industry 521.

**Construction Materials, Not Elsewhere Classified (SIC 5039).** Establishments primarily engaged in the wholesale distribution of such building materials as brick, building stone, cement, granite, gravel, lime, marble, plaster, building glass, roofing materials, sand, and tile. Establishments selling construction materials to the general public and known as "retail" in the trade are classified in industry 521. Establishments primarily engaged in marketing heavy structural metal products are classified in industry 5051. Establishments primarily selling readymade concrete are classified in manufacturing.

### Sporting, Recreational, Photographic, and Hobby Goods, Toys, and Supplies (SIC 504)[1]

Establishments primarily engaged in the wholesale distribution of all types of amusement and sporting goods and accessories—billiard and pool supplies; cameras and photographic equipment; coin-operated game machines; games, toys; ammunition and fireworks; etc.

### Metals and Minerals, Except Petroleum (SIC 505)[1]

**Ferrous Metals Service Centers and Offices (SIC 5051 pt.).** Establishments primarily engaged in marketing ferrous metal semifinished products such as nails, pig iron, steel and tin bars. Establishments in this industry which have warehouse space greater than 5,000 square feet are considered ferrous metals service centers. Establishments with warehouse space less than 5,000 square feet are considered ferrous metals sales offices.

Sales branches of domestic manufacturers are included in this category if the establishment is separate from the manufacturing plant and has warehouse space greater than 5,000 square feet.

**Nonferrous Metals Service Centers and Offices and Other Minerals and Ores (SIC 5051 pt. and SIC 5052 pt.)**[1]. Establishments primarily engaged in marketing nonferrous metal semifinished products such as aluminum bars and copper rods. Also included are establishments primarily engaged in the wholesale distribution of copper, iron, lead, and other metallic ores except precious; and crude nonmetallic minerals (including concentrates) except crude petroleum. Establishments primarily

engaged in the wholesale distribution of nonmetallic minerals used in construction, such as sand and gravel, are included in industry 5039.

**Coal (SIC 5052 pt.)**[1]. Establishments primarily engaged in the wholesale distribution of coal and coke. Included are establishments which have products shipped direct from mine to customer, and establishments operating yards and dock space and making deliveries therefrom at wholesale as well as other coal merchants.

## Electrical Goods (SIC 506)

**Electrical Apparatus and Equipment, Wiring Supplies, and Construction Materials (SIC 5063).** Establishments primarily engaged in the wholesale distribution of electrical power equipment for the generation, transmission, or utilization of electric energy; and electrical construction materials for outside power transmission lines and for electrical systems. Construction contractors primarily engaged in installing electrical systems and equipment from their own stock are classified in industry 1731.

**Electrical Appliances, TV and Radio Sets (SIC 5064).** Establishments primarily engaged in the wholesale distribution of radio and television sets and household electrical appliances.

**Electronic Parts and Equipment (SIC 5065)**[1]. Establishments primarily engaged in the wholesale distribution of electronic parts and equipment, such as industrial and radio and television receiving and transmitting electronic tubes; electronic intercommunication equipment; radio parts and accessories; and electronic sound equipment. Establishments primarily engaged in the wholesale distribution of radio and television receiving sets and phonographs are classified in industry 5064.

## Hardware, Plumbing, Heating Equipment, and Supplies (SIC 507)

**Hardware (SIC 5072).** Establishments primarily engaged in the wholesale distribution of hardware, such as builders; shelf or light hardware; handtools (except automotive and machinists' precision); handsaws and cutlery; brads, staples, and tacks; and bolts, nuts, rivets, and screws. Establishments primarily engaged in the wholesale distribution of nails, noninsulated wire, and screening are classified in industry 5051.

**Plumbing and Heating Equipment and Supplies (Hydronics) (SIC 5074).** Establishments primarily engaged in the wholesale distribution of hydronic plumbing and heating equipment and supplies. Construction contractors primarily engaged in installing plumbing and heating equipment from their own stock are classified in industry 1711.

**Warm Air Heating and Air-Conditioning Equipment and Supplies (SIC 5075)**[1]. Establishments primarily engaged in the distribution of warm air heating and air-conditioning equipment and supplies. Construction contractors primarily engaged in installing warm air heating and air-conditioning equipment are classified in industry 1711.

**Refrigeration Equipment and Supplies (SIC 5078)**[1]. Establishments primarily engaged in the distribution of refrigeration equipment and supplies. Construction contractors primarily engaged in installing refrigeration equipment from their own stock are classified in industry 1711.

## Machinery, Equipment, and Supplies (SIC 508)

**Commercial Machines and Equipment (SIC 5081)**[1]. Establishments primarily engaged in wholesaling commercial machines and equipment, such as office, store, and business machines and equipment; commercial food service equipment; and fountain and store fixtures.

**Construction and Mining Machinery and Equipment (SIC 5082).** Establishments primarily engaged in marketing cranes, excavating machinery and equipment, power shovels, road construction and maintenance machinery, tractor-mounting equipment and other specialized machinery and equipment used in the construction, mining, and logging industries. Establishments engaged in marketing oil well machinery and equipment are classified in industry 5084.

**Farm and Garden Machinery and Equipment (SIC 5083)**[1]. Establishments primarily engaged in marketing agricultural machinery and equipment for use in the preparation and maintenance of the soil, the planting and harvesting of crops, and other operations and processes pertaining to work on the farm or the lawn or garden; and dairy and other livestock equipment.

**Industrial Machinery and Equipment (SIC 5084)**[1]. Establishments primarily engaged in marketing industrial machinery and equipment, such as metal working tools, food industries machinery, oil well and oil refining machinery, industrial trucks and tractors (except over-the-road types), printing machinery, and machinery and equipment for other manufacturing industries.

**Industrial Supplies (SIC 5085)**[1]. Establishments primarily engaged in marketing industrial supplies, such as abrasives and materials, rope and cordage, and mechanical rubber goods; welding supplies; mechanical power transmission supplies, including bearings; industrial valves and fittings; metal containers; industrial leather; and reconditioned barrels and drums.

**Professional Equipment and Supplies (SIC 5086).** Establishments primarily engaged in the wholesale distribution of mechanical devices and other equipment used by architects, dentists, engineers, physicians, surgeons, veterinarians, optometrists, osteopaths, and other professional groups.

**Surgical, Medical, Hospital Supplies (SIC 5086 pt.)**[1]. Establishments primarily engaged in selling surgical and medical instruments; doctors' apparatus and equipment; orthopedic appliances; artificial limbs; operating room and other hospital

[1] Data for this kind of business are not shown separately but are included in the group total.

equipment, X-ray machines and accessories and other scientific instruments used by physicians and in hospitals.

**Service Establishment Equipment and Supplies (SIC 5087)[1].** Establishments primarily engaged in the wholesale distribution of equipment and supplies for barber shops, beauty parlors, power laundries, dry-cleaning plants, upholsterers, undertakers, and related personal service establishments.

**Transportation Equipment and Supplies, Except Motor Vehicles (SIC 5088)[1].** Establishments primarily engaged in the wholesale distribution of transportation equipment and supplies. Establishments primarily engaged in the wholesale distribution of motor vehicles and motor vehicle parts are classified in group 501.

## Miscellaneous Durable Goods (SIC 509)[1]

**Scrap and Waste Materials (SIC 5093).** Establishments primarily engaged in assembling, breaking up, sorting and wholesale distribution of scrap and waste materials. This industry includes auto wreckers engaged in dismantling automobiles for scrap. However, those engaged in dismantling cars for the purpose of selling secondhand parts at retail are classified in industry 5931.

SIC 5093 is subdivided into:

1. *Iron and Steel scrap.*
2. *Waste and secondary materials dealers.*

**Jewelry, Watches, Diamonds, and Other Precious Stones (SIC 5094)[1].** Establishments primarily engaged in the wholesale distribution of jewelry, precious stones and metals, costume jewelry, watches, clocks, silverware, and jewelers' findings.

**Durable Goods, Not Elsewhere Classified (SIC 5099)[1].** Establishments primarily engaged in the wholesale distribution of durable goods, not elsewhere classified, such as musical instruments and forest products, except lumber.

# NONDURABLE GOODS (SIC Major Group 51)

This major group includes establishments primarily engaged in the wholesale distribution of nondurable goods.

## Paper and Paper Products (SIC 511)

**Printing and Writing Paper (SIC 5111).** Establishments primarily engaged in the wholesale distribution of writing paper, including envelope paper, fine paper, and ground wood, printing, and rotogravure paper.

**Stationery Supplies (SIC 5112)[1].** Establishments primarily engaged in the wholesale distribution of stationery and office supplies, including envelopes, typewriter and mimeograph paper, file cards and folders, pens, social stationery, and greeting cards.

**Industrial and Personal Service Paper (SIC 5113).** Establishments primarily engaged in the wholesale distribution of wrapping and other coarse paper, paperboard, cellophane, and converted paper products, such as bags, boxes, dishes, napkins, and shipping supplies.

## Drugs, Drug Proprietaries, and Druggists' Sundries (SIC 512)

**Drugs, Drug Proprietaries, and Druggists' Sundries (SIC 5122).** Establishments primarily engaged in the wholesale distribution of drugs, drug proprietaries, druggists' sundries, and toiletries. Establishments primarily engaged in the wholesale distribution of surgical, dental, and hospital equipment are classified in industry 5086.

SIC 5122 is subdivided into:

1. *General-line drugs.* These are distinguished from specialty-line drug and toiletries wholesalers on the basis of their commodity-line mix. Drug wholesalers were classified as general line if they reported a substantial portion of their sales in "pharmaceuticals, antibiotics, druggists' chemicals, biologicals, botanicals" and "proprietary products, toiletries, druggists' sundries," and if annual sales volume was $1 million or more.
2. *Specialty-line pharmaceuticals, cosmetics, and toiletries.*

## Apparel, Piece Goods, and Notions (SIC 513)

**Piece Goods (SIC 5133)[1].** Establishments primarily engaged in the wholesale distribution of woven piece goods or yard goods of natural or manmade fibers. "Converters" who buy goods in the grey, have them finished on contract, and sell at wholesale are included here. This industry does not include establishments primarily engaged in the wholesale distribution of home furnishings, which are classified in industry 5023.

**Notions and Other Dry Goods (SIC 5134)[1].** Establishments primarily engaged in the wholesale distribution of notions (sewing and hair accessories, etc.), knit goods, and other dry goods, except piece goods.

**Men's and Boys' Clothing and Furnishings (SIC 5136)[1].** Establishments primarily engaged in the wholesale distribution of men's and boys' apparel and furnishings, sportswear, hosiery, underwear, nightwear, and work clothing.

**Women's Children's, and Infants' Clothing and Accessories (SIC 5137)[1].** Establishments primarily engaged in the wholesale distribution of women's, children's, and infants' clothing and accessories, including hosiery, lingerie, millinery and millinery supplies, and furs.

**Footwear (SIC 5139)[1].** Establishments primarily engaged in the wholesale distribution of footwear of leather, rubber, and other materials.

[1] Data for this kind of business are not shown separately but are included in the group total.

## Groceries and Related Products (SIC 514)

**Groceries, General-Line (SIC 5141).** Establishments primarily engaged in the wholesale distribution of a general line of groceries. Establishments primarily engaged in roasting coffee, and establishments primarily engaged in blending tea or grinding and packaging spices are classified in major group 20.

SIC 5141 is subdivided into:

1. *Voluntary group wholesalers.*
2. *Retailer cooperative wholesalers.*
3. *Other general-line wholesalers.*

**Frozen Foods (SIC 5142)**[1]. Establishments primarily engaged in the wholesale distribution of packaged quick-frozen vegetables, juices, meats, fish, poultry, pastries, and other "deep freeze" products. Establishments primarily engaged in the wholesale distribution of frozen dairy products are classified in industry 5143. Frozen poultry, fish, and meat which are not packaged are classified in industries 5144, 5146, and 5147, respectively.

**Dairy Products (SIC 5143)**[1]. Establishments primarily engaged in the wholesale distribution of dairy products, such as butter, cheese, ice cream and ices, and fluid milk and cream. This industry does not include establishments primarily engaged in pasteurizing and bottling milk, which are classified in group 202.

**Poultry and Poultry Products (SIC 5144).** Establishments primarily engaged in the wholesale distribution of poultry and poultry products, except canned and packaged frozen products. This industry does not include establishments primarily engaged in the killing and dressing of poultry, which are classified in industry 2016. Establishments primarily engaged in the wholesale distribution of packaged frozen poultry are classified in industry 5142, and of canned poultry in industry 5149.

**Confectionery (SIC 5145).** Establishments primarily engaged in the wholesale distribution of confectionery, such as candy, chewing gum, fountain fruits, salted or roasted nuts, popcorn, and fountain syrups; and potato, corn, and similar chips.

**Fish and Seafoods (SIC 5146)**[1]. Establishments primarily engaged in the wholesale distribution (not packaging) of fresh, cured, and frozen fish and seafoods, except canned (industry 5149) or packaged frozen (industry 5142). The preparing, packaging, and freezing of fresh fish and other seafood, and the shucking and packing of fresh oysters in nonsealed containers are classified in industry 2092.

**Meats and Meat Products (SIC 5147).** Establishments primarily engaged in the wholesale distribution of fresh, cured, and processed (but not canned) meats and lard. The wholesale distribution of frozen packaged meats is classified in industry 5142 and canned meats in industry 5149.

[1]Data for this kind of business are not shown separately but are included in the group total.

**Fresh Fruits and Vegetables (SIC 5148).** Establishments primarily engaged in the wholesale distribution of fresh fruits and vegetables.

**Groceries and Related Products, Not Elsewhere Classified (SIC 5149)**[1]. Establishments primarily engaged in the wholesale distribution of groceries and related products, not elsewhere classified. Establishments primarily engaged in the wholesale distribution of soft drinks, and in bottling and distributing natural spring and mineral waters, are classified in this industry, but establishments primarily engaged in bottling soft drinks are classified in major group 20. This industry does not include farm-product raw materials (group 515), or beer, wine, and distilled alcoholic beverages (group 518).

## Farm-Product Raw Materials (SIC 515)

**Cotton (SIC 5152)**[1]. Establishments primarily engaged in buying and/or marketing cotton and cotton linters.

**Grain (SIC 5153).** Establishments primarily engaged in buying and/or marketing grain (such as corn, wheat, oats, barley, and unpolished rice); dry beans; soybeans, and other inedible beans. Country grain elevators primarily engaged in buying or receiving grain from farmers are included as are terminal elevators and other merchants marketing grain.

**Livestock (SIC 5154)**[1]. Establishments primarily engaged in buying and/or marketing cattle, hogs, sheep, and goats.

**Farm-Product Raw Materials, Not Elsewhere Classified (SIC 5159)**[1]. Establishments primarily engaged in buying and/or marketing farm products not elsewhere classified, such as horses and mules, leaf tobacco, hides, skins, furs, wool, mohair, raw silk, hops, and nuts, except roasted or salted (industry 5145). Establishments primarily engaged in the wholesale distribution of milk are classified in industry 5143 and live poultry in industry 5144.

## Chemicals and Allied Products (SIC 516)[1]

**Chemicals and Allied Products (SIC 5161)**[1]. Establishments primarily engaged in the wholesale distribution of chemicals and allied products, not elsewhere classified, such as acids, industrial and heavy chemicals, dyestuffs, industrial salts, naval stores, plastics materials, rosin, and turpentine. Establishments primarily engaged in the wholesale distribution of ammunition are classified in industry 5041; agricultural chemicals and pesticides in industry 5191; drugs in industry 5122; and paints and varnishes in industry 5198.

## Petroleum and Petroleum Products (SIC 517)

**Petroleum Bulk Stations and Terminals (SIC 5171).** Establishments primarily engaged in wholesaling petroleum products, including liquefied petroleum gas, from bulk liquid storage facilities.

**Petroleum and Petroleum Products Wholesalers, Except Bulk Stations and Terminals (SIC 5172)**[1]. Establishments primarily engaged in wholesaling petroleum and petroleum products, except those with bulk liquid storage facilities. Included are packaged and bottled petroleum products distributors, truck jobbers, and others marketing petroleum and products at wholesale but without bulk liquid storage facilities.

## Beer, Wine, and Distilled Alcoholic Beverages (SIC 518)

**Beer and Ale (SIC 5181).** Establishments primarily engaged in the wholesale distribution of beer, ale, porter, and other fermented malt beverages.

**Wines and Distilled Alcoholic Beverages (SIC 5182).** Establishments primarily engaged in the wholesale distribution of distilled spirits, including neutral spirits and ethyl alcohol used in blending wines and distilled liquors.

## Miscellaneous Nondurable Goods (SIC 519)

**Farm Supplies (SIC 5191)**[1]. Establishments primarily engaged in the wholesale distribution of animal feeds, fertilizers, agricultural chemicals, pesticides, seeds, and other farm supplies, except grains.

**Tobacco and Tobacco Products (SIC 5194).** Establishments primarily engaged in the wholesale distribution of tobacco and tobacco products. Leaf tobacco wholesalers are classified in industry 5159 and establishments primarily engaged in stemming and redrying tobacco in industry 2141.

**Paints, Varnishes, and Supplies (SIC 5198)**[1]. Establishments primarily engaged in the wholesale distribution of paints, varnishes, wallpaper, and supplies, and sometimes glass. Establishments selling to the general public and known as "retail" in the trade are classified in industry 5231.

**Books, Periodicals, Newspapers (SIC 5199 pt.)**[1]. Establishments primarily engaged in the wholesale distribution of books, lithographed matter, magazines, newspapers, and all other forms of reading material.

**Nondurable Goods, Not Elsewhere Classified (SIC 5199 pt.)**[1]. Establishments primarily engaged in the wholesale distribution of nondurable goods, not elsewhere classified, such as art goods, flowers and florist supplies, industrial yarn, textile bags, bagging and burlap.

[1] Data for this kind of business are not shown separately but are included in the group total.

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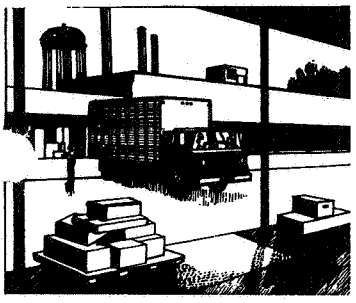
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CURRENT BUSINESS REPORTS

# Monthly Wholesale Trade

## SALES AND INVENTORIES

Issued September 1981

## July 1981

BW-81-07

**NOTICE**

Effective with the August 1981 data month, this publication will no longer contain monthly sales and inventory estimates for geographic divisions (tables 6 and 7). The Bureau of the Census will discontinue the collection of monthly geographic data for merchant wholesalers.

**Sales.** July 1981 sales of merchant wholesalers, after adjustment for seasonal variations and trading-day differences but not for price changes, were $97.2 billion, up 2 percent from the previous month and 13 percent above July 1980. Adjusted May-through-July total sales were down 1 percent from the February-through-April period but were 17 percent above the comparable months a year ago.

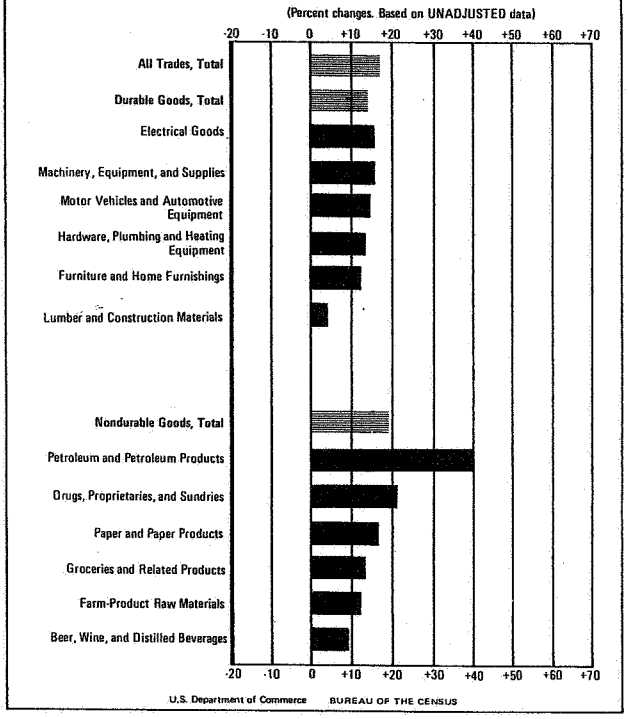
After adjustment, July sales in the durable goods trades were up 1 percent from the previous month and 18 percent above the year-ago level. Nondurable goods sales increased 2 percent from June and were 10 percent above July 1980. Total monthly sales in the durable goods group during the May-through-July period were up 1 percent from the prior 3 months and increased 19 percent om the comparable period a year ago. Three-month total sales for ne nondurable goods group were down 3 percent from the February-through-April period but were 15 percent above the same period a year ago.

Based on adjusted data, comparisons with previous month sales levels showed the largest increase in machinery, equipment, and supplies and miscellaneous nondurable goods—both up 5 percent. Compared with adjusted sales of a year ago the sharpest increase was noted in machinery, equipment, and supplies and drugs, proprietaries, and sundries—both up 22 percent.

**Inventory.** Total inventories of merchant wholesalers, after adjustment for seasonal variations but not for price changes, were valued at $107.5 billion at the end of July, virtually unchanged from the previous month but up 8 percent from July 1980. Durable and nondurable goods stocks were virtually unchanged from June but were up 11 and 3 percent, respectively, from the levels a year ago.

Based on adjusted data, comparisons with previous month inventory levels showed the largest increase in farm-product raw materials (9%). The largest month-to-month decrease was in petroleum and petroleum products (-5%). Compared with adjusted year-ago inventories, the sharpest increase was noted in paper and paper products (20%) and the sharpest decrease in farm-product raw materials (-20%).

**Percent Change in Sales of Merchant Wholesalers in Selected Kinds of Business**
**7 Months 1981 Compared With 7 Months 1980**




**Stock-Sales Ratios.** The July stock-sales ratio for merchant wholesalers, based on seasonally adjusted data, was 111, down 1 point from June and down 5 points from July 1980. The stock-sales ratio for durable goods was 171, down 1 point from the previous month and 11 points below the year-ago ratio. The ratio for nondurable goods was 66, down 1 point from June and 4 points below July 1980.

Data in this report are based on a sample and, therefore, are subject to sampling and nonsampling errors. A discussion of the reliability of the data is in appendix A.

An advance release of July 1981 data was issued September 4, 1981.

U.S. Department of Commerce
BUREAU OF THE CENSUS

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# Table 1. Estimated Monthly Sales of Merchant Wholesalers, by Kind of Business for the United States, Unadjusted: 1981 and 1980

(MILLIONS OF DOLLARS. DATA ARE NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | | | | | | | 1980 | | | | | | TOTAL 7 MONTHS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN. | FEB. | MAR. | APR. | MAY | JUNE | JULY[P] | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. | 1981 | 1980 |
| | MERCHANT WHOLESALERS, TOT. | 93,845 | 89,641 | 101,273 | 99,081 | 96,676 | 98,639 | 96,195 | 86,052 | 86,311 | 90,715 | 99,023 | 91,328 | 97,659 | 675,350 | 578,6 |
| | TOTAL (EX FARM-PROD RAW MATLS) | 81,300 | 79,450 | 88,833 | 88,407 | 86,325 | 89,851 | 87,790 | 76,952 | 76,933 | 80,580 | 87,102 | 80,363 | 85,305 | 601,956 | 513,379 |
| 50 | DURABLE GOODS, TOT | 35,927 | 37,054 | 41,991 | 41,934 | 40,679 | 43,152 | 41,715 | 35,757 | 36,010 | 38,112 | 41,298 | 36,679 | 38,598 | 282,452 | 247,742 |
| 501 | MOTOR VEHICLES & AUTO PARTS & SUPPLIES | 7,085 | 7,248 | 8,174 | 8,345 | 7,552 | 7,893 | 7,836 | 6,867 | 7,026 | 6,449 | 7,638 | 6,621 | 6,816 | 54,133 | 47,079 |
| 5013,4 | AUTO PARTS & SUPPLIES, TIRES & TUBES | 3,079 | 3,067 | 3,531 | 3,493 | 3,184 | 3,560 | 3,479 | 2,946 | 3,028 | 3,117 | 3,451 | 3,012 | 3,053 | 23,393 | 19,755 |
| 5013 | AUTO PARTS & SUPPLIES | 2,639 | 2,642 | 2,978 | 2,908 | 2,651 | 2,980 | 2,873 | 2,459 | 2,543 | 2,581 | 2,889 | 2,530 | 2,576 | 19,671 | 16,695 |
| 502 | FURNITURE & HOME FURNISHINGS | 1,293 | 1,334 | 1,465 | 1,476 | 1,400 | 1,477 | 1,352 | 1,209 | 1,250 | 1,330 | 1,531 | 1,356 | 1,355 | 9,797 | 8,758 |
| 5021 | FURNITURE--HSEHLD & OFFICE | 464 | 459 | 547 | 524 | 509 | 546 | 525 | 446 | 465 | 469 | 499 | 441 | 500 | 3,574 | 3,192 |
| 5023 | HOME FURNISHINGS[1] | 829 | 875 | 918 | 952 | 891 | 931 | 827 | 763 | 785 | 861 | 1,032 | 915 | 855 | 6,223 | 5,566 |
| 503 | LUMBER & OTHER CONSTRUCTION MATLS | 2,422 | 2,388 | 2,774 | 2,960 | 2,782 | 3,068 | 2,916 | 2,957 | 2,842 | 3,046 | 3,309 | 2,822 | 2,704 | 19,310 | 18,522 |
| 5031 | LUMBER, PLYWOOD & MILLWORK | 1,567 | 1,569 | 1,737 | 1,842 | 1,743 | 1,950 | 1,756 | 1,846 | 1,787 | 1,930 | 2,054 | 1,786 | 1,720 | 12,164 | 11,969 |
| 5039 | CONSTRUCTION MATLS, N.E.C.[2] | 855 | 819 | 1,037 | 1,118 | 1,039 | 1,118 | 1,160 | 1,111 | 1,055 | 1,116 | 1,255 | 1,036 | 984 | 7,146 | 6,553 |
| 5051 PT. | FERROUS METALS SERV CTRS & OFFICES | 3,295 | 3,577 | 3,951 | 3,811 | 3,911 | 4,129 | 3,770 | 2,580 | 2,732 | 3,042 | 3,272 | 2,954 | 3,327 | 26,444 | 20,700 |
| 5051 PT. | FERROUS METALS SERV CTRS | 2,543 | 2,751 | 3,076 | 2,997 | 3,059 | 3,233 | 2,994 | 1,956 | 2,078 | 2,286 | 2,491 | 2,271 | 2,510 | 20,653 | 15,619 |
| 506 | ELECTRICAL GOODS | 3,762 | 3,930 | 4,403 | 4,191 | 4,269 | 4,625 | 4,452 | 3,908 | 3,802 | 4,207 | 4,299 | 4,236 | 4,299 | 29,632 | 25,593 |
| 5063 | ELECTRICAL APPARATUS & EQUIP, WIRING SUPPLIES & CONSTRUCTION MATLS | 1,858 | 1,980 | 2,088 | 2,076 | 2,108 | 2,228 | 2,088 | 1,895 | 1,862 | 2,158 | 2,178 | 2,155 | 2,155 | 14,426 | 12,660 |
| 5064,5 | ELECTRICAL APPLIANCES, TV & RADIO SETS, & ELECTRONIC PARTS & EQUIP[3] | 1,904 | 1,950 | 2,315 | 2,115 | 2,161 | 2,397 | 2,364 | 2,013 | 1,940 | 2,049 | 2,121 | 2,081 | 2,144 | 15,206 | 12,933 |
| 5064 | ELECTRICAL APPLIANCES, TV & RADIO SETS[4] | 1,013 | 1,012 | 1,235 | 1,129 | 1,186 | 1,289 | 1,270 | 1,098 | 1,069 | 1,142 | 1,200 | 1,130 | 1,194 | 8,134 | 6,698 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIP, & SUPPLIES | 2,274 | 2,202 | 2,528 | 2,677 | 2,576 | 2,813 | 2,690 | 2,393 | 2,312 | 2,405 | 2,645 | 2,328 | 2,259 | 17,760 | 15,674 |
| 5072 | HARDWARE | 889 | 851 | 982 | 991 | 922 | 988 | 970 | 823 | 832 | 895 | 932 | 859 | 863 | 6,593 | 5,901 |
| 5074 | PLUMBING & HEATING EQUIP & SUPPLIES (HYDRONICS) | 966 | 922 | 1,057 | 1,115 | 1,100 | 1,138 | 1,098 | 971 | 960 | 1,035 | 1,181 | 1,011 | 967 | 7,396 | 6,508 |
| 508 | MACHINERY, EQUIP, & SUPPLIES | 10,302 | 10,731 | 12,571 | 12,322 | 12,248 | 13,110 | 12,867 | 10,621 | 10,885 | 11,613 | 11,949 | 10,511 | 11,722 | 84,151 | 72,368 |
| 5082 | CONSTRUCTION & MINING MACHINERY & EQUIP | 1,111 | 1,218 | 1,401 | 1,571 | 1,441 | 1,589 | 1,443 | 1,339 | 1,602 | 1,473 | 1,414 | 1,341 | 1,377 | 9,774 | 8,969 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIP & SUPPLIES | 4,631 | 4,775 | 5,531 | 5,389 | 5,526 | 6,119 | 5,744 | 4,453 | 4,509 | 4,720 | 4,929 | 4,501 | 5,079 | 37,715 | 31,010 |
| 5086 | PROFESSIONAL EQUIP & SUPPLIES | 1,043 | 1,138 | 1,295 | 1,199 | 1,193 | 1,369 | 1,284 | 1,120 | 1,149 | 1,200 | 1,217 | 1,107 | 1,208 | 8,521 | 7,301 |
| 5093 | SCRAP & WASTE MATLS | 1,304 | 1,297 | 1,456 | 1,496 | 1,395 | 1,317 | 1,166 | 1,047 | 1,107 | 1,240 | 1,458 | 1,267 | 1,435 | 9,431 | 9,820 |
| 51 | NONDURABLE GOODS, TOT | 57,918 | 52,587 | 59,282 | 57,147 | 55,997 | 55,487 | 54,480 | 50,295 | 50,301 | 52,603 | 57,725 | 54,649 | 59,061 | 392,898 | 331,108 |
| | TOTAL (EX FARM-PROD RAW MATLS) | 45,373 | 42,396 | 46,842 | 46,473 | 45,646 | 46,699 | 46,075 | 41,195 | 40,923 | 42,468 | 45,804 | 43,684 | 46,707 | 319,504 | 265,6? |
| 511 | PAPER & PAPER PROD | 1,949 | 1,908 | 2,112 | 2,039 | 1,995 | 2,098 | 2,075 | 1,763 | 1,775 | 1,879 | 2,009 | 1,822 | 1,929 | 14,176 | 12,229 |
| 5111,3 | PRINTING, WRITING, IND & PERSONAL SERV PAPER | 1,397 | 1,356 | 1,549 | 1,476 | 1,437 | 1,530 | 1,548 | 1,294 | 1,287 | 1,375 | 1,465 | 1,304 | 1,413 | 10,293 | 9,035 |
| 5111 | PRINTING & WRITING PAPER | 655 | 648 | 733 | 719 | 668 | 723 | 703 | 586 | 576 | 626 | 697 | 582 | 652 | 4,849 | 4,473 |
| 5113 | IND & PERSONAL SERV PAPER[5] | 742 | 708 | 816 | 757 | 769 | 807 | 845 | 708 | 711 | 749 | 768 | 722 | 761 | 5,444 | 4,562 |
| 512 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 1,195 | 1,136 | 1,278 | 1,274 | 1,212 | 1,265 | 1,314 | 1,090 | 1,074 | 1,159 | 1,313 | 1,134 | 1,197 | 8,674 | 7,174 |
| 5122 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 1,195 | 1,136 | 1,278 | 1,274 | 1,212 | 1,265 | 1,314 | 1,090 | 1,074 | 1,159 | 1,313 | 1,134 | 1,197 | 8,674 | 7,174 |
| 5122 PT. | GENERAL-LINE DRUGS | 367 | 355 | 413 | 395 | 388 | 406 | 414 | 350 | 341 | 383 | 394 | 349 | 410 | 2,738 | 2,359 |
| 513 | APPAREL, PIECE GDS & NOTIONS[6] | 2,019 | 2,265 | 2,299 | 2,270 | 1,995 | 2,366 | 2,550 | 2,318 | 2,445 | 2,541 | 2,486 | 2,141 | 1,921 | 15,764 | 14,256 |
| 514 | GROCERIES & RELATED PROD | 13,270 | 12,317 | 13,931 | 13,941 | 13,346 | 14,117 | 14,264 | 13,154 | 12,592 | 12,915 | 13,815 | 12,741 | 13,640 | 95,186 | 84,186 |
| 5141 | GROCERIES, GENERAL LINE | 4,366 | 4,045 | 4,481 | 4,519 | 4,338 | 4,469 | 4,620 | 4,281 | 4,103 | 4,066 | 4,462 | 4,173 | 4,407 | 30,838 | 27,473 |
| 5144 | POULTRY & POULTRY PROD | 651 | 590 | 627 | 655 | 638 | 653 | 669 | 638 | 652 | 659 | 725 | 670 | 691 | 4,483 | 4,111 |
| 5145 | CONFECTIONERY | 259 | 257 | 294 | 300 | 262 | 283 | 278 | 257 | 263 | 274 | 322 | 283 | 296 | 1,933 | 1,675 |
| 5147 | MEATS & MEAT PROD | 1,762 | 1,610 | 1,785 | 1,742 | 1,738 | 1,820 | 1,842 | 1,828 | 1,859 | 1,841 | 2,019 | 1,736 | 1,897 | 12,299 | 12,035 |
| 5148 | FRESH FRUITS & VEGETABLES | 1,232 | 1,210 | 1,464 | 1,550 | 1,509 | 1,594 | 1,514 | 1,354 | 1,206 | 1,217 | 1,258 | 1,200 | 1,258 | 10,073 | 8,513 |
| 515 | FARM PROD RAW MATERIALS | 12,545 | 10,191 | 12,440 | 10,674 | 10,351 | 8,788 | 8,405 | 9,100 | 9,378 | 10,135 | 11,921 | 10,965 | 12,354 | 73,394 | 65,471 |
| 5153 | GRAIN | 10,420 | 8,436 | 10,444 | 9,055 | 8,833 | 7,450 | 7,167 | 7,587 | 7,770 | 8,205 | 9,890 | 8,801 | 9,814 | 61,805 | 53,773 |
| 517 | PETROLEUM & PETROLEUM PROD | 17,548 | 15,697 | 16,263 | 15,987 | 16,094 | 16,248 | 15,498 | 13,275 | 13,530 | 14,007 | 15,657 | 16,626 | 17,185 | 113,335 | 81,185 |
| 5171 | PETROLEUM BULK STATIONS & TERMINALS | 6,165 | 5,438 | 5,701 | 5,414 | 5,126 | 5,069 | 5,204 | 4,246 | 4,306 | 4,752 | 5,446 | 5,546 | 6,249 | 38,117 | 29,522 |
| 518 | BEER, WINE, & DISTILLED ALCOHOLIC BEVERAGES | 2,185 | 2,207 | 2,688 | 2,906 | 2,788 | 3,126 | 3,174 | 3,001 | 2,831 | 2,638 | 2,906 | 2,667 | 3,162 | 19,074 | 17,493 |
| 5181 | BEER & ALE | 1,136 | 1,174 | 1,425 | 1,548 | 1,611 | 1,838 | 1,859 | 1,702 | 1,660 | 1,434 | 1,431 | 1,244 | 1,454 | 10,591 | 9,621 |
| 5182 | WINE & DISTILLED ALCOHOLIC BEVERAGES[7] | 1,049 | 1,033 | 1,263 | 1,358 | 1,177 | 1,288 | 1,315 | 1,299 | 1,171 | 1,204 | 1,475 | 1,423 | 1,708 | 8,483 | 7,872 |
| 519 | MISC NONDURABLE GOODS | 5,752 | 5,517 | 6,929 | 6,544 | 6,746 | 5,996 | 5,670 | 5,514 | 5,415 | 5,898 | 6,153 | 5,347 | 6,284 | 43,154 | 40,842 |
| 5194 | TOBACCO & TOBACCO PROD | 873 | 834 | 972 | 994 | 983 | 1,044 | 1,132 | 1,016 | 942 | 938 | 1,018 | 860 | 953 | 6,832 | 6,287 |

Note: Merchant wholesalers total and group totals include data for some kinds of business not shown seperately.

[P] Preliminary estimates. See Sample Design and Estimation Procedures.

[1] The home furnishings kind of business is subject to a sampling variability of 9 percent for July 1981.

[2] The construction materials not eleswhere classified kind of business is subject to a sampling variability of 9 percent for July 1981.

[3] The electrical appliances, TV and radio sets, and electronic parts and equipment kinds of business are subject to a sampling variability of 8 percent for July 1981.

[4] The electrical appliances, TV and radio sets kind of business is subject to a sampling variability of 8 percent for July 1981.

[5] The industrial and personal service paper kind of business is subject to a sampling variability of 8 percent for July 1981.

[6] The apparel, piece goods and notions group is subject to a sampling variability of 14 percent for July 1981.

[7] The wine and distilled alcoholic beverages kind of business is subject to a sampling variability of 9 percent for July 1981.

## Table 2. Estimated Monthly Inventories of Merchant Wholesalers, by Kind of Business for the United States, Unadjusted: 1981 and 1980

(MILLIONS OF DOLLARS. DATA ARE NOT ADJUSTED FOR SEASONAL VARIATIONS)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | | | | | | | 1980 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN. | FEB. | MAR. | APR. | MAY | JUNE | JULY[P] | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. |
| | MERCHANT WHOLESALERS, TOTAL | 105,446 | 107,209 | 107,907 | 106,420 | 105,985 | 106,915 | 106,676 | 98,387 | 100,205 | 101,310 | 104,277 | 105,866 | 105,449 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 96,142 | 98,533 | 100,103 | 100,041 | 100,957 | 102,324 | 101,895 | 92,382 | 93,682 | 93,901 | 94,861 | 95,869 | 96,235 |
| 50 | DURABLE GOODS, TOTAL | 66,230 | 68,251 | 69,208 | 69,673 | 71,113 | 71,821 | 71,648 | 64,730 | 65,894 | 65,273 | 65,137 | 65,857 | 66,716 |
| 501 | MOTOR VEHICLES & AUTOMOTIVE PARTS & SUPPLIES | 11,373 | 11,287 | 11,298 | 11,178 | 10,866 | 11,240 | 11,047 | 11,326 | 11,206 | 10,984 | 11,246 | 11,253 | 11,615 |
| 5013,4 | AUTOMOTIVE PARTS & SUPPLIES, TIRES & TUBES | 5,667 | 5,619 | 5,838 | 5,670 | 5,916 | 6,023 | 5,927 | 5,565 | 5,716 | 5,750 | 5,659 | 5,775 | 5,813 |
| 5013 | AUTOMOTIVE PARTS & SUPPLIES | 4,613 | 4,549 | 4,699 | 4,603 | 4,790 | 4,862 | 4,796 | 4,530 | 4,688 | 4,703 | 4,628 | 4,703 | 4,730 |
| 502 | FURNITURE & HOME FURNISHINGS | 2,186 | 2,235 | 2,343 | 2,375 | 2,342 | 2,405 | 2,467 | 2,165 | 2,106 | 2,212 | 2,188 | 2,126 | 2,168 |
| 5023 | HOME FURNISHINGS | 1,583 | 1,623 | 1,697 | 1,735 | 1,705 | 1,730 | 1,788 | 1,585 | 1,543 | 1,608 | 1,600 | 1,555 | 1,566 |
| 503 | LUMBER & OTHER CONSTRUCTION MATERIALS | 3,368 | 3,483 | 3,544 | 3,653 | 3,705 | 3,790 | 3,647 | 3,429 | 3,551 | 3,377 | 3,331 | 3,493 | 3,392 |
| 5031 | LUMBER, PLYWOOD, AND MILLWORK[1] | 2,211 | 2,309 | 2,269 | 2,364 | 2,411 | 2,465 | 2,322 | 2,207 | 2,324 | 2,172 | 2,168 | 2,268 | 2,206 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS & OFFICES | 5,519 | 5,812 | 5,911 | 5,715 | 6,081 | 6,186 | 6,340 | 5,044 | 5,369 | 5,297 | 5,074 | 5,420 | 5,721 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | 4,346 | 4,627 | 4,708 | 4,529 | 4,884 | 5,022 | 5,190 | 4,053 | 4,334 | 4,242 | 3,999 | 4,323 | 4,532 |
| 506 | ELECTRICAL GOODS | 6,462 | 6,719 | 6,802 | 6,926 | 7,178 | 7,383 | 7,434 | 6,578 | 6,659 | 6,643 | 6,720 | 6,560 | 6,611 |
| 5063 | ELECTRICAL APPARATUS & EQUIPMENT, WIRING SUPPLIES, & CONSTRUCTION MATERIALS | 2,787 | 2,948 | 3,041 | 3,082 | 3,188 | 3,186 | 3,225 | 2,820 | 2,888 | 2,890 | 2,889 | 2,875 | 2,881 |
| 5064,5 | ELECTRICAL APPLIANCES, TV & RADIO SETS, & ELECTRONIC PARTS & EQUIPMENT | 3,675 | 3,771 | 3,761 | 3,844 | 3,990 | 4,197 | 4,209 | 3,758 | 3,771 | 3,753 | 3,831 | 3,685 | 3,730 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT & SUPPLIES | 4,764 | 4,853 | 4,990 | 5,179 | 5,141 | 5,177 | 5,124 | 4,576 | 4,557 | 4,525 | 4,584 | 4,482 | 4,632 |
| 5072 | HARDWARE | 1,925 | 1,976 | 2,014 | 2,015 | 1,958 | 2,037 | 2,028 | 1,749 | 1,824 | 1,853 | 1,842 | 1,806 | 1,885 |
| 5074 | PLUMBING & HEATING EQUIPMENT & SUPPLIES (HYDRONICS) | 1,866 | 1,862 | 1,888 | 2,023 | 2,038 | 1,968 | 1,952 | 1,899 | 1,840 | 1,767 | 1,819 | 1,770 | 1,788 |
| 508 | MACHINERY, EQUIPMENT, & SUPPLIES | 23,570 | 24,563 | 25,140 | 25,035 | 26,050 | 26,281 | 26,204 | 22,825 | 23,260 | 23,261 | 22,878 | 23,542 | 23,811 |
| 5082 | CONSTRUCTION & MINING MACHINERY & EQUIPMENT | 4,185 | 4,222 | 4,265 | 4,215 | 4,298 | 4,365 | 4,351 | 4,489 | 4,503 | 4,310 | 4,255 | 4,299 | 4,242 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, & SUPPLIES | 7,108 | 7,258 | 7,397 | 7,343 | 7,715 | 7,804 | 7,961 | 6,897 | 7,015 | 7,113 | 6,891 | 7,103 | 7,300 |
| 51 | NONDURABLE GOODS, TOTAL | 39,216 | 38,958 | 38,699 | 36,747 | 34,872 | 35,094 | 35,028 | 33,657 | 34,311 | 36,037 | 39,140 | 40,009 | 38,733 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 29,912 | 30,282 | 30,895 | 30,368 | 29,844 | 30,503 | 30,247 | 27,652 | 27,788 | 28,628 | 29,724 | 30,012 | 29,519 |
| 511 | PAPER & PAPER PRODUCTS | 1,847 | 1,903 | 1,927 | 1,921 | 1,972 | 2,024 | 2,082 | 1,741 | 1,712 | 1,750 | 1,773 | 1,820 | 1,849 |
| 5111,3 | PRINTING, WRITING, INDUSTRIAL, & PERSONAL SERVICE PAPER[2] | 1,242 | 1,250 | 1,310 | 1,278 | 1,284 | 1,346 | 1,413 | 1,182 | 1,150 | 1,189 | 1,202 | 1,215 | 1,248 |
| 5111 | PRINTING & WRITING PAPER | 546 | 547 | 577 | 558 | 561 | 586 | 591 | 500 | 484 | 492 | 501 | 516 | 546 |
| 5113 | INDUSTRIAL & PERSONAL SERVICE PAPER[3] | 696 | 703 | 733 | 720 | 723 | 760 | 822 | 682 | 666 | 697 | 701 | 699 | 702 |
| 512 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 1,586 | 1,634 | 1,632 | 1,596 | 1,592 | 1,660 | 1,682 | 1,467 | 1,483 | 1,562 | 1,716 | 1,624 | 1,570 |
| 4 | GROCERIES & RELATED PRODUCTS | 7,837 | 7,745 | 8,262 | 8,251 | 7,787 | 7,997 | 7,874 | 6,916 | 6,810 | 7,284 | 7,711 | 7,729 | 7,978 |
| 41 | GROCERIES, GENERAL-LINE | 2,796 | 2,841 | 3,011 | 3,065 | 2,868 | 2,950 | 2,889 | 2,614 | 2,572 | 2,760 | 2,979 | 2,891 | 2,895 |
| 517 | PETROLEUM & PETROLEUM PRODUCTS | 4,972 | 5,143 | 4,991 | 4,849 | 4,807 | 5,122 | 5,024 | 4,638 | 4,792 | 4,952 | 5,176 | 5,234 | 4,992 |
| 518 | BEER, WINE, & DISTILLED ALCOHOLIC BEVERAGES | 2,777 | 2,755 | 2,787 | 2,869 | 2,971 | 3,114 | 3,104 | 2,874 | 2,842 | 2,963 | 3,134 | 3,158 | 2,722 |
| 5181 | BEER & ALE[4] | 1,015 | 1,070 | 1,142 | 1,193 | 1,277 | 1,333 | 1,315 | 1,148 | 1,084 | 1,134 | 1,115 | 1,156 | 1,018 |
| 5182 | WINE & DISTILLED ALCOHOLIC BEVERAGES | 1,762 | 1,685 | 1,645 | 1,676 | 1,694 | 1,781 | 1,789 | 1,726 | 1,758 | 1,829 | 2,019 | 2,002 | 1,704 |

Note: Merchant wholesalers total and group totals include data for some kinds of business not shown separately.

[P]Preliminary estimates. See Sample Design and Estimation Procedures.

[1]The lumber, plywood, and millwork kind of business is subject to a sampling variability of 10 percent for July 1981.

[2]The printing, writing, industrial, and personal service paper kinds of business are subject to a sampling variability of 9 percent for July 1981.

[3]The industrial and personal service paper kind of business is subject to a sampling variability of 14 percent for July 1981.

[4]The beer and ale kind of business is subject to a sampling variability of 9 percent for July 1981.

## Table 3. Stock-Sales Ratios of Merchant Wholesalers, by Kind of Business for the United States, Unadjusted: 1981 and 1980

(PERCENT. DATA ARE NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | | | | | | | 1980 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN. | FEB. | MAR. | APR. | MAY | JUNE | JULY[P] | JULY | AUG. | SEPT. | OCT. | NOV. | DEC |
| | MERCHANT WHOLESALERS, TOTAL | 112 | 120 | 107 | 107 | 110 | 108 | 111 | 114 | 116 | 112 | 105 | 116 | 108 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 118 | 124 | 113 | 113 | 117 | 114 | 116 | 120 | 122 | 117 | 109 | 119 | 113 |
| 50 | DURABLE GOODS, TOTAL | 184 | 184 | 165 | 166 | 175 | 166 | 172 | 181 | 183 | 171 | 158 | 180 | 173 |
| 501 | MOTOR VEHICLES & AUTOMOTIVE PARTS & SUPPLIES | 161 | 156 | 138 | 134 | 144 | 142 | 141 | 165 | 159 | 170 | 147 | 170 | 170 |
| 5013,4 | AUTOMOTIVE PARTS & SUPPLIES, TIRES & TUBES | 184 | 183 | 165 | 162 | 186 | 169 | 170 | 189 | 189 | 184 | 164 | 192 | 190 |
| 5013 | AUTOMOTIVE PARTS & SUPPLIES | 175 | 172 | 158 | 158 | 181 | 163 | 167 | 184 | 184 | 182 | 160 | 186 | 184 |
| 502 | FURNITURE & HOME FURNISHINGS | 169 | 168 | 160 | 161 | 167 | 163 | 162 | 179 | 168 | 166 | 143 | 157 | 160 |
| 5023 | HOME FURNISHINGS | 191 | 185 | 185 | 182 | 191 | 186 | 216 | 208 | 197 | 187 | 155 | 170 | 183 |
| 503 | LUMBER & OTHER CONSTRUCTION MATERIALS | 139 | 146 | 128 | 123 | 133 | 124 | 125 | 116 | 125 | 111 | 101 | 124 | 125 |
| 5031 | LUMBER, PLYWOOD, AND MILLWORK | 141 | 147 | 131 | 128 | 138 | 126 | 132 | 120 | 130 | 113 | 106 | 127 | 128 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS & OFFICES | 167 | 162 | 150 | 150 | 155 | 150 | 168 | 196 | 197 | 174 | 155 | 183 | 172 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | 171 | 168 | 153 | 151 | 160 | 155 | 173 | 207 | 209 | 186 | 161 | 190 | 181 |
| 506 | ELECTRICAL GOODS | 172 | 171 | 154 | 165 | 168 | 160 | 167 | 168 | 175 | 158 | 156 | 155 | 154 |
| 5063 | ELECTRICAL APPARATUS & EQUIPMENT, WIRING SUPPLIES, & CONSTRUCTION MATERIALS | 150 | 149 | 146 | 148 | 151 | 143 | 154 | 149 | 155 | 134 | 133 | 133 | 134 |
| 5064,5 | ELECTRICAL APPLIANCES, TV & RADIO SETS, & ELECTRONIC PARTS & EQUIPMENT | 193 | 193 | 162 | 182 | 185 | 175 | 178 | 187 | 194 | 183 | 181 | 177 | 174 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT & SUPPLIES | 209 | 220 | 197 | 193 | 200 | 184 | 190 | 191 | 197 | 188 | 173 | 193 | 205 |
| 5072 | HARDWARE | 217 | 232 | 205 | 203 | 212 | 206 | 209 | 213 | 219 | 207 | 198 | 210 | 218 |
| 5074 | PLUMBING & HEATING EQUIPMENT & SUPPLIES (HYDRONICS) | 193 | 202 | 179 | 181 | 185 | 173 | 178 | 196 | 192 | 171 | 154 | 175 | 185 |
| 508 | MACHINERY, EQUIPMENT, & SUPPLIES | 229 | 229 | 200 | 203 | 213 | 200 | 204 | 215 | 214 | 200 | 191 | 224 | 203 |
| 5082 | CONSTRUCTION & MINING MACHINERY & EQUIPMENT | 377 | 347 | 304 | 268 | 298 | 275 | 302 | 335 | 281 | 293 | 301 | 321 | 308 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, & SUPPLIES | 153 | 152 | 134 | 136 | 140 | 128 | 139 | 155 | 156 | 151 | 140 | 158 | 144 |
| 51 | NONDURABLE GOODS, TOTAL | 68 | 74 | 65 | 64 | 62 | 63 | 64 | 67 | 68 | 69 | 68 | 73 | 66 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 66 | 71 | 66 | 65 | 65 | 65 | 66 | 67 | 68 | 67 | 65 | 69 | 63 |
| 511 | PAPER & PAPER PRODUCTS | 95 | 100 | 91 | 94 | 99 | 96 | 100 | 99 | 96 | 93 | 88 | 100 | 96 |
| 5111,3 | PRINTING, WRITING, INDUSTRIAL, & PERSONAL SERVICE PAPER | 89 | 92 | 85 | 87 | 89 | 88 | 91 | 91 | 89 | 86 | 82 | 93 | 88 |
| 5111 | PRINTING & WRITING PAPER | 83 | 84 | 79 | 78 | 84 | 81 | 84 | 85 | 84 | 79 | 72 | 89 | 84 |
| 5113 | INDUSTRIAL & PERSONAL SERVICE PAPER | 94 | 99 | 90 | 95 | 94 | 94 | 97 | 96 | 94 | 93 | 91 | 97 | 92 |
| 512 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 133 | 144 | 128 | 125 | 131 | 131 | 128 | 135 | 138 | 135 | 131 | 143 | 131 |
| 514 | GROCERIES & RELATED PRODUCTS | 59 | 63 | 59 | 59 | 58 | 57 | 55 | 53 | 54 | 56 | 56 | 61 | 58 |
| 5141 | GROCERIES, GENERAL-LINE | 64 | 70 | 67 | 68 | 66 | 66 | 63 | 61 | 63 | 68 | 67 | 69 | 66 |
| 517 | PETROLEUM & PETROLEUM PRODUCTS | 28 | 33 | 31 | 30 | 30 | 32 | 32 | 35 | 35 | 35 | 33 | 31 | 2[illegible] |
| 518 | BEER, WINE, & DISTILLED ALCOHOLIC BEVERAGES | 127 | 125 | 104 | 99 | 107 | 100 | 98 | 96 | 100 | 112 | 108 | 118 | 86 |
| 5181 | BEER & ALE | 89 | 91 | 80 | 77 | 79 | 73 | 71 | 67 | 65 | 79 | 78 | 93 | 70 |
| 5182 | WINE & DISTILLED ALCOHOLIC BEVERAGES | 168 | 163 | 130 | 123 | 144 | 138 | 136 | 133 | 150 | 152 | 137 | 141 | 100 |

Note: Merchant wholesalers total and group totals include data for some kinds of business not shown separately.

[P]Preliminary estimates. See Sample Design and Estimation Procedures.

# Table 4A. Estimated Monthly Sales, Inventories, and Stock-Sales Ratios of Merchant Wholesalers, by Kind of Business for the United States, Adjusted: 1981 and 1980

(SALES AND INVENTORIES IN MILLIONS OF DOLLARS. STOCK-SALES RATIOS IN PERCENT)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 JAN. | FEB. | MAR. | APR. | MAY | JUNE | JULY[P] | 1980 JULY | AUG. | SEPT. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **SALES ADJUSTED FOR SEASONAL VARIATIONS AND TRADING-DAY DIFFERENCES** | | | | | | | | | | | | | |
| | MERCHANT WHOLESALERS, TOTAL | 98,967 | 98,016 | 96,486 | 97,577 | 96,217 | 95,564 | 97,194 | 85,810 | 86,889 | 90,223 | 93,282 | 93,901 | 96,591 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 86,583 | 86,768 | 84,999 | 86,773 | 86,039 | 86,723 | 88,356 | 76,351 | 76,783 | 79,666 | 82,335 | 83,162 | 85,013 |
| 50 | DURABLE GOODS, TOTAL | 40,370 | 41,511 | 39,907 | 40,299 | 40,584 | 41,045 | 41,490 | 35,196 | 35,353 | 36,937 | 38,110 | 38,799 | 39,403 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | 7,668 | 7,930 | 7,548 | 7,391 | 7,220 | 7,633 | 7,782 | 6,693 | 7,019 | 6,920 | 7,302 | 7,212 | 7,145 |
| 502 | FURNITURE AND HOME FURNISHINGS | 1,486 | 1,491 | 1,413 | 1,433 | 1,424 | 1,465 | 1,402 | 1,250 | 1,261 | 1,281 | 1,321 | 1,331 | 1,344 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | 3,043 | 3,019 | 2,863 | 2,981 | 2,744 | 2,752 | 2,651 | 2,688 | 2,542 | 2,729 | 2,853 | 2,999 | 3,001 |
| 506 | ELECTRICAL GOODS | 4,256 | 4,421 | 4,407 | 4,375 | 4,480 | 4,417 | 4,439 | 3,798 | 3,735 | 3,976 | 3,912 | 4,178 | 4,094 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | 2,513 | 2,572 | 2,569 | 2,577 | 2,535 | 2,646 | 2,538 | 2,222 | 2,238 | 2,349 | 2,370 | 2,428 | 2,411 |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | 11,641 | 12,071 | 12,053 | 11,636 | 12,008 | 12,218 | 12,790 | 10,526 | 10,842 | 11,071 | 11,136 | 11,500 | 11,888 |
| 51 | NONDURABLE GOODS, TOTAL | 58,597 | 56,505 | 56,579 | 57,278 | 55,633 | 54,519 | 55,704 | 50,614 | 51,536 | 53,286 | 55,172 | 55,102 | 57,188 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 46,213 | 45,257 | 45,092 | 46,474 | 45,455 | 45,678 | 46,866 | 41,155 | 41,430 | 42,729 | 44,225 | 44,363 | 45,610 |
| 511 | PAPER AND PAPER PRODUCTS | 1,989 | 2,032 | 2,033 | 2,019 | 2,059 | 2,051 | 2,096 | 1,752 | 1,782 | 1,849 | 1,864 | 1,920 | 1,917 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | 1,255 | 1,258 | 1,238 | 1,242 | 1,268 | 1,259 | 1,309 | 1,070 | 1,095 | 1,123 | 1,169 | 1,178 | 1,174 |
| 513 | APPAREL, PIECE GOODS, AND NOTIONS | 2,192 | 2,459 | 2,256 | 2,338 | 2,247 | 2,509 | 2,522 | 2,242 | 2,221 | 2,239 | 2,185 | 2,156 | 2,057 |
| 514 | GROCERIES AND RELATED PRODUCTS | 13,541 | 13,505 | 13,578 | 13,749 | 13,201 | 13,706 | 14,012 | 12,721 | 12,706 | 12,993 | 13,245 | 13,135 | 13,492 |
| 515 | FARM-PRODUCT RAW MATERIALS | 12,384 | 11,248 | 11,487 | 10,804 | 10,178 | 8,841 | 8,838 | 9,459 | 10,106 | 10,557 | 10,947 | 10,739 | 11,578 |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | 16,938 | 15,603 | 15,743 | 16,670 | 16,439 | 16,281 | 16,400 | 13,560 | 13,863 | 14,455 | 15,487 | 16,220 | 16,461 |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | 2,681 | 2,721 | 2,718 | 2,915 | 2,788 | 2,850 | 2,958 | 2,823 | 2,738 | 2,673 | 2,729 | 2,727 | 2,686 |
| 519 | MISCELLANEOUS NONDURABLE GOODS | 6,061 | 6,151 | 6,214 | 5,982 | 6,034 | 5,614 | 5,906 | 5,804 | 5,804 | 5,946 | 6,221 | 5,831 | 6,498 |
| | **INVENTORIES ADJUSTED FOR SEASONAL VARIATIONS** | | | | | | | | | | | | | |
| | MERCHANT WHOLESALERS, TOTAL | 104,909 | 106,066 | 105,539 | 105,591 | 105,568 | 107,210 | 107,516 | 99,618 | 101,920 | 102,953 | 104,293 | 105,203 | 105,529 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 97,117 | 98,663 | 98,771 | 99,331 | 99,775 | 101,632 | 101,449 | 92,007 | 93,694 | 94,216 | 95,187 | 96,607 | 97,558 |
| 50 | DURABLE GOODS, TOTAL | 67,319 | 68,482 | 68,571 | 69,174 | 69,876 | 70,589 | 70,756 | 63,938 | 65,387 | 65,461 | 65,951 | 66,955 | 67,938 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | 11,216 | 10,791 | 11,012 | 11,078 | 10,695 | 11,229 | 11,114 | 11,394 | 11,517 | 11,514 | 11,464 | 11,378 | 11,603 |
| 502 | FURNITURE AND HOME FURNISHINGS | 2,228 | 2,278 | 2,322 | 2,373 | 2,333 | 2,337 | 2,428 | 2,131 | 2,100 | 2,160 | 2,175 | 2,163 | 2,237 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | 3,451 | 3,515 | 3,431 | 3,554 | 3,604 | 3,701 | 3,562 | 3,349 | 3,540 | 3,415 | 3,396 | 3,635 | 3,501 |
| 506 | ELECTRICAL GOODS | 6,710 | 7,028 | 6,934 | 6,975 | 7,044 | 7,231 | 7,281 | 6,443 | 6,503 | 6,538 | 6,614 | 6,553 | 6,651 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | 4,881 | 4,848 | 4,854 | 4,914 | 4,948 | 5,021 | 5,028 | 4,491 | 4,589 | 4,636 | 4,682 | 4,713 | 4,835 |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | 24,076 | 24,588 | 24,744 | 24,812 | 25,640 | 25,740 | 26,048 | 22,689 | 23,075 | 23,122 | 23,321 | 23,925 | 24,272 |
| 51 | NONDURABLE GOODS, TOTAL | 37,590 | 37,584 | 36,968 | 36,417 | 35,692 | 36,621 | 36,760 | 35,680 | 36,533 | 37,492 | 38,342 | 38,248 | 37,591 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 29,798 | 30,181 | 30,200 | 30,157 | 29,899 | 31,043 | 30,693 | 28,069 | 28,307 | 28,755 | 29,236 | 29,652 | 29,620 |
| 511 | PAPER AND PAPER PRODUCTS | 1,902 | 1,934 | 1,935 | 1,904 | 1,964 | 1,973 | 2,080 | 1,739 | 1,731 | 1,731 | 1,771 | 1,815 | 1,833 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | 1,645 | 1,704 | 1,625 | 1,579 | 1,602 | 1,655 | 1,672 | 1,461 | 1,484 | 1,519 | 1,630 | 1,610 | 1,612 |
| 514 | GROCERIES AND RELATED PRODUCTS | 7,948 | 7,753 | 8,132 | 8,202 | 7,842 | 7,989 | 8,027 | 7,036 | 7,013 | 7,262 | 7,494 | 7,660 | 7,868 |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | 4,855 | 5,190 | 4,986 | 5,072 | 4,900 | 5,403 | 5,121 | 4,737 | 4,797 | 4,836 | 4,982 | 5,018 | 4,904 |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | 2,851 | 2,918 | 2,749 | 2,738 | 2,876 | 3,044 | 3,079 | 2,851 | 2,942 | 2,984 | 3,011 | 3,054 | 2,924 |
| | **STOCK-SALES RATIOS BASED ON ADJUSTED DATA** | | | | | | | | | | | | | |
| | MERCHANT WHOLESALERS, TOTAL | 106 | 108 | 109 | 108 | 110 | 112 | 111 | 116 | 117 | 114 | 112 | 112 | 109 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 112 | 114 | 116 | 114 | 116 | 117 | 115 | 121 | 122 | 118 | 116 | 116 | 115 |
| 50 | DURABLE GOODS, TOTAL | 167 | 165 | 172 | 172 | 172 | 172 | 171 | 182 | 185 | 177 | 173 | 173 | 172 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | 146 | 136 | 146 | 150 | 148 | 147 | 143 | 170 | 164 | 166 | 157 | 158 | 162 |
| 502 | FURNITURE AND HOME FURNISHINGS | 150 | 153 | 164 | 166 | 164 | 160 | 173 | 170 | 167 | 169 | 165 | 163 | 166 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | 113 | 116 | 120 | 119 | 131 | 134 | 134 | 125 | 139 | 125 | 119 | 121 | 117 |
| 506 | ELECTRICAL GOODS | 158 | 159 | 157 | 159 | 157 | 164 | 164 | 170 | 174 | 164 | 169 | 157 | 162 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | 194 | 188 | 189 | 191 | 195 | 190 | 198 | 202 | 205 | 197 | 198 | 194 | 201 |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | 207 | 204 | 205 | 213 | 214 | 211 | 204 | 216 | 213 | 209 | 209 | 208 | 204 |
| 51 | NONDURABLE GOODS, TOTAL | 64 | 67 | 65 | 64 | 64 | 67 | 66 | 70 | 71 | 70 | 69 | 69 | 66 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 64 | 67 | 67 | 65 | 66 | 68 | 65 | 68 | 68 | 67 | 66 | 67 | 65 |
| 511 | PAPER AND PAPER PRODUCTS | 96 | 95 | 95 | 94 | 95 | 96 | 99 | 99 | 97 | 94 | 95 | 95 | 96 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | 131 | 135 | 131 | 127 | 126 | 131 | 128 | 137 | 136 | 135 | 139 | 137 | 137 |
| 514 | GROCERIES AND RELATED PRODUCTS | 59 | 57 | 60 | 60 | 59 | 58 | 57 | 55 | 55 | 56 | 57 | 58 | 58 |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | 29 | 33 | 32 | 30 | 30 | 33 | 31 | 35 | 35 | 33 | 32 | 31 | 30 |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | 106 | 107 | 101 | 94 | 103 | 107 | 104 | 101 | 107 | 112 | 110 | 112 | 109 |

Note: Merchant wholesalers total and group totals include data for some kinds of business not shown separately.

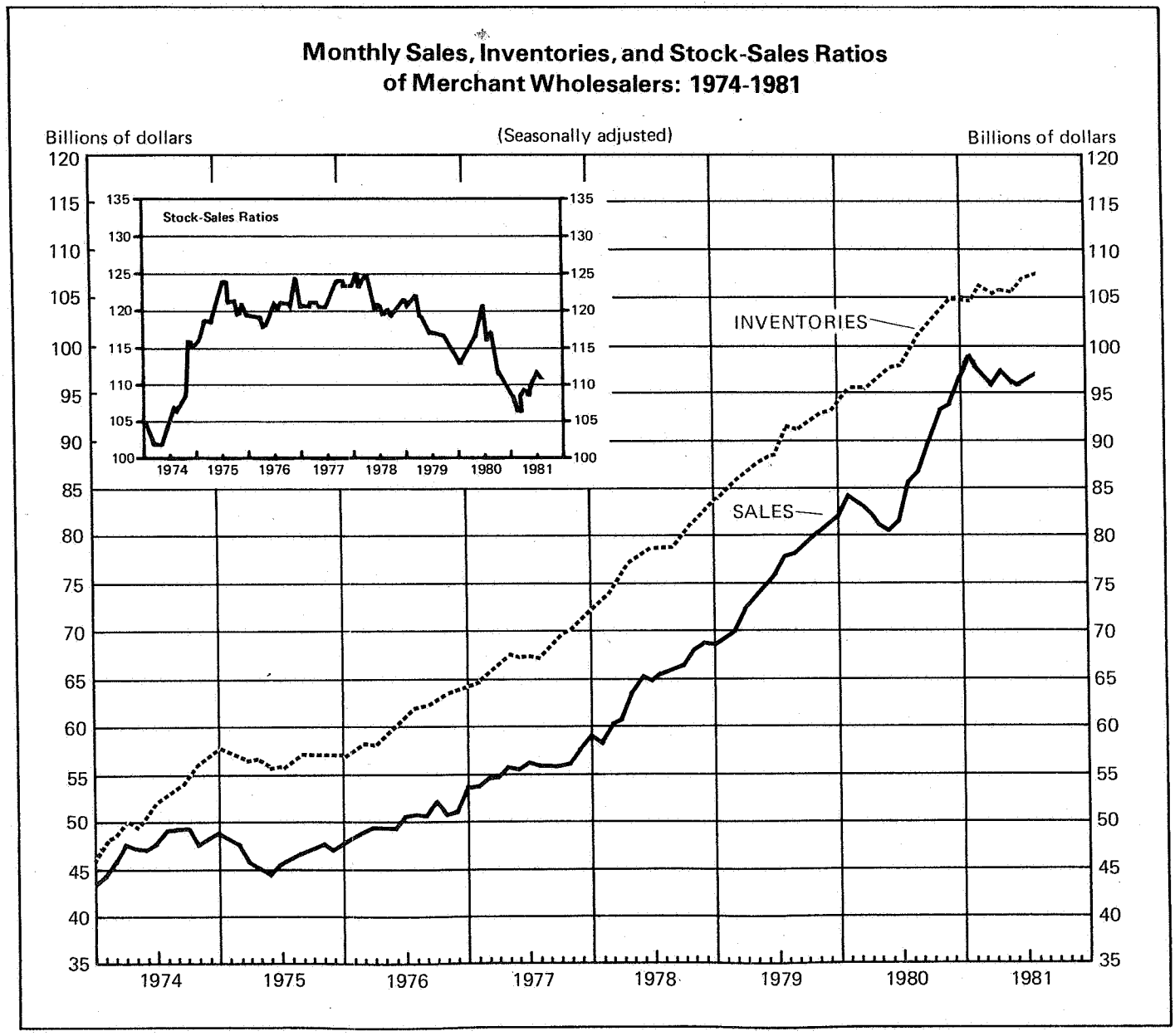
[P]Preliminary estimate. See Sample Design and Estimation Procedures.

[1]There are indications that the seasonal adjustment factors for the farm-product raw materials category may not reflect recent trends in this trade. The seasonally adjusted data for this category and also for the merchant wholesale and nondurable goods totals should, therefore, be used with caution.

Table 4B. **Percent Change Between Selected 3-Month Periods Sales of Merchant Wholesalers, United States**

(Based on seasonally-adjusted data)

| Item | 3 month period, May 1981-July 1981 from-- | | | |
|---|---|---|---|---|
| | Feb. 1981-Apr. 1981 (3 months ago) | Nov. 1980-Jan. 1981 (6 months ago) | Aug. 1980-Oct. 1980 (9 months ago) | May 1980-July 1980 (12 months ago) |
| Merchant wholesalers, total..... | -1 | 0 | +7 | +17 |
| Durable goods, total..... | +1 | +4 | +12 | +19 |
| Nondurable goods, total... | -3 | -3 | +4 | +15 |



# Table 5. Percent Change in Sales and Inventories of Merchant Wholesalers, by Kind of Business for the United States: July 1981

| 1972 SIC CODE | KIND OF BUSINESS | UNADJUSTED | | | | | ADJUSTED [1] | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | SALES | | | INVENTORIES, END-OF-MONTH (AT COST) | | SALES | | INVENTORIES, END-OF-MONTH (AT COST) | |
| | | JULY 1981 FROM JUNE 1981 | JULY 1981 FROM JULY 1980 | 7 MONTHS 1981 FROM 7 MONTHS 1980 | JULY 1981 FROM JUNE 1981 | JULY 1981 FROM JULY 1980 | JULY 1981 FROM JUNE 1981 | JULY 1981 FROM JULY 1980 | JULY 1981 FROM JUNE 1981 | JULY 1981 FROM JULY 1980 |
| | MERCHANT WHOLESALERS, TOTAL | -2 | +12 | +17 | 0 | +8 | +2 | +13 | 0 | +8 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | -2 | +14 | +17 | 0 | +10 | +2 | +16 | 0 | +10 |
| 50 | DURABLE GOODS, TOTAL | -3 | +17 | +14 | 0 | +11 | +1 | +18 | 0 | +11 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | -1 | +14 | +15 | -2 | -2 | +2 | +16 | -1 | -2 |
| 5012 | AUTOMOBILES AND OTHER MOTOR VEHICLES | +1 | +11 | +13 | -2 | -11 | (*) | (*) | (*) | (*) |
| 5013,4 | AUTOMOTIVE PARTS AND SUPPLIES, TIRES AND TUBES | -2 | +18 | +18 | -2 | +7 | (*) | (*) | (*) | (*) |
| 5013 | AUTOMOTIVE PARTS AND SUPPLIES | -4 | +17 | +18 | -1 | +6 | (*) | (*) | (*) | (*) |
| 502 | FURNITURE AND HOME FURNISHINGS | -8 | +12 | +12 | +3 | +14 | -4 | +12 | +4 | +14 |
| 5021 | FURNITURE--HOUSEHOLD AND OFFICE | -4 | +18 | +12 | +1 | +17 | (*) | (*) | (*) | (*) |
| 5021 PT. | HOUSEHOLD FURNITURE[2] | -3 | +20 | +4 | 0 | +7 | (*) | (*) | (*) | (*) |
| 5021 PT. | OFFICE FURNITURE | -4 | +17 | +16 | +1 | +23 | (*) | (*) | (*) | (*) |
| 5023 | HOME FURNISHINGS | -11 | +8 | +12 | +3 | +13 | (*) | (*) | (*) | (*) |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | -5 | -1 | +4 | -4 | +6 | -4 | -1 | -4 | +6 |
| 5031 | LUMBER, PLYWOOD, AND MILLWORK | -10 | -5 | +2 | -6 | +5 | (*) | (*) | (*) | (*) |
| 5039 | CONSTRUCTION MATERIALS, N.E.C. | +4 | +4 | +9 | 0 | +8 | (*) | (*) | (*) | (*) |
| 504 | SPORTING, RECREATIONAL, PHOTOGRAPHIC, AND HOBBY GOODS, TOYS AND SUPPLIES[1] | +18 | +17 | +15 | -4 | -6 | +4 | +17 | -4 | -6 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS AND OFFICES | -9 | +46 | +28 | +2 | +26 | (*) | (*) | (*) | (*) |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | -7 | +53 | +32 | +3 | +28 | (*) | (*) | (*) | (*) |
| 506 | ELECTRICAL GOODS | -4 | +14 | +16 | +1 | +13 | 0 | +17 | +1 | +13 |
| 5063 | ELECTRICAL APPARATUS AND EQUIPMENT, WIRING SUPPLIES, AND CONSTRUCTION MATERIALS | -6 | +10 | +14 | +1 | +14 | (*) | (*) | (*) | (*) |
| 5064,5 | ELECTRICAL APPLIANCES, TV AND RADIO SETS, AND ELECTRONIC PARTS AND EQUIPMENT | -1 | +17 | +18 | 0 | +12 | (*) | (*) | (*) | (*) |
| 5064 | ELECTRICAL APPLIANCES, TV AND RADIO SETS | -1 | +16 | +21 | -1 | +8 | (*) | (*) | (*) | (*) |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | -4 | +12 | +13 | -1 | +12 | -4 | +14 | 0 | +12 |
| 5072 | HARDWARE | -2 | +18 | +12 | 0 | +16 | (*) | (*) | (*) | (*) |
| 5074 | PLUMBING AND HEATING EQUIPMENT AND SUPPLIES (HYDRONICS) | -4 | +13 | +14 | -1 | +3 | (*) | (*) | (*) | (*) |
| 5075 | WARM AIR HEATING AND AIR CONDITIONING EQUIPMENT AND SUPPLIES | -8 | +2 | +14 | -2 | +29 | (*) | (*) | (*) | (*) |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | -2 | +21 | +16 | 0 | +15 | +5 | +22 | +1 | +15 |
| 5081 | COMMERCIAL MACHINES AND EQUIPMENT | +5 | +17 | +17 | 0 | +23 | (*) | (*) | (*) | (*) |
| 5082 | CONSTRUCTION AND MINING MACHINERY AND EQUIPMENT | -9 | +8 | +9 | 0 | -3 | (*) | (*) | (*) | (*) |
| 083 | FARM AND GARDEN MACHINERY AND EQUIPMENT | +14 | +25 | +7 | -2 | +23 | (*) | (*) | (*) | (*) |
| 084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, AND SUPPLIES | -6 | +29 | +22 | +2 | +15 | (*) | (*) | (*) | (*) |
| 5086 | PROFESSIONAL EQUIPMENT AND SUPPLIES | -6 | +15 | +17 | -4 | +16 | (*) | (*) | (*) | (*) |
| 5093 | SCRAP AND WASTE MATERIALS | -11 | +11 | -4 | +4 | +20 | (*) | (*) | (*) | (*) |
| 5093 PT. | IRON AND STEEL SCRAP | -12 | +15 | 0 | +2 | +25 | (*) | (*) | (*) | (*) |
| 5093 PT. | WASTE MATERIALS | -11 | +7 | -9 | +8 | +11 | (*) | (*) | (*) | (*) |
| 51 | NONDURABLE GOODS, TOTAL | -2 | +8 | +19 | 0 | +4 | +2 | +10 | 0 | +3 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | -1 | +12 | +20 | -1 | +9 | +3 | +14 | -1 | +9 |
| 511 | PAPER AND PAPER PRODUCTS | -1 | +18 | +16 | +3 | +20 | +2 | +20 | +5 | +20 |
| 5111,3 | PRINTING, WRITING, INDUSTRIAL, AND PERSONAL SERVICE PAPER | +1 | +20 | +14 | +5 | +20 | (*) | (*) | (*) | (*) |
| 5111 | PRINTING, AND WRITING PAPER | -3 | +20 | +8 | +1 | +18 | (*) | (*) | (*) | (*) |
| 5113 | INDUSTRIAL AND PERSONAL SERVICE PAPER | +5 | +19 | +19 | +8 | +21 | (*) | (*) | (*) | (*) |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | +4 | +21 | +21 | +1 | +15 | +4 | +22 | +1 | +14 |
| 5122 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | +4 | +21 | +21 | +1 | +15 | (*) | (*) | (*) | (*) |
| 5122 PT. | GENERAL-LINE DRUGS | +2 | +18 | +16 | +3 | +19 | (*) | (*) | (*) | (*) |
| 514 | GROCERIES AND RELATED PRODUCTS | +1 | +8 | +13 | -2 | +14 | +2 | +10 | 0 | +14 |
| 5141 | GROCERIES, GENERAL-LINE | +3 | +8 | +12 | -2 | +11 | (*) | (*) | (*) | (*) |
| 5141 PT. | VOLUNTARY GROUPS | +2 | +2 | +11 | -4 | +5 | (*) | (*) | (*) | (*) |
| 5141 PT. | RETAILER COOPERATIVES | +4 | +6 | +11 | -4 | +8 | (*) | (*) | (*) | (*) |
| 5141 PT. | OTHER GENERAL-LINES | +4 | +16 | +15 | 0 | +17 | (*) | (*) | (*) | (*) |
| 5142,3,6,9 | SPECIALTY-LINE GROCERIES | +1 | +11 | +17 | -1 | +21 | (*) | (*) | (*) | (*) |
| 5144 | POULTRY AND POULTRY PRODUCTS | +2 | +5 | +9 | -3 | +4 | (*) | (*) | (*) | (*) |
| 5145 | CONFECTIONERY[3] | -2 | +8 | +15 | -1 | -2 | (*) | (*) | (*) | (*) |
| 5147 | MEATS AND MEAT PRODUCTS | +1 | +1 | +2 | -3 | -9 | (*) | (*) | (*) | (*) |
| 5148 | FRESH FRUITS AND VEGETABLES | -5 | +12 | +18 | +1 | (S) | (*) | (*) | (*) | (*) |
| 515 | FARM-PRODUCT RAW MATERIALS[2] | -4 | -8 | +12 | +4 | -20 | 0 | -7 | +9 | -20 |
| 5152 | COTTON | +2 | -28 | -3 | -27 | -30 | (*) | (*) | (*) | (*) |
| 5153 | GRAIN | -4 | -6 | +15 | +11 | -22 | (*) | (*) | (*) | (*) |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | -5 | +17 | +40 | -2 | +8 | +1 | +21 | -5 | +8 |
| 5171 | PETROLEUM BULK STATIONS AND TERMINALS | +3 | +23 | +29 | -1 | -2 | (*) | (*) | (*) | (*) |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | +2 | +6 | +9 | 0 | +8 | +4 | +5 | +1 | +8 |
| 5181 | BEER AND ALE | +1 | +9 | +10 | -1 | +15 | (*) | (*) | (*) | (*) |
| 5182 | WINE AND DISTILLED ALCOHOLIC BEVERAGES | +2 | +1 | +8 | 0 | +4 | (*) | (*) | (*) | (*) |
| 519 | MISCELLANEOUS NONDURABLE GOODS | -5 | +3 | +6 | 0 | +3 | +5 | +2 | -3 | +3 |
| 5191 | FARM SUPPLIES | -12 | -4 | +5 | +1 | -4 | (*) | (*) | (*) | (*) |
| 5194 | TOBACCO AND TOBACCO PRODUCTS | +8 | +11 | +9 | 0 | +21 | (*) | (*) | (*) | (*) |
| 5198 | PAINTS, VARNISHES, AND SUPPLIES | -5 | -1 | +3 | -3 | +6 | (*) | (*) | (*) | (*) |
| 5199 PT. | BOOKS, PERIODICALS, NEWSPAPERS | +9 | (S) | (S) | -4 | (S) | (*) | (*) | (*) | (*) |

Adjusted data are available only for summary group totals. (S) Does not meet publication standards because of extreme variability or high nonresponse rate.

[1] Adjusted for seasonal variations and, in the case of sales, also for trading-day differences.

[2] There are indications that the seasonal adjustment factors for this trade group may not reflect recent trends. The seasonally adjusted data for this trade group and also for the summary group totals should, therefore, be used with caution.

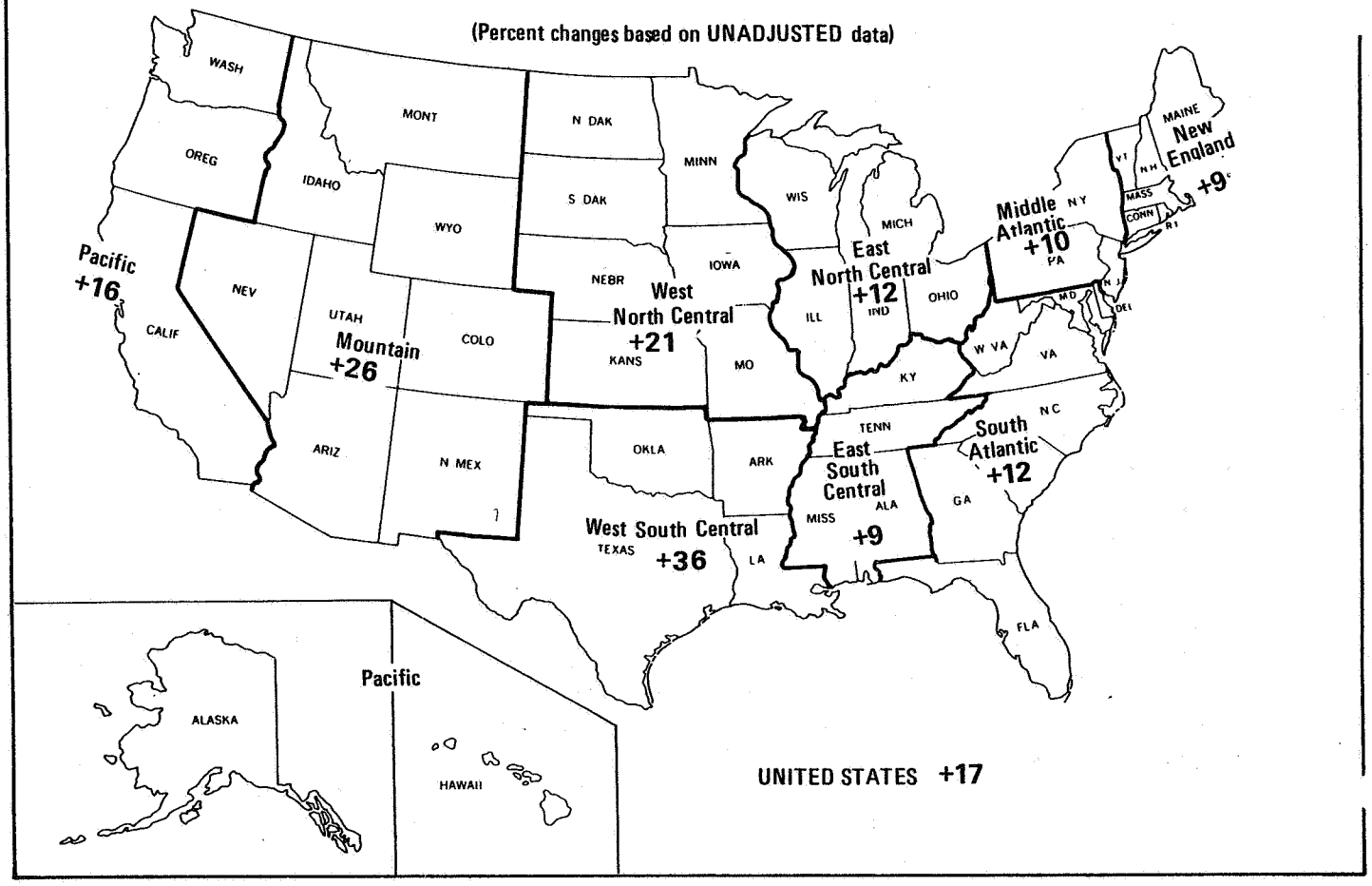
[3] Sampling variability of 10 percent for percent change for inventories between July 1981 and July 1980.

[4] Sampling variability of 13 percent for percent change for sales between July 1981 and June 1981.

[5] Sampling variability of 10 percent change for inventories between July 1981 and July 1980.

## Sales of Merchant Wholesalers by Geographic Division
## 7 Months 1981 Compared With 7 Months 1980

(Percent changes based on UNADJUSTED data)




## Table 6. Estimated Monthly Sales of Merchant Wholesalers and Sampling Errors, by Geographic Division: 1981 and 1980

(SALES, MILLIONS OF DOLLARS, ARE NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES)

| 1972 SIC CODE | KIND OF BUSINESS AND GEOGRAPHIC DIVISION | 1981 | | | | | | | 1980 | | | | | | TOTAL 7 MONTHS | | MEDIAN SAMPLING ERROR[1] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN. | FEB. | MAR. | APR. | MAY | JUNE | JULY[P] | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. | 1981 | 1980 | |
| | MERCHANT WHOLESALERS, TOTAL | 93,845 | 89,641 | 101,273 | 99,081 | 96,676 | 98,639 | 96,195 | 86,052 | 86,311 | 90,715 | 99,023 | 91,328 | 97,659 | 675,350 | 578,850 | 1.5 |
| | NEW ENGLAND | 4,445 | 4,256 | 4,487 | 4,406 | 4,348 | 4,701 | 4,843 | 4,368 | 4,109 | 4,400 | 4,668 | 4,524 | 4,786 | 31,486 | 29,011 | 5 |
| | MIDDLE ATLANTIC | 19,320 | 19,046 | 21,684 | 19,714 | 19,716 | 20,321 | 19,634 | 17,959 | 18,298 | 19,380 | 20,204 | 19,463 | 20,750 | 139,435 | 126,302 | 4 |
| | EAST NORTH CENTRAL | 14,031 | 12,833 | 14,805 | 14,818 | 14,526 | 14,566 | 14,047 | 12,775 | 13,122 | 13,600 | 15,510 | 13,852 | 14,147 | 99,626 | 89,104 | 2 |
| | WEST NORTH CENTRAL | 10,164 | 9,279 | 10,426 | 10,885 | 10,581 | 10,009 | 9,669 | 8,724 | 8,884 | 9,328 | 11,024 | 9,321 | 10,306 | 71,013 | 58,632 | 3 |
| | SOUTH ATLANTIC | 9,305 | 8,860 | 10,545 | 10,012 | 9,560 | 9,959 | 9,915 | 8,781 | 8,540 | 8,976 | 9,781 | 8,875 | 9,668 | 68,156 | 61,093 | 2 |
| | EAST SOUTH CENTRAL | 3,921 | 3,760 | 4,341 | 4,409 | 4,248 | 4,167 | 4,078 | 3,801 | 3,832 | 3,835 | 4,356 | 3,759 | 4,036 | 28,924 | 26,598 | 4 |
| | WEST SOUTH CENTRAL | 15,860 | 15,383 | 16,315 | 16,348 | 15,868 | 16,161 | 15,275 | 13,865 | 13,835 | 14,655 | 15,925 | 15,445 | 16,552 | 111,210 | 81,806 | 5 |
| | MOUNTAIN | 3,393 | 3,283 | 4,203 | 3,992 | 3,879 | 4,499 | 4,389 | 3,261 | 3,335 | 3,900 | 3,713 | 3,528 | 3,828 | 27,638 | 21,919 | 6 |
| | PACIFIC | 13,406 | 12,941 | 14,467 | 14,497 | 13,950 | 14,256 | 14,345 | 12,518 | 12,356 | 12,641 | 13,842 | 12,561 | 13,586 | 97,862 | 84,385 | 3 |
| 50 | DURABLE GOODS, TOTAL | 35,927 | 37,054 | 41,991 | 41,934 | 40,679 | 43,152 | 41,715 | 35,757 | 36,010 | 38,112 | 41,298 | 36,679 | 38,598 | 282,452 | 247,742 | 1.8 |
| | MIDDLE ATLANTIC | 7,412 | 7,818 | 8,789 | 8,607 | 8,444 | 8,826 | 8,377 | 7,429 | 7,340 | 7,911 | 8,727 | 7,960 | 8,146 | 58,273 | 53,699 | 6 |
| | EAST NORTH CENTRAL | 5,644 | 5,704 | 6,592 | 6,644 | 6,617 | 6,768 | 6,321 | 5,264 | 5,586 | 6,029 | 6,620 | 5,983 | 6,020 | 44,290 | 38,868 | 3 |
| | WEST NORTH CENTRAL | 2,515 | 2,699 | 2,925 | 2,943 | 2,859 | 3,055 | 3,089 | 2,661 | 2,818 | 2,872 | 3,214 | 2,718 | 2,830 | 20,085 | 18,600 | 5 |
| | SOUTH ATLANTIC | 4,137 | 4,321 | 5,003 | 4,863 | 4,550 | 4,901 | 4,825 | 4,360 | 4,265 | 4,377 | 4,834 | 4,128 | 4,327 | 32,600 | 29,452 | 3 |
| | WEST SOUTH CENTRAL | 4,738 | 4,856 | 5,654 | 5,844 | 5,809 | 6,032 | 5,933 | 4,653 | 4,530 | 4,758 | 5,027 | 4,665 | 4,916 | 38,866 | 29,829 | 4 |
| | MOUNTAIN | 1,469 | 1,321 | 1,658 | 1,638 | 1,535 | 1,807 | 1,656 | 1,360 | 1,415 | 1,744 | 1,702 | 1,415 | 1,747 | 11,084 | 9,208 | 8 |
| | PACIFIC | 6,938 | 7,265 | 7,966 | 7,861 | 7,535 | 8,025 | 7,920 | 6,738 | 6,818 | 6,887 | 7,503 | 6,664 | 7,249 | 53,510 | 46,022 | 4 |
| 51 | NONDURABLE GOODS, TOTAL | 57,918 | 52,587 | 59,282 | 57,147 | 55,997 | 55,487 | 54,480 | 50,295 | 50,301 | 52,603 | 57,725 | 54,649 | 59,061 | 392,898 | 331,108 | 1.8 |
| | NEW ENGLAND | 2,849 | 2,697 | 2,826 | 2,685 | 2,721 | 2,826 | 3,119 | 2,684 | 2,607 | 2,643 | 2,860 | 2,915 | 3,053 | 19,723 | 17,809 | 6 |
| | MIDDLE ATLANTIC | 11,908 | 11,228 | 12,895 | 11,107 | 11,272 | 11,495 | 11,257 | 10,530 | 10,958 | 11,469 | 11,477 | 11,503 | 12,604 | 81,162 | 72,603 | 4 |
| | EAST NORTH CENTRAL | 8,387 | 7,129 | 8,213 | 8,174 | 7,909 | 7,798 | 7,726 | 7,511 | 7,536 | 7,571 | 8,890 | 7,869 | 8,127 | 55,336 | 50,236 | 4 |
| | WEST NORTH CENTRAL | 7,649 | 6,580 | 7,501 | 7,942 | 7,722 | 6,954 | 6,580 | 6,063 | 6,066 | 6,456 | 7,810 | 6,603 | 7,476 | 50,928 | 40,032 | 4 |
| | SOUTH ATLANTIC | 5,168 | 4,539 | 5,542 | 5,149 | 5,010 | 5,058 | 5,090 | 4,421 | 4,275 | 4,599 | 4,947 | 4,747 | 5,341 | 35,556 | 31,641 | 4 |
| | EAST SOUTH CENTRAL | 2,443 | 2,249 | 2,598 | 2,596 | 2,545 | 2,304 | 2,208 | 2,193 | 2,096 | 2,058 | 2,493 | 2,222 | 2,406 | 16,943 | 15,736 | 4 |
| | WEST SOUTH CENTRAL | 11,122 | 10,527 | 10,661 | 10,504 | 10,059 | 10,129 | 9,342 | 9,212 | 9,305 | 9,897 | 10,898 | 10,780 | 11,636 | 72,344 | 51,977 | 8 |
| | PACIFIC | 6,468 | 5,676 | 6,501 | 6,636 | 6,415 | 6,231 | 6,425 | 5,780 | 5,538 | 5,754 | 6,339 | 5,897 | 6,337 | 44,352 | 38,363 | 5 |

[P]Preliminary estimate. See Sample Design and Estimation Procedure.

[1]The median sampling errors (in percent) are based on data for the period September 1979 thru February 1980.

# Table 7. Percent Change in Sales and Inventories of Merchant Wholesalers and Sampling Errors, by Kind of Business for Geographic Divisions: July 1981

(BASED ON DATA NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES)

| 1972 SIC CODE | KIND OF BUSINESS AND GEOGRAPHIC DIVISION[1] | PERCENT CHANGE IN-- SALES: JULY 1981 FROM JUNE 1981 | SALES: JULY 1981 FROM JULY 1980 | SALES: 7 MOS. 1981 FROM 7 MOS. 1980 | INVENTORIES: JULY 1981 FROM JUNE 1981 | INVENTORIES: JULY 1981 FROM JULY 1980 | SAMPLING ERRORS OF THE RATIO CORRESPONDING TO THE PERCENT CHANGE IN COLUMNS[2]-- | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | A | B | C | D | E | A | B | D | E |
| | MERCHANT WHOLESALERS, TOTAL | -2 | +12 | +17 | 0 | +8 | 0.7 | 1.2 | 0.3 | 0.9 |
| | NEW ENGLAND | +3 | +11 | +9 | +2 | +12 | 2.1 | 4.8 | 0.9 | 4.2 |
| | MIDDLE ATLANTIC | -3 | +9 | +10 | -2 | +6 | 1.7 | 3.2 | 0.8 | 2.6 |
| | EAST NORTH CENTRAL | -4 | +10 | +12 | +1 | +7 | 1.3 | 2.5 | 0.5 | 2.4 |
| | WEST NORTH CENTRAL | -3 | +11 | +21 | +1 | +1 | 1.4 | 2.4 | 0.8 | 2.2 |
| | SOUTH ATLANTIC | 0 | +13 | +12 | 0 | +7 | 1.1 | 2.4 | 0.6 | 2.0 |
| | EAST SOUTH CENTRAL | -2 | +7 | +9 | -2 | +8 | 2.3 | 3.4 | 0.9 | 2.8 |
| | WEST SOUTH CENTRAL | -5 | +10 | +36 | +1 | +16 | 2.0 | 4.5 | 0.8 | 2.5 |
| | MOUNTAIN | -2 | +35 | +26 | 0 | +24 | 2.1 | 3.4 | 1.1 | 3.4 |
| | PACIFIC | +1 | +15 | +16 | -1 | +10 | 1.0 | 2.4 | 0.6 | 2.2 |
| 50 | DURABLE GOODS, TOTAL | -3 | +17 | +14 | 0 | +11 | 0.9 | 2.3 | 0.4 | 1.1 |
| | NEW ENGLAND | -8 | +2 | +5 | +3 | +12 | 4.3 | 10.7 | 1.1 | 6.0 |
| | MIDDLE ATLANTIC | -5 | +13 | +9 | -2 | +9 | 2.1 | 6.3 | 1.0 | 3.5 |
| | EAST NORTH CENTRAL | -7 | +20 | +14 | -1 | +10 | 1.6 | 3.1 | 0.6 | 3.2 |
| | WEST NORTH CENTRAL | +1 | +16 | +8 | 0 | +4 | 2.3 | 5.0 | 1.1 | 2.7 |
| | SOUTH ATLANTIC | -2 | +11 | +11 | 0 | +5 | 1.5 | 3.7 | 0.8 | 2.8 |
| | EAST SOUTH CENTRAL | 0 | +16 | +10 | 0 | +15 | 4.2 | 6.0 | 1.4 | 4.5 |
| | WEST SOUTH CENTRAL | -2 | +28 | +30 | +1 | +20 | 3.0 | 5.1 | 0.8 | 3.3 |
| | MOUNTAIN | -8 | +22 | +20 | 0 | +25 | 3.2 | 6.1 | 1.3 | 4.7 |
| | PACIFIC | -1 | +18 | +16 | 0 | +9 | 1.6 | 3.4 | 0.8 | 2.8 |
| 51 | NONDURABLE GOODS, TOTAL | -2 | +8 | +19 | 0 | +4 | 0.8 | 1.3 | 0.5 | 1.2 |
| | NEW ENGLAND | +10 | +16 | +11 | +2 | +11 | 1.9 | 3.8 | 1.2 | 4.5 |
| | MIDDLE ATLANTIC | -2 | +7 | +12 | -2 | +1 | 2.0 | 3.1 | 0.8 | 3.6 |
| | EAST NORTH CENTRAL | -1 | +3 | +10 | +3 | +1 | 2.1 | 2.8 | 1.0 | 3.3 |
| | WEST NORTH CENTRAL | -5 | +9 | +27 | +3 | -4 | 1.9 | 2.7 | 1.2 | 3.1 |
| | SOUTH ATLANTIC | +1 | +15 | +12 | +1 | +11 | 1.8 | 2.9 | 1.1 | 3.0 |
| | EAST SOUTH CENTRAL | -4 | +1 | +8 | -6 | -5 | 1.6 | 3.6 | 1.8 | 3.1 |
| | WEST SOUTH CENTRAL | -8 | +1 | +39 | 0 | +6 | 2.6 | 6.3 | 1.6 | 4.5 |
| | MOUNTAIN | +2 | +44 | +30 | -1 | +22 | 2.0 | 5.2 | 1.7 | 5.8 |
| | PACIFIC | +3 | +11 | +16 | -4 | +10 | 1.7 | 2.9 | 1.0 | 3.4 |
| 5013,4 | AUTOMOTIVE PARTS AND SUPPLIES, TIRES AND TUBES | -2 | +18 | +18 | -2 | +7 | 2 | 4 | 1 | 3 |
| | NEW ENGLAND | (S) | (S) | -6 | -8 | +2 | (*) | (*) | 3 | 14 |
| | MIDDLE ATLANTIC | -6 | +16 | +26 | -1 | +7 | 4 | 8 | 1 | 7 |
| | EAST NORTH CENTRAL | -3 | +28 | +14 | +2 | +16 | 3 | 8 | 1 | 5 |
| | WEST NORTH CENTRAL | +2 | +34 | +16 | -2 | +22 | 3 | 13 | 2 | 11 |
| | SOUTH ATLANTIC | 0 | +14 | +16 | 0 | +8 | 4 | 10 | 2 | 8 |
| | EAST SOUTH CENTRAL | -7 | +13 | +15 | +3 | +17 | 3 | 12 | 3 | 12 |
| | WEST SOUTH CENTRAL | +4 | +32 | +19 | -6 | +1 | 3 | 10 | 2 | 10 |
| | MOUNTAIN | -4 | (S) | +16 | +1 | (S) | 6 | (*) | 3 | (*) |
| | PACIFIC | -2 | +20 | +24 | -4 | -9 | 3 | 6 | 2 | 12 |
| 502 | FURNITURE AND HOME FURNISHINGS | -8 | +12 | +12 | +3 | +14 | 3 | 4 | 1 | 3 |
| | MIDDLE ATLANTIC | -5 | +4 | +10 | +1 | +10 | 6 | 10 | 1 | 8 |
| | EAST NORTH CENTRAL | -4 | +24 | -2 | +3 | +33 | 6 | 13 | 2 | 8 |
| | WEST NORTH CENTRAL | -17 | (S) | +3 | +9 | +26 | 6 | (*) | 3 | 10 |
| | WEST SOUTH CENTRAL | -16 | +20 | +27 | -1 | +3 | 4 | 10 | 2 | 10 |
| | PACIFIC | -8 | +17 | +24 | +7 | +11 | 6 | 12 | 2 | 10 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | -5 | -1 | +4 | -4 | +6 | 2 | 3 | 1 | 3 |
| | NEW ENGLAND | (S) | +3 | +8 | +6 | +24 | (*) | 14 | 3 | 12 |
| | MIDDLE ATLANTIC | -12 | -22 | -6 | -2 | -4 | 6 | 11 | 2 | 12 |
| | EAST NORTH CENTRAL | -6 | -5 | 0 | -3 | +12 | 4 | 8 | 2 | 9 |
| | WEST NORTH CENTRAL | +4 | -15 | -17 | -2 | -22 | 7 | 11 | 4 | 12 |
| | SOUTH ATLANTIC | -6 | +5 | +11 | -2 | +4 | 4 | 9 | 2 | 8 |
| | EAST SOUTH CENTRAL | +7 | -5 | +11 | -1 | +5 | 7 | 13 | 2 | 12 |
| | WEST SOUTH CENTRAL | -2 | +19 | +24 | -1 | +22 | 5 | 13 | 2 | 10 |
| | PACIFIC | -3 | -3 | +4 | -14 | +8 | 4 | 9 | 2 | 9 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | -7 | +53 | +32 | +3 | +28 | 3 | 4 | 1 | 3 |
| | NEW ENGLAND | (S) | (S) | +7 | +14 | (S) | 7 | (*) | 6 | (*) |
| | MIDDLE ATLANTIC | -16 | +42 | +24 | +7 | +53 | 6 | 9 | 2 | 12 |
| | EAST NORTH CENTRAL | -15 | +57 | +36 | 0 | +15 | 5 | 7 | 1 | 6 |
| | WEST NORTH CENTRAL | -4 | +20 | +18 | +8 | +21 | 5 | 10 | 2 | 9 |
| | SOUTH ATLANTIC | -1 | (S) | +42 | +1 | (S) | 5 | (*) | 2 | (*) |
| | EAST SOUTH CENTRAL | +6 | +72 | +22 | +2 | +26 | 3 | 11 | 2 | 14 |
| | WEST SOUTH CENTRAL | +6 | +85 | +68 | 0 | +32 | 4 | 10 | 2 | 9 |
| | MOUNTAIN | +2 | (S) | +30 | +7 | (S) | 3 | (*) | 3 | (*) |
| | PACIFIC | -11 | (S) | +16 | -2 | (S) | 5 | (*) | 4 | (*) |
| 5063 | ELECTRICAL APPARATUS AND EQUIPMENT, WIRING SUPPLIES, AND CONSTRUCTION MATERIALS | -6 | +10 | +14 | +1 | +14 | 3 | 4 | 1 | 3 |
| | NEW ENGLAND | -2 | +4 | +16 | 0 | +2 | 4 | 12 | 2 | 12 |
| | MIDDLE ATLANTIC | -11 | -1 | +16 | -1 | -4 | 4 | 11 | 2 | 7 |
| | EAST NORTH CENTRAL | -4 | +18 | +10 | +2 | +12 | 3 | 8 | 2 | 7 |
| | WEST NORTH CENTRAL | -10 | -11 | +4 | -2 | -9 | 5 | 12 | 3 | 12 |
| | SOUTH ATLANTIC | 0 | +21 | +7 | +1 | +29 | 3 | 8 | 2 | 8 |
| | EAST SOUTH CENTRAL | (S) | (S) | +16 | +1 | (S) | (*) | (*) | 3 | (*) |
| | WEST SOUTH CENTRAL | -12 | (S) | +42 | +7 | (S) | 7 | (*) | 3 | (*) |
| | MOUNTAIN | +1 | +5 | +4 | -4 | -7 | 4 | 14 | 2 | 11 |
| | PACIFIC | -4 | +15 | +8 | +1 | +28 | 4 | 10 | 2 | 6 |

See footnotes at end of table.

## Table 7. Percent Change in Sales and Inventories of Merchant Wholesalers and Sampling Errors, by Kind of Business for Geographic Divisions: July 1981—Continued

(BASED ON DATA NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES)

| 1972 SIC CODE | KIND OF BUSINESS AND GEOGRAPHIC DIVISION[1] | PERCENT CHANGE IN-- SALES: JULY 1981 FROM JUNE 1981 | SALES: JULY 1981 FROM JULY 1980 | SALES: 7 MOS. 1981 FROM 7 MOS. 1980 | INVENTORIES: JULY 1981 FROM JUNE 1981 | INVENTORIES: JULY 1981 FROM JULY 1980 | SAMPLING ERRORS OF THE RATIO CORRESPONDING TO THE PERCENT CHANGE IN COLUMNS[2]-- | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | A | B | C | D | E | A | B | D | E |
| 5064,5 | ELECTRICAL APPLIANCES, TV AND RADIO SETS, AND ELECTRONIC PARTS AND EQUIPMENT | -1 | +17 | +18 | 0 | +12 | 2 | 4 | 1 | 4 |
| | MIDDLE ATLANTIC | +2 | +17 | +21 | -1 | +10 | 4 | 9 | 2 | 10 |
| | EAST NORTH CENTRAL | +5 | +29 | +41 | -1 | +19 | 5 | 10 | 2 | 13 |
| | WEST NORTH CENTRAL | -1 | (S) | -10 | -1 | (S) | 5 | (*) | 2 | (*) |
| | SOUTH ATLANTIC | -6 | +8 | +22 | +10 | +18 | 4 | 12 | 2 | 7 |
| | WEST SOUTH CENTRAL | -10 | +1 | +3 | -1 | +19 | 4 | 13 | 2 | 12 |
| | MOUNTAIN | (S) | (S) | +14 | +2 | +25 | (*) | (*) | 3 | 13 |
| | PACIFIC | -5 | +23 | +7 | +1 | +2 | 7 | 11 | 3 | 9 |
| 5072 | HARDWARE | -2 | +18 | +12 | 0 | +16 | 2 | 3 | 1 | 3 |
| | NEW ENGLAND | -3 | -19 | -1 | -2 | -15 | 4 | 13 | 3 | 14 |
| | MIDDLE ATLANTIC | +5 | +47 | +22 | +2 | +40 | 3 | 9 | 2 | 11 |
| | EAST NORTH CENTRAL | -7 | +2 | -5 | -4 | -14 | 4 | 9 | 4 | 10 |
| | WEST NORTH CENTRAL | 0 | -3 | +4 | -1 | +14 | 4 | 7 | 2 | 6 |
| | SOUTH ATLANTIC | +1 | +18 | +15 | +3 | +28 | 3 | 8 | 2 | 10 |
| | EAST SOUTH CENTRAL | -10 | +11 | +12 | -1 | +10 | 4 | 10 | 2 | 9 |
| | PACIFIC | -5 | +19 | +16 | 0 | +20 | 3 | 10 | 2 | 11 |
| 5074 | PLUMBING AND HEATING EQUIPMENT AND SUPPLIES (HYDRONICS) | -4 | +13 | +14 | -1 | +3 | 2 | 5 | 1 | 9 |
| | MIDDLE ATLANTIC | -2 | +4 | +7 | 0 | (S) | 6 | 14 | 3 | (*) |
| | EAST NORTH CENTRAL | -22 | -3 | +16 | -2 | (S) | 7 | 14 | 2 | (*) |
| | SOUTH ATLANTIC | -1 | +16 | +9 | -1 | -2 | 3 | 11 | 2 | 9 |
| | MOUNTAIN | -3 | (S) | +15 | +1 | +23 | 4 | (*) | 2 | 14 |
| | PACIFIC | 0 | +31 | +17 | -1 | +11 | 4 | 14 | 2 | 11 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, AND SUPPLIES | -6 | +29 | +22 | +2 | +15 | 2 | 5 | 1 | 3 |
| | MIDDLE ATLANTIC | -8 | +29 | +18 | -1 | -3 | 5 | 9 | 2 | 7 |
| | EAST NORTH CENTRAL | -12 | +25 | +10 | -3 | +10 | 4 | 6 | 1 | 6 |
| | WEST SOUTH CENTRAL | -2 | (S) | +49 | +4 | +25 | 4 | (*) | 1 | 6 |
| | PACIFIC | -3 | +18 | +16 | +2 | +14 | 3 | 8 | 2 | 8 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | +4 | +21 | +21 | +1 | +15 | 2 | 3 | 1 | 4 |
| | NEW ENGLAND | -9 | -4 | -5 | +11 | +5 | 3 | 12 | 3 | 14 |
| | MIDDLE ATLANTIC | +9 | +21 | +19 | -5 | -10 | 4 | 8 | 2 | 7 |
| | EAST NORTH CENTRAL | +2 | +10 | +9 | +7 | +13 | 4 | 8 | 2 | |
| | WEST NORTH CENTRAL | +5 | +26 | +17 | 0 | +36 | 5 | 12 | 2 | |
| | SOUTH ATLANTIC | +11 | +30 | +36 | +3 | +31 | 2 | 10 | 2 | |
| | EAST SOUTH CENTRAL | -9 | +2 | +17 | -6 | +15 | 2 | 9 | 2 | 10 |
| | WEST SOUTH CENTRAL | +3 | +39 | +39 | 0 | +23 | 2 | 12 | 2 | 14 |
| | MOUNTAIN | 0 | +25 | (S) | 0 | +22 | 1 | 7 | 1 | 6 |
| | PACIFIC | +3 | +29 | +20 | +5 | (S) | 2 | 13 | 1 | (*) |
| 5141 | GROCERIES, GENERAL-LINE | +3 | +8 | +12 | -2 | +11 | 1 | 2 | 0 | 2 |
| | NEW ENGLAND | +1 | -1 | +9 | -3 | +9 | 2 | 6 | 2 | 7 |
| | MIDDLE ATLANTIC | +4 | +7 | +9 | +2 | +13 | 1 | 3 | 1 | 7 |
| | EAST NORTH CENTRAL | +3 | +8 | +12 | -2 | +9 | 1 | 4 | 1 | 5 |
| | WEST NORTH CENTRAL | +5 | +21 | +19 | +1 | +19 | 2 | 5 | 2 | 7 |
| | SOUTH ATLANTIC | +3 | +3 | +6 | -4 | +6 | 2 | 5 | 1 | 4 |
| | WEST SOUTH CENTRAL | 0 | +8 | +20 | -2 | +10 | 2 | 7 | 2 | 6 |
| | MOUNTAIN | +6 | +21 | +19 | -5 | +23 | 2 | 6 | 2 | 9 |
| | PACIFIC | +2 | +2 | +10 | -4 | +5 | 0 | 3 | 1 | 3 |
| 5142,3,6,9 | SPECIALTY-LINE GROCERIES | +1 | +11 | +17 | -1 | +21 | 1 | 3 | 1 | 4 |
| | MIDDLE ATLANTIC | -4 | +2 | +8 | -6 | +21 | 2 | 5 | 2 | 7 |
| | EAST NORTH CENTRAL | +2 | +1 | +18 | +2 | +8 | 3 | 6 | 1 | 6 |
| | WEST NORTH CENTRAL | -3 | +42 | +53 | -2 | +22 | 3 | 5 | 1 | 6 |
| | SOUTH ATLANTIC | +9 | +44 | +10 | +11 | +41 | 4 | 13 | 2 | 13 |
| | EAST SOUTH CENTRAL | -3 | -2 | +27 | -3 | -19 | 4 | 12 | 2 | 13 |
| 5148 | FRESH FRUITS AND VEGATABLES | -5 | +12 | +18 | +1 | (S) | 2 | 3 | 2 | 7 |
| | MIDDLE ATLANTIC | +5 | +15 | +22 | +3 | +27 | 3 | 9 | 5 | 14 |
| | EAST NORTH CENTRAL | -1 | +9 | +23 | 0 | +66 | 3 | 8 | 3 | 10 |
| | WEST NORTH CENTRAL | -1 | +36 | +24 | -4 | (S) | 4 | 14 | 3 | (*) |
| | WEST SOUTH CENTRAL | -5 | +7 | +28 | 0 | (S) | 7 | 13 | 3 | (*) |
| | PACIFIC | -1 | +8 | +12 | +3 | +48 | 6 | 9 | 2 | 10 |
| 5194 | TOBACCO AND TOBACCO PRODUCTS | +8 | +11 | +9 | 0 | +21 | 1 | 4 | 1 | 5 |
| | NEW ENGLAND | +7 | -2 | -5 | 0 | (S) | 3 | 14 | 3 | (*) |
| | MIDDLE ATLANTIC | +15 | +20 | +18 | -2 | (S) | 4 | 14 | 3 | (*) |
| | EAST NORTH CENTRAL | 0 | +11 | +8 | +1 | +17 | 2 | 10 | 2 | 11 |
| | WEST NORTH CENTRAL | 0 | (S) | +11 | +2 | (S) | 6 | (*) | 6 | (*) |
| | SOUTH ATLANTIC | +22 | +45 | +16 | +18 | +40 | 4 | 14 | 3 | 12 |
| | EAST SOUTH CENTRAL | +28 | (S) | +11 | -6 | (S) | 3 | (*) | 4 | (*) |
| | WEST SOUTH CENTRAL | +2 | (S) | -12 | -4 | -12 | 3 | (*) | 4 | 11 |
| | MOUNTAIN | +9 | (S) | +18 | -13 | (S) | 3 | (*) | 5 | (*) |
| | PACIFIC | +1 | +5 | +5 | +1 | +23 | 2 | 10 | 3 | 12 |

Note: Data at the United States level are generally more reliable than data by geographic division. In those kinds of business where the geographic division trends are subject to a high sampling error, it may be desirable to use the United States total trends for the kinds of business rather than the geographic division trends.

(S) Does not meet publication standards because of extreme variability or high nonresponse rate.

[1] See map on page 8.

[2] The sampling errors (in percent) shown in columns A, B, D, and E are based on medians or measurements on data for September 1979 through February 1980.

# Appendix A. Reliability of Data

There are two types of errors possible in an estimate based on a sample survey—sampling and nonsampling. Sampling errors occur because observations are made only on a sample, not on the entire population. Nonsampling errors can be attributed to many sources in the collection and processing of data. The accuracy of a survey result is determined by the joint effects of sampling and nonsampling errors.

**Measures of Sampling Variability.** The particular sample used in this survey is one of a large number of all possible samples of the same size that could have been selected using the same design. Estimates derived from the different samples would differ from each other. The average of these estimates would be close to the estimate derived from a complete enumeration of the population (assuming that a complete enumeration has the same nonsampling errors as the sample survey). The average of the estimates differs from the estimate from a complete census because of the composite estimation technique. Disregarding this difference, the sampling error or standard error of the estimate is a measure of the variability among the estimates from all possible samples of the same size and design and, thus, is a measure of the precision with which an estimate from a particular sample approximates the results of a complete enumeration. The coefficient of variation (expressed as a percent) is the standard error of the estimate times 100 percent, divided by the value being estimated. Note that any measures of sampling variability, such as the standard error or coefficient of variation, are estimates derived from the sample and are also subject to sampling variability.

Estimates of sampling variability (the coefficients of variation in percent) for sales and inventories at the kind-of-business detail provided in this publication are shown in table A-1. These coefficients of variation permit certain confidence statements about the sample estimates. As noted above, the particular sample used in this survey is one of a large number of all possible samples of about the same size that could have been selected using the same design. In about two out of three (67 percent) of these samples, the estimate would differ from a complete enumeration by less than the corresponding percent for that estimate shown in the sampling variability table. In about 19 out of 20 (95 percent) of these samples, the estimate would differ from the results of a complete enumeration by less than twice the percentages shown.

To illustrate the computations involved in the above confidence statements for monthly dollar volume estimates, assume that an estimate for a kind of business published in table 1 for a particular month is $5,000 million and that the median coefficient of variation for this statistic, is 0.9 percent or 0.009. Multiplying $5,000 million by 0.009 yields $45 million. Therefore, a 67-percent confidence interval is $4,955 million to $5,045 million (i.e. $5,000 million plus or minus $45 million). If corresponding confidence intervals were constructed for all possible samples of the same size and design, approximately 2 out of 3 (67 percent) of these intervals would contain the figure obtained from a complete enumeration. Similarly, a 95-percent confidence interval is $4,910 million to $5,090 million (i.e., $5,000 million plus or minus $90 million).

As an example of the use of the coefficients of variation with ratios, assume that an estimated month-to-month percent change published in table 5 is -1.0 percent for a particular kind of business. This is equivalent to a month-to-month ratio of 0.990. Then assume the median coefficient of variation for this ratio as shown in table A-1 is 0.5 percent (or 0.005). Multiplying 0.990 by 0.005 yields 0.005. Therefore, a 67-percent confidence interval is 0.985 to 0.995 (i.e., 0.990 plus or minus 0.005) and a 95-percent confidence interval is 0.980 to 1.000 (i.e., 0.990 plus or minus 0.010).

**Nonsampling Errors.** As calculated for this report, the coefficient of variation measures certain nonsampling errors but does not measure any systematic biases in the data. Bias is the difference, averaged over all possible samples of the same size and design, between the estimate and the true value being estimated. The accuracy of the tabulated data is determined by the joint effects of the sampling and nonsampling errors.

Nonsampling errors can be attributed to many sources: (1) inability to obtain information about all cases in the sample, (2) response errors, (3) definitional difficulties, (4) differences in the interpretation of questions, (5) mistakes in recording or coding the data obtained, and (6) other errors of collection, response, coverage, and estimation for missing data. These nonsampling errors also occur in complete censuses.

Although no direct measurement of the biases due to nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

A major source of bias in the published estimates is due to imputing data for nonrespondents, for late reporters, and for data which fail edit. For all kinds of business combined, imputed data amount to about 15 percent of the sales estimates and 25 percent for inventories.

# Table A-1. Estimated Sampling Variability of Sales and Inventories by Kind of Business for the United States

(Coefficients of variation in percent)

| 1972 SIC code | Kind of business | SALES | | | | | | INVENTORIES | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Preliminary sampling error of the monthly dollar estimates | | Final sampling error of the monthly dollar estimates | | Median sampling error of the ratio of: | | Preliminary sampling error of the monthly dollar estimates | | Final sampling error of the monthly dollar estimates | | Median sampli error of the ratio of: | |
| | | Range | Median | Range | Median | Two consecutive months | Same month a year ago | Range | Median | Range | Median | Two consecutive months | Same month a year ago |
| | Merchant wholesalers, total | 1.4-1.8 | 1.6 | 1.4-1.6 | 1.5 | 0.6 | 1.0 | 1.3-1.5 | 1.4 | 1.2-1.4 | 1.4 | 0.3 | 0.9 |
| | Total (excluding farm-product raw materials) | 1.4-1.9 | 1.6 | 1.3-1.6 | 1.4 | 0.6 | 1.1 | 1.4-1.7 | 1.5 | 1.2-1.5 | 1.5 | 0.3 | 0.9 |
| 50 | Durable goods, total | 1.5-3.2 | 2.0 | 1.4-2.4 | 1.6 | 1.0 | 1.7 | 1.0-1.5 | 1.4 | 1.0-1.4 | 1.3 | 0.4 | 1.1 |
| 501 | Motor vehicles and automotive parts and supplies | 3.6-4.6 | 3.9 | 3.2-4.4 | 3.6 | 1.7 | 2.8 | 2.2-3.5 | 3.0 | 2.6-3.5 | 2.7 | 0.8 | 2.6 |
| 5012 | Automobiles and other motor vehicles | (*) | (*) | (*) | (*) | 2.8 | 5.4 | (*) | (*) | (*) | (*) | 1.8 | 5.5 |
| 5013,4 | Automotive parts and supplies, tires and tubes | 3.3-4.7 | 4.0 | 3.0-4.9 | 3.6 | 1.7 | 3.1 | 3.0-4.1 | 3.7 | 2.8-3.9 | 3.4 | 1.2 | 3.0 |
| 5013 | Automotive parts and supplies | 3.8-5.9 | 4.7 | 3.6-5.9 | 4.2 | 2.1 | 3.8 | 3.8-5.0 | 4.5 | 3.5-4.6 | 4.2 | 1.3 | 3.2 |
| 502 | Furniture and home furnishings | 4.7-7.0 | 5.7 | 4.3-6.1 | 5.1 | 2.9 | 4.0 | 4.0-4.6 | 4.2 | 3.9-4.5 | 4.2 | 0.9 | 3.3 |
| 5021 | Furniture--household and office | 4.9-6.5 | 6.0 | 4.3-7.1 | 6.0 | 4.1 | 5.7 | (*) | (*) | (*) | (*) | 1.5 | 5.1 |
| 5021 pt. | Household furniture | (*) | (*) | (*) | (*) | 6.2 | 11.2 | (*) | (*) | (*) | (*) | 1.5 | 8.7 |
| 5021 pt. | Office furniture | (*) | (*) | (*) | (*) | 4.9 | 6.5 | (*) | (*) | (*) | (*) | 1.9 | 5.2 |
| 5023 | Home furnishings | 6.7-9.2 | 7.6 | 5.5-8.1 | 6.6 | 3.3 | 5.1 | 5.0-6.3 | 5.6 | 5.0-6.1 | 5.7 | 1.1 | 4.5 |
| 503 | Lumber and other construction materials | 4.2-5.8 | 4.8 | 4.4-5.4 | 4.7 | 2.3 | 3.5 | 5.0-6.7 | 5.6 | 5.0-6.6 | 5.9 | 0.9 | 2.9 |
| 5031 | Lumber, plywood, and millwork | 5.7-7.7 | 6.3 | 5.1-6.6 | 5.9 | 3.3 | 4.5 | 7.0-9.0 | 7.9 | 7.2-8.6 | 8.1 | 1.2 | 3.6 |
| 5039 | Construction materials, n.e.c. | 5.0-6.9 | 6.0 | 5.1-6.5 | 5.7 | 3.1 | 5.9 | (*) | (*) | (*) | (*) | 1.1 | 4.8 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | (*) | (*) | (*) | (*) | 3.5 | 5.1 | (*) | (*) | (*) | (*) | 1.6 | 4.6 |
| 505 | Metals and minerals, except petroleum | 4.3-16.8 | 8.7 | 5.1-14.4 | 8.2 | 2.4 | 5.4 | 6.2-9.3 | 7.6 | 5.7-10.2 | 8.1 | 1.2 | 5.2 |
| 5051 pt. | Ferrous metals service centers and offices | 4.3-6.2 | 5.2 | 3.9-6.5 | 4.6 | 2.5 | 3.3 | 3.9-4.7 | 4.3 | 4.0-4.5 | 4.2 | 0.8 | 3.0 |
| 5051 pt. | Ferrous metals service centers | 4.8-7.1 | 5.1 | 4.9-5.2 | 5.1 | 2.8 | 3.6 | 2.8-5.5 | 4.6 | 3.1-4.8 | 4.0 | 0.9 | 3.4 |
| 5051 pt. | Nonferrous metals service centers and offices | (*) | (*) | (*) | (*) | 4.1 | 23.3 | (*) | (*) | (*) | (*) | 5.2 | 22.5 |
| 506 | Electrical goods | 3.8-5.0 | 4.1 | 3.3-4.6 | 3.6 | 2.3 | 3.0 | 3.2-4.8 | 3.5 | 3.3-4.6 | 3.5 | 0.7 | 2.8 |
| 5063 | Electrical apparatus and equipment, wiring supplies, and construction materials | 3.7-6.7 | 4.5 | 3.3-6.9 | 4.1 | 3.1 | 4.5 | 3.2-5.1 | 3.5 | 3.2-4.5 | 3.3 | 0.8 | 2.9 |
| 5064,5 | Electrical appliances, TV and radio sets, and electronic parts and equipment | 5.2-7.4 | 6.0 | 5.0-6.6 | 5.6 | 2.8 | 4.4 | 3.9-6.9 | 4.4 | 3.8-6.5 | 4.7 | 1.2 | 4.1 |
| 5064 | Electrical appliances, TV and radio sets | 4.9-8.2 | 6.4 | 5.1-6.7 | 5.5 | 2.8 | 4.3 | (*) | (*) | (*) | (*) | 1.3 | 5.0 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 3.1-4.5 | 3.5 | 2.9-3.7 | 3.3 | 1.6 | 2.3 | 2.8-4.2 | 3.6 | 2.9-4.2 | 3.5 | 0.8 | 3.8 |
| 5072 | Hardware | 2.6-3.8 | 3.6 | 2.8-3.9 | 3.2 | 1.6 | 2.9 | 4.7-6.3 | 5.6 | 4.5-6.1 | 5.7 | 1.3 | 3.5 |
| 5074 | Plumbing and heating equipment and supplies (hydronics) | 5.4-7.7 | 6.4 | 5.1-6.6 | 5.9 | 2.9 | 5.4 | 5.0-6.0 | 5.4 | 4.7-5.6 | 5.3 | 1.3 | 8.6 |
| 5075 | Warm air heating and air conditioning equipment and supplies | (*) | (*) | (*) | (*) | 4.1 | 5.7 | (*) | (*) | (*) | (*) | 1.2 | 5.1 |
| 508 | Machinery, equipment, and supplies | 2.9-4.5 | 3.3 | 2.6-3.2 | 2.8 | 1.8 | 3.3 | 1.8-2.4 | 2.2 | 1.8-2.3 | 2.1 | 0.4 | 1.8 |
| 5081 | Commercial machines and equipment | (*) | (*) | (*) | (*) | 4.4 | 6.6 | (*) | (*) | (*) | (*) | 1.5 | 5 |
| 5082 | Construction and mining machinery and equipment | 4.8-6.6 | 5.4 | 4.1-5.1 | 4.5 | 3.9 | 5.4 | 3.8-5.3 | 4.2 | 3.9-4.9 | 4.1 | 1.1 | 4. |
| 5083 | Farm and garden machinery and equipment | (*) | (*) | (*) | (*) | 6.0 | 9.8 | (*) | (*) | (*) | (*) | 1.4 | 4. |
| 5084,5 | Industrial machinery, equipment, and supplies | 3.2-4.1 | 3.3 | 2.4-3.4 | 2.8 | 2.5 | 4.9 | 3.2-4.2 | 3.8 | 3.1-3.8 | 3.5 | 0.6 | 2.5 |
| 5086 | Professional equipment and supplies | (*) | (*) | (*) | (*) | 2.7 | 4.7 | (*) | (*) | (*) | (*) | 1.1 | 5.2 |
| 5093 | Scrap and waste materials | 4.2-5.4 | 5.1 | 4.2-5.3 | 4.7 | 2.2 | 3.9 | (*) | (*) | (*) | (*) | 1.3 | 3.2 |
| 5093 pt. | Iron and steel scrap | (*) | (*) | (*) | (*) | 2.2 | 5.0 | (*) | (*) | (*) | (*) | 1.5 | 4.3 |
| 5093 pt. | Waste materials | (*) | (*) | (*) | (*) | 3.9 | 6.9 | (*) | (*) | (*) | (*) | 2.2 | 5.4 |
| 51 | Nondurable goods, total | 1.8-2.1 | 1.9 | 1.6-2.0 | 1.9 | 0.8 | 1.2 | 2.6-3.0 | 2.8 | 2.6-2.8 | 2.7 | 0.5 | 1.3 |
| | Total (excluding farm-product raw materials) | 1.9-2.4 | 2.1 | 1.7-2.3 | 2.0 | 0.9 | 1.4 | 3.3-3.6 | 3.5 | 3.2-3.5 | 3.3 | 0.4 | 1.4 |
| 511 | Paper and paper products | 4.6-7.7 | 5.2 | 4.5-6.9 | 4.9 | 1.5 | 3.0 | 4.6-7.3 | 6.3 | 4.6-7.1 | 5.9 | 0.8 | 3.4 |
| 5111,3 | Printing, writing, industrial, and personal service paper | 3.0-5.1 | 3.3 | 3.0-4.6 | 3.2 | 1.1 | 2.3 | 5.0-6.9 | 6.4 | 4.9-6.9 | 6.3 | 0.8 | 3.1 |
| 5111 | Printing and writing paper | 2.6-3.9 | 2.8 | 2.4-3.4 | 2.7 | 1.3 | 2.7 | 3.9-4.9 | 4.3 | 3.7-4.8 | 4.2 | 0.7 | 3.2 |
| 5113 | Industrial and personal service paper | 4.4-7.7 | 5.0 | 4.4-6.8 | 4.5 | 1.9 | 4.8 | 7.3-11.4 | 9.9 | 6.9-11.2 | 9.7 | 1.3 | 4.2 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 2.3-3.1 | 2.7 | 2.2-2.9 | 2.7 | 1.5 | 3.1 | 3.6-5.1 | 4.4 | 4.0-5.1 | 4.6 | 1.4 | 4.0 |
| 5122 | Drugs, drug proprietaries, and druggists' sundries | 2.3-3.1 | 2.7 | 2.2-2.9 | 2.7 | 1.5 | 3.1 | (*) | (*) | (*) | (*) | 1.4 | 4.0 |
| 5122 pt. | General-line drugs | 6.0-6.9 | 6.6 | 6.0-6.9 | 6.6 | 1.1 | 4.1 | (*) | (*) | (*) | (*) | 0.9 | 6.6 |
| 513 | Apparel, piece goods, and notions | 12.0-15.7 | 13.2 | 10.9-14.6 | 13.4 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |
| 514 | Groceries and related products | 1.7-2.4 | 2.2 | 1.8-2.3 | 2.1 | 0.5 | 1.3 | 1.6-2.2 | 1.8 | 1.6-2.0 | 1.8 | 0.4 | 1.6 |
| 5141 | Groceries, general-line | 2.6-3.4 | 3.3 | 2.8-3.3 | 3.1 | 0.6 | 1.7 | 1.9-2.8 | 2.2 | 1.7-2.7 | 1.9 | 0.5 | 1.7 |
| 5141 pt. | Voluntary groups | (*) | (*) | (*) | (*) | 0.7 | 2.1 | (*) | (*) | (*) | (*) | 0.7 | 2.8 |
| 5141 pt. | Retailer cooperatives | (*) | (*) | (*) | (*) | 0.6 | 1.8 | (*) | (*) | (*) | (*) | 0.6 | 2.3 |
| 5141 pt. | Other general-lines | (*) | (*) | (*) | (*) | 1.3 | 2.8 | (*) | (*) | (*) | (*) | 1.0 | 3.7 |
| 5142,3,6,9 | Specialty-line groceries | (*) | (*) | (*) | (*) | 1.2 | 3.3 | (*) | (*) | (*) | (*) | 1.0 | 3.6 |
| 5144 | Poultry and poultry products | 5.6-7.2 | 6.5 | 5.4-7.2 | 6.7 | 1.8 | 3.2 | (*) | (*) | (*) | (*) | 1.5 | 5.2 |
| 5145 | Confectionery | 5.1-12.9 | 6.7 | 4.8-9.5 | 6.6 | 2.7 | 5.5 | (*) | (*) | (*) | (*) | 1.7 | 4.0 |
| 5147 | Meats and meat products | 5.6-7.0 | 6.8 | 5.4-6.9 | 6.5 | 1.5 | 4.2 | (*) | (*) | (*) | (*) | 1.4 | 6.3 |
| 5148 | Fresh fruits and vegetables | 4.0-5.7 | 4.4 | 3.5-5.0 | 4.7 | 2.3 | 3.2 | (*) | (*) | (*) | (*) | 2.6 | 6.2 |
| 515 | Farm-product raw materials | 2.6-5.2 | 3.0 | 2.1-4.6 | 3.4 | 2.3 | 2.9 | (*) | (*) | (*) | (*) | 1.5 | 4.0 |
| 5152 | Cotton | (*) | (*) | (*) | (*) | 6.9 | 10.2 | (*) | (*) | (*) | (*) | 1.0 | 2.5 |
| 5153 | Grain | 3.2-5.9 | 3.8 | 2.6-5.3 | 3.9 | 2.5 | 3.3 | (*) | (*) | (*) | (*) | 1.7 | 5.0 |
| 517 | Petroleum and petroleum products | 5.1-7.8 | 7.1 | 4.9-8.0 | 6.2 | 2.0 | 4.1 | 5.6-6.5 | 5.8 | 5.1-6.1 | 5.6 | 1.7 | 3.3 |
| 5171 | Petroleum bulk stations and terminals | 3.5-5.1 | 4.0 | 3.1-4.2 | 3.9 | 1.7 | 3.7 | (*) | (*) | (*) | (*) | 2.1 | 3.9 |
| 518 | Beer, wine, and distilled alcoholic beverages | 4.5-5.9 | 4.9 | 4.3-5.5 | 4.9 | 1.2 | 3.0 | 3.8-5.0 | 4.2 | 3.9-5.0 | 4.3 | 1.4 | 3.2 |
| 5181 | Beer and ale | 5.2-6.1 | 5.8 | 5.4-6.2 | 5.7 | 1.4 | 3.5 | 7.9-10.2 | 8.1 | 7.7-9.9 | 8.8 | 2.7 | 4.7 |
| 5182 | Wine and distilled alcoholic beverages | 5.1-7.2 | 5.7 | 5.1-6.9 | 5.7 | 1.9 | 4.1 | 3.4-5.0 | 4.4 | 3.7-4.6 | 4.0 | 1.3 | 4.5 |
| 519 | Miscellaneous nondurable goods | 2.5-4.9 | 3.9 | 2.5-3.9 | 3.4 | 1.9 | 3.2 | (*) | (*) | (*) | (*) | 0.9 | 2.7 |
| 5191 | Farm supplies | (*) | (*) | (*) | (*) | 4.4 | 5.7 | (*) | (*) | (*) | (*) | 1.6 | 4.5 |
| 5194 | Tobacco and tobacco products | 5.6-6.7 | 6.1 | 5.3-6.8 | 5.8 | 1.3 | 3.9 | (*) | (*) | (*) | (*) | 1.3 | 4.7 |
| 5198 | Paints, varnishes, and supplies | (*) | (*) | (*) | (*) | 2.4 | 6.8 | (*) | (*) | (*) | (*) | 1.1 | 5.8 |
| 5199 pt. | Books, periodicals, newspapers | (*) | (*) | (*) | (*) | 6.6 | 17.4 | (*) | (*) | (*) | (*) | 1.4 | 14.4 |

Note: Measures of sampling variability are based on data unadjusted for seasonal variations or trading-day differences. The range of sampling error of the monthly dollar estimates and the ratio of current month to previous month for sales and inventories is based on data for August 1979 through January 1980.

* Measures of sampling variability are not shown since sales and/or inventory estimates for these kinds of business are not published.

# Appendix B. Adjustment for Seasonal and Trading-Day Variations

Seasonal factors for adjusting data in this historical publication have been developed by the method described in the *X-11 Variant of the Census Method II Seasonal Adjustment Program,* U.S. Bureau of the Census Technical Paper No. 15, Revised 1967. Trading-day factors for adjusting sales were also derived from the X-11 program.

Adjustment of estimates is an approximation based on past experiences, and therefore, will be less precise to the extent that current competitive pressures, changes in economic condition, and other elements introduce significant changes in seasonal and trading-day patterns.

A description of trading-day adjustment factors may be found in *Estimating Trading-Day Variation in Monthly Economic Time Series,* Bureau of the Census Technical Paper No. 12, 1965. Additional details concerning the adjustment factors may be obtained from the Chief, Business Division, Bureau of the Census, Washington, D.C. 20233.

Table B-1. **Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers: January 1980-December 1981**

| 1972 SIC code | Kind of business | 1980 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| | | Seasonal and trading-day adjustment factors for sales | | | | | | | | | | | |
| | Merchant wholesalers, total | 96.2 | 95.1 | 101.4 | 102.6 | 103.3 | 100.1 | 101.1 | 99.4 | 100.5 | 106.6 | 96.5 | 101.1 |
| | Total (excluding farm-product raw materials) | 94.8 | 94.7 | 101.4 | 102.9 | 103.5 | 100.9 | 102.0 | 100.0 | 101.8 | 106.0 | 95.6 | 100.0 |
| 50 | Durable goods, total | 90.4 | 92.6 | 101.9 | 103.6 | 104.0 | 102.3 | 101.9 | 102.4 | 103.3 | 108.6 | 94.3 | 98.3 |
| 501 | Motor vehicle and automotive parts and supplies | 95.6 | 94.3 | 104.7 | 111.7 | 108.1 | 101.6 | 102.6 | 100.1 | 93.2 | 104.6 | 91.8 | 95.4 |
| 502 | Furniture and home furnishings | 89.7 | 93.0 | 101.5 | 103.4 | 99.4 | 99.4 | 96.7 | 99.1 | 103.8 | 115.9 | 101.9 | 100.8 |
| 503 | Lumber and other construction materials | 81.7 | 83.3 | 93.2 | 99.7 | 104.8 | 107.5 | 110.0 | 111.8 | 111.6 | 116.0 | 94.1 | 90.1 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 81.0 | 85.5 | 97.7 | 100.6 | 94.0 | 96.8 | 112.6 | 104.2 | 109.8 | 112.7 | 108.0 | 101.4 |
| 505 | Metals and minerals, except petroleum | 96.4 | 97.9 | 106.9 | 102.5 | 101.0 | 101.6 | 98.1 | 103.2 | 102.4 | 103.3 | 93.8 | 97.6 |
| 506 | Electrical goods | 91.7 | 90.4 | 99.0 | 95.5 | 98.5 | 102.0 | 102.9 | 101.8 | 105.8 | 109.9 | 101.4 | 105.0 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 93.5 | 87.9 | 96.2 | 103.1 | 104.6 | 104.1 | 107.7 | 103.3 | 102.4 | 111.6 | 95.9 | 93.7 |
| 508 | Machinery, equipment, and supplies | 90.0 | 92.5 | 102.4 | 104.9 | 106.8 | 103.4 | 100.9 | 100.4 | 104.9 | 107.3 | 91.4 | 98.6 |
| 509 | Miscellaneous durable goods | 91.8 | 97.5 | 108.3 | 102.0 | 98.0 | 95.1 | 91.6 | 100.4 | 108.1 | 112.4 | 96.5 | 101.0 |
| 51 | Nondurable goods, total | 99.9 | 96.1 | 101.2 | 100.9 | 102.4 | 99.4 | 100.8 | 97.2 | 98.7 | 105.3 | 98.2 | 104.0 |
| | Total (excluding farm-product raw materials) | 98.7 | 96.5 | 101.1 | 101.5 | 102.9 | 100.5 | 100.9 | 98.7 | 99.8 | 104.0 | 97.0 | 102.2 |
| 511 | Paper and paper products | 101.1 | 97.3 | 101.0 | 100.9 | 100.8 | 98.2 | 100.6 | 99.6 | 101.6 | 107.8 | 94.9 | 100.6 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 98.9 | 93.2 | 99.8 | 101.6 | 99.1 | 97.7 | 101.9 | 98.1 | 103.2 | 112.3 | 96.3 | 102.0 |
| 513 | Apparel, piece goods, and notions | 95.8 | 94.5 | 100.4 | 97.1 | 93.0 | 90.8 | 103.4 | 110.1 | 113.5 | 113.8 | 99.3 | 93.4 |
| 514 | Groceries and related products | 99.6 | 94.8 | 100.3 | 102.2 | 104.4 | 99.1 | 103.4 | 99.1 | 99.4 | 104.3 | 97.0 | 101.1 |
| 515 | Farm-product raw materials[1] | 102.8 | 96.7 | 102.6 | 101.9 | 104.5 | 93.7 | 96.2 | 92.8 | 96.0 | 108.9 | 102.1 | 106.7 |
| 516 | Chemicals and allied products | 96.8 | 92.8 | 99.3 | 97.3 | 104.8 | 104.5 | 91.3 | 103.3 | 98.6 | 110.6 | 100.8 | 104.8 |
| 517 | Petroleum and petroleum products | 106.1 | 104.2 | 99.6 | 97.4 | 99.7 | 96.6 | 97.9 | 97.6 | 96.9 | 101.1 | 102.5 | 104.4 |
| 518 | Beer, wine, and distilled alcoholic beverages | 84.1 | 85.8 | 94.4 | 99.5 | 103.5 | 106.6 | 106.3 | 103.4 | 98.7 | 106.5 | 97.8 | 117.7 |
| 519 | Miscellaneous nondurable goods | 95.2 | 94.8 | 109.2 | 107.8 | 115.1 | 104.8 | 95.0 | 93.3 | 99.2 | 98.9 | 91.7 | 96.7 |
| | | Seasonal adjustment factors for inventories | | | | | | | | | | | |
| | Merchant wholesalers, total | 100.3 | 101.6 | 102.4 | 101.4 | 100.3 | 99.1 | 98.4 | 98.3 | 98.3 | 99.9 | 100.4 | 99.9 |
| | Total (excluding farm-product raw materials) | 98.8 | 100.1 | 101.4 | 101.3 | 100.9 | 100.8 | 100.6 | 99.6 | 99.3 | 99.6 | 99.4 | 98.6 |
| 50 | Durable goods, total | 98.6 | 99.9 | 100.9 | 100.9 | 101.4 | 101.8 | 101.4 | 100.4 | 99.4 | 98.9 | 98.4 | 98.3 |
| 501 | Motor vehicles and automotive parts and supplies | 101.4 | 104.4 | 102.6 | 100.9 | 101.6 | 100.1 | 99.4 | 97.3 | 95.4 | 98.1 | 98.9 | 100.1 |
| 502 | Furniture and home furnishings | 98.1 | 98.1 | 100.9 | 99.9 | 100.4 | 102.9 | 101.6 | 100.3 | 102.4 | 100.6 | 98.3 | 96.9 |
| 503 | Lumber and other construction materials | 97.8 | 99.1 | 103.3 | 102.8 | 102.8 | 102.4 | 102.4 | 100.3 | 98.9 | 98.1 | 96.1 | 96.9 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 95.1 | 99.1 | 100.1 | 103.9 | 102.3 | 106.3 | 106.1 | 101.4 | 101.3 | 99.9 | 93.6 | 91.3 |
| 505 | Metals and minerals, except petroleum | 98.4 | 97.1 | 98.6 | 97.8 | 102.4 | 100.9 | 102.1 | 105.4 | 101.4 | 97.6 | 99.9 | 98.4 |
| 506 | Electrical goods | 96.3 | 95.6 | 98.1 | 99.3 | 101.9 | 102.1 | 102.1 | 102.4 | 101.6 | 101.6 | 100.1 | 99.4 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 97.6 | 99.9 | 102.6 | 105.4 | 103.9 | 103.1 | 101.9 | 99.3 | 97.6 | 97.9 | 95.1 | 95.8 |
| 508 | Machinery, equipment, and supplies | 98.1 | 99.9 | 101.6 | 100.9 | 101.4 | 102.1 | 100.6 | 100.8 | 100.6 | 98.1 | 98.4 | 98.1 |
| 509 | Miscellaneous durable goods | 99.6 | 99.1 | 98.4 | 99.6 | 98.3 | 99.9 | 102.6 | 100.9 | 101.4 | 102.1 | 99.1 | 99.3 |
| 51 | Nondurable goods, total | 104.4 | 102.9 | 105.3 | 100.9 | 96.9 | 95.1 | 94.8 | 94.3 | 96.4 | 102.1 | 104.1 | 103.4 |
| | Total (excluding farm-product raw materials) | 100.4 | 99.8 | 102.6 | 101.4 | 99.9 | 98.4 | 98.8 | 97.8 | 99.3 | 101.4 | 100.9 | 99.8 |
| 511 | Paper and paper products | 97.1 | 98.4 | 99.6 | 100.9 | 100.4 | 102.6 | 100.1 | 98.9 | 101.1 | 100.1 | 100.3 | 100.9 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 96.4 | 96.1 | 100.3 | 101.3 | 99.3 | 100.4 | 100.4 | 99.9 | 102.8 | 105.3 | 100.9 | 97.4 |
| 513 | Apparel, piece goods, and notions | 101.6 | 100.6 | 98.3 | 98.9 | 100.4 | 100.6 | 101.3 | 101.1 | 98.9 | 99.4 | 99.9 | 99.6 |
| 514 | Groceries and related products | 98.6 | 99.9 | 101.6 | 100.6 | 99.1 | 99.9 | 98.3 | 97.1 | 100.3 | 102.9 | 100.9 | 101.4 |
| 515 | Farm-product raw materials[1] | 119.2 | 117.1 | 114.9 | 101.6 | 86.8 | 82.4 | 78.9 | 79.3 | 84.8 | 103.4 | 116.3 | 115.6 |
| 516 | Chemicals and allied products | 98.6 | 100.6 | 100.8 | 100.8 | 103.9 | 101.9 | 102.4 | 100.3 | 100.6 | 96.6 | 96.3 | 97.6 |
| 517 | Petroleum and petroleum products | 102.6 | 99.1 | 100.1 | 95.4 | 97.8 | 94.8 | 97.9 | 99.9 | 102.4 | 103.9 | 104.3 | 101.8 |
| 518 | Beer, wine, and distilled alcoholic beverages | 97.3 | 94.6 | 101.1 | 104.6 | 103.3 | 102.4 | 100.8 | 96.6 | 99.3 | 104.1 | 103.4 | 93.1 |
| 519 | Miscellaneous nondurable goods | 104.3 | 106.4 | 109.3 | 103.9 | 98.8 | 92.8 | 94.8 | 96.1 | 95.3 | 98.8 | 100.1 | 99.6 |

See footnotes at end of table.

## Table B-1. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers: January 1980-December 1981—Continued

| 1972 SIC code | Kind of business | 1981 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| | | Seasonal and trading-day adjustment factors for sales | | | | | | | | | | | |
| | Merchant wholesalers, total | 93.7 | 91.1 | 104.8 | 102.1 | 100.5 | 103.2 | 100.5 | 98.5 | 101.0 | 104.6 | 98.2 | 102.1 |
| | Total (excluding farm-product raw materials) | 92.3 | 91.4 | 104.1 | 103.3 | 99.8 | 104.3 | 100.7 | 100.2 | 101.6 | 104.5 | 97.2 | 101.3 |
| 50 | Durable goods, total | 88.1 | 88.9 | 104.6 | 103.9 | 100.5 | 105.3 | 101.7 | 102.6 | 103.1 | 106.2 | 96.8 | 98.7 |
| 501 | Motor vehicles and automotive parts and supplies | 92.4 | 91.4 | 108.3 | 112.9 | 104.6 | 103.4 | 100.7 | 100.3 | 93.0 | 103.3 | 93.6 | 98.1 |
| 502 | Furniture and home furnishings | 87.0 | 89.5 | 103.7 | 103.0 | 98.3 | 100.8 | 96.4 | 98.0 | 106.3 | 112.7 | 102.4 | 101.8 |
| 503 | Lumber and other construction materials | 79.6 | 79.1 | 96.9 | 99.3 | 101.4 | 111.5 | 110.0 | 110.5 | 111.3 | 113.5 | 96.9 | 90.8 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 79.0 | 82.5 | 98.3 | 101.3 | 90.0 | 99.4 | 112.6 | 104.8 | 110.9 | 111.2 | 108.5 | 102.6 |
| 505 | Metals and minerals, except petroleum | 91.5 | 93.7 | 112.0 | 100.7 | 100.5 | 103.6 | 98.1 | 102.5 | 103.9 | 98.5 | 97.2 | 96.9 |
| 506 | Electrical goods | 88.4 | 88.9 | 99.9 | 95.8 | 95.3 | 104.7 | 100.3 | 103.8 | 106.9 | 108.9 | 101.4 | 106.5 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 90.5 | 85.6 | 98.4 | 103.9 | 101.6 | 106.3 | 106.0 | 104.3 | 102.6 | 109.7 | 97.6 | 94.9 |
| 508 | Machinery, equipment, and supplies | 88.5 | 88.9 | 104.3 | 105.9 | 102.0 | 107.3 | 100.6 | 100.8 | 104.2 | 105.8 | 93.2 | 99.3 |
| 509 | Miscellaneous durable goods | 90.7 | 92.5 | 114.4 | 100.2 | 93.0 | 101.6 | 90.5 | 99.0 | 106.2 | 112.0 | 99.0 | 101.2 |
| 51 | Nondurable goods, total | 97.5 | 91.9 | 104.8 | 100.6 | 99.5 | 102.6 | 99.9 | 96.0 | 98.6 | 103.7 | 99.8 | 105.7 |
| | Total (excluding farm-product raw materials) | 96.2 | 92.8 | 103.7 | 101.9 | 99.9 | 103.3 | 100.0 | 98.4 | 99.9 | 102.2 | 98.6 | 103.6 |
| 511 | Paper and paper products | 98.0 | 93.9 | 103.9 | 101.0 | 96.9 | 102.3 | 99.0 | 99.1 | 102.6 | 105.7 | 95.6 | 102.6 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 95.2 | 90.3 | 103.2 | 102.6 | 95.6 | 100.5 | 100.4 | 98.8 | 102.8 | 109.9 | 98.7 | 103.8 |
| 513 | Apparel, piece goods, and notions | 92.1 | 92.1 | 101.9 | 97.1 | 88.8 | 94.3 | 101.1 | 110.9 | 116.4 | 111.7 | 99.2 | 95.0 |
| 514 | Groceries and related products | 98.0 | 91.2 | 102.6 | 101.4 | 101.1 | 103.0 | 101.8 | 98.1 | 99.6 | 104.1 | 96.9 | 102.8 |
| 515 | Farm-product raw materials[1] | 101.3 | 90.6 | 108.3 | 98.8 | 101.7 | 99.4 | 95.1 | 90.0 | 95.4 | 109.1 | 103.1 | 108.0 |
| 516 | Chemicals and allied products | 93.5 | 88.3 | 102.3 | 97.0 | 103.6 | 105.3 | 92.0 | 102.7 | 100.0 | 104.9 | 105.3 | 104.8 |
| 517 | Petroleum and petroleum products | 103.6 | 100.6 | 103.3 | 95.9 | 97.9 | 99.8 | 94.5 | 96.8 | 96.6 | 101.6 | 102.9 | 107.3 |
| 518 | Beer, wine, and distilled alcoholic beverages | 81.5 | 81.1 | 98.9 | 99.7 | 100.0 | 109.7 | 107.3 | 101.5 | 99.7 | 102.2 | 101.3 | 119.0 |
| 519 | Miscellaneous nondurable goods | 94.9 | 89.7 | 111.5 | 109.4 | 111.8 | 106.8 | 96.0 | 92.5 | 97.9 | 98.0 | 94.0 | 97.8 |
| | | Seasonal adjustment factors for inventories | | | | | | | | | | | |
| | Merchant wholesalers, total | 100.3 | 101.6 | 102.4 | 101.4 | 100.4 | 99.1 | 98.4 | 98.3 | 98.3 | 99.9 | 100.4 | 99.9 |
| | Total (excluding farm-product raw materials) | 98.8 | 100.1 | 101.4 | 101.3 | 101.1 | 100.8 | 100.6 | 99.8 | 99.3 | 99.6 | 99.4 | 98.6 |
| 50 | Durable goods, total | 98.4 | 99.9 | 100.9 | 100.9 | 101.6 | 101.8 | 101.4 | 100.4 | 99.4 | 98.9 | 98.4 | 98.1 |
| 501 | Motor vehicles and automotive parts and supplies | 101.4 | 104.6 | 102.6 | 100.9 | 101.6 | 100.1 | 99.4 | 97.3 | 95.3 | 97.9 | 98.9 | 100.1 |
| 502 | Furniture and home furnishings | 98.1 | 98.1 | 100.9 | 100.1 | 100.4 | 102.9 | 101.6 | 100.1 | 102.4 | 100.6 | 98.3 | 96.9 |
| 503 | Lumber and other construction materials | 97.6 | 99.1 | 103.3 | 102.8 | 102.8 | 102.4 | 102.4 | 100.3 | 98.9 | 98.1 | 96.1 | 96.8 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 94.9 | 98.9 | 100.1 | 104.1 | 102.3 | 106.3 | 106.3 | 101.4 | 101.3 | 99.8 | 93.6 | 91.4 |
| 505 | Metals and minerals, except petroleum | 98.4 | 97.1 | 98.6 | 97.6 | 102.6 | 100.9 | 102.1 | 105.6 | 101.4 | 97.6 | 99.9 | 98.4 |
| 506 | Electrical goods | 96.3 | 95.6 | 98.1 | 99.3 | 101.9 | 102.1 | 102.1 | 102.4 | 101.6 | 101.6 | 100.1 | 99.3 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 97.6 | 100.1 | 102.8 | 105.4 | 103.9 | 103.1 | 101.9 | 99.1 | 97.6 | 98.1 | 95.1 | 95.8 |
| 508 | Machinery, equipment, and supplies | 97.9 | 99.9 | 101.6 | 100.9 | 101.6 | 102.1 | 100.6 | 100.8 | 100.6 | 98.1 | 98.3 | 98.1 |
| 509 | Miscellaneous durable goods | 99.8 | 99.1 | 98.6 | 99.6 | 98.4 | 99.9 | 102.6 | 100.9 | 101.3 | 102.1 | 99.1 | 99.3 |
| 51 | Nondurable goods, total | 104.4 | 102.9 | 105.4 | 101.1 | 97.1 | 95.1 | 94.8 | 94.1 | 96.3 | 102.1 | 104.1 | 103.3 |
| | Total (excluding farm-product raw materials) | 100.4 | 99.8 | 102.6 | 101.6 | 99.9 | 98.4 | 98.8 | 97.8 | 99.3 | 101.4 | 100.9 | 99.6 |
| 511 | Paper and paper products | 97.1 | 98.4 | 99.6 | 100.9 | 100.4 | 102.6 | 100.1 | 98.9 | 101.1 | 100.1 | 100.3 | 100.9 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 96.4 | 95.9 | 100.4 | 101.1 | 99.4 | 100.3 | 100.6 | 99.9 | 102.9 | 105.3 | 100.9 | 97.3 |
| 513 | Apparel, piece goods, and notions | 101.6 | 100.6 | 98.3 | 98.9 | 100.4 | 100.6 | 101.3 | 101.1 | 98.8 | 99.4 | 99.9 | 99.6 |
| 514 | Groceries and related products | 98.6 | 99.9 | 101.6 | 100.6 | 99.3 | 100.1 | 98.1 | 97.1 | 100.3 | 102.9 | 100.8 | 101.4 |
| 515 | Farm-product raw materials[1] | 119.4 | 117.2 | 115.3 | 101.9 | 86.8 | 82.3 | 78.8 | 79.0 | 84.8 | 103.6 | 116.2 | 115.6 |
| 516 | Chemicals and allied products | 98.6 | 100.8 | 100.8 | 100.8 | 104.1 | 101.9 | 102.4 | 100.4 | 100.6 | 96.6 | 96.1 | 97.6 |
| 517 | Petroleum and petroleum products | 102.4 | 99.1 | 100.1 | 95.6 | 98.1 | 94.8 | 98.1 | 99.9 | 102.4 | 103.9 | 104.3 | 101.8 |
| 518 | Beer, wine, and distilled alcoholic beverages | 97.4 | 94.4 | 101.4 | 104.8 | 103.3 | 102.3 | 100.8 | 96.6 | 99.1 | 103.9 | 103.4 | 93.1 |
| 519 | Miscellaneous nondurable goods | 104.3 | 106.4 | 109.4 | 104.1 | 98.9 | 92.8 | 94.8 | 96.1 | 95.3 | 98.8 | 100.1 | 99.4 |

Note: The adjustment factors shown above for sales are a combination of the seasonal and trading-day factors. These are separately available, however, upon request. Adjustment factors are included in this table for some kinds of business for which adjusted data are not published separately.

Adjusted sales and inventory data shown in table 4 are obtained by dividing the unadjusted data shown in tables 1 and 2 by the adjustment factors shown above for the corresponding kinds of business. Adjusted data for the summary trade totals are obtained by summarizing the adjusted data for the individual kinds of business. Seasonal factors shown for the summary trade totals provide an approximation to these totals but may show small differences from the published data.

[1]There are indications that the seasonal adjustment factors for the farm-product raw materials category may not reflect recent trends in this trade. The seasonally adjusted data for this category and also for the merchant wholesale and nondurable goods totals should, therefore, be used with caution.

# Table B-2. Average Month-to-Month Percent Changes and Related Summary Measures for Sales and Inventories of Merchant Wholesalers

| 1972 SIC code | Kind of business | $\bar{O}$ | $\bar{S}$ | $\overline{CI}$ | $\bar{I}$ | $\bar{C}$ | $\bar{I}/\bar{C}$ | MCD | Average duration of run | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | CI | I | C | MCD |
| | | Sales | | | | | | | | | | |
| | Merchant wholesalers, total | 4.89 | 3.09 | 1.47 | .85 | 1.12 | .75 | 1 | 2.98 | 1.49 | 13.92 | 2.98 |
| 50 | Durable goods, total | 5.43 | 4.75 | 1.61 | 1.05 | 1.17 | .90 | 1 | 3.48 | 1.53 | 20.87 | 3.48 |
| 501 | Motor vehicles and automotive parts and supplies | 5.73 | 4.39 | 2.76 | 2.37 | 1.27 | 1.86 | 3 | 2.09 | 1.61 | 23.86 | 4.23 |
| 502 | Furniture and home furnishings | 7.76 | 6.99 | 2.43 | 2.09 | 1.01 | 2.07 | 3 | 2.04 | 1.59 | 13.92 | 4.34 |
| 503 | Lumber and other construction materials | 7.69 | 6.40 | 2.77 | 1.99 | 1.72 | 1.15 | 2 | 3.09 | 1.62 | 18.56 | 4.61 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 9.44 | 8.63 | 4.18 | 3.85 | 1.26 | 3.06 | 4 | 1.69 | 1.50 | 7.59 | 3.73 |
| 505 | Metals and minerals, except petroleum | 7.02 | 4.10 | 3.22 | 2.50 | 1.85 | 1.35 | 2 | 1.88 | 1.43 | 8.35 | 3.07 |
| 506 | Electrical goods | 5.75 | 5.04 | 2.31 | 1.98 | 1.08 | 1.83 | 2 | 1.76 | 1.53 | 16.70 | 3.39 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 5.84 | 4.73 | 1.98 | 1.67 | 1.01 | 1.66 | 2 | 2.23 | 1.48 | 15.18 | 3.77 |
| 508 | Machinery, equipment, and supplies | 6.04 | 5.35 | 2.03 | 1.68 | 1.01 | 1.67 | 2 | 2.04 | 1.62 | 13.92 | 3.32 |
| 509 | Miscellaneous durable goods | 8.01 | 6.42 | 3.79 | 3.09 | 1.88 | 1.65 | 2 | 2.04 | 1.53 | 10.44 | 3.46 |
| 51 | Nondurable goods, total | 5.20 | 2.81 | 1.85 | 1.31 | 1.13 | 1.16 | 2 | 2.49 | 1.33 | 12.85 | 3.86 |
| 511 | Paper and paper products | 5.52 | 3.23 | 2.09 | 1.67 | 1.03 | 1.61 | 2 | 2.09 | 1.50 | 15.18 | 3.19 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 6.03 | 3.89 | 2.06 | 1.76 | .78 | 2.25 | 3 | 2.01 | 1.59 | 8.79 | 3.24 |
| 513 | Apparel, piece goods, and notions | 8.05 | 6.62 | 2.93 | 2.73 | 1.00 | 2.72 | 3 | 1.72 | 1.43 | 11.13 | 3.11 |
| 514 | Groceries and related products | 4.52 | 1.85 | 1.66 | 1.43 | .83 | 1.71 | 2 | 2.06 | 1.43 | 23.86 | 3.19 |
| 515 | Farm-product raw materials | 9.28 | 4.72 | 5.03 | 4.44 | 1.71 | 2.59 | 3 | 1.90 | 1.58 | 6.96 | 3.30 |
| 516 | Chemicals and allied products | 7.37 | 5.04 | 3.52 | 3.13 | 1.41 | 2.22 | 3 | 1.84 | 1.52 | 18.56 | 4.71 |
| 517 | Petroleum and petroleum products | 7.03 | 5.33 | 4.27 | 3.59 | 1.92 | 1.87 | 3 | 1.84 | 1.67 | 12.85 | 3.11 |
| 518 | Beer, wine, and distilled alcoholic beverages | 10.80 | 8.43 | 1.70 | 1.50 | .72 | 2.09 | 3 | 1.84 | 1.49 | 16.70 | 4.58 |
| 519 | Miscellaneous nondurable goods | 6.05 | 4.67 | 2.68 | 2.37 | 1.07 | 2.22 | 3 | 1.76 | 1.53 | 10.44 | 3.30 |
| | | Inventories | | | | | | | | | | |
| | Merchant wholesalers, total | 1.16 | .70 | .98 | .40 | .91 | .44 | 1 | 7.59 | 1.52 | 27.83 | 7.59 |
| 50 | Durable goods, total | 1.13 | .57 | .98 | .41 | .93 | .44 | 1 | 6.96 | 1.45 | 41.75 | 6.96 |
| 501 | Motor vehicles and automotive parts and supplies | 2.30 | 1.25 | 1.75 | 1.23 | 1.19 | 1.03 | 2 | 2.69 | 1.52 | 11.93 | 4.15 |
| 502 | Furniture and home furnishings | 2.22 | 1.32 | 1.64 | 1.26 | 1.01 | 1.25 | 2 | 2.14 | 1.49 | 13.92 | 4.26 |
| 503 | Lumber and other construction materials | 2.52 | 1.54 | 1.81 | 1.24 | 1.15 | 1.08 | 2 | 2.65 | 1.72 | 16.70 | 4.15 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 3.49 | 2.79 | 2.21 | 1.94 | 1.07 | 1.80 | 2 | 2.01 | 1.62 | 27.83 | 3.39 |
| 505 | Metals and minerals, except petroleum | 3.31 | 2.43 | 2.09 | 1.36 | 1.37 | 1.00 | 2 | 3.04 | 1.72 | 8.79 | 4.05 |
| 506 | Electrical goods | 1.78 | 1.15 | 1.44 | 1.08 | .94 | 1.15 | 2 | 2.49 | 1.40 | 33.40 | 4.37 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 1.74 | 1.28 | 1.22 | .86 | .88 | .97 | 1 | 2.53 | 1.55 | 18.56 | 2.53 |
| 508 | Machinery, equipment, and supplies | 1.43 | .85 | 1.14 | .71 | .92 | .77 | 1 | 2.78 | 1.64 | 41.75 | 2.78 |
| 509 | Miscellaneous durable goods | 2.32 | 1.31 | 1.94 | 1.35 | 1.27 | 1.06 | 2 | 2.09 | 1.58 | 18.56 | 4.49 |
| 51 | Nondurable goods, total | 2.58 | 2.11 | 1.48 | .92 | 1.05 | .88 | 1 | 3.48 | 1.86 | 9.28 | 3.48 |
| 511 | Paper and paper products | 1.90 | 1.02 | 1.41 | 1.05 | .79 | 1.32 | 2 | 1.96 | 1.37 | 8.35 | 4.05 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 2.55 | 1.60 | 1.72 | 1.49 | .74 | 2.01 | 3 | 1.69 | 1.55 | 20.87 | 3.24 |
| 513 | Apparel, piece goods, and notions | 2.22 | 1.30 | 1.84 | 1.48 | .97 | 1.53 | 2 | 2.06 | 1.55 | 8.35 | 2.96 |
| 514 | Groceries and related products | 1.94 | 1.37 | 1.40 | .97 | .97 | 1.01 | 2 | 2.42 | 1.45 | 16.70 | 4.37 |
| 515 | Farm-product raw materials | 8.85 | 7.57 | 4.51 | 3.64 | 2.15 | 1.69 | 3 | 2.42 | 2.04 | 7.59 | 4.12 |
| 516 | Chemicals and allied products | 3.17 | 1.64 | 2.45 | 1.87 | 1.43 | 1.30 | 2 | 2.26 | 1.52 | 16.70 | 3.95 |
| 517 | Petroleum and petroleum products | 5.01 | 2.95 | 3.67 | 2.65 | 2.06 | 1.29 | 2 | 2.29 | 1.65 | 10.44 | 3.95 |
| 518 | Beer, wine, and distilled alcoholic beverages | 4.28 | 3.68 | 1.83 | 1.46 | .86 | 1.70 | 2 | 2.14 | 1.49 | 8.79 | 3.46 |
| 519 | Miscellaneous nondurable goods | 2.85 | 1.88 | 1.96 | 1.55 | .91 | 1.71 | 2 | 1.92 | 1.50 | 8.35 | 3.07 |

## Description of Measures Shown Above

The following are brief descriptions of the measures shown in this table. More complete explanations appear in "Electronic Computers and Business Indicators," Occasional Paper 57, National Bureau of Economic Research, Inc., New York, 1957.

$\bar{O}$ is the average month-to-month percentage change, without regard to sign, in the original series before seasonal or trading-day adjustment.

$\bar{S}$ is the average month-to-month percentage change, without regard to sign, in the seasonal component. It is a measure of the average monthly seasonal change in the unadjusted series.

$\overline{CI}$ is the average month-to-month percentage change, without regard to sign, in the seasonally adjusted series.

$\bar{I}$ is the average month-to-month percentage change without regard to sign, for the irregular component. The irregular component is obtained by dividing the seasonally adjusted series by the cyclical component.

$\bar{C}$ is the average month-to-month percentage change, without regard to sign, for the cyclical component, which is a smooth, flexible moving average.

$\bar{I}/\bar{C}$ is a measure of the relative smoothness (small values) or irregularity (large values) of the seasonally adjusted series.

MCD (months for cyclical dominance) gives an estimate of the appropriate time span over which to observe cyclical movements in a monthly series. In deriving MCD, the average (without regard to sign) percentage changes in the irregular and cyclical components are computed for 1-month spans (Jan.-Feb., Feb.-Mar., etc.) 2-months spans (Jan.-Mar., Feb.-Apr., etc.), and so on. MCD is the shortest span for which the average change (without regard to sign) in the cyclical component is larger than the average change (without regard to sign) in the irregular component; that is, it indicates the point at which fluctuations begin to be more attributable to cyclical than to irregular movements. MCD is small for smooth series and large for erratic series.

Average duration of run (ADR) is a measure of smoothness, and is equal to the average number of consecutive monthly changes in the same direction in any series of observations. When there is no change between 2 months, a change in the same direction as the preceding change is assumed. The ADR is shown for the seasonally adjusted series CI, irregular component I, cyclical component C, and the MCD moving average. The MCD moving average is an unweighted moving average (with the number of terms equal to MCD) of the seasonally adjusted series.

A comparison of these measures with the expected ADR of a random series gives an indication of whether the changes approximate those of a random series. (The expected value of ADR for a random series is 1.5 and it falls between 1.36 and 1.75 about 95 percent of the time. For a moving average of a random series the expected value is 2.0). For example, the ADR of CI is 2.08 for electrical goods sales. This indicates that 1-month changes in the seasonally adjusted series, on the average, reverse sign slightly less often than a random series. In the next two columns, 1.46 for I and 10.58 for C indicate the separation of the seasonally adjusted series into an essentially random component and the cyclical (nonrandom) component. Finally, 3.32 for MCD indicates that a 2-month moving average of the seasonally adjusted series (2 months being the MCD span) reverses direction on the average about every 3 months. The increase in the average duration of run from 2.08 for CI to 3.32 for the MCD moving average indicates that for this series the use of MCD spans reduces the effect of the irregular component upon the seasonally adjusted series.

These averages are based on a seasonally adjusted series which is adjusted historically; that is, the months used to compute the measures were the same months used to estimate the seasonal factors. Current data, however, are adjusted by use of factors projected 1 year ahead, and are thus subject to additional error. Therefore, current data are probably somewhat more irregular and subject to larger MCD than shown above.

# Appendix C. Explanatory Material

## SCOPE OF THE SURVEY

Wholesale trade, as defined in Major Groups 50 and 51 of the 1972 edition of the Standard Industrial Classification (SIC) Manual[1] and as covered in the 1972 and 1977 censuses, includes establishments or places of business primarily engaged in selling merchandise to retailers; to industrial, commercial, institutional, farm or professional business users; or to other wholesalers; or acting as agents or brokers in buying merchandise for or selling merchandise to such persons or companies.

The principal types of establishments included are: (1) merchant wholesalers who take title to the goods they sell, such as wholesale merchants or jobbers, industrial distributors, voluntary group wholesalers, exporters, importers, cash-and-carry wholesalers, drop shippers, major distributors, retailer cooperative warehouses, terminal elevators, and cooperative buying associations; (2) sales branches and sales offices (but not retail stores) maintained by domestic manufacturing or mining enterprises apart from their plants or mines for the purpose of marketing their products; (3) agents, merchandise or commodity brokers, and commission merchants.

This survey is limited to merchant wholesalers (described under category 1 above), which constitute the major portion of the broad field of wholesale trade, and excludes the other types of wholesale trade. All kinds of business in which merchant wholesalers operate are represented in this survey.

Kind-of-business classifications are not interchangeable with commodity classifications. Most businesses sell several kinds of commodities. The kind-of-business code assigned generally reflects either the individual commodity or the commodity group which is the primary source of the establishment's receipts, or some mixture of commodities which characterizes the establishment's business. Thus, the classification of establishments by kind of business generally does not make it possible to determine either the number of establishments handling a particular commodity or the sales of that commodity. For example, the "grocery" classification excludes establishments selling groceries if the sale of groceries is not the primary source of receipts; moreover, even though establishments are classified as "grocery wholesalers" some of their sales may be derived from the sale of nonfood products.

A description of each kind of business included in the accompanying statistical data is shown in appendix D.

## SAMPLE DESIGN AND ESTIMATION PROCEDURES

**Framework of Old Series.** The first publication in this series based on probability sampling, was the January 1954 report. Effective with the July 1956 publication an entirely new sample was selected from the 1954 Census of Business. Other changes in the sample have been made since 1956, representing, for the most part, revisions to reflect the findings of successive censuses of wholesale trade and the benchmarking operation described in the benchmarking section.

**Selection of Sample for New Series.** The new sample[2] like the old is a probability sample, and the estimating procedures used are similar in many respects to the old sample.

The new sample originally was drawn from the Standard Statistical Establishment List (SSEL) as updated to December 31, 1974. The initial SSEL consisted of two lists. One list was composed of all Employer Identification (EI) numbers issued by the Internal Revenue Service (IRS) with reported payroll in at least one quarter of 1973 or 1974, with payroll in the 1972 census, or with sales/receipts greater than $100,000 in the 1972 census. The second list consisted of all establishments of known multiestablishment companies as of December 31, 1974. These lists contained information on sales/receipts, payroll, employment, name and address, kind-of-business classification, etc.

Before the 1974 SSEL was available a study was made using files from the 1972 Census of Wholesale Trade. This study determined the stratification of the sampling units based on 1972 sales, inventories, and kind of business, and also determined the optimal allocation of the sample necessary to meet specified variance objectives for sales and inventory estimates for different kind-of-business groups. The primary stratum boundary determined in the study was the certainty cutoff to be used for each kind of business. The cutoff was particularly important since it also determined the type of sampling unit.

The sampling units for the new sample consisted of both companies and EI's. To be eligible for the initial sampling, an EI had to be active, i.e., had payroll in 1974 and was on the Internal Revenue Service mailing list for Federal Insurance Contribution Act (FICA) taxpayers. If a known multiestablishment company had total merchant wholesale sales (on a 1972 basis) above the cutoff for its major kind of business, the company was selected for the sample with certainty. Single establishment companies, whether or not selected with certainty, were considered as EI sampling units.

All merchant wholesale companies below the certainty cutoff were treated on an EI basis; that is, the EI was the sampling unit. The EI's were then stratified according to their major kind of business and their estimated sales (on a 1972 basis). Within each stratum, a simple random sample of EI's

[1] Executive Office of the President, Office of Management and Budget, *Standard Industrial Classification Manual, 1972.*

[2] For a complete explosition of the new sample, see C. T. Isaki et al., "Sample Redesign Aspects of the Census Bureau's Monthly Business Surveys" and K. M. Wolter et al., "Sample Selection and Estimation Aspects of the Census Bureau's Monthly Business Surveys," *Proceedings of the Business and Economic Statistics Section: American Statistical Association, 1976.*

was selected. The sampling rates for these EI's varied between 1 in 3 and 1 in 600.

For those EI's in the initial sample that did not have kind-of-business classifications and for all EI "births" after the initial selection, a two-phase selection procedure was used. EI "births," as used here, are new EI's recently assigned by Social Security Administration (SSA) and currently on the IRS mailing list for FICA taxpaxers. In the first phase, "births" were stratified by kind of business and size (expected employment or quarterly payroll). A relatively large sample was drawn and canvassed in order to obtain a more reliable measure of size (sales in 2 recent months) and a more detailed kind-of-business code, if needed.

Using this more reliable information, the cases were re-stratified and the final sample drawn with overall probabilities equivalent to those used in drawing the initial sample from the 1974 SSEL. Because of the lag in reporting "births" to the IRS and SSA and the time needed to accomplish the two-phase birth-selection procedure, "births" are actually added to the sample approximately 1 year after they begin operation. The ongoing birth-selection procedure is carried out quarterly.

Since "births" are not represented in the sample, until they go through the selection procedure described above, an interium procedure is required to account for "births" during the period between the onset of activity and the time of birth selection. This consists of imputing for all cases which go out of business, but which are still on the IRS mailing list. This imputation procedure was also used in the old series. However, because of recent delays in obtaining "births," this procedure now accounts for a larger percentage of the estimates.

To be eligible for the sample canvass and tabulation in a given month, a merchant wholesale business must meet both of the following requirements:

1. It must be on the IRS mailing list for FICA taxpayers from the previous quarter.

2. It must have been selected from either the SSEL or the file of employer "births." For this purpose, a universe file of all businesses ever given a chance of selection is maintained. This file shows, among other things, which EI numbers actually have been selected.

In the case of businesses that were selected into the sample with certainty, the first requirement is changed. These certainty sampling units are not dropped from canvass and tabulation if they are no longer on the IRS mailing list. If there are successor businesses, they are added to the survey. This is a tighter form of control used for these larger businesses.

**Use of the Rotating Sample and Composite Estimating Procedures.** Rotating samples or panels are used except for very large businesses which are selected with certainty. For sampling units in the rotating panels, 2 months of data are obtained at each enumeration. For example, February rotating panel cases report data for February (the current month) and January (the previous month). In the following month, a different rotating panel (the March panel) reports figures for March and February. Three sample panels are used. This permits the use of a composite estimating procedure which provides estimates more reliable than those which would be obtained from a completely fixed sample of about twice the size. In addition, this procedure reduces the reporting burden of selected businesses.

The first estimate issued each month is called the preliminary estimate. The preliminary composite estimate at the detail level for the current month is a weighted average of two estimates: (1) the current month unbiased estimate (weight 0.35), and (2) an estimate (weight 0.65) obtained by multiplying the difference between the preliminary composite for the previous month and the unbiased estimate for the previous month from the current month panel by the current-to-previous-month ratio obtained from the current month reports. Preliminary inventory estimates have been modified, prior to publication, based on past relationships between preliminary and final estimates.

A final estimate is developed 1 month later using information available from the following month's enumeration. The final composite estimate is also a weighted average of two estimates: (1) the preliminary composite estimate for a given month (weight 0.7), and (2) the unbiased estimate (weight 0.3) for the same month as obtained from the next month's reporting panel.

The preliminary composite estimates provide a measure of the dollar volume level that is considerably more reliable than the unbiased estimates, and the final composite estimates are generally more reliable than the preliminary composite estimates. The indication of the month-to-month trend considered to be most reliable is the ratio of the current month's preliminary composite estimate divided by the previous month's final complete estimate. This is true because the numerator and denominator of this ratio are more highly correlated than would be the case if the numerator and denominator were two preliminary estimates or two final estimates. The trend of the preliminary/final ratio, therefore, has less variability than one based on two preliminary figures or two final figures.

Another advantage of the use of the rotating panel system is that the frequency of canvass of very large noncertainty cases can be increased with a consequent reduction in an unbiased manner, of their statistical weight. This increases the reliability of the estimates, particularly the measure of month-to-month change.

The differences between preliminary and final estimates of seasonally adjusted sales have ranged from approximately +1.7 percent to -0.9 percent for the past 12 months. During the same period, the average of the absolute differences was 0.6 percent. The corresponding range for inventories was approximately +1.0 percent to -0.5 percent for the past 12 months. The average of the absolute differences was 0.4 percent.

## BENCHMARKING

Wholesale sales estimates in this report reflect the results of a benchmaking operation which made use of data tabulated from the 1977 Census of Wholesale Trade and the 1978 and 1979 Annual Wholesale Trade Surveys (ATS). Monthly wholesale sales by kind of business for the United States were revised for the period January 1973 through January 1981 in a manner designed to minimize the changes to the month-to-month trends in the original series. As part of the revision process,

revised monthly data for 1977, 1978, and 1979 were constrained to sum to 1977 census levels and 1978 and 1979 estimates, respectively.

End-of-month inventories were revised in a similar manner as sales. The constraints for the inventory estimates were the December 1972 estimates and the December ending inventories from 1976 through 1979 estimates from the ATS (the 1976 estimates were available from the 1977 ATS).

Through use of so-called "carry forward factors," the effect of the revision process at the U.S. level is applied to all estimates subsequent to December 1979. These factors were derived at the most detailed kind-of-business level and will be held constant until the next revision and benchmarking process. Aggregate level estimates are derived by summing appropriate detail level estimates, thereby assuring additivity.

Monthly wholesale sales and inventory estimates for published geographic areas also reflect the results of the revision process. In order to adjust geographic estimates, factors are derived each month at specified United States kind-of-business levels by dividing the revised U.S. estimates (as published) by the unrevised U.S. estimates (without the "carry forward factors" applied) at the given kind-of-business level. These factors are then multiplicatively applied at each published geographic area for the kind of business for which the factor was derived.

## CLASSIFICATION DIFFERENCES BETWEEN THE MONTHLY ESTIMATES AND THE 1977 CENSUS OF WHOLESALE TRADE

Ferrous Metals Service Centers (SIC 5051 part) with warehouse space greater than 5000 square feet are included in the monthly survey, regardless of the ownership of the products sold. However, if the establishments primarily sell the products manufactured by their own company, they are considered sales branches in the 1977 Census of Wholesale Trade.

In the 1977 Census of Wholesale Trade, establishments classified in the Farm-Product Raw Materials Group (SIC 515X) included as sales, products purchased and transferred to other company establishments. In the monthly survey inter-company transfers are not included in sales. Because of the differences shown above, the sales presented in this report for these kinds of business were obtained from the annual trade survey for 1977.

## REVISION TO PREVIOUSLY PUBLISHED DATA

The basic input inventory series for all the components of the Farm-Product Raw Materials Group[3] (SIC 515) and for Petroleum-Bulk Stations and Terminals (SIC 5171) have been revised. These data were revised to reflect improved methodology. SIC 5171 was revised from January 1967 through November 1972, while the SIC's in the 515 group were revised from January 1967 through July 1977. All summary groups which included inventories in these SIC's were also revised.

## UNPUBLISHED DATA

Additional data, such as dollar volume estimates for some kinds of business not separately shown in this report, are produced as a byproduct of the regularly published statistics. These additional data have not been included in this publication because the sampling variability associated with these data does not meet the Census Bureau's publication criteria. The Census Bureau, on written request will release these data for individual use, though not for publication.

## DEFINITION OF TERMS

**Sales.** Sales include the following: merchandise sold for cash or credit at wholesale and retail by establishments primarily engaged in merchant wholesale trade; receipts from customers for rental or leasing of equipment, instruments, tools, etc.; receipts for delivery, installation, alteration, maintenance, repair, storage, and other services; and gasoline, liquor, tobacco, and other excise taxes which are paid by the manufacturer and passed along to the wholesaler. Sales are net after deductions for refunds and allowances for merchandise returned by customers. Sales which are made on an agency basis for others are included as gross sales. Direct shipments on orders from wholesalers are also included in sales. Total sales do not include nonoperating income from sources as investments, rental or sale of real estate, etc.

In this series, sales exclude sales and excise taxes collected directly from customers and paid directly to a local, State, or Federal tax agency. Also excluded are receipts from customers for carrying or other credit charges. In the old series respondents were requested to include these taxes and credit charges in the reported sales. The impact of this change is considered minimal.

**Inventories.** Inventories represent stocks, at cost, of merchandise on hand for sale at the end of the month regardless of location, except for goods outside the United States. Goods held on consignment and items not held for sale such as fixtures, equipment, and supplies are not included.

**Stock-Sales Ratios.** The stock-sales ratios are percentages derived by dividing the dollar value of inventories, at cost, by the dollar value of sales. No adjustment is made in these ratios for the markup in sales which may vary from trade to trade.

The sales and inventory figures represent total sales and inventories of all establishments primarily engaged in merchant wholesale trade. Also included are the sales and inventories of central administrative offices and auxiliaries of merchant wholesale establishments.

[3] See appendix D, Kind-of-Business Classification for the SIC's included in this group.

# Appendix D. Kind-of-Business Classifications

## DURABLE GOODS (SIC Major Group 50)

This major group includes establishments primarily engaged in the wholesale distribution of durable goods.

### Motor Vehicles and Automotive Parts and Supplies (SIC 501)

**Automobiles and Other Motor Vehicles (SIC 5012)**[1]. Establishments primarily engaged in the wholesale distribution of new and used passenger automobiles, trucks, and other motor vehicles. Automotive distributors primarily engaged in selling at retail to individual consumers for personal use, and also selling a limited amount of new and used passenger automobiles and trucks at wholesale to dealers, are classified in retail trade, industry 5511.

**Automotive Parts and Supplies (SIC 5013).** Establishments primarily engaged in the wholesale distribution of automotive parts, supplies, accessories, tools and equipment.

**Tires and Tubes (SIC 5014)**[1]. Establishments primarily engaged in the wholesale distribution of rubber tires and tubes for passenger and commercial vehicles

### Furniture and Home Furnishings (SIC 502)

**Furniture (SIC 5021).** Establishments primarily engaged in the wholesale distribution of furniture, including bedsprings, mattresses, and other household furniture; office furniture; and furniture for public parks, buildings, etc.

SIC 5021 is subdivided into:

1. *Household and lawn furniture.*
2. *Office and business furniture.*

**Home Furnishings (SIC 5023).** Establishments primarily engaged in the wholesale distribution of home furnishings and homewares, including antiques; china; glassware and earthenware; lamps; curtains and draperies; linens and towels; carpets, linoleum, and all other types of hard and soft surface floor coverings. Establishments primarily engaged in the wholesale distribution of electrical household goods are classified in industry 5064.

[1] Data for this kind of business are not shown separately but are included in the group total.

### Lumber and Other Construction Materials (SIC 503)

**Lumber, Plywood, and Millwork (SIC 5031).** Establishments, with or without yards, primarily engaged in the wholesale distribution of rough, dressed, and finished lumber (but not timber); plywood; door and window frames (wood or metal); and other wood and metal millwork. Establishments selling lumber, plywood and millwork to the general public and known as "retail" in the trade are classified in industry 521.

**Construction Materials, Not Elsewhere Classified (SIC 5039).** Establishments primarily engaged in the wholesale distribution of such building materials as brick, building stone, cement, granite, gravel, lime, marble, plaster, building glass, roofing materials, sand, and tile. Establishments selling construction materials to the general public and known as "retail" in the trade are classified in industry 521. Establishments primarily engaged in marketing heavy structural metal products are classified in industry 5051. Establishments primarily selling readymade concrete are classified in manufacturing.

### Sporting, Recreational, Photographic, and Hobby Goods, Toys, and Supplies (SIC 504)[1]

Establishments primarily engaged in the wholesale distribution of all types of amusement and sporting goods and accessories—billiard and pool supplies; cameras and photographic equipment; coin-operated game machines; games, toys; ammunition and fireworks; etc.

### Metals and Minerals, Except Petroleum (SIC 505)[1]

**Ferrous Metals Service Centers and Offices (SIC 5051 pt.).** Establishments primarily engaged in marketing ferrous metal semifinished products such as nails, pig iron, steel and tin bars. Establishments in this industry which have warehouse space greater than 5,000 square feet are considered ferrous metals service centers. Establishments with warehouse space less than 5,000 square feet are considered ferrous metals sales offices.

Sales branches of domestic manufacturers are included in this category if the establishment is separate from the manufacturing plant and has warehouse space greater than 5,000 square feet.

**Nonferrous Metals Service Centers and Offices and Other Minerals and Ores (SIC 5051 pt. and SIC 5052 pt.)**[1]. Establishments primarily engaged in marketing nonferrous metal semifinished products such as aluminum bars and copper rods. Also included are establishments primarily engaged in the wholesale distribution of copper, iron, lead, and other metallic ores except precious; and crude nonmetallic minerals (including concentrates) except crude petroleum. Establishments primarily

engaged in the wholesale distribution of nonmetallic minerals used in construction, such as sand and gravel, are included in industry 5039.

**Coal (SIC 5052 pt.)**[1]. Establishments primarily engaged in the wholesale distribution of coal and coke. Included are establishments which have products shipped direct from mine to customer, and establishments operating yards and dock space and making deliveries therefrom at wholesale as well as other coal merchants.

## Electrical Goods (SIC 506)

**Electrical Apparatus and Equipment, Wiring Supplies, and Construction Materials (SIC 5063).** Establishments primarily engaged in the wholesale distribution of electrical power equipment for the generation, transmission, or utilization of electric energy; and electrical construction materials for outside power transmission lines and for electrical systems. Construction contractors primarily engaged in installing electrical systems and equipment from their own stock are classified in industry 1731.

**Electrical Appliances, TV and Radio Sets (SIC 5064).** Establishments primarily engaged in the wholesale distribution of radio and television sets and household electrical appliances.

**Electronic Parts and Equipment (SIC 5065)**[1]. Establishments primarily engaged in the wholesale distribution of electronic parts and equipment, such as industrial and radio and television receiving and transmitting electronic tubes; electronic intercommunication equipment; radio parts and accessories; and electronic sound equipment. Establishments primarily engaged in the wholesale distribution of radio and television receiving sets and phonographs are classified in industry 5064.

## Hardware, Plumbing, Heating Equipment, and Supplies (SIC 507)

**Hardware (SIC 5072).** Establishments primarily engaged in the wholesale distribution of hardware, such as builders; shelf or light hardware; handtools (except automotive and machinists' precision); handsaws and cutlery; brads, staples, and tacks; and bolts, nuts, rivets, and screws. Establishments primarily engaged in the wholesale distribution of nails, noninsulated wire, and screening are classified in industry 5051.

**Plumbing and Heating Equipment and Supplies (Hydronics) (SIC 5074).** Establishments primarily engaged in the wholesale distribution of hydronic plumbing and heating equipment and supplies. Construction contractors primarily engaged in installing plumbing and heating equipment from their own stock are classified in industry 1711.

**Warm Air Heating and Air-Conditioning Equipment and Supplies (SIC 5075)**[1]. Establishments primarily engaged in the distribution of warm air heating and air-conditioning equipment and supplies. Construction contractors primarily engaged in installing warm air heating and air-conditioning equipment are classified in industry 1711.

**Refrigeration Equipment and Supplies (SIC 5078)**[1]. Establishments primarily engaged in the distribution of refrigeration equipment and supplies. Construction contractors primarily engaged in installing refrigeration equipment from their own stock are classified in industry 1711.

## Machinery, Equipment, and Supplies (SIC 508)

**Commercial Machines and Equipment (SIC 5081)**[1]. Establishments primarily engaged in wholesaling commercial machines and equipment, such as office, store, and business machines and equipment; commercial food service equipment; and fountain and store fixtures.

**Construction and Mining Machinery and Equipment (SIC 5082).** Establishments primarily engaged in marketing cranes, excavating machinery and equipment, power shovels, road construction and maintenance machinery, tractor-mounting equipment and other specialized machinery and equipment used in the construction, mining, and logging industries. Establishments engaged in marketing oil well machinery and equipment are classified in industry 5084.

**Farm and Garden Machinery and Equipment (SIC 5083)**[1]. Establishments primarily engaged in marketing agricultural machinery and equipment for use in the preparation and maintenance of the soil, the planting and harvesting of crops, and other operations and processes pertaining to work on the farm or the lawn or garden; and dairy and other livestock equipment.

**Industrial Machinery and Equipment (SIC 5084)**[1]. Establishments primarily engaged in marketing industrial machinery and equipment, such as metal working tools, food industries machinery, oil well and oil refining machinery, industrial trucks and tractors (except over-the-road types), printing machinery, and machinery and equipment for other manufacturing industries.

**Industrial Supplies (SIC 5085)**[1]. Establishments primarily engaged in marketing industrial supplies, such as abrasives and materials, rope and cordage, and mechanical rubber goods; welding supplies; mechanical power transmission supplies, including bearings; industrial valves and fittings; metal containers; industrial leather; and reconditioned barrels and drums.

**Professional Equipment and Supplies (SIC 5086).** Establishments primarily engaged in the wholesale distribution of mechanical devices and other equipment used by architects, dentists, engineers, physicians, surgeons, veterinarians, optometrists, osteopaths, and other professional groups.

**Surgical, Medical, Hospital Supplies (SIC 5086 pt.)**[1]. Establishments primarily engaged in selling surgical and medical instruments; doctors' apparatus and equipment; orthopedic appliances; artificial limbs; operating room and other hospital

[1] Data for this kind of business are not shown separately but are included in the group total.

equipment, X-ray machines and accessories and other scientific instruments used by physicians and in hospitals.

**Service Establishment Equipment and Supplies (SIC 5087)[1].** Establishments primarily engaged in the wholesale distribution of equipment and supplies for barber shops, beauty parlors, power laundries, dry-cleaning plants, upholsterers, undertakers, and related personal service establishments.

**Transportation Equipment and Supplies, Except Motor Vehicles (SIC 5088)[1].** Establishments primarily engaged in the wholesale distribution of transportation equipment and supplies. Establishments primarily engaged in the wholesale distribution of motor vehicles and motor vehicle parts are classified in group 501.

## Miscellaneous Durable Goods (SIC 509)[1]

**Scrap and Waste Materials (SIC 5093).** Establishments primarily engaged in assembling, breaking up, sorting and wholesale distribution of scrap and waste materials. This industry includes auto wreckers engaged in dismantling automobiles for scrap. However, those engaged in dismantling cars for the purpose of selling secondhand parts at retail are classified in industry 5931.

SIC 5093 is subdivided into:

1. *Iron and Steel scrap.*
2. *Waste and secondary materials dealers.*

**Jewelry, Watches, Diamonds, and Other Precious Stones (SIC 5094)[1].** Establishments primarily engaged in the wholesale distribution of jewelry, precious stones and metals, costume jewelry, watches, clocks, silverware, and jewelers' findings.

**Durable Goods, Not Elsewhere Classified (SIC 5099)[1].** Establishments primarily engaged in the wholesale distribution of durable goods, not elsewhere classified, such as musical instruments and forest products, except lumber.

# NONDURABLE GOODS (SIC Major Group 51)

This major group includes establishments primarily engaged in the wholesale distribution of nondurable goods.

## Paper and Paper Products (SIC 511)

**Printing and Writing Paper (SIC 5111).** Establishments primarily engaged in the wholesale distribution of writing paper, including envelope paper, fine paper, and ground wood, printing, and rotogravure paper.

**Stationery Supplies (SIC 5112)[1].** Establishments primarily engaged in the wholesale distribution of stationery and office supplies, including envelopes, typewriter and mimeograph paper, file cards and folders, pens, social stationery, and greeting cards.

**Industrial and Personal Service Paper (SIC 5113).** Establishments primarily engaged in the wholesale distribution of wrapping and other coarse paper, paperboard, cellophane, and converted paper products, such as bags, boxes, dishes, napkins, and shipping supplies.

## Drugs, Drug Proprietaries, and Druggists' Sundries (SIC 512)

**Drugs, Drug Proprietaries, and Druggists' Sundries (SIC 5122).** Establishments primarily engaged in the wholesale distribution of drugs, drug proprietaries, druggists' sundries, and toiletries. Establishments primarily engaged in the wholesale distribution of surgical, dental, and hospital equipment are classified in industry 5086.

SIC 5122 is subdivided into:

1. *General-line drugs.* These are distinguished from specialty-line drug and toiletries wholesalers on the basis of their commodity-line mix. Drug wholesalers were classified as general line if they reported a substantial portion of their sales in "pharmaceuticals, antibiotics, druggists' chemicals, biologicals, botanicals" and "proprietary products, toiletries, druggists' sundries," and if annual sales volume was $1 million or more.
2. *Specialty-line pharmaceuticals, cosmetics, and toiletries.*

## Apparel, Piece Goods, and Notions (SIC 513)

**Piece Goods (SIC 5133)[1].** Establishments primarily engaged in the wholesale distribution of woven piece goods or yard goods of natural or manmade fibers. "Converters" who buy goods in the grey, have them finished on contract, and sell at wholesale are included here. This industry does not include establishments primarily engaged in the wholesale distribution of home furnishings, which are classified in industry 5023.

**Notions and Other Dry Goods (SIC 5134)[1].** Establishments primarily engaged in the wholesale distribution of notions (sewing and hair accessories, etc.), knit goods, and other dry goods, except piece goods.

**Men's and Boys' Clothing and Furnishings (SIC 5136)[1].** Establishments primarily engaged in the wholesale distribution of men's and boys' apparel and furnishings, sportswear, hosiery, underwear, nightwear, and work clothing.

**Women's Children's, and Infants' Clothing and Accessories (SIC 5137)[1].** Establishments primarily engaged in the wholesale distribution of women's, children's, and infants' clothing and accessories, including hosiery, lingerie, millinery and millinery supplies, and furs.

**Footwear (SIC 5139)[1].** Establishments primarily engaged in the wholesale distribution of footwear of leather, rubber, and other materials.

[1] Data for this kind of business are not shown separately but are included in the group total.

## Groceries and Related Products (SIC 514)

**Groceries, General-Line (SIC 5141).** Establishments primarily engaged in the wholesale distribution of a general line of groceries. Establishments primarily engaged in roasting coffee, and establishments primarily engaged in blending tea or grinding and packaging spices are classified in major group 20.

SIC 5141 is subdivided into:

1. *Voluntary group wholesalers.*
2. *Retailer cooperative wholesalers.*
3. *Other general-line wholesalers.*

**Frozen Foods (SIC 5142)[1].** Establishments primarily engaged in the wholesale distribution of packaged quick-frozen vegetables, juices, meats, fish, poultry, pastries, and other "deep freeze" products. Establishments primarily engaged in the wholesale distribution of frozen dairy products are classified in industry 5143. Frozen poultry, fish, and meat which are not packaged are classified in industries 5144, 5146, and 5147, respectively.

**Dairy Products (SIC 5143)[1].** Establishments primarily engaged in the wholesale distribution of dairy products, such as butter, cheese, ice cream and ices, and fluid milk and cream. This industry does not include establishments primarily engaged in pasteurizing and bottling milk, which are classified in group 202.

**Poultry and Poultry Products (SIC 5144).** Establishments primarily engaged in the wholesale distribution of poultry and poultry products, except canned and packaged frozen products. This industry does not include establishments primarily engaged in the killing and dressing of poultry, which are classified in industry 2016. Establishments primarily engaged in the wholesale distribution of packaged frozen poultry are classified in industry 5142, and of canned poultry in industry 5149.

**Confectionery (SIC 5145).** Establishments primarily engaged in the wholesale distribution of confectionery, such as candy, chewing gum, fountain fruits, salted or roasted nuts, popcorn, and fountain syrups; and potato, corn, and similar chips.

**Fish and Seafoods (SIC 5146)[1].** Establishments primarily engaged in the wholesale distribution (not packaging) of fresh, cured, and frozen fish and seafoods, except canned (industry 5149) or packaged frozen (industry 5142). The preparing, packaging, and freezing of fresh fish and other seafood, and the shucking and packing of fresh oysters in nonsealed containers are classified in industry 2092.

**Meats and Meat Products (SIC 5147).** Establishments primarily engaged in the wholesale distribution of fresh, cured, and processed (but not canned) meats and lard. The wholesale distribution of frozen packaged meats is classified in industry 5142 and canned meats in industry 5149.

[1] Data for this kind of business are not shown separately but are included in the group total.

**Fresh Fruits and Vegetables (SIC 5148).** Establishments primarily engaged in the wholesale distribution of fresh fruits and vegetables.

**Groceries and Related Products, Not Elsewhere Classified (SIC 5149)[1].** Establishments primarily engaged in the wholesale distribution of groceries and related products, not elsewhere classified. Establishments primarily engaged in the wholesale distribution of soft drinks, and in bottling and distributing natural spring and mineral waters, are classified in this industry, but establishments primarily engaged in bottling soft drinks are classified in major group 20. This industry does not include farm-product raw materials (group 515), or beer, wine, and distilled alcoholic beverages (group 518).

## Farm-Product Raw Materials (SIC 515)

**Cotton (SIC 5152)[1]** Establishments primarily engaged in buying and/or marketing cotton and cotton linters.

**Grain (SIC 5153).** Establishments primarily engaged in buying and/or marketing grain (such as corn, wheat, oats, barley, and unpolished rice); dry beans; soybeans, and other inedible beans. Country grain elevators primarily engaged in buying or receiving grain from farmers are included as are terminal elevators and other merchants marketing grain.

**Livestock (SIC 5154)[1].** Establishments primarily engaged in buying and/or marketing cattle, hogs, sheep, and goats.

**Farm-Product Raw Materials, Not Elsewhere Classified (SIC 5159)[1].** Establishments primarily engaged in buying and/or marketing farm products not elsewhere classified, such as horses and mules, leaf tobacco, hides, skins, furs, wool, mohair, raw silk, hops, and nuts, except roasted or salted (industry 5145). Establishments primarily engaged in the wholesale distribution of milk are classified in industry 5143 and live poultry in industry 5144.

## Chemicals and Allied Products (SIC 516)[1]

**Chemicals and Allied Products (SIC 5161)[1].** Establishments primarily engaged in the wholesale distribution of chemicals and allied products, not elsewhere classified, such as acids, industrial and heavy chemicals, dyestuffs, industrial salts, naval stores, plastics materials, rosin, and turpentine. Establishments primarily engaged in the wholesale distribution of ammunition are classified in industry 5041; agricultural chemicals and pesticides in industry 5191; drugs in industry 5122; and paints and varnishes in industry 5198.

## Petroleum and Petroleum Products (SIC 517)

**Petroleum Bulk Stations and Terminals (SIC 5171).** Establishments primarily engaged in wholesaling petroleum products, including liquefied petroleum gas, from bulk liquid storage facilities.

**Petroleum and Petroleum Products Wholesalers, Except Bulk Stations and Terminals (SIC 5172)**[1]. Establishments primarily engaged in wholesaling petroleum and petroleum products, (cept those with bulk liquid storage facilities. Included are packaged and bottled petroleum products distributors, truck jobbers, and others marketing petroleum and products at wholesale but without bulk liquid storage facilities.

## Beer, Wine, and Distilled Alcoholic Beverages (SIC 518)

**Beer and Ale (SIC 5181).** Establishments primarily engaged in the wholesale distribution of beer, ale, porter, and other fermented malt beverages.

**Wines and Distilled Alcoholic Beverages (SIC 5182).** Establishments primarily engaged in the wholesale distribution of distilled spirits, including neutral spirits and ethyl alcohol used in blending wines and distilled liquors.

## Miscellaneous Nondurable Goods (SIC 519)

**Farm Supplies (SIC 5191)**[1]. Establishments primarily engaged in the wholesale distribution of animal feeds, fertilizers, agricultural chemicals, pesticides, seeds, and other farm supplies, except grains.

**Tobacco and Tobacco Products (SIC 5194).** Establishments primarily engaged in the wholesale distribution of tobacco and tobacco products. Leaf tobacco wholesalers are classified in industry 5159 and establishments primarily engaged in stemming and redrying tobacco in industry 2141.

**Paints, Varnishes, and Supplies (SIC 5198)**[1]. Establishments primarily engaged in the wholesale distribution of paints, varnishes, wallpaper, and supplies, and sometimes glass. Establishments selling to the general public and known as "retail" in the trade are classified in industry 5231.

**Books, Periodicals, Newspapers (SIC 5199 pt.)**[1]. Establishments primarily engaged in the wholesale distribution of books, lithographed matter, magazines, newspapers, and all other forms of reading material.

**Nondurable Goods, Not Elsewhere Classified (SIC 5199 pt.)**[1]. Establishments primarily engaged in the wholesale distribution of nondurable goods, not elsewhere classified, such as art goods, flowers and florist supplies, industrial yarn, textile bags, bagging and burlap.

[1] Data for this kind of business are not shown separately but are included in the group total.

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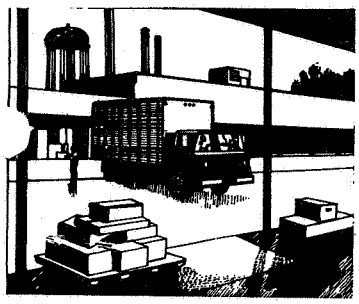
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CURRENT BUSINESS REPORTS

# Monthly Wholesale Trade

## SALES AND INVENTORIES

Issued October 1981

## August 1981

BW-81-08

**NOTICE**

Effective with this publication, the sales and inventory estimates for geographic divisions (tables 6 and 7) have been discontinued.

**Sales.** August 1981 sales of merchant wholesalers, after adjustment for seasonal variations and trading-day differences but not for price changes, were $93.7 billion, down 3 percent from the previous month but up 8 percent from August 1980. Adjusted June-through-August total sales were down 1 percent from the March-through-May period but were 13 percent above the comparable months a year ago.

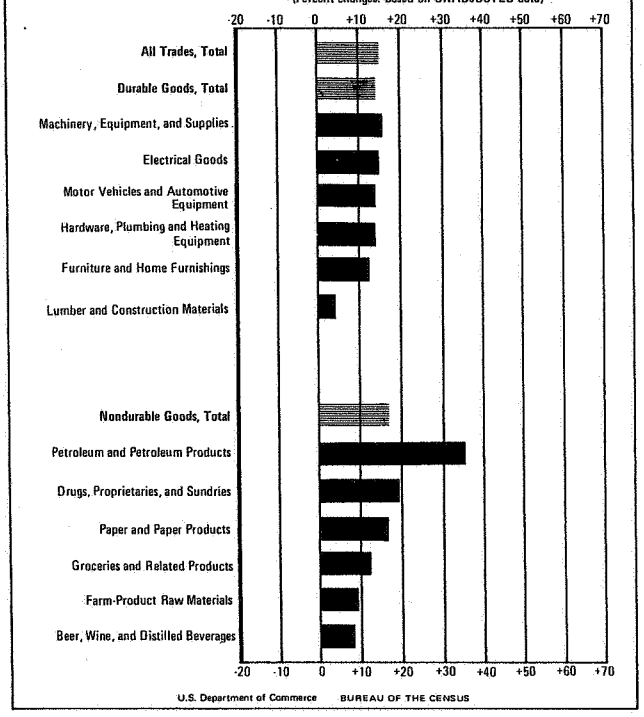
After adjustment, August sales in the durable goods trades were down 3 percent from the previous month but were 14 percent above the year-ago level. Nondurable goods sales decreased 4 percent from July but were 4 percent above August 1980. Total monthly sales in the durable goods group during the June-through-August period were up 1 percent from the prior 3 months and increased 16 percent from the comparable period a year ago. Three-month total sales for the nondurable goods group were down 3 percent from the March-through-May period but were 10 percent above the same period a year ago.

Based on adjusted data, comparisons with previous month sales levels showed the largest decrease in petroleum and petroleum products (-8%). Compared with adjusted sales of a year ago, the sharpest increase was noted in sporting goods, toys, and hobby goods and in paper and paper products—both up 20 percent. The largest year-to-year decrease was shown in farm-product raw materials (-12%).

**Inventory.** Total inventories of merchant wholesalers, after adjustment for seasonal variations but not for price changes, were valued at $107.6 billion at the end of August, up 1 percent from the previous month and 6 percent above August 1980. Durable goods stocks increased 1 percent from July and were 8 percent above August 1980. Nondurable goods stocks were up 1 percent from the previous month and indicated an increase from the previous year level.

Based on adjusted data, comparisons with previous month inventory levels showed the largest increase in beer, wine, and distilled beverages (7%). Compared with adjusted year-ago inventories, the sharpest increase was noted in paper and paper products (21%) and the sharpest decrease in farm-product raw materials (-27%).

**Percent Change in Sales of Merchant Wholesalers in Selected Kinds of Business 8 Months 1981 Compared With 8 Months 1980**




**Stock-Sales Ratios.** The August stock-sales ratio for merchant wholesalers, based on seasonally adjusted data, was 115, up 5 points from July but down 2 points from August 1980. The stock-sales ratio for durable goods was 176, up 7 points from the previous month but 9 points below the year-ago ratio. The ratio for nondurable goods was 69, up 4 points from July but down 2 points from August 1980.

Data in this report are based on a sample and, therefore, are subject to sampling and nonsampling errors. A discussion of the reliability of the data is in appendix A.

An advance release of August 1981 data was issued October 6, 1981.

U.S. Department of Commerce
BUREAU OF THE CENSUS

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# Table 1. Estimated Monthly Sales of Merchant Wholesalers, by Kind of Business for the United States, Unadjusted: 1981 and 1980

(MILLIONS OF DOLLARS. DATA ARE NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | | | | | | | | 1980 | | | | | TOTAL 8 MONTHS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN. | FEB. | MAR. | APR. | MAY | JUNE | JULY | AUG.[P] | AUG. | SEPT. | OCT. | NOV. | DEC. | 1981 | 1980 |
| | MERCHANT WHOLESALERS, TOT. | 93,845 | 89,641 | 101,273 | 99,081 | 96,676 | 98,639 | 96,072 | 92,740 | 86,311 | 90,715 | 99,023 | 91,328 | 97,659 | 767,967 | 665,161 |
| | TOTAL (EX FARM-PROD RAW MATLS) | 81,300 | 79,450 | 88,833 | 88,407 | 86,325 | 89,851 | 87,582 | 84,719 | 76,933 | 80,580 | 87,102 | 80,363 | 85,305 | 686,467 | 590,312 |
| 50 | DURABLE GOODS, TOT | 35,927 | 37,054 | 41,991 | 41,934 | 40,679 | 43,152 | 41,459 | 40,954 | 36,010 | 38,112 | 41,298 | 36,679 | 38,598 | 323,150 | 283,752 |
| 501 | MOTOR VEHICLES & AUTO PARTS & SUPPLIES | 7,085 | 7,248 | 8,174 | 8,345 | 7,552 | 7,893 | 7,755 | 7,408 | 7,026 | 6,449 | 7,638 | 6,621 | 6,816 | 61,460 | 54,105 |
| 5013,4 | AUTO PARTS & SUPPLIES, TIRES & TUBES | 3,079 | 3,067 | 3,531 | 3,493 | 3,184 | 3,560 | 3,439 | 3,281 | 3,028 | 3,117 | 3,451 | 3,012 | 3,053 | 26,634 | 22,783 |
| 5013 | AUTO PARTS & SUPPLIES | 2,639 | 2,642 | 2,978 | 2,908 | 2,651 | 2,980 | 2,873 | 2,750 | 2,543 | 2,581 | 2,889 | 2,530 | 2,576 | 22,421 | 19,238 |
| 502 | FURNITURE & HOME FURNISHINGS | 1,293 | 1,334 | 1,465 | 1,476 | 1,400 | 1,477 | 1,358 | 1,446 | 1,250 | 1,330 | 1,531 | 1,356 | 1,355 | 11,249 | 10,008 |
| 5021 | FURNITURE--HSEHLD & OFFICE[1] | 464 | 459 | 547 | 524 | 509 | 546 | 508 | 550 | 465 | 469 | 499 | 441 | 500 | 4,107 | 3,657 |
| 5023 | HOME FURNISHINGS[2] | 829 | 875 | 918 | 952 | 891 | 931 | 850 | 896 | 785 | 861 | 1,032 | 915 | 855 | 7,142 | 6,351 |
| 503 | LUMBER & OTHER CONSTRUCTION MATLS | 2,422 | 2,388 | 2,774 | 2,960 | 2,782 | 3,068 | 2,906 | 2,927 | 2,842 | 3,046 | 3,309 | 2,822 | 2,704 | 22,227 | 21,364 |
| 5031 | LUMBER, PLYWOOD & MILLWORK | 1,567 | 1,569 | 1,737 | 1,842 | 1,743 | 1,950 | 1,773 | 1,721 | 1,787 | 1,930 | 2,054 | 1,786 | 1,720 | 13,902 | 13,756 |
| 5039 | CONSTRUCTION MATLS, N.E.C. | 855 | 819 | 1,037 | 1,118 | 1,039 | 1,118 | 1,133 | 1,206 | 1,055 | 1,116 | 1,255 | 1,036 | 984 | 8,325 | 7,608 |
| 5051 PT. | FERROUS METALS SERV CTRS & OFFICES | 3,295 | 3,577 | 3,951 | 3,811 | 3,911 | 4,129 | 3,709 | 3,833 | 2,732 | 3,042 | 3,272 | 2,954 | 3,327 | 30,216 | 23,432 |
| 5051 PT. | FERROUS METALS SERV CTRS | 2,543 | 2,751 | 3,076 | 2,997 | 3,059 | 3,233 | 2,913 | 3,029 | 2,078 | 2,286 | 2,491 | 2,271 | 2,510 | 23,601 | 17,697 |
| 506 | ELECTRICAL GOODS | 3,762 | 3,930 | 4,403 | 4,191 | 4,269 | 4,625 | 4,402 | 4,344 | 3,802 | 4,207 | 4,299 | 4,236 | 4,299 | 33,926 | 29,395 |
| 5063 | ELECTRICAL APPARATUS & EQUIP, WIRING SUPPLIES & CONSTRUCTION MATLS | 1,858 | 1,980 | 2,088 | 2,076 | 2,108 | 2,228 | 2,057 | 2,004 | 1,862 | 2,158 | 2,178 | 2,155 | 2,155 | 16,399 | 14,522 |
| 5064,5 | ELECTRICAL APPLIANCES, TV & RADIO SETS, & ELECTRONIC PARTS & EQUIP | 1,904 | 1,950 | 2,315 | 2,115 | 2,161 | 2,397 | 2,345 | 2,340 | 1,940 | 2,049 | 2,121 | 2,081 | 2,144 | 17,527 | 14,873 |
| 5064 | ELECTRICAL APPLIANCES, TV & RADIO SETS[3] | 1,013 | 1,012 | 1,235 | 1,129 | 1,186 | 1,289 | 1,261 | 1,194 | 1,069 | 1,142 | 1,200 | 1,130 | 1,194 | 9,319 | 7,767 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIP, & SUPPLIES | 2,274 | 2,202 | 2,528 | 2,677 | 2,576 | 2,813 | 2,709 | 2,697 | 2,312 | 2,405 | 2,645 | 2,328 | 2,259 | 20,476 | 17,986 |
| 5072 | HARDWARE | 889 | 851 | 982 | 991 | 922 | 988 | 953 | 941 | 832 | 895 | 932 | 859 | 863 | 7,517 | 6,733 |
| 5074 | PLUMBING & HEATING EQUIP & SUPPLIES (HYDRONICS) | 966 | 922 | 1,057 | 1,115 | 1,100 | 1,138 | 1,116 | 1,187 | 960 | 1,035 | 1,181 | 1,011 | 967 | 8,601 | 7,468 |
| 508 | MACHINERY, EQUIP, & SUPPLIES | 10,302 | 10,731 | 12,571 | 12,322 | 12,248 | 13,110 | 12,677 | 12,437 | 10,885 | 11,613 | 11,949 | 10,511 | 11,722 | 96,398 | 83,253 |
| 5082 | CONSTRUCTION & MINING MACHINERY & EQUIP | 1,111 | 1,218 | 1,401 | 1,571 | 1,441 | 1,589 | 1,407 | 1,439 | 1,602 | 1,473 | 1,414 | 1,341 | 1,377 | 11,177 | 10,571 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIP & SUPPLIES | 4,631 | 4,775 | 5,531 | 5,389 | 5,526 | 6,119 | 5,713 | 5,612 | 4,509 | 4,720 | 4,929 | 4,501 | 5,079 | 43,296 | 35,519 |
| 5086 | PROFESSIONAL EQUIP & SUPPLIES | 1,043 | 1,138 | 1,295 | 1,199 | 1,193 | 1,369 | 1,303 | 1,277 | 1,149 | 1,200 | 1,217 | 1,107 | 1,208 | 9,817 | 8,450 |
| 5093 | SCRAP & WASTE MATLS | 1,304 | 1,297 | 1,456 | 1,496 | 1,395 | 1,317 | 1,173 | 1,131 | 1,107 | 1,240 | 1,458 | 1,267 | 1,435 | 10,569 | 10,927 |
| 51 | NONDURABLE GOODS, TOT | 57,918 | 52,587 | 59,282 | 57,147 | 55,997 | 55,487 | 54,613 | 51,786 | 50,301 | 52,603 | 57,725 | 54,649 | 59,061 | 444,817 | 381,409 |
| | TOTAL (EX FARM-PROD RAW MATLS) | 45,373 | 42,396 | 46,842 | 46,473 | 45,646 | 46,699 | 46,123 | 43,765 | 40,923 | 42,468 | 45,804 | 43,684 | 46,707 | 363,317 | 306,560 |
| 511 | PAPER & PAPER PROD | 1,949 | 1,908 | 2,112 | 2,039 | 1,995 | 2,098 | 2,078 | 2,121 | 1,775 | 1,879 | 2,009 | 1,822 | 1,929 | 16,300 | 14,004 |
| 5111,3 | PRINTING, WRITING, IND & PERSONAL SERV PAPER | 1,397 | 1,356 | 1,549 | 1,476 | 1,437 | 1,530 | 1,534 | 1,543 | 1,287 | 1,375 | 1,465 | 1,304 | 1,413 | 11,822 | 10,322 |
| 5111 | PRINTING & WRITING PAPER | 655 | 648 | 733 | 719 | 668 | 723 | 713 | 702 | 576 | 626 | 697 | 582 | 652 | 5,561 | 5,049 |
| 5113 | IND & PERSONAL SERV PAPER | 742 | 708 | 816 | 757 | 769 | 807 | 821 | 841 | 711 | 749 | 768 | 722 | 761 | 6,261 | 5,273 |
| 512 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 1,195 | 1,136 | 1,278 | 1,274 | 1,212 | 1,265 | 1,281 | 1,207 | 1,074 | 1,159 | 1,313 | 1,134 | 1,197 | 9,848 | 8,248 |
| 5122 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 1,195 | 1,136 | 1,278 | 1,274 | 1,212 | 1,265 | 1,281 | 1,207 | 1,074 | 1,159 | 1,313 | 1,134 | 1,197 | 9,848 | 8,248 |
| 5122 PT. | GENERAL-LINE DRUGS | 367 | 355 | 413 | 395 | 388 | 406 | 394 | 355 | 341 | 383 | 394 | 349 | 410 | 3,073 | 2,700 |
| 513 | APPAREL, PIECE GDS & NOTIONS[4] | 2,019 | 2,265 | 2,299 | 2,270 | 1,995 | 2,366 | 2,666 | 2,676 | 2,445 | 2,541 | 2,486 | 2,141 | 1,921 | 18,556 | 16,701 |
| 514 | GROCERIES & RELATED PROD | 13,270 | 12,317 | 13,931 | 13,941 | 13,346 | 14,117 | 14,253 | 13,572 | 12,592 | 12,915 | 13,815 | 12,741 | 13,640 | 108,747 | 96,778 |
| 5141 | GROCERIES, GENERAL LINE | 4,366 | 4,045 | 4,481 | 4,519 | 4,338 | 4,469 | 4,577 | 4,458 | 4,103 | 4,066 | 4,462 | 4,173 | 4,407 | 35,253 | 31,576 |
| 5144 | POULTRY & POULTRY PROD | 651 | 590 | 627 | 655 | 638 | 653 | 679 | 648 | 652 | 659 | 725 | 670 | 691 | 5,141 | 4,763 |
| 5145 | CONFECTIONERY | 259 | 257 | 294 | 300 | 262 | 283 | 282 | 268 | 263 | 274 | 322 | 283 | 296 | 2,205 | 1,938 |
| 5147 | MEATS & MEAT PROD | 1,762 | 1,610 | 1,785 | 1,742 | 1,738 | 1,820 | 1,850 | 1,839 | 1,859 | 1,841 | 2,019 | 1,736 | 1,897 | 14,146 | 13,894 |
| 5148 | FRESH FRUITS & VEGETABLES | 1,232 | 1,210 | 1,464 | 1,550 | 1,509 | 1,594 | 1,526 | 1,309 | 1,206 | 1,217 | 1,258 | 1,200 | 1,258 | 11,394 | 9,719 |
| 515 | FARM PROD RAW MATERIALS | 12,545 | 10,191 | 12,440 | 10,674 | 10,351 | 8,788 | 8,490 | 8,021 | 9,378 | 10,135 | 11,921 | 10,965 | 12,354 | 81,500 | 74,849 |
| 5153 | GRAIN | 10,420 | 8,436 | 10,444 | 9,055 | 8,833 | 7,450 | 7,246 | 6,746 | 7,770 | 8,205 | 9,890 | 8,801 | 9,814 | 68,630 | 61,543 |
| 517 | PETROLEUM & PETROLEUM PROD | 17,548 | 15,697 | 16,263 | 15,987 | 16,094 | 16,248 | 15,446 | 14,499 | 13,530 | 14,007 | 15,657 | 16,626 | 17,185 | 127,782 | 94,715 |
| 5171 | PETROLEUM BULK STATIONS & TERMINALS | 6,165 | 5,438 | 5,701 | 5,414 | 5,126 | 5,069 | 5,179 | 5,044 | 4,306 | 4,752 | 5,446 | 5,546 | 6,249 | 43,136 | 33,828 |
| 518 | BEER, WINE, & DISTILLED ALCOHOLIC BEVERAGES | 2,185 | 2,207 | 2,688 | 2,906 | 2,788 | 3,126 | 3,154 | 2,896 | 2,831 | 2,638 | 2,906 | 2,667 | 3,162 | 21,950 | 20,324 |
| 5181 | BEER & ALE | 1,136 | 1,174 | 1,425 | 1,548 | 1,611 | 1,838 | 1,842 | 1,669 | 1,660 | 1,434 | 1,431 | 1,244 | 1,454 | 12,243 | 11,281 |
| 5182 | WINE & DISTILLED ALCOHOLIC BEVERAGES[5] | 1,049 | 1,033 | 1,263 | 1,358 | 1,177 | 1,288 | 1,312 | 1,227 | 1,171 | 1,204 | 1,475 | 1,423 | 1,708 | 9,707 | 9,043 |
| 519 | MISC NONDURABLE GOODS | 5,752 | 5,517 | 6,929 | 6,544 | 6,746 | 5,996 | 5,689 | 5,378 | 5,415 | 5,898 | 6,153 | 5,347 | 6,284 | 48,551 | 46,257 |
| 5194 | TOBACCO & TOBACCO PROD | 873 | 834 | 972 | 994 | 983 | 1,044 | 1,149 | 1,044 | 942 | 938 | 1,018 | 860 | 953 | 7,893 | 7,229 |

NOTE: Merchant wholesalers totals and group totals include data for some kinds of business not shown separately.

[P] Preliminary estimates. See Sample Design and Estimation Procedures.

[1] The furniture household and office kind of business is subject to a sampling variability of 10 percent for August 1981.

[2] The home furnishings kind of business is subject to a sampling variability of 9 percent for August 1981.

[3] The electrical appliances, TV and radio sets kind of business is subject to a sampling variability of 11 percent for August 1981.

[4] The apparel, piece goods and notions group is subject to a sampling variability of 14 percent for August 1981.

[5] The wine and distilled alcoholic beverages kind of business is subject to a sampling variability of 9 percent August 1981.

## Table 2. Estimated Monthly Inventories of Merchant Wholesalers, by Kind of Business for the United States, Unadjusted: 1981 and 1980

(MILLIONS OF DOLLARS. DATA ARE NOT ADJUSTED FOR SEASONAL VARIATIONS)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | | | | | | | | 1980 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN. | FEB. | MAR. | APR. | MAY | JUNE | JULY | AUG.[p] | AUG. | SEPT. | OCT. | NOV. | DEC. |
| | MERCHANT WHOLESALERS, TOTAL | 105,446 | 107,209 | 107,907 | 106,420 | 105,985 | 106,915 | 105,556 | 106,452 | 100,205 | 101,310 | 104,277 | 105,866 | 105,449 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 96,142 | 98,533 | 100,103 | 100,041 | 100,957 | 102,324 | 100,761 | 101,701 | 93,682 | 93,901 | 94,861 | 95,869 | 96,235 |
| 50 | DURABLE GOODS, TOTAL | 66,230 | 68,251 | 69,208 | 69,673 | 71,113 | 71,821 | 70,729 | 71,490 | 65,894 | 65,273 | 65,137 | 65,857 | 66,716 |
| 501 | MOTOR VEHICLES & AUTOMOTIVE PARTS & SUPPLIES | 11,373 | 11,287 | 11,298 | 11,178 | 10,866 | 11,240 | 10,810 | 10,461 | 11,206 | 10,984 | 11,246 | 11,253 | 11,615 |
| 5013,4 | AUTOMOTIVE PARTS & SUPPLIES, TIRES & TUBES | 5,667 | 5,619 | 5,838 | 5,670 | 5,916 | 6,023 | 5,691 | 5,767 | 5,716 | 5,750 | 5,659 | 5,775 | 5,813 |
| 5013 | AUTOMOTIVE PARTS & SUPPLIES | 4,613 | 4,549 | 4,699 | 4,603 | 4,790 | 4,862 | 4,634 | 4,689 | 4,688 | 4,703 | 4,628 | 4,703 | 4,730 |
| 502 | FURNITURE & HOME FURNISHINGS | 2,186 | 2,235 | 2,343 | 2,375 | 2,342 | 2,405 | 2,521 | 2,485 | 2,106 | 2,212 | 2,188 | 2,126 | 2,168 |
| 5023 | HOME FURNISHINGS | 1,583 | 1,623 | 1,697 | 1,735 | 1,705 | 1,730 | 1,849 | 1,817 | 1,543 | 1,608 | 1,600 | 1,555 | 1,566 |
| 503 | LUMBER & OTHER CONSTRUCTION MATERIALS | 3,368 | 3,483 | 3,544 | 3,653 | 3,705 | 3,790 | 3,601 | 3,634 | 3,551 | 3,377 | 3,331 | 3,493 | 3,392 |
| 5031 | LUMBER, PLYWOOD, AND MILLWORK[1] | 2,211 | 2,309 | 2,269 | 2,364 | 2,411 | 2,465 | 2,315 | 2,327 | 2,324 | 2,172 | 2,168 | 2,268 | 2,206 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS & OFFICES | 5,519 | 5,812 | 5,911 | 5,715 | 6,081 | 6,186 | 6,054 | 6,413 | 5,369 | 5,297 | 5,074 | 5,420 | 5,721 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | 4,346 | 4,627 | 4,708 | 4,529 | 4,884 | 5,022 | 4,876 | 5,139 | 4,334 | 4,242 | 3,999 | 4,323 | 4,532 |
| 506 | ELECTRICAL GOODS | 6,462 | 6,719 | 6,802 | 6,926 | 7,178 | 7,383 | 7,337 | 7,584 | 6,659 | 6,643 | 6,720 | 6,560 | 6,611 |
| 5063 | ELECTRICAL APPARATUS & EQUIPMENT, WIRING SUPPLIES, & CONSTRUCTION MATERIALS | 2,787 | 2,948 | 3,041 | 3,082 | 3,188 | 3,186 | 3,139 | 3,201 | 2,888 | 2,890 | 2,889 | 2,875 | 2,881 |
| 5064,5 | ELECTRICAL APPLIANCES, TV & RADIO SETS, & ELECTRONIC PARTS & EQUIPMENT | 3,675 | 3,771 | 3,761 | 3,844 | 3,990 | 4,197 | 4,198 | 4,383 | 3,771 | 3,753 | 3,831 | 3,685 | 3,730 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT & SUPPLIES | 4,764 | 4,853 | 4,990 | 5,179 | 5,141 | 5,177 | 5,177 | 5,255 | 4,557 | 4,525 | 4,584 | 4,482 | 4,632 |
| 5072 | HARDWARE | 1,925 | 1,976 | 2,014 | 2,015 | 1,958 | 2,037 | 2,011 | 2,060 | 1,824 | 1,853 | 1,842 | 1,806 | 1,885 |
| 5074 | PLUMBING & HEATING EQUIPMENT & SUPPLIES (HYDRONICS) | 1,866 | 1,862 | 1,888 | 2,023 | 2,038 | 1,968 | 2,037 | 2,072 | 1,840 | 1,767 | 1,819 | 1,770 | 1,788 |
| 508 | MACHINERY, EQUIPMENT, & SUPPLIES | 23,570 | 24,563 | 25,140 | 25,035 | 26,050 | 26,281 | 25,735 | 26,083 | 23,260 | 23,261 | 22,878 | 23,542 | 23,811 |
| 5082 | CONSTRUCTION & MINING MACHINERY & EQUIPMENT | 4,185 | 4,222 | 4,265 | 4,215 | 4,298 | 4,365 | 4,192 | 4,215 | 4,503 | 4,310 | 4,255 | 4,299 | 4,242 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, & SUPPLIES | 7,108 | 7,258 | 7,397 | 7,343 | 7,715 | 7,804 | 7,926 | 8,149 | 7,015 | 7,113 | 6,891 | 7,103 | 7,300 |
| 51 | NONDURABLE GOODS, TOTAL | 39,216 | 38,958 | 38,699 | 36,747 | 34,872 | 35,094 | 34,827 | 34,962 | 34,311 | 36,037 | 39,140 | 40,009 | 38,733 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 29,912 | 30,282 | 30,895 | 30,368 | 29,844 | 30,503 | 30,032 | 30,211 | 27,788 | 28,628 | 29,724 | 30,012 | 29,519 |
| 511 | PAPER & PAPER PRODUCTS | 1,847 | 1,903 | 1,927 | 1,921 | 1,972 | 2,024 | 2,058 | 2,072 | 1,712 | 1,750 | 1,773 | 1,820 | 1,849 |
| 5111,3 | PRINTING, WRITING, INDUSTRIAL, & PERSONAL SERVICE PAPER[2] | 1,242 | 1,250 | 1,310 | 1,278 | 1,284 | 1,346 | 1,373 | 1,377 | 1,150 | 1,189 | 1,202 | 1,215 | 1,248 |
| 5111 | PRINTING & WRITING PAPER | 546 | 547 | 577 | 558 | 561 | 586 | 584 | 577 | 484 | 492 | 501 | 516 | 546 |
| 5113 | INDUSTRIAL & PERSONAL SERVICE PAPER[3] | 696 | 703 | 733 | 720 | 723 | 760 | 789 | 800 | 666 | 697 | 701 | 699 | 702 |
| 512 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 1,586 | 1,634 | 1,632 | 1,596 | 1,592 | 1,660 | 1,653 | 1,616 | 1,483 | 1,562 | 1,716 | 1,624 | 1,570 |
| 514 | GROCERIES & RELATED PRODUCTS | 7,837 | 7,745 | 8,262 | 8,251 | 7,787 | 7,997 | 7,753 | 7,802 | 6,810 | 7,284 | 7,711 | 7,729 | 7,978 |
| 5141 | GROCERIES, GENERAL-LINE | 2,796 | 2,841 | 3,011 | 3,065 | 2,868 | 2,950 | 2,843 | 2,868 | 2,572 | 2,760 | 2,979 | 2,891 | 2,895 |
| 517 | PETROLEUM & PETROLEUM PRODUCTS | 4,972 | 5,143 | 4,991 | 4,849 | 4,807 | 5,122 | 5,025 | 5,171 | 4,792 | 4,952 | 5,176 | 5,234 | 4,992 |
| 518 | BEER, WINE, & DISTILLED ALCOHOLIC BEVERAGES | 2,777 | 2,755 | 2,787 | 2,869 | 2,971 | 3,114 | 3,043 | 3,109 | 2,842 | 2,963 | 3,134 | 3,158 | 2,722 |
| 5181 | BEER & ALE[4] | 1,015 | 1,070 | 1,142 | 1,193 | 1,277 | 1,333 | 1,263 | 1,317 | 1,084 | 1,134 | 1,115 | 1,156 | 1,018 |
| 5182 | WINE & DISTILLED ALCOHOLIC BEVERAGES | 1,762 | 1,685 | 1,645 | 1,676 | 1,694 | 1,781 | 1,780 | 1,792 | 1,758 | 1,829 | 2,019 | 2,002 | 1,704 |

NOTE: Merchant wholesalers total and group totals include data for some kinds of business not shown separately.

[p] Preliminary estimates. See Sample Design and Estimation Procedures.

[1] The lumber, plywood, and millwork kind of business is subject to a sampling variability of 9 percent for August 1981.

[2] The printing, writing, industrial, and personal service paper kinds of business are subject to a sampling variability of 9 percent for August 1981.

[3] The industrial and personal service paper kind of business is subject to a sampling variability of 13 percent for August 1981.

[4] The beer and ale kind of business is subject to a sampling variability of 10 percent for August 1981.

## Table 3. Stock-Sales Ratios of Merchant Wholesalers, by Kind of Business for the United States, Unadjusted: 1981 and 1980

(PERCENT. DATA ARE NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | | | | | | | | 1980 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN. | FEB. | MAR. | APR. | MAY | JUNE | JULY | AUG.[p] | AUG. | SEPT. | OCT. | NOV. | DEC. |
| | MERCHANT WHOLESALERS, TOTAL | 112 | 120 | 107 | 107 | 110 | 108 | 110 | 115 | 116 | 112 | 105 | 116 | 108 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 118 | 124 | 113 | 113 | 117 | 114 | 115 | 120 | 122 | 117 | 109 | 119 | 113 |
| 50 | DURABLE GOODS, TOTAL | 184 | 184 | 165 | 166 | 175 | 166 | 171 | 175 | 183 | 171 | 158 | 180 | 173 |
| 501 | MOTOR VEHICLES & AUTOMOTIVE PARTS & SUPPLIES | 161 | 156 | 138 | 134 | 144 | 142 | 139 | 141 | 159 | 170 | 147 | 170 | 170 |
| 5013,4 | AUTOMOTIVE PARTS & SUPPLIES, TIRES & TUBES | 184 | 183 | 165 | 162 | 186 | 169 | 165 | 176 | 189 | 184 | 164 | 192 | 190 |
| 5013 | AUTOMOTIVE PARTS & SUPPLIES | 175 | 172 | 158 | 158 | 181 | 163 | 161 | 171 | 184 | 182 | 160 | 186 | 184 |
| 502 | FURNITURE & HOME FURNISHINGS | 169 | 168 | 160 | 161 | 167 | 163 | 186 | 172 | 168 | 166 | 143 | 157 | 160 |
| 5023 | HOME FURNISHINGS | 191 | 185 | 185 | 182 | 191 | 186 | 218 | 203 | 197 | 187 | 155 | 170 | 183 |
| 503 | LUMBER & OTHER CONSTRUCTION MATERIALS | 139 | 146 | 128 | 123 | 133 | 124 | 124 | 124 | 125 | 111 | 101 | 124 | 125 |
| 5031 | LUMBER, PLYWOOD, AND MILLWORK | 141 | 147 | 131 | 128 | 138 | 126 | 131 | 135 | 130 | 113 | 106 | 127 | 128 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS & OFFICES | 167 | 162 | 150 | 150 | 155 | 150 | 163 | 167 | 197 | 174 | 155 | 183 | 172 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | 171 | 168 | 153 | 151 | 160 | 155 | 167 | 170 | 209 | 186 | 161 | 190 | 181 |
| 506 | ELECTRICAL GOODS | 172 | 171 | 154 | 165 | 168 | 160 | 167 | 175 | 175 | 158 | 156 | 155 | 154 |
| 5063 | ELECTRICAL APPARATUS & EQUIPMENT, WIRING SUPPLIES, & CONSTRUCTION MATERIALS | 150 | 149 | 146 | 148 | 151 | 143 | 153 | 160 | 155 | 134 | 133 | 133 | 134 |
| 5064,5 | ELECTRICAL APPLIANCES, TV & RADIO SETS, & ELECTRONIC PARTS & EQUIPMENT | 193 | 193 | 162 | 182 | 185 | 175 | 179 | 187 | 194 | 183 | 181 | 177 | 174 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT & SUPPLIES | 209 | 220 | 197 | 193 | 200 | 184 | 191 | 195 | 197 | 188 | 173 | 193 | 205 |
| 5072 | HARDWARE | 217 | 232 | 205 | 203 | 212 | 206 | 211 | 219 | 219 | 207 | 198 | 210 | 218 |
| 5074 | PLUMBING & HEATING EQUIPMENT & SUPPLIES (HYDRONICS) | 193 | 202 | 179 | 181 | 185 | 173 | 183 | 175 | 192 | 171 | 154 | 175 | 185 |
| 508 | MACHINERY, EQUIPMENT, & SUPPLIES | 229 | 229 | 200 | 203 | 213 | 200 | 203 | 210 | 214 | 200 | 191 | 224 | 203 |
| 5082 | CONSTRUCTION & MINING MACHINERY & EQUIPMENT | 377 | 347 | 304 | 268 | 298 | 275 | 298 | 293 | 281 | 293 | 301 | 321 | 308 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, & SUPPLIES | 153 | 152 | 134 | 136 | 140 | 128 | 139 | 145 | 156 | 151 | 140 | 158 | 144 |
| 51 | NONDURABLE GOODS, TOTAL | 68 | 74 | 65 | 64 | 62 | 63 | 64 | 68 | 68 | 69 | 68 | 73 | 66 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 66 | 71 | 66 | 65 | 65 | 65 | 65 | 69 | 68 | 67 | 65 | 69 | 63 |
| 511 | PAPER & PAPER PRODUCTS | 95 | 100 | 91 | 94 | 99 | 96 | 99 | 98 | 96 | 93 | 88 | 100 | 96 |
| 5111,3 | PRINTING, WRITING, INDUSTRIAL, & PERSONAL SERVICE PAPER | 89 | 92 | 85 | 87 | 89 | 88 | 90 | 89 | 89 | 86 | 82 | 93 | 88 |
| 5111 | PRINTING & WRITING PAPER | 83 | 84 | 79 | 78 | 84 | 81 | 82 | 82 | 84 | 79 | 72 | 89 | 84 |
| 5113 | INDUSTRIAL & PERSONAL SERVICE PAPER | 94 | 99 | 90 | 95 | 94 | 94 | 96 | 95 | 94 | 93 | 91 | 97 | 92 |
| 512 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 133 | 144 | 128 | 125 | 131 | 131 | 129 | 134 | 138 | 135 | 131 | 143 | 131 |
| 514 | GROCERIES & RELATED PRODUCTS | 59 | 63 | 59 | 59 | 58 | 57 | 54 | 57 | 54 | 56 | 56 | 61 | 58 |
| 5141 | GROCERIES, GENERAL-LINE | 64 | 70 | 67 | 68 | 66 | 66 | 62 | 64 | 63 | 68 | 67 | 69 | 66 |
| 517 | PETROLEUM & PETROLEUM PRODUCTS | 28 | 33 | 31 | 30 | 30 | 32 | 33 | 36 | 35 | 35 | 33 | 31 | 29 |
| 518 | BEER, WINE, & DISTILLED ALCOHOLIC BEVERAGES | 127 | 125 | 104 | 99 | 107 | 100 | 96 | 107 | 100 | 112 | 108 | 118 | 86 |
| 5181 | BEER & ALE | 89 | 91 | 80 | 77 | 79 | 73 | 69 | 79 | 65 | 79 | 78 | 93 | 70 |
| 5182 | WINE & DISTILLED ALCOHOLIC BEVERAGES | 168 | 163 | 130 | 123 | 144 | 138 | 136 | 146 | 150 | 152 | 137 | 141 | 100 |

NOTE: Merchant wholesalers total and group totals include data for some kinds of business not shown separately.

[p] Preliminary estimates. See Sample Design and Estimation Procedures.

# Table 4A. Estimated Monthly Sales, Inventories, and Stock-Sales Ratios of Merchant Wholesalers, by Kind of Business for the United States, Adjusted: 1981 and 1980

(SALES AND INVENTORIES IN MILLIONS OF DOLLARS. STOCK-SALES RATIOS IN PERCENT)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | | | | | | | | 1980 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN. | FEB. | MAR. | APR. | MAY | JUNE | JULY | AUG.[P] | AUG. | SEPT. | OCT. | NOV. | DEC. |
| | | SALES ADJUSTED FOR SEASONAL VARIATIONS AND TRADING-DAY DIFFERENCES | | | | | | | | | | | | |
| | MERCHANT WHOLESALERS, TOTAL | 98,967 | 98,016 | 96,486 | 97,577 | 96,217 | 95,564 | 97,085 | 93,710 | 86,889 | 90,223 | 93,282 | 93,901 | 96,591 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 86,583 | 86,768 | 84,999 | 86,773 | 86,039 | 86,723 | 88,158 | 84,798 | 76,783 | 79,666 | 82,335 | 83,162 | 85,013 |
| 50 | DURABLE GOODS, TOTAL | 40,370 | 41,511 | 39,907 | 40,299 | 40,584 | 41,045 | 41,244 | 40,164 | 35,353 | 36,937 | 38,110 | 38,799 | 39,403 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | 7,668 | 7,930 | 7,548 | 7,391 | 7,220 | 7,633 | 7,701 | 7,386 | 7,019 | 6,920 | 7,302 | 7,212 | 7,145 |
| 502 | FURNITURE AND HOME FURNISHINGS | 1,486 | 1,491 | 1,413 | 1,433 | 1,424 | 1,465 | 1,409 | 1,476 | 1,261 | 1,281 | 1,321 | 1,331 | 1,344 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | 3,043 | 3,019 | 2,863 | 2,981 | 2,744 | 2,752 | 2,642 | 2,649 | 2,542 | 2,729 | 2,853 | 2,999 | 3,001 |
| 506 | ELECTRICAL GOODS | 4,256 | 4,421 | 4,407 | 4,375 | 4,480 | 4,417 | 4,389 | 4,185 | 3,735 | 3,976 | 3,912 | 4,178 | 4,094 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | 2,513 | 2,572 | 2,569 | 2,577 | 2,535 | 2,646 | 2,556 | 2,586 | 2,238 | 2,349 | 2,370 | 2,428 | 2,411 |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | 11,641 | 12,071 | 12,053 | 11,636 | 12,008 | 12,218 | 12,601 | 12,338 | 10,842 | 11,071 | 11,136 | 11,500 | 11,888 |
| 51 | NONDURABLE GOODS, TOTAL | 58,597 | 56,505 | 56,579 | 57,278 | 55,633 | 54,519 | 55,841 | 53,546 | 51,536 | 53,286 | 55,172 | 55,102 | 57,188 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 46,213 | 45,257 | 45,092 | 46,474 | 45,455 | 45,678 | 46,914 | 44,634 | 41,430 | 42,729 | 44,225 | 44,363 | 45,610 |
| 511 | PAPER AND PAPER PRODUCTS | 1,989 | 2,032 | 2,033 | 2,019 | 2,059 | 2,051 | 2,099 | 2,140 | 1,782 | 1,849 | 1,864 | 1,920 | 1,917 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | 1,255 | 1,258 | 1,238 | 1,242 | 1,268 | 1,259 | 1,276 | 1,222 | 1,095 | 1,123 | 1,169 | 1,178 | 1,174 |
| 513 | APPAREL, PIECE GOODS, AND NOTIONS | 2,192 | 2,459 | 2,256 | 2,338 | 2,247 | 2,509 | 2,637 | 2,413 | 2,221 | 2,239 | 2,185 | 2,156 | 2,057 |
| 514 | GROCERIES AND RELATED PRODUCTS | 13,541 | 13,505 | 13,578 | 13,749 | 13,201 | 13,706 | 14,001 | 13,835 | 12,706 | 12,993 | 13,245 | 13,135 | 13,492 |
| 515 | FARM-PRODUCT RAW MATERIALS[1] | 12,384 | 11,248 | 11,487 | 10,804 | 10,178 | 8,841 | 8,927 | 8,912 | 10,106 | 10,557 | 10,947 | 10,739 | 11,578 |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | 16,938 | 15,603 | 15,743 | 16,670 | 16,439 | 16,281 | 16,345 | 14,978 | 13,863 | 14,455 | 15,487 | 16,220 | 16,461 |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | 2,681 | 2,721 | 2,718 | 2,915 | 2,788 | 2,850 | 2,939 | 2,853 | 2,738 | 2,673 | 2,729 | 2,727 | 2,686 |
| 519 | MISCELLANEOUS NONDURABLE GOODS | 6,061 | 6,151 | 6,214 | 5,982 | 6,034 | 5,614 | 5,926 | 5,814 | 5,804 | 5,946 | 6,221 | 5,831 | 6,498 |
| | | INVENTORIES ADJUSTED FOR SEASONAL VARIATIONS | | | | | | | | | | | | |
| | MERCHANT WHOLESALERS, TOTAL | 104,909 | 106,066 | 105,539 | 105,591 | 105,568 | 107,210 | 106,402 | 107,643 | 101,920 | 102,953 | 104,293 | 105,203 | 105,529 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 97,117 | 98,663 | 98,771 | 99,331 | 99,775 | 101,632 | 100,317 | 101,629 | 93,694 | 94,216 | 95,187 | 96,607 | 97,558 |
| 50 | DURABLE GOODS, TOTAL | 67,319 | 68,482 | 68,571 | 69,174 | 69,876 | 70,589 | 69,841 | 70,862 | 65,387 | 65,461 | 65,951 | 66,955 | 67,938 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | 11,216 | 10,791 | 11,012 | 11,078 | 10,695 | 11,229 | 10,875 | 10,751 | 11,517 | 11,514 | 11,464 | 11,378 | 11,603 |
| 502 | FURNITURE AND HOME FURNISHINGS | 2,228 | 2,278 | 2,322 | 2,373 | 2,333 | 2,337 | 2,481 | 2,483 | 2,100 | 2,160 | 2,175 | 2,163 | 2,237 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | 3,451 | 3,515 | 3,431 | 3,554 | 3,604 | 3,701 | 3,517 | 3,623 | 3,540 | 3,415 | 3,396 | 3,635 | 3,501 |
| 506 | ELECTRICAL GOODS | 6,710 | 7,028 | 6,934 | 6,975 | 7,044 | 7,231 | 7,186 | 7,406 | 6,503 | 6,538 | 6,614 | 6,553 | 6,651 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | 4,881 | 4,848 | 4,854 | 4,914 | 4,948 | 5,021 | 5,080 | 5,303 | 4,589 | 4,636 | 4,682 | 4,713 | 4,835 |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | 24,076 | 24,588 | 24,744 | 24,812 | 25,640 | 25,740 | 25,582 | 25,876 | 23,075 | 23,122 | 23,321 | 23,925 | 24,272 |
| 51 | NONDURABLE GOODS, TOTAL | 37,590 | 37,584 | 36,968 | 36,417 | 35,692 | 36,621 | 36,561 | 36,781 | 36,533 | 37,492 | 38,342 | 38,248 | 37,591 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 29,798 | 30,181 | 30,200 | 30,157 | 29,899 | 31,043 | 30,476 | 30,767 | 28,307 | 28,755 | 29,236 | 29,652 | 29,620 |
| 511 | PAPER AND PAPER PRODUCTS | 1,902 | 1,934 | 1,935 | 1,904 | 1,964 | 1,973 | 2,056 | 2,095 | 1,731 | 1,731 | 1,771 | 1,815 | 1,833 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | 1,645 | 1,704 | 1,625 | 1,579 | 1,602 | 1,655 | 1,643 | 1,618 | 1,484 | 1,519 | 1,630 | 1,610 | 1,612 |
| 514 | GROCERIES AND RELATED PRODUCTS | 7,948 | 7,753 | 8,132 | 8,202 | 7,842 | 7,989 | 7,903 | 8,035 | 7,013 | 7,262 | 7,494 | 7,660 | 7,868 |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | 4,855 | 5,190 | 4,986 | 5,072 | 4,900 | 5,403 | 5,122 | 5,176 | 4,797 | 4,836 | 4,982 | 5,018 | 4,904 |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | 2,851 | 2,918 | 2,749 | 2,738 | 2,876 | 3,044 | 3,019 | 3,218 | 2,942 | 2,984 | 3,011 | 3,054 | 2,924 |
| | | STOCK-SALES RATIOS BASED ON ADJUSTED DATA | | | | | | | | | | | | |
| | MERCHANT WHOLESALERS, TOTAL | 106 | 108 | 109 | 108 | 110 | 112 | 110 | 115 | 117 | 114 | 112 | 112 | 109 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 112 | 114 | 116 | 114 | 116 | 117 | 114 | 120 | 122 | 118 | 116 | 116 | 115 |
| 50 | DURABLE GOODS, TOTAL | 167 | 165 | 172 | 172 | 172 | 172 | 169 | 176 | 185 | 177 | 173 | 173 | 172 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | 146 | 136 | 146 | 150 | 148 | 147 | 141 | 146 | 164 | 166 | 157 | 158 | 162 |
| 502 | FURNITURE AND HOME FURNISHINGS | 150 | 153 | 164 | 166 | 164 | 160 | 176 | 168 | 167 | 169 | 165 | 163 | 166 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | 113 | 116 | 120 | 119 | 131 | 134 | 133 | 137 | 139 | 125 | 119 | 121 | 117 |
| 506 | ELECTRICAL GOODS | 158 | 159 | 157 | 159 | 157 | 164 | 164 | 177 | 174 | 164 | 169 | 157 | 162 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | 194 | 188 | 189 | 191 | 195 | 190 | 199 | 205 | 205 | 197 | 198 | 194 | 201 |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | 207 | 204 | 205 | 213 | 214 | 211 | 203 | 210 | 213 | 209 | 209 | 208 | 204 |
| 51 | NONDURABLE GOODS, TOTAL | 64 | 67 | 65 | 64 | 64 | 67 | 65 | 69 | 71 | 70 | 69 | 69 | 66 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 64 | 67 | 67 | 65 | 66 | 68 | 65 | 69 | 68 | 67 | 66 | 67 | 65 |
| 511 | PAPER AND PAPER PRODUCTS | 96 | 95 | 95 | 94 | 95 | 96 | 98 | 98 | 97 | 94 | 95 | 95 | 96 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | 131 | 135 | 131 | 127 | 126 | 131 | 129 | 132 | 136 | 135 | 139 | 137 | 137 |
| 514 | GROCERIES AND RELATED PRODUCTS | 59 | 57 | 60 | 60 | 59 | 58 | 56 | 58 | 55 | 56 | 57 | 58 | 58 |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | 29 | 33 | 32 | 30 | 30 | 33 | 31 | 35 | 35 | 33 | 32 | 31 | 30 |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | 106 | 107 | 101 | 94 | 103 | 107 | 103 | 113 | 107 | 112 | 110 | 112 | 109 |

Note: Merchant wholesalers total and group totals include data for some kinds of business not shown separately.

[P] Preliminary estimate. See Sample Design and Estimation Procedures.

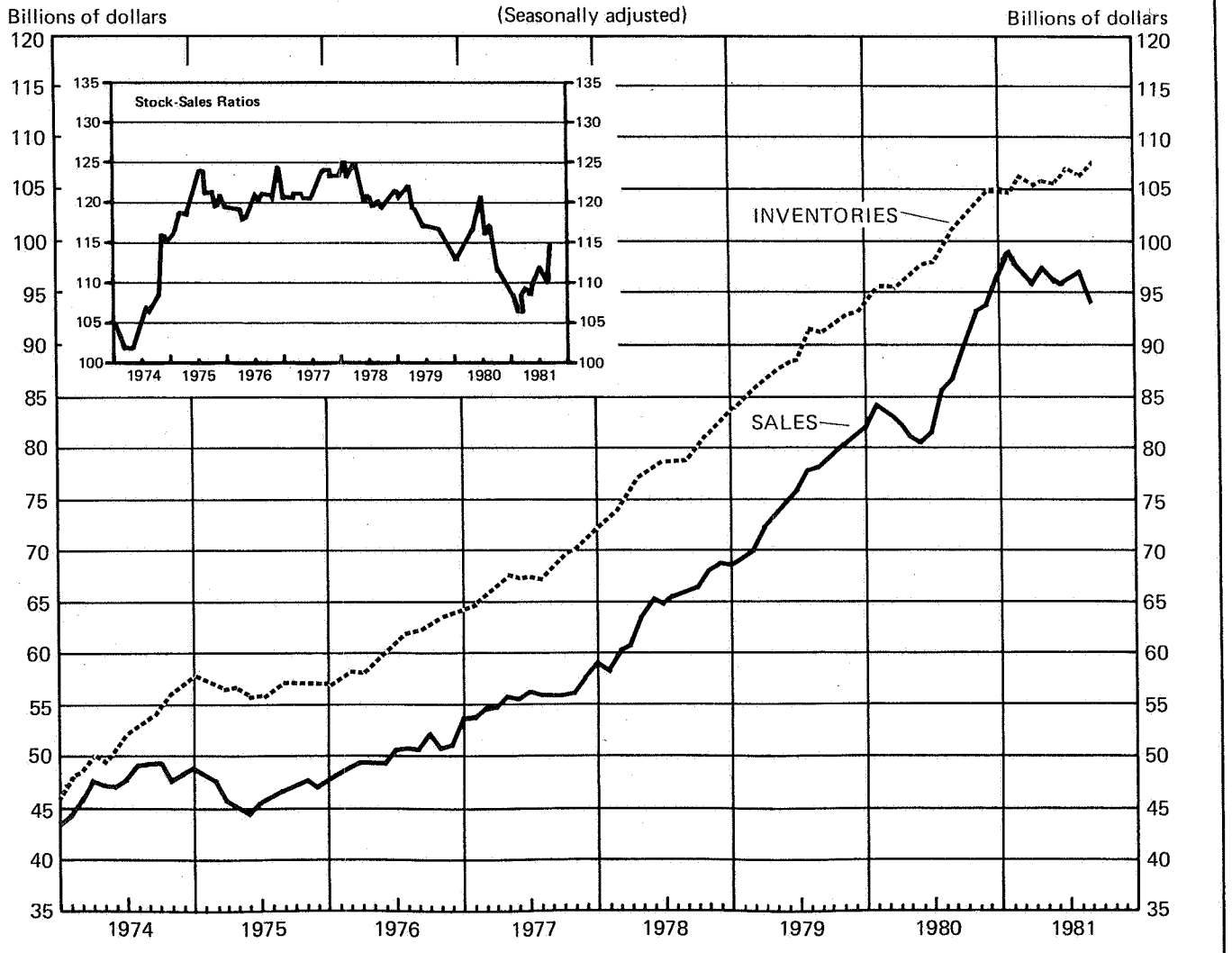
[1] There are indications that the seasonal adjustment factors for the farm-product raw materials category may not reflect recent trends in this trade. The seasonally adjusted data for this category and also for the merchant wholesale and nondurable goods totals should, therefore, be used with caution.

Table 4B. **Percent Change Between Selected 3-Month Periods Sales of Merchant Wholesalers, United States**

(Based on seasonally-adjusted data)

| Item | 3-month period, June 1981-August 1981 from-- | | | |
|---|---|---|---|---|
| | Mar. 1981-May 1981 (3 months ago) | Dec. 1980-Feb. 1981 (6 months ago) | Sept. 1980-Nov. 1980 (9 months ago) | June 1980-August 1980 (12 months ago) |
| Merchant wholesalers, total..... | -1 | -2 | +3 | +13 |
| Durable goods, total..... | +1 | +1 | +8 | +16 |
| Nondurable goods, total... | -3 | -5 | 0 | +10 |

**Monthly Sales, Inventories, and Stock-Sales Ratios of Merchant Wholesalers: 1974-1981**



# Table 5. Percent Change in Sales and Inventories of Merchant Wholesalers, by Kind of Business for the United States: August 1981

| 1972 SIC CODE | KIND OF BUSINESS | UNADJUSTED | | | | | ADJUSTED[1] | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | SALES | | | INVENTORIES, END-OF-MONTH (AT COST) | | SALES | | INVENTORIES, END-OF-MONTH (AT COST) | |
| | | AUG. 1981 FROM JULY 1981 | AUG. 1981 FROM AUG. 1980 | 8 MONTHS 1981 FROM 8 MONTHS 1980 | AUG. 1981 FROM JULY 1981 | AUG. 1981 FROM AUG. 1980 | AUG. 1981 FROM JULY 1981 | AUG. 1981 FROM AUG. 1980 | AUG. 1981 FROM JULY 1981 | AUG. 1981 FROM AUG. 1980 |
| | MERCHANT WHOLESALERS, TOTAL | -3 | +7 | +15 | +1 | +6 | -3 | +8 | +1 | +6 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | -3 | +10 | +16 | +1 | +9 | -4 | +10 | +1 | +8 |
| 50 | DURABLE GOODS, TOTAL | -1 | +14 | +14 | +1 | +8 | -3 | +14 | +1 | +8 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | -4 | +5 | +14 | -3 | -7 | -4 | +5 | -1 | -7 |
| 5012 | AUTOMOBILES AND OTHER MOTOR VEHICLES | -4 | +3 | +11 | -8 | -14 | (*) | (*) | (*) | (*) |
| 5013,4 | AUTOMOTIVE PARTS AND SUPPLIES, TIRES AND TUBES | -5 | +8 | +17 | +1 | +1 | (*) | (*) | (*) | (*) |
| 5013 | AUTOMOTIVE PARTS AND SUPPLIES | -4 | +8 | +17 | +1 | 0 | (*) | (*) | (*) | (*) |
| 502 | FURNITURE AND HOME FURNISHINGS | +6 | +16 | +12 | -1 | +18 | +5 | +17 | 0 | +18 |
| 5021 | FURNITURE--HOUSEHOLD AND OFFICE | +8 | +18 | +12 | -1 | +19 | (*) | (*) | (*) | (*) |
| 5021 PT. | HOUSEHOLD FURNITURE | +1 | +18 | +5 | +2 | +16 | (*) | (*) | (*) | (*) |
| 5021 PT. | OFFICE FURNITURE[2] | +11 | +18 | +16 | -2 | +21 | (*) | (*) | (*) | (*) |
| 5023 | HOME FURNISHINGS | +5 | +14 | +12 | -2 | +18 | (*) | (*) | (*) | (*) |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | +1 | +3 | +4 | +1 | +2 | 0 | +4 | +3 | +2 |
| 5031 | LUMBER, PLYWOOD, AND MILLWORK | -3 | -4 | +1 | +1 | 0 | (*) | (*) | (*) | (*) |
| 5039 | CONSTRUCTION MATERIALS, N.E.C. | +6 | +14 | +9 | +2 | +7 | (*) | (*) | (*) | (*) |
| 504 | SPORTING, RECREATIONAL, PHOTOGRAPHIC, AND HOBBY GOODS, TOYS AND SUPPLIES | -2 | +21 | +16 | -1 | -2 | +6 | +20 | +4 | -2 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS AND OFFICES | +3 | +40 | +29 | +6 | +19 | (*) | (*) | (*) | (*) |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | +4 | +46 | +33 | +5 | +19 | (*) | (*) | (*) | (*) |
| 506 | ELECTRICAL GOODS | -1 | +14 | +15 | +3 | +14 | -5 | +12 | +3 | +14 |
| 5063 | ELECTRICAL APPARATUS AND EQUIPMENT, WIRING SUPPLIES, AND CONSTRUCTION MATERIALS | -3 | +8 | +13 | +2 | +11 | (*) | (*) | (*) | (*) |
| 5064,5 | ELECTRICAL APPLIANCES, TV AND RADIO SETS, AND ELECTRONIC PARTS AND EQUIPMENT | 0 | +21 | +18 | +4 | +16 | (*) | (*) | (*) | (*) |
| 5064 | ELECTRICAL APPLIANCES, TV AND RADIO SETS | -5 | +12 | +20 | +8 | +17 | (*) | (*) | (*) | (*) |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | 0 | +17 | +14 | +2 | +15 | +1 | +16 | +4 | +16 |
| 5072 | HARDWARE | -1 | +13 | +12 | +2 | +13 | (*) | (*) | (*) | (*) |
| 5074 | PLUMBING AND HEATING EQUIPMENT AND SUPPLIES (HYDRONICS) | +6 | +24 | +15 | +2 | +13 | (*) | (*) | (*) | (*) |
| 5075 | WARM AIR HEATING AND AIR CONDITIONING EQUIPMENT AND SUPPLIES | -16 | +8 | +14 | -2 | +30 | (*) | (*) | (*) | (*) |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | -2 | +14 | +16 | +1 | +12 | -2 | +14 | +1 | +12 |
| 5081 | COMMERCIAL MACHINES AND EQUIPMENT | -2 | +4 | +15 | +5 | +17 | (*) | (*) | (*) | (*) |
| 5082 | CONSTRUCTION AND MINING MACHINERY AND EQUIPMENT | +2 | -10 | +6 | +1 | -6 | (*) | (*) | (*) | (*) |
| 5083 | FARM AND GARDEN MACHINERY AND EQUIPMENT[3] | -2 | +21 | +9 | +1 | +18 | (*) | (*) | (*) | (*) |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, AND SUPPLIES | -2 | +24 | +22 | +3 | +16 | (*) | (*) | (*) | (*) |
| 5086 | PROFESSIONAL EQUIPMENT AND SUPPLIES | -2 | +11 | +16 | +1 | +15 | (*) | (*) | (*) | (*) |
| 5093 | SCRAP AND WASTE MATERIALS[5] | -4 | +2 | -3 | +2 | +19 | (*) | (*) | (*) | (*) |
| 5093 PT. | IRON AND STEEL SCRAP | -6 | +3 | 0 | +2 | +18 | (*) | (*) | (*) | (*) |
| 5093 PT. | WASTE MATERIALS | 0 | +1 | -8 | +1 | +21 | (*) | (*) | (*) | (*) |
| 51 | NONDURABLE GOODS, TOTAL | -5 | +3 | +17 | 0 | +2 | -4 | +4 | +1 | +1 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | -5 | +7 | +19 | +1 | +9 | -5 | +8 | +1 | +9 |
| 511 | PAPER AND PAPER PRODUCTS | +2 | +19 | +16 | +1 | +21 | +2 | +20 | +2 | +21 |
| 5111,3 | PRINTING, WRITING, INDUSTRIAL, AND PERSONAL SERVICE PAPER | +1 | +20 | +15 | 0 | +20 | (*) | (*) | (*) | (*) |
| 5111 | PRINTING AND WRITING PAPER | -2 | +22 | +10 | -1 | +19 | (*) | (*) | (*) | (*) |
| 5113 | INDUSTRIAL AND PERSONAL SERVICE PAPER | +2 | +18 | +19 | +1 | +20 | (*) | (*) | (*) | (*) |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | -6 | +12 | +19 | -2 | +9 | -4 | +12 | -2 | +9 |
| 5122 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | -6 | +12 | +19 | -2 | +9 | (*) | (*) | (*) | (*) |
| 5122 PT. | GENERAL-LINE DRUGS | -10 | +4 | +14 | -2 | +6 | (*) | (*) | (*) | (*) |
| 514 | GROCERIES AND RELATED PRODUCTS | -5 | +8 | +12 | +1 | +15 | -1 | +9 | +2 | +15 |
| 5141 | GROCERIES, GENERAL-LINE | -3 | +9 | +12 | +1 | +12 | (*) | (*) | (*) | (*) |
| 5141 PT. | VOLUNTARY GROUPS | -4 | +3 | +10 | -1 | +7 | (*) | (*) | (*) | (*) |
| 5141 PT. | RETAILER COOPERATIVES | -3 | +8 | +10 | +3 | +11 | (*) | (*) | (*) | (*) |
| 5141 PT. | OTHER GENERAL-LINES | -1 | +15 | +15 | +1 | +16 | (*) | (*) | (*) | (*) |
| 5142,3,6,9 | SPECIALTY-LINE GROCERIES | -5 | +12 | +16 | -1 | +19 | (*) | (*) | (*) | (*) |
| 5144 | POULTRY AND POULTRY PRODUCTS | -5 | -1 | +8 | -2 | -1 | (*) | (*) | (*) | (*) |
| 5145 | CONFECTIONERY | -5 | +2 | +14 | +7 | +5 | (*) | (*) | (*) | (*) |
| 5147 | MEATS AND MEAT PRODUCTS | -1 | -1 | +2 | +1 | +1 | (*) | (*) | (*) | (*) |
| 5148 | FRESH FRUITS AND VEGETABLES[6] | -14 | +9 | +17 | +7 | (S) | (*) | (*) | (*) | (*) |
| 515 | FARM-PRODUCT RAW MATERIALS[2] | -6 | -14 | +9 | -1 | -27 | 0 | -12 | -1 | -27 |
| 5152 | COTTON[7] | -8 | -27 | -5 | -25 | -44 | (*) | (*) | (*) | (*) |
| 5153 | GRAIN | -7 | -13 | +12 | 0 | -30 | (*) | (*) | (*) | (*) |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | -6 | +7 | +35 | +3 | +8 | -8 | +8 | +1 | +8 |
| 5171 | PETROLEUM BULK STATIONS AND TERMINALS | -3 | +17 | +28 | +7 | +3 | (*) | (*) | (*) | (*) |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | -8 | +2 | +8 | +2 | +9 | -3 | +4 | +7 | +9 |
| 5181 | BEER AND ALE | -9 | +1 | +9 | +4 | +21 | (*) | (*) | (*) | (*) |
| 5182 | WINE AND DISTILLED ALCOHOLIC BEVERAGES | -6 | +5 | +7 | +1 | +2 | (*) | (*) | (*) | (*) |
| 519 | MISCELLANEOUS NONDURABLE GOODS | -5 | -1 | +5 | -1 | -1 | -2 | 0 | -2 | -1 |
| 5191 | FARM SUPPLIES | -14 | -12 | +3 | -3 | -9 | (*) | (*) | (*) | (*) |
| 5194 | TOBACCO AND TOBACCO PRODUCTS | -9 | +11 | +9 | -1 | +10 | (*) | (*) | (*) | (*) |
| 5198 | PAINTS, VARNISHES, AND SUPPLIES | -3 | +1 | +3 | +1 | +7 | (*) | (*) | (*) | (*) |
| 5199 PT. | BOOKS, PERIODICALS, NEWSPAPERS | +10 | (S) | (S) | +5 | (S) | (*) | (*) | (*) | (*) |

Adjusted data are available only for summary group totals. (S) Does not meet publication standards because of extreme variability or high nonresponse rate.

[1]Adjusted for seasonal variations and, in the case of sales, also for trading-day differences.

[2]There are indications that the seasonal adjustment factors for this trade group may not reflect recent trends. The seasonally adjusted data for this trade group and also for the summary group totals should, therefore, be used with caution.

[3]Sampling variability of 6 percent for percent change for sales between August 1981 and July 1981 and 11 percent between August 1981 and August 1980.

[4]Sampling variability of 6 percent for percent change for sales between August 1981 and July 1981.

[5]Sampling variability of 6 percent for percent change for sales between August 1981 and July 1981.

[6]Sampling variability of 11 percent for percent change for inventories between August 1981 and July 1981 and, August 1981 and August 1980.

[7]Sampling variability of 13 percent for percent change for sales between August 1981 and August 1980.

# Appendix A. Reliability of Data

There are two types of errors possible in an estimate based on a sample survey—sampling and nonsampling. Sampling errors occur because observations are made only on a sample, not on the entire population. Nonsampling errors can be attributed to many sources in the collection and processing of data. The accuracy of a survey result is determined by the joint effects of sampling and nonsampling errors.

**Measures of Sampling Variability.** The particular sample used in this survey is one of a large number of all possible samples of the same size that could have been selected using the same design. Estimates derived from the different samples would differ from each other. The average of these estimates would be close to the estimate derived from a complete enumeration of the population (assuming that a complete enumeration has the same nonsampling errors as the sample survey). The average of the estimates differs from the estimate from a complete census because of the composite estimation technique. Disregarding this difference, the sampling error or standard error of the estimate is a measure of the variability among the estimates from all possible samples of the same size and design and, thus, is a measure of the precision with which an estimate from a particular sample approximates the results of a complete enumeration. The coefficient of variation (expressed as a percent) is the standard error of the estimate times 100 percent, divided by the value being estimated. Note that any measures of sampling variability, such as the standard error or coefficient of variation, are estimates derived from the sample and are also subject to sampling variability.

Estimates of sampling variability (the coefficients of variation in percent) for sales and inventories at the kind-of-business detail provided in this publication are shown in table A-1. These coefficients of variation permit certain confidence statements about the sample estimates. As noted above, the particular sample used in this survey is one of a large number of all possible samples of about the same size that could have been selected using the same design. In about two out of three (67 percent) of these samples, the estimate would differ from a complete enumeration by less than the corresponding percent for that estimate shown in the sampling variability table. In about 19 out of 20 (95 percent) of these samples, the estimate would differ from the results of a complete enumeration by less than twice the percentages shown.

To illustrate the computations involved in the above confidence statements for monthly dollar volume estimates, assume that an estimate for a kind of business published in table 1 for a particular month is $5,000 million and that the median coefficient of variation for this statistic, is 0.9 percent or 0.009. Multiplying $5,000 million by 0.009 yields $45 million. Therefore, a 67-percent confidence interval is $4,955 million to $5,045 million (i.e. $5,000 million plus or minus $45 million). If corresponding confidence intervals were constructed for all possible samples of the same size and design, approximately 2 out of 3 (67 percent) of these intervals would contain the figure obtained from a complete enumeration. Similarly, a 95-percent confidence interval is $4,910 million to $5,090 million (i.e., $5,000 million plus or minus $90 million).

As an example of the use of the coefficients of variation with ratios, assume that an estimated month-to-month percent change published in table 5 is -1.0 percent for a particular kind of business. This is equivalent to a month-to-month ratio of 0.990. Then assume the median coefficient of variation for this ratio as shown in table A-1 is 0.5 percent (or 0.005). Multiplyir 0.990 by 0.005 yields 0.005. Therefore, a 67-percent confidence interval is 0.985 to 0.995 (i.e., 0.990 plus or minus 0.005) and a 95-percent confidence interval is 0.980 to 1.000 (i.e., 0.990 plus or minus 0.010).

**Nonsampling Errors.** As calculated for this report, the coefficient of variation measures certain nonsampling errors but does not measure any systematic biases in the data. Bias is the difference, averaged over all possible samples of the same size and design, between the estimate and the true value being estimated. The accuracy of the tabulated data is determined by the joint effects of the sampling and nonsampling errors.

Nonsampling errors can be attributed to many sources: (1) inability to obtain information about all cases in the sample, (2) response errors, (3) definitional difficulties, (4) differences in the interpretation of questions, (5) mistakes in recording or coding the data obtained, and (6) other errors of collection, response, coverage, and estimation for missing data. These nonsampling errors also occur in complete censuses.

Although no direct measurement of the biases due to nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

A major source of bias in the published estimates is due to imputing data for nonrespondents, for late reporters, and for data which fail edit. For all kinds of business combined, imputed data amount to about 15 percent of the sales estimates and 25 percent for inventories.

# Table A-1. Estimated Sampling Variability of Sales and Inventories by Kind of Business for the United States

(Coefficients of variation in percent)

| 1972 SIC code | Kind of business | SALES | | | | | | INVENTORIES | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Preliminary sampling error of the monthly dollar estimates | | Final sampling error of the monthly dollar estimates | | Median sampling error of the ratio of: | | Preliminary sampling error of the monthly dollar estimates | | Final sampling error of the monthly dollar estimates | | Median sampling error of the ratio of: | |
| | | Range | Median | Range | Median | Two consecutive months | Same month a year ago | Range | Median | Range | Median | Two consecutive months | Same month a year ago |
| | Merchant wholesalers, total | 1.4-1.8 | 1.6 | 1.4-1.6 | 1.5 | 0.6 | 1.0 | 1.3-1.5 | 1.4 | 1.2-1.4 | 1.4 | 0.3 | 0.9 |
| | Total (excluding farm-product raw materials) | 1.4-1.9 | 1.6 | 1.3-1.6 | 1.4 | 0.6 | 1.1 | 1.4-1.7 | 1.5 | 1.2-1.5 | 1.5 | 0.3 | 0.9 |
| 50 | Durable goods, total | 1.5-3.2 | 2.0 | 1.4-2.4 | 1.6 | 1.0 | 1.7 | 1.0-1.5 | 1.4 | 1.0-1.4 | 1.3 | 0.4 | 1.1 |
| 501 | Motor vehicles and automotive parts and supplies | 3.6-4.6 | 3.9 | 3.2-4.4 | 3.6 | 1.7 | 2.8 | 2.2-3.5 | 3.0 | 2.6-3.5 | 2.7 | 0.8 | 2.6 |
| 5012 | Automobiles and other motor vehicles | (*) | (*) | (*) | (*) | 2.8 | 5.4 | (*) | (*) | (*) | (*) | 1.8 | 5.5 |
| 5013,4 | Automotive parts and supplies, tires and tubes | 3.3-4.7 | 4.0 | 3.0-4.9 | 3.6 | 1.7 | 3.1 | 3.0-4.1 | 3.7 | 2.8-3.9 | 3.4 | 1.2 | 3.0 |
| 5013 | Automotive parts and supplies | 3.8-5.9 | 4.7 | 3.6-5.9 | 4.2 | 2.1 | 3.8 | 3.8-5.0 | 4.5 | 3.5-4.6 | 4.2 | 1.3 | 3.2 |
| 502 | Furniture and home furnishings | 4.7-7.0 | 5.7 | 4.3-6.1 | 5.1 | 2.9 | 4.0 | 4.0-4.6 | 4.2 | 3.9-4.5 | 4.2 | 0.9 | 3.3 |
| 5021 | Furniture--household and office | 4.9-6.5 | 6.0 | 4.3-7.1 | 6.0 | 4.1 | 5.7 | (*) | (*) | (*) | (*) | 1.5 | 5.1 |
| 5021 pt. | Household furniture | (*) | (*) | (*) | (*) | 6.2 | 11.2 | (*) | (*) | (*) | (*) | 1.5 | 8.7 |
| 5021 pt. | Office furniture | (*) | (*) | (*) | (*) | 4.9 | 6.5 | (*) | (*) | (*) | (*) | 1.9 | 5.2 |
| 5023 | Home furnishings | 6.7-9.2 | 7.6 | 5.5-8.1 | 6.6 | 3.3 | 5.1 | 5.0-6.3 | 5.6 | 5.0-6.1 | 5.7 | 1.1 | 4.5 |
| 503 | Lumber and other construction materials | 4.2-5.8 | 4.8 | 4.4-5.4 | 4.7 | 2.3 | 3.5 | 5.0-6.7 | 5.6 | 5.0-6.6 | 5.9 | 0.9 | 2.9 |
| 5031 | Lumber, plywood, and millwork | 5.7-7.7 | 6.3 | 5.1-6.6 | 5.9 | 3.3 | 4.5 | 7.0-9.0 | 7.9 | 7.2-8.6 | 8.1 | 1.2 | 3.6 |
| 5039 | Construction materials, n.e.c. | 5.0-6.9 | 6.0 | 5.1-6.5 | 5.7 | 3.1 | 5.9 | (*) | (*) | (*) | (*) | 1.1 | 4.8 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | (*) | (*) | (*) | (*) | 3.5 | 5.1 | (*) | (*) | (*) | (*) | 1.6 | 4.6 |
| 505 | Metals and minerals, except petroleum | 4.3-16.8 | 8.7 | 5.1-14.4 | 8.2 | 2.4 | 5.4 | 6.2-9.3 | 7.6 | 5.7-10.2 | 8.1 | 1.2 | 5.2 |
| 5051 pt. | Ferrous metals service centers and offices | 4.3-6.2 | 5.2 | 3.9-6.5 | 4.6 | 2.5 | 3.3 | 3.9-4.7 | 4.3 | 4.0-4.5 | 4.2 | 0.8 | 3.0 |
| 5051 pt. | Ferrous metals service centers | 4.8-7.1 | 5.1 | 4.9-5.2 | 5.1 | 2.8 | 3.6 | 2.8-5.5 | 4.6 | 3.1-4.8 | 4.0 | 0.9 | 3.4 |
| 5051 pt. | Nonferrous metals service centers and offices | (*) | (*) | (*) | (*) | 4.1 | 23.3 | (*) | (*) | (*) | (*) | 5.2 | 22.5 |
| 506 | Electrical goods | 3.8-5.0 | 4.1 | 3.3-4.6 | 3.6 | 2.3 | 3.0 | 3.2-4.8 | 3.5 | 3.3-4.6 | 3.5 | 0.7 | 2.8 |
| 5063 | Electrical apparatus and equipment, wiring supplies, and construction materials | 3.7-6.7 | 4.5 | 3.3-6.9 | 4.1 | 3.1 | 4.5 | 3.2-5.1 | 3.5 | 3.2-4.5 | 3.3 | 0.8 | 2.9 |
| 5064,5 | Electrical appliances, TV and radio sets, and electronic parts and equipment | 5.2-7.4 | 6.0 | 5.0-6.6 | 5.6 | 2.8 | 4.4 | 3.9-6.9 | 4.4 | 3.8-6.5 | 4.7 | 1.2 | 4.1 |
| 5064 | Electrical appliances, TV and radio sets | 4.9-8.2 | 6.4 | 5.1-6.7 | 5.5 | 2.8 | 4.3 | (*) | (*) | (*) | (*) | 1.3 | 5.0 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 3.1-4.5 | 3.5 | 2.9-3.7 | 3.3 | 1.6 | 2.3 | 2.8-4.2 | 3.6 | 2.9-4.2 | 3.5 | 0.8 | 3.8 |
| 5072 | Hardware | 2.6-3.8 | 3.6 | 2.8-3.9 | 3.2 | 1.6 | 2.9 | 4.7-6.3 | 5.6 | 4.5-6.1 | 5.7 | 1.3 | 3.5 |
| 5074 | Plumbing and heating equipment and supplies (hydronics) | 5.4-7.7 | 6.4 | 5.1-6.6 | 5.9 | 2.9 | 5.4 | 5.0-6.0 | 5.4 | 4.7-5.6 | 5.3 | 1.3 | 8.6 |
| 5075 | Warm air heating and air conditioning equipment and supplies | (*) | (*) | (*) | (*) | 4.1 | 5.7 | (*) | (*) | (*) | (*) | 1.2 | 5.1 |
| 508 | Machinery, equipment, and supplies | 2.9-4.5 | 3.3 | 2.6-3.2 | 2.8 | 1.8 | 3.3 | 1.8-2.4 | 2.2 | 1.8-2.3 | 2.1 | 0.4 | 1.8 |
| 5081 | Commercial machines and equipment | (*) | (*) | (*) | (*) | 4.4 | 6.6 | (*) | (*) | (*) | (*) | 1.5 | 5.7 |
| 5082 | Construction and mining machinery and equipment | 4.8-6.6 | 5.4 | 4.1-5.1 | 4.5 | 3.9 | 5.4 | 3.8-5.3 | 4.2 | 3.9-4.9 | 4.1 | 1.1 | 4.1 |
| 5083 | Farm and garden machinery and equipment | (*) | (*) | (*) | (*) | 6.0 | 9.8 | (*) | (*) | (*) | (*) | 1.4 | 4.7 |
| 5084,5 | Industrial machinery, equipment, and supplies | 3.2-4.1 | 3.3 | 2.4-3.4 | 2.8 | 2.5 | 4.9 | 3.2-4.2 | 3.8 | 3.1-3.8 | 3.5 | 0.6 | 2.5 |
| 5086 | Professional equipment and supplies | (*) | (*) | (*) | (*) | 2.7 | 4.7 | (*) | (*) | (*) | (*) | 1.1 | 5.2 |
| 5093 | Scrap and waste materials | 4.2-5.4 | 5.1 | 4.2-5.3 | 4.7 | 2.2 | 3.9 | (*) | (*) | (*) | (*) | 1.3 | 3.2 |
| 5093 pt. | Iron and steel scrap | (*) | (*) | (*) | (*) | 2.2 | 5.0 | (*) | (*) | (*) | (*) | 1.5 | 4.3 |
| 5093 pt. | Waste materials | (*) | (*) | (*) | (*) | 3.9 | 6.9 | (*) | (*) | (*) | (*) | 2.2 | 5.4 |
| 51 | Nondurable goods, total | 1.8-2.1 | 1.9 | 1.6-2.0 | 1.9 | 0.8 | 1.2 | 2.6-3.0 | 2.8 | 2.6-2.8 | 2.7 | 0.5 | 1.3 |
| | Total (excluding farm-product raw materials) | 1.9-2.4 | 2.1 | 1.7-2.3 | 2.0 | 0.9 | 1.4 | 3.3-3.6 | 3.5 | 3.2-3.5 | 3.3 | 0.4 | 1.4 |
| 511 | Paper and paper products | 4.6-7.7 | 5.2 | 4.5-6.9 | 4.9 | 1.5 | 3.0 | 4.6-7.3 | 6.3 | 4.6-7.1 | 5.9 | 0.8 | 3.4 |
| 5111,3 | Printing, writing, industrial, and personal service paper | 3.0-5.1 | 3.3 | 3.0-4.6 | 3.2 | 1.1 | 2.3 | 5.0-6.9 | 6.4 | 4.9-6.9 | 6.3 | 0.8 | 3.1 |
| 5111 | Printing and writing paper | 2.6-3.9 | 2.8 | 2.4-3.4 | 2.7 | 1.3 | 2.7 | 3.9-4.9 | 4.3 | 3.7-4.8 | 4.2 | 0.7 | 3.2 |
| 5113 | Industrial and personal service paper | 4.4-7.7 | 5.0 | 4.4-6.8 | 4.5 | 1.9 | 4.8 | 7.3-11.4 | 9.9 | 6.9-11.2 | 9.7 | 1.3 | 4.2 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 2.3-3.1 | 2.7 | 2.2-2.9 | 2.7 | 1.5 | 3.1 | 3.6-5.1 | 4.4 | 4.0-5.1 | 4.6 | 1.4 | 4.0 |
| 5122 | Drugs, drug proprietaries, and druggists' sundries | 2.3-3.1 | 2.7 | 2.2-2.9 | 2.7 | 1.5 | 3.1 | (*) | (*) | (*) | (*) | 1.4 | 4.0 |
| 5122 pt. | General-line drugs | 6.0-6.9 | 6.6 | 6.0-6.9 | 6.6 | 1.1 | 4.1 | (*) | (*) | (*) | (*) | 0.9 | 6.6 |
| 513 | Apparel, piece goods, and notions | 12.0-15.7 | 13.2 | 10.9-14.6 | 13.4 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |
| 514 | Groceries and related products | 1.7-2.4 | 2.2 | 1.8-2.3 | 2.1 | 0.5 | 1.3 | 1.6-2.2 | 1.8 | 1.6-2.0 | 1.8 | 0.4 | 1.6 |
| 5141 | Groceries, general-line | 2.6-3.4 | 3.3 | 2.8-3.3 | 3.1 | 0.6 | 1.7 | 1.9-2.8 | 2.2 | 1.7-2.7 | 1.9 | 0.5 | 1.7 |
| 5141 pt. | Voluntary groups | (*) | (*) | (*) | (*) | 0.7 | 2.1 | (*) | (*) | (*) | (*) | 0.7 | 2.8 |
| 5141 pt. | Retailer cooperatives | (*) | (*) | (*) | (*) | 0.6 | 1.8 | (*) | (*) | (*) | (*) | 0.6 | 2.3 |
| 5141 pt. | Other general-lines | (*) | (*) | (*) | (*) | 1.3 | 2.8 | (*) | (*) | (*) | (*) | 1.0 | 3.7 |
| 5142,3,6,9 | Specialty-line groceries | (*) | (*) | (*) | (*) | 1.2 | 3.3 | (*) | (*) | (*) | (*) | 1.0 | 3.6 |
| 5144 | Poultry and poultry products | 5.6-7.2 | 6.5 | 5.4-7.2 | 6.7 | 1.8 | 3.2 | (*) | (*) | (*) | (*) | 1.5 | 5.2 |
| 5145 | Confectionery | 5.1-12.9 | 6.7 | 4.8-9.5 | 6.6 | 2.7 | 5.5 | (*) | (*) | (*) | (*) | 1.7 | 4.0 |
| 5147 | Meats and meat products | 5.6-7.0 | 6.8 | 5.4-6.9 | 6.5 | 1.5 | 4.2 | (*) | (*) | (*) | (*) | 1.4 | 6.3 |
| 5148 | Fresh fruits and vegetables | 4.0-5.7 | 4.4 | 3.5-5.0 | 4.7 | 2.3 | 3.2 | (*) | (*) | (*) | (*) | 2.6 | 6.2 |
| 515 | Farm-product raw materials | 2.6-5.2 | 3.0 | 2.1-4.6 | 3.4 | 2.3 | 2.9 | (*) | (*) | (*) | (*) | 1.5 | 4.0 |
| 5152 | Cotton | (*) | (*) | (*) | (*) | 6.9 | 10.2 | (*) | (*) | (*) | (*) | 1.0 | 2.5 |
| 5153 | Grain | 3.2-5.9 | 3.8 | 2.6-5.3 | 3.9 | 2.5 | 3.3 | (*) | (*) | (*) | (*) | 1.7 | 5.0 |
| 517 | Petroleum and petroleum products | 5.1-7.8 | 7.1 | 4.9-8.0 | 6.2 | 2.0 | 4.1 | 5.6-6.5 | 5.8 | 5.1-6.1 | 5.6 | 1.7 | 3.3 |
| 5171 | Petroleum bulk stations and terminals | 3.5-5.1 | 4.0 | 3.1-4.2 | 3.9 | 1.7 | 3.7 | (*) | (*) | (*) | (*) | 2.1 | 3.9 |
| 518 | Beer, wine, and distilled alcoholic beverages | 4.5-5.9 | 4.9 | 4.3-5.5 | 4.9 | 1.2 | 3.0 | 3.8-5.0 | 4.2 | 3.9-5.0 | 4.3 | 1.4 | 3.2 |
| 5181 | Beer and ale | 5.2-6.1 | 5.8 | 5.4-6.2 | 5.7 | 1.4 | 3.5 | 7.9-10.2 | 8.1 | 7.7-9.9 | 8.8 | 2.7 | 4.7 |
| 5182 | Wine and distilled alcoholic beverages | 5.1-7.2 | 5.7 | 5.1-6.9 | 5.7 | 1.9 | 4.1 | 3.4-5.0 | 4.4 | 3.7-4.6 | 4.0 | 1.3 | 4.5 |
| 519 | Miscellaneous nondurable goods | 2.5-4.9 | 3.9 | 2.5-3.9 | 3.4 | 1.9 | 3.2 | (*) | (*) | (*) | (*) | 0.9 | 2.7 |
| 5191 | Farm supplies | (*) | (*) | (*) | (*) | 4.4 | 5.7 | (*) | (*) | (*) | (*) | 1.6 | 4.5 |
| 5194 | Tobacco and tobacco products | 5.6-6.7 | 6.1 | 5.3-6.8 | 5.8 | 1.3 | 3.9 | (*) | (*) | (*) | (*) | 1.3 | 4.7 |
| 5198 | Paints, varnishes, and supplies | (*) | (*) | (*) | (*) | 2.4 | 6.8 | (*) | (*) | (*) | (*) | 1.1 | 5.8 |
| 5199 pt. | Books, periodicals, newspapers | (*) | (*) | (*) | (*) | 6.6 | 17.4 | (*) | (*) | (*) | (*) | 1.4 | 14.4 |

Note: Measures of sampling variability are based on data unadjusted for seasonal variations or trading-day differences. The range of sampling error of the monthly dollar estimates and the ratio of current month to previous month for sales and inventories is based on data for August 1979 through January 1980.

* Measures of sampling variability are not shown since sales and/or inventory estimates for these kinds of business are not published.

# Appendix B. Adjustment for Seasonal and Trading-Day Variations

Seasonal factors for adjusting data in this historical publication have been developed by the method described in the *X-11 Variant of the Census Method II Seasonal Adjustment Program,* U.S. Bureau of the Census Technical Paper No. 15, Revised 1967. Trading-day factors for adjusting sales were also derived from the X-11 program.

Adjustment of estimates is an approximation based on past experiences, and therefore, will be less precise to the extent that current competitive pressures, changes in economic condition, and other elements introduce significant changes in seasonal and trading-day patterns.

A description of trading-day adjustment factors may be found in *Estimating Trading-Day Variation in Monthly Economic Time Series,* Bureau of the Census Technical Paper No. 12, 1965. Additional details concerning the adjustment factors may be obtained from the Chief, Business Division, Bureau of the Census, Washington, D.C. 20233.

Table B-1. **Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers: January 1980-December 1981**

| 1972 SIC code | Kind of business | 1980 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| | | Seasonal and trading-day adjustment factors for sales | | | | | | | | | | | |
| | Merchant wholesalers, total | 96.2 | 95.1 | 101.4 | 102.6 | 103.3 | 100.1 | 101.1 | 99.4 | 100.5 | 106.6 | 96.5 | 101.1 |
| | Total (excluding farm-product raw materials) | 94.8 | 94.7 | 101.4 | 102.9 | 103.5 | 100.9 | 102.0 | 100.0 | 101.8 | 106.0 | 95.6 | 100.0 |
| 50 | Durable goods, total | 90.4 | 92.6 | 101.9 | 103.6 | 104.0 | 102.3 | 101.9 | 102.4 | 103.3 | 108.6 | 94.3 | 98.3 |
| 501 | Motor vehicle and automotive parts and supplies | 95.6 | 94.3 | 104.7 | 111.7 | 108.1 | 101.6 | 102.6 | 100.1 | 93.2 | 104.6 | 91.8 | 95.4 |
| 502 | Furniture and home furnishings | 89.7 | 93.0 | 101.5 | 103.4 | 99.4 | 99.4 | 96.7 | 99.1 | 103.8 | 115.9 | 101.9 | 100.8 |
| 503 | Lumber and other construction materials | 81.7 | 83.3 | 93.2 | 99.7 | 104.8 | 107.5 | 110.0 | 111.8 | 111.6 | 116.0 | 94.1 | 90.1 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 81.0 | 85.5 | 97.7 | 100.6 | 94.0 | 96.8 | 112.6 | 104.2 | 109.8 | 112.7 | 108.0 | 101.4 |
| 505 | Metals and minerals, except petroleum | 96.4 | 97.9 | 106.9 | 102.5 | 101.0 | 101.6 | 98.1 | 103.2 | 102.4 | 103.3 | 93.8 | 97.6 |
| 506 | Electrical goods | 91.7 | 90.4 | 99.0 | 95.5 | 98.5 | 102.0 | 102.9 | 101.8 | 105.8 | 109.9 | 101.4 | 105.0 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 93.5 | 87.9 | 96.2 | 103.1 | 104.6 | 104.1 | 107.7 | 103.3 | 102.4 | 111.6 | 95.9 | 93.7 |
| 508 | Machinery, equipment, and supplies | 90.0 | 92.5 | 102.4 | 104.9 | 106.8 | 103.4 | 100.9 | 100.4 | 104.9 | 107.3 | 91.4 | 98.6 |
| 509 | Miscellaneous durable goods | 91.8 | 97.5 | 108.3 | 102.0 | 98.0 | 95.1 | 91.6 | 100.4 | 108.1 | 112.4 | 96.5 | 101.0 |
| 51 | Nondurable goods, total | 99.9 | 96.1 | 101.2 | 100.9 | 102.4 | 99.4 | 100.8 | 97.2 | 98.7 | 105.3 | 98.2 | 104.0 |
| | Total (excluding farm-product raw materials) | 98.7 | 96.5 | 101.1 | 101.5 | 102.9 | 100.5 | 100.9 | 98.7 | 99.8 | 104.0 | 97.0 | 102.2 |
| 511 | Paper and paper products | 101.1 | 97.3 | 101.0 | 100.9 | 100.8 | 98.2 | 100.6 | 99.6 | 101.6 | 107.8 | 94.9 | 100.6 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 98.9 | 93.2 | 99.8 | 101.6 | 99.1 | 97.7 | 101.9 | 98.1 | 103.2 | 112.3 | 96.3 | 102.0 |
| 513 | Apparel, piece goods, and notions | 95.8 | 94.5 | 100.4 | 97.1 | 93.0 | 90.8 | 103.4 | 110.1 | 113.5 | 113.8 | 99.3 | 93.4 |
| 514 | Groceries and related products | 99.6 | 94.8 | 100.3 | 102.2 | 104.4 | 99.1 | 103.4 | 99.1 | 99.4 | 104.3 | 97.0 | 101.1 |
| 515 | Farm-product raw materials[1] | 102.8 | 96.7 | 102.6 | 101.9 | 104.5 | 93.7 | 96.2 | 92.8 | 96.0 | 108.9 | 102.1 | 106.7 |
| 516 | Chemicals and allied products | 96.8 | 92.8 | 99.3 | 97.3 | 104.8 | 104.5 | 91.3 | 103.3 | 98.6 | 110.6 | 100.8 | 104.8 |
| 517 | Petroleum and petroleum products | 106.1 | 104.2 | 99.6 | 97.4 | 99.7 | 96.6 | 97.9 | 97.6 | 96.9 | 101.1 | 102.5 | 104.4 |
| 518 | Beer, wine, and distilled alcoholic beverages | 84.1 | 85.8 | 94.4 | 99.5 | 103.5 | 106.6 | 106.3 | 103.4 | 98.7 | 106.5 | 97.8 | 117.7 |
| 519 | Miscellaneous nondurable goods | 95.2 | 94.8 | 109.2 | 107.8 | 115.1 | 104.8 | 95.0 | 93.3 | 99.2 | 98.9 | 91.7 | 96.7 |
| | | Seasonal adjustment factors for inventories | | | | | | | | | | | |
| | Merchant wholesalers, total | 100.3 | 101.6 | 102.4 | 101.4 | 100.3 | 99.1 | 98.4 | 98.3 | 98.3 | 99.9 | 100.4 | 99.9 |
| | Total (excluding farm-product raw materials) | 98.8 | 100.1 | 101.4 | 101.3 | 100.9 | 100.8 | 100.6 | 99.6 | 99.3 | 99.6 | 99.4 | 98.6 |
| 50 | Durable goods, total | 98.6 | 99.9 | 100.9 | 100.9 | 101.4 | 101.8 | 101.4 | 100.4 | 99.4 | 98.9 | 98.4 | 98.3 |
| 501 | Motor vehicles and automotive parts and supplies | 101.4 | 104.4 | 102.6 | 100.9 | 101.6 | 100.1 | 99.4 | 97.3 | 95.4 | 98.1 | 98.9 | 100.1 |
| 502 | Furniture and home furnishings | 98.1 | 98.1 | 100.9 | 99.9 | 100.4 | 102.9 | 101.6 | 100.3 | 102.4 | 100.6 | 98.3 | 96.9 |
| 503 | Lumber and other construction materials | 97.8 | 99.1 | 103.3 | 102.8 | 102.8 | 102.4 | 102.4 | 100.3 | 98.9 | 98.1 | 96.1 | 96.9 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 95.1 | 99.1 | 100.1 | 103.9 | 102.3 | 106.3 | 106.1 | 101.4 | 101.3 | 99.9 | 93.6 | 91.3 |
| 505 | Metals and minerals, except petroleum | 98.4 | 97.1 | 98.6 | 97.8 | 102.4 | 100.9 | 102.1 | 105.4 | 101.4 | 97.6 | 99.9 | 98.4 |
| 506 | Electrical goods | 96.3 | 95.6 | 98.1 | 99.3 | 101.9 | 102.1 | 102.1 | 102.4 | 101.6 | 101.6 | 100.1 | 99.4 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 97.6 | 99.9 | 102.6 | 105.4 | 103.9 | 103.1 | 101.9 | 99.3 | 97.6 | 97.9 | 95.1 | 95.8 |
| 508 | Machinery, equipment, and supplies | 98.1 | 99.9 | 101.6 | 100.9 | 101.4 | 102.1 | 100.6 | 100.8 | 100.6 | 98.1 | 98.4 | 98.1 |
| 509 | Miscellaneous durable goods | 99.6 | 99.1 | 98.4 | 99.6 | 98.3 | 99.9 | 102.6 | 100.9 | 101.4 | 102.1 | 99.1 | 99.3 |
| 51 | Nondurable goods, total | 104.4 | 102.9 | 105.3 | 100.9 | 96.9 | 95.1 | 94.8 | 94.3 | 96.4 | 102.1 | 104.1 | 103.4 |
| | Total (excluding farm-product raw materials) | 100.4 | 99.8 | 102.6 | 101.4 | 99.9 | 98.4 | 98.8 | 97.8 | 99.3 | 101.4 | 100.9 | 99.8 |
| 511 | Paper and paper products | 97.1 | 98.4 | 99.6 | 100.9 | 100.4 | 102.6 | 100.1 | 98.9 | 101.1 | 100.1 | 100.3 | 100.9 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 96.4 | 96.1 | 100.3 | 101.3 | 99.3 | 100.4 | 100.4 | 99.9 | 102.8 | 105.3 | 100.9 | 97.4 |
| 513 | Apparel, piece goods, and notions | 101.6 | 100.6 | 98.3 | 98.9 | 100.4 | 100.6 | 101.3 | 101.1 | 98.9 | 99.4 | 99.9 | 99.6 |
| 514 | Groceries and related products | 98.6 | 99.9 | 101.6 | 100.6 | 99.1 | 99.9 | 98.3 | 97.1 | 100.3 | 102.9 | 100.9 | 101.4 |
| 515 | Farm-product raw materials[1] | 119.2 | 117.1 | 114.9 | 101.6 | 86.8 | 82.4 | 78.9 | 79.3 | 84.8 | 103.4 | 116.3 | 115.6 |
| 516 | Chemicals and allied products | 98.6 | 100.6 | 100.8 | 100.8 | 103.9 | 101.9 | 102.4 | 100.3 | 100.6 | 96.6 | 96.3 | 97.6 |
| 517 | Petroleum and petroleum products | 102.6 | 99.1 | 100.1 | 95.4 | 97.8 | 94.8 | 97.9 | 99.9 | 102.4 | 103.9 | 104.3 | 101.8 |
| 518 | Beer, wine, and distilled alcoholic beverages | 97.3 | 94.6 | 101.1 | 104.6 | 103.3 | 102.4 | 100.8 | 96.6 | 99.3 | 104.1 | 103.4 | 93.1 |
| 519 | Miscellaneous nondurable goods | 104.3 | 106.4 | 109.3 | 103.9 | 98.8 | 92.8 | 94.8 | 96.1 | 95.3 | 98.8 | 100.1 | 99.6 |

See footnotes at end of table.

# Table B-1. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers: January 1980-December 1981—Continued

| 1972 SIC code | Kind of business | 1981 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| | | Seasonal and trading-day adjustment factors for sales | | | | | | | | | | | |
| | Merchant wholesalers, total | 93.7 | 91.1 | 104.8 | 102.1 | 100.5 | 103.2 | 100.5 | 98.5 | 101.0 | 104.6 | 98.2 | 102.1 |
| | Total (excluding farm-product raw materials) | 92.3 | 91.4 | 104.1 | 103.3 | 99.8 | 104.3 | 100.7 | 100.2 | 101.6 | 104.5 | 97.2 | 101.3 |
| 50 | Durable goods, total | 88.1 | 88.9 | 104.6 | 103.9 | 100.5 | 105.3 | 101.7 | 102.6 | 103.1 | 106.2 | 96.8 | 98.7 |
| 501 | Motor vehicles and automotive parts and supplies | 92.4 | 91.4 | 108.3 | 112.9 | 104.6 | 103.4 | 100.7 | 100.3 | 93.0 | 103.3 | 93.6 | 98.1 |
| 502 | Furniture and home furnishings | 87.0 | 89.5 | 103.7 | 103.0 | 98.3 | 100.8 | 96.4 | 98.0 | 106.3 | 112.7 | 102.4 | 101.8 |
| 503 | Lumber and other construction materials | 79.6 | 79.1 | 96.9 | 99.3 | 101.4 | 111.5 | 110.0 | 110.5 | 111.3 | 113.5 | 96.9 | 90.8 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 79.0 | 82.5 | 98.3 | 101.3 | 90.0 | 99.4 | 112.6 | 104.8 | 110.9 | 111.2 | 108.5 | 102.6 |
| 505 | Metals and minerals, except petroleum | 91.5 | 93.7 | 112.0 | 100.7 | 100.5 | 103.6 | 98.1 | 102.5 | 103.9 | 98.5 | 97.2 | 96.9 |
| 506 | Electrical goods | 88.4 | 88.9 | 99.9 | 95.8 | 95.3 | 104.7 | 100.3 | 103.8 | 106.9 | 108.9 | 101.4 | 106.5 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 90.5 | 85.6 | 98.4 | 103.9 | 101.6 | 106.3 | 106.0 | 104.3 | 102.6 | 109.7 | 97.6 | 94.9 |
| 508 | Machinery, equipment, and supplies | 88.5 | 88.9 | 104.3 | 105.9 | 102.0 | 107.3 | 100.6 | 100.8 | 104.2 | 105.8 | 93.2 | 99.3 |
| 509 | Miscellaneous durable goods | 90.7 | 92.5 | 114.4 | 100.2 | 93.0 | 101.6 | 90.5 | 99.0 | 106.2 | 112.0 | 99.0 | 101.2 |
| 51 | Nondurable goods, total | 97.5 | 91.9 | 104.8 | 100.6 | 99.5 | 102.6 | 99.9 | 96.0 | 98.6 | 103.7 | 99.8 | 105.7 |
| | Total (excluding farm-product raw materials) | 96.2 | 92.8 | 103.7 | 101.9 | 99.9 | 103.3 | 100.0 | 98.4 | 99.9 | 102.2 | 98.6 | 103.6 |
| 511 | Paper and paper products | 98.0 | 93.9 | 103.9 | 101.0 | 96.9 | 102.3 | 99.0 | 99.1 | 102.6 | 105.7 | 95.6 | 102.6 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 95.2 | 90.3 | 103.2 | 102.6 | 95.6 | 100.5 | 100.4 | 98.8 | 102.8 | 109.9 | 98.7 | 103.8 |
| 513 | Apparel, piece goods, and notions | 92.1 | 92.1 | 101.9 | 97.1 | 88.8 | 94.3 | 101.1 | 110.9 | 116.4 | 111.7 | 99.2 | 95.0 |
| 514 | Groceries and related products | 98.0 | 91.2 | 102.6 | 101.4 | 101.1 | 103.0 | 101.8 | 98.1 | 99.6 | 104.1 | 96.9 | 102.8 |
| 515 | Farm-product raw materials[1] | 101.3 | 90.6 | 108.3 | 98.8 | 101.7 | 99.4 | 95.1 | 90.0 | 95.4 | 109.1 | 103.1 | 108.0 |
| 516 | Chemicals and allied products | 93.5 | 88.3 | 102.3 | 97.0 | 103.6 | 105.3 | 92.0 | 102.7 | 100.0 | 104.9 | 105.3 | 104.8 |
| 517 | Petroleum and petroleum products | 103.6 | 100.6 | 103.3 | 95.9 | 97.9 | 99.8 | 94.5 | 96.8 | 96.6 | 101.6 | 102.9 | 107.3 |
| 518 | Beer, wine, and distilled alcoholic beverages | 81.5 | 81.1 | 98.9 | 99.7 | 100.0 | 109.7 | 107.3 | 101.5 | 99.7 | 102.2 | 101.3 | 119.0 |
| 519 | Miscellaneous nondurable goods | 94.9 | 89.7 | 111.5 | 109.4 | 111.8 | 106.8 | 96.0 | 92.5 | 97.9 | 98.0 | 94.0 | 97.8 |
| | | Seasonal adjustment factors for inventories | | | | | | | | | | | |
| | Merchant wholesalers, total | 100.3 | 101.6 | 102.4 | 101.4 | 100.4 | 99.1 | 98.4 | 98.3 | 98.3 | 99.9 | 100.4 | 99.9 |
| | Total (excluding farm-product raw materials) | 98.8 | 100.1 | 101.4 | 101.3 | 101.1 | 100.8 | 100.6 | 99.8 | 99.3 | 99.6 | 99.4 | 98.6 |
| 50 | Durable goods, total | 98.4 | 99.9 | 100.9 | 100.9 | 101.6 | 101.8 | 101.4 | 100.4 | 99.4 | 98.9 | 98.4 | 98.1 |
| 501 | Motor vehicles and automotive parts and supplies | 101.4 | 104.6 | 102.6 | 100.9 | 101.6 | 100.1 | 99.4 | 97.3 | 95.3 | 97.9 | 98.9 | 100.1 |
| 502 | Furniture and home furnishings | 98.1 | 98.1 | 100.9 | 100.1 | 100.4 | 102.9 | 101.6 | 100.1 | 102.4 | 100.6 | 98.3 | 96.9 |
| 503 | Lumber and other construction materials | 97.6 | 99.1 | 103.3 | 102.8 | 102.8 | 102.4 | 102.4 | 100.3 | 98.9 | 98.1 | 96.1 | 96.8 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 94.9 | 98.9 | 100.1 | 104.1 | 102.3 | 106.3 | 106.3 | 101.4 | 101.3 | 99.8 | 93.6 | 91.4 |
| 505 | Metals and minerals, except petroleum | 98.4 | 97.1 | 98.6 | 97.6 | 102.6 | 100.9 | 102.1 | 105.6 | 101.4 | 97.6 | 99.9 | 98.4 |
| 506 | Electrical goods | 96.3 | 95.6 | 98.1 | 99.3 | 101.9 | 102.1 | 102.1 | 102.4 | 101.6 | 101.6 | 100.1 | 99.3 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 97.6 | 100.1 | 102.8 | 105.4 | 103.9 | 103.1 | 101.9 | 99.1 | 97.6 | 98.1 | 95.1 | 95.8 |
| 508 | Machinery, equipment, and supplies | 97.9 | 99.9 | 101.6 | 100.9 | 101.6 | 102.1 | 100.6 | 100.8 | 100.6 | 98.1 | 98.3 | 98.1 |
| 509 | Miscellaneous durable goods | 99.8 | 99.1 | 98.6 | 99.6 | 98.4 | 99.9 | 102.6 | 100.9 | 101.3 | 102.1 | 99.1 | 99.3 |
| 51 | Nondurable goods, total | 104.4 | 102.9 | 105.4 | 101.1 | 97.1 | 95.1 | 94.8 | 94.1 | 96.3 | 102.1 | 104.1 | 103.3 |
| | Total (excluding farm-product raw materials) | 100.4 | 99.8 | 102.6 | 101.6 | 99.9 | 98.4 | 98.8 | 97.8 | 99.3 | 101.4 | 100.9 | 99.6 |
| 511 | Paper and paper products | 97.1 | 98.4 | 99.6 | 100.9 | 100.4 | 102.6 | 100.1 | 98.9 | 101.1 | 100.1 | 100.3 | 100.9 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 96.4 | 95.9 | 100.4 | 101.1 | 99.4 | 100.3 | 100.6 | 99.9 | 102.9 | 105.3 | 100.9 | 97.3 |
| 513 | Apparel, piece goods, and notions | 101.6 | 100.6 | 98.3 | 98.9 | 100.4 | 100.6 | 101.3 | 101.1 | 98.8 | 99.4 | 99.9 | 99.6 |
| 514 | Groceries and related products | 98.6 | 99.9 | 101.6 | 100.6 | 99.3 | 100.1 | 98.1 | 97.1 | 100.3 | 102.9 | 100.8 | 101.4 |
| 515 | Farm-product raw materials[1] | 119.4 | 117.2 | 115.3 | 101.9 | 86.8 | 82.3 | 78.8 | 79.0 | 84.8 | 103.6 | 116.2 | 115.6 |
| 516 | Chemicals and allied products | 98.6 | 100.8 | 100.8 | 100.8 | 104.1 | 101.9 | 102.4 | 100.4 | 100.6 | 96.6 | 96.1 | 97.6 |
| 517 | Petroleum and petroleum products | 102.4 | 99.1 | 100.1 | 95.6 | 98.1 | 94.8 | 98.1 | 99.9 | 102.4 | 103.9 | 104.3 | 101.8 |
| 518 | Beer, wine, and distilled alcoholic beverages | 97.4 | 94.4 | 101.4 | 104.8 | 103.3 | 102:3 | 100.8 | 96.6 | 99.1 | 103.9 | 103.4 | 93.1 |
| 519 | Miscellaneous nondurable goods | 104.3 | 106.4 | 109.4 | 104.1 | 98.9 | 92.8 | 94.8 | 96.1 | 95.3 | 98.8 | 100.1 | 99.4 |

Note: The adjustment factors shown above for sales are a combination of the seasonal and trading-day factors. These are separately available, however, upon request. Adjustment factors are included in this table for some kinds of business for which adjusted data are not published separately.

Adjusted sales and inventory data shown in table 4 are obtained by dividing the unadjusted data shown in tables 1 and 2 by the adjustment factors shown above for the corresponding kinds of business. Adjusted data for the summary trade totals are obtained by summarizing the adjusted data for the individual kinds of business. Seasonal factors shown for the summary trade totals provide an approximation to these totals but may show small differences from the published data.

[1]There are indications that the seasonal adjustment factors for the farm-product raw materials category may not reflect recent trends in this trade. The seasonally adjusted data for this category and also for the merchant wholesale and nondurable goods totals should, therefore, be used with caution.

# Table B-2. Average Month-to-Month Percent Changes and Related Summary Measures for Sales and Inventories of Merchant Wholesalers

| 1972 SIC code | Kind of business | $\bar{O}$ | $\bar{S}$ | $\bar{CI}$ | $\bar{I}$ | $\bar{C}$ | $\bar{I}/\bar{C}$ | MCD | Average duration of run | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | CI | I | C | MCD |
| | | Sales | | | | | | | | | | |
| | Merchant wholesalers, total | 4.89 | 3.09 | 1.47 | .85 | 1.12 | .75 | 1 | 2.98 | 1.49 | 13.92 | 2.98 |
| 50 | Durable goods, total | 5.43 | 4.75 | 1.61 | 1.05 | 1.17 | .90 | 1 | 3.48 | 1.53 | 20.87 | 3.48 |
| 501 | Motor vehicles and automotive parts and supplies | 5.73 | 4.39 | 2.76 | 2.37 | 1.27 | 1.86 | 3 | 2.09 | 1.61 | 23.86 | 4.23 |
| 502 | Furniture and home furnishings | 7.76 | 6.99 | 2.43 | 2.09 | 1.01 | 2.07 | 3 | 2.04 | 1.59 | 13.92 | 4.34 |
| 503 | Lumber and other construction materials | 7.69 | 6.40 | 2.77 | 1.99 | 1.72 | 1.15 | 2 | 3.09 | 1.62 | 18.56 | 4.61 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 9.44 | 8.63 | 4.18 | 3.85 | 1.26 | 3.06 | 4 | 1.69 | 1.50 | 7.59 | 3.73 |
| 505 | Metals and minerals, except petroleum | 7.02 | 4.10 | 3.22 | 2.50 | 1.85 | 1.35 | 2 | 1.88 | 1.43 | 8.35 | 3.07 |
| 506 | Electrical goods | 5.75 | 5.04 | 2.31 | 1.98 | 1.08 | 1.83 | 2 | 1.76 | 1.53 | 16.70 | 3.39 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 5.84 | 4.73 | 1.98 | 1.67 | 1.01 | 1.66 | 2 | 2.23 | 1.48 | 15.18 | 3.77 |
| 508 | Machinery, equipment, and supplies | 6.04 | 5.35 | 2.03 | 1.68 | 1.01 | 1.67 | 2 | 2.04 | 1.62 | 13.92 | 3.32 |
| 509 | Miscellaneous durable goods | 8.01 | 6.42 | 3.79 | 3.09 | 1.88 | 1.65 | 2 | 2.04 | 1.53 | 10.44 | 3.46 |
| 51 | Nondurable goods, total | 5.20 | 2.81 | 1.85 | 1.31 | 1.13 | 1.16 | 2 | 2.49 | 1.33 | 12.85 | 3.86 |
| 511 | Paper and paper products | 5.52 | 3.23 | 2.09 | 1.67 | 1.03 | 1.61 | 2 | 2.09 | 1.50 | 15.18 | 3.19 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 6.03 | 3.89 | 2.06 | 1.76 | .78 | 2.25 | 3 | 2.01 | 1.59 | 8.79 | 3.24 |
| 513 | Apparel, piece goods, and notions | 8.05 | 6.62 | 2.93 | 2.73 | 1.00 | 2.72 | 3 | 1.72 | 1.43 | 11.13 | 3.11 |
| 514 | Groceries and related products | 4.52 | 1.85 | 1.66 | 1.43 | .83 | 1.71 | 2 | 2.06 | 1.43 | 23.86 | 3.19 |
| 515 | Farm-product raw materials | 9.28 | 4.72 | 5.03 | 4.44 | 1.71 | 2.59 | 3 | 1.90 | 1.58 | 6.96 | 3.30 |
| 516 | Chemicals and allied products | 7.37 | 5.04 | 3.52 | 3.13 | 1.41 | 2.22 | 3 | 1.84 | 1.52 | 18.56 | 4.71 |
| 517 | Petroleum and petroleum products | 7.03 | 5.33 | 4.27 | 3.59 | 1.92 | 1.87 | 3 | 1.84 | 1.67 | 12.85 | 3.11 |
| 518 | Beer, wine, and distilled alcoholic beverages | 10.80 | 8.43 | 1.70 | 1.50 | .72 | 2.09 | 3 | 1.84 | 1.49 | 16.70 | 4.58 |
| 519 | Miscellaneous nondurable goods | 6.05 | 4.67 | 2.68 | 2.37 | 1.07 | 2.22 | 3 | 1.76 | 1.53 | 10.44 | 3.30 |
| | | Inventories | | | | | | | | | | |
| | Merchant wholesalers, total | 1.16 | .70 | .98 | .40 | .91 | .44 | 1 | 7.59 | 1.52 | 27.83 | 7.59 |
| 50 | Durable goods, total | 1.13 | .57 | .98 | .41 | .93 | .44 | 1 | 6.96 | 1.45 | 41.75 | 6.96 |
| 501 | Motor vehicles and automotive parts and supplies | 2.30 | 1.25 | 1.75 | 1.23 | 1.19 | 1.03 | 2 | 2.69 | 1.52 | 11.93 | 4.15 |
| 502 | Furniture and home furnishings | 2.22 | 1.32 | 1.64 | 1.26 | 1.01 | 1.25 | 2 | 2.14 | 1.49 | 13.92 | 4.26 |
| 503 | Lumber and other construction materials | 2.52 | 1.54 | 1.81 | 1.24 | 1.15 | 1.08 | 2 | 2.65 | 1.72 | 16.70 | 4.15 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 3.49 | 2.79 | 2.21 | 1.94 | 1.07 | 1.80 | 2 | 2.01 | 1.62 | 27.83 | 3.39 |
| 505 | Metals and minerals, except petroleum | 3.31 | 2.43 | 2.09 | 1.36 | 1.37 | 1.00 | 2 | 3.04 | 1.72 | 8.79 | 4.05 |
| 506 | Electrical goods | 1.78 | 1.15 | 1.44 | 1.08 | .94 | 1.15 | 2 | 2.49 | 1.40 | 33.40 | 4.37 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 1.74 | 1.28 | 1.22 | .86 | .88 | .97 | 1 | 2.53 | 1.55 | 18.56 | 2.53 |
| 508 | Machinery, equipment, and supplies | 1.43 | .85 | 1.14 | .71 | .92 | .77 | 1 | 2.78 | 1.64 | 41.75 | 2.78 |
| 509 | Miscellaneous durable goods | 2.32 | 1.31 | 1.94 | 1.35 | 1.27 | 1.06 | 2 | 2.09 | 1.58 | 18.56 | 4.49 |
| 51 | Nondurable goods, total | 2.58 | 2.11 | 1.48 | .92 | 1.05 | .88 | 1 | 3.48 | 1.86 | 9.28 | 3.48 |
| 511 | Paper and paper products | 1.90 | 1.02 | 1.41 | 1.05 | .79 | 1.32 | 2 | 1.96 | 1.37 | 8.35 | 4.05 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 2.55 | 1.60 | 1.72 | 1.49 | .74 | 2.01 | 3 | 1.69 | 1.55 | 20.87 | 3.24 |
| 513 | Apparel, piece goods, and notions | 2.22 | 1.30 | 1.84 | 1.48 | .97 | 1.53 | 2 | 2.06 | 1.55 | 8.35 | 2.96 |
| 514 | Groceries and related products | 1.94 | 1.37 | 1.40 | .97 | .97 | 1.01 | 2 | 2.42 | 1.45 | 16.70 | 4.37 |
| 515 | Farm-product raw materials | 8.85 | 7.57 | 4.51 | 3.64 | 2.15 | 1.69 | 3 | 2.42 | 2.04 | 7.59 | 4.12 |
| 516 | Chemicals and allied products | 3.17 | 1.64 | 2.45 | 1.87 | 1.43 | 1.30 | 2 | 2.26 | 1.52 | 16.70 | 3.95 |
| 517 | Petroleum and petroleum products | 5.01 | 2.95 | 3.67 | 2.65 | 2.06 | 1.29 | 2 | 2.29 | 1.65 | 10.44 | 3.95 |
| 518 | Beer, wine, and distilled alcoholic beverages | 4.28 | 3.68 | 1.83 | 1.46 | .86 | 1.70 | 2 | 2.14 | 1.49 | 8.79 | 3.46 |
| 519 | Miscellaneous nondurable goods | 2.85 | 1.88 | 1.96 | 1.55 | .91 | 1.71 | 2 | 1.92 | 1.50 | 8.35 | 3.07 |

## Description of Measures Shown Above

The following are brief descriptions of the measures shown in this table. More complete explanations appear in "Electronic Computers and Business Indicators," Occasional Paper 57, National Bureau of Economic Research, Inc., New York, 1957.

$\bar{O}$ is the average month-to-month percentage change, without regard to sign, in the original series before seasonal or trading-day adjustment.

$\bar{S}$ is the average month-to-month percentage change, without regard to sign, in the seasonal component. It is a measure of the average monthly seasonal change in the unadjusted series.

$\bar{CI}$ is the average month-to-month percentage change, without regard to sign, in the seasonally adjusted series.

$\bar{I}$ is the average month-to-month percentage change without regard to sign, for the irregular component. The irregular component is obtained by dividing the seasonally adjusted series by the cyclical component.

$\bar{C}$ is the average month-to-month percentage change, without regard to sign, for the cyclical component, which is a smooth, flexible moving average.

$\bar{I}/\bar{C}$ is a measure of the relative smoothness (small values) or irregularity (large values) of the seasonally adjusted series.

MCD (months for cyclical dominance) gives an estimate of the appropriate time span over which to observe cyclical movements in a monthly series. In deriving MCD, the average (without regard to sign) percentage changes in the irregular and cyclical components are computed for 1-month spans (Jan.-Feb., Feb.-Mar., etc.) 2-months spans (Jan.-Mar., Feb.-Apr., etc.), and so on. MCD is the shortest span for which the average change (without regard to sign) in the cyclical component is larger than the average change (without regard to sign) in the irregular component; that is, it indicates the point at which fluctuations begin to be more attributable to cyclical than to irregular movements. MCD is small for smooth series and large for erratic series.

Average duration of run (ADR) is a measure of smoothness, and is equal to the average number of consecutive monthly changes in the same direction in any series of observations. When there is no change between 2 months, a change in the same direction as the preceding change is assumed. The ADR is shown for the seasonally adjusted series CI, irregular component I, cyclical component C, and the MCD moving average. The MCD moving average is an unweighted moving average (with the number of terms equal to MCD) of the seasonally adjusted series.

A comparison of these measures with the expected ADR of a random series gives an indication of whether the changes approximate those of a random series. (The expected value of ADR for a random series is 1.5 and it falls between 1.36 and 1.75 about 95 percent of the time. For a moving average of a random series the expected value is 2.0). For example, the ADR of CI is 2.08 for electrical goods sales. This indicates that 1-month changes in the seasonally adjusted series, on the average, reverse sign slightly less often than a random series. In the next two columns, 1.46 for I and 10.58 for C indicate the separation of the seasonally adjusted series into an essentially random component and the cyclical (nonrandom) component. Finally, 3.32 for MCD indicates that a 2-month moving average of the seasonally adjusted series (2 months being the MCD span) reverses direction on the average about every 3 months. The increase in the average duration of run from 2.08 for CI to 3.32 for the MCD moving average indicates that for this series the use of MCD spans reduces the effect of the irregular component upon the seasonally adjusted series.

These averages are based on a seasonally adjusted series which is adjusted historically; that is, the months used to compute the measures were the same months used to estimate the seasonal factors. Current data, however, are adjusted by use of factors projected 1 year ahead, and are thus subject to additional error. Therefore, current data are probably somewhat more irregular and subject to larger MCD than shown above.

# Appendix C. Explanatory Material

## SCOPE OF THE SURVEY

Wholesale trade, as defined in Major Groups 50 and 51 of the 1972 edition of the Standard Industrial Classification (SIC) Manual[1] and as covered in the 1972 and 1977 censuses, includes establishments or places of business primarily engaged in selling merchandise to retailers; to industrial, commercial, institutional, farm or professional business users; or to other wholesalers; or acting as agents or brokers in buying merchandise for or selling merchandise to such persons or companies.

The principal types of establishments included are: (1) merchant wholesalers who take title to the goods they sell, such as wholesale merchants or jobbers, industrial distributors, voluntary group wholesalers, exporters, importers, cash-and-carry wholesalers, drop shippers, major distributors, retailer cooperative warehouses, terminal elevators, and cooperative buying associations; (2) sales branches and sales offices (but not retail stores) maintained by domestic manufacturing or mining enterprises apart from their plants or mines for the purpose of marketing their products; (3) agents, merchandise or commodity brokers, and commission merchants.

This survey is limited to merchant wholesalers (described under category 1 above), which constitute the major portion of the broad field of wholesale trade, and excludes the other types of wholesale trade. All kinds of business in which merchant wholesalers operate are represented in this survey.

Kind-of-business classifications are not interchangeable with commodity classifications. Most businesses sell several kinds of commodities. The kind-of-business code assigned generally reflects either the individual commodity or the commodity group which is the primary source of the establishment's receipts, or some mixture of commodities which characterizes the establishment's business. Thus, the classification of establishments by kind of business generally does not make it possible to determine either the number of establishments handling a particular commodity or the sales of that commodity. For example, the "grocery" classification excludes establishments selling groceries if the sale of groceries is not the primary source of receipts; moreover, even though establishments are classified as "grocery wholesalers" some of their sales may be derived from the sale of nonfood products.

A description of each kind of business included in the accompanying statistical data is shown in appendix D.

## SAMPLE DESIGN AND ESTIMATION PROCEDURES

**Framework of Old Series.** The first publication in this series based on probability sampling, was the January 1954 report. Effective with the July 1956 publication an entirely new sample was selected from the 1954 Census of Business. Other changes in the sample have been made since 1956, representing, for the most part, revisions to reflect the findings of successive censuses of wholesale trade and the benchmarking operation described in the benchmarking section.

**Selection of Sample for New Series.** The new sample[2] like the old is a probability sample, and the estimating procedures used are similar in many respects to the old sample.

The new sample originally was drawn from the Standard Statistical Establishment List (SSEL) as updated to December 31, 1974. The initial SSEL consisted of two lists. One list was composed of all Employer Identification (EI) numbers issued by the Internal Revenue Service (IRS) with reported payroll in at least one quarter of 1973 or 1974, with payroll in the 1972 census, or with sales/receipts greater than $100,000 in the 1972 census. The second list consisted of all establishments of known multiestablishment companies as of December 31, 1974. These lists contained information on sales/receipts, payroll, employment, name and address, kind-of-business classification, etc.

Before the 1974 SSEL was available a study was made using files from the 1972 Census of Wholesale Trade. This study determined the stratification of the sampling units based on 1972 sales, inventories, and kind of business, and also determined the optimal allocation of the sample necessary to meet specified variance objectives for sales and inventory estimates for different kind-of-business groups. The primary stratum boundary determined in the study was the certainty cutoff to be used for each kind of business. The cutoff was particularly important since it also determined the type of sampling unit.

The sampling units for the new sample consisted of both companies and EI's. To be eligible for the initial sampling, an EI had to be active, i.e., had payroll in 1974 and was on the Internal Revenue Service mailing list for Federal Insurance Contribution Act (FICA) taxpayers. If a known multiestablishment company had total merchant wholesale sales (on a 1972 basis) above the cutoff for its major kind of business, the company was selected for the sample with certainty. Single establishment companies, whether or not selected with certainty, were considered as EI sampling units.

All merchant wholesale companies below the certainty cutoff were treated on an EI basis; that is, the EI was the sampling unit. The EI's were then stratified according to their major kind of business and their estimated sales (on a 1972 basis). Within each stratum, a simple random sample of EI's

[1] Executive Office of the President, Office of Management and Budget, *Standard Industrial Classification Manual, 1972.*

[2] For a complete explosition of the new sample, see C. T. Isaki et al., "Sample Redesign Aspects of the Census Bureau's Monthly Business Surveys" and K. M. Wolter et al., "Sample Selection and Estimation Aspects of the Census Bureau's Monthly Business Surveys," *Proceedings of the Business and Economic Statistics Section: American Statistical Association, 1976.*

was selected. The sampling rates for these EI's varied between 1 in 3 and 1 in 600.

For those EI's in the initial sample that did not have kind-of-business classifications and for all EI "births" after the initial selection, a two-phase selection procedure was used. EI "births," as used here, are new EI's recently assigned by Social Security Administration (SSA) and currently on the IRS mailing list for FICA taxpaxers. In the first phase, "births" were stratified by kind of business and size (expected employment or quarterly payroll). A relatively large sample was drawn and canvassed in order to obtain a more reliable measure of size (sales in 2 recent months) and a more detailed kind-of-business code, if needed.

Using this more reliable information, the cases were re-stratified and the final sample drawn with overall probabilities equivalent to those used in drawing the initial sample from the 1974 SSEL. Because of the lag in reporting "births" to the IRS and SSA and the time needed to accomplish the two-phase birth-selection procedure, "births" are actually added to the sample approximately 1 year after they begin operation. The ongoing birth-selection procedure is carried out quarterly.

Since "births" are not represented in the sample, until they go through the selection procedure described above, an interium procedure is required to account for "births" during the period between the onset of activity and the time of birth selection. This consists of imputing for all cases which go out of business, but which are still on the IRS mailing list. This imputation procedure was also used in the old series. However, because of recent delays in obtaining "births," this procedure now accounts for a larger percentage of the estimates.

To be eligible for the sample canvass and tabulation in a given month, a merchant wholesale business must meet both of the following requirements:

1. It must be on the IRS mailing list for FICA taxpayers from the previous quarter.

2. It must have been selected from either the SSEL or the file of employer "births." For this purpose, a universe file of all businesses ever given a chance of selection is maintained. This file shows, among other things, which EI numbers actually have been selected.

In the case of businesses that were selected into the sample with certainty, the first requirement is changed. These certainty sampling units are not dropped from canvass and tabulation if they are no longer on the IRS mailing list. If there are successor businesses, they are added to the survey. This is a tighter form of control used for these larger businesses.

**Use of the Rotating Sample and Composite Estimating Procedures.** Rotating samples or panels are used except for very large businesses which are selected with certainty. For sampling units in the rotating panels, 2 months of data are obtained at each enumeration. For example, February rotating panel cases report data for February (the current month) and January (the previous month). In the following month, a different rotating panel (the March panel) reports figures for March and February. Three sample panels are used. This permits the use of a composite estimating procedure which provides estimates more reliable than those which would be obtained from a completely fixed sample of about twice the size. In addition, this procedure reduces the reporting burden of selected businesses.

The first estimate issued each month is called the preliminary estimate. The preliminary composite estimate at the detail level for the current month is a weighted average of two estimates: (1) the current month unbiased estimate (weight 0.35), and (2) an estimate (weight 0.65) obtained by multiplying the difference between the preliminary composite for the previous month and the unbiased estimate for the previous month from the current month panel by the current-to-previous-month ratio obtained from the current month reports. Preliminary inventory estimates have been modified, prior to publication, based on past relationships between preliminary and final estimates.

A final estimate is developed 1 month later using information available from the following month's enumeration. The final composite estimate is also a weighted average of two estimates: (1) the preliminary composite estimate for a given month (weight 0.7), and (2) the unbiased estimate (weight 0.3) for the same month as obtained from the next month's reporting panel.

The preliminary composite estimates provide a measure of the dollar volume level that is considerably more reliable than the unbiased estimates, and the final composite estimates are generally more reliable than the preliminary composite estimates. The indication of the month-to-month trend considered to be most reliable is the ratio of the current month's preliminary composite estimate divided by the previous month's final complete estimate. This is true because the numerator and denominator of this ratio are more highly correlated than would be the case if the numerator and denominator were two preliminary estimates or two final estimates. The trend of the preliminary/final ratio, therefore, has less variability than one based on two preliminary figures or two final figures.

Another advantage of the use of the rotating panel system is that the frequency of canvass of very large noncertainty cases can be increased with a consequent reduction in an unbiased manner, of their statistical weight. This increases the reliability of the estimates, particularly the measure of month-to-month change.

The differences between preliminary and final estimates of seasonally adjusted sales have ranged from approximately +0.8 percent to -0.9 percent for the past 12 months. During the same period, the average of the absolute differences was 0.5 percent. The corresponding range for inventories was approximately +1.0 percent to -1.0 percent for the past 12 months. The average of the absolute differences was 0.5 percent.

## BENCHMARKING

Wholesale sales estimates in this report reflect the results of a benchmaking operation which made use of data tabulated from the 1977 Census of Wholesale Trade and the 1978 and 1979 Annual Wholesale Trade Surveys (ATS). Monthly wholesale sales by kind of business for the United States were revised for the period January 1973 through January 1981 in a manner designed to minimize the changes to the month-to-month trends in the original series. As part of the revision process,

revised monthly data for 1977, 1978, and 1979 were constrained to sum to 1977 census levels and 1978 and 1979 estimates, respectively.

End-of-month inventories were revised in a similar manner as sales. The constraints for the inventory estimates were the December 1972 estimates and the December ending inventories from 1976 through 1979 estimates from the ATS (the 1976 estimates were available from the 1977 ATS).

Through use of so-called "carry forward factors," the effect of the revision process at the U.S. level is applied to all estimates subsequent to December 1979. These factors were derived at the most detailed kind-of-business level and will be held constant until the next revision and benchmarking process. Aggregate level estimates are derived by summing appropriate detail level estimates, thereby assuring additivity.

## CLASSIFICATION DIFFERENCES BETWEEN THE MONTHLY ESTIMATES AND THE 1977 CENSUS OF WHOLESALE TRADE

Ferrous Metals Service Centers (SIC 5051 part) with warehouse space greater than 5000 square feet are included in the monthly survey, regardless of the ownership of the products sold. However, if the establishments primarily sell the products manufactured by their own company, they are considered sales branches in the 1977 Census of Wholesale Trade.

In the 1977 Census of Wholesale Trade, establishments classified in the Farm-Product Raw Materials Group (SIC 515X) included as sales, products purchased and transferred to other company establishments. In the monthly survey inter-company transfers are not included in sales. Because of the differences shown above, the sales presented in this report for these kinds of business were obtained from the annual trade survey for 1977.

## REVISION TO PREVIOUSLY PUBLISHED DATA

The basic input inventory series for all the components of the Farm-Product Raw Materials Group[3] (SIC 515) and for Petroleum-Bulk Stations and Terminals (SIC 5171) have been revised. These data were revised to reflect improved methodology. SIC 5171 was revised from January 1967 through November 1972, while the SIC's in the 515 group were revised from January 1967 through July 1977. All summary groups which included inventories in these SIC's were also revised.

[3] See appendix D, Kind-of-Business Classification for the SIC's included in this group.

## UNPUBLISHED DATA

Additional data, such as dollar volume estimates for some kinds of business not separately shown in this report, are produced as a byproduct of the regularly published statistics. These additional data have not been included in this publication because the sampling variability associated with these data does not meet the Census Bureau's publication criteria. The Census Bureau, on written request will release these data for individual use, though not for publication.

## DEFINITION OF TERMS

**Sales.** Sales include the following: merchandise sold for cash or credit at wholesale and retail by establishments primarily engaged in merchant wholesale trade; receipts from customers for rental or leasing of equipment, instruments, tools, etc.; receipts for delivery, installation, alteration, maintenance, repair, storage, and other services; and gasoline, liquor, tobacco, and other excise taxes which are paid by the manufacturer and passed along to the wholesaler. Sales are net after deductions for refunds and allowances for merchandise returned by customers. Sales which are made on an agency basis for others are included as gross sales. Direct shipments on orders from wholesalers are also included in sales. Total sales do not include nonoperating income from sources as investments, rental or sale of real estate, etc.

In this series, sales exclude sales and excise taxes collected directly from customers and paid directly to a local, State, or Federal tax agency. Also excluded are receipts from customers for carrying or other credit charges. In the old series respondents were requested to include these taxes and credit charges in the reported sales. The impact of this change is considered minimal.

**Inventories.** Inventories represent stocks, at cost, of merchandise on hand for sale at the end of the month regardless of location, except for goods outside the United States. Goods held on consignment and items not held for sale such as fixtures, equipment, and supplies are not included.

**Stock-Sales Ratios.** The stock-sales ratios are percentages derived by dividing the dollar value of inventories, at cost, by the dollar value of sales. No adjustment is made in these ratios for the markup in sales which may vary from trade to trade.

The sales and inventory figures represent total sales and inventories of all establishments primarily engaged in merchant wholesale trade. Also included are the sales and inventories of central administrative offices and auxiliaries of merchant wholesale establishments.

# Appendix D. Kind-of-Business Classifications

## DURABLE GOODS (SIC Major Group 50)

This major group includes establishments primarily engaged in the wholesale distribution of durable goods.

### Motor Vehicles and Automotive Parts and Supplies (SIC 501)

**Automobiles and Other Motor Vehicles (SIC 5012)**[1]. Establishments primarily engaged in the wholesale distribution of new and used passenger automobiles, trucks, and other motor vehicles. Automotive distributors primarily engaged in selling at retail to individual consumers for personal use, and also selling a limited amount of new and used passenger automobiles and trucks at wholesale to dealers, are classified in retail trade, industry 5511.

**Automotive Parts and Supplies (SIC 5013).** Establishments primarily engaged in the wholesale distribution of automotive parts, supplies, accessories, tools and equipment.

**Tires and Tubes (SIC 5014)**[1]. Establishments primarily engaged in the wholesale distribution of rubber tires and tubes for passenger and commercial vehicles

### Furniture and Home Furnishings (SIC 502)

**Furniture (SIC 5021).** Establishments primarily engaged in the wholesale distribution of furniture, including bedsprings, mattresses, and other household furniture; office furniture; and furniture for public parks, buildings, etc.

SIC 5021 is subdivided into:

1. *Household and lawn furniture.*
2. *Office and business furniture.*

**Home Furnishings (SIC 5023).** Establishments primarily engaged in the wholesale distribution of home furnishings and homewares, including antiques; china; glassware and earthenware; lamps; curtains and draperies; linens and towels; carpets, linoleum, and all other types of hard and soft surface floor coverings. Establishments primarily engaged in the wholesale distribution of electrical household goods are classified in industry 5064.

[1] Data for this kind of business are not shown separately but are included in the group total.

### Lumber and Other Construction Materials (SIC 503)

**Lumber, Plywood, and Millwork (SIC 5031).** Establishments, with or without yards, primarily engaged in the wholesale distribution of rough, dressed, and finished lumber (but not timber); plywood; door and window frames (wood or metal); and other wood and metal millwork. Establishments selling lumber, plywood and millwork to the general public and known as "retail" in the trade are classified in industry 521.

**Construction Materials, Not Elsewhere Classified (SIC 5039).** Establishments primarily engaged in the wholesale distribution of such building materials as brick, building stone, cement, granite, gravel, lime, marble, plaster, building glass, roofing materials, sand, and tile. Establishments selling construction materials to the general public and known as "retail" in the trade are classified in industry 521. Establishments primarily engaged in marketing heavy structural metal products are classified in industry 5051. Establishments primarily selling readymade concrete are classified in manufacturing.

### Sporting, Recreational, Photographic, and Hobby Goods, Toys, and Supplies (SIC 504)[1]

Establishments primarily engaged in the wholesale distribution of all types of amusement and sporting goods and accessories—billiard and pool supplies; cameras and photographic equipment; coin-operated game machines; games, toys; ammunition and fireworks; etc.

### Metals and Minerals, Except Petroleum (SIC 505)[1]

**Ferrous Metals Service Centers and Offices (SIC 5051 pt.).** Establishments primarily engaged in marketing ferrous metal semifinished products such as nails, pig iron, steel and tin bars. Establishments in this industry which have warehouse space greater than 5,000 square feet are considered ferrous metals service centers. Establishments with warehouse space less than 5,000 square feet are considered ferrous metals sales offices.

Sales branches of domestic manufacturers are included in this category if the establishment is separate from the manufacturing plant and has warehouse space greater than 5,000 square feet.

**Nonferrous Metals Service Centers and Offices and Other Minerals and Ores (SIC 5051 pt. and SIC 5052 pt.)**[1]. Establishments primarily engaged in marketing nonferrous metal semifinished products such as aluminum bars and copper rods. Also included are establishments primarily engaged in the wholesale distribution of copper, iron, lead, and other metallic ores except precious; and crude nonmetallic minerals (including concentrates) except crude petroleum. Establishments primarily

engaged in the wholesale distribution of nonmetallic minerals used in construction, such as sand and gravel, are included in industry 5039.

**Coal (SIC 5052 pt.)**[1]. Establishments primarily engaged in the wholesale distribution of coal and coke. Included are establishments which have products shipped direct from mine to customer, and establishments operating yards and dock space and making deliveries therefrom at wholesale as well as other coal merchants.

## Electrical Goods (SIC 506)

**Electrical Apparatus and Equipment, Wiring Supplies, and Construction Materials (SIC 5063).** Establishments primarily engaged in the wholesale distribution of electrical power equipment for the generation, transmission, or utilization of electric energy; and electrical construction materials for outside power transmission lines and for electrical systems. Construction contractors primarily engaged in installing electrical systems and equipment from their own stock are classified in industry 1731.

**Electrical Appliances, TV and Radio Sets (SIC 5064).** Establishments primarily engaged in the wholesale distribution of radio and television sets and household electrical appliances.

**Electronic Parts and Equipment (SIC 5065)**[1]. Establishments primarily engaged in the wholesale distribution of electronic parts and equipment, such as industrial and radio and television receiving and transmitting electronic tubes; electronic intercommunication equipment; radio parts and accessories; and electronic sound equipment. Establishments primarily engaged in the wholesale distribution of radio and television receiving sets and phonographs are classified in industry 5064.

## Hardware, Plumbing, Heating Equipment, and Supplies (SIC 507)

**Hardware (SIC 5072).** Establishments primarily engaged in the wholesale distribution of hardware, such as builders; shelf or light hardware; handtools (except automotive and machinists' precision); handsaws and cutlery; brads, staples, and tacks; and bolts, nuts, rivets, and screws. Establishments primarily engaged in the wholesale distribution of nails, noninsulated wire, and screening are classified in industry 5051.

**Plumbing and Heating Equipment and Supplies (Hydronics) (SIC 5074).** Establishments primarily engaged in the wholesale distribution of hydronic plumbing and heating equipment and supplies. Construction contractors primarily engaged in installing plumbing and heating equipment from their own stock are classified in industry 1711.

**Warm Air Heating and Air-Conditioning Equipment and Supplies (SIC 5075)**[1]. Establishments primarily engaged in the distribution of warm air heating and air-conditioning equipment and supplies. Construction contractors primarily engaged in installing warm air heating and air-conditioning equipment are classified in industry 1711.

**Refrigeration Equipment and Supplies (SIC 5078)**[1]. Establishments primarily engaged in the distribution of refrigeration equipment and supplies. Construction contractors primarily engaged in installing refrigeration equipment from their own stock are classified in industry 1711.

## Machinery, Equipment, and Supplies (SIC 508)

**Commercial Machines and Equipment (SIC 5081)**[1]. Establishments primarily engaged in wholesaling commercial machines and equipment, such as office, store, and business machines and equipment; commercial food service equipment; and fountain and store fixtures.

**Construction and Mining Machinery and Equipment (SIC 5082).** Establishments primarily engaged in marketing cranes, excavating machinery and equipment, power shovels, road construction and maintenance machinery, tractor-mounting equipment and other specialized machinery and equipment used in the construction, mining, and logging industries. Establishments engaged in marketing oil well machinery and equipment are classified in industry 5084.

**Farm and Garden Machinery and Equipment (SIC 5083)**[1]. Establishments primarily engaged in marketing agricultural machinery and equipment for use in the preparation and maintenance of the soil, the planting and harvesting of crops, and other operations and processes pertaining to work on the farm or the lawn or garden; and dairy and other livestock equipment.

**Industrial Machinery and Equipment (SIC 5084)**[1]. Establishments primarily engaged in marketing industrial machinery and equipment, such as metal working tools, food industries machinery, oil well and oil refining machinery, industrial trucks and tractors (except over-the-road types), printing machinery, and machinery and equipment for other manufacturing industries.

**Industrial Supplies (SIC 5085)**[1]. Establishments primarily engaged in marketing industrial supplies, such as abrasives and materials, rope and cordage, and mechanical rubber goods; welding supplies; mechanical power transmission supplies, including bearings; industrial valves and fittings; metal containers; industrial leather; and reconditioned barrels and drums.

**Professional Equipment and Supplies (SIC 5086).** Establishments primarily engaged in the wholesale distribution of mechanical devices and other equipment used by architects, dentists, engineers, physicians, surgeons, veterinarians, optometrists, osteopaths, and other professional groups.

**Surgical, Medical, Hospital Supplies (SIC 5086 pt.)**[1]. Establishments primarily engaged in selling surgical and medical instruments; doctors' apparatus and equipment; orthopedic appliances; artificial limbs; operating room and other hospital

[1] Data for this kind of business are not shown separately but are included in the group total.

equipment, X-ray machines and accessories and other scientific instruments used by physicians and in hospitals.

**Service Establishment Equipment and Supplies (SIC 5087)**[1]. Establishments primarily engaged in the wholesale distribution of equipment and supplies for barber shops, beauty parlors, power laundries, dry-cleaning plants, upholsterers, undertakers, and related personal service establishments.

**Transportation Equipment and Supplies, Except Motor Vehicles (SIC 5088)**[1]. Establishments primarily engaged in the wholesale distribution of transportation equipment and supplies. Establishments primarily engaged in the wholesale distribution of motor vehicles and motor vehicle parts are classified in group 501.

## Miscellaneous Durable Goods (SIC 509)[1]

**Scrap and Waste Materials (SIC 5093).** Establishments primarily engaged in assembling, breaking up, sorting and wholesale distribution of scrap and waste materials. This industry includes auto wreckers engaged in dismantling automobiles for scrap. However, those engaged in dismantling cars for the purpose of selling secondhand parts at retail are classified in industry 5931.

SIC 5093 is subdivided into:

1. *Iron and Steel scrap.*
2. *Waste and secondary materials dealers.*

**Jewelry, Watches, Diamonds, and Other Precious Stones (SIC 5094)**[1]. Establishments primarily engaged in the wholesale distribution of jewelry, precious stones and metals, costume jewelry, watches, clocks, silverware, and jewelers' findings.

**Durable Goods, Not Elsewhere Classified (SIC 5099)**[1]. Establishments primarily engaged in the wholesale distribution of durable goods, not elsewhere classified, such as musical instruments and forest products, except lumber.

## NONDURABLE GOODS (SIC Major Group 51)

This major group includes establishments primarily engaged in the wholesale distribution of nondurable goods.

## Paper and Paper Products (SIC 511)

**Printing and Writing Paper (SIC 5111).** Establishments primarily engaged in the wholesale distribution of writing paper, including envelope paper, fine paper, and ground wood, printing, and rotogravure paper.

**Stationery Supplies (SIC 5112)**[1]. Establishments primarily engaged in the wholesale distribution of stationery and office supplies, including envelopes, typewriter and mimeograph paper, file cards and folders, pens, social stationery, and greeting cards.

**Industrial and Personal Service Paper (SIC 5113).** Establishments primarily engaged in the wholesale distribution of wrapping and other coarse paper, paperboard, cellophane, and converted paper products, such as bags, boxes, dishes, napkins, and shipping supplies.

## Drugs, Drug Proprietaries, and Druggists' Sundries (SIC 512)

**Drugs, Drug Proprietaries, and Druggists' Sundries (SIC 5122).** Establishments primarily engaged in the wholesale distribution of drugs, drug proprietaries, druggists' sundries, and toiletries. Establishments primarily engaged in the wholesale distribution of surgical, dental, and hospital equipment are classified in industry 5086.

SIC 5122 is subdivided into:

1. *General-line drugs.* These are distinguished from specialty-line drug and toiletries wholesalers on the basis of their commodity-line mix. Drug wholesalers were classified as general line if they reported a substantial portion of their sales in "pharmaceuticals, antibiotics, druggists' chemicals, biologicals, botanicals" and "proprietary products, toiletries, druggists' sundries," and if annual sales volume was $1 million or more.
2. *Specialty-line pharmaceuticals, cosmetics, and toiletries.*

## Apparel, Piece Goods, and Notions (SIC 513)

**Piece Goods (SIC 5133)**[1]. Establishments primarily engaged in the wholesale distribution of woven piece goods or yard goods of natural or manmade fibers. "Converters" who buy goods in the grey, have them finished on contract, and sell at wholesale are included here. This industry does not include establishments primarily engaged in the wholesale distribution of home furnishings, which are classified in industry 5023.

**Notions and Other Dry Goods (SIC 5134)**[1]. Establishments primarily engaged in the wholesale distribution of notions (sewing and hair accessories, etc.), knit goods, and other dry goods, except piece goods.

**Men's and Boys' Clothing and Furnishings (SIC 5136)**[1]. Establishments primarily engaged in the wholesale distribution of men's and boys' apparel and furnishings, sportswear, hosiery, underwear, nightwear, and work clothing.

**Women's Children's, and Infants' Clothing and Accessories (SIC 5137)**[1]. Establishments primarily engaged in the wholesale distribution of women's, children's, and infants' clothing and accessories, including hosiery, lingerie, millinery and millinery supplies, and furs.

**Footwear (SIC 5139)**[1]. Establishments primarily engaged in the wholesale distribution of footwear of leather, rubber, and other materials.

[1] Data for this kind of business are not shown separately but are included in the group total.

## Groceries and Related Products (SIC 514)

**Groceries, General-Line (SIC 5141).** Establishments primarily engaged in the wholesale distribution of a general line of groceries. Establishments primarily engaged in roasting coffee, and establishments primarily engaged in blending tea or grinding and packaging spices are classified in major group 20.

SIC 5141 is subdivided into:

1. *Voluntary group wholesalers.*
2. *Retailer cooperative wholesalers.*
3. *Other general-line wholesalers.*

**Frozen Foods (SIC 5142)**[1]. Establishments primarily engaged in the wholesale distribution of packaged quick-frozen vegetables, juices, meats, fish, poultry, pastries, and other "deep freeze" products. Establishments primarily engaged in the wholesale distribution of frozen dairy products are classified in industry 5143. Frozen poultry, fish, and meat which are not packaged are classified in industries 5144, 5146, and 5147, respectively.

**Dairy Products (SIC 5143)**[1]. Establishments primarily engaged in the wholesale distribution of dairy products, such as butter, cheese, ice cream and ices, and fluid milk and cream. This industry does not include establishments primarily engaged in pasteurizing and bottling milk, which are classified in group 202.

**Poultry and Poultry Products (SIC 5144).** Establishments primarily engaged in the wholesale distribution of poultry and poultry products, except canned and packaged frozen products. This industry does not include establishments primarily engaged in the killing and dressing of poultry, which are classified in industry 2016. Establishments primarily engaged in the wholesale distribution of packaged frozen poultry are classified in industry 5142, and of canned poultry in industry 5149.

**Confectionery (SIC 5145).** Establishments primarily engaged in the wholesale distribution of confectionery, such as candy, chewing gum, fountain fruits, salted or roasted nuts, popcorn, and fountain syrups; and potato, corn, and similar chips.

**Fish and Seafoods (SIC 5146)**[1]. Establishments primarily engaged in the wholesale distribution (not packaging) of fresh, cured, and frozen fish and seafoods, except canned (industry 5149) or packaged frozen (industry 5142). The preparing, packaging, and freezing of fresh fish and other seafood, and the shucking and packing of fresh oysters in nonsealed containers are classified in industry 2092.

**Meats and Meat Products (SIC 5147).** Establishments primarily engaged in the wholesale distribution of fresh, cured, and processed (but not canned) meats and lard. The wholesale distribution of frozen packaged meats is classified in industry 5142 and canned meats in industry 5149.

[1] Data for this kind of business are not shown separately but are included in the group total.

**Fresh Fruits and Vegetables (SIC 5148).** Establishments primarily engaged in the wholesale distribution of fresh fruits and vegetables.

**Groceries and Related Products, Not Elsewhere Classified (SIC 5149)**[1]. Establishments primarily engaged in the wholesale distribution of groceries and related products, not elsewhere classified. Establishments primarily engaged in the wholesale distribution of soft drinks, and in bottling and distributing natural spring and mineral waters, are classified in this industry, but establishments primarily engaged in bottling soft drinks are classified in major group 20. This industry does not include farm-product raw materials (group 515), or beer, wine, and distilled alcoholic beverages (group 518).

## Farm-Product Raw Materials (SIC 515)

**Cotton (SIC 5152)**[1]. Establishments primarily engaged in buying and/or marketing cotton and cotton linters.

**Grain (SIC 5153).** Establishments primarily engaged in buying and/or marketing grain (such as corn, wheat, oats, barley, and unpolished rice); dry beans; soybeans, and other inedible beans. Country grain elevators primarily engaged in buying or receiving grain from farmers are included as are terminal elevators and other merchants marketing grain.

**Livestock (SIC 5154)**[1]. Establishments primarily engaged in buying and/or marketing cattle, hogs, sheep, and goats.

**Farm-Product Raw Materials, Not Elsewhere Classified (SIC 5159)**[1]. Establishments primarily engaged in buying and/or marketing farm products not elsewhere classified, such as horses and mules, leaf tobacco, hides, skins, furs, wool, mohair, raw silk, hops, and nuts, except roasted or salted (industry 5145). Establishments primarily engaged in the wholesale distribution of milk are classified in industry 5143 and live poultry in industry 5144.

## Chemicals and Allied Products (SIC 516)[1]

**Chemicals and Allied Products (SIC 5161)**[1]. Establishments primarily engaged in the wholesale distribution of chemicals and allied products, not elsewhere classified, such as acids, industrial and heavy chemicals, dyestuffs, industrial salts, naval stores, plastics materials, rosin, and turpentine. Establishments primarily engaged in the wholesale distribution of ammunition are classified in industry 5041; agricultural chemicals and pesticides in industry 5191; drugs in industry 5122; and paints and varnishes in industry 5198.

## Petroleum and Petroleum Products (SIC 517)

**Petroleum Bulk Stations and Terminals (SIC 5171).** Establishments primarily engaged in wholesaling petroleum products, including liquefied petroleum gas, from bulk liquid storage facilities.

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**Petroleum and Petroleum Products Wholesalers, Except Bulk Stations and Terminals (SIC 5172)**[1]. Establishments primarily engaged in wholesaling petroleum and petroleum products, except those with bulk liquid storage facilities. Included are packaged and bottled petroleum products distributors, truck jobbers, and others marketing petroleum and products at wholesale but without bulk liquid storage facilities.

## Beer, Wine, and Distilled Alcoholic Beverages (SIC 518)

**Beer and Ale (SIC 5181).** Establishments primarily engaged in the wholesale distribution of beer, ale, porter, and other fermented malt beverages.

**Wines and Distilled Alcoholic Beverages (SIC 5182).** Establishments primarily engaged in the wholesale distribution of distilled spirits, including neutral spirits and ethyl alcohol used in blending wines and distilled liquors.

## Miscellaneous Nondurable Goods (SIC 519)

**Farm Supplies (SIC 5191)**[1]. Establishments primarily engaged in the wholesale distribution of animal feeds, fertilizers, agricultural chemicals, pesticides, seeds, and other farm supplies, except grains.

**Tobacco and Tobacco Products (SIC 5194).** Establishments primarily engaged in the wholesale distribution of tobacco and tobacco products. Leaf tobacco wholesalers are classified in industry 5159 and establishments primarily engaged in stemming and redrying tobacco in industry 2141.

**Paints, Varnishes, and Supplies (SIC 5198)**[1]. Establishments primarily engaged in the wholesale distribution of paints, varnishes, wallpaper, and supplies, and sometimes glass. Establishments selling to the general public and known as "retail" in the trade are classified in industry 5231.

**Books, Periodicals, Newspapers (SIC 5199 pt.)**[1]. Establishmen primarily engaged in the wholesale distribution of books, lithographed matter, magazines, newspapers, and all other forms of reading material.

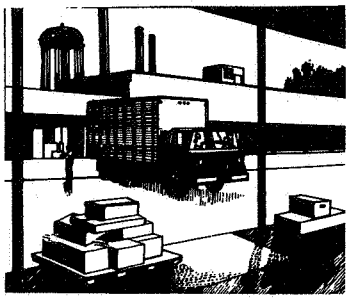
**Nondurable Goods, Not Elsewhere Classified (SIC 5199 pt.)**[1]. Establishments primarily engaged in the wholesale distribution of nondurable goods, not elsewhere classified, such as art goods, flowers and florist supplies, industrial yarn, textile bags, bagging and burlap.

[1] Data for this kind of business are not shown separately but are included in the group total.

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CURRENT BUSINESS REPORTS

# Monthly Wholesale Trade

## SALES AND INVENTORIES

Issued November 1981

## September 1981

BW-81-09

**Sales.** September 1981 sales of merchant wholesalers, after adjustment for seasonal variations and trading-day differences but not for price changes, were $96.5 billion, up 2 percent from the previous month and 7 percent above September 1980. Adjusted July-through-September total sales were virtually unchanged from the April-through-June period but were 10 percent above the comparable months a year ago.

After adjustment, September sales in the durable goods trades were up 1 percent from the previous month and were 11 percent above the year-ago level. Nondurable goods sales increased 3 percent from August and were up 4 percent from September 1980. Total monthly sales in the durable goods group during the July-through-September period were up 1 percent from the prior 3 months and increased 14 percent from the comparable period a year ago. Three-month total sales for the nondurable goods group were down 1 percent from the April-through-June period but were 6 percent above the same period a year ago.

Based on adjusted data, comparisons with previous month sales levels showed the largest increase in petroleum and petroleum products and drugs, proprietaries, and sundries—both up 5 percent. Compared with adjusted sales of a year ago, the sharpest increase was noted in paper and paper products (17%) and the sharpest decrease in farm-product raw materials (-8%).

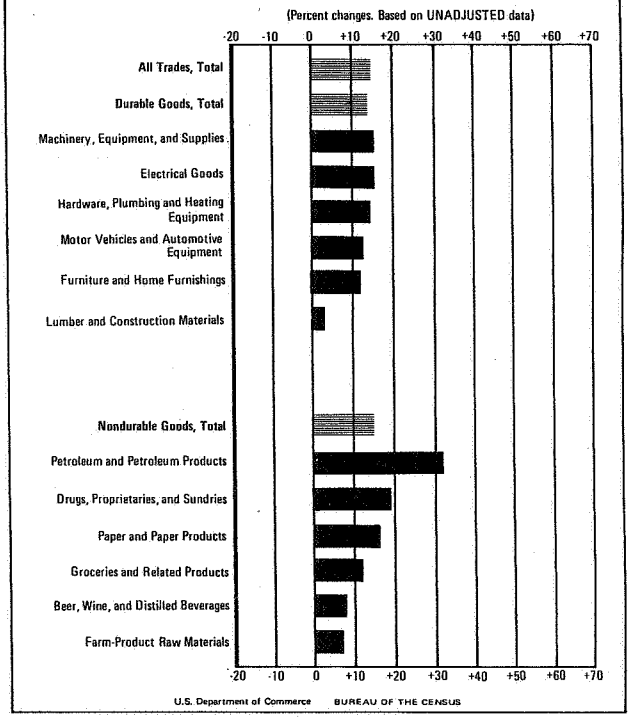
**Inventories.** Total inventories of merchant wholesalers, after adjustment for seasonal variations but not for price changes, were valued at $108.6 billion at the end of September, up 1 percent from the previous month and 5 percent above September 1980. Durable goods stocks increased 2 percent from August and were 11 percent above September 1980. Nondurable goods stocks were down 2 percent from the previous month and were 4 percent below the previous year level.

Based on adjusted data, comparisons with previous month inventory levels showed the largest increase in motor vehicles and automotive equipment and in drugs, proprietaries, and sundries—both up 4 percent. The largest month-to-month decrease was shown in farm-product raw materials (-13%). Compared with adjusted year-ago inventories, the sharpest increase was noted in paper and paper products (18%) and the sharpest decrease in farm-product raw materials (-39%).

**Stock-Sales Ratios.** The September stock-sales ratio for merchant wholesalers, based on seasonally adjusted data, was 112, down 2 points from both the previous month and year-ago ratios. The stock-sales ratio for durable goods was 177, up 2 points from August but virtually unchanged from September 1980. The ratio for nondurable goods was 65, down 3 points from the previous month and 5 points below the year-ago ratio.

Data in this report are based on a sample and, therefore, are subject to sampling and nonsampling errors. A discussion of the reliability of the data is in appendix A.

**Percent Change in Sales of Merchant Wholesalers in Selected Kinds of Business**
**9 Months 1981 Compared With 9 Months 1980**




An advance release of September data was issued November 5, 1981.

U.S. Department of Commerce
BUREAU OF THE CENSUS

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# Table 1. Estimated Monthly Sales of Merchant Wholesalers, by Kind of Business for the United States, Unadjusted: 1981 and 1980

(MILLIONS OF DOLLARS. DATA ARE NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | | | | | | | | | 1980 | | | | TOTAL 9 MONTHS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN. | FEB. | MAR. | APR. | MAY | JUNE | JULY | AUG. | SEPT.[P] | SEPT. | OCT. | NOV. | DEC. | 1981 | 1980 |
| | MERCHANT WHOLESALERS, TOT. | 93,845 | 89,641 | 101,273 | 99,081 | 96,676 | 98,639 | 96,072 | 93,655 | 97,080 | 90,715 | 99,023 | 91,328 | 97,659 | 865,962 | 755,876 |
| | TOTAL (EX FARM-PROD RAW MATLS) | 81,300 | 79,450 | 88,833 | 88,407 | 86,325 | 89,851 | 87,582 | 85,251 | 87,829 | 80,580 | 87,102 | 80,363 | 85,305 | 774,828 | 670,892 |
| 50 | DURABLE GOODS, TOT. | 35,927 | 37,054 | 41,991 | 41,934 | 40,679 | 43,152 | 41,459 | 41,349 | 42,234 | 38,112 | 41,298 | 36,679 | 38,598 | 365,779 | 321,864 |
| 501 | MOTOR VEHICLES & AUTO PARTS & SUPPLIES | 7,085 | 7,248 | 8,174 | 8,345 | 7,552 | 7,893 | 7,755 | 7,415 | 7,127 | 6,449 | 7,638 | 6,621 | 6,816 | 68,594 | 60,554 |
| 5013,4 | AUTO PARTS & SUPPLIES, TIRES & TUBES | 3,079 | 3,067 | 3,531 | 3,493 | 3,184 | 3,560 | 3,439 | 3,371 | 3,390 | 3,117 | 3,451 | 3,012 | 3,053 | 30,114 | 25,900 |
| 5013 | AUTO PARTS & SUPPLIES | 2,639 | 2,642 | 2,978 | 2,908 | 2,651 | 2,980 | 2,873 | 2,834 | 2,893 | 2,581 | 2,889 | 2,530 | 2,576 | 25,398 | 21,819 |
| 502 | FURNITURE & HOME FURNISHINGS | 1,293 | 1,334 | 1,465 | 1,476 | 1,400 | 1,477 | 1,358 | 1,432 | 1,491 | 1,330 | 1,531 | 1,356 | 1,355 | 12,726 | 11,338 |
| 5021 | FURNITURE--HSEHLD & OFFICE | 464 | 459 | 547 | 524 | 509 | 546 | 503 | 544 | 565 | 469 | 499 | 441 | 500 | 4,666 | 4,126 |
| 5023 | HOME FURNISHINGS[1] | 829 | 875 | 918 | 952 | 891 | 931 | 850 | 888 | 926 | 861 | 1,032 | 915 | 855 | 8,060 | 7,212 |
| 503 | LUMBER & OTHER CONSTRUCTION MATLS | 2,422 | 2,388 | 2,774 | 2,960 | 2,782 | 3,068 | 2,906 | 2,934 | 2,936 | 3,046 | 3,309 | 2,822 | 2,704 | 25,170 | 24,410 |
| 5031 | LUMBER, PLYWOOD & MILLWORK | 1,567 | 1,569 | 1,737 | 1,842 | 1,743 | 1,950 | 1,773 | 1,758 | 1,779 | 1,930 | 2,054 | 1,786 | 1,720 | 15,718 | 15,686 |
| 5039 | CONSTRUCTION MATLS, N.E.C. | 855 | 819 | 1,037 | 1,118 | 1,039 | 1,118 | 1,133 | 1,176 | 1,157 | 1,116 | 1,255 | 1,036 | 984 | 9,452 | 8,724 |
| 5051 PT. | FERROUS METALS SERV CTRS & OFFICES | 3,295 | 3,577 | 3,951 | 3,811 | 3,911 | 4,129 | 3,709 | 3,874 | 3,972 | 3,042 | 3,272 | 2,954 | 3,327 | 34,229 | 26,474 |
| 5051 PT. | FERROUS METALS SERV CTRS | 2,543 | 2,751 | 3,076 | 2,997 | 3,059 | 3,233 | 2,913 | 3,084 | 3,125 | 2,286 | 2,491 | 2,271 | 2,510 | 26,781 | 19,983 |
| 506 | ELECTRICAL GOODS | 3,762 | 3,930 | 4,403 | 4,191 | 4,269 | 4,625 | 4,402 | 4,459 | 4,771 | 4,207 | 4,299 | 4,236 | 4,299 | 38,812 | 33,602 |
| 5063 | ELECTRICAL APPARATUS & EQUIP, WIRING SUPPLIES & CONSTRUCTION MATLS[2] | 1,858 | 1,980 | 2,088 | 2,076 | 2,108 | 2,228 | 2,057 | 2,137 | 2,338 | 2,158 | 2,178 | 2,155 | 2,155 | 18,870 | 16,680 |
| 5064,5 | ELECTRICAL APPLIANCES, TV & RADIO SETS, & ELECTRONIC PARTS & EQUIP | 1,904 | 1,950 | 2,315 | 2,115 | 2,161 | 2,397 | 2,345 | 2,322 | 2,433 | 2,049 | 2,121 | 2,081 | 2,144 | 19,942 | 16,922 |
| 5064 | ELECTRICAL APPLIANCES, TV & RADIO SETS[3] | 1,013 | 1,012 | 1,235 | 1,129 | 1,186 | 1,289 | 1,261 | 1,221 | 1,333 | 1,142 | 1,200 | 1,130 | 1,194 | 10,679 | 8,909 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIP, & SUPPLIES | 2,274 | 2,202 | 2,528 | 2,677 | 2,576 | 2,813 | 2,709 | 2,667 | 2,721 | 2,405 | 2,645 | 2,328 | 2,259 | 23,167 | 20,391 |
| 5072 | HARDWARE | 889 | 851 | 982 | 991 | 922 | 988 | 953 | 947 | 1,021 | 895 | 932 | 859 | 863 | 8,544 | 7,628 |
| 5074 | PLUMBING & HEATING EQUIP & SUPPLIES (HYDRONICS) | 966 | 922 | 1,057 | 1,115 | 1,100 | 1,138 | 1,116 | 1,151 | 1,163 | 1,035 | 1,181 | 1,011 | 967 | 9,728 | 8,503 |
| 508 | MACHINERY, EQUIP, & SUPPLIES | 10,302 | 10,731 | 12,571 | 12,322 | 12,248 | 13,110 | 12,677 | 12,631 | 13,078 | 11,613 | 11,949 | 10,511 | 11,722 | 109,670 | 94,866 |
| 5082 | CONSTRUCTION & MINING MACHINERY & EQUIP | 1,111 | 1,218 | 1,401 | 1,571 | 1,441 | 1,589 | 1,407 | 1,457 | 1,484 | 1,473 | 1,414 | 1,341 | 1,377 | 12,679 | 12,044 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIP & SUPPLIES | 4,631 | 4,775 | 5,531 | 5,389 | 5,526 | 6,119 | 5,713 | 5,712 | 6,042 | 4,720 | 4,929 | 4,501 | 5,079 | 49,438 | 40,239 |
| 5086 | PROFESSIONAL EQUIP & SUPPLIES | 1,043 | 1,138 | 1,295 | 1,199 | 1,193 | 1,369 | 1,303 | 1,293 | 1,362 | 1,200 | 1,217 | 1,107 | 1,208 | 11,195 | 9,650 |
| 5093 | SCRAP & WASTE MATLS | 1,304 | 1,297 | 1,456 | 1,496 | 1,395 | 1,317 | 1,173 | 1,172 | 1,144 | 1,240 | 1,458 | 1,267 | 1,435 | 11,754 | 12,167 |
| 51 | NONDURABLE GOODS, TOT. | 57,918 | 52,587 | 59,282 | 57,147 | 55,997 | 55,487 | 54,613 | 52,306 | 54,846 | 52,603 | 57,725 | 54,649 | 59,061 | 500,183 | 434,012 |
| | TOTAL (EX FARM-PROD RAW MATLS) | 45,373 | 42,396 | 46,842 | 46,473 | 45,646 | 46,699 | 46,123 | 43,902 | 45,595 | 42,468 | 45,804 | 43,684 | 46,707 | 409,049 | 349,028 |
| 511 | PAPER & PAPER PROD | 1,949 | 1,908 | 2,112 | 2,039 | 1,995 | 2,098 | 2,078 | 2,081 | 2,219 | 1,879 | 2,009 | 1,822 | 1,929 | 18,479 | 15,883 |
| 5111,3 | PRINTING, WRITING, IND & PERSONAL SERV PAPER | 1,397 | 1,356 | 1,549 | 1,476 | 1,437 | 1,530 | 1,534 | 1,505 | 1,610 | 1,375 | 1,465 | 1,304 | 1,413 | 13,394 | 11,697 |
| 5111 | PRINTING & WRITING PAPER | 655 | 648 | 733 | 719 | 668 | 723 | 713 | 679 | 714 | 626 | 697 | 582 | 652 | 6,252 | 5,675 |
| 5113 | IND & PERSONAL SERV PAPER | 742 | 708 | 816 | 757 | 769 | 807 | 821 | 826 | 896 | 749 | 768 | 722 | 761 | 7,142 | 6,022 |
| 512 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 1,195 | 1,136 | 1,278 | 1,274 | 1,212 | 1,265 | 1,281 | 1,215 | [r]1,325 | 1,159 | 1,313 | 1,134 | 1,197 | 11,181 | 9,407 |
| 5122 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 1,195 | 1,136 | 1,278 | 1,274 | 1,212 | 1,265 | 1,281 | 1,215 | [r]1,325 | 1,159 | 1,313 | 1,134 | 1,197 | 11,181 | 9,407 |
| 5122 PT. | GENERAL-LINE DRUGS | 367 | 355 | 413 | 395 | 388 | 406 | 394 | 369 | 405 | 383 | 394 | 349 | 410 | 3,492 | 3,083 |
| 513 | APPAREL, PIECE GDS & NOTIONS[4] | 2,019 | 2,265 | 2,299 | 2,270 | 1,995 | 2,366 | 2,666 | 2,674 | 2,564 | 2,541 | 2,486 | 2,141 | 1,921 | 21,118 | 19,242 |
| 514 | GROCERIES & RELATED PROD | 13,270 | 12,317 | 13,931 | 13,941 | 13,346 | 14,117 | 14,253 | 13,436 | 13,704 | 12,915 | 13,815 | 12,741 | 13,640 | 122,315 | 109,693 |
| 5141 | GROCERIES, GENERAL LINE | 4,366 | 4,045 | 4,481 | 4,519 | 4,338 | 4,469 | 4,577 | 4,414 | 4,563 | 4,066 | 4,462 | 4,173 | 4,407 | 39,772 | 35,642 |
| 5144 | POULTRY & POULTRY PROD | 651 | 590 | 627 | 655 | 638 | 653 | 679 | 644 | 665 | 659 | 725 | 670 | 691 | 5,802 | 5,422 |
| 5145 | CONFECTIONERY | 259 | 257 | 294 | 300 | 262 | 283 | 282 | 260 | 292 | 274 | 322 | 283 | 296 | 2,489 | 2,212 |
| 5147 | MEATS & MEAT PROD | 1,762 | 1,610 | 1,785 | 1,742 | 1,738 | 1,820 | 1,850 | 1,802 | 1,811 | 1,841 | 2,019 | 1,736 | 1,897 | 15,920 | 15,735 |
| 5148 | FRESH FRUITS & VEGETABLES | 1,232 | 1,210 | 1,464 | 1,550 | 1,509 | 1,594 | 1,526 | 1,318 | 1,280 | 1,217 | 1,258 | 1,200 | 1,258 | 12,683 | 10,936 |
| 515 | FARM PROD RAW MATERIALS | 12,545 | 10,191 | 12,440 | 10,674 | 10,351 | 8,788 | 8,490 | 8,404 | 9,251 | 10,135 | 11,921 | 10,965 | 12,354 | 91,134 | 84,984 |
| 5153 | GRAIN | 10,420 | 8,436 | 10,444 | 9,055 | 8,833 | 7,450 | 7,246 | 7,101 | 7,924 | 8,205 | 9,890 | 8,801 | 9,814 | 76,909 | 69,748 |
| 517 | PETROLEUM & PETROLEUM PROD | 17,548 | 15,697 | 16,263 | 15,987 | 16,094 | 16,248 | 15,446 | 14,702 | 15,428 | 14,007 | 15,657 | 16,626 | 17,185 | 143,413 | 108,722 |
| 5171 | PETROLEUM BULK STATIONS & TERMINALS | 6,165 | 5,438 | 5,701 | 5,414 | 5,126 | 5,069 | 5,179 | 5,019 | 5,310 | 4,752 | 5,446 | 5,546 | 6,249 | 48,421 | 38,580 |
| 518 | BEER, WINE, & DISTILLED ALCOHOLIC BEVERAGES | 2,185 | 2,207 | 2,688 | 2,906 | 2,788 | 3,126 | 3,154 | 2,895 | 2,964 | 2,638 | 2,906 | 2,667 | 3,162 | 24,913 | 22,962 |
| 5181 | BEER & ALE | 1,136 | 1,174 | 1,425 | 1,548 | 1,611 | 1,838 | 1,842 | 1,690 | 1,570 | 1,434 | 1,431 | 1,244 | 1,454 | 13,834 | 12,715 |
| 5182 | WINE & DISTILLED ALCOHOLIC BEVERAGES[5] | 1,049 | 1,033 | 1,263 | 1,358 | 1,177 | 1,288 | 1,312 | 1,205 | 1,394 | 1,204 | 1,475 | 1,423 | 1,708 | 11,079 | 10,247 |
| 519 | MISC NONDURABLE GOODS | 5,752 | 5,517 | 6,929 | 6,544 | 6,746 | 5,996 | 5,689 | 5,489 | 5,814 | 5,898 | 6,153 | 5,347 | 6,284 | 54,476 | 52,155 |
| 5194 | TOBACCO & TOBACCO PROD | 873 | 834 | 972 | 994 | 983 | 1,044 | 1,149 | 1,045 | 1,056 | 938 | 1,018 | 860 | 953 | 8,950 | 8,167 |

NOTE: Merchant wholesalers totals and group totals include data for some kinds of business not shown separately. [r]Revised.

[P]Preliminary estimate. See Sample Design and Estimation Procedures.

[1]The home furnishings kind of business is subject to a sampling variability of 8 percent for September 1981.

[2]The electrical apparatus and equipment, wiring supplies and construction materials kind of business is subject to a sampling variability of 9 percent for September 1981.

[3]The electrical appliances, TV and radio sets kind of business is subject to a sampling variability of 11 percent for September 1981.

[4]The apparel, piece goods and notions group is subject to a sampling variability of 13 percent for September 1981.

[5]The wine and distilled alcoholic beverages kind of business is subject to a sampling variability of 9 percent for September 1981.

# Table 2. Estimated Monthly Inventories of Merchant Wholesalers, by Kind of Business for the United States, Unadjusted: 1981 and 1980

(MILLIONS OF DOLLARS. DATA ARE NOT ADJUSTED FOR SEASONAL VARIATIONS)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | | | | | | | | | 1980 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN. | FEB. | MAR. | APR. | MAY | JUNE | JULY | AUG. | SEPT.[P] | SEPT. | OCT. | NOV. | DEC. |
| | MERCHANT WHOLESALERS, TOTAL | 105,446 | 107,209 | 107,907 | 106,420 | 105,985 | 106,915 | 105,556 | 106,603 | 107,520 | 101,310 | 104,277 | 105,866 | 105,449 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 96,142 | 98,533 | 100,103 | 100,041 | 100,957 | 102,324 | 100,761 | 101,737 | 102,975 | 93,901 | 94,861 | 95,869 | 96,235 |
| 50 | DURABLE GOODS, TOTAL | 66,230 | 68,251 | 69,208 | 69,673 | 71,113 | 71,821 | 70,729 | 71,487 | 72,358 | 65,273 | 65,137 | 65,857 | 66,716 |
| 501 | MOTOR VEHICLES & AUTOMOTIVE PARTS & SUPPLIES | 11,373 | 11,287 | 11,298 | 11,178 | 10,866 | 11,240 | 10,810 | 10,510 | 10,678 | 10,984 | 11,246 | 11,253 | 11,615 |
| 5013,4 | AUTOMOTIVE PARTS & SUPPLIES, TIRES & TUBES | 5,667 | 5,619 | 5,838 | 5,670 | 5,916 | 6,023 | 5,691 | 5,880 | 5,898 | 5,750 | 5,659 | 5,775 | 5,813 |
| 5013 | AUTOMOTIVE PARTS & SUPPLIES | 4,613 | 4,549 | 4,699 | 4,603 | 4,790 | 4,862 | 4,634 | 4,764 | 4,807 | 4,703 | 4,628 | 4,703 | 4,730 |
| 502 | FURNITURE & HOME FURNISHINGS | 2,186 | 2,235 | 2,343 | 2,375 | 2,342 | 2,405 | 2,521 | 2,431 | 2,504 | 2,212 | 2,188 | 2,126 | 2,168 |
| 5023 | HOME FURNISHINGS[1] | 1,583 | 1,623 | 1,697 | 1,735 | 1,705 | 1,730 | 1,849 | 1,781 | 1,863 | 1,608 | 1,600 | 1,555 | 1,566 |
| 503 | LUMBER & OTHER CONSTRUCTION MATERIALS | 3,368 | 3,483 | 3,544 | 3,653 | 3,705 | 3,790 | 3,601 | 3,597 | 3,628 | 3,377 | 3,331 | 3,493 | 3,392 |
| 5031 | LUMBER, PLYWOOD, AND MILLWORK[2] | 2,211 | 2,309 | 2,269 | 2,364 | 2,411 | 2,465 | 2,315 | 2,331 | 2,360 | 2,172 | 2,168 | 2,268 | 2,206 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS & OFFICES | 5,519 | 5,812 | 5,911 | 5,715 | 6,081 | 6,186 | 6,054 | 6,441 | 6,738 | 5,297 | 5,074 | 5,420 | 5,721 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | 4,346 | 4,627 | 4,708 | 4,529 | 4,884 | 5,022 | 4,876 | 5,245 | 5,438 | 4,242 | 3,999 | 4,323 | 4,532 |
| 506 | ELECTRICAL GOODS | 6,462 | 6,719 | 6,802 | 6,926 | 7,178 | 7,383 | 7,337 | 7,596 | 7,715 | 6,643 | 6,720 | 6,560 | 6,611 |
| 5063 | ELECTRICAL APPARATUS & EQUIPMENT, WIRING SUPPLIES, & CONSTRUCTION MATERIALS | 2,787 | 2,948 | 3,041 | 3,082 | 3,188 | 3,186 | 3,139 | 3,291 | 3,301 | 2,890 | 2,889 | 2,875 | 2,881 |
| 5064,5 | ELECTRICAL APPLIANCES, TV & RADIO SETS, & ELECTRONIC PARTS & EQUIPMENT | 3,675 | 3,771 | 3,761 | 3,844 | 3,990 | 4,197 | 4,198 | 4,305 | 4,414 | 3,753 | 3,831 | 3,685 | 3,730 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT & SUPPLIES | 4,764 | 4,853 | 4,990 | 5,179 | 5,141 | 5,177 | 5,177 | 5,109 | 5,084 | 4,525 | 4,584 | 4,482 | 4,632 |
| 5072 | HARDWARE | 1,925 | 1,976 | 2,014 | 2,015 | 1,958 | 2,037 | 2,011 | 2,018 | 2,022 | 1,853 | 1,842 | 1,806 | 1,885 |
| 5074 | PLUMBING & HEATING EQUIPMENT & SUPPLIES (HYDRONICS) | 1,866 | 1,862 | 1,888 | 2,023 | 2,038 | 1,968 | 2,037 | 2,013 | 1,982 | 1,767 | 1,819 | 1,770 | 1,788 |
| 508 | MACHINERY, EQUIPMENT, & SUPPLIES | 23,570 | 24,563 | 25,140 | 25,035 | 26,050 | 26,281 | 25,735 | 26,215 | 26,095 | 23,261 | 22,878 | 23,542 | 23,811 |
| 5082 | CONSTRUCTION & MINING MACHINERY & EQUIPMENT | 4,185 | 4,222 | 4,265 | 4,215 | 4,298 | 4,365 | 4,192 | 4,236 | 4,157 | 4,310 | 4,255 | 4,299 | 4,242 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, & SUPPLIES | 7,108 | 7,258 | 7,397 | 7,343 | 7,715 | 7,804 | 7,926 | 8,097 | 8,214 | 7,113 | 6,891 | 7,103 | 7,300 |
| 51 | NONDURABLE GOODS, TOTAL | 39,216 | 38,958 | 38,699 | 36,747 | 34,872 | 35,094 | 34,827 | 35,116 | 35,162 | 36,037 | 39,140 | 40,009 | 38,733 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 29,912 | 30,282 | 30,895 | 30,368 | 29,844 | 30,503 | 30,032 | 30,250 | 30,617 | 28,628 | 29,724 | 30,012 | 29,519 |
| 511 | PAPER & PAPER PRODUCTS | 1,847 | 1,903 | 1,927 | 1,921 | 1,972 | 2,024 | 2,058 | 2,052 | 2,067 | 1,750 | 1,773 | 1,820 | 1,849 |
| 5111,3 | PRINTING, WRITING, INDUSTRIAL, & PERSONAL SERVICE PAPER[3] | 1,242 | 1,250 | 1,310 | 1,278 | 1,284 | 1,346 | 1,373 | 1,366 | 1,368 | 1,189 | 1,202 | 1,215 | 1,248 |
| 5111 | PRINTING & WRITING PAPER | 546 | 547 | 577 | 558 | 561 | 586 | 584 | 570 | 580 | 492 | 501 | 516 | 546 |
| 5113 | INDUSTRIAL & PERSONAL SERVICE PAPER[4] | 696 | 703 | 733 | 720 | 723 | 760 | 789 | 796 | 788 | 697 | 701 | 699 | 702 |
| 512 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 1,586 | 1,634 | 1,632 | 1,596 | 1,592 | 1,660 | 1,653 | 1,636 | 1,749 | 1,562 | 1,716 | 1,624 | 1,570 |
| 514 | GROCERIES & RELATED PRODUCTS | 7,837 | 7,745 | 8,262 | 8,251 | 7,787 | 7,997 | 7,753 | 7,660 | 8,034 | 7,284 | 7,711 | 7,729 | 7,978 |
| 5141 | GROCERIES, GENERAL-LINE | 2,796 | 2,841 | 3,011 | 3,065 | 2,868 | 2,950 | 2,843 | 2,836 | 2,965 | 2,760 | 2,979 | 2,891 | 2,895 |
| 517 | PETROLEUM & PETROLEUM PRODUCTS | 4,972 | 5,143 | 4,991 | 4,849 | 4,807 | 5,122 | 5,025 | 5,211 | 5,025 | 4,952 | 5,176 | 5,234 | 4,992 |
| 518 | BEER, WINE, & DISTILLED ALCOHOLIC BEVERAGES | 2,777 | 2,755 | 2,787 | 2,869 | 2,971 | 3,114 | 3,043 | 3,115 | 3,107 | 2,963 | 3,134 | 3,158 | 2,722 |
| 5181 | BEER & ALE[5] | 1,015 | 1,070 | 1,142 | 1,193 | 1,277 | 1,333 | 1,263 | 1,328 | 1,291 | 1,134 | 1,115 | 1,156 | 1,018 |
| 5182 | WINE & DISTILLED ALCOHOLIC BEVERAGES | 1,762 | 1,685 | 1,645 | 1,676 | 1,694 | 1,781 | 1,780 | 1,787 | 1,816 | 1,829 | 2,019 | 2,002 | 1,704 |

NOTE: Merchant wholesalers totals and group totals include data for some kinds of business not shown separately.

[P] Preliminary estimates. See Sample Design and Estimation Procedures.

[1] The home furnishings kind of business is subject to a sampling variability of 8 percent for September 1981.

[2] The lumber, plywood, and millwork kind of business is subject to a sampling variability of 9 percent for September 1981.

[3] The printing, writing, industrial, and personal service paper kinds of business are subject to a sampling variability of 8 percent for September 1981.

[4] The industrial and personal service paper kind of business is subject to a sampling variability of 13 percent for September 1981.

[5] The beer and ale kind of business is subject to a sampling variability of 8 percent for September 1981.

## Table 3. Stock-Sales Ratios of Merchant Wholesalers, by Kind of Business for the United States, Unadjusted: 1981 and 1980

(PERCENT. DATA ARE NOT ADJUSTED FOR SEASONAL VARIATIONS OR TRADING-DAY DIFFERENCES)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 | | | | | | | | | 1980 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JAN. | FEB. | MAR. | APR. | MAY | JUNE | JULY | AUG. | SEPT.[P] | SEPT. | OCT. | NOV. | DEC. |
| | MERCHANT WHOLESALERS, TOTAL | 112 | 120 | 107 | 107 | 110 | 108 | 110 | 114 | 111 | 112 | 105 | 116 | 108 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 118 | 124 | 113 | 113 | 117 | 114 | 115 | 119 | 117 | 117 | 109 | 119 | 113 |
| 50 | DURABLE GOODS, TOTAL | 184 | 184 | 165 | 166 | 175 | 166 | 171 | 173 | 171 | 171 | 158 | 180 | 173 |
| 501 | MOTOR VEHICLES & AUTOMOTIVE PARTS & SUPPLIES | 161 | 156 | 138 | 134 | 144 | 142 | 139 | 142 | 150 | 170 | 147 | 170 | 170 |
| 5013,4 | AUTOMOTIVE PARTS & SUPPLIES, TIRES & TUBES | 184 | 183 | 165 | 162 | 186 | 169 | 165 | 174 | 174 | 184 | 164 | 192 | 190 |
| 5013 | AUTOMOTIVE PARTS & SUPPLIES | 175 | 172 | 158 | 158 | 181 | 163 | 161 | 168 | 166 | 182 | 160 | 186 | 184 |
| 502 | FURNITURE & HOME FURNISHINGS | 169 | 168 | 160 | 161 | 167 | 163 | 186 | 170 | 168 | 166 | 143 | 157 | 160 |
| 5023 | HOME FURNISHINGS | 191 | 185 | 185 | 182 | 191 | 186 | 218 | 201 | 201 | 187 | 155 | 170 | 183 |
| 503 | LUMBER & OTHER CONSTRUCTION MATERIALS | 139 | 146 | 128 | 123 | 133 | 124 | 124 | 123 | 124 | 111 | 101 | 124 | 125 |
| 5031 | LUMBER, PLYWOOD, AND MILLWORK | 141 | 147 | 131 | 128 | 138 | 126 | 131 | 133 | 133 | 113 | 106 | 127 | 128 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS & OFFICES | 167 | 162 | 150 | 150 | 155 | 150 | 163 | 166 | 170 | 174 | 155 | 183 | 172 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | 171 | 168 | 153 | 151 | 160 | 155 | 167 | 170 | 174 | 186 | 161 | 190 | 181 |
| 506 | ELECTRICAL GOODS | 172 | 171 | 154 | 165 | 168 | 160 | 167 | 170 | 162 | 158 | 156 | 155 | 154 |
| 5063 | ELECTRICAL APPARATUS & EQUIPMENT, WIRING SUPPLIES, & CONSTRUCTION MATERIALS | 150 | 149 | 146 | 148 | 151 | 143 | 153 | 154 | 141 | 134 | 133 | 133 | 134 |
| 5064,5 | ELECTRICAL APPLIANCES, TV & RADIO SETS, & ELECTRONIC PARTS & EQUIPMENT | 193 | 193 | 162 | 182 | 185 | 175 | 179 | 185 | 181 | 183 | 181 | 177 | 174 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT & SUPPLIES | 209 | 220 | 197 | 193 | 200 | 184 | 191 | 192 | 187 | 188 | 173 | 193 | 205 |
| 5072 | HARDWARE | 217 | 232 | 205 | 203 | 212 | 206 | 211 | 213 | 198 | 207 | 198 | 210 | 218 |
| 5074 | PLUMBING & HEATING EQUIPMENT & SUPPLIES (HYDRONICS) | 193 | 202 | 179 | 181 | 185 | 173 | 183 | 175 | 170 | 171 | 154 | 175 | 185 |
| 508 | MACHINERY, EQUIPMENT, & SUPPLIES | 229 | 229 | 200 | 203 | 213 | 200 | 203 | 208 | 200 | 200 | 191 | 224 | 203 |
| 5082 | CONSTRUCTION & MINING MACHINERY & EQUIPMENT | 377 | 347 | 304 | 268 | 298 | 275 | 298 | 291 | 280 | 293 | 301 | 321 | 308 |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, & SUPPLIES | 153 | 152 | 134 | 136 | 140 | 128 | 139 | 142 | 136 | 151 | 140 | 158 | 144 |
| 51 | NONDURABLE GOODS, TOTAL | 68 | 74 | 65 | 64 | 62 | 63 | 64 | 67 | 64 | 69 | 68 | 73 | 66 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 66 | 71 | 66 | 65 | 65 | 65 | 65 | 69 | 67 | 67 | 65 | 69 | 63 |
| 511 | PAPER & PAPER PRODUCTS | 95 | 100 | 91 | 94 | 99 | 96 | 99 | 99 | 93 | 93 | 88 | 100 | 96 |
| 5111,3 | PRINTING, WRITING, INDUSTRIAL, & PERSONAL SERVICE PAPER | 89 | 92 | 85 | 87 | 89 | 88 | 90 | 91 | 85 | 86 | 82 | 93 | 88 |
| 5111 | PRINTING & WRITING PAPER | 83 | 84 | 79 | 78 | 84 | 81 | 82 | 84 | 81 | 79 | 72 | 89 | 84 |
| 5113 | INDUSTRIAL & PERSONAL SERVICE PAPER | 94 | 99 | 90 | 95 | 94 | 94 | 96 | 96 | 88 | 93 | 91 | 97 | 92 |
| 512 | DRUGS, DRUG PROPRIETARIES, & DRUGGISTS' SUNDRIES | 133 | 144 | 128 | 125 | 131 | 131 | 129 | 135 | [r]129 | 135 | 131 | 143 | 131 |
| 514 | GROCERIES & RELATED PRODUCTS | 59 | 63 | 59 | 59 | 58 | 57 | 54 | 57 | 59 | 56 | 56 | 61 | 58 |
| 5141 | GROCERIES, GENERAL-LINE | 64 | 70 | 67 | 68 | 66 | 66 | 62 | 64 | 65 | 68 | 67 | 69 | 66 |
| 517 | PETROLEUM & PETROLEUM PRODUCTS | 28 | 33 | 31 | 30 | 30 | 32 | 33 | 35 | 33 | 35 | 33 | 31 | 29 |
| 518 | BEER, WINE, & DISTILLED ALCOHOLIC BEVERAGES | 127 | 125 | 104 | 99 | 107 | 100 | 96 | 108 | 105 | 112 | 108 | 118 | 86 |
| 5181 | BEER & ALE | 89 | 91 | 80 | 77 | 79 | 73 | 69 | 79 | 82 | 79 | 78 | 93 | 70 |
| 5182 | WINE & DISTILLED ALCOHOLIC BEVERAGES | 168 | 163 | 130 | 123 | 144 | 138 | 136 | 148 | 130 | 152 | 137 | 141 | 100 |

NOTE: Merchant wholesalers total and group totals include data for some kinds of business not shown separately.

[P]Preliminary estimates. See Sample Design and Estimation Procedures. [r]Revised.

# Table 4A. Estimated Monthly Sales, Inventories, and Stock-Sales Ratios of Merchant Wholesalers, by Kind of Business for the United States, Unadjusted: 1981 and 1980

(SALES AND INVENTORIES IN MILLIONS OF DOLLARS, STOCK-SALES RATIOS IN PERCENT)

| 1972 SIC CODE | KIND OF BUSINESS | 1981 JAN. | FEB. | MAR. | APR. | MAY | JUNE | JULY | AUG. | SEPT.[P] | 1980 SEPT. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SALES ADJUSTED FOR SEASONAL VARIATIONS AND TRADING-DAY DIFFERENCES | | | | | | | | | | | | |
| | MERCHANT WHOLESALERS, TOTAL | 98,967 | 98,016 | 96,486 | 97,577 | 96,217 | 95,564 | 97,085 | 94,674 | 96,535 | 90,223 | 93,282 | 93,901 | 96,591 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 86,583 | 86,768 | 84,999 | 86,773 | 86,039 | 86,723 | 88,158 | 85,336 | 86,838 | 79,666 | 82,335 | 83,162 | 85,013 |
| 50 | DURABLE GOODS, TOTAL | 40,370 | 41,511 | 39,907 | 40,299 | 40,584 | 41,045 | 41,244 | 40,552 | 40,966 | 36,937 | 38,110 | 38,799 | 39,403 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | 7,668 | 7,930 | 7,548 | 7,391 | 7,220 | 7,633 | 7,701 | 7,393 | 7,663 | 6,920 | 7,302 | 7,212 | 7,145 |
| 502 | FURNITURE AND HOME FURNISHINGS | 1,486 | 1,491 | 1,413 | 1,433 | 1,424 | 1,465 | 1,409 | 1,461 | 1,403 | 1,281 | 1,321 | 1,331 | 1,344 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | 3,043 | 3,019 | 2,863 | 2,981 | 2,744 | 2,752 | 2,642 | 2,655 | 2,638 | 2,729 | 2,853 | 2,999 | 3,001 |
| 506 | ELECTRICAL GOODS | 4,256 | 4,421 | 4,407 | 4,375 | 4,480 | 4,417 | 4,389 | 4,296 | 4,463 | 3,976 | 3,912 | 4,178 | 4,094 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | 2,513 | 2,572 | 2,569 | 2,577 | 2,535 | 2,646 | 2,556 | 2,557 | 2,652 | 2,349 | 2,370 | 2,428 | 2,411 |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | 11,641 | 12,071 | 12,053 | 11,636 | 12,008 | 12,218 | 12,601 | 12,531 | 12,551 | 11,071 | 11,136 | 11,500 | 11,888 |
| 51 | NONDURABLE GOODS, TOTAL | 58,597 | 56,505 | 56,579 | 57,278 | 55,633 | 54,519 | 55,841 | 54,122 | 55,569 | 53,286 | 55,172 | 55,102 | 57,188 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 46,213 | 45,257 | 45,092 | 46,474 | 45,455 | 45,678 | 46,914 | 44,784 | 45,872 | 42,729 | 44,225 | 44,363 | 45,610 |
| 511 | PAPER AND PAPER PRODUCTS | 1,989 | 2,032 | 2,033 | 2,019 | 2,059 | 2,051 | 2,099 | 2,100 | 2,163 | 1,849 | 1,864 | 1,920 | 1,917 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | 1,255 | 1,258 | 1,238 | 1,242 | 1,268 | 1,259 | 1,276 | 1,230 | [r]1,289 | 1,123 | 1,169 | 1,178 | 1,174 |
| 513 | APPAREL, PIECE GOODS, AND NOTIONS | 2,192 | 2,459 | 2,256 | 2,338 | 2,247 | 2,509 | 2,637 | 2,411 | 2,203 | 2,239 | 2,185 | 2,156 | 2,057 |
| 514 | GROCERIES AND RELATED PRODUCTS | 13,541 | 13,505 | 13,578 | 13,749 | 13,201 | 13,706 | 14,001 | 13,696 | 13,759 | 12,993 | 13,245 | 13,135 | 13,492 |
| 515 | FARM-PRODUCT RAW MATERIALS | 12,384 | 11,248 | 11,487 | 10,804 | 10,178 | 8,841 | 8,927 | 9,338 | 9,697 | 10,557 | 10,947 | 10,739 | 11,578 |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | 16,938 | 15,603 | 15,743 | 16,670 | 16,439 | 16,281 | 16,345 | 15,188 | 15,971 | 14,455 | 15,487 | 16,220 | 16,461 |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | 2,681 | 2,721 | 2,718 | 2,915 | 2,788 | 2,850 | 2,939 | 2,852 | 2,973 | 2,673 | 2,729 | 2,727 | 2,686 |
| 519 | MISCELLANEOUS NONDURABLE GOODS | 6,061 | 6,151 | 6,214 | 5,982 | 6,034 | 5,614 | 5,926 | 5,934 | 5,939 | 5,946 | 6,221 | 5,831 | 6,498 |
| | | INVENTORIES ADJUSTED FOR SEASONAL VARIATIONS | | | | | | | | | | | | |
| | MERCHANT WHOLESALERS, TOTAL | 104,909 | 106,066 | 105,539 | 105,591 | 105,568 | 107,210 | 106,402 | 107,820 | 108,600 | 102,953 | 104,293 | 105,203 | 105,529 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 97,117 | 98,663 | 98,771 | 99,331 | 99,775 | 101,632 | 100,317 | 101,661 | 103,240 | 94,216 | 95,187 | 96,607 | 97,558 |
| 50 | DURABLE GOODS, TOTAL | 67,319 | 68,482 | 68,571 | 69,174 | 69,876 | 70,589 | 69,841 | 70,855 | 72,490 | 65,461 | 65,951 | 66,955 | 67,938 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | 11,216 | 10,791 | 11,012 | 11,078 | 10,695 | 11,229 | 10,875 | 10,802 | 11,205 | 11,514 | 11,464 | 11,378 | 11,603 |
| 502 | FURNITURE AND HOME FURNISHINGS | 2,228 | 2,278 | 2,322 | 2,373 | 2,333 | 2,337 | 2,481 | 2,429 | 2,445 | 2,160 | 2,175 | 2,163 | 2,237 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | 3,451 | 3,515 | 3,431 | 3,554 | 3,604 | 3,701 | 3,517 | 3,586 | 3,668 | 3,415 | 3,396 | 3,635 | 3,501 |
| 506 | ELECTRICAL GOODS | 6,710 | 7,028 | 6,934 | 6,975 | 7,044 | 7,231 | 7,186 | 7,418 | 7,594 | 6,538 | 6,614 | 6,553 | 6,651 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | 4,881 | 4,848 | 4,854 | 4,914 | 4,948 | 5,021 | 5,080 | 5,155 | 5,209 | 4,636 | 4,682 | 4,713 | 4,835 |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | 24,076 | 24,588 | 24,744 | 24,812 | 25,640 | 25,740 | 25,582 | 26,007 | 25,939 | 23,122 | 23,321 | 23,925 | 24,272 |
| 51 | NONDURABLE GOODS, TOTAL | 37,590 | 37,584 | 36,968 | 36,417 | 35,692 | 36,621 | 36,561 | 36,965 | 36,110 | 37,492 | 38,342 | 38,248 | 37,591 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 29,798 | 30,181 | 30,200 | 30,157 | 29,899 | 31,043 | 30,476 | 30,806 | 30,750 | 28,755 | 29,236 | 29,652 | 29,620 |
| 511 | PAPER AND PAPER PRODUCTS | 1,902 | 1,934 | 1,935 | 1,904 | 1,964 | 1,973 | 2,056 | 2,075 | 2,045 | 1,731 | 1,771 | 1,815 | 1,833 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | 1,645 | 1,704 | 1,625 | 1,579 | 1,602 | 1,655 | 1,643 | 1,638 | 1,700 | 1,519 | 1,630 | 1,610 | 1,612 |
| 514 | GROCERIES AND RELATED PRODUCTS | 7,948 | 7,753 | 8,132 | 8,202 | 7,842 | 7,989 | 7,903 | 7,889 | 8,010 | 7,262 | 7,494 | 7,660 | 7,868 |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | 4,855 | 5,190 | 4,986 | 5,072 | 4,900 | 5,403 | 5,122 | 5,216 | 4,907 | 4,836 | 4,982 | 5,018 | 4,904 |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | 2,851 | 2,918 | 2,749 | 2,738 | 2,876 | 3,044 | 3,019 | 3,225 | 3,135 | 2,984 | 3,011 | 3,054 | 2,924 |
| | | STOCK-SALES RATIOS BASED ON ADJUSTED DATA | | | | | | | | | | | | |
| | MERCHANT WHOLESALERS, TOTAL | 106 | 108 | 109 | 108 | 110 | 112 | 110 | 114 | 112 | 114 | 112 | 112 | 109 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 112 | 114 | 116 | 114 | 116 | 117 | 114 | 119 | 119 | 118 | 116 | 116 | 115 |
| 50 | DURABLE GOODS, TOTAL | 167 | 165 | 172 | 172 | 172 | 172 | 169 | 175 | 177 | 177 | 173 | 173 | 172 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | 146 | 136 | 146 | 150 | 148 | 147 | 141 | 146 | 146 | 166 | 157 | 158 | 162 |
| 502 | FURNITURE AND HOME FURNISHINGS | 150 | 153 | 164 | 166 | 164 | 160 | 176 | 166 | 174 | 169 | 165 | 163 | 166 |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | 113 | 116 | 120 | 119 | 131 | 134 | 133 | 135 | 139 | 125 | 119 | 121 | 117 |
| 506 | ELECTRICAL GOODS | 158 | 159 | 157 | 159 | 157 | 164 | 164 | 173 | 170 | 164 | 169 | 157 | 162 |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | 194 | 188 | 189 | 191 | 195 | 190 | 199 | 202 | 196 | 197 | 198 | 194 | 201 |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | 207 | 204 | 205 | 213 | 214 | 211 | 203 | 208 | 207 | 209 | 209 | 208 | 204 |
| 51 | NONDURABLE GOODS, TOTAL | 64 | 67 | 65 | 64 | 64 | 67 | 65 | 68 | 65 | 70 | 69 | 69 | 66 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | 64 | 67 | 67 | 65 | 66 | 68 | 65 | 69 | 67 | 67 | 66 | 67 | 65 |
| 511 | PAPER AND PAPER PRODUCTS | 96 | 95 | 95 | 94 | 95 | 96 | 98 | 99 | 95 | 94 | 95 | 95 | 96 |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | 131 | 135 | 131 | 127 | 126 | 131 | 129 | 133 | [r]132 | 135 | 139 | 137 | 137 |
| 514 | GROCERIES AND RELATED PRODUCTS | 59 | 57 | 60 | 60 | 59 | 58 | 56 | 58 | 58 | 56 | 57 | 58 | 58 |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | 29 | 33 | 32 | 30 | 30 | 33 | 31 | 34 | 31 | 33 | 32 | 31 | 30 |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | 106 | 107 | 101 | 94 | 103 | 107 | 103 | 113 | 105 | 112 | 110 | 112 | 109 |

NOTE: Merchant wholesalers total and group totals include data for some kinds of business not shown separately.

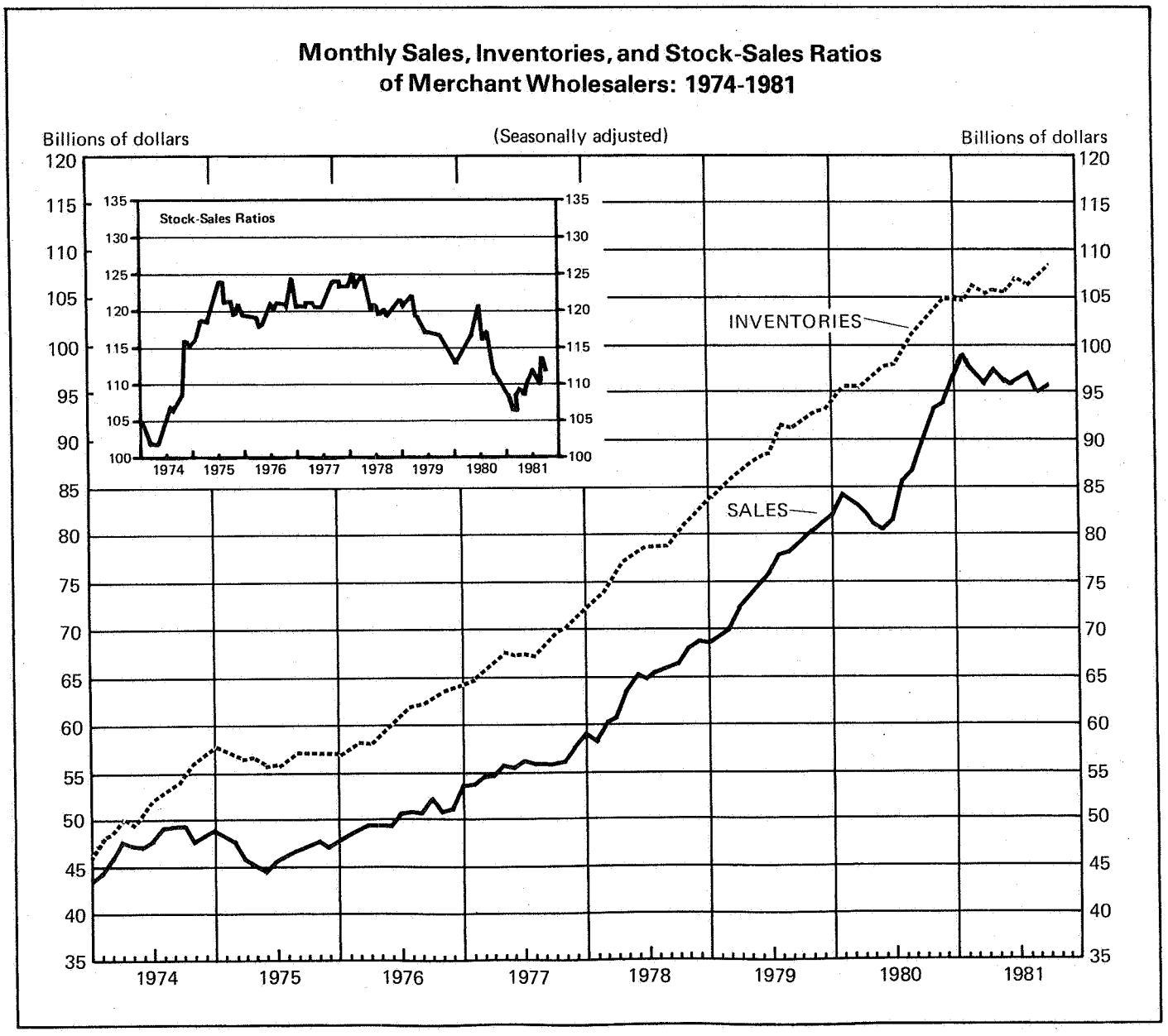
[P]Preliminary estimates. See Sample Design and Estimation Procedures. [r]Revised.

[1]There are indications that the seasonal adjustment factors for the farm-product raw materials category may not reflect recent trends in this trade. The seasonally adjusted data for this category and also for the merchant wholesale and nondurable goods totals should, therefore, be used with caution.

Table 4B. **Percent Change Between Selected 3-Month Periods Sales of Merchant Wholesalers, United States**

(Based on seasonally-adjusted data)

| Item | 3-month period, July 1981-September 1981 from-- | | | |
|---|---|---|---|---|
| | Apr. 1981-June 1981 (3 months ago) | Jan. 1981-Mar. 1981 (6 months ago) | Oct. 1980-Dec. 1980 (9 months ago) | July 1980-Sept. 1980 (12 months ago) |
| Merchant wholesalers, total..... | 0 | -2 | +2 | +10 |
| Durable goods, total..... | +1 | +1 | +6 | +14 |
| Nondurable goods, total... | -1 | -4 | -1 | +6 |



# Table 5. Percent Change in Sales and Inventories of Merchant Wholesalers, by Kind of Business for the United States: September 1981

| 1972 SIC CODE | KIND OF BUSINESS | UNADJUSTED | | | | | ADJUSTED[1] | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | SALES | | | INVENTORIES, END-OF-MONTH (AT COST) | | SALES | | INVENTORIES, END-OF-MONTH (AT COST) | |
| | | SEP. 1981 FROM AUG. 1981 | SEP. 1981 FROM SEP. 1980 | 9 MONTHS 1981 FROM 9 MONTHS 1980 | SEP. 1981 FROM AUG. 1981 | SEP. 1981 FROM SEP. 1980 | SEP. 1981 FROM AUG. 1981 | SEP. 1981 FROM SEP. 1980 | SEP. 1981 FROM AUG. 1981 | SEP. 1981 FROM SEP. 1980 |
| | MERCHANT WHOLESALERS, TOTAL | +4 | +7 | +15 | +1 | +6 | +2 | +7 | +1 | +5 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | +3 | +9 | +15 | +1 | +10 | +2 | +9 | +2 | +10 |
| 50 | DURABLE GOODS, TOTAL | +2 | +11 | +14 | +1 | +11 | +1 | +11 | +2 | +11 |
| 501 | MOTOR VEHICLES AND AUTOMOTIVE PARTS AND SUPPLIES | -4 | +11 | +13 | +2 | -3 | +4 | +11 | +4 | -3 |
| 5012 | AUTOMOBILES AND OTHER MOTOR VEHICLES | -8 | +12 | +11 | +3 | -9 | (*) | (*) | (*) | (*) |
| 5013,4 | AUTOMOTIVE PARTS AND SUPPLIES, TIRES AND TUBES | +1 | +9 | +16 | 0 | +3 | (*) | (*) | (*) | (*) |
| 5013 | AUTOMOTIVE PARTS AND SUPPLIES | +2 | +12 | +16 | +1 | +2 | (*) | (*) | (*) | (*) |
| 502 | FURNITURE AND HOME FURNISHINGS | +4 | +12 | +12 | +3 | +13 | -4 | +10 | +1 | +13 |
| 5021 | FURNITURE--HOUSEHOLD AND OFFICE | +4 | +20 | +13 | -1 | +6 | (*) | (*) | (*) | (*) |
| 5021 PT. | HOUSEHOLD FURNITURE | +1 | +15 | +6 | +1 | +21 | (*) | (*) | (*) | (*) |
| 5021 PT. | OFFICE FURNITURE[2] | +5 | +23 | +16 | -3 | -2 | (*) | (*) | (*) | (*) |
| 5023 | HOME FURNISHINGS | +4 | +8 | +12 | +5 | +16 | (*) | (*) | (*) | (*) |
| 503 | LUMBER AND OTHER CONSTRUCTION MATERIALS | 0 | -4 | +3 | +1 | +7 | -1 | -3 | +2 | +7 |
| 5031 | LUMBER, PLYWOOD, AND MILLWORK | +1 | -8 | 0 | +1 | +9 | (*) | (*) | (*) | (*) |
| 5039 | CONSTRUCTION MATERIALS, N.E.C. | -2 | +4 | +8 | 0 | +5 | (*) | (*) | (*) | (*) |
| 504 | SPORTING, RECREATIONAL, PHOTOGRAPHIC, AND HOBBY GOODS, TOYS AND SUPPLIES | +3 | +13 | +15 | -2 | +2 | -2 | +12 | -2 | +2 |
| 5051 PT. | FERROUS METALS SERVICE CENTERS AND OFFICES | +3 | +31 | +29 | +5 | +27 | (*) | (*) | (*) | (*) |
| 5051 PT. | FERROUS METALS SERVICE CENTERS | +1 | +37 | +34 | +4 | +28 | (*) | (*) | (*) | (*) |
| 506 | ELECTRICAL GOODS | +7 | +13 | +16 | +2 | +16 | +4 | +12 | +2 | +16 |
| 5063 | ELECTRICAL APPARATUS AND EQUIPMENT, WIRING SUPPLIES, AND CONSTRUCTION MATERIALS | +9 | +8 | +13 | 0 | +14 | (*) | (*) | (*) | (*) |
| 5064,5 | ELECTRICAL APPLIANCES, TV AND RADIO SETS, AND ELECTRONIC PARTS AND EQUIPMENT | +5 | +19 | +18 | +3 | +18 | (*) | (*) | (*) | (*) |
| 5064 | ELECTRICAL APPLIANCES, TV AND RADIO SETS | +9 | +17 | +20 | +3 | +21 | (*) | (*) | (*) | (*) |
| 507 | HARDWARE, PLUMBING, HEATING EQUIPMENT, AND SUPPLIES | +2 | +13 | +14 | 0 | +12 | +4 | +13 | +1 | +12 |
| 5072 | HARDWARE | +8 | +14 | +12 | 0 | +9 | (*) | (*) | (*) | (*) |
| 5074 | PLUMBING AND HEATING EQUIPMENT AND SUPPLIES (HYDRONICS) | +1 | +12 | +14 | -2 | +12 | (*) | (*) | (*) | (*) |
| 5075 | WARM AIR HEATING AND AIR CONDITIONING EQUIPMENT AND SUPPLIES | -7 | +13 | +14 | 0 | +28 | (*) | (*) | (*) | (*) |
| 508 | MACHINERY, EQUIPMENT, AND SUPPLIES | +4 | +13 | +16 | 0 | +12 | 0 | +13 | 0 | +12 |
| 5081 | COMMERCIAL MACHINES AND EQUIPMENT | +10 | +13 | +15 | -7 | +6 | (*) | (*) | (*) | (*) |
| 5082 | CONSTRUCTION AND MINING MACHINERY AND EQUIPMENT | +2 | +1 | +5 | -2 | -4 | (*) | (*) | (*) | (*) |
| 5083 | FARM AND GARDEN MACHINERY AND EQUIPMENT[3] | -4 | -11 | +6 | -1 | +19 | (*) | (*) | (*) | (*) |
| 5084,5 | INDUSTRIAL MACHINERY, EQUIPMENT, AND SUPPLIES | +6 | +28 | +23 | +1 | +15 | (*) | (*) | (*) | (*) |
| 5086 | PROFESSIONAL EQUIPMENT AND SUPPLIES | +5 | +13 | +16 | +1 | +21 | (*) | (*) | (*) | (*) |
| 5093 | SCRAP AND WASTE MATERIALS | -2 | -8 | -3 | +1 | +20 | (*) | (*) | (*) | (*) |
| 5093 PT. | IRON AND STEEL SCRAP | -3 | -4 | +1 | +3 | +24 | (*) | (*) | (*) | (*) |
| 5093 PT. | WASTE MATERIALS | -1 | -12 | -8 | -3 | +11 | (*) | (*) | (*) | (*) |
| 51 | NONDURABLE GOODS, TOTAL | +5 | +4 | +15 | 0 | -2 | +3 | +4 | -2 | -4 |
| | TOTAL (EXCLUDING FARM-PRODUCT RAW MATERIALS) | +4 | +7 | +17 | +1 | +7 | +2 | +7 | 0 | +7 |
| 511 | PAPER AND PAPER PRODUCTS | +7 | +18 | +16 | +1 | +18 | +3 | +17 | -1 | +18 |
| 5111,3 | PRINTING, WRITING, INDUSTRIAL, AND PERSONAL SERVICE PAPER | +7 | +17 | +15 | 0 | +15 | (*) | (*) | (*) | (*) |
| 5111 | PRINTING, AND WRITING PAPER | +5 | +14 | +10 | +2 | +18 | (*) | (*) | (*) | (*) |
| 5113 | INDUSTRIAL AND PERSONAL SERVICE PAPER | +8 | +20 | +19 | -1 | +13 | (*) | (*) | (*) | (*) |
| 512 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | r+9 | r+14 | +19 | +7 | +12 | r+5 | r+15 | +4 | +12 |
| 5122 | DRUGS, DRUG PROPRIETARIES, AND DRUGGISTS' SUNDRIES | r+9 | r+14 | +19 | +7 | +12 | (*) | (*) | (*) | (*) |
| 5122 PT. | GENERAL-LINE DRUGS | +10 | +6 | +13 | +7 | +8 | (*) | (*) | (*) | (*) |
| 514 | GROCERIES AND RELATED PRODUCTS | +2 | +6 | +12 | +5 | +10 | 0 | +6 | +2 | +10 |
| 5141 | GROCERIES, GENERAL-LINE | +3 | +12 | +12 | +5 | +7 | (*) | (*) | (*) | (*) |
| 5141 PT. | VOLUNTARY GROUPS | +3 | +10 | +9 | +4 | +4 | (*) | (*) | (*) | (*) |
| 5141 PT. | RETAILER COOPERATIVES | +4 | +12 | +11 | +4 | +8 | (*) | (*) | (*) | (*) |
| 5141 PT. | OTHER GENERAL-LINES | +4 | +15 | +15 | +5 | +10 | (*) | (*) | (*) | (*) |
| 5142,3,6,9 | SPECIALTY-LINE GROCERIES | +2 | +5 | +15 | +7 | +13 | (*) | (*) | (*) | (*) |
| 5144 | POULTRY AND POULTRY PRODUCTS | +3 | +1 | +7 | +5 | -2 | (*) | (*) | (*) | (*) |
| 5145 | CONFECTIONERY | +12 | +7 | +13 | 0 | +4 | (*) | (*) | (*) | (*) |
| 5147 | MEATS AND MEAT PRODUCTS | 0 | -2 | +1 | +2 | +1 | (*) | (*) | (*) | (*) |
| 5148 | FRESH FRUITS AND VEGETABLES[3] | -3 | +5 | +16 | 0 | (S) | (*) | (*) | (*) | (*) |
| 515 | FARM-PRODUCT RAW MATERIALS[2] | +10 | -9 | +7 | -7 | -39 | +4 | -8 | -13 | -39 |
| 5152 | COTTON[3] | +3 | -34 | -8 | -9 | -39 | (*) | (*) | (*) | (*) |
| 5153 | GRAIN | +12 | -3 | +10 | -6 | -40 | (*) | (*) | (*) | (*) |
| 517 | PETROLEUM AND PETROLEUM PRODUCTS | +5 | +10 | +32 | -4 | +1 | +5 | +10 | -6 | +1 |
| 5171 | PETROLEUM BULK STATIONS AND TERMINALS | +6 | +12 | +26 | +2 | -2 | (*) | (*) | (*) | (*) |
| 518 | BEER, WINE, AND DISTILLED ALCOHOLIC BEVERAGES | +2 | +12 | +8 | 0 | +5 | +4 | +11 | -3 | +5 |
| 5181 | BEER AND ALE | -7 | +9 | +9 | -3 | +14 | (*) | (*) | (*) | (*) |
| 5182 | WINE AND DISTILLED ALCOHOLIC BEVERAGES | +16 | +16 | +8 | +2 | -1 | (*) | (*) | (*) | (*) |
| 519 | MISCELLANEOUS NONDURABLE GOODS | +6 | -1 | +4 | +1 | +2 | 0 | 0 | +2 | +2 |
| 5191 | FARM SUPPLIES | -3 | -16 | +2 | +2 | -3 | (*) | (*) | (*) | (*) |
| 5194 | TOBACCO AND TOBACCO PRODUCTS | +1 | +13 | +10 | +5 | +13 | (*) | (*) | (*) | (*) |
| 5198 | PAINTS, VARNISHES, AND SUPPLIES | +7 | +6 | +4 | 0 | +7 | (*) | (*) | (*) | (*) |
| 5199 PT. | BOOKS, PERIODICALS, NEWSPAPERS | -12 | (S) | (S) | 0 | (S) | (*) | (*) | (*) | (*) |

Adjusted data are available only for summary group totals. (S) Does not meet publication standards because of extreme variability or high nonresponse rate. rRevised.

[1]Adjusted for seasonal variations and, in the case of sales, also for trading-day differences.
[2]There are indications that the seasonal adjustment factors for this trade group may not reflect recent trends. The seasonally adjusted data for this trade group and also for the summary group totals should, therefore, be used with caution.
[3]Sampling variability of 6 percent for percent change for sales between September 1981 and August 1981.
[4]Sampling variability of 11 percent for percent change for sales between September 1981 and September 1980.
[5]Sampling variability of 10 percent for percent change for inventories between September 1981 and September 1980.
[6]Sampling variability of 10 percent for percent change for sales between September 1981 and September 1980.

# Appendix A. Reliability of Data

There are two types of errors possible in an estimate based on a sample survey—sampling and nonsampling. Sampling errors occur because observations are made only on a sample, not on the entire population. Nonsampling errors can be attributed to many sources in the collection and processing of data. The accuracy of a survey result is determined by the joint effects of sampling and nonsampling errors.

**Measures of Sampling Variability.** The particular sample used in this survey is one of a large number of all possible samples of the same size that could have been selected using the same design. Estimates derived from the different samples would differ from each other. The average of these estimates would be close to the estimate derived from a complete enumeration of the population (assuming that a complete enumeration has the same nonsampling errors as the sample survey). The average of the estimates differs from the estimate from a complete census because of the composite estimation technique. Disregarding this difference, the sampling error or standard error of the estimate is a measure of the variability among the estimates from all possible samples of the same size and design and, thus, is a measure of the precision with which an estimate from a particular sample approximates the results of a complete enumeration. The coefficient of variation (expressed as a percent) is the standard error of the estimate times 100 percent, divided by the value being estimated. Note that any measures of sampling variability, such as the standard error or coefficient of variation, are estimates derived from the sample and are also subject to sampling variability.

Estimates of sampling variability (the coefficients of variation in percent) for sales and inventories at the kind-of-business detail provided in this publication are shown in table A-1. These coefficients of variation permit certain confidence statements about the sample estimates. As noted above, the particular sample used in this survey is one of a large number of all possible samples of about the same size that could have been selected using the same design. In about two out of three (67 percent) of these samples, the estimate would differ from a complete enumeration by less than the corresponding percent for that estimate shown in the sampling variability table. In about 19 out of 20 (95 percent) of these samples, the estimate would differ from the results of a complete enumeration by less than twice the percentages shown.

To illustrate the computations involved in the above confidence statements for monthly dollar volume estimates, assume that an estimate for a kind of business published in table 1 for a particular month is $5,000 million and that the median coefficient of variation for this statistic, is 0.9 percent or 0.009. Multiplying $5,000 million by 0.009 yields $45 million. Therefore, a 67-percent confidence interval is $4,955 million to $5,045 million (i.e. $5,000 million plus or minus $45 million). If corresponding confidence intervals were constructed for all possible samples of the same size and design, approximately 2 out of 3 (67 percent) of these intervals would contain the figure obtained from a complete enumeration. Similarly, a 95-percent confidence interval is $4,910 million to $5,090 million (i.e., $5,000 million plus or minus $90 million).

As an example of the use of the coefficients of variation with ratios, assume that an estimated month-to-month percent change published in table 5 is -1.0 percent for a particular kind of business. This is equivalent to a month-to-month ratio of 0.990. Then assume the median coefficient of variation for this ratio as shown in table A-1 is 0.5 percent (or 0.005). Multiplying 0.990 by 0.005 yields 0.005. Therefore, a 67-percent confidence interval is 0.985 to 0.995 (i.e., 0.990 plus or minus 0.005) and a 95-percent confidence interval is 0.980 to 1.000 (i.e., 0.990 plus or minus 0.010).

**Nonsampling Errors.** As calculated for this report, the coefficient of variation measures certain nonsampling errors but does not measure any systematic biases in the data. Bias is the difference, averaged over all possible samples of the same size and design, between the estimate and the true value being estimated. The accuracy of the tabulated data is determined by the joint effects of the sampling and nonsampling errors.

Nonsampling errors can be attributed to many sources: (1) inability to obtain information about all cases in the sample, (2) response errors, (3) definitional difficulties, (4) differences in the interpretation of questions, (5) mistakes in recording or coding the data obtained, and (6) other errors of collection, response, coverage, and estimation for missing data. These nonsampling errors also occur in complete censuses.

Although no direct measurement of the biases due to nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

A major source of bias in the published estimates is due to imputing data for nonrespondents, for late reporters, and for data which fail edit. For all kinds of business combined, imputed data amount to about 15 percent of the sales estimates and 25 percent for inventories.

# Table A-1. Estimated Sampling Variability of Sales and Inventories by Kind of Business for the United States

(Coefficients of variation in percent)

| 1972 SIC code | Kind of business | SALES | | | | | | INVENTORIES | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Preliminary sampling error of the monthly dollar estimates | | Final sampling error of the monthly dollar estimates | | Median sampling error of the ratio of: | | Preliminary sampling error of the monthly dollar estimates | | Final sampling error of the monthly dollar estimates | | Median sampling error of the ratio of: | |
| | | Range | Median | Range | Median | Two consecutive months | Same month a year ago | Range | Median | Range | Median | Two consecutive months | Same month a year ago |
| | Merchant wholesalers, total | 1.4-1.8 | 1.6 | 1.4-1.6 | 1.5 | 0.6 | 1.0 | 1.3-1.5 | 1.4 | 1.2-1.4 | 1.4 | 0.3 | 0.9 |
| | Total (excluding farm-product raw materials) | 1.4-1.9 | 1.6 | 1.3-1.6 | 1.4 | 0.6 | 1.1 | 1.4-1.7 | 1.5 | 1.2-1.5 | 1.5 | 0.3 | 0.9 |
| 50 | Durable goods, total | 1.5-3.2 | 2.0 | 1.4-2.4 | 1.6 | 1.0 | 1.7 | 1.0-1.5 | 1.4 | 1.0-1.4 | 1.3 | 0.4 | 1.1 |
| 501 | Motor vehicles and automotive parts and supplies | 3.6-4.6 | 3.9 | 3.2-4.4 | 3.6 | 1.7 | 2.8 | 2.2-3.5 | 3.0 | 2.6-3.5 | 2.7 | 0.8 | 2.6 |
| 5012 | Automobiles and other motor vehicles | (*) | (*) | (*) | (*) | 2.8 | 5.4 | (*) | (*) | (*) | (*) | 1.8 | 5.5 |
| 5013,4 | Automotive parts and supplies, tires and tubes | 3.3-4.7 | 4.0 | 3.0-4.9 | 3.6 | 1.7 | 3.1 | 3.0-4.1 | 3.7 | 2.8-3.9 | 3.4 | 1.2 | 3.0 |
| 5013 | Automotive parts and supplies | 3.8-5.9 | 4.7 | 3.6-5.9 | 4.2 | 2.1 | 3.8 | 3.8-5.0 | 4.5 | 3.5-4.6 | 4.2 | 1.3 | 3.2 |
| 502 | Furniture and home furnishings | 4.7-7.0 | 5.7 | 4.3-6.1 | 5.1 | 2.9 | 4.0 | 4.0-4.6 | 4.2 | 3.9-4.5 | 4.2 | 0.9 | 3.3 |
| 5021 | Furniture--household and office | 4.9-6.5 | 6.0 | 4.3-7.1 | 6.0 | 4.1 | 5.7 | (*) | (*) | (*) | (*) | 1.5 | 5.1 |
| 5021 pt. | Household furniture | (*) | (*) | (*) | (*) | 6.2 | 11.2 | (*) | (*) | (*) | (*) | 1.5 | 8.7 |
| 5021 pt. | Office furniture | (*) | (*) | (*) | (*) | 4.9 | 6.5 | (*) | (*) | (*) | (*) | 1.9 | 5.2 |
| 5023 | Home furnishings | 6.7-9.2 | 7.6 | 5.5-8.1 | 6.6 | 3.3 | 5.1 | 5.0-6.3 | 5.6 | 5.0-6.1 | 5.7 | 1.1 | 4.5 |
| 503 | Lumber and other construction materials | 4.2-5.8 | 4.8 | 4.4-5.4 | 4.7 | 2.3 | 3.5 | 5.0-6.7 | 5.6 | 5.0-6.6 | 5.9 | 0.9 | 2.9 |
| 5031 | Lumber, plywood, and millwork | 5.7-7.7 | 6.3 | 5.1-6.6 | 5.9 | 3.3 | 4.5 | 7.0-9.0 | 7.9 | 7.2-8.6 | 8.1 | 1.2 | 3.6 |
| 5039 | Construction materials, n.e.c | 5.0-6.9 | 6.0 | 5.1-6.5 | 5.7 | 3.1 | 5.9 | (*) | (*) | (*) | (*) | 1.1 | 4.8 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | (*) | (*) | (*) | (*) | 3.5 | 5.1 | (*) | (*) | (*) | (*) | 1.6 | 4.6 |
| 505 | Metals and minerals, except petroleum | 4.3-16.8 | 8.7 | 5.1-14.4 | 8.2 | 2.4 | 5.4 | 6.2-9.3 | 7.6 | 5.7-10.2 | 8.1 | 1.2 | 5.2 |
| 5051 pt. | Ferrous metals service centers and offices | 4.3-6.2 | 5.2 | 3.9-6.5 | 4.6 | 2.5 | 3.3 | 3.9-4.7 | 4.3 | 4.0-4.5 | 4.2 | 0.8 | 3.0 |
| 5051 pt. | Ferrous metals service centers | 4.8-7.1 | 5.1 | 4.9-5.2 | 5.1 | 2.8 | 3.6 | 2.8-5.5 | 4.6 | 3.1-4.8 | 4.0 | 0.9 | 3.4 |
| 5051 pt. | Nonferrous metals service centers and offices | (*) | (*) | (*) | (*) | 4.1 | 23.3 | (*) | (*) | (*) | (*) | 5.2 | 22.5 |
| 506 | Electrical goods | 3.8-5.0 | 4.1 | 3.3-4.6 | 3.6 | 2.3 | 3.0 | 3.2-4.8 | 3.5 | 3.3-4.6 | 3.5 | 0.7 | 2.8 |
| 5063 | Electrical apparatus and equipment, wiring supplies, and construction materials | 3.7-6.7 | 4.5 | 3.3-6.9 | 4.1 | 3.1 | 4.5 | 3.2-5.1 | 3.5 | 3.2-4.5 | 3.3 | 0.8 | 2.9 |
| 5064,5 | Electrical appliances, TV and radio sets, and electronic parts and equipment | 5.2-7.4 | 6.0 | 5.0-6.6 | 5.6 | 2.8 | 4.4 | 3.9-6.9 | 4.4 | 3.8-6.5 | 4.7 | 1.2 | 4.1 |
| 5064 | Electrical appliances, TV and radio sets | 4.9-8.2 | 6.4 | 5.1-6.7 | 5.5 | 2.8 | 4.3 | (*) | (*) | (*) | (*) | 1.3 | 5.0 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 3.1-4.5 | 3.5 | 2.9-3.7 | 3.3 | 1.6 | 2.3 | 2.8-4.2 | 3.6 | 2.9-4.2 | 3.5 | 0.8 | 3.8 |
| 5072 | Hardware | 2.6-3.8 | 3.6 | 2.8-3.9 | 3.2 | 1.6 | 2.9 | 4.7-6.3 | 5.6 | 4.5-6.1 | 5.7 | 1.3 | 3.5 |
| 5074 | Plumbing and heating equipment and supplies (hydronics) | 5.4-7.7 | 6.4 | 5.1-6.6 | 5.9 | 2.9 | 5.4 | 5.0-6.0 | 5.4 | 4.7-5.6 | 5.3 | 1.3 | 9.6 |
| 5075 | Warm air heating and air conditioning equipment and supplies | (*) | (*) | (*) | (*) | 4.1 | 5.7 | (*) | (*) | (*) | (*) | 1.2 | 5.1 |
| 508 | Machinery, equipment, and supplies | 2.9-4.5 | 3.3 | 2.6-3.2 | 2.8 | 1.8 | 3.3 | 1.8-2.4 | 2.2 | 1.8-2.3 | 2.1 | 0.4 | 1.8 |
| 5081 | Commercial machines and equipment | (*) | (*) | (*) | (*) | 4.4 | 6.6 | (*) | (*) | (*) | (*) | 1.5 | 5.7 |
| 5082 | Construction and mining machinery and equipment | 4.8-6.6 | 5.4 | 4.1-5.1 | 4.5 | 3.9 | 5.4 | 3.8-5.3 | 4.2 | 3.9-4.9 | 4.1 | 1.1 | 4.1 |
| 5083 | Farm and garden machinery and equipment | (*) | (*) | (*) | (*) | 6.0 | 9.8 | (*) | (*) | (*) | (*) | 1.4 | 4.7 |
| 5084,5 | Industrial machinery, equipment, and supplies | 3.2-4.1 | 3.3 | 2.4-3.4 | 2.8 | 2.5 | 4.9 | 3.2-4.2 | 3.8 | 3.1-3.8 | 3.5 | 0.6 | 2.5 |
| 5086 | Professional equipment and supplies | (*) | (*) | (*) | (*) | 2.7 | 4.7 | (*) | (*) | (*) | (*) | 1.1 | 5.2 |
| 5093 | Scrap and waste materials | 4.2-5.4 | 5.1 | 4.2-5.3 | 4.7 | 2.2 | 3.9 | (*) | (*) | (*) | (*) | 1.3 | 3.2 |
| 5093 pt. | Iron and steel scrap | (*) | (*) | (*) | (*) | 2.2 | 5.0 | (*) | (*) | (*) | (*) | 1.5 | 4.3 |
| 5093 pt. | Waste materials | (*) | (*) | (*) | (*) | 3.9 | 6.9 | (*) | (*) | (*) | (*) | 2.2 | 5.4 |
| 51 | Nondurable goods, total | 1.8-2.1 | 1.9 | 1.6-2.0 | 1.9 | 0.8 | 1.2 | 2.6-3.0 | 2.8 | 2.6-2.8 | 2.7 | 0.5 | 1.3 |
| | Total (excluding farm-product raw materials) | 1.9-2.4 | 2.1 | 1.7-2.3 | 2.0 | 0.9 | 1.4 | 3.3-3.6 | 3.5 | 3.2-3.5 | 3.3 | 0.4 | 1.4 |
| 511 | Paper and paper products | 4.6-7.7 | 5.2 | 4.5-6.9 | 4.9 | 1.5 | 3.0 | 4.6-7.3 | 6.3 | 4.6-7.1 | 5.9 | 0.8 | 3.4 |
| 5111,3 | Printing, writing, industrial, and personal service paper | 3.0-5.1 | 3.3 | 3.0-4.6 | 3.2 | 1.1 | 2.3 | 5.0-6.9 | 6.4 | 4.9-6.9 | 6.3 | 0.8 | 3.1 |
| 5111 | Printing and writing paper | 2.6-3.9 | 2.8 | 2.4-3.4 | 2.7 | 1.3 | 2.7 | 3.9-4.9 | 4.3 | 3.7-4.8 | 4.2 | 0.7 | 3.2 |
| 5113 | Industrial and personal service paper | 4.4-7.7 | 5.0 | 4.4-6.8 | 4.5 | 1.9 | 4.8 | 7.3-11.4 | 9.9 | 6.9-11.2 | 9.7 | 1.3 | 4.2 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 2.3-3.1 | 2.7 | 2.2-2.9 | 2.7 | 1.5 | 3.1 | 3.6-5.1 | 4.4 | 4.0-5.1 | 4.6 | 1.4 | 4.0 |
| 5122 | Drugs, drug proprietaries, and druggists' sundries | 2.3-3.1 | 2.7 | 2.2-2.9 | 2.7 | 1.5 | 3.1 | (*) | (*) | (*) | (*) | 1.4 | 4.0 |
| 5122 pt. | General-line drugs | 6.0-6.9 | 6.6 | 6.0-6.9 | 6.6 | 1.1 | 4.1 | (*) | (*) | (*) | (*) | 0.9 | 6.6 |
| 513 | Apparel, piece goods, and notions | 12.0-15.7 | 13.2 | 10.9-14.6 | 13.4 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |
| 514 | Groceries and related products | 1.7-2.4 | 2.2 | 1.8-2.3 | 2.1 | 0.5 | 1.3 | 1.6-2.2 | 1.8 | 1.6-2.0 | 1.8 | 0.4 | 1.6 |
| 5141 | Groceries, general-line | 2.6-3.4 | 3.3 | 2.8-3.3 | 3.1 | 0.6 | 1.7 | 1.9-2.8 | 2.2 | 1.7-2.7 | 1.9 | 0.5 | 1.7 |
| 5141 pt. | Voluntary groups | (*) | (*) | (*) | (*) | 0.7 | 2.1 | (*) | (*) | (*) | (*) | 0.7 | 2.8 |
| 5141 pt. | Retailer cooperatives | (*) | (*) | (*) | (*) | 0.6 | 1.8 | (*) | (*) | (*) | (*) | 0.6 | 2.3 |
| 5141 pt. | Other general-lines | (*) | (*) | (*) | (*) | 1.3 | 2.8 | (*) | (*) | (*) | (*) | 1.0 | 3.7 |
| 5142,3,6,9 | Specialty-line groceries | (*) | (*) | (*) | (*) | 1.2 | 3.3 | (*) | (*) | (*) | (*) | 1.0 | 3.6 |
| 5144 | Poultry and poultry products | 5.6-7.2 | 6.5 | 5.4-7.2 | 6.7 | 1.8 | 3.2 | (*) | (*) | (*) | (*) | 1.5 | 5.2 |
| 5145 | Confectionery | 5.1-12.9 | 6.7 | 4.8-9.5 | 6.6 | 2.7 | 5.5 | (*) | (*) | (*) | (*) | 1.7 | 4.0 |
| 5147 | Meats and meat products | 5.6-7.0 | 6.8 | 5.4-6.9 | 6.5 | 1.5 | 4.2 | (*) | (*) | (*) | (*) | 1.4 | 6.3 |
| 5148 | Fresh fruits and vegetables | 4.0-5.7 | 4.4 | 3.5-5.0 | 4.7 | 2.3 | 3.2 | (*) | (*) | (*) | (*) | 2.6 | 6.2 |
| 515 | Farm-product raw materials | 2.6-5.2 | 3.0 | 2.1-4.6 | 3.4 | 2.3 | 2.9 | (*) | (*) | (*) | (*) | 1.5 | 4.0 |
| 5152 | Cotton | (*) | (*) | (*) | (*) | 6.9 | 10.2 | (*) | (*) | (*) | (*) | 1.0 | 2.5 |
| 5153 | Grain | 3.2-5.9 | 3.8 | 2.6-5.3 | 3.9 | 2.5 | 3.3 | (*) | (*) | (*) | (*) | 1.7 | 5.0 |
| 517 | Petroleum and petroleum products | 5.1-7.8 | 7.1 | 4.9-8.0 | 6.2 | 2.0 | 4.1 | 5.6-6.5 | 5.8 | 5.1-6.1 | 5.6 | 1.7 | 3.3 |
| 5171 | Petroleum bulk stations and terminals | 3.5-5.1 | 4.0 | 3.1-4.2 | 3.9 | 1.7 | 3.7 | (*) | (*) | (*) | (*) | 2.1 | 3.9 |
| 518 | Beer, wine, and distilled alcoholic beverages | 4.5-5.9 | 4.9 | 4.3-5.5 | 4.9 | 1.2 | 3.0 | 3.8-5.0 | 4.2 | 3.9-5.0 | 4.3 | 1.4 | 3.2 |
| 5181 | Beer and ale | 5.2-6.1 | 5.8 | 5.4-6.2 | 5.7 | 1.4 | 3.5 | 7.9-10.2 | 8.1 | 7.7-9.9 | 8.8 | 2.7 | 4.7 |
| 5182 | Wine and distilled alcoholic beverages | 5.1-7.2 | 5.7 | 5.1-6.9 | 5.7 | 1.9 | 4.1 | 3.4-5.0 | 4.4 | 3.7-4.6 | 4.0 | 1.3 | 4.5 |
| 519 | Miscellaneous nondurable goods | 2.5-4.9 | 3.9 | 2.5-3.9 | 3.4 | 1.9 | 3.2 | (*) | (*) | (*) | (*) | 0.9 | 2.7 |
| 5191 | Farm supplies | (*) | (*) | (*) | (*) | 4.4 | 5.7 | (*) | (*) | (*) | (*) | 1.6 | 4.5 |
| 5194 | Tobacco and tobacco products | 5.6-6.7 | 6.1 | 5.3-6.8 | 5.8 | 1.3 | 3.9 | (*) | (*) | (*) | (*) | 1.3 | 4.7 |
| 5198 | Paints, varnishes, and supplies | (*) | (*) | (*) | (*) | 2.4 | 6.8 | (*) | (*) | (*) | (*) | 1.1 | 5.8 |
| 5199 pt. | Books, periodicals, newspapers | (*) | (*) | (*) | (*) | 6.6 | 17.4 | (*) | (*) | (*) | (*) | 1.4 | 14.4 |

Note: Measures of sampling variability are based on data unadjusted for seasonal variations or trading-day differences. The range of sampling error of the monthly dollar estimates and the ratio of current month to previous month for sales and inventories is based on data for August 1979 through January 1980.

* Measures of sampling variability are not shown since sales and/or inventory estimates for these kinds of business are not published.

# Appendix B. Adjustment for Seasonal and Trading-Day Variations

Seasonal factors for adjusting data in this historical publication have been developed by the method described in the *X-11 Variant of the Census Method II Seasonal Adjustment Program,* U.S. Bureau of the Census Technical Paper No. 15, Revised 1967. Trading-day factors for adjusting sales were also derived from the X-11 program.

Adjustment of estimates is an approximation based on past experiences, and therefore, will be less precise to the extent that current competitive pressures, changes in economic condition, and other elements introduce significant changes in seasonal and trading-day patterns.

A description of trading-day adjustment factors may be found in *Estimating Trading-Day Variation in Monthly Economic Time Series,* Bureau of the Census Technical Paper No. 12, 1965. Additional details concerning the adjustment factors may be obtained from the Chief, Business Division, Bureau of the Census, Washington, D.C. 20233.

Table B-1. **Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers: January 1980-December 1981**

| 1972 SIC code | Kind of business | 1980 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| | | Seasonal and trading-day adjustment factors for sales | | | | | | | | | | | |
| | Merchant wholesalers, total | 96.2 | 95.1 | 101.4 | 102.6 | 103.3 | 100.1 | 101.1 | 99.4 | 100.5 | 106.6 | 96.5 | 101.1 |
| | Total (excluding farm-product raw materials) | 94.8 | 94.7 | 101.4 | 102.9 | 103.5 | 100.9 | 102.0 | 100.0 | 101.8 | 106.0 | 95.6 | 100.0 |
| 50 | Durable goods, total | 90.4 | 92.6 | 101.9 | 103.6 | 104.0 | 102.3 | 101.9 | 102.4 | 103.3 | 108.6 | 94.3 | 98.3 |
| 501 | Motor vehicle and automotive parts and supplies | 95.6 | 94.3 | 104.7 | 111.7 | 108.1 | 101.6 | 102.6 | 100.1 | 93.2 | 104.6 | 91.8 | 95.4 |
| 502 | Furniture and home furnishings | 89.7 | 93.0 | 101.5 | 103.4 | 99.4 | 99.4 | 96.7 | 99.1 | 103.8 | 115.9 | 101.9 | 100.8 |
| 503 | Lumber and other construction materials | 81.7 | 83.3 | 93.2 | 99.7 | 104.8 | 107.5 | 110.0 | 111.8 | 111.6 | 116.0 | 94.1 | 90.1 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 81.0 | 85.5 | 97.7 | 100.6 | 94.0 | 96.8 | 112.6 | 104.2 | 109.8 | 112.7 | 108.0 | 101.4 |
| 505 | Metals and minerals, except petroleum | 96.4 | 97.9 | 106.9 | 102.5 | 101.0 | 101.6 | 98.1 | 103.2 | 102.4 | 103.3 | 93.8 | 97.6 |
| 506 | Electrical goods | 91.7 | 90.4 | 99.0 | 95.5 | 98.5 | 102.0 | 102.9 | 101.8 | 105.8 | 109.9 | 101.4 | 105.0 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 93.5 | 87.9 | 96.2 | 103.1 | 104.6 | 104.1 | 107.7 | 103.3 | 102.4 | 111.6 | 95.9 | 93.7 |
| 508 | Machinery, equipment, and supplies | 90.0 | 92.5 | 102.4 | 104.9 | 106.8 | 103.4 | 100.9 | 100.4 | 104.9 | 107.3 | 91.4 | 98.6 |
| 509 | Miscellaneous durable goods | 91.8 | 97.5 | 108.3 | 102.0 | 98.0 | 95.1 | 91.6 | 100.4 | 108.1 | 112.4 | 96.5 | 101.0 |
| 51 | Nondurable goods, total | 99.9 | 96.1 | 101.2 | 100.9 | 102.4 | 99.4 | 100.8 | 97.2 | 98.7 | 105.3 | 98.2 | 104.0 |
| | Total (excluding farm-product raw materials) | 98.7 | 96.5 | 101.1 | 101.5 | 102.9 | 100.5 | 100.9 | 98.7 | 99.8 | 104.0 | 97.0 | 102.2 |
| 511 | Paper and paper products | 101.1 | 97.3 | 101.0 | 100.9 | 100.8 | 98.2 | 100.6 | 99.6 | 101.6 | 107.8 | 94.9 | 100.6 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 98.9 | 93.2 | 99.8 | 101.6 | 99.1 | 97.7 | 101.9 | 98.1 | 103.2 | 112.3 | 96.3 | 102.0 |
| 513 | Apparel, piece goods, and notions | 95.8 | 94.5 | 100.4 | 97.1 | 93.0 | 90.8 | 103.4 | 110.1 | 113.5 | 113.8 | 99.3 | 93.4 |
| 514 | Groceries and related products | 99.6 | 94.8 | 100.3 | 102.2 | 104.4 | 99.1 | 103.4 | 99.1 | 99.4 | 104.3 | 97.0 | 101.1 |
| 515 | Farm-product raw materials[1] | 102.8 | 96.7 | 102.6 | 101.9 | 104.5 | 93.7 | 96.2 | 92.8 | 96.0 | 108.9 | 102.1 | 106.7 |
| 516 | Chemicals and allied products | 96.8 | 92.8 | 99.3 | 97.3 | 104.8 | 104.5 | 91.3 | 103.3 | 98.6 | 110.6 | 100.8 | 104.8 |
| 517 | Petroleum and petroleum products | 106.1 | 104.2 | 99.6 | 97.4 | 99.7 | 96.6 | 97.9 | 97.6 | 96.9 | 101.1 | 102.5 | 104.4 |
| 518 | Beer, wine, and distilled alcoholic beverages | 84.1 | 85.8 | 94.4 | 99.5 | 103.5 | 106.6 | 106.3 | 103.4 | 98.7 | 106.5 | 97.8 | 117.7 |
| 519 | Miscellaneous nondurable goods | 95.2 | 94.8 | 109.2 | 107.8 | 115.1 | 104.8 | 95.0 | 93.3 | 99.2 | 98.9 | 91.7 | 96.7 |
| | | Seasonal adjustment factors for inventories | | | | | | | | | | | |
| | Merchant wholesalers, total | 100.3 | 101.6 | 102.4 | 101.4 | 100.3 | 99.1 | 98.4 | 98.3 | 98.3 | 99.9 | 100.4 | 99.9 |
| | Total (excluding farm-product raw materials) | 98.8 | 100.1 | 101.4 | 101.3 | 100.9 | 100.8 | 100.6 | 99.6 | 99.3 | 99.6 | 99.4 | 98.6 |
| 50 | Durable goods, total | 98.6 | 99.9 | 100.9 | 100.9 | 101.4 | 101.8 | 101.4 | 100.4 | 99.4 | 98.9 | 98.4 | 98.3 |
| 501 | Motor vehicles and automotive parts and supplies | 101.4 | 104.4 | 102.6 | 100.9 | 101.6 | 100.1 | 99.4 | 97.3 | 95.4 | 98.1 | 98.9 | 100.1 |
| 502 | Furniture and home furnishings | 98.1 | 98.1 | 100.9 | 99.9 | 100.4 | 102.9 | 101.6 | 100.3 | 102.4 | 100.6 | 98.3 | 96.9 |
| 503 | Lumber and other construction materials | 97.8 | 99.1 | 103.3 | 102.8 | 102.8 | 102.4 | 102.4 | 100.3 | 98.9 | 98.1 | 96.1 | 96.9 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 95.1 | 99.1 | 100.1 | 103.9 | 102.3 | 106.3 | 106.1 | 101.4 | 101.3 | 99.9 | 93.6 | 91.3 |
| 505 | Metals and minerals, except petroleum | 98.4 | 97.1 | 98.6 | 97.8 | 102.4 | 100.9 | 102.1 | 105.4 | 101.4 | 97.6 | 99.9 | 98.4 |
| 506 | Electrical goods | 96.3 | 95.6 | 98.1 | 99.3 | 101.9 | 102.1 | 102.1 | 102.4 | 101.6 | 101.6 | 100.1 | 99.4 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 97.6 | 99.9 | 102.6 | 105.4 | 103.9 | 103.1 | 101.9 | 99.3 | 97.6 | 97.9 | 95.1 | 95.8 |
| 508 | Machinery, equipment, and supplies | 98.1 | 99.9 | 101.6 | 100.9 | 101.4 | 102.1 | 100.6 | 100.8 | 100.6 | 98.1 | 98.4 | 98.1 |
| 509 | Miscellaneous durable goods | 99.6 | 99.1 | 98.4 | 99.6 | 98.3 | 99.9 | 102.6 | 100.9 | 101.4 | 102.1 | 99.1 | 99.3 |
| 51 | Nondurable goods, total | 104.4 | 102.9 | 105.3 | 100.9 | 96.9 | 95.1 | 94.8 | 94.3 | 96.4 | 102.1 | 104.1 | 103.4 |
| | Total (excluding farm-product raw materials) | 100.4 | 99.8 | 102.6 | 101.4 | 99.9 | 98.4 | 98.8 | 97.8 | 99.3 | 101.4 | 100.9 | 99.8 |
| 511 | Paper and paper products | 97.1 | 98.4 | 99.6 | 100.9 | 100.4 | 102.6 | 100.1 | 98.9 | 101.1 | 100.1 | 100.3 | 100.9 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 96.4 | 96.1 | 100.3 | 101.3 | 99.3 | 100.4 | 100.4 | 99.9 | 102.8 | 105.3 | 100.9 | 97.4 |
| 513 | Apparel, piece goods, and notions | 101.6 | 100.6 | 98.3 | 98.9 | 100.4 | 100.6 | 101.3 | 101.1 | 98.9 | 99.4 | 99.9 | 99.6 |
| 514 | Groceries and related products | 98.6 | 99.9 | 101.6 | 100.6 | 99.1 | 99.9 | 98.3 | 97.1 | 100.3 | 102.9 | 100.9 | 101.4 |
| 515 | Farm-product raw materials[1] | 119.2 | 117.1 | 114.9 | 101.6 | 86.8 | 82.4 | 78.9 | 79.3 | 84.8 | 103.4 | 116.3 | 115.6 |
| 516 | Chemicals and allied products | 98.6 | 100.6 | 100.8 | 100.8 | 103.9 | 101.9 | 102.4 | 100.3 | 100.6 | 96.6 | 96.3 | 97.6 |
| 517 | Petroleum and petroleum products | 102.6 | 99.1 | 100.1 | 95.4 | 97.8 | 94.8 | 97.9 | 99.9 | 102.4 | 103.9 | 104.3 | 101.8 |
| 518 | Beer, wine, and distilled alcoholic beverages | 97.3 | 94.6 | 101.1 | 104.6 | 103.3 | 102.4 | 100.8 | 96.6 | 99.3 | 104.1 | 103.4 | 93.1 |
| 519 | Miscellaneous nondurable goods | 104.3 | 106.4 | 109.3 | 103.9 | 98.8 | 92.8 | 94.8 | 96.1 | 95.3 | 98.8 | 100.1 | 99.6 |

See footnotes at end of table.

# Table B-1. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers: January 1980-December 1981—Continued

| 1972 SIC code | Kind of business | 1981 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| | | Seasonal and trading-day adjustment factors for sales | | | | | | | | | | | |
| | Merchant wholesalers, total | 93.7 | 91.1 | 104.8 | 102.1 | 100.5 | 103.2 | 100.5 | 98.5 | 101.0 | 104.6 | 98.2 | 102.1 |
| | Total (excluding farm-product raw materials) | 92.3 | 91.4 | 104.1 | 103.3 | 99.8 | 104.3 | 100.7 | 100.2 | 101.6 | 104.5 | 97.2 | 101.3 |
| 50 | Durable goods, total | 88.1 | 88.9 | 104.6 | 103.9 | 100.5 | 105.3 | 101.7 | 102.6 | 103.1 | 106.2 | 96.8 | 98.7 |
| 501 | Motor vehicles and automotive parts and supplies | 92.4 | 91.4 | 108.3 | 112.9 | 104.6 | 103.4 | 100.7 | 100.3 | 93.0 | 103.3 | 93.6 | 98.1 |
| 502 | Furniture and home furnishings | 87.0 | 89.5 | 103.7 | 103.0 | 98.3 | 100.8 | 96.4 | 98.0 | 106.3 | 112.7 | 102.4 | 101.8 |
| 503 | Lumber and other construction materials | 79.6 | 79.1 | 96.9 | 99.3 | 101.4 | 111.5 | 110.0 | 110.5 | 111.3 | 113.5 | 96.9 | 90.8 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 79.0 | 82.5 | 98.3 | 101.3 | 90.0 | 99.4 | 112.6 | 104.8 | 110.9 | 111.2 | 108.5 | 102.6 |
| 505 | Metals and minerals, except petroleum | 91.5 | 93.7 | 112.0 | 100.7 | 100.5 | 103.6 | 98.1 | 102.5 | 103.9 | 98.5 | 97.2 | 96.9 |
| 506 | Electrical goods | 88.4 | 88.9 | 99.9 | 95.8 | 95.3 | 104.7 | 100.3 | 103.8 | 106.9 | 108.9 | 101.4 | 106.5 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 90.5 | 85.6 | 98.4 | 103.9 | 101.6 | 106.3 | 106.0 | 104.3 | 102.6 | 109.7 | 97.6 | 94.9 |
| 508 | Machinery, equipment, and supplies | 88.5 | 88.9 | 104.3 | 105.9 | 102.0 | 107.3 | 100.6 | 100.8 | 104.2 | 105.8 | 93.2 | 99.3 |
| 509 | Miscellaneous durable goods | 90.7 | 92.5 | 114.4 | 100.2 | 93.0 | 101.6 | 90.5 | 99.0 | 106.2 | 112.0 | 99.0 | 101.2 |
| 51 | Nondurable goods, total | 97.5 | 91.9 | 104.8 | 100.6 | 99.5 | 102.6 | 99.9 | 96.0 | 98.6 | 103.7 | 99.8 | 105.7 |
| | Total (excluding farm-product raw materials) | 96.2 | 92.8 | 103.7 | 101.9 | 99.9 | 103.3 | 100.0 | 98.4 | 99.9 | 102.2 | 98.6 | 103.6 |
| 511 | Paper and paper products | 98.0 | 93.9 | 103.9 | 101.0 | 96.9 | 102.3 | 99.0 | 99.1 | 102.6 | 105.7 | 95.6 | 102.6 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 95.2 | 90.3 | 103.2 | 102.6 | 95.6 | 100.5 | 100.4 | 98.8 | 102.8 | 109.9 | 98.7 | 103.8 |
| 513 | Apparel, piece goods, and notions | 92.1 | 92.1 | 101.9 | 97.1 | 88.8 | 94.3 | 101.1 | 110.9 | 116.4 | 111.7 | 99.2 | 95.0 |
| 514 | Groceries and related products | 98.0 | 91.2 | 102.6 | 101.4 | 101.1 | 103.0 | 101.8 | 98.1 | 99.6 | 104.1 | 96.9 | 102.8 |
| 515 | Farm-product raw materials[1] | 101.3 | 90.6 | 108.3 | 98.8 | 101.7 | 99.4 | 95.1 | 90.0 | 95.4 | 109.1 | 103.1 | 108.0 |
| 516 | Chemicals and allied products | 93.5 | 88.3 | 102.3 | 97.0 | 103.6 | 105.3 | 92.0 | 102.7 | 100.0 | 104.9 | 105.3 | 104.8 |
| 517 | Petroleum and petroleum products | 103.6 | 100.6 | 103.3 | 95.9 | 97.9 | 99.8 | 94.5 | 96.8 | 96.6 | 101.6 | 102.9 | 107.3 |
| 518 | Beer, wine, and distilled alcoholic beverages | 81.5 | 81.1 | 98.9 | 99.7 | 100.0 | 109.7 | 107.3 | 101.5 | 99.7 | 102.2 | 101.3 | 119.0 |
| 519 | Miscellaneous nondurable goods | 94.9 | 89.7 | 111.5 | 109.4 | 111.8 | 106.8 | 96.0 | 92.5 | 97.9 | 98.0 | 94.0 | 97.8 |
| | | Seasonal adjustment factors for inventories | | | | | | | | | | | |
| | Merchant wholesalers, total | 100.3 | 101.6 | 102.4 | 101.4 | 100.4 | 99.1 | 98.4 | 98.3 | 98.3 | 99.9 | 100.4 | 99.9 |
| | Total (excluding farm-product raw materials) | 98.8 | 100.1 | 101.4 | 101.3 | 101.1 | 100.8 | 100.6 | 99.8 | 99.3 | 99.6 | 99.4 | 98.6 |
| 50 | Durable goods, total | 98.4 | 99.9 | 100.9 | 100.9 | 101.6 | 101.8 | 101.4 | 100.4 | 99.4 | 98.9 | 98.4 | 98.1 |
| 501 | Motor vehicles and automotive parts and supplies | 101.4 | 104.6 | 102.6 | 100.9 | 101.6 | 100.1 | 99.4 | 97.3 | 95.3 | 97.9 | 98.9 | 100.1 |
| 502 | Furniture and home furnishings | 98.1 | 98.1 | 100.9 | 100.1 | 100.4 | 102.9 | 101.6 | 100.1 | 102.4 | 100.6 | 98.3 | 96.9 |
| 503 | Lumber and other construction materials | 97.6 | 99.1 | 103.3 | 102.8 | 102.8 | 102.4 | 102.4 | 100.3 | 98.9 | 98.1 | 96.1 | 96.8 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 94.9 | 98.9 | 100.1 | 104.1 | 102.3 | 106.3 | 106.3 | 101.4 | 101.3 | 99.8 | 93.6 | 91.4 |
| 505 | Metals and minerals, except petroleum | 98.4 | 97.1 | 98.6 | 97.6 | 102.6 | 100.9 | 102.1 | 105.6 | 101.4 | 97.6 | 99.9 | 98.4 |
| 506 | Electrical goods | 96.3 | 95.6 | 98.1 | 99.3 | 101.9 | 102.1 | 102.1 | 102.4 | 101.6 | 101.6 | 100.1 | 99.3 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 97.6 | 100.1 | 102.8 | 105.4 | 103.9 | 103.1 | 101.9 | 99.1 | 97.6 | 98.1 | 95.1 | 95.8 |
| 508 | Machinery, equipment, and supplies | 97.9 | 99.9 | 101.6 | 100.9 | 101.6 | 102.1 | 100.6 | 100.8 | 100.6 | 98.1 | 98.3 | 98.1 |
| 509 | Miscellaneous durable goods | 99.8 | 99.1 | 98.6 | 99.6 | 98.4 | 99.9 | 102.6 | 100.9 | 101.3 | 102.1 | 99.1 | 99.3 |
| 51 | Nondurable goods, total | 104.4 | 102.9 | 105.4 | 101.1 | 97.1 | 95.1 | 94.8 | 94.1 | 96.3 | 102.1 | 104.1 | 103.3 |
| | Total (excluding farm-product raw materials) | 100.4 | 99.8 | 102.6 | 101.6 | 99.9 | 98.4 | 98.8 | 97.8 | 99.3 | 101.4 | 100.9 | 99.6 |
| 511 | Paper and paper products | 97.1 | 98.4 | 99.6 | 100.9 | 100.4 | 102.6 | 100.1 | 98.9 | 101.1 | 100.1 | 100.3 | 100.9 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 96.4 | 95.9 | 100.4 | 101.1 | 99.4 | 100.3 | 100.6 | 99.9 | 102.9 | 105.3 | 100.9 | 97.3 |
| 513 | Apparel, piece goods, and notions | 101.6 | 100.6 | 98.3 | 98.9 | 100.4 | 100.6 | 101.3 | 101.1 | 98.8 | 99.4 | 99.9 | 99.6 |
| 514 | Groceries and related products | 98.6 | 99.9 | 101.6 | 100.6 | 99.3 | 100.1 | 98.1 | 97.1 | 100.3 | 102.9 | 100.8 | 101.4 |
| 515 | Farm-product raw materials[1] | 119.4 | 117.2 | 115.3 | 101.9 | 86.8 | 82.3 | 78.8 | 79.0 | 84.8 | 103.6 | 116.2 | 115.6 |
| 516 | Chemicals and allied products | 98.6 | 100.8 | 100.8 | 100.8 | 104.1 | 101.9 | 102.4 | 100.4 | 100.6 | 96.6 | 96.1 | 97.6 |
| 517 | Petroleum and petroleum products | 102.4 | 99.1 | 100.1 | 95.6 | 98.1 | 94.8 | 98.1 | 99.9 | 102.4 | 103.9 | 104.3 | 101.8 |
| 518 | Beer, wine, and distilled alcoholic beverages | 97.4 | 94.4 | 101.4 | 104.8 | 103.3 | 102.3 | 100.8 | 96.6 | 99.1 | 103.9 | 103.4 | 93.1 |
| 519 | Miscellaneous nondurable goods | 104.3 | 106.4 | 109.4 | 104.1 | 98.9 | 92.8 | 94.8 | 96.1 | 95.3 | 98.8 | 100.1 | 99.4 |

Note: The adjustment factors shown above for sales are a combination of the seasonal and trading-day factors. These are separately available, however, upon request. Adjustment factors are included in this table for some kinds of business for which adjusted data are not published separately.

Adjusted sales and inventory data shown in table 4 are obtained by dividing the unadjusted data shown in tables 1 and 2 by the adjustment factors shown above for the corresponding kinds of business. Adjusted data for the summary trade totals are obtained by summarizing the adjusted data for the individual kinds of business. Seasonal factors shown for the summary trade totals provide an approximation to these totals but may show small differences from the published data.

[1]There are indications that the seasonal adjustment factors for the farm-product raw materials category may not reflect recent trends in this trade. The seasonally adjusted data for this category and also for the merchant wholesale and nondurable goods totals should, therefore, be used with caution.

# Table B-2. Average Month-to-Month Percent Changes and Related Summary Measures for Sales and Inventories of Merchant Wholesalers

| 1972 SIC code | Kind of business | $\bar{O}$ | $\bar{S}$ | $\overline{CI}$ | $\bar{I}$ | $\bar{C}$ | $\bar{I}/\bar{C}$ | MCD | Average duration of run | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | CI | I | C | MCD |
| | | Sales | | | | | | | | | | |
| | Merchant wholesalers, total | 4.89 | 3.09 | 1.47 | .85 | 1.12 | .75 | 1 | 2.98 | 1.49 | 13.92 | 2.98 |
| 50 | Durable goods, total | 5.43 | 4.75 | 1.61 | 1.05 | 1.17 | .90 | 1 | 3.48 | 1.53 | 20.87 | 3.48 |
| 501 | Motor vehicles and automotive parts and supplies | 5.73 | 4.39 | 2.76 | 2.37 | 1.27 | 1.86 | 3 | 2.09 | 1.61 | 23.86 | 4.23 |
| 502 | Furniture and home furnishings | 7.76 | 6.99 | 2.43 | 2.09 | 1.01 | 2.07 | 3 | 2.04 | 1.59 | 13.92 | 4.34 |
| 503 | Lumber and other construction materials | 7.69 | 6.40 | 2.77 | 1.99 | 1.72 | 1.15 | 2 | 3.09 | 1.62 | 18.56 | 4.61 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 9.44 | 8.63 | 4.18 | 3.85 | 1.26 | 3.06 | 4 | 1.69 | 1.50 | 7.59 | 3.73 |
| 505 | Metals and minerals, except petroleum | 7.02 | 4.10 | 3.22 | 2.50 | 1.85 | 1.35 | 2 | 1.88 | 1.43 | 8.35 | 3.07 |
| 506 | Electrical goods | 5.75 | 5.04 | 2.31 | 1.98 | 1.08 | 1.83 | 2 | 1.76 | 1.53 | 16.70 | 3.39 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 5.84 | 4.73 | 1.98 | 1.67 | 1.01 | 1.66 | 2 | 2.23 | 1.48 | 15.18 | 3.77 |
| 508 | Machinery, equipment, and supplies | 6.04 | 5.35 | 2.03 | 1.68 | 1.01 | 1.67 | 2 | 2.04 | 1.62 | 13.92 | 3.32 |
| 509 | Miscellaneous durable goods | 8.01 | 6.42 | 3.79 | 3.09 | 1.88 | 1.65 | 2 | 2.04 | 1.53 | 10.44 | 3.46 |
| 51 | Nondurable goods, total | 5.20 | 2.81 | 1.85 | 1.31 | 1.13 | 1.16 | 2 | 2.49 | 1.33 | 12.85 | 3.86 |
| 511 | Paper and paper products | 5.52 | 3.23 | 2.09 | 1.67 | 1.03 | 1.61 | 2 | 2.09 | 1.50 | 15.18 | 3.19 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 6.03 | 3.89 | 2.06 | 1.76 | .78 | 2.25 | 3 | 2.01 | 1.59 | 8.79 | 3.24 |
| 513 | Apparel, piece goods, and notions | 8.05 | 6.62 | 2.93 | 2.73 | 1.00 | 2.72 | 3 | 1.72 | 1.43 | 11.13 | 3.11 |
| 514 | Groceries and related products | 4.52 | 1.85 | 1.66 | 1.43 | .83 | 1.71 | 2 | 2.06 | 1.43 | 23.86 | 3.19 |
| 515 | Farm-product raw materials | 9.28 | 4.72 | 5.03 | 4.44 | 1.71 | 2.59 | 3 | 1.90 | 1.58 | 6.96 | 3.30 |
| 516 | Chemicals and allied products | 7.37 | 5.04 | 3.52 | 3.13 | 1.41 | 2.22 | 3 | 1.84 | 1.52 | 18.56 | 4.71 |
| 517 | Petroleum and petroleum products | 7.03 | 5.33 | 4.27 | 3.59 | 1.92 | 1.87 | 3 | 1.84 | 1.67 | 12.85 | 3.11 |
| 518 | Beer, wine, and distilled alcoholic beverages | 10.80 | 8.43 | 1.70 | 1.50 | .72 | 2.09 | 3 | 1.84 | 1.49 | 16.70 | 4.58 |
| 519 | Miscellaneous nondurable goods | 6.05 | 4.67 | 2.68 | 2.37 | 1.07 | 2.22 | 3 | 1.76 | 1.53 | 10.44 | 3.30 |
| | | Inventories | | | | | | | | | | |
| | Merchant wholesalers, total | 1.16 | .70 | .98 | .40 | .91 | .44 | 1 | 7.59 | 1.52 | 27.83 | 7.59 |
| 50 | Durable goods, total | 1.13 | .57 | .98 | .41 | .93 | .44 | 1 | 6.96 | 1.45 | 41.75 | 6.96 |
| 501 | Motor vehicles and automotive parts and supplies | 2.30 | 1.25 | 1.75 | 1.23 | 1.19 | 1.03 | 2 | 2.69 | 1.52 | 11.93 | 4.15 |
| 502 | Furniture and home furnishings | 2.22 | 1.32 | 1.64 | 1.26 | 1.01 | 1.25 | 2 | 2.14 | 1.49 | 13.92 | 4.26 |
| 503 | Lumber and other construction materials | 2.52 | 1.54 | 1.81 | 1.24 | 1.15 | 1.08 | 2 | 2.65 | 1.72 | 16.70 | 4.15 |
| 504 | Sporting, recreational, photographic, and hobby goods, toys and supplies | 3.49 | 2.79 | 2.21 | 1.94 | 1.07 | 1.80 | 2 | 2.01 | 1.62 | 27.83 | 3.39 |
| 505 | Metals and minerals, except petroleum | 3.31 | 2.43 | 2.09 | 1.36 | 1.37 | 1.00 | 2 | 3.04 | 1.72 | 8.79 | 4.05 |
| 506 | Electrical goods | 1.78 | 1.15 | 1.44 | 1.08 | .94 | 1.15 | 2 | 2.49 | 1.40 | 33.40 | 4.37 |
| 507 | Hardware, plumbing, heating equipment, and supplies | 1.74 | 1.28 | 1.22 | .86 | .88 | .97 | 1 | 2.53 | 1.55 | 18.56 | 2.53 |
| 508 | Machinery, equipment, and supplies | 1.43 | .85 | 1.14 | .71 | .92 | .77 | 1 | 2.78 | 1.64 | 41.75 | 2.78 |
| 509 | Miscellaneous durable goods | 2.32 | 1.31 | 1.94 | 1.35 | 1.27 | 1.06 | 2 | 2.09 | 1.58 | 18.56 | 4.49 |
| 51 | Nondurable goods, total | 2.58 | 2.11 | 1.48 | .92 | 1.05 | .88 | 1 | 3.48 | 1.86 | 9.28 | 3.48 |
| 511 | Paper and paper products | 1.90 | 1.02 | 1.41 | 1.05 | .79 | 1.32 | 2 | 1.96 | 1.37 | 8.35 | 4.05 |
| 512 | Drugs, drug proprietaries, and druggists' sundries | 2.55 | 1.60 | 1.72 | 1.49 | .74 | 2.01 | 3 | 1.69 | 1.55 | 20.87 | 3.24 |
| 513 | Apparel, piece goods, and notions | 2.22 | 1.30 | 1.84 | 1.48 | .97 | 1.53 | 2 | 2.06 | 1.55 | 8.35 | 2.96 |
| 514 | Groceries and related products | 1.94 | 1.37 | 1.40 | .97 | .97 | 1.01 | 2 | 2.42 | 1.45 | 16.70 | 4.37 |
| 515 | Farm-product raw materials | 8.85 | 7.57 | 4.51 | 3.64 | 2.15 | 1.69 | 3 | 2.42 | 2.04 | 7.59 | 4.12 |
| 516 | Chemicals and allied products | 3.17 | 1.64 | 2.45 | 1.87 | 1.43 | 1.30 | 2 | 2.26 | 1.52 | 16.70 | 3.95 |
| 517 | Petroleum and petroleum products | 5.01 | 2.95 | 3.67 | 2.65 | 2.06 | 1.29 | 2 | 2.29 | 1.65 | 10.44 | 3.95 |
| 518 | Beer, wine, and distilled alcoholic beverages | 4.28 | 3.68 | 1.83 | 1.46 | .86 | 1.70 | 2 | 2.14 | 1.49 | 8.79 | 3.46 |
| 519 | Miscellaneous nondurable goods | 2.85 | 1.88 | 1.96 | 1.55 | .91 | 1.71 | 2 | 1.92 | 1.50 | 8.35 | 3.07 |

## Description of Measures Shown Above

The following are brief descriptions of the measures shown in this table. More complete explanations appear in "Electronic Computers and Business Indicators," Occasional Paper 57, National Bureau of Economic Research, Inc., New York, 1957.

$\bar{O}$ is the average month-to-month percentage change, without regard to sign, in the original series before seasonal or trading-day adjustment.

$\bar{S}$ is the average month-to-month percentage change, without regard to sign, in the seasonal component. It is a measure of the average monthly seasonal change in the unadjusted series.

$\overline{CI}$ is the average month-to-month percentage change, without regard to sign, in the seasonally adjusted series.

$\bar{I}$ is the average month-to-month percentage change without regard to sign, for the irregular component. The irregular component is obtained by dividing the seasonally adjusted series by the cyclical component.

$\bar{C}$ is the average month-to-month percentage change, without regard to sign, for the cyclical component, which is a smooth, flexible moving average.

$\overline{I/C}$ is a measure of the relative smoothness (small values) or irregularity (large values) of the seasonally adjusted series.

MCD (months for cyclical dominance) gives an estimate of the appropriate time span over which to observe cyclical movements in a monthly series. In deriving MCD, the average (without regard to sign) percentage changes in the irregular and cyclical components are computed for 1-month spans (Jan.-Feb., Feb.-Mar., etc.) 2-months spans (Jan.-Mar., Feb.-Apr., etc.), and so on. MCD is the shortest span for which the average change (without regard to sign) in the cyclical component is larger than the average change (without regard to sign) in the irregular component; that is, it indicates the point at which fluctuations begin to be more attributable to cyclical than to irregular movements. MCD is small for smooth series and large for erratic series.

Average duration of run (ADR) is a measure of smoothness, and is equal to the average number of consecutive monthly changes in the same direction in any series of observations. When there is no change between 2 months, a change in the same direction as the preceding change is assumed. The ADR is shown for the seasonally adjusted series CI, irregular component I, cyclical component C, and the MCD moving average. The MCD moving average is an unweighted moving average (with the number of terms equal to MCD) of the seasonally adjusted series.

A comparison of these measures with the expected ADR of a random series gives an indication of whether the changes approximate those of a random series. (The expected value of ADR for a random series is 1.5 and it falls between 1.36 and 1.75 about 95 percent of the time. For a moving average of a random series the expected value is 2.0). For example, the ADR of CI is 2.08 for electrical goods sales. This indicates that 1-month changes in the seasonally adjusted series, on the average, reverse sign slightly less often than a random series. In the next two columns, 1.46 for I and 10.58 for C indicate the separation of the seasonally adjusted series into an essentially random component and the cyclical (nonrandom) component. Finally, 3.32 for MCD indicates that a 2-month moving average of the seasonally adjusted series (2 months being the MCD span) reverses direction on the average about every 3 months. The increase in the average duration of run from 2.08 for CI to 3.32 for the MCD moving average indicates that for this series the use of MCD spans reduces the effect of the irregular component upon the seasonally adjusted series.

These averages are based on a seasonally adjusted series which is adjusted historically; that is, the months used to compute the measures were the same months used to estimate the seasonal factors. Current data, however, are adjusted by use of factors projected 1 year ahead, and are thus subject to additional error. Therefore, current data are probably somewhat more irregular and subject to larger MCD than shown above.

# Appendix C. Explanatory Material

## SCOPE OF THE SURVEY

Wholesale trade, as defined in Major Groups 50 and 51 of the 1972 edition of the Standard Industrial Classification (SIC) Manual[1] and as covered in the 1972 and 1977 censuses, includes establishments or places of business primarily engaged in selling merchandise to retailers; to industrial, commercial, institutional, farm or professional business users; or to other wholesalers; or acting as agents or brokers in buying merchandise for or selling merchandise to such persons or companies.

The principal types of establishments included are: (1) merchant wholesalers who take title to the goods they sell, such as wholesale merchants or jobbers, industrial distributors, voluntary group wholesalers, exporters, importers, cash-and-carry wholesalers, drop shippers, major distributors, retailer cooperative warehouses, terminal elevators, and cooperative buying associations; (2) sales branches and sales offices (but not retail stores) maintained by domestic manufacturing or mining enterprises apart from their plants or mines for the purpose of marketing their products; (3) agents, merchandise or commodity brokers, and commission merchants.

This survey is limited to merchant wholesalers (described under category 1 above), which constitute the major portion of the broad field of wholesale trade, and excludes the other types of wholesale trade. All kinds of business in which merchant wholesalers operate are represented in this survey.

Kind-of-business classifications are not interchangeable with commodity classifications. Most businesses sell several kinds of commodities. The kind-of-business code assigned generally reflects either the individual commodity or the commodity group which is the primary source of the establishment's receipts, or some mixture of commodities which characterizes the establishment's business. Thus, the classification of establishments by kind of business generally does not make it possible to determine either the number of establishments handling a particular commodity or the sales of that commodity. For example, the "grocery" classification excludes establishments selling groceries if the sale of groceries is not the primary source of receipts; moreover, even though establishments are classified as "grocery wholesalers" some of their sales may be derived from the sale of nonfood products.

A description of each kind of business included in the accompanying statistical data is shown in appendix D.

## SAMPLE DESIGN AND ESTIMATION PROCEDURES

**Framework of Old Series.** The first publication in this series based on probability sampling, was the January 1954 report. Effective with the July 1956 publication an entirely new sample was selected from the 1954 Census of Business. Other changes in the sample have been made since 1956, representing, for the most part, revisions to reflect the findings of successive censuses of wholesale trade and the benchmarking operation described in the benchmarking section.

**Selection of Sample for New Series.** The new sample[2] like the old is a probability sample, and the estimating procedures used are similar in many respects to the old sample.

The new sample originally was drawn from the Standard Statistical Establishment List (SSEL) as updated to December 31, 1974. The initial SSEL consisted of two lists. One list was composed of all Employer Identification (EI) numbers issued by the Internal Revenue Service (IRS) with reported payroll in at least one quarter of 1973 or 1974, with payroll in the 1972 census, or with sales/receipts greater than $100,000 in the 1972 census. The second list consisted of all establishments of known multiestablishment companies as of December 31, 1974. These lists contained information on sales/receipts, payroll, employment, name and address, kind-of-business classification, etc.

Before the 1974 SSEL was available a study was made using files from the 1972 Census of Wholesale Trade. This study determined the stratification of the sampling units based on 1972 sales, inventories, and kind of business, and also determined the optimal allocation of the sample necessary to meet specified variance objectives for sales and inventory estimates for different kind-of-business groups. The primary stratum boundary determined in the study was the certainty cutoff to be used for each kind of business. The cutoff was particularly important since it also determined the type of sampling unit.

The sampling units for the new sample consisted of both companies and EI's. To be eligible for the initial sampling, an EI had to be active, i.e., had payroll in 1974 and was on the Internal Revenue Service mailing list for Federal Insurance Contribution Act (FICA) taxpayers. If a known multiestablishment company had total merchant wholesale sales (on a 1972 basis) above the cutoff for its major kind of business, the company was selected for the sample with certainty. Single establishment companies, whether or not selected with certainty, were considered as EI sampling units.

All merchant wholesale companies below the certainty cutoff were treated on an EI basis; that is, the EI was the sampling unit. The EI's were then stratified according to their major kind of business and their estimated sales (on a 1972 basis). Within each stratum, a simple random sample of EI's

[1] Executive Office of the President, Office of Management and Budget, *Standard Industrial Classification Manual, 1972.*

[2] For a complete explosition of the new sample, see C. T. Isaki et al., "Sample Redesign Aspects of the Census Bureau's Monthly Business Surveys" and K. M. Wolter et al., "Sample Selection and Estimation Aspects of the Census Bureau's Monthly Business Surveys," *Proceedings of the Business and Economic Statistics Section: American Statistical Association, 1976.*

was selected. The sampling rates for these EI's varied between 1 in 3 and 1 in 600.

For those EI's in the initial sample that did not have kind-of-business classifications and for all EI "births" after the initial selection, a two-phase selection procedure was used. EI "births," as used here, are new EI's recently assigned by Social Security Administration (SSA) and currently on the IRS mailing list for FICA taxpaxers. In the first phase, "births" were stratified by kind of business and size (expected employment or quarterly payroll). A relatively large sample was drawn and canvassed in order to obtain a more reliable measure of size (sales in 2 recent months) and a more detailed kind-of-business code, if needed.

Using this more reliable information, the cases were re-stratified and the final sample drawn with overall probabilities equivalent to those used in drawing the initial sample from the 1974 SSEL. Because of the lag in reporting "births" to the IRS and SSA and the time needed to accomplish the two-phase birth-selection procedure, "births" are actually added to the sample approximately 1 year after they begin operation. The ongoing birth-selection procedure is carried out quarterly.

Since "births" are not represented in the sample, until they go through the selection procedure described above, an interium procedure is required to account for "births" during the period between the onset of activity and the time of birth selection. This consists of imputing for all cases which go out of business, but which are still on the IRS mailing list. This imputation procedure was also used in the old series. However, because of recent delays in obtaining "births," this procedure now accounts for a larger percentage of the estimates.

To be eligible for the sample canvass and tabulation in a given month, a merchant wholesale business must meet both of the following requirements:

1. It must be on the IRS mailing list for FICA taxpayers from the previous quarter.

2. It must have been selected from either the SSEL or the file of employer "births." For this purpose, a universe file of all businesses ever given a chance of selection is maintained. This file shows, among other things, which EI numbers actually have been selected.

In the case of businesses that were selected into the sample with certainty, the first requirement is changed. These certainty sampling units are not dropped from canvass and tabulation if they are no longer on the IRS mailing list. If there are successor businesses, they are added to the survey. This is a tighter form of control used for these larger businesses.

**Use of the Rotating Sample and Composite Estimating Procedures.** Rotating samples or panels are used except for very large businesses which are selected with certainty. For sampling units in the rotating panels, 2 months of data are obtained at each enumeration. For example, February rotating panel cases report data for February (the current month) and January (the previous month). In the following month, a different rotating panel (the March panel) reports figures for March and February. Three sample panels are used. This permits the use of a composite estimating procedure which provides estimates more reliable than those which would be obtained from a completely fixed sample of about twice the size. In addition, this procedure reduces the reporting burden of selected businesses.

The first estimate issued each month is called the preliminary estimate. The preliminary composite estimate at the detail level for the current month is a weighted average of two estimates: (1) the current month unbiased estimate (weight 0.35), and (2) an estimate (weight 0.65) obtained by multiplying the difference between the preliminary composite for the previous month and the unbiased estimate for the previous month from the current month panel by the current-to-previous-month ratio obtained from the current month reports. Preliminary inventory estimates have been modified, prior to publication, based on past relationships between preliminary and final estimates.

A final estimate is developed 1 month later using information available from the following month's enumeration. The final composite estimate is also a weighted average of two estimates: (1) the preliminary composite estimate for a given month (weight 0.7), and (2) the unbiased estimate (weight 0.3) for the same month as obtained from the next month's reporting panel.

The preliminary composite estimates provide a measure of the dollar volume level that is considerably more reliable than the unbiased estimates, and the final composite estimates are generally more reliable than the preliminary composite estimates. The indication of the month-to-month trend considered to be most reliable is the ratio of the current month's preliminary composite estimate divided by the previous month's final complete estimate. This is true because the numerator and denominator of this ratio are more highly correlated than would be the case if the numerator and denominator were two preliminary estimates or two final estimates. The trend of the preliminary/final ratio, therefore, has less variability than one based on two preliminary figures or two final figures.

Another advantage of the use of the rotating panel system is that the frequency of canvass of very large noncertainty cases can be increased with a consequent reduction in an unbiased manner, of their statistical weight. This increases the reliability of the estimates, particularly the measure of month-to-month change.

The differences between preliminary and final estimates of seasonally adjusted sales have ranged from approximately +0.8 percent to -0.9 percent for the past 12 months. During the same period, the average of the absolute differences was 0.5 percent. The corresponding range for inventories was approximately +1.0 percent to -1.0 percent for the past 12 months. The average of the absolute differences was 0.5 percent.

## BENCHMARKING

Wholesale sales estimates in this report reflect the results of a benchmaking operation which made use of data tabulated from the 1977 Census of Wholesale Trade and the 1978 and 1979 Annual Wholesale Trade Surveys (ATS). Monthly wholesale sales by kind of business for the United States were revised for the period January 1973 through January 1981 in a manner designed to minimize the changes to the month-to-month trends in the original series. As part of the revision process,

revised monthly data for 1977, 1978, and 1979 were constrained to sum to 1977 census levels and 1978 and 1979 estimates, respectively.

End-of-month inventories were revised in a similar manner as sales. The constraints for the inventory estimates were the December 1972 estimates and the December ending inventories from 1976 through 1979 estimates from the ATS (the 1976 estimates were available from the 1977 ATS).

Through use of so-called "carry forward factors," the effect of the revision process at the U.S. level is applied to all estimates subsequent to December 1979. These factors were derived at the most detailed kind-of-business level and will be held constant until the next revision and benchmarking process. Aggregate level estimates are derived by summing appropriate detail level estimates, thereby assuring additivity.

## CLASSIFICATION DIFFERENCES BETWEEN THE MONTHLY ESTIMATES AND THE 1977 CENSUS OF WHOLESALE TRADE

Ferrous Metals Service Centers (SIC 5051 part) with warehouse space greater than 5000 square feet are included in the monthly survey, regardless of the ownership of the products sold. However, if the establishments primarily sell the products manufactured by their own company, they are considered sales branches in the 1977 Census of Wholesale Trade.

In the 1977 Census of Wholesale Trade, establishments classified in the Farm-Product Raw Materials Group (SIC 515X) included as sales, products purchased and transferred to other company establishments. In the monthly survey inter-company transfers are not included in sales. Because of the differences shown above, the sales presented in this report for these kinds of business were obtained from the annual trade survey for 1977.

## REVISION TO PREVIOUSLY PUBLISHED DATA

The basic input inventory series for all the components of the Farm-Product Raw Materials Group[3] (SIC 515) and for Petroleum-Bulk Stations and Terminals (SIC 5171) have been revised. These data were revised to reflect improved methodology. SIC 5171 was revised from January 1967 through November 1972, while the SIC's in the 515 group were revised from January 1967 through July 1977. All summary groups which included inventories in these SIC's were also revised.

[3] See appendix D, Kind-of-Business Classification for the SIC's included in this group.

## UNPUBLISHED DATA

Additional data, such as dollar volume estimates for some kinds of business not separately shown in this report, are produced as a byproduct of the regularly published statistics. These additional data have not been included in this publication because the sampling variability associated with these data does not meet the Census Bureau's publication criteria. The Census Bureau, on written request will release these data for individual use, though not for publication.

## DEFINITION OF TERMS

**Sales.** Sales include the following: merchandise sold for cash or credit at wholesale and retail by establishments primarily engaged in merchant wholesale trade; receipts from customers for rental or leasing of equipment, instruments, tools, etc.; receipts for delivery, installation, alteration, maintenance, repair, storage, and other services; and gasoline, liquor, tobacco, and other excise taxes which are paid by the manufacturer and passed along to the wholesaler. Sales are net after deductions for refunds and allowances for merchandise returned by customers. Sales which are made on an agency basis for others are included as gross sales. Direct shipments on orders from wholesalers are also included in sales. Total sales do not include nonoperating income from sources as investments, rental or sale of real estate, etc.

In this series, sales exclude sales and excise taxes collected directly from customers and paid directly to a local, State, or Federal tax agency. Also excluded are receipts from customers for carrying or other credit charges. In the old series respondents were requested to include these taxes and credit charges in the reported sales. The impact of this change is considered minimal.

**Inventories.** Inventories represent stocks, at cost, of merchandise on hand for sale at the end of the month regardless of location, except for goods outside the United States. Goods held on consignment and items not held for sale such as fixtures, equipment, and supplies are not included.

**Stock-Sales Ratios.** The stock-sales ratios are percentages derived by dividing the dollar value of inventories, at cost, by the dollar value of sales. No adjustment is made in these ratios for the markup in sales which may vary from trade to trade.

The sales and inventory figures represent total sales and inventories of all establishments primarily engaged in merchant wholesale trade. Also included are the sales and inventories of central administrative offices and auxiliaries of merchant wholesale establishments.

# Appendix D. Kind-of-Business Classifications

## DURABLE GOODS (SIC Major Group 50)

This major group includes establishments primarily engaged in the wholesale distribution of durable goods.

### Motor Vehicles and Automotive Parts and Supplies (SIC 501)

**Automobiles and Other Motor Vehicles (SIC 5012)**[1]. Establishments primarily engaged in the wholesale distribution of new and used passenger automobiles, trucks, and other motor vehicles. Automotive distributors primarily engaged in selling at retail to individual consumers for personal use, and also selling a limited amount of new and used passenger automobiles and trucks at wholesale to dealers, are classified in retail trade, industry 5511.

**Automotive Parts and Supplies (SIC 5013).** Establishments primarily engaged in the wholesale distribution of automotive parts, supplies, accessories, tools and equipment.

**Tires and Tubes (SIC 5014)**[1]. Establishments primarily engaged in the wholesale distribution of rubber tires and tubes for passenger and commercial vehicles

### Furniture and Home Furnishings (SIC 502)

**Furniture (SIC 5021).** Establishments primarily engaged in the wholesale distribution of furniture, including bedsprings, mattresses, and other household furniture; office furniture; and furniture for public parks, buildings, etc.

SIC 5021 is subdivided into:

1. *Household and lawn furniture.*
2. *Office and business furniture.*

**Home Furnishings (SIC 5023).** Establishments primarily engaged in the wholesale distribution of home furnishings and homewares, including antiques; china; glassware and earthenware; lamps; curtains and draperies; linens and towels; carpets, linoleum, and all other types of hard and soft surface floor coverings. Establishments primarily engaged in the wholesale distribution of electrical household goods are classified in industry 5064.

[1] Data for this kind of business are not shown separately but are included in the group total.

### Lumber and Other Construction Materials (SIC 503)

**Lumber, Plywood, and Millwork (SIC 5031).** Establishments, with or without yards, primarily engaged in the wholesale distribution of rough, dressed, and finished lumber (but not timber); plywood; door and window frames (wood or metal); and other wood and metal millwork. Establishments selling lumber, plywood and millwork to the general public and known as "retail" in the trade are classified in industry 521.

**Construction Materials, Not Elsewhere Classified (SIC 5039).** Establishments primarily engaged in the wholesale distribution of such building materials as brick, building stone, cement, granite, gravel, lime, marble, plaster, building glass, roofing materials, sand, and tile. Establishments selling construction materials to the general public and known as "retail" in the trade are classified in industry 521. Establishments primarily engaged in marketing heavy structural metal products are classified in industry 5051. Establishments primarily selling readymade concrete are classified in manufacturing.

### Sporting, Recreational, Photographic, and Hobby Goods, Toys, and Supplies (SIC 504)[1]

Establishments primarily engaged in the wholesale distribution of all types of amusement and sporting goods and accessories—billiard and pool supplies; cameras and photographic equipment; coin-operated game machines; games, toys; ammunition and fireworks; etc.

### Metals and Minerals, Except Petroleum (SIC 505)[1]

**Ferrous Metals Service Centers and Offices (SIC 5051 part).** Establishments primarily engaged in marketing ferrous metal semifinished products such as nails, pig iron, steel and tin bars. Establishments in this industry which have warehouse space greater than 5,000 square feet are considered ferrous metals service centers. Establishments with warehouse space less than 5,000 square feet are considered ferrous metals sales offices.

Sales branches of domestic manufacturers are included in this category if the establishment is separate from the manufacturing plant and has warehouse space greater than 5,000 square feet.

**Nonferrous Metals Service Centers and Offices and Other Minerals and Ores (SIC 5051 part and SIC 5052 part)**[1]. Establishments primarily engaged in marketing nonferrous metal semifinished products such as aluminum bars and copper rods. Also included are establishments primarily engaged in the wholesale distribution of copper, iron, lead, and other metallic ores except precious; and crude nonmetallic minerals (including concentrates) except crude petroleum. Establishments primarily

engaged in the wholesale distribution of nonmetallic minerals used in construction, such as sand and gravel, are included in industry 5039.

**Coal (SIC 5052 part)**[1]. Establishments primarily engaged in the wholesale distribution of coal and coke. Included are establishments which have products shipped direct from mine to customer, and establishments operating yards and dock space and making deliveries therefrom at wholesale as well as other coal merchants.

## Electrical Goods (SIC 506)

**Electrical Apparatus and Equipment, Wiring Supplies, and Construction Materials (SIC 5063).** Establishments primarily engaged in the wholesale distribution of electrical power equipment for the generation, transmission, or utilization of electric energy; and electrical construction materials for outside power transmission lines and for electrical systems. Construction contractors primarily engaged in installing electrical systems and equipment from their own stock are classified in industry 1731.

**Electrical Appliances, TV and Radio Sets (SIC 5064).** Establishments primarily engaged in the wholesale distribution of radio and television sets and household electrical appliances.

**Electronic Parts and Equipment (SIC 5065)**[1]. Establishments primarily engaged in the wholesale distribution of electronic parts and equipment, such as industrial and radio and television receiving and transmitting electronic tubes; electronic intercommunication equipment; radio parts and accessories; and electronic sound equipment. Establishments primarily engaged in the wholesale distribution of radio and television receiving sets and phonographs are classified in industry 5064.

## Hardware, Plumbing, Heating Equipment, and Supplies (SIC 507)

**Hardware (SIC 5072).** Establishments primarily engaged in the wholesale distribution of hardware, such as builders; shelf or light hardware; handtools (except automotive and machinists' precision); handsaws and cutlery; brads, staples, and tacks; and bolts, nuts, rivets, and screws. Establishments primarily engaged in the wholesale distribution of nails, noninsulated wire, and screening are classified in industry 5051.

**Plumbing and Heating Equipment and Supplies (Hydronics) (SIC 5074).** Establishments primarily engaged in the wholesale distribution of hydronic plumbing and heating equipment and supplies. Construction contractors primarily engaged in installing plumbing and heating equipment from their own stock are classified in industry 1711.

**Warm Air Heating and Air-Conditioning Equipment and Supplies (SIC 5075)**[1]. Establishments primarily engaged in the distribution of warm air heating and air-conditioning equipment and supplies. Construction contractors primarily engaged in installing warm air heating and air-conditioning equipment are classified in industry 1711.

**Refrigeration Equipment and Supplies (SIC 5078)**[1]. Establishments primarily engaged in the distribution of refrigeration equipment and supplies. Construction contractors primarily engaged in installing refrigeration equipment from their own stock are classified in industry 1711.

## Machinery, Equipment, and Supplies (SIC 508)

**Commercial Machines and Equipment (SIC 5081)**[1]. Establishments primarily engaged in wholesaling commercial machines and equipment, such as office, store, and business machines and equipment; commercial food service equipment; and fountain and store fixtures.

**Construction and Mining Machinery and Equipment (SIC 5082).** Establishments primarily engaged in marketing cranes, excavating machinery and equipment, power shovels, road construction and maintenance machinery, tractor-mounting equipment and other specialized machinery and equipment used in the construction, mining, and logging industries. Establishments engaged in marketing oil well machinery and equipment are classified in industry 5084.

**Farm and Garden Machinery and Equipment (SIC 5083)**[1]. Establishments primarily engaged in marketing agricultural machinery and equipment for use in the preparation and maintenance of the soil, the planting and harvesting of crops, and other operations and processes pertaining to work on the farm or the lawn or garden; and dairy and other livestock equipment.

**Industrial Machinery and Equipment (SIC 5084)**[1]. Establishments primarily engaged in marketing industrial machinery and equipment, such as metal working tools, food industries machinery, oil well and oil refining machinery, industrial trucks and tractors (except over-the-road types), printing machinery, and machinery and equipment for other manufacturing industries.

**Industrial Supplies (SIC 5085)**[1]. Establishments primarily engaged in marketing industrial supplies, such as abrasives and materials, rope and cordage, and mechanical rubber goods; welding supplies; mechanical power transmission supplies, including bearings; industrial valves and fittings; metal containers; industrial leather; and reconditioned barrels and drums.

**Professional Equipment and Supplies (SIC 5086).** Establishments primarily engaged in the wholesale distribution of mechanical devices and other equipment used by architects, dentists, engineers, physicians, surgeons, veterinarians, optometrists, osteopaths, and other professional groups.

**Surgical, Medical, Hospital Supplies (SIC 5086 part)**[1]. Establishments primarily engaged in selling surgical and medical instruments; doctors' apparatus and equipment; orthopedic appliances; artificial limbs; operating room and other hospital

[1] Data for this kind of business are not shown separately but are included in the group total.

equipment, X-ray machines and accessories and other scientific instruments used by physicians and in hospitals.

**Service Establishment Equipment and Supplies (SIC 5087)[1].** Establishments primarily engaged in the wholesale distribution of equipment and supplies for barber shops, beauty parlors, power laundries, dry-cleaning plants, upholsterers, undertakers, and related personal service establishments.

**Transportation Equipment and Supplies, Except Motor Vehicles (SIC 5088)[1].** Establishments primarily engaged in the wholesale distribution of transportation equipment and supplies. Establishments primarily engaged in the wholesale distribution of motor vehicles and motor vehicle parts are classified in group 501.

## Miscellaneous Durable Goods (SIC 509)[1]

**Scrap and Waste Materials (SIC 5093).** Establishments primarily engaged in assembling, breaking up, sorting and wholesale distribution of scrap and waste materials. This industry includes auto wreckers engaged in dismantling automobiles for scrap. However, those engaged in dismantling cars for the purpose of selling secondhand parts at retail are classified in industry 5931.

SIC 5093 is subdivided into:

1. *Iron and Steel scrap.*
2. *Waste and secondary materials dealers.*

**Jewelry, Watches, Diamonds, and Other Precious Stones (SIC 5094)[1].** Establishments primarily engaged in the wholesale distribution of jewelry, precious stones and metals, costume jewelry, watches, clocks, silverware, and jewelers' findings.

**Durable Goods, Not Elsewhere Classified (SIC 5099)[1].** Establishments primarily engaged in the wholesale distribution of durable goods, not elsewhere classified, such as musical instruments and forest products, except lumber.

# NONDURABLE GOODS (SIC Major Group 51)

This major group includes establishments primarily engaged in the wholesale distribution of nondurable goods.

## Paper and Paper Products (SIC 511)

**Printing and Writing Paper (SIC 5111).** Establishments primarily engaged in the wholesale distribution of writing paper, including envelope paper, fine paper, and ground wood, printing, and rotogravure paper.

**Stationery Supplies (SIC 5112)[1].** Establishments primarily engaged in the wholesale distribution of stationery and office supplies, including envelopes, typewriter and mimeograph paper, file cards and folders, pens, social stationery, and greeting cards.

**Industrial and Personal Service Paper (SIC 5113).** Establishments primarily engaged in the wholesale distribution of wrapping and other coarse paper, paperboard, cellophane, and converted paper products, such as bags, boxes, dishes, napkins, and shipping supplies.

## Drugs, Drug Proprietaries, and Druggists' Sundries (SIC 512)

**Drugs, Drug Proprietaries, and Druggists' Sundries (SIC 5122).** Establishments primarily engaged in the wholesale distribution of drugs, drug proprietaries, druggists' sundries, and toiletries. Establishments primarily engaged in the wholesale distribution of surgical, dental, and hospital equipment are classified in industry 5086.

SIC 5122 is subdivided into:

1. *General-line drugs.* These are distinguished from specialty-line drug and toiletries wholesalers on the basis of their commodity-line mix. Drug wholesalers were classified as general line if they reported a substantial portion of their sales in "pharmaceuticals, antibiotics, druggists' chemicals, biologicals, botanicals" and "proprietary products, toiletries, druggists' sundries," and if annual sales volume was $1 million or more.
2. *Specialty-line pharmaceuticals, cosmetics, and toiletries.*

## Apparel, Piece Goods, and Notions (SIC 513)

**Piece Goods (SIC 5133)[1].** Establishments primarily engaged in the wholesale distribution of woven piece goods or yard goods of natural or manmade fibers. "Converters" who buy goods in the grey, have them finished on contract, and sell at wholesale are included here. This industry does not include establishments primarily engaged in the wholesale distribution of home furnishings, which are classified in industry 5023.

**Notions and Other Dry Goods (SIC 5134)[1].** Establishments primarily engaged in the wholesale distribution of notions (sewing and hair accessories, etc.), knit goods, and other dry goods, except piece goods.

**Men's and Boys' Clothing and Furnishings (SIC 5136)[1].** Establishments primarily engaged in the wholesale distribution of men's and boys' apparel and furnishings, sportswear, hosiery, underwear, nightwear, and work clothing.

**Women's Children's, and Infants' Clothing and Accessories (SIC 5137)[1].** Establishments primarily engaged in the wholesale distribution of women's, children's, and infants' clothing and accessories, including hosiery, lingerie, millinery and millinery supplies, and furs.

**Footwear (SIC 5139)[1].** Establishments primarily engaged in the wholesale distribution of footwear of leather, rubber, and other materials.

[1] Data for this kind of business are not shown separately but are included in the group total.

## Groceries and Related Products (SIC 514)

**Groceries, General-Line (SIC 5141).** Establishments primarily engaged in the wholesale distribution of a general line of groceries. Establishments primarily engaged in roasting coffee, and establishments primarily engaged in blending tea or grinding and packaging spices are classified in major group 20.

SIC 5141 is subdivided into:

1. *Voluntary group wholesalers.*
2. *Retailer cooperative wholesalers.*
3. *Other general-line wholesalers.*

**Frozen Foods (SIC 5142)**[1]. Establishments primarily engaged in the wholesale distribution of packaged quick-frozen vegetables, juices, meats, fish, poultry, pastries, and other "deep freeze" products. Establishments primarily engaged in the wholesale distribution of frozen dairy products are classified in industry 5143. Frozen poultry, fish, and meat which are not packaged are classified in industries 5144, 5146, and 5147, respectively.

**Dairy Products (SIC 5143)**[1]. Establishments primarily engaged in the wholesale distribution of dairy products, such as butter, cheese, ice cream and ices, and fluid milk and cream. This industry does not include establishments primarily engaged in pasteurizing and bottling milk, which are classified in group 202.

**Poultry and Poultry Products (SIC 5144).** Establishments primarily engaged in the wholesale distribution of poultry and poultry products, except canned and packaged frozen products. This industry does not include establishments primarily engaged in the killing and dressing of poultry, which are classified in industry 2016. Establishments primarily engaged in the wholesale distribution of packaged frozen poultry are classified in industry 5142, and of canned poultry in industry 5149.

**Confectionery (SIC 5145).** Establishments primarily engaged in the wholesale distribution of confectionery, such as candy, chewing gum, fountain fruits, salted or roasted nuts, popcorn, and fountain syrups; and potato, corn, and similar chips.

**Fish and Seafoods (SIC 5146)**[1]. Establishments primarily engaged in the wholesale distribution (not packaging) of fresh, cured, and frozen fish and seafoods, except canned (industry 5149) or packaged frozen (industry 5142). The preparing, packaging, and freezing of fresh fish and other seafood, and the shucking and packing of fresh oysters in nonsealed containers are classified in industry 2092.

**Meats and Meat Products (SIC 5147).** Establishments primarily engaged in the wholesale distribution of fresh, cured, and processed (but not canned) meats and lard. The wholesale distribution of frozen packaged meats is classified in industry 5142 and canned meats in industry 5149.

[1] Data for this kind of business are not shown separately but are included in the group total.

**Fresh Fruits and Vegetables (SIC 5148).** Establishments primarily engaged in the wholesale distribution of fresh fruits and vegetables.

**Groceries and Related Products, Not Elsewhere Classified (SIC 5149)**[1]. Establishments primarily engaged in the wholesale distribution of groceries and related products, not elsewhere classified. Establishments primarily engaged in the wholesale distribution of soft drinks, and in bottling and distributing natural spring and mineral waters, are classified in this industry, but establishments primarily engaged in bottling soft drinks are classified in major group 20. This industry does not include farm-product raw materials (group 515), or beer, wine, and distilled alcoholic beverages (group 518).

## Farm-Product Raw Materials (SIC 515)

**Cotton (SIC 5152)**[1]. Establishments primarily engaged in buying and/or marketing cotton and cotton linters.

**Grain (SIC 5153).** Establishments primarily engaged in buying and/or marketing grain (such as corn, wheat, oats, barley, and unpolished rice); dry beans; soybeans, and other inedible beans. Country grain elevators primarily engaged in buying or receiving grain from farmers are included as are terminal elevators and other merchants marketing grain.

**Livestock (SIC 5154)**[1]. Establishments primarily engaged in buying and/or marketing cattle, hogs, sheep, and goats.

**Farm-Product Raw Materials, Not Elsewhere Classified (SIC 5159)**[1]. Establishments primarily engaged in buying and/or marketing farm products not elsewhere classified, such as horses and mules, leaf tobacco, hides, skins, furs, wool, mohair, raw silk, hops, and nuts, except roasted or salted (industry 5145). Establishments primarily engaged in the wholesale distribution of milk are classified in industry 5143 and live poultry in industry 5144.

## Chemicals and Allied Products (SIC 516)[1]

**Chemicals and Allied Products (SIC 5161)**[1]. Establishments primarily engaged in the wholesale distribution of chemicals and allied products, not elsewhere classified, such as acids, industrial and heavy chemicals, dyestuffs, industrial salts, naval stores, plastics materials, rosin, and turpentine. Establishments primarily engaged in the wholesale distribution of ammunition are classified in industry 5041; agricultural chemicals and pesticides in industry 5191; drugs in industry 5122; and paints and varnishes in industry 5198.

## Petroleum and Petroleum Products (SIC 517)

**Petroleum Bulk Stations and Terminals (SIC 5171).** Establishments primarily engaged in wholesaling petroleum products, including liquefied petroleum gas, from bulk liquid storage facilities.

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**Petroleum and Petroleum Products Wholesalers, Except Bulk Stations and Terminals (SIC 5172)**[1]. Establishments primarily engaged in wholesaling petroleum and petroleum products, except those with bulk liquid storage facilities. Included are packaged and bottled petroleum products distributors, truck jobbers, and others marketing petroleum and products at wholesale but without bulk liquid storage facilities.

## Beer, Wine, and Distilled Alcoholic Beverages (SIC 518)

**Beer and Ale (SIC 5181).** Establishments primarily engaged in the wholesale distribution of beer, ale, porter, and other fermented malt beverages.

**Wines and Distilled Alcoholic Beverages (SIC 5182).** Establishments primarily engaged in the wholesale distribution of distilled spirits, including neutral spirits and ethyl alcohol used in blending wines and distilled liquors.

## Miscellaneous Nondurable Goods (SIC 519)

**Farm Supplies (SIC 5191)**[1]. Establishments primarily engaged in the wholesale distribution of animal feeds, fertilizers, agricultural chemicals, pesticides, seeds, and other farm supplies, except grains.

**Tobacco and Tobacco Products (SIC 5194).** Establishments primarily engaged in the wholesale distribution of tobacco and tobacco products. Leaf tobacco wholesalers are classified in industry 5159 and establishments primarily engaged in stemming and redrying tobacco in industry 2141.

**Paints, Varnishes, and Supplies (SIC 5198)**[1]. Establishments primarily engaged in the wholesale distribution of paints, varnishes, wallpaper, and supplies, and sometimes glass. Establishments selling to the general public and known as "retail" in the trade are classified in industry 5231.

**Books, Periodicals, Newspapers (SIC 5199 part)**[1]. Establishments primarily engaged in the wholesale distribution of books, lithographed matter, magazines, newspapers, and all other forms of reading material.

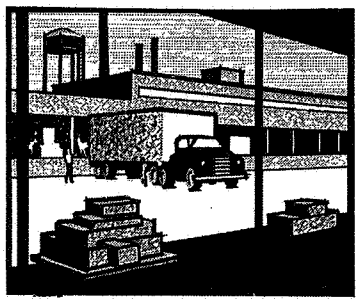
**Nondurable Goods, Not Elsewhere Classified (SIC 5199 part)**[1]. Establishments primarily engaged in the wholesale distribution of nondurable goods, not elsewhere classified, such as art goods, flowers and florist supplies, industrial yarn, textile bags, bagging and burlap.

[1] Data for this kind of business are not shown separately but are included in the group total.

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CURRENT BUSINESS REPORTS

# Monthly Wholesale Trade

## SALES AND INVENTORIES

Issued December 1981

## October 1981

BW-81-10

NOTICE

Effective with this edition, the sales, inventories, and stock-sales ratios by kind of business are no longer included in this publication.

Sales. October 1981 sales of merchant wholesalers, after adjustment for seasonal variation and trading-day differences but not for price changes, were $94.2 billion, down 2.3 percent from the previous month but 1.0 percent above October 1980.

After adjustment, October sales in the durable goods trades were down 3.3 percent from the previous month but were 2.3 percent above the year-ago level. Nondurable goods sales decreased 1.7 percent from September but were virtually unchanged from October 1980.

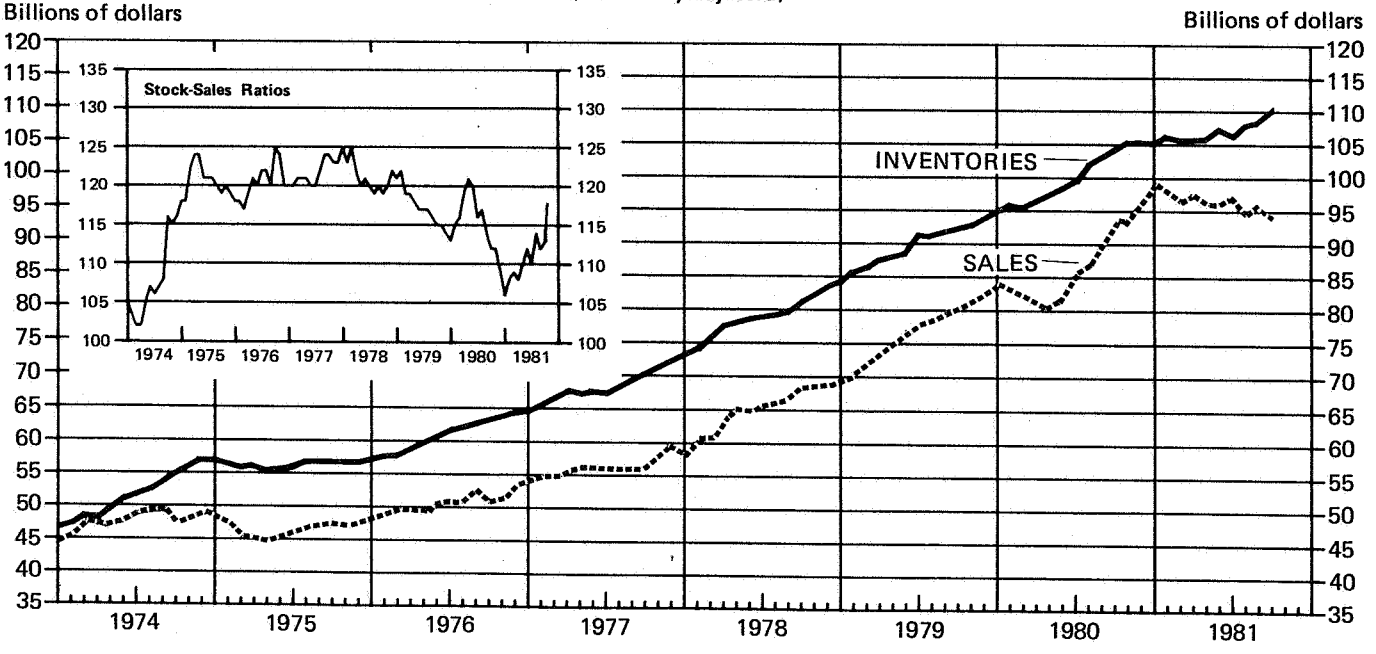
Inventories. Total inventories of merchant wholesalers, after adjustment for seasonal variation but not for price changes, were $111.2 billion at the end of October, up 1.7 percent from the previous month and 6.6 percent above October 1980. Durable goods stocks increased 2.1 percent from September and were 12.3 percent above October 1980. Nondurable goods stocks were up 1.0 percent from the previous month but were down 3.1 percent from the previous year level.

Stock-Sales Ratios. The October stock-sales ratio for merchant wholesalers, based on seasonally adjusted data, was 1.18 compared to 1.13 for September and 1.12 for October 1980.

Data in this report are based on a sample and, therefore, are subject to sampling and nonsampling errors. A discussion of the reliability of the data is on page 3.

### Monthly Sales, Inventories, and Stock-Sales Ratios of Merchant Wholesalers: 1974-1981

(Seasonally adjusted)




U.S. Department of Commerce
BUREAU OF THE CENSUS

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## Table 1. Estimated Monthly Sales, Inventories, and Stock-Sales Ratios of Merchant Wholesalers: 1981 and 1980

(Sales and inventories in millions of dollars)

| 1972 SIC code | Kind of business | 1981 | | | | | | | | | | 1980 | | | Total 10 months | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. P | Oct. | Nov. | Dec. | 1981 | 1980 |
| | | Data NOT ADJUSTED for seasonal variation or trading-day differences | | | | | | | | | | | | | | |
| | Sales, total | 93,845 | 89,641 | 101,273 | 99,081 | 96,676 | 98,639 | 96,072 | 93,655 | 96,992 | 98,856 | 99,023 | 91,328 | 97,659 | 964,730 | 854,899 |
| 50 | Durable goods | 35,927 | 37,054 | 41,991 | 41,934 | 40,679 | 43,152 | 41,459 | 41,349 | 41,587 | 41,416 | 41,298 | 36,679 | 38,598 | 406,548 | 363,162 |
| 51 | Nondurable goods | 57,918 | 52,587 | 59,282 | 57,147 | 55,997 | 55,487 | 54,613 | 52,306 | 55,405 | 57,440 | 57,725 | 54,649 | 59,061 | 558,182 | 491,737 |
| | Inventories, total | 105,446 | 107,209 | 107,907 | 106,420 | 105,985 | 106,915 | 105,556 | 106,603 | 108,134 | 110,978 | 104,277 | 105,866 | 105,449 | (X) | (X) |
| 50 | Durable goods | 66,230 | 68,251 | 69,208 | 69,673 | 71,113 | 71,821 | 70,729 | 71,487 | 72,348 | 73,098 | 65,137 | 65,857 | 66,716 | (X) | (X) |
| 51 | Nondurable goods | 39,216 | 38,958 | 38,699 | 36,747 | 34,872 | 35,094 | 34,827 | 35,116 | 35,786 | 37,880 | 39,140 | 40,009 | 38,733 | (X) | (X) |
| | Stock-sales ratios, total | 1.12 | 1.20 | 1.07 | 1.07 | 1.10 | 1.08 | 1.10 | 1.14 | 1.11 | 1.12 | 1.05 | 1.16 | 1.08 | (X) | (X) |
| 50 | Durable goods | 1.84 | 1.84 | 1.65 | 1.66 | 1.75 | 1.66 | 1.71 | 1.73 | 1.74 | 1.76 | 1.58 | 1.80 | 1.73 | (X) | (X) |
| 51 | Nondurable goods | .68 | .74 | .65 | .64 | .62 | .63 | .64 | .67 | .65 | .66 | .68 | .73 | .66 | (X) | (X) |
| | | Data ADJUSTED for seasonal variation and, in the case of sales, also for trading-day differences | | | | | | | | | | | | | | |
| | Sales, total | 98,967 | 98,016 | 96,486 | 97,577 | 96,217 | 95,564 | 97,085 | 94,674 | 96,437 | 94,176 | 93,282 | 93,901 | 96,591 | (X) | (X) |
| 50 | Durable goods | 40,370 | 41,511 | 39,907 | 40,299 | 40,584 | 41,045 | 41,244 | 40,552 | 40,294 | 38,975 | 38,110 | 38,799 | 39,403 | (X) | (X) |
| 51 | Nondurable goods | 58,597 | 56,505 | 56,579 | 57,278 | 55,633 | 54,519 | 55,841 | 54,122 | 56,143 | 55,201 | 55,172 | 55,102 | 57,188 | (X) | (X) |
| | Inventories, total | 104,909 | 106,066 | 105,539 | 105,591 | 105,568 | 107,210 | 106,402 | 107,820 | 109,297 | 111,193 | 104,293 | 105,203 | 105,529 | (X) | (X) |
| 50 | Durable goods | 67,319 | 68,482 | 68,571 | 69,174 | 69,876 | 70,589 | 69,841 | 70,855 | 72,501 | 74,035 | 65,951 | 66,955 | 67,938 | (X) | (X) |
| 51 | Nondurable goods | 37,590 | 37,584 | 36,968 | 36,417 | 35,692 | 36,621 | 36,561 | 36,965 | 36,796 | 37,158 | 38,342 | 38,248 | 37,591 | (X) | (X) |
| | Stock-sales ratios, total | 1.06 | 1.08 | 1.09 | 1.08 | 1.10 | 1.12 | 1.10 | 1.14 | 1.13 | 1.18 | 1.12 | 1.12 | 1.09 | (X) | (X) |
| 50 | Durable goods | 1.67 | 1.65 | 1.72 | 1.72 | 1.72 | 1.72 | 1.69 | 1.75 | 1.80 | 1.90 | 1.73 | 1.73 | 1.72 | (X) | (X) |
| 51 | Nondurable goods | .64 | .67 | .65 | .64 | .64 | .67 | .65 | .68 | .66 | .67 | .69 | .69 | .66 | (X) | (X) |

X Cumulative data are not applicable. PPreliminary estimate. See Sample Design and Estimation Procedures in the January 1981 Monthly Wholesale Trade Report.

## Table 2. Percent Changes in Sales and Inventories of Merchant Wholesalers

| 1972 SIC code | Kind of business | Unadjusted | | | | | Adjusted[1] | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sales | | | Inventories, end-of-month (at cost) | | Sales | | Inventories, end-of-month (at cost) | |
| | | Oct. 1981 from Sept. 1981 | Oct. 1981 from Oct. 1980 | 10 months 1981 from 10 months 1980 | Oct. 1981 from Sept. 1981 | Oct. 1981 from Oct. 1980 | Oct. 1981 from Sept. 1981 | Oct. 1981 from Oct. 1980 | Oct. 1981 from Sept. 1981 | Oct. 1981 from Oct. 1980 |
| | Total | +1.9 | -0.2 | +12.8 | +2.6 | +6.4 | -2.3 | +1.0 | +1.7 | +6.6 |
| 50 | Durable goods | -0.4 | +0.3 | +12.0 | +1.0 | +12.2 | -3.3 | +2.3 | +2.1 | +12.3 |
| 51 | Nondurable goods | +3.7 | -0.5 | +13.5 | +5.9 | -3.2 | -1.7 | +0.1 | +1.0 | -3.1 |

[1]Adjusted for seasonal variation and, in the case of sales, also for trading-day differences.

## EXPLANATORY MATERIAL

### Scope of the Survey

Wholesale trade, as defined in Major Groups 50 and 51 of the 1972 edition of the Standard Industrial Classification (SIC) Manual[1] and as covered in the 1977 census, includes establishments primarily engaged in selling merchandise to retailers; to industrial, commercial, institution, farm, or professional business users; or to other wholesalers; or acting as agents or brokers in buying merchandise for or selling merchandise to such persons or companies.

The principal types of establishments included are: (1) merchant wholesalers who take title to the goods they sell, such as wholesale merchants or jobbers, industrial distributors, voluntary group wholesalers, exporters, importers, cash-and-carry wholesalers, drop shippers, major distributors, retailer cooperative warehouses, terminal elevators, and cooperative buying associations; (2) sales branches and sales offices (but not retail stores) maintained by domestic manufacturing or mining enterprises apart from their plants or mines for the purpose of marketing their products; (3) agents, merchandise or commodity brokers, and commission merchants.

This survey is limited to merchant wholesalers (described under category 1 above), which constitute the major portion of the broad field of wholesale trade, and excludes the other types of wholesale trade. All kinds of business in which merchant wholesalers operate are represented in this survey.

Also included in this survey are sales branches of ferrous metals services centers (SIC 5051 part) with warehouse space greater than 5000 square feet.

### Reliability of Data

There are two types of errors possible in an estimate based on a sample survey—sampling and nonsampling. Sampling errors occur because observations are made only on a sample, not on the entire population. Nonsampling errors can be attributed to many sources in the collection and processing of data. The accuracy of a survey result is determined by the joint effects of sampling and nonsampling errors.

The estimates of sampling variability, i.e. coefficients of variation for sales and inventories at the detail provided in this publication are shown below. Note that the particular sample used in this survey is one of a large number of all possible samples of about the same size that could have been selected using the same design. In about two out of three (67 percent) of these samples, the estimate would differ from a complete enumeration by less than the corresponding percent for that estimate shown in the sampling variability table. In about 19 out of 20 (95 percent) of these samples, the estimate would differ from the results of a complete enumeration by less than twice the percentages shown.

The coefficient of variation also measures certain nonsampling errors but does not measure any systematic biases in the data. Bias is the difference, averaged over all possible samples of the same size and design, between the estimate and the true value being estimated. The accuracy of the tabulated data is determined by the joint effects of the sampling and nonsampling errors.

A major source of bias in the published estimates is due to imputing data for nonrespondents, for late reporters, and for data which fail edit. For all kinds of business combined, imputed data amount to about 15 percent of the sales estimates and 25 percent for inventories.

Differences between preliminary and final estimates[2] of seasonally adjusted sales ranged from approximately +1.0 percent to -0.9 percent for the past 12 months. During the same period, the average of the absolute differences was 0.5

[1] Executive Office of the President, Office of Management and Budget, *Standard Industrial Classification Manual, 1972.*

[2] See Sample Design and Estimation Procedures in the January 1981 *Monthly Wholesale Trade* report.

Table 3. **Coefficients of Variation of Sales and Inventories for the United States**

(In percent)

| 1972 SIC code | Kind of business | Sales | | | | | | Inventories | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Coefficients of variation of the preliminary estimates | | Coefficients of variation of the final estimates | | Median coefficients of variation of the ratio of: | | Coefficients of variation of the preliminary estimates | | Coefficients of variation of the final estimates | | Median coefficients of variation of the ratio of: | |
| | | Range | Median | Range | Median | Two consecutive months | Same month a year ago | Range | Median | Range | Median | Two consecutive months | Same month a year ago |
| | Merchant wholesalers, total | 1.4-1.8 | 1.6 | 1.4-1.6 | 1.5 | 0.6 | 1.0 | 1.3-1.5 | 1.4 | 1.2-1.4 | 1.4 | 0.3 | 0.9 |
| 50 | Durable goods, total | 1.5-3.2 | 2.0 | 1.4-2.4 | 1.6 | 1.0 | 1.7 | 1.0-1.5 | 1.4 | 1.0-1.4 | 1.3 | 0.4 | 1.1 |
| 51 | Nondurable goods, total | 1.8-2.1 | 1.9 | 1.6-2.0 | 1.9 | 0.8 | 1.2 | 2.6-3.0 | 2.8 | 2.6-2.8 | 2.7 | 0.5 | 1.3 |

Note: Coefficients of variation are based on data unadjusted for seasonal variations or trading-day differences. The range and median coefficients of variation are based on data for August 1979 through January 1980.

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percent. The corresponding range for inventories was approximately +0.6 percent to -1.0 percent for the past 12 months. The average of the absolute differences was 0.4 percent.

## Sample Design, Estimation Procedures, and Seasonal Adjustment Factors

See the January 1981 *Monthly Wholesale Trade* report for a full description of the sample design, estimation procedures, and seasonal adjustment factors.

## Benchmarking

Wholesale sales and inventory estimates in this report reflect the results of a benchmarking operation which made use of data tabulated from the 1977 Census of Wholesale Trade and the 1978 and 1979 Annual Trade Surveys (ATS).

## Unpublished Data

Additional data, such as dollar volume estimates for some kinds of business not separately shown in this report, are produced as a byproduct of the regularly published statistics. The Census Bureau on written request will release these data for individual use.

## Definition of Terms

**Sales.** Sales include the following: merchandise sold for cash or credit at wholesale and retail by establishments primarily engaged in merchant wholesale trade; receipts from customers for rental or leasing of equipment, instruments, tools, etc.; receipts for delivery, installation, alteration, maintenance, repair, storage, and other services; and gasoline, liquor, tobacco, and other excise taxes which are paid by the manufacturer and passed along to the wholesaler. Sales are net after deductions for refunds and allowances for merchandise returned by customers. Sales which are made on an agency basis for others are included as gross sales. Direct shipments on orders from wholesalers are also included in sales. Total sales do not include nonoperating income from sources as investments, rental or sale of real estate, etc.

Sales exclude sales and excise taxes collected directly from customers and paid directly to a local, State, or Federal tax agency. Also excluded are receipts from customers for carrying or other credit charges.

**Inventories.** Inventories represent stocks, at cost, of merchandise on hand for sale at the end of the month regardless of location, except for goods outside the United States. Goods held on consignment and items not held for sale such as fixtures, equipment, and supplies are not included.

**Stock-Sales Ratios.** The stock-sales ratios are derived by dividing the dollar value of inventories, at cost, by the dollar value of sales. No adjustment is made in these ratios for the markup in sales which may vary from trade to trade.

The sales and inventory figures represent total sales and inventories of all establishments primarily engaged in merchant wholesale trade. Also included are the sales and inventories of central administrative offices and auxiliaries of merchant wholesale establishments.

## Kind-of-Business Classifications

The durable goods group includes establishments primarily engaged in the distribution of goods classified in Standard Industrial Classification (SIC) major group 50. This group includes establishments classified in SIC groups 501 through 509.

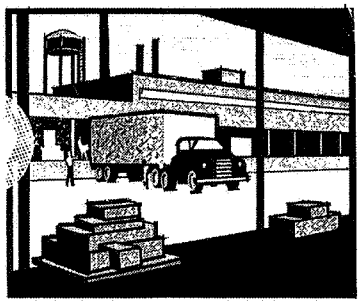
The nondurable goods group includes establishments primarily engaged in the distribution of goods classified in SIC major group 51. This group includes establishments classified in SIC groups 511 through 519.

For a further description of the kinds of business included in the major groups see the 1972 Standard Industrial Classification Manual or the January 1981 *Monthly Wholesale Trade* Report.

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CURRENT BUSINESS REPORTS

# Monthly Wholesale Trade

## SALES AND INVENTORIES

Issued January 1982

## November 1981

BW-81-11

Sales. November 1981 sales of merchant wholesalers, after adjustment for seasonal variation and trading-day differences but not for price changes, were $95.5 billion, up 1.0 percent from the previous month and 1.7 percent above November 1980.

After adjustment, November sales in the durable goods trades were up 1.8 percent from the previous month and were 3.9 percent above the year-ago level. Nondurable goods sales increased 0.4 percent from October and were up 0.1 percent from the year-ago level.

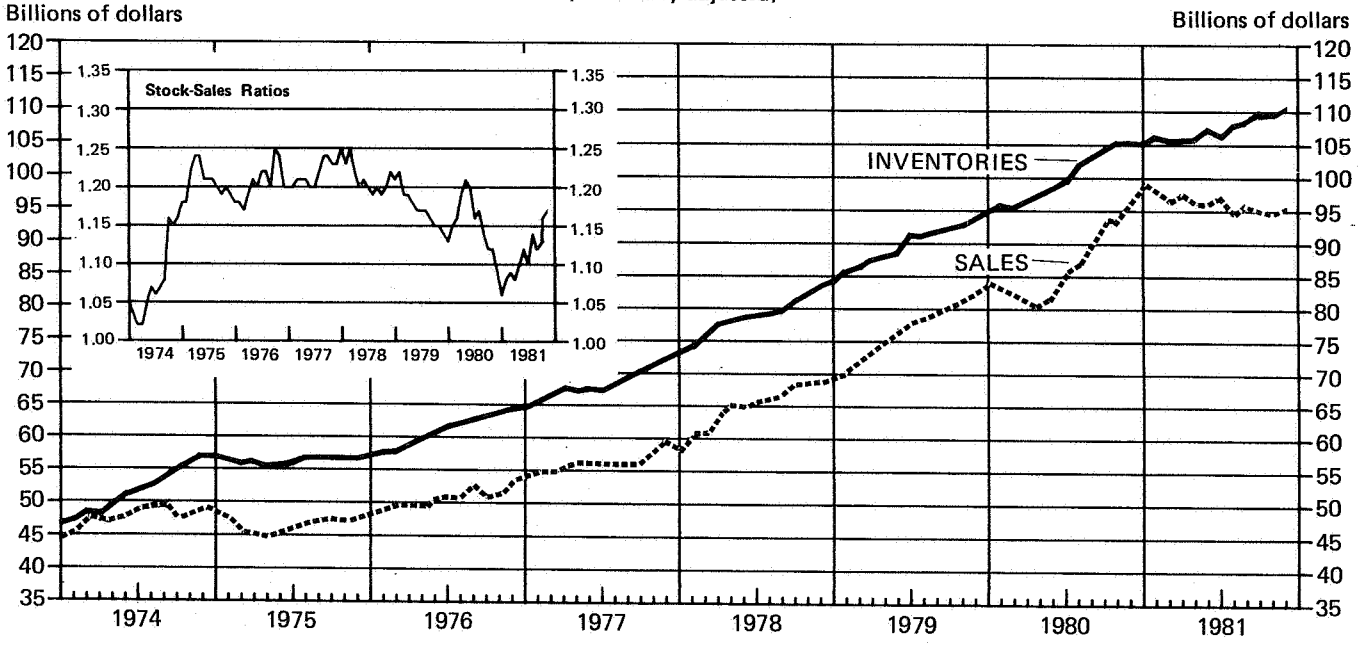
Inventories. Total inventories of merchant wholesalers, after adjustment for seasonal variation but not for price changes, were $111.7 billion at the end of November, up 1.8 percent from the previous month and 6.2 percent above November 1980. Durable goods stocks increased 2.3 percent from October and were 11.4 percent above November 1980. Nondurable goods stocks were up 0.7 percent from the previous month but were down 2.9 percent from the previous year level.

Stock-Sales Ratios. The November stock-sales ratio for merchant wholesalers, based on seasonally adjusted data, was 1.17 compared to 1.16 for October and 1.12 for November 1980.

Data in this report are based on a sample and, therefore, are subject to sampling and nonsampling errors. A discussion of the reliability of the data is on page 3.

### Monthly Sales, Inventories, and Stock-Sales Ratios of Merchant Wholesalers: 1974-1981

(Seasonally adjusted)




U.S. Department of Commerce
BUREAU OF THE CENSUS

Inquiries concerning this report should be addressed to Ronald Piencykoski, Business Division, Bureau of the Census, Washington, D.C. 20233. Telephone (301) 763-3916/763-3917.

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## Table 1. Estimated Monthly Sales, Inventories, and Stock-Sales Ratios of Merchant Wholesalers: 1981 and 1980

(Sales and inventories in millions of dollars)

| 1972 SIC code | Kind of business | 1981 | | | | | | | | | | | 1980 | | Total 11 months | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. p | Nov. | Dec. | 1981 | 1980 |
| | | Data NOT ADJUSTED for seasonal variation or trading-day differences | | | | | | | | | | | | | | |
| | Sales, total | 93,845 | 89,641 | 101,273 | 99,081 | 96,676 | 98,639 | 96,072 | 93,655 | 96,992 | 99,236 | 93,925 | 91,328 | 97,659 | 1,059,035 | 946,227 |
| 50 | Durable goods | 35,927 | 37,054 | 41,991 | 41,934 | 40,679 | 43,152 | 41,459 | 41,349 | 41,587 | 42,065 | 38,820 | 36,679 | 38,598 | 446,017 | 399,841 |
| 51 | Nondurable goods | 57,918 | 52,587 | 59,282 | 57,147 | 55,997 | 55,487 | 54,613 | 52,306 | 55,405 | 57,171 | 55,105 | 54,649 | 59,061 | 613,018 | 546,386 |
| | Inventories, total | 105,446 | 107,209 | 107,907 | 106,420 | 105,985 | 106,915 | 105,556 | 106,603 | 108,134 | 109,555 | 111,804 | 105,866 | 105,449 | (X) | (X) |
| 50 | Durable goods | 66,230 | 68,251 | 69,208 | 69,673 | 71,113 | 71,821 | 70,729 | 71,487 | 72,348 | 71,958 | 73,341 | 65,857 | 66,716 | (X) | (X) |
| 51 | Nondurable goods | 39,216 | 38,958 | 38,699 | 36,747 | 34,872 | 35,094 | 34,827 | 35,116 | 35,786 | 37,597 | 38,463 | 40,009 | 38,733 | (X) | (X) |
| | Stock-sales ratios, total | 1.12 | 1.20 | 1.07 | 1.07 | 1.10 | 1.08 | 1.10 | 1.14 | 1.11 | 1.10 | 1.19 | 1.16 | 1.08 | (X) | (X) |
| 50 | Durable goods | 1.84 | 1.84 | 1.65 | 1.66 | 1.75 | 1.66 | 1.71 | 1.73 | 1.74 | 1.71 | 1.89 | 1.80 | 1.73 | (X) | (X) |
| 51 | Nondurable goods | .68 | .74 | .65 | .64 | .62 | .63 | .64 | .67 | .65 | .66 | .70 | .73 | .66 | (X) | (X) |
| | | Data ADJUSTED for seasonal variation and, in the case of sales, also for trading-day differences | | | | | | | | | | | | | | |
| | Sales, total | 98,967 | 98,016 | 96,486 | 97,577 | 96,217 | 95,564 | 97,085 | 94,674 | 96,437 | 94,542 | 95,471 | 93,901 | 96,591 | (X) | (X) |
| 50 | Durable goods | 40,370 | 41,511 | 39,907 | 40,299 | 40,584 | 41,045 | 41,244 | 40,552 | 40,294 | 39,603 | 40,306 | 38,799 | 39,403 | (X) | (X) |
| 51 | Nondurable goods | 58,597 | 56,505 | 56,579 | 57,278 | 55,633 | 54,519 | 55,841 | 54,122 | 56,143 | 54,939 | 55,165 | 55,102 | 57,188 | (X) | (X) |
| | Inventories, total | 104,909 | 106,066 | 105,539 | 105,591 | 105,568 | 107,210 | 106,402 | 107,820 | 109,297 | 109,757 | 111,697 | 105,203 | 105,529 | (X) | (X) |
| 50 | Durable goods | 67,319 | 68,482 | 68,571 | 69,174 | 69,876 | 70,589 | 69,841 | 70,855 | 72,501 | 72,874 | 74,564 | 66,955 | 67,938 | (X) | (X) |
| 51 | Nondurable goods | 37,590 | 37,584 | 36,968 | 36,417 | 35,692 | 36,621 | 36,561 | 36,965 | 36,796 | 36,883 | 37,133 | 38,248 | 37,591 | (X) | (X) |
| | Stock-sales ratios, total | 1.06 | 1.08 | 1.09 | 1.08 | 1.10 | 1.12 | 1.10 | 1.14 | 1.13 | 1.16 | 1.17 | 1.12 | 1.09 | (X) | (X) |
| 50 | Durable goods | 1.67 | 1.65 | 1.72 | 1.72 | 1.72 | 1.72 | 1.69 | 1.75 | 1.80 | 1.84 | 1.85 | 1.73 | 1.72 | (X) | (X) |
| 51 | Nondurable goods | .64 | .67 | .65 | .64 | .64 | .67 | .65 | .68 | .66 | .67 | .67 | .69 | .66 | (X) | (X) |

X Cumulative data are not applicable. pPreliminary estimate. See Sample Design and Estimation Procedures in the January 1981 Monthly Wholesale Trade Report.

## Table 2. Percent Changes in Sales and Inventories of Merchant Wholesalers

| 1972 SIC code | Kind of business | Unadjusted | | | | | Adjusted[1] | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sales | | | Inventories, end-of-month (at cost) | | Sales | | Inventories, end-of-month (at cost) | |
| | | Nov. 1981 from Oct. 1981 | Nov. 1981 from Nov. 1980 | 11 months 1981 from 11 months 1980 | Nov. 1981 from Oct. 1981 | Nov. 1981 from Nov. 1980 | Nov. 1981 from Oct. 1981 | Nov. 1981 from Nov. 1980 | Nov. 1981 from Oct. 1981 | Nov. 1981 from Nov. 1980 |
| | Total | -5.4 | +2.8 | +11.9 | +2.0 | +5.6 | +1.0 | +1.7 | +1.8 | +6.2 |
| 50 | Durable goods | -7.7 | +5.8 | +11.6 | +1.9 | +11.4 | +1.8 | +3.9 | +2.3 | +11.4 |
| 51 | Nondurable goods | -3.6 | +0.8 | +12.2 | +2.3 | -3.9 | +0.4 | +0.1 | +0.7 | -2.9 |

[1]Adjusted for seasonal variation and, in the case of sales, also for trading-day differences.

## EXPLANATORY MATERIAL

### Scope of the Survey

Wholesale trade, as defined in Major Groups 50 and 51 of the 1972 edition of the Standard Industrial Classification (SIC) Manual[1] and as covered in the 1977 census, includes establishments primarily engaged in selling merchandise to retailers; to industrial, commercial, institution, farm, or professional business users; or to other wholesalers; or acting as agents or brokers in buying merchandise for or selling merchandise to such persons or companies.

The principal types of establishments included are: (1) merchant wholesalers who take title to the goods they sell, such as wholesale merchants or jobbers, industrial distributors, voluntary group wholesalers, exporters, importers, cash-and-carry wholesalers, drop shippers, major distributors, retailer cooperative warehouses, terminal elevators, and cooperative buying associations; (2) sales branches and sales offices (but not retail stores) maintained by domestic manufacturing or mining enterprises apart from their plants or mines for the purpose of marketing their products; (3) agents, merchandise or commodity brokers, and commission merchants.

This survey is limited to merchant wholesalers (described under category 1 above), which constitute the major portion of the broad field of wholesale trade, and excludes the other types of wholesale trade. All kinds of business in which nerchant wholesalers operate are represented in this survey.

Also included in this survey are sales branches of ferrous metals services centers (SIC 5051 part) with warehouse space greater than 5000 square feet.

### Reliability of Data

There are two types of errors possible in an estimate based on a sample survey—sampling and nonsampling. Sampling errors occur because observations are made only on a sample, not on the entire population. Nonsampling errors can be attributed to many sources in the collection and processing of data. The accuracy of a survey result is determined by the joint effects of sampling and nonsampling errors.

The estimates of sampling variability, i.e. coefficients of variation for sales and inventories at the detail provided in this publication are shown below. Note that the particular sample used in this survey is one of a large number of all possible samples of about the same size that could have been selected using the same design. In about two out of three (67 percent) of these samples, the estimate would differ from a complete enumeration by less than the corresponding percent for that estimate shown in the sampling variability table. In about 19 out of 20 (95 percent) of these samples, the estimate would differ from the results of a complete enumeration by less than twice the percentages shown.

The coefficient of variation also measures certain nonsampling errors but does not measure any systematic biases in the data. Bias is the difference, averaged over all possible samples of the same size and design, between the estimate and the true value being estimated. The accuracy of the tabulated data is determined by the joint effects of the sampling and nonsampling errors.

A major source of bias in the published estimates is due to imputing data for nonrespondents, for late reporters, and for data which fail edit. For all kinds of business combined, imputed data amount to about 15 percent of the sales estimates and 25 percent for inventories.

Differences between preliminary and final estimates[2] of seasonally adjusted sales ranged from approximately +1.0 percent to -0.9 percent for the past 12 months. During the same period, the average of the absolute differences was 0.5

[1] Executive Office of the President, Office of Management and Budget, *Standard Industrial Classification Manual, 1972.*

[2] See Sample Design and Estimation Procedures in the January 1981 *Monthly Wholesale Trade* report.

Table 3. **Coefficients of Variation of Sales and Inventories for the United States**

(In percent)

| 1972 SIC code | Kind of business | Sales | | | | | | Inventories | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Coefficients of variation of the preliminary estimates | | Coefficients of variation of the final estimates | | Median coefficients of variation of the ratio of: | | Coefficients of variation of the preliminary estimates | | Coefficients of variation of the final estimates | | Median coefficients of variation of the ratio of: | |
| | | Range | Median | Range | Median | Two consecutive months | Same month a year ago | Range | Median | Range | Median | Two consecutive months | Same month a year ago |
| | Merchant wholesalers, total | 1.4-1.8 | 1.6 | 1.4-1.6 | 1.5 | 0.6 | 1.0 | 1.3-1.5 | 1.4 | 1.2-1.4 | 1.4 | 0.3 | 0.9 |
| 50 | Durable goods, total | 1.5-3.2 | 2.0 | 1.4-2.4 | 1.6 | 1.0 | 1.7 | 1.0-1.5 | 1.4 | 1.0-1.4 | 1.3 | 0.4 | 1.1 |
| 51 | Nondurable goods, total | 1.8-2.1 | 1.9 | 1.6-2.0 | 1.9 | 0.8 | 1.2 | 2.6-3.0 | 2.8 | 2.6-2.8 | 2.7 | 0.5 | 1.3 |

Note: Coefficients of variation are based on data unadjusted for seasonal variations or trading-day differences. The range and median coefficients of variation are based on data for August 1979 through January 1980.

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percent. The corresponding range for inventories was approximately -1.3 percent to -1.0 percent for the past 12 months. The average of the absolute differences was 0.5 percent.

## Sample Design, Estimation Procedures, and Seasonal Adjustment Factors

See the January 1981 *Monthly Wholesale Trade* report for a full description of the sample design, estimation procedures, and seasonal adjustment factors.

## Benchmarking

Wholesale sales and inventory estimates in this report reflect the results of a benchmarking operation which made use of data tabulated from the 1977 Census of Wholesale Trade and the 1978 and 1979 Annual Trade Surveys (ATS).

## Unpublished Data

Additional data, such as dollar volume estimates for some kinds of business not separately shown in this report, are produced as a byproduct of the regularly published statistics. The Census Bureau on written request will release these data for individual use.

## Definition of Terms

**Sales.** Sales include the following: merchandise sold for cash or credit at wholesale and retail by establishments primarily engaged in merchant wholesale trade; receipts from customers for rental or leasing of equipment, instruments, tools, etc.; receipts for delivery, installation, alteration, maintenance, repair, storage, and other services; and gasoline, liquor, tobacco, and other excise taxes which are paid by the manufacturer and passed along to the wholesaler. Sales are net after deductions for refunds and allowances for merchandise returned by customers. Sales which are made on an agency basis for others are included as gross sales. Direct shipments on orders from wholesalers are also included in sales. Total sales do not include nonoperating income from sources such as investments, rental or sale of real estate, etc.

Sales exclude sales and excise taxes collected directly from customers and paid directly to a local, State, or Federal tax agency. Also excluded are receipts from customers for carrying or other credit charges.

**Inventories.** Inventories represent stocks, at cost, of merchandise on hand for sale at the end of the month regardless of location, except for goods outside the United States. Goods held on consignment and items not held for sale such as fixtures, equipment, and supplies are not included.

**Stock-Sales Ratios.** The stock-sales ratios are derived by dividing the dollar value of inventories, at cost, by the dollar value of sales. No adjustment is made in these ratios for the markup in sales which may vary from trade to trade.

The sales and inventory figures represent total sales and inventories of all establishments primarily engaged in merchant wholesale trade. Also included are the sales and inventories of central administrative offices and auxiliaries of merchant wholesale establishments.

## Kind-of-Business Classifications

The durable goods group includes establishments primarily engaged in the distribution of goods classified in Standard Industrial Classification (SIC) major group 50. This group includes establishments classified in SIC groups 501 through 509.

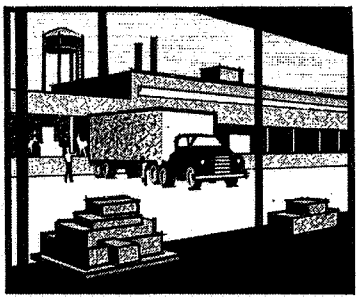
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For a further description of the kinds of business included in the major groups see the 1972 Standard Industrial Classification Manual or the January 1981 *Monthly Wholesale Trade* Report.

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CURRENT BUSINESS REPORTS

# Monthly Wholesale Trade

## SALES AND INVENTORIES

Issued February 1982

## December 1981

BW-81-12

INTENTION TO REVISE WHOLESALE ESTIMATES: The unadjusted and adjusted merchant wholesale sales, inventories, and stock-sales ratio estimates will be revised utilizing the results from the 1978, 1979, and 1980 Annual Trade Surveys along with the results of a new sample. Revised estimates for the period January 1978 through December 1981 along with the previously published estimates from January 1972 through December 1977 are scheduled for release on March 17th.

Sales. December 1981 sales of merchant wholesalers, after adjustment for seasonal variation and trading-day differences but not for price changes, were $94.6 billion, down 1.5 percent from the previous month and 2.1 percent below December 1980.

After adjustment, December sales in the durable goods trades were down 0.5 percent from the previous month but were 2.8 percent above the year-ago level. Nondurable goods sales decreased 2.2 percent from November and were 5.4 percent below the year-ago level.

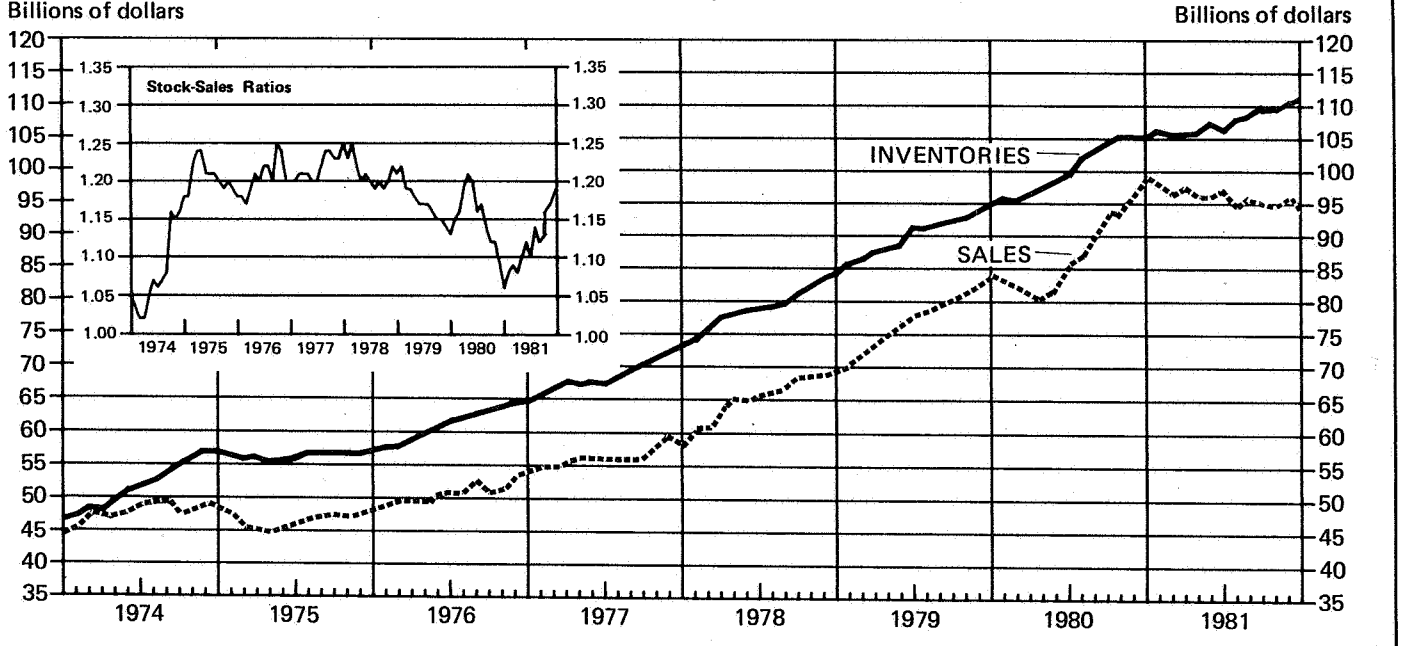
Inventories. Total inventories of merchant wholesalers, after adjustment for seasonal variation but not for price changes, were $112.2 billion at the end of December, up 0.4 percent from the previous month and 6.4 percent above December 1980. Durable goods stocks were down 0.2 percent from November but were 9.7 percent above December 1980. Nondurable goods stocks were up 1.5 percent from the previous month but were 0.4 percent above the previous year level.

Stock-Sales Ratios. The December stock-sales ratio for merchant wholesalers, based on seasonally adjusted data, was 1.19 compared to 1.16 for November and 1.09 for December 1980.

Data in this report are based on a sample and, therefore, are subject to sampling and nonsampling errors. A discussion of the reliability of the data is on page 3.

### Monthly Sales, Inventories, and Stock-Sales Ratios of Merchant Wholesalers: 1974-1981

(Seasonally adjusted)




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## Table 1. Estimated Monthly Sales, Inventories, and Stock-Sales Ratios of Merchant Wholesalers: 1981 and 1980

(Sales and inventories in millions of dollars)

| 1972 SIC code | Kind of business | 1981 | | | | | | | | | | | | 1980 | Total 12 months | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec.[p] | Dec. | 1981 | 1980 |
| | | Data NOT ADJUSTED for seasonal variation or trading-day differences | | | | | | | | | | | | | | |
| | Sales, total | 93,845 | 89,641 | 101,273 | 99,081 | 96,676 | 98,639 | 96,072 | 93,655 | 96,992 | 99,236 | 94,449 | 96,982 | 97,659 | 1,156,541 | 1,043,886 |
| 50 | Durable goods | 35,927 | 37,054 | 41,991 | 41,934 | 40,679 | 43,152 | 41,459 | 41,349 | 41,587 | 42,065 | 39,195 | 40,110 | 38,598 | 486,502 | 438,439 |
| 51 | Nondurable goods | 57,918 | 52,587 | 59,282 | 57,147 | 55,997 | 55,487 | 54,613 | 52,306 | 55,405 | 57,171 | 55,254 | 56,872 | 59,061 | 670,039 | 605,447 |
| | Inventories, total | 105,446 | 107,209 | 107,907 | 106,420 | 105,985 | 106,915 | 105,556 | 106,603 | 108,134 | 109,555 | 111,930 | 111,726 | 105,449 | (X) | (X) |
| 50 | Durable goods | 66,230 | 68,251 | 69,208 | 69,673 | 71,113 | 71,821 | 70,729 | 71,487 | 72,348 | 71,958 | 73,432 | 73,151 | 66,716 | (X) | (X) |
| 51 | Nondurable goods | 39,216 | 38,958 | 38,699 | 36,747 | 34,872 | 35,094 | 34,827 | 35,116 | 35,786 | 37,597 | 38,498 | 38,575 | 38,733 | (X) | (X) |
| | Stock-sales ratios, total | 1.12 | 1.20 | 1.07 | 1.07 | 1.10 | 1.08 | 1.10 | 1.14 | 1.11 | 1.10 | 1.19 | 1.15 | 1.08 | (X) | (X) |
| 50 | Durable goods | 1.84 | 1.84 | 1.65 | 1.66 | 1.75 | 1.66 | 1.71 | 1.73 | 1.74 | 1.71 | 1.87 | 1.82 | 1.73 | (X) | (X) |
| 51 | Nondurable goods | .68 | .74 | .65 | .64 | .62 | .63 | .64 | .67 | .65 | .66 | .70 | .68 | .66 | (X) | (X) |
| | | Data ADJUSTED for seasonal variation and, in the case of sales, also for trading-day differences | | | | | | | | | | | | | | |
| | Sales, total | 98,967 | 98,016 | 96,486 | 97,577 | 96,217 | 95,564 | 97,085 | 94,674 | 96,437 | 94,542 | 96,012 | 94,592 | 96,591 | (X) | (X) |
| 50 | Durable goods | 40,370 | 41,511 | 39,907 | 40,299 | 40,584 | 41,045 | 41,244 | 40,552 | 40,294 | 39,603 | 40,700 | 40,498 | 39,403 | (X) | (X) |
| 51 | Nondurable goods | 58,597 | 56,505 | 56,579 | 57,278 | 55,633 | 54,519 | 55,841 | 54,122 | 56,143 | 54,939 | 55,312 | 54,094 | 57,188 | (X) | (X) |
| | Inventories, total | 104,909 | 106,066 | 105,539 | 105,591 | 105,568 | 107,210 | 106,402 | 107,820 | 109,297 | 109,757 | 111,822 | 112,246 | 105,529 | (X) | (X) |
| 50 | Durable goods | 67,319 | 68,482 | 68,571 | 69,174 | 69,876 | 70,589 | 69,841 | 70,855 | 72,501 | 72,874 | 74,648 | 74,499 | 67,938 | (X) | (X) |
| 51 | Nondurable goods | 37,590 | 37,584 | 36,968 | 36,417 | 35,692 | 36,621 | 36,561 | 36,965 | 36,796 | 36,883 | 37,174 | 37,747 | 37,591 | (X) | (X) |
| | Stock-sales ratios, total | 1.06 | 1.08 | 1.09 | 1.08 | 1.10 | 1.12 | 1.10 | 1.14 | 1.13 | 1.16 | 1.16 | 1.19 | 1.09 | (X) | (X) |
| 50 | Durable goods | 1.67 | 1.65 | 1.72 | 1.72 | 1.72 | 1.72 | 1.69 | 1.75 | 1.80 | 1.84 | 1.83 | 1.84 | 1.72 | (X) | (X) |
| 51 | Nondurable goods | .64 | .67 | .65 | .64 | .64 | .67 | .65 | .68 | .66 | .67 | .67 | .70 | .66 | (X) | (X) |

X Cumulative data are not applicable for inventories or stock-sales ratios. Cumulative seasonally adjusted sales estimates are not tabulated. [p]Preliminary estimate.
See Sample Design and Estimation Procedures in the January 1981 Monthly Wholesale Trade Report.

## Table 2. Percent Changes in Sales and Inventories of Merchant Wholesalers

| 1972 SIC code | Kind of business | Unadjusted | | | | | Adjusted[1] | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sales | | | Inventories, end-of-month (at cost) | | Sales | | Inventories, end-of-month (at cost) | |
| | | Dec. 1981 from Nov. 1981 | Dec. 1981 from Dec. 1980 | 12 months 1981 from 12 months 1980 | Dec. 1981 from Nov. 1981 | Dec. 1981 from Dec. 1980 | Dec. 1981 from Nov. 1981 | Dec. 1981 from Dec. 1980 | Dec. 1981 from Nov. 1981 | Dec. 1981 from Dec. 1980 |
| | Total | +2.7 | -0.7 | +10.8 | -0.2 | +6.0 | -1.5 | -2.1 | +0.4 | +6.4 |
| 50 | Durable goods | +2.3 | +3.9 | +11.0 | -0.4 | +9.7 | -0.5 | +2.8 | -0.2 | +9.7 |
| 51 | Nondurable goods | +2.9 | -3.7 | +10.7 | +0.2 | -0.4 | -2.2 | -5.4 | +1.5 | +0.4 |

[1]Adjusted for seasonal variation and, in the case of sales, also for trading-day differences.

## Scope of the Survey

Wholesale trade, as defined in Major Groups 50 and 51 of the 1972 edition of the Standard Industrial Classification (SIC) Manual[1] and as covered in the 1977 census, includes establishments primarily engaged in selling merchandise to retailers; to industrial, commercial, institution, farm, or professional business users; or to other wholesalers; or acting as agents or brokers in buying merchandise for or selling merchandise to such persons or companies.

The principal types of establishments included are: (1) merchant wholesalers who take title to the goods they sell, such as wholesale merchants or jobbers, industrial distributors, voluntary group wholesalers, exporters, importers, cash-and-carry wholesalers, drop shippers, major distributors, retailer cooperative warehouses, terminal elevators, and cooperative buying associations; (2) sales branches and sales offices (but not retail stores) maintained by domestic manufacturing or mining enterprises apart from their plants or mines for the purpose of marketing their products; (3) agents, merchandise or commodity brokers, and commission merchants.

This survey is limited to merchant wholesalers (described under category 1 above), which constitute the major portion of the broad field of wholesale trade, and excludes the other types of wholesale trade. All kinds of business in which merchant wholesalers operate are represented in this survey.

Also included in this survey are sales branches of ferrous metals services centers (SIC 5051 part) with warehouse space greater than 5000 square feet.

## Reliability of Data

There are two types of errors possible in an estimate based on a sample survey—sampling and nonsampling. Sampling errors occur because observations are made only on a sample, not on the entire population. Nonsampling errors can be attributed to many sources in the collection and processing of data. The accuracy of a survey result is determined by the joint effects of sampling and nonsampling errors.

The estimates of sampling variability, i.e. coefficients of variation for sales and inventories at the detail provided in this publication are shown below. Note that the particular sample used in this survey is one of a large number of all possible samples of about the same size that could have been selected using the same design. In about two out of three (67 percent) of these samples, the estimate would differ from a complete enumeration by less than the corresponding percent for that estimate shown in the sampling variability table. In about 19 out of 20 (95 percent) of these samples, the estimate would differ from the results of a complete enumeration by less than twice the percentages shown.

The coefficient of variation also measures certain nonsampling errors but does not measure any systematic biases in the data. Bias is the difference, averaged over all possible samples of the same size and design, between the estimate and the true value being estimated. The accuracy of the tabulated data is determined by the joint effects of the sampling and nonsampling errors.

A major source of bias in the published estimates is due to imputing data for nonrespondents, for late reporters, and for data which fail edit. For all kinds of business combined, imputed data amount to about 15 percent of the sales estimates and 25 percent for inventories.

Differences between preliminary and final estimates[2] of seasonally adjusted sales ranged from approximately +1.0 percent to -0.9 percent for the past 12 months. During the same period, the average of the absolute differences was 0.5

[1] Executive Office of the President, Office of Management and Budget, *Standard Industrial Classification Manual, 1972.*

[2] See Sample Design and Estimation Procedures in the January 1981 *Monthly Wholesale Trade* report.

Table 3. **Coefficients of Variation of Sales and Inventories for the United States**

(In percent)

| 1972 SIC code | Kind of business | Sales | | | | | | Inventories | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Coefficients of variation of the preliminary estimates | | Coefficients of variation of the final estimates | | Median coefficients of variation of the ratio of: | | Coefficients of variation of the preliminary estimates | | Coefficients of variation of the final estimates | | Median coefficients of variation of the ratio of: | |
| | | Range | Median | Range | Median | Two consecutive months | Same month a year ago | Range | Median | Range | Median | Two consecutive months | Same month a year ago |
| | Merchant wholesalers, total | 1.4-1.8 | 1.6 | 1.4-1.6 | 1.5 | 0.6 | 1.0 | 1.3-1.5 | 1.4 | 1.2-1.4 | 1.4 | 0.3 | 0.9 |
| 50 | Durable goods, total | 1.5-3.2 | 2.0 | 1.4-2.4 | 1.6 | 1.0 | 1.7 | 1.0-1.5 | 1.4 | 1.0-1.4 | 1.3 | 0.4 | 1.1 |
| 51 | Nondurable goods, total | 1.8-2.1 | 1.9 | 1.6-2.0 | 1.9 | 0.8 | 1.2 | 2.6-3.0 | 2.8 | 2.6-2.8 | 2.7 | 0.5 | 1.3 |

Note: Coefficients of variation are based on data unadjusted for seasonal variations or trading-day differences. The range and median coefficients of variation are based on data for August 1979 through January 1980.

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percent. The corresponding range for inventories was approximately 0.6 percent to -1.3 percent for the past 12 months. The average of the absolute differences was 0.5 percent.

## Sample Design, Estimation Procedures, and Seasonal Adjustment Factors

See the January 1981 *Monthly Wholesale Trade* report for a full description of the sample design, estimation procedures, and seasonal adjustment factors.

## Benchmarking

Wholesale sales and inventory estimates in this report reflect the results of a benchmarking operation which made use of data tabulated from the 1977 Census of Wholesale Trade and the 1978 and 1979 Annual Trade Surveys (ATS).

## Unpublished Data

Additional data, such as dollar volume estimates for some kinds of business not separately shown in this report, are produced as a byproduct of the regularly published statistics. The Census Bureau on written request will release these data for individual use.

## Definition of Terms

**Sales.** Sales include the following: merchandise sold for cash or credit at wholesale and retail by establishments primarily engaged in merchant wholesale trade; receipts from customers for rental or leasing of equipment, instruments, tools, etc.; receipts for delivery, installation, alteration, maintenance, repair, storage, and other services; and gasoline, liquor, tobacco, and other excise taxes which are paid by the manufacturer and passed along to the wholesaler. Sales are net after deductions for refunds and allowances for merchandise returned by customers. Sales which are made on an agency basis for others are included as gross sales. Direct shipments on orders from wholesalers are also included in sales. Total sales do not include nonoperating income from sources such as investments, rental or sale of real estate, etc.

Sales exclude sales and excise taxes collected directly from customers and paid directly to a local, State, or Federal tax agency. Also excluded are receipts from customers for carrying or other credit charges.

**Inventories.** Inventories represent stocks, at cost, of merchandise on hand for sale at the end of the month regardless of location, except for goods outside the United States. Goods held on consignment and items not held for sale such as fixtures, equipment, and supplies are not included.

**Stock-Sales Ratios.** The stock-sales ratios are derived by dividing the dollar value of inventories, at cost, by the dollar value of sales. No adjustment is made in these ratios for the markup in sales which may vary from trade to trade.

The sales and inventory figures represent total sales and inventories of all establishments primarily engaged in merchant wholesale trade. Also included are the sales and inventories of central administrative offices and auxiliaries of merchant wholesale establishments.

## Kind-of-Business Classifications

The durable goods group includes establishments primarily engaged in the distribution of goods classified in Standard Industrial Classification (SIC) major group 50. This group includes establishments classified in SIC groups 501 through 509.

The nondurable goods group includes establishments primarily engaged in the distribution of goods classified in SIC major group 51. This group includes establishments classified in SIC groups 511 through 519.

For a further description of the kinds of business included in the major groups see the 1972 Standard Industrial Classification Manual or the January 1981 *Monthly Wholesale Trade* Report.

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