## MONTHLY FULL REPORT ON MANUFACTURERS' SHIPMENTS, INVENTORIES AND ORDERS JULY 2023

Release Number: CB 23-133 M3-2 (23)-07
September 5, 2023 - The U.S. Census Bureau announces the July full report on manufacturers' shipments, inventories and orders:



## Summary

New orders for manufactured goods in July, down following four consecutive monthly increases, decreased $\$ 12.7$ billion or 2.1 percent to $\$ 579.4$ billion, the U.S. Census Bureau reported today. This followed a 2.3 percent June increase. Shipments, up three consecutive months, increased $\$ 2.9$ billion or 0.5 percent to $\$ 577.2$ billion. This followed a 0.2 percent June increase. Unfilled orders, up seven of the last eight months, increased $\$ 7.2$ billion or 0.5 percent to $\$ 1,332.0$ billion. This followed a 1.8 percent June increase. The unfilled orders-to-shipments ratio was 6.80 , up from 6.74 in June. Inventories, up following two consecutive monthly decreases, increased $\$ 0.6$ billion or 0.1 percent to $\$ 852.5$ billion. This followed a 0.2 percent June decrease. The inventories-to-shipments ratio was 1.48 , unchanged from June.

## New Orders

New orders for manufactured durable goods in July, down following four consecutive monthly increases, decreased $\$ 15.7$ billion or 5.2 percent to $\$ 285.5$ billion, unchanged from the previously published decrease. This followed a 4.3 percent June increase. Transportation equipment, also down following four consecutive monthly increases, drove the decrease, $\$ 16.5$ billion or 14.3 percent to $\$ 98.6$ billion. New orders for manufactured nondurable goods increased $\$ 3.1$ billion or 1.1 percent to $\$ 293.9$ billion.

## Data Inquiries

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## Shipments

Shipments of manufactured durable goods in July, down following two consecutive monthly increases, decreased $\$ 0.2$ billion or 0.1 percent to $\$ 283.3$ billion, down from the previously published virtually unchanged increase. This followed a virtually unchanged June increase. Transportation equipment, down three of the last four months, drove the decrease, $\$ 0.3$ billion or 0.3 percent to $\$ 91.6$ billion. Shipments of manufactured nondurable goods, up two consecutive months, increased $\$ 3.1$ billion or 1.1 percent to $\$ 293.9$ billion. This followed a 0.4 percent June increase. Petroleum and coal products, also up two consecutive months, led the increase, $\$ 2.8$ billion or 4.6 percent to $\$ 64.6$ billion.

## Unfilled Orders

Unfilled orders for manufactured durable goods in July, up seven of the last eight months, increased \$7.2 billion or 0.5 percent to $\$ 1,332.0$ billion, unchanged from the previously published increase. This followed a 1.8 percent June increase. Transportation equipment, also up seven of the last eight months, led the increase, $\$ 7.0$ billion or 0.8 percent to $\$ 834.1$ billion.

## Inventories

Inventories of manufactured durable goods in July, down two consecutive months, decreased $\$ 0.3$ billion or virtually unchanged to $\$ 522.2$ billion, unchanged from the previously published decrease. This followed a virtually unchanged June decrease. Transportation equipment, also down two consecutive months, led the decrease, $\$ 0.2$ billion or 0.2 percent to $\$ 163.8$ billion. Inventories of manufactured nondurable goods, up following five consecutive monthly decreases, increased $\$ 0.9$ billion or 0.3 percent to $\$ 330.3$ billion. This followed a 0.4 percent June decrease. Petroleum and coal products, also up following five consecutive monthly decreases, drove the increase, $\$ 1.8$ billion or 4.1 percent to $\$ 46.0$ billion. By stage of fabrication, July materials and supplies increased 0.1 percent in both durable and nondurable goods. Work in process decreased 0.1 percent in durable goods and increased 1.4 percent in nondurable goods. Finished goods decreased 0.2 percent in durable goods and 0.1 percent in nondurable goods.

The Advance Report on durable goods for August is scheduled for release on September 27, 2023, at 8:30 a.m. EDT and the Full Report on October 4, 2023, at 10:00 a.m. EDT. View the full schedule in the Economic Briefing Room: <www.census.gov/economic-indicators/>. The full text and tables of this release can be found at <www.census.gov/m3>.


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## EXPLANATORY NOTES

Figures in text are adjusted for seasonality, but not for inflation. Figures on new and unfilled orders exclude data for semiconductor manufacturing.
"Virtually unchanged" indicates that the change is less than 0.05 percent for a percent increase or decrease.

The Census Bureau has reviewed this data product to ensure appropriate access, use, and disclosure avoidance protection of the confidential source data (Project No. P-6000307, Disclosure Review Board (DRB) approval number: CBDRB-FY23-0265).

## Description of the survey

This report is compiled from results of the U.S. Census Bureau's Manufacturers' Shipments, Inventories, and Orders (M3) survey, which is a voluntary survey authorized by Title 13 of the United States Code. This survey provides statistics on a calendar-month basis for manufacturers' value of shipments, new orders (net of cancellations), end-of-month order backlog (unfilled orders), end-of-month total inventory (at current cost or market value), and inventories by stage of fabrication (materials and supplies, work-inprocess, and finished goods). Data published from the M3 survey are based on a panel of approximately 5,000 reporting units that represent approximately 3,100 companies and provide an indication of month-to-month change for the Manufacturing Sector. These reporting units may be divisions of diversified large companies, large homogenous companies, or single-unit manufacturers in 92 industry categories, which are combined into 65 publication levels due to the small monthly panel size. The survey methodology assumes that the month-to-month changes of the total operations of the reporting units in the M3 panel effectively represent the month-to-month movements of all establishments that make up the category. The companies for which shipments data are currently reported or imputed in the M3 survey represent approximately 60 percent of the total value of shipments for manufacturing establishments in the 2017 Economic Census, and these companies include roughly 61 percent of the manufacturing companies with $\$ 500$ million or more in shipments in the 2017 Economic Census. The companies for which shipments data are currently reported in the M3 survey represent approximately 51 percent of the total value of shipments for manufacturing establishments in the 2017 Economic Census. Statistics based on the M3 panel differ from the results that would be obtained from a complete enumeration of all manufacturing companies. The M3 panel is not based on a probability sample; therefore, the sampling errors that are normally provided with sample surveys cannot be measured. Nonsampling errors are attributable to many

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sources. The use of company or divisional reports to estimate the monthly change for establishments is one source of nonsampling error. The use of primarily large companies to represent the month-to-month movement of all companies is another potential source. Any corrections will be published in the full report. Corrections received after the full report will be released in the next month's advance report.

Any revisions made later than two months will be reflected in the annual benchmark publication. Additional survey documentation can be found on our web site: <www.census.gov/manufacturing/m3/how the data are collected/index.html>.

## RESOURCES

API
The Census Bureau's application programming interface (API) lets developers create custom apps to reach new users and makes key demographic, socio-economic and housing statistics more accessible than ever before. <www.census.gov/developers/>.

## FRED Mobile App



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Table 1. Value of Manufacturers' Shipments for Industry Groups ${ }^{1}$
[Estimates are shown in millions of dollars and are based on data from the Manufacturers' Shipments, Inventories, and Orders Survey.]

| Industry | Seasonally Adjusted |  |  |  |  |  | Not Seasonally Adjusted |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Monthly |  |  | Percent Change |  |  | Monthly |  |  |  | Year to date |  |  |
|  | $\begin{gathered} \text { July } \\ 2023^{p} \end{gathered}$ | $\begin{aligned} & \text { June } \\ & 2023^{r} \end{aligned}$ | $\begin{aligned} & \text { May } \\ & 2023 \end{aligned}$ | June July | May June | Apr. May | $\begin{gathered} \text { July } \\ 2023^{p} \end{gathered}$ | $\begin{aligned} & \text { June } \\ & 2023^{r} \end{aligned}$ | $\begin{aligned} & \text { May } \\ & 2023 \end{aligned}$ | $\begin{aligned} & \text { July } \\ & 2022 \end{aligned}$ | $2023{ }^{\text {p }}$ | 2022 | $\begin{aligned} & \hline \text { \% Change } \\ & \text { 2023/ } \\ & 2022 \end{aligned}$ |
| All manufacturing industries... | 577,179 | 574,298 | 573,181 | 0.5 | 0.2 | 0.4 | 552,405 | 609,697 | 588,352 | 560,185 | 3,997,286 | 3,977,392 | 0.5 |
| Excluding transportation................. | 485,539 | 482,379 | 481,128 | 0.7 | 0.3 | -0.5 | 475,955 | 508,500 | 496,388 | 489,457 | 3,383,024 | 3,423,700 | -1.2 |
| Excluding defense........................ | 561,578 | 558,500 | 557,732 | 0.6 | 0.1 | 0.4 | 538,488 | 593,037 | 573,290 | 547,041 | 3,892,777 | 3,880,889 | 0.3 |
| With unfilled orders........................ | 195,877 | 196,617 | 195,943 | -0.4 | 0.3 | 1.8 | 180,412 | 215,042 | 199,334 | 174,651 | 1,348,135 | 1,291,202 | 4.4 |
| Durable goods industries....................... | 283,258 | 283,448 | 283,412 | -0.1 | 0.0 | 2.0 | 260,099 | 307,882 | 288,023 | 252,509 | 1,942,206 | 1,862,018 | 4.3 |
| Wood products...... | 13,361 | 13,332 | 13,385 | 0.2 | -0.4 | 0.8 | 13,522 | 14,647 | 14,634 | 13,758 | 94,316 | 96,826 | -2.6 |
| Nonmetallic mineral products................. | 13,298 | 13,289 | 13,297 | 0.1 | -0.1 | 1.2 | 13,605 | 14,752 | 14,169 | 13,544 | 91,866 | 89,741 | 2.4 |
| Primary metals................................... | 26,636 | 26,824 | 26,912 | -0.7 | -0.3 | 0.5 | 25,426 | 28,463 | 28,154 | 25,661 | 190,041 | 192,886 | -1.5 |
| Iron and steel mills........................ | 14,644 | 14,834 | 14,942 | -1.3 | -0.7 | 0.1 | 14,132 | 15,730 | 15,848 | 14,738 | 105,365 | 104,472 | 0.9 |
| Aluminum and nonferrous metals...... | 10,412 | 10,366 | 10,320 | 0.4 | 0.4 | 1.3 | 9,804 | 10,909 | 10,537 | 9,527 | 72,768 | 77,310 | -5.9 |
| Ferrous metal foundries................... | 1,580 | 1,624 | 1,650 | -2.7 | -1.6 | -0.4 | 1,490 | 1,824 | 1,769 | 1,396 | 11,908 | 11,104 | 7.2 |
| Fabricated metal products................... | 35,745 | 35,688 | 35,327 | 0.2 | 1.0 | 0.2 | 34,370 | 37,895 | 36,874 | 34,449 | 247,408 | 248,665 | -0.5 |
| Machinery................................... | 37,898 | 37,792 | 37,696 | 0.3 | 0.3 | 0.3 | 35,790 | 41,428 | 39,077 | 34,828 | 263,541 | 254,246 | 3.7 |
| Farm machinery.......................... | 2,593 | 2,593 | 2,549 | 0.0 | 1.7 | 3.4 | 2,594 | 2,709 | 2,690 | 3,262 | 18,412 | 24,463 | -24.7 |
| Construction machinery.................. | 4,195 | 4,327 | 4,350 | -3.1 | -0.5 | 4.0 | 4,024 | 4,915 | 4,605 | 3,692 | 30,378 | 25,523 | 19.0 |
| Mining, oil field, and gas field machinery. $\qquad$ | 1,771 | 1,684 | 1,800 | 5.2 | -6.4 | 1.9 | 1,690 | 1,695 | 1,807 | 1,414 | 11,903 | 9,788 | 21.6 |
| Industrial machinery..................... | 3,707 | 3,675 | 3,351 | 0.9 | 9.7 | -6.7 | 3,503 | 4,249 | 3,194 | 3,487 | 25,009 | 25,417 | -1.6 |
| Photographic equipment................... | 655 | 654 | 663 | 0.2 | -1.4 | 4.2 | 613 | 750 | 677 | 550 | 4,384 | 4,201 | 4.4 |
| Ventilation, heating, air-conditioning, and refrigeration equipment. | 4,985 | 4,835 | 4,864 | 3.1 | -0.6 | 2.6 | 5,153 | 5,906 | 5,415 | 4,635 | 34,074 | 31,730 | 7.4 |
| Metalworking machinery.................. | 2,668 | 2,650 | 2,764 | 0.7 | -4.1 | -3.2 | 2,374 | 2,806 | 2,761 | 2,521 | 18,710 | 19,070 | -1.9 |
| Turbines, generators, and other power transmission equipment....... | 3,886 | 4,019 | 4,076 | -3.3 | -1.4 | -0.5 | 3,670 | 4,081 | 4,248 | 3,419 | 27,597 | 24,603 | 12.2 |
| Material handling equipment............. | 4,143 | 4,155 | 4,062 | -0.3 | 2.3 | 3.4 | 3,703 | 4,365 | 4,204 | 3,213 | 27,665 | 24,991 | 10.7 |
| Computers and electronic products ${ }^{2} . . . . . . .$. | 29,313 | 29,227 | 29,245 | 0.3 | -0.1 | 0.5 | 27,470 | 31,366 | 27,436 | 27,164 | 197,029 | 192,312 | 2.5 |
| Computers.................................. | 840 | 823 | 843 | 2.1 | -2.4 | 3.9 | 854 | 992 | 836 | 748 | 5,545 | 5,028 | 10.3 |
| Computer storage devices.................. | 432 | 377 | 428 | 14.6 | -11.9 | 1.9 | 388 | 500 | 371 | 313 | 2,721 | 2,424 | 12.3 |
| Other peripheral equipment.............. | 693 | 811 | 781 | -14.5 | 3.8 | -5.4 | 643 | 971 | 643 | 668 | 5,138 | 3,713 | 38.4 |
| Nondefense communications equipment. $\qquad$ | 2,825 | 2,818 | 2,780 | 0.2 | 1.4 | -1.9 | 2,476 | 3,514 | 2,509 | 2,528 | 19,074 | 19,241 | -0.9 |
| Defense communications equipment.... | 208 | 198 | 205 | 5.1 | -3.4 | -0.5 | 200 | 200 | 192 | 187 | 1,372 | 1,319 | 4.0 |
| Audio and video equipment................. | 750 | 518 | 477 | 44.8 | 8.6 | 26.2 | 658 | 434 | 471 | 360 | 2,926 | 2,770 | 5.6 |
| Electronic components..................... | 4,628 | 4,710 | 4,675 | -1.7 | 0.7 | 2.7 | 4,512 | 5,031 | 4,739 | 4,587 | 32,546 | 32,127 | 1.3 |
| Nondefense search and navigation equipment $\qquad$ | 1,632 | 1,628 | 1,649 | 0.2 | -1.3 | 0.2 | 1,436 | 1,756 | 1,623 | 1,400 | 11,083 | 10,868 | 2.0 |
| Defense search and navigation equipment. $\qquad$ | 3,315 | 3,296 | 3,292 | 0.6 | 0.1 | 1.3 | 3,110 | 3,397 | 3,237 | 2,821 | 22,040 | 21,205 | 3.9 |
| Electromedical, measuring, and control instruments. | 8,873 | 8,907 | 8,893 | -0.4 | 0.2 | -0.1 | 8,251 | 9,734 | 8,337 | 8,276 | 59,631 | 58,841 | 1.3 |
| Electrical equipment, appliances, |  |  |  |  |  |  |  |  |  |  |  |  |  |
| and components........................... | 14,063 | 14,037 | 14,048 | 0.2 | -0.1 | 1.0 | 13,195 | 15,633 | 14,308 | 12,190 | 97,076 | 89,284 | 8.7 |
| Electric lighting equipment.............. | 1,303 | 1,313 | 1,296 | -0.8 | 1.3 | 1.6 | 1,262 | 1,398 | 1,353 | 1,168 | 8,886 | 8,272 | 7.4 |
| Household appliances.................... | 2,351 | 2,350 | 2,365 | 0.0 | -0.6 | 2.3 | 2,020 | 2,602 | 2,429 | 2,022 | 15,893 | 16,014 | -0.8 |
| Electrical equipment...................... | 4,688 | 4,595 | 4,559 | 2.0 | 0.8 | 0.2 | 4,382 | 5,422 | 4,631 | 3,697 | 32,204 | 27,496 | 17.1 |
| Batteries.................................. | 1,388 | 1,317 | 1,297 | 5.4 | 1.5 | -2.6 | 1,227 | 1,352 | 1,267 | 846 | 8,822 | 6,339 | 39.2 |
| Transportation equipment.................... | 91,640 | 91,919 | 92,053 | -0.3 | -0.1 | 5.0 | 76,450 | 101,197 | 91,964 | 70,728 | 614,262 | 553,692 | 10.9 |
| Automobiles............................. | 8,941 | 9,002 | 9,157 | -0.7 | -1.7 | 3.0 | 7,096 | 9,442 | 9,430 | 6,647 | 60,421 | 53,877 | 12.1 |
| Light trucks and utility vehicles........ | 21,929 | 21,470 | 21,761 | 2.1 | -1.3 | 5.8 | 17,488 | 22,888 | 21,024 | 16,215 | 142,729 | 131,499 | 8.5 |
| Heavy duty trucks ......................... | 2,961 | 2,972 | 2,977 | -0.4 | -0.2 | 3.2 | 2,775 | 3,231 | 3,127 | 2,309 | 20,288 | 16,442 | 23.4 |
| Motor vehicle bodies, parts, and trailers. $\qquad$ | 29,208 | 29,094 | 28,913 | 0.4 | 0.6 | 0.2 | 25,509 | 30,605 | 30,288 | 24,979 | 202,979 | 194,719 | 4.2 |
| Nondefense aircraft and parts............ | 13,185 | 13,788 | 13,821 | -4.4 | -0.2 | 29.2 | 10,176 | 18,384 | 12,694 | 7,268 | 82,495 | 59,425 | 38.8 |
| Defense aircraft and parts............... | 4,786 | 4,829 | 4,779 | -0.9 | 1.0 | -2.9 | 4,226 | 5,300 | 4,723 | 3,920 | 32,147 | 30,268 | 6.2 |
| Ships and boats.......................... | 3,473 | 3,705 | 3,754 | -6.3 | -1.3 | -1.8 | 3,070 | 3,994 | 3,995 | 3,263 | 26,226 | 24,139 | 8.6 |
| Furniture and related products............... | 6,792 | 6,876 | 6,846 | -1.2 | 0.4 | 0.5 | 6,793 | 7,175 | 6,876 | 6,909 | 47,500 | 47,026 | 1.0 |
| Miscellaneous durable goods............... | 14,512 | 14,464 | 14,603 | 0.3 | -1.0 | 1.2 | 13,478 | 15,326 | 14,531 | 13,278 | 99,167 | 97,340 | 1.9 |
| Nondurable goods industries...... | 293,921 | 290,850 | 289,769 | 1.1 | 0.4 | -1.1 | 292,306 | 301,815 | 300,329 | 307,676 | 2,055,080 | 2,115,374 | -2.9 |
| Food products.............................. | 79,433 | 79,247 | 79,335 | 0.2 | -0.1 | -0.4 | 76,975 | 79,276 | 79,587 | 77,080 | 549,758 | 547,568 | 0.4 |
| Grain and oilseed milling.................... | 9,715 | 9,755 | 9,772 | -0.4 | -0.2 | -1.5 | 9,436 | 9,758 | 9,821 | 9,644 | 68,818 | 68,501 | 0.5 |
| Dairy products............................ | 11,444 | 11,507 | 11,560 | -0.5 | -0.5 | -0.8 | 11,310 | 11,534 | 11,740 | 11,763 | 80,617 | 80,847 | -0.3 |
| Meat, poultry, and seafood products... | 23,912 | 23,868 | 24,019 | 0.2 | -0.6 | -0.2 | 23,552 | 24,935 | 24,780 | 24,257 | 167,769 | 172,874 | -3.0 |
| Beverage and tobacco products............... | 17,818 | 17,815 | 17,437 | 0.0 | 2.2 | 1.1 | 17,937 | 18,599 | 18,015 | 16,099 | 120,288 | 106,779 | 12.7 |
| Beverages................................ | 10,960 | 10,782 | 10,671 | 1.7 | 1.0 | -0.2 | 11,079 | 11,566 | 11,249 | 10,242 | 74,620 | 69,609 | 7.2 |
| Tobacco.................................. | 6,858 | 7,033 | 6,766 | -2.5 | 3.9 | 3.3 | 6,858 | 7,033 | 6,766 | 5,857 | 45,668 | 37,170 | 22.9 |
| Textile mills................................. | 2,101 | 2,092 | 2,103 | 0.4 | -0.5 | -0.8 | 2,100 | 2,207 | 2,148 | 2,253 | 14,909 | 15,998 | -6.8 |
| Textile products............................ | 1,974 | 1,990 | 1,988 | -0.8 | 0.1 | -0.4 | 1,990 | 2,139 | 2,072 | 2,095 | 14,178 | 14,729 | -3.7 |
| Apparel..................................... | 857 | 824 | 870 | 4.0 | -5.3 | -1.6 | 832 | 782 | 836 | 801 | 5,654 | 5,436 | 4.0 |
| Leather and allied products.................. | 480 | 478 | 477 | 0.4 | 0.2 | -1.4 | 472 | 482 | 497 | 441 | 3,413 | 3,060 | 11.5 |
| Paper products............................. | 17,292 | 17,406 | 17,453 | -0.7 | -0.3 | 0.1 | 16,933 | 17,949 | 17,997 | 16,790 | 121,753 | 120,045 | 1.4 |
| Pulp, paper, and paperboard mills....... | 6,854 | 6,948 | 6,936 | -1.4 | 0.2 | -1.4 | 6,855 | 7,017 | 7,141 | 6,684 | 48,703 | 46,653 | 4.4 |
| Paperboard containers..................... | 6,303 | 6,330 | 6,378 | -0.4 | -0.8 | 2.3 | 6,093 | 6,681 | 6,468 | 6,120 | 43,897 | 44,072 | -0.4 |
| Printing....................................... | 7,361 | 7,319 | 7,176 | 0.6 | 2.0 | -1.0 | 7,035 | 7,382 | 7,233 | 7,028 | 50,011 | 48,847 | 2.4 |
| Petroleum and coal products............... | 64,645 | 61,799 | 61,441 | 4.6 | 0.6 | -5.0 | 69,780 | 65,734 | 66,554 | 87,039 | 460,884 | 544,081 | -15.3 |
| Petroleum refineries..................... | 59,831 | 56,968 | 56,579 | 5.0 | 0.7 | -5.5 | 64,507 | 60,201 | 61,307 | 81,718 | 428,160 | 512,698 | -16.5 |
| Chemical products............................ | 77,362 | 77,272 | 77,034 | 0.1 | 0.3 | 0.1 | 74,402 | 80,905 | 79,808 | 73,534 | 541,684 | 532,878 | 1.7 |
| Pesticides, fertilizers, and other agricultural chemicals $\qquad$ | 3,990 | 3,852 | 3,752 | 3.6 | 2.7 | 0.2 | 3,161 | 3,942 | 4,119 | 3,149 | 28,945 | 29,850 | -3.0 |
| Pharmaceuticals and medicines............ | 24,832 | 24,733 | 24,476 | 0.4 | 1.1 | 0.4 | 23,603 | 25,604 | 24,993 | 22,176 | 168,417 | 154,953 | 8.7 |
| Paints, coatings, and adhesives.......... | 4,163 | 4,166 | 4,114 | -0.1 | 1.3 | 1.6 | 4,113 | 4,558 | 4,614 | 4,104 | 29,591 | 29,648 | -0.2 |
| Plastics and rubber products............... | 24,598 | 24,608 | 24,455 | 0.0 | 0.6 | 0.2 | 23,850 | 26,360 | 25,582 | 24,516 | 172,548 | 175,953 | -1.9 |

[^0]Estimates of shipments and new orders are for the duration of the period, while estimates of unfilled orders and total inventories are for the end of the period. Not seasonally adjusted estimates of shipments and new orders include adjusted data for non-calendar reporters. Seasonally adjusted estimates inclu
model parameters. Estimates are not adjusted for price changes.
${ }^{2}$ Estimates and percent changes of shipments for the semiconductor industry are included in computers and electronic products, and all other applicable aggregate totals.
Note: Estimates of manufacturers' shipments, inventories and orders are subject to survey error and revision. One major component of survey error is nonsampling error, which includes errors of coverage, response, and nonreporting. Since the survey panel is not a probability sample, estimates of sampling error cannot be calculated. For further details on survey design, methodology, and data limitations see [http://www.census.gov/manufacturing/m3/](http://www.census.gov/manufacturing/m3/).
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Source: U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders (M3) Survey, July Full Report, September 5, 2023. Information on data sources and methodology can be found on our website at
<www.census.gov/manufacturing/m3/how_the_data_are_collected/index.html>.

Table 2. Value of Manufacturers' New Orders for Industry Groups ${ }^{1}$
[Estimates are shown in millions of dollars and are based on data from the Manufacturers' Shipments, Inventories, and Orders Survey.]

| Industry | Seasonally Adjusted |  |  |  |  |  | Not Seasonally Adjusted |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Monthly |  |  | Percent Change |  |  | Monthly |  |  |  | Year to date |  |  |
|  | $\begin{gathered} \text { July } \\ 2023^{p} \end{gathered}$ | $\begin{aligned} & \text { June } \\ & 2023^{r} \end{aligned}$ | $\begin{aligned} & \text { May } \\ & 2023 \end{aligned}$ | June July | May June | Apr. May | $\begin{gathered} \text { July } \\ 2023^{p} \end{gathered}$ | $\begin{aligned} & \text { June } \\ & \text { 2023' } \end{aligned}$ | $\begin{aligned} & \text { May } \\ & 2023 \end{aligned}$ | $\begin{gathered} \text { July } \\ 2022 \end{gathered}$ | $2023{ }^{\text {p }}$ | 2022 | $\begin{aligned} & \hline \text { \% Change } \\ & \text { 2023/ } \\ & 2022 \end{aligned}$ |
| All manufacturing industries ${ }^{2}$. | 579,438 | 592,112 | 578,626 | -2.1 | 2.3 | 0.4 | 554,308 | 626,053 | 588,969 | 561,920 | 4,026,507 | 4,004,734 | 0.5 |
| Excluding transportation ${ }^{2}$................... | 480,804 | 477,014 | 475,766 | 0.8 | 0.3 | -0.4 | 470,549 | 500,938 | 491,447 | 484,503 | 3,357,163 | 3,411,072 | -1.6 |
|  | 564,380 | 577,101 | 560,259 | -2.2 | 3.0 | 0.9 | 543,456 | 608,257 | 574,298 | 550,672 | 3,914,489 | 3,908,476 | 0.2 |
| With unfilled orders ${ }^{2} . . . . . . . . . . . . . . . . . . . . . . . ~$ | 203,099 | 219,419 | 206,456 | -7.4 | 6.3 | 1.7 | 187,112 | 236,087 | 204,287 | 181,515 | 1,411,278 | 1,352,294 | 4.4 |
| Durable goods industries ${ }^{2} . . . . . . . . . . . . . . . . . . . . . .$. | 285,517 | 301,262 | 288,857 | -5.2 | 4.3 | 2.0 | 262,002 | 324,238 | 288,640 | 254,244 | 1,971,427 | 1,889,360 | 4.3 |
| Primary metals.................................. | 26,893 | 26,933 | 26,901 | -0.1 | 0.1 | 0.8 | 25,636 | 28,182 | 27,988 | 25,341 | 190,636 | 194,462 | -2.0 |
| Iron and steel mills........................ | 14,791 | 14,906 | 14,963 | -0.8 | -0.4 | 0.2 | 14,373 | 15,611 | 15,895 | 14,888 | 106,137 | 105,917 | 0.2 |
| Aluminum and nonferrous metals.......... | 10,531 | 10,385 | 10,276 | 1.4 | 1.1 | 2.2 | 9,775 | 10,793 | 10,364 | 9,087 | 72,585 | 77,064 | -5.8 |
| Ferrous metal foundries................... | 1,571 | 1,642 | 1,662 | -4.3 | -1.2 | -1.9 | 1,488 | 1,778 | 1,729 | 1,366 | 11,914 | 11,481 | 3.8 |
| Fabricated metal products.................... | 35,799 | 35,539 | 35,267 | 0.7 | 0.8 | 0.1 | 34,400 | 37,311 | 37,951 | 34,357 | 252,085 | 254,971 | -1.1 |
| Machinery................................... | 37,733 | 37,298 | 37,537 | 1.2 | -0.6 | 0.6 | 35,647 | 39,706 | 38,321 | 35,460 | 264,450 | 261,987 | 0.9 |
| Construction machinery.................... | 4,204 | 4,278 | 4,363 | -1.7 | -1.9 | 0.0 | 3,928 | 4,504 | 4,323 | 3,646 | 29,730 | 26,471 | 12.3 |
| Mining, oil field, and gas field machinery. $\qquad$ | 1,687 | 1,502 | 1,709 | 12.3 | -12.1 | -4.7 | 1,606 | 1,513 | 1,716 | 1,403 | 11,554 | 9,714 | 18.9 |
| Industrial machinery....................... | 3,480 | 3,314 | 3,640 | 5.0 | -9.0 | 9.0 | 3,336 | 3,697 | 3,416 | 4,029 | 25,354 | 27,328 | -7.2 |
| Photographic equipment................... | 628 | 616 | 643 | 1.9 | -4.2 | -4.5 | 575 | 588 | 623 | 619 | 4,397 | 4,094 | 7.4 |
| Ventilation, heating, air-conditioning, and refrigeration equipment. | 4,885 | 4,883 | 4,787 | 0.0 | 2.0 | 1.9 | 5,020 | 5,661 | 5,318 | 4,997 | 34,784 | 34,048 | 2.2 |
| Metalworking machinery................... | 2,717 | 2,573 | 2,586 | 5.6 | -0.5 | -5.7 | 2,565 | 2,565 | 2,526 | 2,507 | 18,640 | 19,383 | -3.8 |
| Turbines, generators, and other power transmission equipment........... | 4,136 | 4,289 | 4,055 | -3.6 | 5.8 | 0.4 | 3,920 | 4,351 | 4,227 | 3,322 | 27,805 | 24,443 | 13.8 |
| Material handling equipment............... | 4,240 | 4,149 | 4,043 | 2.2 | 2.6 | 0.8 | 3,629 | 4,639 | 3,975 | 3,101 | 27,797 | 26,080 | 6.6 |
| Computers and electronic products ${ }^{2}$... | 24,409 | 24,458 | 24,165 | -0.2 | 1.2 | 0.8 | 22,249 | 26,919 | 22,298 | 21,833 | 163,495 | 159,977 | 2.2 |
| Computers............................... | 852 | 834 | 808 | 2.2 | 3.2 | 0.4 | 866 | 1,003 | 801 | 758 | 5,559 | 5,027 | 10.6 |
| Nondefense communications equipment. $\qquad$ | 2,781 | 2,753 | 2,647 | 1.0 | 4.0 | -2.0 | 2,266 | 3,391 | 2,207 | 2,281 | 18,263 | 19,225 | -5.0 |
| Defense communications equipment....... | 208 | 200 | 209 | 4.0 | -4.3 | 1.0 | 200 | 204 | 187 | 181 | 1,360 | 1,290 | 5.4 |
| Electronic components.................... | 4,555 | 4,658 | 4,669 | -2.2 | -0.2 | 4.9 | 4,501 | 4,796 | 4,591 | 4,724 | 31,754 | 32,311 | -1.7 |
| Nondefense search and navigation equipment. $\qquad$ | 1,724 | 1,718 | 1,775 | 0.3 | -3.2 | -0.1 | 1,533 | 1,895 | 1,716 | 1,530 | 12,023 | 11,943 | 0.7 |
| Defense search and navigation equipment. $\qquad$ | 3,362 | 3,518 | 3,351 | -4.4 | 5.0 | 0.4 | 2,821 | 3,957 | 2,909 | 2,568 | 22,856 | 20,758 | 10.1 |
| Electromedical, measuring, and control instruments.. $\qquad$ | 8,898 | 8,918 | 8,866 | -0.2 | 0.6 | -0.6 | 8,228 | 9,620 | 8,260 | 8,303 | 59,864 | 59,490 | 0.6 |
| Electrical equipment, appliances, | 14,381 | 14,222 | 14.161 | 11 | 0.4 | 2.4 | 13,321 | 15,493 | 14,378 | 12,531 | 98,645 | 92,863 | 6.2 |
| Electric lighting equipment.................... | 1,306 | 1,344 | 1,363 | -2.8 | -1.4 | 2.4 | 13,201 1,201 | 1,568 | 1,333 | 1,171 | 9,084 | 8,383 | 8.4 |
| Household appliances..................... | 2,548 | 2,385 | 2,382 | 6.8 | 0.1 | 6.8 | 2,217 | 2,530 | 2,435 | 1,969 | 16,103 | 15,387 | 4.7 |
| Electrical equipment....................... | 4,721 | 4,555 | 4,661 | 3.6 | -2.3 | 1.2 | 4,459 | 5,094 | 4,773 | 4,129 | 33,093 | 31,052 | 6.6 |
| Transportation equipment................... | 98,634 | 115,098 | 102,860 | -14.3 | 11.9 | 4.2 | 83,759 | 125,115 | 97,522 | 77,417 | 669,344 | 593,662 | 12.7 |
| Motor vehicle bodies, parts, and trailers. $\qquad$ | 29,295 | 29,206 | 28,882 | 0.3 | 1.1 | -0.1 | 25,322 | 29,959 | 29,498 | 24,621 | 202,451 | 193,925 | 4.4 |
| Nondefense aircraft and parts............... | 21,167 | 37,499 | 21,919 | -43.6 | 71.1 | 33.4 | 20,995 | 41,930 | 19,317 | 15,728 | 132,063 | 100,084 | 32.0 |
| Defense aircraft and parts................. | 4,751 | 5,334 | 5,231 | -10.9 | 2.0 | -32.2 | 3,427 | 6,278 | 3,891 | 3,030 | 36,218 | 30,881 | 17.3 |
| Ships and boats............................ | 3,344 | 2,564 | 6,071 | 30.4 | -57.8 | 56.1 | 2,430 | 3,702 | 4,847 | 3,578 | 27,865 | 24,460 | 13.9 |
| Furniture and related products................. | 6,578 | 6,660 | 6,698 | -1.2 | -0.6 | -1.0 | 6,466 | 6,818 | 6,865 | 6,729 | 47,690 | 47,254 | 0.9 |
| Nondurable goods industries................... | 293,921 | 290,850 | 289,769 | 1.1 | 0.4 | -1.1 | 292,306 | 301,815 | 300,329 | 307,676 | 2,055,080 | 2,115,374 | -2.9 |

## ${ }^{\mathrm{p}}$ Preliminary

${ }^{r}$ Revised data due to late receipts and concurrent seasonal adjustment.

 review of the model parameters. Estimates are not adjusted for price changes.
${ }^{2}$ Data on new orders are not available for the semiconductor industry. Estimates and percent changes for new orders exclude semiconductor industry data.

Since the survey panel is not a probability sample, estimates of sampling error cannot be calculated. For further details on survey design, methodology, and data limitations see [http://www.census.gov/manufacturing/m3/](http://www.census.gov/manufacturing/m3/).

FY23-0265).
Source: U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders (M3) Survey, July Full Report, September 5, 2023. Information on data sources and methodology can be found on our website at <www.census.gov/manufacturing/m3/how_the_data_are_collected/index.html>.

Table 3. Value of Manufacturers' Unfilled Orders for Industry Groups ${ }^{1}$
[Estimates are shown in millions of dollars and are based on data from the Manufacturers' Shipments, Inventories, and Orders Survey.]


[^1]Table 4. Value of Manufacturers' Inventories for Industry Groups ${ }^{1}$
[Estimates are shown in millions of dollars and are based on data from the Manufacturers' Shipments, Inventories, and Orders Survey.]

| Industry | Seasonally Adjusted |  |  |  |  |  | Not Seasonally Adjusted |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Monthly |  |  | Percent Change |  |  | Monthly |  |  |  | $\begin{gathered} \text { \% Change } \\ \text { July } \\ 2023 / \\ 2022 \end{gathered}$ |
|  | $\begin{gathered} \text { July } \\ 2023^{p} \end{gathered}$ | $\begin{aligned} & \text { June } \\ & 2023^{r} \end{aligned}$ | $\begin{aligned} & \text { May } \\ & 2023 \end{aligned}$ | June July | May June | Apr. - <br> May | $\begin{gathered} \text { July } \\ 2023^{p} \end{gathered}$ | $\begin{aligned} & \text { June } \\ & 2023^{r} \end{aligned}$ | $\begin{aligned} & \text { May } \\ & 2023 \end{aligned}$ | $\begin{aligned} & \text { July } \\ & 2022 \end{aligned}$ |  |
| All manufacturing industries. $\qquad$ <br> Excluding transportation. $\qquad$ <br> Excluding defense $\qquad$ <br> With unfilled orders.. $\qquad$ | 852,536 688,718 823,148 422,244 | 851,905 687,840 822,463 422,620 | 853,314 689,176 823,901 422,572 | 0.1 0.1 0.1 -0.1 | -0.2 -0.2 -0.2 0.0 | -0.2 -0.3 -0.3 0.2 | 856,570 691,343 827,166 425,021 | 851,895 688,534 822,357 423,468 | 859,332 694,458 829,777 426,126 | 860,467 696,033 831,930 419,807 | -0.5 -0.7 -0.6 1.2 |
| Durable goods industries.................... | 522,226 | 522,478 | 522,669 | 0.0 | 0.0 | 0.2 | 524,814 | 522,292 | 527,050 | 518,893 | 1.1 |
| Wood products............................... | 15,783 | 15,831 | 16,019 | -0.3 | -1.2 | -0.8 | 15,516 | 15,575 | 15,845 | 16,483 | -5.9 |
| Nonmetallic mineral products................. | 17,137 | 17,108 | 17,109 | 0.2 | 0.0 | 0.5 | 17,208 | 17,208 | 17,473 | 16,405 | 4.9 |
| Primary metals............................... | 46,363 | 46,588 | 46,831 | -0.5 | -0.5 | 0.4 | 46,679 | 46,945 | 47,421 | 48,521 | -3.8 |
| Iron and steel mills........................ | 27,208 | 27,344 | 27,425 | -0.5 | -0.3 | 0.5 | 27,470 | 27,651 | 27,561 | 28,755 | -4.5 |
| Aluminum and nonferrous metals...... | 16,037 | 16,091 | 16,247 | -0.3 | -1.0 | 0.1 | 16,127 | 16,128 | 16,645 | 16,863 | -4.4 |
| Ferrous metal foundries.................... | 3,118 | 3,153 | 3,159 | -1.1 | -0.2 | 1.5 | 3,082 | 3,166 | 3,215 | 2,903 | 6.2 |
| Fabricated metal products.................... | 64,886 | 64,966 | 64,797 | -0.1 | 0.3 | 0.4 | 65,630 | 65,253 | 65,547 | 65,962 | -0.5 |
| Machinery................................... | 94,865 | 94,737 | 94,545 | 0.1 | 0.2 | 0.6 | 94,269 | 94,807 | 95,359 | 88,275 | 6.8 |
| Farm machinery.............................. | 5,811 | 5,765 | 5,711 | 0.8 | 0.9 | 0.7 | 5,609 | 5,616 | 5,710 | 5,822 | -3.7 |
| Construction machinery....................... | 9,453 | 9,456 | 9,397 | 0.0 | 0.6 | 0.5 | 9,368 | 9,381 | 9,491 | 8,467 | 10.6 |
| Mining, oil field, and gas field machinery $\qquad$ | 5,783 | 5,868 | 5,865 | -1.4 | 0.1 | 1.2 | 5,800 | 5,950 | 5,937 | 5,288 | 9.7 |
| Industrial machinery....................... | 11,181 | 11,248 | 11,278 | -0.6 | -0.3 | 1.2 | 10,727 | 11,566 | 11,339 | 10,099 | 6.2 |
| Photographic equipment................... | 1,469 | 1,466 | 1,473 | 0.2 | -0.5 | -0.1 | 1,477 | 1,435 | 1,483 | 1,419 | 4.1 |
| Ventilation, heating, air-conditioning, and refrigeration equipment. | 9,750 | 9,709 | 9,570 | 0.4 | 1.5 | 1.7 | 9,633 | 9,736 | 9,959 | 8,237 | 16.9 |
| Metalworking machinery.................... | 7,474 | 7,428 | 7,374 | 0.6 | 0.7 | -0.3 | 7,566 | 7,419 | 7,407 | 7,250 | 4.4 |
| Turbines, generators, and other power transmission equipment. | 12,111 | 11,883 | 11,841 | 1.9 | 0.4 | 0.1 | 12,308 | 11,892 | 12,001 | 11,197 | 9.9 |
| Material handling equipment................ | 7,932 | 8,003 | 8,172 | -0.9 | -2.1 | 1.5 | 7,912 | 7,992 | 8,198 | 7,207 | 9.8 |
| Computers and electronic products ${ }^{2}$........... | 54,921 | 54,857 | 54,987 | 0.1 | -0.2 | -0.1 | 55,368 | 54,641 | 55,559 | 55,180 | 0.3 |
| Computers................................ | 1,881 | 1,924 | 1,953 | -2.2 | -1.5 | -3.3 | 1,924 | 2,003 | 1,995 | 2,191 | -12.2 |
| Computer storage devices................. | 618 | 630 | 623 | -1.9 | 1.1 | -3.1 | 639 | 618 | 626 | 683 | -6.4 |
| Other peripheral equipment................. | 1,071 | 1,059 | 1,043 | 1.1 | 1.5 | 0.4 | 1,043 | 1,040 | 1,091 | 950 | 9.8 |
| Nondefense communications equipment. $\qquad$ | 4,367 | 4,373 | 4,386 | -0.1 | -0.3 | -0.3 | 4,390 | 4,346 | 4,464 | 4,412 | -0.5 |
| Defense communications equipment....... | 634 | 634 | 634 | 0.0 | 0.0 | -1.1 | 634 | 634 | 634 | 603 | 5.1 |
| Audio and video equipment................. | 793 | 780 | 820 | 1.7 | -4.9 | -4.5 | 749 | 788 | 853 | 818 | -8.4 |
| Electronic components..................... | 10,640 | 10,526 | 10,654 | 1.1 | -1.2 | -0.4 | 10,777 | 10,449 | 10,625 | 11,543 | -6.6 |
| Nondefense search and navigation equipment. $\qquad$ | 4,213 | 4,211 | 4,193 | 0.0 | 0.4 | 0.3 | 4,261 | 4,177 | 4,182 | 4,059 | 5.0 |
| Defense search and navigation equipment. $\qquad$ | 3,338 | 3,348 | 3,338 | -0.3 | 0.3 | -0.2 | 3,365 | 3,349 | 3,408 | 3,392 | -0.8 |
| Electromedical, measuring and control instruments. | 18,960 | 19,004 | 19,039 | -0.2 | -0.2 | 0.1 | 19,189 | 18,934 | 19,412 | 18,655 | 2.9 |
| Electrical equipment, appliances, and components. | 26,375 | 26,304 | 26,187 | 0.3 | 0.4 | 0.4 | 26,613 | 26,522 | 26,676 | 25,410 | 4.7 |
| Electric lighting equipment.................. | 2,538 | 2,532 | 2,531 | 0.2 | 0.0 | 1.1 | 2,524 | 2,527 | 2,533 | 2,519 | 0.2 |
| Household appliances...................... | 3,627 | 3,636 | 3,622 | -0.2 | 0.4 | 1.0 | 3,742 | 3,675 | 3,677 | 3,924 | -4.6 |
| Electrical equipment....................... | 9,909 | 9,840 | 9,654 | 0.7 | 1.9 | 0.5 | 9,960 | 9,883 | 9,960 | 8,938 | 11.4 |
| Batteries................................... | 1,899 | 1,894 | 1,891 | 0.3 | 0.2 | 0.4 | 1,967 | 2,009 | 1,996 | 1,868 | 5.3 |
| Transportation equipment.................... | 163,818 | 164,065 | 164,138 | -0.2 | 0.0 | 0.0 | 165,227 | 163,361 | 164,874 | 164,434 | 0.5 |
| Automobiles............................... | 5,981 | 5,879 | 5,857 | 1.7 | 0.4 | 1.1 | 6,032 | 5,706 | 5,759 | 5,639 | 7.0 |
| Light trucks and utility vehicles............ | 9,150 | 9,335 | 9,574 | -2.0 | -2.5 | 1.2 | 9,236 | 8,969 | 9,992 | 9,729 | -5.1 |
| Heavy duty trucks ......................... | 2,843 | 2,856 | 2,873 | -0.5 | -0.6 | -2.3 | 2,888 | 2,903 | 2,971 | 2,964 | -2.6 |
| Motor vehicle bodies, parts, and trailers $\qquad$ | 35,651 | 35,373 | 35,209 | 0.8 | 0.5 | -0.1 | 36,154 | 35,158 | 35,325 | 35,630 | 1.5 |
| Nondefense aircraft and parts............. | 77,248 | 77,607 | 77,654 | -0.5 | -0.1 | -0.1 | 77,803 | 77,658 | 77,805 | 78,668 | -1.1 |
| Defense aircraft and parts................... | 14,126 | 14,184 | 14,176 | -0.4 | 0.1 | 0.6 | 14,151 | 14,169 | 14,214 | 14,160 | -0.1 |
| Ships and boats........................... | 4,617 | 4,661 | 4,586 | -0.9 | 1.6 | 0.5 | 4,566 | 4,737 | 4,635 | 4,343 | 5.1 |
| Furniture and related products................. | 10,220 | 10,243 | 10,358 | -0.2 | -1.1 | -0.7 | 10,303 | 10,364 | 10,519 | 10,632 | -3.1 |
| Miscellaneous durable goods................... | 27,858 | 27,779 | 27,698 | 0.3 | 0.3 | 0.0 | 28,001 | 27,616 | 27,777 | 27,591 | 1.5 |
| Nondurable goods industries.................. | 330,310 | 329,427 | 330,645 | 0.3 | -0.4 | -0.9 | 331,756 | 329,603 | 332,282 | 341,574 | -2.9 |
| Food products................................. | 71,085 | 71,423 | 71,653 | -0.5 | -0.3 | -0.7 | 69,854 | 69,645 | 69,728 | 69,433 | 0.6 |
| Grain and oilseed milling.................... | 7,719 | 7,723 | 7,696 | -0.1 | 0.4 | -2.3 | 7,560 | 7,482 | 7,379 | 7,728 | -2.2 |
| Dairy products.............................. | 10,786 | 10,820 | 10,895 | -0.3 | -0.7 | -0.4 | 11,119 | 11,168 | 11,255 | 10,742 | 3.5 |
| Meat, poultry, and seafood products....... | 13,194 | 13,191 | 13,207 | 0.0 | -0.1 | -1.1 | 13,190 | 12,931 | 13,044 | 13,432 | -1.8 |
| Beverage and tobacco products.............. | 31,061 | 31,106 | 31,019 | -0.1 | 0.3 | -0.1 | 30,405 | 30,697 | 31,038 | 30,100 | 1.0 |
| Beverages............................... | 27,408 | 27,416 | 27,311 | 0.0 | 0.4 | -0.1 | 27,004 | 27,162 | 27,401 | 26,543 | 1.7 |
| Tobacco.................................. | 3,653 | 3,690 | 3,708 | -1.0 | -0.5 | -0.1 | 3,401 | 3,535 | 3,637 | 3,557 | -4.4 |
| Textile mills.................................... | 3,610 | 3,624 | 3,615 | -0.4 | 0.2 | 0.4 | 3,649 | 3,625 | 3,627 | 3,778 | -3.4 |
| Textile products............................... | 3,676 | 3,698 | 3,723 | -0.6 | -0.7 | -0.9 | 3,653 | 3,664 | 3,693 | 3,935 | -7.2 |
| Apparel..................................... | 2,187 | 2,190 | 2,194 | -0.1 | -0.2 | -1.3 | 2,276 | 2,265 | 2,197 | 2,307 | -1.3 |
| Leather and allied products..................... | 1,257 | 1,271 | 1,284 | -1.1 | -1.0 | 0.1 | 1,284 | 1,277 | 1,293 | 1,309 | -1.9 |
| Paper products............................... | 17,976 | 18,125 | 18,321 | -0.8 | -1.1 | -0.4 | 18,230 | 18,151 | 18,374 | 18,674 | -2.4 |
| Pulp, paper, and paperboard mills.......... | 5,583 | 5,657 | 5,719 | -1.3 | -1.1 | 0.1 | 5,633 | 5,669 | 5,752 | 5,637 | -0.1 |
| Paperboard containers.................... | 6,835 | 6,874 | 6,969 | -0.6 | -1.4 | -0.6 | 6,932 | 6,850 | 6,955 | 6,989 | -0.8 |
| Printing..................................... | 6,860 | 6,902 | 6,971 | -0.6 | -1.0 | -0.7 | 6,788 | 6,813 | 6,862 | 7,094 | -4.3 |
| Petroleum and coal products................. | 46,001 | 44,207 | 44,400 | 4.1 | -0.4 | -4.1 | 48,231 | 46,551 | 46,741 | 55,571 | -13.2 |
| Petroleum refineries....................... | 39,190 | 37,373 | 37,476 | 4.9 | -0.3 | -4.5 | 41,348 | 39,659 | 39,679 | 48,516 | -14.8 |
| Chemical products............................. | 112,683 | 112,804 | 113,118 | -0.1 | -0.3 | -0.2 | 113,468 | 112,979 | 114,205 | 114,283 | -0.7 |
| Pesticides, fertilizers, and other agricultural chemicals. $\qquad$ | 6,138 | 6,157 | 6,092 | -0.3 | 1.1 | 1.5 | 5,920 | 5,920 | 6,060 | 5,882 | 0.6 |
| Pharmaceuticals and medicines............. | 47,805 | 47,558 | 47,401 | 0.5 | 0.3 | -0.2 | 48,064 | 48,225 | 47,912 | 46,755 | 2.8 |
| Paints, coatings, and adhesives............ | 5,715 | 5,797 | 5,862 | -1.4 | -1.1 | -0.9 | 5,735 | 5,827 | 5,941 | 5,865 | -2.2 |
| Plastics and rubber products.................. | 33,914 | 34,077 | 34,347 | -0.5 | -0.8 | -0.7 | 33,918 | 33,936 | 34,524 | 35,090 | -3.3 |

${ }^{\mathrm{p}}$ Preliminary
r Revised data due to late receipts and concurrent seasonal adjustment.
${ }^{1}$ Estimates of shipments and new orders are for the duration of the period, while estimates of unfilled orders and total inventories are for the end of the period. Not seasonally adjusted estimates of shipments and new orders include adjusted data for non-calendar reporters. Seasonally adjusted estimates include concurrent adjustments for holiday and trading-day differences, where appropriate, as well as seasonal variation, based on the results of the latest annual review of the model parameters. Estimates are not adjusted for price changes.
Estimates of inventories for the semiconductor industry data are included in computers and electronic products, and all other applicable aggregate totals.
Note: Estimates of manufacturers' shipments, inventories and orders are subject to survey error and revision. One major component of survey error is nonsampling error, which includes errors of coverage, response, and nonreporting. Since the survey panel is not a probability sample, estimates of sampling error cannot be calculated. For further details on survey design, methodology, and data limitations see <http://www.census.gov/manufacturing $/ \mathrm{m} 3 />$.
The Census Bureau has reviewed this data product to ensure appropriate access, use, and disclosure avoidance protection of the confidential source data (Project No. P-6000307, Disclosure Review Board (DRB) approval number: CBDRB-FY23-0265). Source: U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders (M3) Survey, July Full Report, September 5, 2023. Information on data sources and methodology can be found on our website at

Table 5. Value of Manufacturers' Shipments, New Orders, Unfilled Orders, and Total Inventories for Topical Series ${ }^{1,2}$
[Estimates are shown in millions of dollars and are based on data from the Manufacturers' Shipments, Inventories, and Orders Survey.]

| Industry | Seasonally Adjusted |  |  |  |  |  | Not Seasonally Adjusted |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Monthly |  |  | Percent Change |  |  | Monthly |  |  |  | Year to date |  | $\begin{gathered} \text { \% Change }^{6} \\ \text { 2023/ } \\ 2022 \end{gathered}$ |
|  | $\begin{gathered} \text { July } \\ 2023^{p} \end{gathered}$ | June $2023^{r}$ | $\begin{aligned} & \text { May } \\ & 2023 \end{aligned}$ | June July | May June | Apr. - <br> May | $\begin{gathered} \text { July } \\ 2023^{p} \end{gathered}$ | $\begin{aligned} & \text { June } \\ & 2023^{r} \end{aligned}$ | $\begin{aligned} & \text { May } \\ & 2023 \end{aligned}$ | $\begin{aligned} & \text { July } \\ & 2022 \end{aligned}$ | $2023{ }^{\text {p }}$ | 2022 |  |
| SHIPMENTS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All manufacturing industries...................... | 577,179 | 574,298 | 573,181 | 0.5 | 0.2 | 0.4 | 552,405 | 609,697 | 588,352 | 560,185 | 3,997,286 | 3,977,392 | 0.5 |
| Construction materials and supplies....... | 62,509 | 62,390 | 62,266 | 0.2 | 0.2 | 1.1 | 62,906 | 68,672 | 66,940 | 62,815 | 434,372 | 434,824 | -0.1 |
| Information technology..................... | 24,710 | 24,645 | 24,696 | 0.3 | -0.2 | 0.8 | 23,078 | 27,255 | 23,666 | 22,455 | 166,216 | 161,799 | 2.7 |
| Computers and related products.......... | 1,965 | 2,011 | 2,052 | -2.3 | -2.0 | -0.2 | 1,885 | 2,463 | 1,850 | 1,729 | 13,404 | 11,165 | 20.1 |
| Motor vehicle and parts..................... | 63,039 | 62,538 | 62,808 | 0.8 | -0.4 | 2.6 | 52,868 | 66,166 | 63,869 | 50,150 | 426,417 | 396,537 | 7.5 |
| Capital goods................................ | 95,706 | 96,854 | 96,516 | -1.2 | 0.4 | 3.2 | 87,066 | 108,742 | 95,243 | 82,789 | 652,480 | 606,455 | 7.6 |
| Nondefense capital goods ${ }^{3}$................ | 82,377 | 83,296 | 83,303 | -1.1 | 0.0 | 3.8 | 75,174 | 94,622 | 82,382 | 71,458 | 562,924 | 523,687 | 7.5 |
| Excluding aircraft........................ | 73,822 | 74,034 | 74,051 | -0.3 | 0.0 | 0.3 | 69,140 | 81,134 | 74,023 | 67,664 | 510,866 | 489,850 | 4.3 |
| Defense capital goods ${ }^{4} . . . . . . . . . . . . . . . . . . . . . ~$ | 13,329 | 13,558 | 13,213 | -1.7 | 2.6 | -0.9 | 11,892 | 14,120 | 12,861 | 11,331 | 89,556 | 82,768 | 8.2 |
| Consumer goods............................. | 245,118 | 241,450 | 241,045 | 1.5 | 0.2 | -0.7 | 238,405 | 249,492 | 247,637 | 250,282 | 1,693,346 | 1,726,237 | -1.9 |
| Consumer durable goods.................. | 46,545 | 45,989 | 46,507 | 1.2 | -1.1 | 3.9 | 38,913 | 48,727 | 46,429 | 37,062 | 309,613 | 290,931 | 6.4 |
| Consumer nondurable goods.............. | 198,573 | 195,461 | 194,538 | 1.6 | 0.5 | -1.8 | 199,492 | 200,765 | 201,208 | 213,220 | 1,383,733 | 1,435,306 | -3.6 |
| NEW ORDERS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All manufacturing industries ${ }^{5}$................... | 579,438 | 592,112 | 578,626 | -2.1 | 2.3 | 0.4 | 554,308 | 626,053 | 588,969 | 561,920 | 4,026,507 | 4,004,734 | 0.5 |
| Construction materials and supplies....... | 62,270 | 62,265 | 62,057 | 0.0 | 0.3 | 1.1 | 62,330 | 68,178 | 67,709 | 62,627 | 438,218 | 441,274 | -0.7 |
| Information technology..................... | 24,900 | 25,037 | 24,597 | -0.5 | 1.8 | 0.3 | 22,540 | 27,660 | 22,900 | 22,144 | 167,681 | 163,462 | 2.6 |
| Computers and related products.......... | 1,977 | 2,022 | 2,017 | -2.2 | 0.2 | -1.7 | 1,897 | 2,474 | 1,815 | 1,739 | 13,418 | 11,164 | 20.2 |
| Motor vehicle and parts....................... | 63,126 | 62,650 | 62,777 | 0.8 | -0.2 | 2.5 | 52,681 | 65,520 | 63,079 | 49,792 | 425,889 | 395,743 | 7.6 |
| Capital goods................................ | 102,159 | 118,425 | 106,810 | -13.7 | 10.9 | 2.6 | 93,644 | 130,324 | 101,219 | 89,953 | 708,734 | 654,988 | 8.2 |
| Nondefense capital goods ${ }^{3}$................ | 89,816 | 106,376 | 91,113 | -15.6 | 16.8 | 6.6 | 85,101 | 116,179 | 88,281 | 80,422 | 613,932 | 576,026 | 6.6 |
| Excluding aircraft......................... | 73,597 | 73,559 | 73,873 | 0.1 | -0.4 | 0.4 | 68,419 | 79,168 | 73,243 | 68,070 | 512,561 | 501,088 | 2.3 |
| Defense capital goods ${ }^{4} . . . . . . . . . . . . . . . . . . . . . ~$ | 12,343 | 12,049 | 15,697 | 2.4 | -23.2 | -15.8 | 8,543 | 14,145 | 12,938 | 9,531 | 94,802 | 78,962 | 20.1 |
| Consumer goods............................ | 245,165 | 241,403 | 241,028 | 1.6 | 0.2 | -0.7 | 238,583 | 249,231 | 247,503 | 250,223 | 1,693,444 | 1,725,605 | -1.9 |
| Consumer durable goods.................. | 46,592 | 45,942 | 46,490 | 1.4 | -1.2 | 3.9 | 39,091 | 48,466 | 46,295 | 37,003 | 309,711 | 290,299 | 6.7 |
| Consumer nondurable goods............. | 198,573 | 195,461 | 194,538 | 1.6 | 0.5 | -1.8 | 199,492 | 200,765 | 201,208 | 213,220 | 1,383,733 | 1,435,306 | -3.6 |
| UNFILLED ORDERS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All manufacturing industries ${ }^{5}$................... | 1,331,999 | 1,324,777 | 1,301,975 | 0.5 | 1.8 | 0.8 | 1,333,439 | 1,326,739 | 1,305,694 | 1,250,446 | (X) | (X) | 6.6 |
| Construction materials and supplies....... | 99,723 | 99,962 | 100,087 | -0.2 | -0.1 | -0.2 | 101,593 | 102,169 | 102,663 | 101,702 | (X) | (X) | -0.1 |
| Information technology..................... | 134,745 | 134,555 | 134,163 | 0.1 | 0.3 | -0.1 | 134,575 | 135,113 | 134,708 | 132,204 | (X) | (X) | 1.8 |
| Computers and related products.......... | 1,297 | 1,285 | 1,274 | 0.9 | 0.9 | -2.7 | 1,297 | 1,285 | 1,274 | 1,326 | (X) | (X) | -2.2 |
| Motor vehicle and parts...................... | 35,300 | 35,213 | 35,101 | 0.2 | 0.3 | -0.1 | 34,413 | 34,600 | 35,246 | 35,111 | (X) | (X) | -2.0 |
| Capital goods................................ | 989,772 | 983,319 | 961,748 | 0.7 | 2.2 | 1.1 | 990,140 | 983,562 | 961,980 | 907,562 | (X) | (X) | 9.1 |
| Nondefense capital goods ${ }^{3}$................ | 778,946 | 771,507 | 748,427 | 1.0 | 3.1 | 1.1 | 779,652 | 769,725 | 748,168 | 708,044 | (X) | (X) | 10.1 |
| Excluding aircraft......................... | 272,252 | 272,477 | 272,952 | -0.1 | -0.2 | -0.1 | 272,375 | 273,096 | 275,062 | 273,916 | (X) | (X) | -0.6 |
| Defense capital goods ${ }^{4}$..................... | 210,826 | 211,812 | 213,321 | -0.5 | -0.7 | 1.2 | 210,488 | 213,837 | 213,812 | 199,518 | (X) | (X) | 5.5 |
| Consumer goods............................ | 12,016 | 11,969 | 12,016 | 0.4 | -0.4 | -0.1 | 11,976 | 11,798 | 12,059 | 11,763 | (X) | (X) | 1.8 |
| Consumer durable goods................... | 12,016 | 11,969 | 12,016 | 0.4 | -0.4 | -0.1 | 11,976 | 11,798 | 12,059 | 11,763 | (X) | (X) | 1.8 |
| TOTAL INVENTORIES |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All manufacturing industries.................... | 852,536 | 851,905 | 853,314 | 0.1 | -0.2 | -0.2 | 856,570 | 851,895 | 859,332 | 860,467 | (X) | (X) | -0.5 |
| Construction materials and supplies....... | 92,844 | 92,961 | 93,013 | -0.1 | -0.1 | 0.1 | 92,945 | 93,015 | 94,182 | 92,470 | (X) | (X) | 0.5 |
| Information technology..................... | 45,911 | 45,995 | 46,158 | -0.2 | -0.4 | -0.3 | 46,246 | 45,897 | 46,826 | 45,497 | (X) | (X) | 1.6 |
| Computers and related products.......... | 3,570 | 3,613 | 3,619 | -1.2 | -0.2 | -2.2 | 3,606 | 3,661 | 3,712 | 3,824 | (X) | (X) | -5.7 |
| Motor vehicle and parts....................... | 53,625 | 53,443 | 53,513 | 0.3 | -0.1 | 0.2 | 54,310 | 52,736 | 54,047 | 53,962 | (X) | (X) | 0.6 |
| Capital goods................................. | 249,217 | 249,598 | 249,746 | -0.2 | -0.1 | 0.1 | 250,187 | 250,276 | 251,649 | 243,733 | (X) | (X) | 2.6 |
| Nondefense capital goods ${ }^{3}$................ | 225,059 | 225,378 | 225,547 | -0.1 | -0.1 | 0.1 | 226,038 | 225,945 | 227,346 | 220,321 | (X) | (X) | 2.6 |
| Excluding aircraft......................... | 161,976 | 161,880 | 161,753 | 0.1 | 0.1 | 0.2 | 162,259 | 162,130 | 163,562 | 155,132 | (X) | (X) | 4.6 |
| Defense capital goods ${ }^{4} . . . . . . . . . . . . . . . . . . . . . ~$ | 24,158 | 24,220 | 24,199 | -0.3 | 0.1 | 0.3 | 24,149 | 24,331 | 24,303 | 23,412 | (X) | (X) | 3.1 |
| Consumer goods............................. | 253,076 | 251,661 | 252,309 | 0.6 | -0.3 | -1.0 | 254,065 | 251,787 | 253,478 | 261,226 | (X) | (X) | -2.7 |
| Consumer durable goods.................. | 42,165 | 42,242 | 42,608 | -0.2 | -0.9 | 0.0 | 42,347 | 41,548 | 42,989 | 43,340 | (X) | (X) | -2.3 |
| Consumer nondurable goods.............. | 210,911 | 209,419 | 209,701 | 0.7 | -0.1 | -1.2 | 211,718 | 210,239 | 210,489 | 217,886 | (X) | (X) | -2.8 |

[^2]Table 6. Value of Manufacturers' Inventories, by Stage of Fabrication, by Industry Group ${ }^{1}$
[Estimates are shown in millions of dollars and are based on data from the Manufacturers' Shipments, Inventories, and Orders Survey.]

| Industry | Seasonally Adjusted |  |  |  |  |  | Not Seasonally Adjusted |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Monthly |  |  | Percent Change |  |  | Monthly |  |  |  | $\begin{gathered} \hline \text { \% Change } \\ \text { July } \\ \text { 2023/ } \\ 2022 \end{gathered}$ |
|  | $\begin{gathered} \text { July } \\ 2023^{p} \end{gathered}$ | $\begin{aligned} & \text { June } \\ & 2023^{r} \end{aligned}$ | $\begin{aligned} & \text { May } \\ & 2023 \end{aligned}$ | June July | May June | Apr. May | $\begin{gathered} \text { July } \\ 2023^{\text {p }} \end{gathered}$ | $\begin{aligned} & \text { June } \\ & 2023^{r} \end{aligned}$ | $\begin{aligned} & \text { May } \\ & 2023 \end{aligned}$ | $\begin{aligned} & \text { July } \\ & 2022 \end{aligned}$ |  |
| MATERIALS AND SUPPLIES |  |  |  |  |  |  |  |  |  |  |  |
| All manufacturing industries............. | 315,293 | 314,857 | 314,764 | 0.1 | 0.0 | -0.3 | 317,113 | 315,316 | 315,240 | 318,569 | -0.5 |
| Durable goods industries...................... | 197,751 | 197,469 | 197,154 | 0.1 | 0.2 | 0.0 | 199,244 | 197,432 | 197,421 | 196,179 | 1.6 |
| Wood products.......................... | 7,605 | 7,632 | 7,714 | -0.4 | -1.1 | -1.1 | 7,474 | 7,450 | 7,427 | 7,933 | -5.8 |
| Nonmetallic mineral products.............. | 7,690 | 7,707 | 7,757 | -0.2 | -0.6 | 0.9 | 7,707 | 7,728 | 7,818 | 7,218 | 6.8 |
| Primary metals......................... | 18,865 | 19,080 | 18,958 | -1.1 | 0.6 | -0.7 | 19,037 | 19,388 | 18,975 | 20,060 | -5.1 |
| Fabricated metal products................... | 24,440 | 24,521 | 24,489 | -0.3 | 0.1 | 0.2 | 24,721 | 24,604 | 24,485 | 26,118 | -5.3 |
| Machinery.............................. | 40,739 | 40,392 | 40,422 | 0.9 | -0.1 | -0.5 | 40,976 | 40,381 | 40,761 | 38,693 | 5.9 |
| Computers and electronic products....... | 26,690 | 26,627 | 26,559 | 0.2 | 0.3 | 0.1 | 26,938 | 26,728 | 26,757 | 25,754 | 4.6 |
| Electrical equipment, appliances, and components | 12,658 | 12,662 | 12,647 | 0.0 | 0.1 | 0.0 | 12,836 | 12,779 | 12,831 | 12,156 | 5.6 |
| Transportation equipment.................. | 44,021 | 43,794 | 43,533 | 0.5 | 0.6 | 1.0 | 44,417 | 43,314 | 43,202 | 43,236 | 2.7 |
|  | 5,222 | 5,264 | 5,313 | -0.8 | -0.9 | -0.9 | 5,250 | 5,361 | 5,415 | 5,360 | -2.1 |
| Miscellaneous products. | 9,821 | 9,790 | 9,762 | 0.3 | 0.3 | -0.7 | 9,888 | 9,699 | 9,750 | 9,651 | 2.5 |
| Nondurable goods industries................... | 117,542 | 117,388 | 117,610 | 0.1 | -0.2 | -0.8 | 117,869 | 117,884 | 117,819 | 122,390 | -3.7 |
| Food products.......................... | 26,011 | 26,085 | 26,165 | -0.3 | -0.3 | -0.5 | 25,791 | 25,874 | 25,705 | 26,068 | -1.1 |
| Beverage and tobacco products......... | 6,432 | 6,493 | 6,391 | -0.9 | 1.6 | 0.2 | 6,113 | 6,313 | 6,373 | 5,725 | 6.8 |
| Textiles................................... | 1,460 | 1,462 | 1,456 | -0.1 | 0.4 | 0.4 | 1,475 | 1,472 | 1,467 | 1,505 | -2.0 |
| Textile products.......................... | 1,698 | 1,696 | 1,722 | 0.1 | -1.5 | -0.2 | 1,692 | 1,684 | 1,719 | 1,803 | -6.2 |
| Apparel................................. | 562 | 566 | 568 | -0.7 | -0.4 | 0.4 | 581 | 580 | 568 | 678 | -14.3 |
| Apparel...... allu............... | $\begin{array}{r}382 \\ 9 \\ 981 \\ \hline\end{array}$ | 380 | 388 | 0.5 | -2.1 | -1.8 | 396 | 381 | 393 | 420 | -5.7 |
| Paper products Printing | 9,381 | 9,544 | 9,667 | -1.7 | -1.3 | -0.5 | 9,497 | 9,502 | 9,625 | 9,824 | -3.3 |
|  | 3,545 | 3,575 | 3,564 | -0.8 | 0.3 | -1.1 | 3,519 | 3,534 | 3,499 | 3,700 | -4.9 |
| Petroleum and coal products.............. | 13,153 | 12,780 | 12,839 | 2.9 | -0.5 | -3.4 | 13,792 | 14,053 | 13,377 | 16,751 | -17.7 |
| Chemical products........................ | 39,860 | 39,738 | 39,525 | 0.3 | 0.5 | -0.5 | 39,942 | 39,552 | 39,802 | 40,173 | -0.6 |
| Plastics and rubber products............... | 15,058 | 15,069 | 15,325 | -0.1 | -1.7 | -0.9 | 15,071 | 14,939 | 15,291 | 15,743 | -4.3 |
| WORK IN PROCESS |  |  |  |  |  |  |  |  |  |  |  |
| All manufacturing industries........ | 239,735 | 239,082 | 239,622 | 0.3 | -0.2 | -0.7 | 241,298 | 239,752 | 241,420 | 241,074 | 0.1 |
| Durable goods industries..................... | 176,542 | 176,778 | 177,520 | -0.1 | -0.4 | -0.3 | 177,378 | 177,346 | 179,018 | 179,139 | -1.0 |
| Wood products........................... | 1,810 | 1,811 | 1,819 | -0.1 | -0.4 | -2.5 | 1,793 | 1,793 | 1,800 | 2,137 | -16.1 |
| Nonmetallic mineral products. | 1,734 | 1,704 | 1,679 | 1.8 | 1.5 | 1.1 | 1,742 | 1,725 | 1,740 | 1,596 | 9.1 |
|  | 12,272 | 12,264 | 12,715 | 0.1 | -3.5 | 1.1 | 12,332 | 12,379 | 12,953 | 13,178 | -6.4 |
| Primary metals........................ Fabricated metal products....). | 17,004 | 16,960 | 16,915 | 0.3 | 0.3 | 1.4 | 17,162 | 16,972 | 17,198 | 16,396 | 4.7 |
| Fabricated metal products................ | 24,205 | 24,339 | 24,539 | -0.6 | -0.8 | 0.7 | 23,895 | 24,617 | 24,975 | 22,985 | 4.0 |
| Computers and electronic products... | 13,748 | 13,553 | 13,540 | 1.4 | 0.1 | -1.1 | 13,731 | 13,396 | 13,766 | 14,536 | -5.5 |
| Electrical equipment, appliances, and components | 4,655 | 4,619 | 4,584 | 0.8 | 0.8 | 0.6 | 4,731 | 4,682 | 4,714 | 4,628 | 2.2 |
| Transportation equipment................. | 94,863 | 95,262 | 95,489 | -0.4 | -0.2 | -1.0 | 95,705 | 95,504 | 95,610 | 97,540 | -1.9 |
| Furniture and related products............ | 1,506 | 1,502 | 1,479 | 0.3 | 1.6 | 0.9 | 1,482 | 1,496 | 1,468 | 1,464 | 1.2 |
| Miscellaneous products..................... | 4,745 | 4,764 | 4,761 | -0.4 | 0.1 | 0.2 | 4,805 | 4,782 | 4,794 | 4,679 | 2.7 |
| Nondurable goods industries.................. | 63,193 | 62,304 | 62,102 | 1.4 | 0.3 | -1.7 | 63,920 | 62,406 | 62,402 | 61,935 | 3.2 |
|  | 7,606 | 7,680 | 7,670 | -1.0 | 0.1 | -0.8 | 7,105 | 7,198 | 7,139 | 7,189 | -1.2 |
| Beverage and tobacco products........ | 11,297 | 11,194 | 11,067 | 0.9 | 1.1 | 0.2 | 10,926 | 10,867 | 10,957 | 10,437 | 4.7 |
| Textiles <br> Textile products | 577 | 578 | 577 | -0.2 | 0.2 | -0.5 | 585 | 575 | 579 | 635 | -7.9 |
|  | 463 | 472 | 471 | -1.9 | 0.2 | -0.6 | 461 | 463 | 459 | 492 | -6.3 |
| Apparel.......................................... | 295 | 288 | 282 | 2.4 | 2.1 | 1.8 | 307 | 299 | 286 | 286 | 7.3 |
| Leather and allied products................ | 140 | 140 | 135 | 0.0 | 3.7 | 3.8 | 142 | 140 | 135 | 139 | 2.2 |
| Paper products............................ | 1,782 | 1,606 | 1,611 | 11.0 | -0.3 | -1.3 | 1,825 | 1,619 | 1,625 | 1,707 | 6.9 |
|  | 1,168 | 1,171 | 1,202 | -0.3 | -2.6 | 0.8 | 1,151 | 1,122 | 1,142 | 1,301 | -11.5 |
| Petroleum and coal products............... | 16,367 | 15,718 | 15,674 | 4.1 | 0.3 | -4.8 | 17,263 | 16,403 | 16,557 | 16,033 | 7.7 |
| Chemical products.............................. | 19,622 | 19,615 | 19,486 | 0.0 | 0.7 | -1.4 | 20,300 | 19,925 | 19,593 | 19,757 | 2.7 |
|  | 3,876 | 3,842 | 3,927 | 0.9 | -2.2 | 0.6 | 3,855 | 3,795 | 3,930 | 3,959 | -2.6 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| All manufacturing industries. | 297,508 | 297,966 | 298,928 | -0.2 | $-0.3$ | 0.2 | 298,159 | 296,827 | 302,672 | 300,824 | -0.9 |
| Durable goods industries $\qquad$ Wood products $\qquad$ | 147,933 | 148,231 | 147,995 | -0.2 | 0.2 | 1.0 | 148,192 | 147,514 | 150,611 | 143,575 | 3.2 |
|  | 6,368 | 6,388 | 6,486 | -0.3 | -1.5 | -0.1 | 6,249 | 6,332 | 6,618 | 6,413 | -2.6 |
| Nonmetallic mineral products............... | 7,713 | 7,697 | 7,673 | 0.2 | 0.3 | 0.0 | 7,759 | 7,755 | 7,915 | 7,591 | 2.2 |
| Primary metals.............................. | 15,226 | 15,244 | 15,158 | -0.1 | 0.6 | 1.4 | 15,310 | 15,178 | 15,493 | 15,283 | 0.2 |
| Fabricated metal products. Machinery. $\qquad$ | 23,442 | 23,485 | 23,393 | -0.2 | 0.4 | -0.2 | 23,747 | 23,677 | 23,864 | 23,448 | 1.3 |
|  | 29,921 | 30,006 | 29,584 | -0.3 | 1.4 | 2.2 | 29,398 | 29,809 | 29,623 | 26,597 | 10.5 |
| Computers and electronic products....... | 14,483 | 14,677 | 14,888 | -1.3 | -1.4 | 0.3 | 14,699 | 14,517 | 15,036 | 14,890 | -1.3 |
| Electrical equipment, appliances, and components $\qquad$ | 9,062 | 9,023 | 8,956 | 0.4 | 0.7 | 0.8 | 9,046 | 9,061 | 9,131 | 8,626 | 4.9 |
| Transportation equipment................ | 24,934 | 25,009 | 25,116 | -0.3 | -0.4 | 2.4 | 25,105 | 24,543 | 26,062 | 23,658 | 6.1 |
| Furniture and related products............. | 3,492 | 3,477 | 3,566 | 0.4 | -2.5 | -1.1 | 3,571 | 3,507 | 3,636 | 3,808 | -6.2 |
| Miscellaneous products. | 13,292 | 13,225 | 13,175 | 0.5 | 0.4 | 0.4 | 13,308 | 13,135 | 13,233 | 13,261 | 0.4 |
| Nondurable goods industries...................Food products........ | 149,575 | 149,735 | 150,933 | -0.1 | -0.8 | -0.7 | 149,967 | 149,313 | 152,061 | 157,249 | -4.6 |
|  | 37,468 | 37,658 | 37,818 | -0.5 | -0.4 | -0.8 | 36,958 | 36,573 | 36,884 | 36,176 | 2.2 |
| Beverage and tobacco products......... | 13,332 | 13,419 | 13,561 | -0.6 | -1.0 | -0.5 | 13,366 | 13,517 | 13,708 | 13,938 | -4.1 |
| Textiles................................... | 1,573 | 1,584 | 1,582 | -0.7 | 0.1 | 0.8 | 1,589 | 1,578 | 1,581 | 1,638 | -3.0 |
| Textile products.......................... | 1,515 | 1,530 | 1,530 | -1.0 | 0.0 | -1.7 | 1,500 | 1,517 | 1,515 | 1,640 | -8.5 |
| Apparel............................. | 1,330 | 1,336 | 1,344 | -0.4 | -0.6 | -2.5 | 1,388 | 1,386 | 1,343 | 1,343 | 3.4 |
| Leather and allied products................Paper products..................... | 735 | 751 | 761 | -2.1 | -1.3 | 0.4 | 746 | 756 | 765 | 750 | -0.5 |
|  | 6,813 | 6,975 | 7,043 | -2.3 | -1.0 | 0.0 | 6,908 | 7,030 | 7,124 | 7,143 | -3.3 |
| Printing ................................ | 2,147 | 2,156 | 2,205 | -0.4 | -2.2 | $-0.8$ | 2,118 | 2,157 | 2,221 | 2,093 | 1.2 |
| Petroleum and coal products..............Chemical product................. | 16,481 | 15,709 | 15,887 | 4.9 | -1.1 | -4.0 | 17,176 | 16,095 | 16,807 | 22,787 | -24.6 |
|  | 53,201 | 53,451 | 54,107 | -0.5 | -1.2 | 0.4 | 53,226 | 53,502 | 54,810 | 54,353 | -2.1 |
| Plastics and rubber products............... | 14,980 | 15,166 | 15,095 | -1.2 | 0.5 | -0.9 | 14,992 | 15,202 | 15,303 | 15,388 | -2.6 |

[^3]Table 7. Ratios of Manufacturers' Inventories to Shipments and Unfilled Orders to Shipments, by Industry Group ${ }^{1}$

| Industry | Inventory/Shipments ratio |  |  |  | Unfilled Orders/Shipments ratio ${ }^{2}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Jul } \\ 2023^{\text {D }} \end{gathered}$ | $\begin{gathered} \text { Jun } \\ 2023^{r} \end{gathered}$ | $\begin{aligned} & \text { May } \\ & 2023 \end{aligned}$ | $\begin{aligned} & \text { Apr } \\ & 2023 \end{aligned}$ | $\begin{gathered} \text { Jul } \\ 2023^{\text {² }} \end{gathered}$ | $\begin{gathered} \text { Jun } \\ 2023^{r} \end{gathered}$ | $\begin{aligned} & \text { May } \\ & 2023 \end{aligned}$ | $\begin{aligned} & \text { Apr } \\ & 2023 \end{aligned}$ |
| All manufacturing industries ${ }^{3}$............... | 1.48 | 1.48 | 1.49 | 1.50 | (X) | (x) | (x) | (x) |
|  | 1.84 | 1.84 | 1.84 | 1.88 | 6.80 | 6.74 | 6.64 | 6.71 |
|  | 1.18 | 1.19 | 1.20 | 1.22 | (X) | (x) | (x) | (X) |
| Nonmetallic mineral products..................... | 1.29 | 1.29 | 1.29 | 1.30 | (X) | (X) | (X) | (X) |
| Primary metals....................................... | 1.74 | 1.74 | 1.74 | 1.74 | 1.43 | 1.41 | 1.40 | 1.41 |
| Fabricated metal products............................ | 1.82 | 1.82 | 1.83 | 1.83 | 3.70 | 3.70 | 3.75 | 3.76 |
| Machinery............................................... | 2.50 | 2.51 | 2.51 | 2.50 | 4.04 | 4.06 | 4.08 | 4.09 |
|  | 1.87 | 1.88 | 1.88 | 1.89 | 6.04 | 6.02 | 6.02 | 6.06 |
| Electrical equipment, appliances, and components. | 1.88 | 1.87 | 1.86 | 1.88 | 3.47 | 3.44 | 3.41 | 3.45 |
| Transportation equipment.......................... | 1.79 | 1.78 | 1.78 | 1.87 | 14.43 | 14.14 | 13.82 | 14.34 |
| Furniture and related products.................... | 1.50 | 1.49 | 1.51 | 1.53 | 1.80 | 1.84 | 1.89 | 1.92 |
| Miscellaneous products........................... | 1.92 | 1.92 | 1.90 | 1.92 | (x) | ( $)$ | (X) | (X) |
| Nondurable goods industries.......................... | 1.12 | 1.13 | 1.14 | 1.14 | (X) | (X) | (x) | (X) |
| Food products.......................................... | 0.89 | 0.90 | 0.90 | 0.91 | (x) | ( $)^{\text {a }}$ | (X) | (X) |
| Beverage and tobacco products..................... | 1.74 | 1.75 | 1.78 | 1.80 | (x) | ( X | (X) | (X) |
| Textiles........... | 1.72 | 1.73 | 1.72 | 1.70 | (x) | (x) | ( X ) | (X) |
| Textile products.......................................... | 1.86 | 1.86 | 1.87 | 1.88 | ( $)$ | ( X | (X) | (X) |
| Apparel........................... | 2.55 | 2.66 | 2.52 | 2.51 | ( $)$ | (X) | (X) | (X) |
| Leether and allied products.......................... | 2.62 | 2.66 | 2.69 | 2.65 | ( $)$ | (X) | (X) | (X) |
| Paper products............................................. | 1.04 | 1.04 | 1.05 | 1.05 | (x) | (X) | (X) | (X) |
| Printing............................................. | 0.93 | 0.94 | 0.97 | 0.97 | (X) | (X) | (X) | (X) |
| Petroleum and coal products....................... | 0.71 | 0.72 | 0.72 | 0.72 | ( $)$ | (x) | (X) | ( $)$ |
| Chemical products................................... | 1.46 | 1.46 | 1.47 | 1.47 | ( $)$ | (x) | (X) | ( ${ }^{\text {( }}$ |
| Plastics and rubber products......................... | 1.38 | 1.38 | 1.40 | 1.42 | (X) | (X) | (X) | (X) |

x Not Applicable
${ }^{\mathrm{r}}$ Preliminary
Revised data due to late receipts and concurrent seasonal adjustment.
Excludes the following industries with no unfilled orders: Wood products; nonmetallic mineral products; medical equipment and supplies; office video equipment; manufacturing and reproducing magnetic and optical media; batteries; automobiles; light trucks and utility vehicles; heavy duty trucks and miscellaneous furniture.
${ }^{3}$ Unfilled orders to shipments ratio excludes semiconductor manufacturing.
Note: Estimates of manufacturers' shipments, inventories and orders are subject to survey error and revision. One major component of survey error is
nonsampling error, which includes errors of coverage, response, and nonreporting. Since the survey panel is not a probability sample estimates of sampling error cannot be calculated. For further details on survey design, methodology, and data limitations see <http://www.census.gov/manufacturing/m3/7.
The Census Bureau has reviewed this data product to ensure appropriate access, use, and disclosure avoidance protection of the confidential source dat (Project No. P-6000307, Disclosure Review Board (DRB) approval number: CBDRB-FY23-0265)
Source: U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders (M3) Surve
sources and methodology can be found on our website at <www.census.gov/manufacturing/m3/how_the_data_are__ollected/index.html>.

Table 8. Revisions to Previously Published Monthly Percent Changes ${ }^{1}$

| Industry | Shipments |  | New Orders |  | Unfilled Orders |  | Inventories |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \mathrm{Jul} \\ 2023 \end{gathered}$ | $\begin{gathered} \text { Jul } \\ 2022- \\ \text { Jun } \\ 2023 \\ \hline \end{gathered}$ | $\begin{gathered} \text { jul } \\ 2023 \end{gathered}$ | $\begin{gathered} \mathrm{Jul}^{3} \\ 2022- \\ \text { Jun } \\ 2023 \\ \hline \end{gathered}$ | $\begin{gathered} \text { Jul } \\ 2023 \end{gathered}$ | $\begin{gathered} \mathrm{Jul} \\ \text { 302 } \\ 2022- \\ \text { Jun } \\ 2023 \\ \hline \end{gathered}$ | $\begin{array}{r} \mathrm{Jul} \\ \\ 2023 \\ \hline \end{array}$ | $\begin{gathered} \mathrm{Jul} \\ 2022 \\ 2022 \\ \text { Jun } \\ 2023 \\ \hline \end{gathered}$ |
| All manufacturing industries............... | (x) | 0.2 | (x) | 0.3 | (x) | 0.0 | (x) | 0.1 |
| Durable goods industries.................... | -0.1 | 0.2 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.1 |
|  | ( $)$ | 0.2 | (x) | (NA) | (x) | (NA) | (X) | 0.3 |
| Nonmetallic mineral products............ | ( $)$ | 0.4 | (X) | (NA) | (X) | (NA) | (X) | 0.2 |
| Primary metals.............................. | -0.4 | 0.3 | -0.2 | 0.3 | 0.1 | 0.2 | -0.3 | 0.2 |
| Fabricated metal products................. | 0.0 | 0.2 | 0.0 | 0.4 | 0.0 | 0.1 | 0.0 | 0.1 |
| Machinery...... | 0.0 | 0.3 | 0.1 | 0.5 | 0.0 | 0.1 | 0.0 | 0.1 |
| Computers and electronic products..... | -0.1 | 0.2 | -0.1 | 0.5 | 0.0 | 0.1 | 0.0 | 0.1 |
| Electrical equipment, appliances, and components $\qquad$ | 0.1 | 0.2 | 0.1 | 0.6 | 0.0 | 0.2 | 0.0 | 0.2 |
| Transportation equipment................. | 0.0 | 0.5 | 0.0 | 1.1 | -0.1 | 0.1 | 0.0 | 0.1 |
| Furniture and related products............ | ( $)$ | 0.2 | (x) | 0.8 | (x) | 0.5 | (x) | 0.4 |
| Miscellaneous products..................... | (x) | 0.3 | (X) | 0.3 | (X) | 0.1 | (x) | 0.1 |
| Nondurable goods industries................ | (x) | 0.3 | (x) | (NA) | (x) | (NA) | (x) | 0.1 |
| Food products................................ | (X) | 0.1 | (x) | (NA) | (x) | (NA) | (x) | 0.1 |
| Beverage and tobacco products........... | (X) | 0.3 | (x) | (NA) | (x) | (NA) | (X) | 0.1 |
| Textiles.......................................... | ( $)$ | 0.6 | (x) | (NA) | (X) | (NA) | (X) | 0.3 |
| Textile products............................... | (X) | 0.4 | (x) | (NA) | (x) | (NA) | (X) | 0.2 |
|  | (x) | 0.5 | (x) | (NA) | (x) | (NA) | (x) | 0.6 |
| Leather and allied products............... | ( $)^{\text {a }}$ | 0.8 | (x) | (NA) | (x) | (NA) | (x) | 0.6 |
| Paper products............................... | ( $)^{\text {( }}$ | 0.1 | (x) | (NA) | ( X$)$ | (NA) | (x) | 0.2 |
| Printing...................................... | ( $)^{\text {a }}$ | 0.4 | (X) | (NA) | ( X$)$ | (NA) | ( X$)$ | 0.3 |
| Petroleum and coal products............. | (X) | 1.2 | (x) | (NA) | (x) | (NA) | (X) | 0.5 |
| Chemical products......................... | (x) | 0.3 | ( X$)$ | (NA) | (X) | (NA) | ( X$)$ | 0.2 |
| Plastics and rubber products.............. | (x) | 0.2 | (X) | (NA) | ( X ) | (NA) | ( X ) | 0.2 |

X Not Applicable
NA Not Available
NA Not Available
${ }^{1}$ Estimates of shipments and new orders are for the duration of the period, while estimates of unfilled orders and total inventories are for the end of the period. Not seasonally adjusted estimates of shipments and new orders include adjusted data for non-calendar reporters.
Seasonally adjusted estimates include concurrent adiustments for holiday and trading-day differences, where appropriate, as well as seaso Seasonally adjusted estimates include concurrent adjustments for holiday and trading-day differences, where appropriate, as well variation, based on the results of the latest annual review of the model parameters. Estimates are not adjusted for price changes.
${ }^{2}$ The current month revisions are the difference between the advance percent change and the percent change as shown in this publication.
${ }^{3}$ The twelve month revisions are the differences bewween the month-to-month percent changes of the preliminary and final estimas The ${ }^{3}$ The twelve month revisions are the differences between the month-to-month percent changes of the preliminary and final estimates. The change revisions for the durable goods industries are shown in the advance report for the month.
Note: Estimates of manufacturers' shipments, inventories and orders are subject to survey error and revision. One major component of survey erroris nonsampling error, which [http://www.census.gov/manufacturing/m3/](http://www.census.gov/manufacturing/m3/).
The Census Bureau has reviewed this data product to ensure appropriate access, use, and disclosure avoidance protection of the confidentia source data (Project No. P-6000307, Disclosure Review Board (DRB) approval number: CBDRB-FY23-0265).
Source: U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders (M3) Survey, July Full Report, September 5, 2023. Information
<www.censuss.gov/manufacturing/m3/how_the_data_are_collected/index.html>.


[^0]:    Preliminary
    Revised data due to late receipts and concurrent seasonal adjustment.

[^1]:    ${ }^{\mathrm{p}}$ Preliminary
    ${ }^{r}$ Revised data due to late receipts and concurrent seasonal adjustment.
    ${ }^{1}$ Estimates of shipments and new orders are for the duration of the period, while estimates of unfilled orders and total inventories are for the end of the period. Not seasonally adjusted estimates of shipments and new orders include adjusted data for non-calendar reporters. Seasonally adjusted estimates include concurrent adjustments for holiday and trading-day differences, where appropriate, as well as seasonal variation, based on the results of the latest annual review of the model parameters. Estimates are not adjusted for price changes.
    ${ }^{2}$ Data on unfilled orders are not available for the semiconductor industry. Estimates and percent changes for unfilled orders exclude semiconductor industry data.
    Note: Estimates of manufacturers' shipments, inventories and orders are subject to survey error and revision. One major component of survey error is nonsampling error, which includes errors of coverage, response, and nonreporting. Since the survey panel is not a probability sample, estimates of sampling error cannot be calculated. For further details on survey design, methodology, and data limitations see [http://www.census.gov/manufacturing/m3/](http://www.census.gov/manufacturing/m3/).
    The Census Bureau has reviewed this data product to ensure appropriate access, use, and disclosure avoidance protection of the confidential source data (Project No. P-6000307, Disclosure Review Board (DRB) approval number: CBDRB-FY23-0265).
    Source: U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders (M3) Survey, July Full Report, September 5, 2023. Information on data sources and methodology can be found on our website at <www.census.gov/manufacturing/m3/how_the_data_are_collected/index.html>.

[^2]:    ${ }^{x}$ Not Applicable
    ${ }^{\mathrm{p}}$ Preliminary
    'Revised data due to late receipts and concurrent seasonal adjustment.
    ${ }^{1}$ Estimates of shipments and new orders are for the duration of the period, while estimates of unfilled orders and total inventories are for the end of the period. Not seasonally adjusted estimates of shipments and new orders include adjer alendar reporters. Seasonally adjusted estimates include concurrent adjustments for holiday and trading-day differences, where appropriate, as well as seasonal variation, based on the results of the latest annual review of the model parameters. Estimate are not adjusted for price changes.
    ${ }^{2}$ Topical series are regroupings of the separate industry categories.
    Nondefense capital goods industries include: small arms and ordnance; farm machinery and equipment; construction machinery; mining, oil, and gas field machinery; industrial machinery; vending, laundry, and other machinery; photographic equipment; metalworking machinery; turbines and generators; other power transmission equipment; pumps and compressors; material handling equipment; all other machinery; electronic computers; computer storage devices; other computer peripheral equipment communications equipment; search and navigation equipment; electromedical, measuring, and control instruments; electrical equipment; other electrical equipment, appliances, and components; heavy duty truck; aircraft; railroad rolling stock; ships and boats; office and institutional furniture; and medical equipment and supplies.
    Defense capital goods industries include: small arms and ordnance; communications equipment; aircraft; missiles, space vehicles, and parts; ships and boats; and search and navigation equipment.
    ${ }^{5}$ Estimates and percent changes exclude semiconductor industry data.
    ${ }^{6}$ Based on year-to-date for shipments and new orders, but on same month prior year for unfilled orders and inventories.
    Note: Estimates of manufacturers' shipments, inventories and orders are subject to survey error and revision. One major component of survey error is nonsampling error, which includes errors of coverage, response, and nonreporting. Since the survey panel is not a probability sample, estimates of sampling error cannot be calculated. For further details on survey design, methodology, and data limitations see [http://www.census.gov/manufacturing/m3/](http://www.census.gov/manufacturing/m3/).
    The Census Bureau has reviewed this data product to ensure appropriate access, use, and disclosure avoidance protection of the confidential source data (Project No. P-6000307, Disclosure Review Board (DRB) approval number: CBDRB-FY23-0265).

[^3]:    ${ }^{\mathrm{p}}$ Preliminary
    'Revised data due to late receipts and concurrent seasonal adjustment.
    ${ }^{1}$ Estimates of shipments and new orders are for the duration of the period, while estimates of unfilled orders and total inventories are for the end of the period. Not seasonally adjusted estimates of shipments and new orders include adjusted data for non-calendar reporters. Seasonally adjusted estimates include concurrent adjustments for holiday and trading-day differences, where appropriate, as well as seasonal variation, based on the results of the latest annual review of the model parameters. Estimates are not adjusted for price changes. Note: Estimates of manufacturers' shipments, inventories and orders are subject to survey error and revision. One major component of survey error is nonsampling error, which includes errors of coverage, response, and nonreporting. Since the surve panel is not a probability sample, estimates of sampling error cannot be calculated. For further details on survey design, methodology, and data limitations see <http://www.census.gov/manufacturing $/ \mathrm{m} 3 />$
    , Source: U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders (M3)

