## MONTHLY FULL REPORT ON MANUFACTURERS' SHIPMENTS, INVENTORIES AND ORDERS JULY 2022

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September 2, 2022 - 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 nine consecutive monthly increases, decreased $\$ 5.7$ billion or 1.0 percent to $\$ 548.5$ billion, the U.S. Census Bureau reported today. This followed a 1.8 percent June increase. Shipments, down following sixteen consecutive monthly increases, decreased $\$ 4.7$ billion or 0.9 percent to $\$ 545.5$ billion. This followed a 0.8 percent June increase. Unfilled orders, up twenty-three consecutive months, increased $\$ 7.9$ billion or 0.7 percent to $\$ 1,126.7$ billion. This followed a 0.8 percent June increase. The unfilled orders-to-shipments ratio was 6.04 , up from 6.03 in June. Inventories, up twenty-three of the last twenty-four months, increased $\$ 0.5$ billion or 0.1 percent to $\$ 802.0$ billion. This followed a 0.4 percent June increase. The inventories-to-shipments ratio was 1.47 , up from 1.46 in June.

## New Orders

New orders for manufactured durable goods in July, down following four consecutive monthly increases, decreased $\$ 0.4$ billion or 0.1 percent to $\$ 273.2$ billion, down from the previously published virtually unchanged decrease. This followed a 2.3 percent June increase. Transportation equipment, down following three consecutive monthly increases, drove the decrease, $\$ 0.7$ billion or 0.7 percent to $\$ 92.9$

## Data Inquiries

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## U.S. Department of Commerce

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billion. New orders for manufactured nondurable goods decreased $\$ 5.3$ billion or 1.9 percent to $\$ 275.4$ billion.

## Shipments

Shipments of manufactured durable goods in July, up fourteen of the last fifteen months, increased \$0.6 billion or 0.2 percent to $\$ 270.1$ billion, down from the previously published 0.4 percent increase. This followed a 0.3 percent June increase. Transportation equipment, up nine of the last ten months, drove the increase, $\$ 0.9$ billion or 1.1 percent to $\$ 86.2$ billion. Shipments of manufactured nondurable goods, down following sixteen consecutive monthly increases, decreased $\$ 5.3$ billion or 1.9 percent to $\$ 275.4$ billion. This followed a 1.4 percent June increase. Petroleum and coal products, down following six consecutive monthly increases, led the decrease, $\$ 4.7$ billion or 6.7 percent to $\$ 65.6$ billion.

## Unfilled Orders

Unfilled orders for manufactured durable goods in July, up twenty-three consecutive months, increased $\$ 7.9$ billion or 0.7 percent to $\$ 1,126.7$ billion, unchanged from the previously published increase. This followed a 0.8 percent June increase. Transportation equipment, up seventeen of the last eighteen months, led the increase, $\$ 6.7$ billion or 1.0 percent to $\$ 655.1$ billion.

## Inventories

Inventories of manufactured durable goods in July, up eighteen consecutive months, increased $\$ 1.2$ billion or 0.3 percent to $\$ 486.4$ billion, up from the previously published 0.2 percent increase. This followed a 0.4 percent June increase. Machinery, up twenty-one consecutive months, led the increase, $\$ 0.7$ billion or 0.8 percent to $\$ 83.9$ billion. Inventories of manufactured nondurable goods, down following six consecutive monthly increases, decreased $\$ 0.8$ billion or 0.2 percent to $\$ 315.6$ billion. This followed a 0.4 percent June increase. Petroleum and coal products, down two consecutive months, drove the decrease, $\$ 2.3$ billion or 4.1 percent to $\$ 53.3$ billion. By stage of fabrication, July materials and supplies increased 0.8 percent in durable goods and decreased 0.8 percent in nondurable goods. Work in process decreased 0.3 percent in durable goods and increased 0.9 percent in nondurable goods. Finished goods increased 0.2 percent in durable goods and decreased 0.2 percent in nondurable goods.

The Advance Report on durable goods for August is scheduled for release on September 27, 2022, at 8:30 a.m. EDT and the Full Report on October 4, 2022, 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>.
U.S. Department of Commerce U.S. Census bureau
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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.

## 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 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.

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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>.

## Special Notice - New Advance Estimates Of Total Manufacturing

Beginning with September 2021 data released on October 27, 2021, advance estimates of total manufacturing, including M3 durable and nondurable industries, for shipments and inventories, are available at the same time as the Advance Report on Durable Goods Manufacturers' Shipments, Inventories and Orders. Monthly advance total manufacturing estimates are available on a seasonally adjusted basis as well as a not seasonally adjusted basis on the M3 website under the "Advance Report Highlights".

## 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

FREDReceive the latest updates on the nation's key economic indicators by downloading the FRED App [https://fred.stlouisfed.org/fred-mobile/](https://fred.stlouisfed.org/fred-mobile/) for both Apple and Android devices. FRED, the signature database of the Federal Reserve Bank of St. Louis, now incorporates the Census Bureau's 13 economic indicators.

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Table 1. Value of Manufacturers' Shipments for Industry Groups ${ }^{1}$

| Industry | Seasonally Adjusted |  |  |  |  |  | Not Seasonally Adjusted |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Monthly |  |  | Percent Change |  |  | Monthly |  |  |  | Year to date |  |  |
|  | $\begin{gathered} \text { July } \\ 2022^{p} \end{gathered}$ | $\begin{aligned} & \text { June } \\ & 2022^{r} \end{aligned}$ | $\begin{aligned} & \text { May } \\ & 2022 \end{aligned}$ | June - <br> July | May - <br> June | Apr. - <br> May | $\begin{gathered} \text { July } \\ 2022^{p} \end{gathered}$ | $\begin{aligned} & \text { June } \\ & 2022^{r} \end{aligned}$ | $\begin{aligned} & \text { May } \\ & 2022 \end{aligned}$ | $\begin{aligned} & \text { July } \\ & 2021 \end{aligned}$ | $2022^{\text {p }}$ | 2021 | $\begin{aligned} & \text { \% Change } \\ & 2022 / \\ & 2021 \end{aligned}$ |
| All manufacturing industries $\qquad$ <br> Excluding transportation. $\qquad$ <br> Excluding defense. $\qquad$ <br> With unfilled orders.. $\qquad$ | 545,497 459,289 529,121 186,554 | 550,206 464,926 534,326 185,506 | 545,675 460,563 529,519 185,669 | -0.9 -1.2 -1.0 0.6 | 0.8 0.9 0.9 -0.1 | 2.1 2.0 2.1 1.5 | 523,696 450,454 508,971 172,412 | 586,711 492,725 569,839 203,114 | 553,393 469,929 537,837 185,852 | 472,635 405,687 458,474 159,025 | $3,718,439$ $3,144,913$ $3,610,508$ $1,270,224$ | $3,279,502$ $2,767,146$ $3,177,525$ $1,133,309$ | 13.4 13.7 13.6 12.1 |
| Durable goods industries..................... | 270,137 | 269,545 | 268,814 | 0.2 | 0.3 | 1.5 | 249,255 | 292,868 | 268,375 | 231,481 | 1,835,435 | 1,652,166 | 11.1 |
| Wood products..... | 12,793 | 12,851 | 13,071 | -0.5 | -1.7 | -0.6 | 12,985 | 14,068 | 14,111 | 12,763 | 91,366 | 85,964 | 6.3 |
| Nonmetallic mineral products.............. | 12,643 | 12,550 | 12,446 | 0.7 | 0.8 | 0.4 | 12,965 | 13,881 | 12,868 | 12,130 | 85,960 | 79,422 | 8.2 |
| Primary metals................................. | 20,794 | 21,394 | 21,509 | -2.8 | -0.5 | 2.2 | 19,732 | 22,572 | 21,995 | 18,641 | 147,108 | 128,324 | 14.6 |
| Iron and steel mills....................... | 12,479 | 12,446 | 12,415 | 0.3 | 0.2 | 3.0 | 11,957 | 12,966 | 12,766 | 10,617 | 84,920 | 71,176 | 19.3 |
| Aluminum and nonferrous metals..... | 6,882 | 7,459 | 7,561 | -7.7 | -1.3 | 1.3 | 6,429 | 7,901 | 7,621 | 6,660 | 51,682 | 47,989 | 7.7 |
| Ferrous metal foundries..................... | 1,433 | 1,489 | 1,533 | -3.8 | -2.9 | 0.3 | 1,346 | 1,705 | 1,608 | 1,364 | 10,506 | 9,159 | 14.7 |
| Fabricated metal products................... | 37,306 | 37,079 | 36,849 | 0.6 | 0.6 | 0.8 | 35,661 | 39,391 | 37,721 | 32,644 | 255,571 | 224,664 | 13.8 |
| Machinery................................... | 37,993 | 37,760 | 37,587 | 0.6 | 0.5 | 1.4 | 35,824 | 41,463 | 38,062 | 32,652 | 260,799 | 228,260 | 14.3 |
| Farm machinery............................. | 2,869 | 2,807 | 2,754 | 2.2 | 1.9 | 8.6 | 2,647 | 2,901 | 2,881 | 2,395 | 19,748 | 19,126 | 3.3 |
| Construction machinery................... | 3,683 | 3,593 | 3,557 | 2.5 | 1.0 | -0.4 | 3,599 | 4,048 | 3,700 | 2,854 | 24,855 | 20,030 | 24.1 |
| Mining, oil field, and gas field machinery. $\qquad$ | 1,522 | 1,454 | 1,509 | 4.7 | -3.6 | 6.3 | 1,415 | 1,515 | 1,462 | 1,232 | 9,807 | 8,673 | 13.1 |
| Industrial machinery...................... | 6,216 | 6,258 | 6,260 | -0.7 | 0.0 | 0.8 | 5,804 | 7,062 | 5,978 | 4,915 | 42,325 | 28,406 | 49.0 |
| Photographic equipment.................. | 504 | 534 | 523 | -5.6 | 2.1 | 2.1 | 478 | 603 | 498 | 528 | 3,563 | 3,572 | -0.3 |
| Ventilation, heating, air-conditioning, and refrigeration equipment. | 4,581 | 4,614 | 4,578 | -0.7 | 0.8 | 1.2 | 4,759 | 5,721 | 4,918 | 4,359 | 32,404 | 28,925 | 12.0 |
| Metalworking machinery.................. | 2,653 | 2,618 | 2,636 | 1.3 | -0.7 | 0.2 | 2,369 | 2,782 | 2,556 | 2,420 | 17,832 | 17,569 | 1.5 |
| Turbines, generators, and other power transmission equipment....... | 3,257 | 3,245 | 3,183 | 0.4 | 1.9 | 2.1 | 3,128 | 3,287 | 3,265 | 3,100 | 22,483 | 22,395 | 0.4 |
| Material handling equipment.............. | 3,412 | 3,421 | 3,450 | -0.3 | -0.8 | -1.8 | 3,075 | 3,560 | 3,449 | 2,669 | 23,854 | 19,065 | 25.1 |
| Computers and electronic products ${ }^{2}$........ | 29,088 | 29,030 | 28,579 | 0.2 | 1.6 | 0.6 | 27,214 | 31,441 | 26,926 | 25,433 | 192,463 | 181,966 | 5.8 |
| Computers................................... | 763 | 742 | 732 | 2.8 | 1.4 | -0.4 | 735 | 884 | 742 | 706 | 4,940 | 4,958 | -0.4 |
| Computer storage devices................... | 668 | 670 | 663 | -0.3 | 1.1 | 2.0 | 565 | 898 | 548 | 471 | 4,356 | 3,824 | 13.9 |
| Other peripheral equipment.............. | 633 | 572 | 454 | 10.7 | 26.0 | 1.1 | 692 | 648 | 405 | 440 | 3,455 | 2,965 | 16.5 |
| Nondefense communications equipment.. | 3,168 | 3,097 | 3,053 | 2.3 | 1.4 | 1.3 | 2,660 | 3,837 | 2,802 | 2,360 | 20,360 | 18,392 | 10.7 |
| Defense communications equipment.... | 215 | 209 | 206 | 2.9 | 1.5 | -3.7 | 200 | 215 | 198 | 194 | 1,412 | 1,316 | 7.3 |
| Audio and video equipment................. | 378 | 341 | 401 | 10.9 | -15.0 | -11.9 | 323 | 271 | 375 | 272 | 2,478 | 1,871 | 32.4 |
| Electronic components...................... | 4,608 | 4,562 | 4,593 | 1.0 | -0.7 | 1.9 | 4,449 | 4,910 | 4,625 | 3,952 | 31,253 | 27,235 | 14.8 |
| Nondefense search and navigation equipment. | 1,654 | 1,649 | 1,626 | 0.3 | 1.4 | -2.2 | 1,429 | 1,798 | 1,600 | 1,418 | 11,130 | 10,948 | 1.7 |
| Defense search and navigation equipment $\qquad$ | 3,161 | 3,195 | 3,232 | -1.1 | -1.1 | 0.7 | 2,888 | 3,374 | 3,155 | 2,961 | 21,712 | 21,668 | 0.2 |
| Electromedical, measuring, and control instruments. | 8,865 | 8,956 | 8,628 | -1.0 | 3.8 | 0.6 | 8,260 | 9,732 | 8,112 | 7,700 | 58,403 | 56,532 | 3.3 |
| Electrical equipment, appliances, and components. | 13,142 | 13,405 | 13,383 | -2.0 | 0.2 | 2.2 | 12,441 | 14,830 | 13,365 | 11,883 | 90,830 | 81,656 | 11.2 |
| Electric lighting equipment................. | 1,043 | 1,033 | 1,022 | 1.0 | 1.1 | 0.2 | 1,005 | 1,089 | 1,048 | 967 | 7,085 | 6,975 | 1.6 |
| Household appliances..................... | 2,667 | 2,809 | 2,754 | -5.1 | 2.0 | 4.4 | 2,303 | 3,064 | 2,695 | 2,324 | 18,037 | 16,981 | 6.2 |
| Electrical equipment....................... | 3,742 | 3,745 | 3,781 | -0.1 | -1.0 | 3.2 | 3,500 | 4,439 | 3,816 | 3,459 | 25,869 | 24,089 | 7.4 |
| Batteries................................... | 948 | 955 | 935 | -0.7 | 2.1 | 0.2 | 833 | 980 | 886 | 763 | 6,235 | 5,471 | 14.0 |
| Transportation equipment.................... | 86,208 | 85,280 | 85,112 | 1.1 | 0.2 | 2.5 | 73,242 | 93,986 | 83,464 | 66,948 | 573,526 | 512,356 | 11.9 |
| Automobiles............................. | 7,272 | 7,322 | 7,269 | -0.7 | 0.7 | -6.1 | 6,179 | 7,676 | 7,120 | 5,717 | 50,081 | 46,793 | 7.0 |
| Light trucks and utility vehicles............. | 22,661 | 23,209 | 22,538 | -2.4 | 3.0 | 6.4 | 18,139 | 24,674 | 21,462 | 16,980 | 147,105 | 128,484 | 14.5 |
| Heavy duty trucks ........................ | 2,398 | 2,337 | 2,281 | 2.6 | 2.5 | -0.3 | 2,237 | 2,519 | 2,294 | 1,754 | 15,934 | 13,410 | 18.8 |
| Motor vehicle bodies, parts, and trailers. $\qquad$ | 27,272 | 26,783 | 26,620 | 1.8 | 0.6 | 0.5 | 23,806 | 27,972 | 27,356 | 21,475 | 184,839 | 165,517 | 11.7 |
| Nondefense aircraft and parts............. | 10,460 | 10,085 | 10,850 | 3.7 | -7.1 | 5.8 | 8,514 | 14,417 | 9,914 | 7,873 | 70,444 | 61,852 | 13.9 |
| Defense aircraft and parts............... | 5,187 | 5,377 | 5,359 | -3.5 | 0.3 | 0.6 | 4,635 | 5,972 | 5,151 | 4,907 | 35,869 | 35,762 | 0.3 |
| Ships and boats........................... | 3,567 | 3,485 | 3,539 | 2.4 | -1.5 | 3.0 | 3,265 | 3,716 | 3,768 | 3,308 | 24,391 | 24,415 | -0.1 |
| Furniture and related products............... | 6,187 | 6,158 | 6,218 | 0.5 | -1.0 | 1.0 | 6,234 | 6,390 | 6,212 | 5,853 | 42,528 | 39,954 | 6.4 |
| Miscellaneous durable goods............... | 13,983 | 14,038 | 14,060 | -0.4 | -0.2 | 0.4 | 12,957 | 14,846 | 13,651 | 12,534 | 95,284 | 89,600 | 6.3 |
| Nondurable goods industries................... | 275,360 | 280,661 | 276,861 | -1.9 | 1.4 | 2.7 | 274,441 | 293,843 | 285,018 | 241,154 | 1,883,004 | 1,627,336 | 15.7 |
| Food products................................ | 76,088 | 76,031 | 75,903 | 0.1 | 0.2 | -0.2 | 73,465 | 76,155 | 76,135 | 70,920 | 520,278 | 494,705 | 5.2 |
| Grain and oilseed milling.................... | 9,233 | 9,235 | 9,197 | 0.0 | 0.4 | 0.4 | 8,879 | 9,314 | 9,221 | 8,200 | 62,575 | 55,711 | 12.3 |
| Dairy products........................... | 12,042 | 12,066 | 11,957 | -0.2 | 0.9 | 0.1 | 11,871 | 12,103 | 12,097 | 10,947 | 81,646 | 76,437 | 6.8 |
| Meat, poultry, and seafood products... | 22,749 | 22,838 | 23,139 | -0.4 | -1.3 | 0.4 | 22,382 | 23,806 | 23,869 | 21,974 | 159,132 | 149,537 | 6.4 |
| Beverage and tobacco products.............. | 16,408 | 16,557 | 15,987 | -0.9 | 3.6 | 2.8 | 16,495 | 17,338 | 16,581 | 14,211 | 109,328 | 94,894 | 15.2 |
| Beverages................................. | 9,926 | 9,860 | 9,757 | 0.7 | 1.1 | -1.1 | 10,013 | 10,641 | 10,351 | 9,679 | 68,199 | 64,238 | 6.2 |
| Tobacco................................... | 6,482 | 6,697 | 6,230 | -3.2 | 7.5 | 9.5 | 6,482 | 6,697 | 6,230 | 4,532 | 41,129 | 30,656 | 34.2 |
| Textile mills.................................. | 2,299 | 2,286 | 2,302 | 0.6 | -0.7 | -0.9 | 2,296 | 2,434 | 2,358 | 2,293 | 16,289 | 15,732 | 3.5 |
| Textile products............................ | 1,994 | 1,993 | 2,025 | 0.1 | -1.6 | 1.9 | 2,017 | 2,136 | 2,118 | 1,942 | 14,098 | 13,435 | 4.9 |
| Apparel...................................... | 727 | 732 | 731 | -0.7 | 0.1 | -3.6 | 713 | 705 | 683 | 713 | 4,830 | 4,671 | 3.4 |
| Leather and allied products.................. | 422 | 423 | 447 | -0.2 | -5.4 | -0.4 | 437 | 441 | 484 | 402 | 3,001 | 2,730 | 9.9 |
| Paper products................................ | 16,185 | 16,351 | 16,479 | -1.0 | -0.8 | 0.4 | 15,881 | 16,884 | 16,700 | 15,798 | 113,745 | 108,802 | 4.5 |
| Pulp, paper, and paperboard mills....... | 5,865 | 5,896 | 6,036 | -0.5 | -2.3 | 1.4 | 5,888 | 5,961 | 6,082 | 5,790 | 41,118 | 39,159 | 5.0 |
| Paperboard containers...................... | 5,978 | 6,062 | 6,002 | -1.4 | 1.0 | -0.6 | 5,819 | 6,361 | 5,967 | 5,868 | 41,905 | 40,632 | 3.1 |
| Printing.......................................... | 7,019 | 6,964 | 6,828 | 0.8 | 2.0 | 2.1 | 6,679 | 6,981 | 6,861 | 5,969 | 46,338 | 42,408 | 9.3 |
| Petroleum and coal products................ | 65,639 | 70,355 | 67,506 | -6.7 | 4.2 | 10.0 | 71,151 | 76,868 | 72,532 | 47,077 | 438,649 | 281,132 | 56.0 |
| Petroleum refineries...................... | 60,279 | 65,115 | 62,415 | -7.4 | 4.3 | 10.6 | 65,231 | 70,767 | 67,146 | 42,118 | 403,878 | 249,862 | 61.6 |
| Chemical products.............................. | 66,155 | 66,589 | 66,265 | -0.7 | 0.5 | 1.2 | 63,497 | 70,159 | 67,381 | 61,069 | 460,172 | 426,585 | 7.9 |
| Pesticides, fertilizers, and other agricultural chemicals. | 3,269 | 3,247 | 3,178 | 0.7 | 2.2 | 1.3 | 2,535 | 3,536 | 3,687 | 2,284 | 24,235 | 21,388 | 13.3 |
| Pharmaceuticals and medicines............ | 21,998 | 22,024 | 21,504 | -0.1 | 2.4 | 2.7 | 21,028 | 23,125 | 21,422 | 19,063 | 146,281 | 134,210 | 9.0 |
| Paints, coatings, and adhesives.......... | 3,750 | 3,782 | 3,773 | -0.8 | 0.2 | 1.3 | 3,726 | 4,140 | 4,134 | 3,665 | 26,938 | 25,290 | 6.5 |
| Plastics and rubber products................ | 22,424 | 22,380 | 22,388 | 0.2 | 0.0 | -0.4 | 21,810 | 23,742 | 23,185 | 20,760 | 156,276 | 142,242 | 9.9 |

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

${ }^{1}$ 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.
${ }^{2}$ 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
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Source: U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders (M
<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 |  |  |
|  | $\begin{gathered} \text { July } \\ 2022^{p} \end{gathered}$ | $\begin{aligned} & \text { June } \\ & 2022^{r} \end{aligned}$ | $\begin{aligned} & \text { May } \\ & 2022 \end{aligned}$ | June - <br> July | May - <br> June | Apr. - <br> May | $\begin{gathered} \text { July } \\ 2022^{p} \end{gathered}$ | $\begin{aligned} & \text { June } \\ & 2022^{r} \end{aligned}$ | $\begin{aligned} & \text { May } \\ & 2022 \end{aligned}$ | $\begin{aligned} & \text { July } \\ & 2021 \end{aligned}$ | $2022{ }^{\text {p }}$ | 2021 | $\begin{gathered} \hline \text { \% Change } \\ \text { 2022/ } \\ 2021 \end{gathered}$ |
| All manufacturing industries ${ }^{2}$..................... | 548,546 | 554,232 | 544,394 | -1.0 | 1.8 | 1.8 | 524,183 | 588,313 | 548,989 | 469,713 | 3,738,238 | 3,301,320 | 13.2 |
| Excluding transportation ${ }^{2}$.................... | 455,622 | 460,606 | 456,119 | -1.1 | 1.0 | 1.8 | 445,368 | 486,409 | 466,221 | 403,579 | 3,129,911 | 2,781,175 | 12.5 |
| Excluding defense ${ }^{2} . . . . . . . . . . . . . . . . . . . . . . . . . . ~$ | 531,818 | 534,338 | 528,613 | -0.5 | 1.1 | 1.7 | 511,267 | 566,306 | 535,420 | 457,707 | 3,630,613 | 3,199,535 | 13.5 |
| With unfilled orders ${ }^{2}$......................... | 194,497 | 194,488 | 189,296 | 0.0 | 2.7 | 0.5 | 177,833 | 209,510 | 185,735 | 160,986 | 1,322,440 | 1,186,837 | 11.4 |
| Durable goods industries ${ }^{2}$...................... | 273,186 | 273,571 | 267,533 | -0.1 | 2.3 | 0.8 | 249,742 | 294,470 | 263,971 | 228,559 | 1,855,234 | 1,673,984 | 10.8 |
| Primary metals.................................. | 20,697 | 21,050 | 21,350 | -1.7 | -1.4 | 1.9 | 19,537 | 21,919 | 21,771 | 19,063 | 147,655 | 133,038 | 11.0 |
| Iron and steel mills.......................... | 12,367 | 12,354 | 12,283 | 0.1 | 0.6 | 3.8 | 11,904 | 12,758 | 12,662 | 10,890 | 85,310 | 73,947 | 15.4 |
| Aluminum and nonferrous metals........ | 6,904 | 7,277 | 7,541 | -5.1 | -3.5 | 0.8 | 6,315 | 7,564 | 7,479 | 6,730 | 51,478 | 49,408 | 4.2 |
| Ferrous metal foundries.................... | 1,426 | 1,419 | 1,526 | 0.5 | -7.0 | -7.1 | 1,318 | 1,597 | 1,630 | 1,443 | 10,867 | 9,683 | 12.2 |
| Fabricated metal products.................... | 37,368 | 36,922 | 36,810 | 1.2 | 0.3 | -0.2 | 35,637 | 38,856 | 38,558 | 33,287 | 261,493 | 244,453 | 7.0 |
| Machinery...................................... | 38,566 | 38,434 | 38,242 | 0.3 | 0.5 | 1.3 | 36,364 | 41,299 | 38,233 | 34,568 | 267,730 | 240,267 | 11.4 |
| Construction machinery..................... | 3,728 | 3,743 | 3,730 | -0.4 | 0.3 | 4.3 | 3,422 | 3,921 | 3,531 | 2,900 | 25,352 | 22,232 | 14.0 |
| Mining, oil field, and gas field machinery $\qquad$ | 1,512 | 1,534 | 1,509 | -1.4 | 1.7 | 1.5 | 1,405 | 1,595 | 1,462 | 1,459 | 9,775 | 8,904 | 9.8 |
| Industrial machinery........................ | 6,587 | 6,522 | 6,371 | 1.0 | 2.4 | 0.4 | 6,267 | 7,129 | 5,977 | 5,314 | 44,215 | 30,058 | 47.1 |
| Photographic equipment.................... | 553 | 566 | 509 | -2.3 | 11.2 | 7.4 | 545 | 564 | 444 | 448 | 3,475 | 3,393 | 2.4 |
| Ventilation, heating, air-conditioning, and refrigeration equipment. | 4,919 | 4,844 | 4,925 | 1.5 | -1.6 | -1.0 | 5,160 | 5,673 | 5,319 | 4,741 | 34,678 | 30,579 | 13.4 |
| Metalworking machinery.................... | 2,564 | 2,518 | 2,725 | 1.8 | -7.6 | 1.2 | 2,383 | 2,721 | 2,509 | 2,465 | 18,067 | 18,161 | -0.5 |
| Turbines, generators, and other power transmission equipment. | 3,176 | 3,313 | 3,116 | -4.1 | 6.3 | 4.1 | 3,047 | 3,355 | 3,198 | 3,232 | 22,345 | 23,124 | -3.4 |
| Material handling equipment................ | 3,508 | 3,375 | 3,399 | 3.9 | -0.7 | -4.8 | 2,949 | 3,838 | 3,360 | 2,861 | 24,618 | 19,778 | 24.5 |
| Computers and electronic products ${ }^{2}$.......... | 24,397 | 24,211 | 23,787 | 0.8 | 1.8 | 0.2 | 21,812 | 26,647 | 22,166 | 20,337 | 161,159 | 152,921 | 5.4 |
| Computers.................................. | 773 | 753 | 727 | 2.7 | 3.6 | -0.7 | 745 | 895 | 737 | 719 | 4,939 | 4,933 | 0.1 |
| Nondefense communications equipment. $\qquad$ | 2,968 | 2,918 | 3,061 | 1.7 | -4.7 | -2.5 | 2,242 | 3,617 | 2,761 | 2,564 | 20,216 | 19,408 | 4.2 |
| Defense communications equipment....... | 217 | 214 | 210 | 1.4 | 1.9 | 1.0 | 192 | 218 | 188 | 174 | 1,376 | 1,154 | 19.2 |
| Electronic components..................... | 4,720 | 4,604 | 4,506 | 2.5 | 2.2 | 1.3 | 4,602 | 4,636 | 4,428 | 4,000 | 31,448 | 28,029 | 12.2 |
| Nondefense search and navigation equipment.. | 1,785 | 1,764 | 1,729 | 1.2 | 2.0 | -2.9 | 1,560 | 1,937 | 1,652 | 1,622 | 12,154 | 12,254 | -0.8 |
| Defense search and navigation equipment.. | 3,264 | 3,275 | 3,237 | -0.3 | 1.2 | 4.0 | 2,616 | 3,744 | 2,786 | 2,415 | 21,230 | 21,051 | 0.9 |
| Electromedical, measuring, and control instruments. | 8,910 | 9,019 | 8,716 | -1.2 | 3.5 | 0.4 | 8,196 | 9,703 | 8,209 | 7,584 | 58,960 | 56,885 | 3.6 |
| Electrical equipment, appliances, and components. | 13,555 | 13,717 | 13,353 | -1.2 | 2.7 | -0.8 | 12,556 | 14,794 | 13,473 | 11,673 | 93,292 | 85,784 | 8.8 |
| Electric lighting equipment................... | 1,064 | 1,026 | 1,009 | 3.7 | 1.7 | -1.6 | 1,007 | 1,151 | 996 | 946 | 7,160 | 7,167 | -0.1 |
| Household appliances...................... | 2,633 | 2,702 | 2,458 | -2.6 | 9.9 | -1.5 | 2,241 | 2,897 | 2,427 | 2,280 | 17,307 | 17,610 | -1.7 |
| Electrical equipment........................ | 3,956 | 4,012 | 4,059 | -1.4 | -1.2 | -2.0 | 3,708 | 4,524 | 4,089 | 3,328 | 28,290 | 24,219 | 16.8 |
| Transportation equipment.................... | 92,924 | 93,626 | 88,275 | -0.7 | 6.1 | 1.6 | 78,815 | 101,904 | 82,768 | 66,134 | 608,327 | 520,145 | 17.0 |
| Motor vehicle bodies, parts, and trailers. $\qquad$ | 27,398 | 26,782 | 26,607 | 2.3 | 0.7 | -0.7 | 23,642 | 27,272 | 27,039 | 21,804 | 184,897 | 167,783 | 10.2 |
| Nondefense aircraft and parts ${ }^{3}$............... | 16,715 | 14,596 | 14,452 | 14.5 | 1.0 | 0.9 | 15,722 | 18,354 | 11,242 | 8,614 | 105,092 | 67,615 | 55.4 |
| Defense aircraft and parts................. | 4,851 | 9,644 | 5,410 | -49.7 | 78.3 | 9.9 | 3,865 | 10,507 | 4,364 | 4,119 | 36,744 | 33,452 | 9.8 |
| Ships and boats............................. | 4,768 | 3,221 | 3,545 | 48.0 | -9.1 | 5.4 | 3,403 | 3,450 | 3,439 | 1,812 | 24,326 | 28,613 | -15.0 |
| Furniture and related products................. | 6,261 | 6,157 | 6,141 | 1.7 | 0.3 | 0.9 | 6,115 | 6,241 | 6,374 | 5,999 | 42,797 | 42,077 | 1.7 |
| Nondurable goods industries................... | 275,360 | 280,661 | 276,861 | -1.9 | 1.4 | 2.7 | 274,441 | 293,843 | 285,018 | 241,154 | 1,883,004 | 1,627,336 | 15.7 |

${ }^{\mathrm{p}}$ Preliminary
${ }^{\mathrm{r}}$ 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/). Source: U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders (M3) Survey, July Full Report, September 2, 2022. 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.]

| Industry | Seasonally Adjusted |  |  |  |  |  | Not Seasonally Adjusted |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Monthly |  |  | Percent Change |  |  | Monthly |  |  |  | $\begin{gathered} \hline \text { \% Change } \\ \text { July } \\ \text { 2022/ } \\ 2021 \end{gathered}$ |
|  | $\begin{gathered} \text { July } \\ 2022^{p} \end{gathered}$ | June $2022^{r}$ | $\begin{aligned} & \text { May } \\ & 2022 \end{aligned}$ | June July | May June | Apr. - <br> May | $\begin{gathered} \text { July } \\ 2022^{p} \end{gathered}$ | $\begin{aligned} & \text { June } \\ & 2022^{r} \end{aligned}$ | $\begin{aligned} & \text { May } \\ & 2022 \end{aligned}$ | $\begin{gathered} \text { July } \\ 2021 \end{gathered}$ |  |
| All manufacturing industries ${ }^{2}$ $\qquad$ <br> Excluding transportation ${ }^{2}$ $\qquad$ <br> Excluding defense ${ }^{2}$. $\qquad$ | $1,126,664$ 471,517 914,452 | $\begin{array}{r} 1,118,721 \\ 470,290 \\ 906,861 \end{array}$ | $\begin{array}{r} 1,109,739 \\ 469,654 \\ 901,893 \end{array}$ | $\begin{aligned} & 0.7 \\ & 0.3 \\ & 0.8 \end{aligned}$ | $\begin{aligned} & 0.8 \\ & 0.1 \\ & 0.6 \end{aligned}$ | $\begin{aligned} & 0.3 \\ & 0.1 \\ & 0.4 \end{aligned}$ | $\begin{array}{r} 1,126,817 \\ 473,787 \\ 915,335 \end{array}$ | $\begin{array}{r} 1,121,396 \\ 473,939 \\ 908,105 \end{array}$ | $1,115,000$ 475,461 906,844 | $1,050,111$ 446,987 837,255 | $\begin{aligned} & 7.3 \\ & 6.0 \\ & 9.3 \end{aligned}$ |
| Durable goods industries ${ }^{2}$..................... | 1,126,664 | 1,118,721 | 1,109,739 | 0.7 | 0.8 | 0.3 | 1,126,817 | 1,121,396 | 1,115,000 | 1,050,111 | 7.3 |
| Primary metals.................................. | 30,663 | 30,760 | 31,104 | -0.3 | -1.1 | -0.5 | 30,792 | 30,987 | 31,640 | 31,071 | -0.9 |
| Iron and steel mills.......................... | 15,785 | 15,897 | 15,989 | -0.7 | -0.6 | -0.8 | 16,056 | 16,109 | 16,317 | 16,847 | -4.7 |
| Aluminum and nonferrous metals...... | 10,767 | 10,745 | 10,927 | 0.2 | -1.7 | -0.2 | 10,611 | 10,725 | 11,062 | 10,745 | -1.2 |
| Ferrous metal foundries..................... | 4,111 | 4,118 | 4,188 | -0.2 | -1.7 | -0.2 | 4,125 | 4,153 | 4,261 | 3,479 | 18.6 |
| Fabricated metal products..................... | 117,980 | 117,918 | 118,075 | 0.1 | -0.1 | 0.0 | 119,892 | 119,916 | 120,451 | 114,238 | 4.9 |
| Machinery....................................... | 131,525 | 130,952 | 130,278 | 0.4 | 0.5 | 0.5 | 131,853 | 131,313 | 131,477 | 120,524 | 9.4 |
| Construction machinery...................... | 10,068 | 10,023 | 9,873 | 0.4 | 1.5 | 1.8 | 9,762 | 9,939 | 10,066 | 8,513 | 14.7 |
| Mining, oil field, and gas field machinery. | 5,035 | 5,045 | 4,965 | -0.2 | 1.6 | 0.0 | 5,035 | 5,045 | 4,965 | 4,773 | 5.5 |
| Industrial machinery......................... | 12,678 | 12,307 | 12,043 | 3.0 | 2.2 | 0.9 | 12,807 | 12,344 | 12,277 | 10,380 | 23.4 |
| Photographic equipment..................... | 3,162 | 3,113 | 3,081 | 1.6 | 1.0 | -0.5 | 3,065 | 2,998 | 3,037 | 3,134 | -2.2 |
| Ventilation, heating, air-conditioning, and refrigeration equipment. | 11,315 | 10,977 | 10,747 | 3.1 | 2.1 | 3.3 | 11,551 | 11,150 | 11,198 | 8,451 | 36.7 |
| Metalworking machinery..................... | 8,522 | 8,611 | 8,711 | -1.0 | -1.1 | 1.0 | 8,629 | 8,615 | 8,676 | 7,929 | 8.8 |
| Turbines, generators, and other power transmission equipment. | 33,281 | 33,362 | 33,294 | -0.2 | 0.2 | -0.2 | 33,281 | 33,362 | 33,294 | 33,000 | 0.9 |
| Material handling equipment................ | 16,595 | 16,499 | 16,545 | 0.6 | -0.3 | -0.3 | 16,574 | 16,700 | 16,422 | 14,844 | 11.7 |
| Computers and electronic products ${ }^{2}$............ | 140,357 | 140,154 | 140,017 | 0.1 | 0.1 | 0.1 | 140,115 | 140,583 | 140,583 | 134,553 | 4.1 |
| Computers................................... | 1,218 | 1,208 | 1,197 | 0.8 | 0.9 | -0.4 | 1,218 | 1,208 | 1,197 | 1,352 | -9.9 |
| Nondefense communications equipment $\qquad$ | 20,954 | 21,154 | 21,333 | -0.9 | -0.8 | 0.0 | 20,858 | 21,276 | 21,496 | 18,562 | 12.4 |
| Defense communications equipment....... | 314 | 312 | 307 | 0.6 | 1.6 | 1.3 | 304 | 312 | 309 | 340 | -10.6 |
| Electronic components...................... | 16,096 | 15,984 | 15,942 | 0.7 | 0.3 | -0.5 | 15,967 | 15,814 | 16,088 | 15,042 | 6.1 |
| Nondefense search and navigation equipment. $\qquad$ | 32,145 | 32,014 | 31,899 | 0.4 | 0.4 | 0.3 | 32,115 | 31,984 | 31,845 | 30,242 | 6.2 |
| Defense search and navigation equipment. $\qquad$ | 38,473 | 38,370 | 38,290 | 0.3 | 0.2 | 0.0 | 38,476 | 38,748 | 38,378 | 38,696 | -0.6 |
| Electromedical, measuring, and control instruments. | 31,157 | 31,112 | 31,049 | 0.1 | 0.2 | 0.3 | 31,177 | 31,241 | 31,270 | 30,319 | 2.8 |
| Electrical equipment, appliances, and components. | 39,178 | 38,765 | 38,453 | 1.1 | 0.8 | -0.1 | 39,263 | 39,148 | 39,184 | 34,754 | 13.0 |
| Electric lighting equipment................... | 2,210 | 2,189 | 2,196 | 1.0 | -0.3 | -0.6 | 2,228 | 2,226 | 2,164 | 2,059 | 8.2 |
| Household appliances....................... | 4,739 | 4,773 | 4,880 | -0.7 | -2.2 | -5.7 | 4,677 | 4,739 | 4,906 | 5,099 | -8.3 |
| Electrical equipment......................... | 16,508 | 16,294 | 16,027 | 1.3 | 1.7 | 1.8 | 16,634 | 16,426 | 16,341 | 14,111 | 17.9 |
| Transportation equipment..................... | 655,147 | 648,431 | 640,085 | 1.0 | 1.3 | 0.5 | 653,030 | 647,457 | 639,539 | 603,124 | 8.3 |
| Motor vehicle bodies, parts, and trailers. $\qquad$ | 28,598 | 28,472 | 28,473 | 0.4 | 0.0 | 0.0 | 27,805 | 27,969 | 28,669 | 25,967 | 7.1 |
| Nondefense aircraft and parts.............. | 440,524 | 434,269 | 429,758 | 1.4 | 1.0 | 0.8 | 439,981 | 432,773 | 428,836 | 390,109 | 12.8 |
| Defense aircraft and parts.................. | 59,727 | 60,063 | 55,796 | -0.6 | 7.6 | 0.1 | 59,433 | 60,203 | 55,668 | 57,753 | 2.9 |
| Ships and boats............................. | 49,621 | 48,420 | 48,684 | 2.5 | -0.5 | 0.0 | 49,542 | 49,404 | 49,670 | 53,361 | -7.2 |
| Furniture and related products................. | 10,415 | 10,341 | 10,342 | 0.7 | 0.0 | -0.7 | 10,473 | 10,592 | 10,741 | 10,353 | 1.2 |

${ }^{\mathrm{p}}$ 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/).
Source: U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders (M3) Survey, July Full Report, September 2, 2022. 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 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 |  |  |  | $\begin{gathered} \text { \% Change } \\ \text { July } \\ 2022 / \\ 2021 \end{gathered}$ |
|  | $\begin{gathered} \text { July } \\ 2022^{p} \end{gathered}$ | $\begin{aligned} & \text { June } \\ & 2022^{r} \end{aligned}$ | $\begin{aligned} & \text { May } \\ & 2022 \end{aligned}$ | June July | May June | Apr. - <br> May | $\begin{gathered} \text { July } \\ 2022^{\text {p }} \end{gathered}$ | $\begin{aligned} & \text { June } \\ & 2022^{r} \end{aligned}$ | $\begin{aligned} & \text { May } \\ & 2022 \end{aligned}$ | $\begin{aligned} & \text { July } \\ & 2021 \end{aligned}$ |  |
| All manufacturing industries. $\qquad$ <br> Excluding transportation $\qquad$ <br> Excluding defense $\qquad$ <br> With unfilled orders. $\qquad$ | 801,992 644,558 775,238 389,792 | 801,535 643,959 774,964 388,805 | 798,203 640,915 771,992 386,714 | 0.1 0.1 0.0 0.3 | 0.4 0.5 0.4 0.5 | 1.3 1.6 1.3 0.6 | 806,957 648,074 780,089 392,969 | 802,257 645,909 775,598 389,188 | 804,479 646,708 778,099 390,279 | 733,368 580,323 708,082 361,756 | 10.0 11.7 10.2 8.6 |
| Durable goods industries.................... | 486,367 | 485,143 | 482,970 | 0.3 | 0.4 | 0.6 | 489,501 | 484,474 | 487,249 | 449,605 | 8.9 |
| Wood products................................ | 14,788 | 14,772 | 14,703 | 0.1 | 0.5 | -0.21.0 | 14,546 | 14,546 | 14,552 | 13,676 | 6.4 |
| Nonmetallic mineral products............... | 16,146 | 15,979 | 15,839 | $\begin{array}{r}1.0 \\ -0.5 \\ \hline\end{array}$ | 0.9 |  | 16,183 | 16,103 | 16,188 | 14,434 | 12.1 |
| Primary metals............................... | 39,092 | 39,284 | 39,371 |  | -0.2 | 1.1 | 39,251 | 39,223 | 39,857 | 34,966 | 12.3 |
| Iron and steel mills.......................... | 22,928 | 23,165 | 23,236 | -1.0 | -0.3 | 0.91.6 | 23,054 | 23,123 | 23,397 | 20,668 |  |
| Aluminum and nonferrous metals...... | 13,465 | 13,433 | 13,441 | 0.2 | -0.1 |  | 13,513 | 13,408 | 13,692 | 11,859 | 13.9 |
| Ferrous metal foundries.................... | 2,699 | 2,686 | 2,694 | 0.5 | -0.3 | 1.2 | 2,684 | 2,692 | 2,768 | 2,439 | 10.0 |
| Fabricated metal products.................... | 62,661 | 62,429 | 62,238 | 0.4 | 0.3 | 1.2 0.7 | 63,380 | 62,765 | 63,042 | 57,059 | 11.1 |
| Machinery................................... | 83,944 | 83,269 | 82,362 | 0.8-0.5 | 1.1 | 1.3 | 83,765 | 83,327 | 83,358 | 71,745 | 16.8 |
| Farm machinery............................. | 5,850 | 5,882 | 5,818 |  | 1.1 | 1.5 |  | 5,690 | 5,909 | 4,063 | 39.6 |
| Construction machinery..................... | 7,180 | 7,070 | 7,065 | 1.6 | 0.1 | 1.9 | 7,144 | 7,084 | 7,149 | 5,594 | 27.7 |
| Mining, oil field, and gas field machinery $\qquad$ | 6,207 | 6,133 | 6,042 | 1.2 | 1.5 | 0.5 | 6,250 | 6,171 | 6,092 | 5,715 | 9.4 |
| Industrial machinery........................ | 10,668 | 10,628 | 10,478 | 0.41.3 | 1.4-2.5 | 1.5 | 10,3871,390 | 10,920 | 10,5661,407 | $\begin{aligned} & 8,786 \\ & 1,323 \end{aligned}$ | 18.25.1 |
| Photographic equipment................... | 1,381 | 1,363 | 1,398 |  |  | 0.3 |  |  |  |  |  |
| Ventilation, heating, air-conditioning, and refrigeration equipment. | 7,609 | 7,454 | 7,226 | 2.1 | 3.2 |  | 7,535 | 7,467 | 7,621 | $\begin{aligned} & 5,951 \\ & 6,134 \end{aligned}$ | $\begin{aligned} & 26.6 \\ & 11.2 \end{aligned}$ |
| Metalworking machinery..................... | 6,711 | 6,666 | 6,599 | 0.7 | 1.0 | 1.7 | 6,821 | 6,646 | 6,654 |  |  |
| Turbines, generators, and other power transmission equipment. | 10,411 | 10,301 | 10,195 | 1.1 | 1.0 | 1.1 | 10,537 | 10,330 | 10,338 | 9,410 | 12.0 |
| Material handling equipment............... | 6,751 | 6,720 | 6,654 | 0.5 | 1.0 | 0.8 | 6,827 | 6,720 | 6,655 | 5,865 | 16.4 |
| Computers and electronic products ${ }^{2}$........... | 52,241 | 52,097 | 51,758 | 0.30.0 | $\begin{aligned} & 0.7 \\ & 0.5 \end{aligned}$ |  | 52,733 | 52,151 | 52,344 | 50,172 | 5.1 |
| Computers................................... | 2,125 | 2,125 | 2,115 |  |  | 1.3 | 2,201 | 2,214 | 2,168 | 2,021 | 8.9 |
| Computer storage devices.................. | 859 | 858 | 878 | 0.1 | -2.3 | -2.7 | 883 | 830 | 886 | 898 | -1.7 |
| Other peripheral equipment................ | 901 | 891 | 896 | 1.1 | -0.6 | 6.9 | 884 | 887 | 946 | 772 | 14.5 |
| Nondefense communications equipment. $\qquad$ | 4,720 | 4,723 | 4,679 | -0.1 | 0.9 | -1.0 | 4,806 | 4,719 | 4,789 | 4,587 | 4.8 |
| Defense communications equipment........ | 657 | 658 | 659 | -0.2 | -0.2 | -0.6 | 657 | 658 | 659 | 668 | -1.6 |
| Audio and video equipment................. | 1,139 | 1,174 | 1,106 | -3.0 | 6.1 | 5.2 | 1,076 | 1,204 | 1,129 | 811 | 32.7 |
| Electronic components..................... | 9,894 | 9,870 | 9,832 | 0.2 | 0.4 | -1.4 | 10,078 | 9,940 | 9,874 | 10,257 | -1.7 |
| Nondefense search and navigation equipment. $\qquad$ | 3,396 | 3,346 | 3,309 | 1.5 | 1.1 | 0.5 | 3,439 | 3,321 | 3,316 | 3,160 | 8.8 |
| Defense search and navigation equipment. $\qquad$ | 2,842 | 2,839 | 2,834 | 0.1 | 0.2 | -0.3 | 2,867 | 2,838 | 2,910 | 2,896 | -1.0 |
| Electromedical, measuring and control instruments. | 17,858 | 17,752 | 17,564 | 0.6 | 1.1 | 0.5 | 18,062 | 17,755 | 17,786 | 16,708 | 8.1 |
| Electrical equipment, appliances, and components. | 22,934 | 22,862 | 22,813 | 0.3 | 0.2 | 1.3 | 23,412 | 23,088 | 23,250 | 20,392 | 14.8 |
| Electric lighting equipment................... | 2,072 | 2,081 | 2,073 | -0.4 | 0.4 | 1.9 | 2,088 | 2,081 | 2,074 | 2,039 | 2.4 |
| Household appliances...................... | 3,457 | 3,394 | 3,398 | 1.9 | -0.1 | 3.6 | 3,532 | 3,374 | 3,420 | 2,697 | 31.0 |
| Electrical equipment........................ | 7,629 | 7,614 | 7,597 | 0.2 | 0.2 | 1.0 | 7,818 | 7,696 | 7,902 | 6,899 | 13.3 |
| Batteries.................................... | 1,574 | 1,586 | 1,623 | -0.8 | -2.3 | -0.3 | 1,633 | 1,686 | 1,712 | 1,633 | 0.0 |
| Transportation equipment..................... | 157,434 | 157,576 | 157,288 | -0.1 | 0.2 | 0.3 | 158,883 | 156,348 | 157,771 | 153,045 | 3.8 |
| Automobiles.............................. | 6,263 | 6,427 | 6,580 | -2.6 | -2.3 | 0.6 | 6,425 | 6,305 | 6,424 | 6,207 | 3.5 |
| Light trucks and utility vehicles............. | 9,693 | 9,633 | 10,056 | 0.6 | -4.2 | 0.3 | 9,890 | 9,129 | 10,218 | 8,889 | 11.3 |
| Heavy duty trucks ......................... | 2,905 | 2,883 | 2,720 | 0.8 | 6.0 | -0.6 | 2,944 | 2,923 | 2,812 | 2,557 | 15.1 |
| Motor vehicle bodies, parts, and trailers. $\qquad$ | 32,572 | 32,609 | 32,410 | -0.1 | 0.6 | 0.6 | 33,001 | 32,455 | 32,583 | 30,533 | 8.1 |
| Nondefense aircraft and parts.............. | 76,028 | 76,062 | 76,012 | 0.0 | 0.1 | -0.2 | 76,340 | 75,642 | 76,150 | 76,554 | -0.3 |
| Defense aircraft and parts.................. | 13,074 | 13,009 | 12,765 | 0.5 | 1.9 | 0.0 | 13,137 | 13,000 | 12,809 | 12,508 | 5.0 |
| Ships and boats........................... | 4,472 | 4,440 | 4,404 | 0.7 | 0.8 | 1.7 | 4,501 | 4,509 | 4,462 | 3,650 | 23.3 |
| Furniture and related products................. | 9,944 | 9,847 | 9,737 | 1.0 | 1.1 | 0.4 | 10,019 | 10,004 | 9,872 | 8,538 | 17.3 |
| Miscellaneous durable goods.................. | 27,183 | 27,028 | 26,861 | 0.6 | 0.6 | 0.3 | 27,329 | 26,919 | 27,015 | 25,578 | 6.8 |
| Nondurable goods industries................... | 315,625 | 316,392 | 315,233 | -0.2 | 0.4 | 2.4 | 317,456 | 317,783 | 317,230 | 283,763 | 11.9 |
| Food products............................... | 62,770 | 62,571 | 62,685 | 0.3 | -0.2 | 0.3 | 62,015 | 61,189 | 61,213 | 58,797 | 5.5 |
| Grain and oilseed milling.................... | 7,818 | 7,804 | 7,960 | 0.2 | -2.0 | 1.2 | 7,642 | 7,645 | 7,663 | 6,890 | 10.9 |
| Dairy products.............................. | 9,395 | 9,355 | 9,273 | 0.4 | 0.9 | 1.0 | 9,679 | 9,631 | 9,532 | 8,670 | 11.6 |
| Meat, poultry, and seafood products....... | 10,893 | 10,755 | 10,650 | 1.3 | 1.0 | 0.4 | 10,927 | 10,556 | 10,586 | 10,377 | 5.3 |
| Beverage and tobacco products.............. | 28,253 | 28,232 | 28,203 | 0.1 | 0.1 | 0.5 | 27,608 | 27,861 | 28,467 | 26,167 | 5.5 |
| Beverages................................... | 24,593 | 24,572 | 24,521 | 0.1 | 0.2 | 0.6 | 24,201 | 24,357 | 24,860 | 22,865 | 5.8 |
| Tobacco...................................... | 3,660 | 3,660 | 3,682 | 0.0 | -0.6 | -0.6 | 3,407 | 3,504 | 3,607 | 3,302 | 3.2 |
| Textile mills...................................... | 3,639 | 3,584 | 3,516 | 1.5 | 1.9 | 1.8 | 3,665 | 3,577 | 3,543 | 3,098 | 18.3 |
| Textile products............................... | 4,304 | 4,289 | 4,272 | 0.3 | 0.4 | 0.9 | 4,285 | 4,254 | 4,246 | 3,845 | 11.4 |
| Apparel..................................... | 2,296 | 2,292 | 2,221 | 0.2 | 3.2 | 3.7 | 2,447 | 2,399 | 2,244 | 1,942 | 26.0 |
| Leather and allied products................... | 1,147 | 1,102 | 1,048 | 4.1 | 5.2 | 1.6 | 1,183 | 1,121 | 1,077 | 880 | 34.4 |
| Paper products.............................. | 16,674 | 16,550 | 16,412 | 0.7 | 0.8 | 0.4 | 16,878 | 16,545 | 16,527 | 15,696 | 7.5 |
| Pulp, paper, and paperboard mills........ | 4,987 | 4,953 | 4,911 | 0.7 | 0.9 | 0.3 | 5,039 | 4,953 | 4,953 | 4,857 | 3.7 |
| Paperboard containers..................... | 6,153 | 6,062 | 5,990 | 1.5 | 1.2 | 0.6 | 6,201 | 6,026 | 6,004 | 5,641 | 9.9 |
| Printing....................................... | 6,437 | 6,407 | 6,332 | 0.5 | 1.2 | 0.3 | 6,400 | 6,363 | 6,237 | 5,961 | 7.4 |
| Petroleum and coal products................. | 53,274 | 55,551 | 55,912 | -4.1 | -0.6 | 12.2 | 56,076 | 58,694 | 58,309 | 40,782 | 37.5 |
| Petroleum refineries............................. | 46,353 | 48,739 | 49,167 | -4.9 | -0.9 | 12.9 | 48,989 | 51,777 | 51,413 | 35,119 | 39.5 |
| Chemical products............................. | 104,872 | 104,006 | 103,155 | 0.8 | 0.8 | 0.3 | 104,985 | 104,098 | 103,780 | 98,110 | 7.0 |
| Pesticides, fertilizers, and other agricultural chemicals. $\qquad$ | 6,765 | 6,595 | 6,354 | 2.6 | 3.8 | 2.3 | 6,545 | 6,247 | 6,300 | 5,420 | 20.8 |
| Pharmaceuticals and medicines............. | 43,183 | 43,040 | 42,996 | 0.3 | 0.1 | -0.7 | 43,312 | 43,719 | 43,563 | 43,658 | -0.8 |
| Paints, coatings, and adhesives............. | 5,087 | 4,981 | 4,898 | 2.1 | 1.7 | 2.1 | 5,118 | 5,003 | 4,975 | 3,996 | 28.1 |
| Plastics and rubber products................... | 31,959 | 31,808 | 31,477 | 0.5 | 1.1 | 1.0 | 31,914 | 31,682 | 31,587 | 28,485 | 12.0 |

${ }^{\mathrm{p}}$ Preliminary
${ }^{\mathrm{e}}$ 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.
${ }^{2}$ 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/m3/](http://www.census.gov/manufacturing/m3/).

Table 6. Value of Manufacturers' Inventories, by Stage of Fabrication, by Industry Group ${ }^{1}$

| Industry | Seasonally Adjusted |  |  |  |  |  | Not Seasonally Adjusted |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Monthly |  |  | Percent Change |  |  | Monthly |  |  |  | \% ChangeJuly2022/2021 |
|  | $\begin{gathered} \text { July } \\ 2022^{p} \end{gathered}$ | $\begin{aligned} & \text { June } \\ & 2022^{r} \end{aligned}$ | $\begin{aligned} & \text { May } \\ & 2022 \end{aligned}$ | June July | May June | Apr. May | $\begin{gathered} \text { July } \\ 2022^{\text {p }} \end{gathered}$ | $\begin{aligned} & \text { June } \\ & 2022^{r} \end{aligned}$ | $\begin{aligned} & \text { May } \\ & 2022 \end{aligned}$ | $\begin{aligned} & \text { July } \\ & 2021 \end{aligned}$ |  |
| MATERIALS AND SUPPLIES |  |  |  |  |  |  |  |  |  |  |  |
| All manufacturing industries................... | 294,735 | 294,301 | 292,587 | 0.1 | 0.6 | 1.6 | 297,210 | 295,457 | 293,843 | 260,678 | 14.0 |
| Durable goods industries..................... | 180,844 | 179,438 | 177,695 | 0.8 | 1.0 | 1.0 | 182,388 | 179,219 | 177,881 | 158,694 | 14.9 |
| Wood products........................... | 6,665 | 6,594 | 6,573 | 1.1 | 0.3 | 1.2 | 6,562 | 6,447 | 6,331 | 5,766 | 13.8 |
| Nonmetallic mineral products............ | 7,046 | 6,946 | 6,902 | 1.4 | 0.6 | 0.8 | 7,067 | 6,984 | 6,961 | 6,153 | 14.9 |
| Primary metals............................. | 14,589 | 14,610 | 14,556 | -0.1 | 0.4 | 1.3 | 14,655 | 14,610 | 14,491 | 12,407 | 18.1 |
| Fabricated metal products.................... | 25,768 | 25,605 | 25,626 | 0.6 | -0.1 | 0.3 | 26,050 | 25,697 | 25,634 | 22,611 | 15.2 |
| Machinery................................ | 36,607 | 36,040 | 35,688 | 1.6 | 1.0 | 1.5 | 36,868 | 36,141 | 35,950 | 30,437 | 21.1 |
| Computers and electronic products........ | 24,925 | 24,708 | 24,273 | 0.9 | 1.8 | 1.8 | 25,229 | 24,830 | 24,471 | 22,083 | 14.2 |
| Electrical equipment, appliances, and components. $\qquad$ | 10,857 | 10,781 | 10,733 | 0.7 | 0.4 | 1.6 | 11,157 | 10,925 | 10,900 | 9,312 | 19.8 |
| Transportation equipment................. | 40,702 | 40,609 | 39,905 | 0.2 | 1.8 | 0.8 | 40,967 | 39,982 | 39,606 | 37,496 | 9.3 |
| Furniture and related products............. | 4,867 | 4,814 | 4,741 | 1.1 | 1.5 | 0.1 | 4,874 | 4,886 | 4,825 | 4,033 | 20.9 |
| Miscellaneous products..................... | 8,818 | 8,731 | 8,698 | 1.0 | 0.4 | -0.7 | 8,959 | 8,717 | 8,712 | 8,396 | 6.7 |
| Nondurable goods industries................... | 113,891 | 114,863 | 114,892 | -0.8 | 0.0 | 2.5 | 114,822 | 116,238 | 115,962 | 101,984 | 12.6 |
| Food products............................Beverage and tobacco products......... | 24,101 | 24,041 | 23,937 | 0.2 | 0.4 | 0.0 | 23,910 | 23,834 | 23,751 | 22,859 | 4.6 |
|  | 5,620 | 5,876 | 5,826 | -4.4 | 0.9 | -0.1 | 5,361 | 5,706 | 5,815 | 5,742 | -6.6 |
| Textiles.................................... | 1,440 | 1,404 | 1,365 | 2.6 | 2.9 | 1.0 | 1,453 | 1,408 | 1,382 | 1,252 | 16.1 |
| Textile products............................ | 1,623 | 1,517 | 1,506 | 7.0 | 0.7 | 0.7 | 1,615 | 1,507 | 1,498 | 1,368 | 18.1 |
|  | 738 | 741 | 717 | -0.4 | 3.3 | 2.0 | 768 | 756 | 715 | 645 | 19.1 |
| Leather and allied products.................. | 373 | 364 | 356 | 2.5 | 2.2 | 2.3 | 387 | 370 | 365 | 310 | 24.8 |
|  | 8,790 | 8,723 | 8,584 | 0.8 | 1.6 | 1.3 | 8,871 | 8,695 | 8,564 | 7,999 | 10.9 |
| Paper products................................ | 3,329 | 3,320 | 3,254 | 0.3 | 2.0 | -1.7 | 3,342 | 3,327 | 3,229 | 2,986 | 11.9 |
| Petroleum and coal products............... | 17,583 | 18,924 | 19,557 | -7.1 | -3.2 | 15.5 | 18,676 | 20,880 | 20,699 | 13,925 | 34.1 |
| Chemical products......................... | 36,489 | 36,246 | 35,954 | 0.7 | 0.8 | 0.5 | 36,540 | 36,067 | 36,123 | 32,364 | 12.9 |
| Plastics and rubber products................ | 13,805 | 13,707 | 13,836 | 0.7 | -0.9 | -0.5 | 13,899 | 13,688 | 13,821 | 12,534 | 10.9 |
| WORK IN PROCESS |  |  |  |  |  |  |  |  |  |  |  |
| All manufacturing industries................... | 226,233 | 226,187 | 226,013 | 0.0 | 0.1 | 0.8 | 227,907 | 226,673 | 227,476 | 214,694 | 6.2 |
| Durable goods industries....................... | 171,873 | 172,322 | 172,288 | -0.3 | 0.0 | 0.3 | 173,007 | 172,796 | 173,838 | 166,678 | 3.8 |
| Wood products............................. | 2,094 | 2,086 | 2,101 | 0.4 | -0.7 | -0.3 | 2,073 | 2,075 | 2,085 | 1,931 | 7.4 |
| Nonmetallic mineral products............... | 1,481 | 1,480 | 1,476 | 0.1 | 0.3 | -0.1 | 1,485 | 1,505 | 1,521 | 1,488 | -0.2 |
| Primary metals........................... | 12,339 | 12,720 | 12,895 | -3.0 | -1.4 | 0.5 | 12,544 | 12,881 | 13,098 | 12,061 | 4.0 |
| Fabricated metal products..................... | 14,791 | 14,771 | 14,694 | 0.1 | 0.5 | 1.0 | 14,921 | 14,808 | 14,909 | 13,803 | 8.1 |
| Machinery................................ | 23,143 | 23,403 | 23,306 | -1.1 | 0.4 | 1.6 | 22,959 | 23,616 | 23,746 | 19,417 | 18.2 |
| Computers and electronic products........ | 13,090 | 13,153 | 13,317 | -0.5 | -1.2 | -3.2 | 13,120 | 13,254 | 13,663 | 14,357 | -8.6 |
| Electrical equipment, appliances, and components. $\qquad$ | 4,203 | 4,176 | 4,215 | 0.6 | -0.9 | 1.0 | 4,313 | 4,260 | 4,344 | 3,934 | 9.6 |
| Transportation equipment................. | 94,793 | 94,626 | 94,369 | 0.2 | 0.3 | 0.3 | 95,606 | 94,462 | 94,512 | 94,225 | 1.5 |
| Furniture and related products............. | 1,354 | 1,347 | 1,327 | 0.5 | 1.5 | -0.9 | 1,342 | 1,364 | 1,333 | 1,277 | 5.1 |
| Miscellaneous products........................ | 4,585 | 4,560 | 4,588 | 0.5 | -0.6 | 1.7 | 4,644 | 4,571 | 4,627 | 4,185 | 11.0 |
| Nondurable goods industries................... | 54,360 | 53,865 | 53,725 | 0.9 | 0.3 | 2.7 | 54,900 | 53,877 | 53,638 | 48,016 | 14.3 |
| Food products............................. | 5,872 | 5,995 | 6,041 | -2.1 | -0.8 | -0.7 | 5,501 | 5,590 | 5,615 | 5,381 | 2.2 |
| Beverage and tobacco products......... | 8,991 | 8,910 | 8,849 | 0.9 | 0.7 | 0.5 | 8,616 | 8,620 | 8,749 | 8,423 | 2.3 |
| Textiles.................................... | 622 | 619 | 615 | 0.5 | 0.7 | 0.5 | 629 | 616 | 621 | 572 | 10.0 |
| Textile products........................... | 459 | 451 | 453 | 1.8 | -0.4 | 0.7 | 461 | 443 | 448 | 414 | 11.4 |
|  | 282 | 281 | 278 | 0.4 | 1.1 | 1.5 | 292 | 293 | 282 | 275 | 6.2 |
| Leather and allied products.................. | 123 | 120 | 115 | 2.5 | 4.3 | 0.9 | 124 | 119 | 116 | 117 | 6.0 |
| Paper products................................................ | 1,444 | 1,446 | 1,453 | -0.1 | -0.5 | 0.1 | 1,475 | 1,462 | 1,468 | 1,394 | 5.8 |
| Printing ................................................................. | 1,270 | 1,271 | 1,277 | -0.1 | -0.5 | 4.9 | 1,238 | 1,208 | 1,198 | 1,182 | 4.7 |
| Petroleum and coal products.............. | 15,204 | 14,881 | 15,015 | 2.2 | -0.9 | 8.8 | 16,162 | 15,385 | 15,498 | 10,535 | 53.4 |
| Chemical products......................................... | 16,580 | 16,348 | 16,076 | 1.4 | 1.7 | 0.4 | 16,918 | 16,619 | 16,105 | 16,331 | 3.6 |
| Plastics and rubber products............... | 3,513 | 3,543 | 3,553 | -0.8 | -0.3 | 1.0 | 3,484 | 3,522 | 3,538 | 3,392 | 2.7 |
| FINISHED GOODS |  |  |  |  |  |  |  |  |  |  |  |
| All manufacturing industries................... | 281,024 | 281,047 | 279,603 | 0.0 | 0.5 | 1.4 | 281,840 | 280,127 | 283,160 | 257,996 | 9.2 |
| Durable goods industries...................... | 133,650 | 133,383 | 132,987 | 0.2 | 0.3 | 0.5 | 134,106 | 132,459 | 135,530 | 124,233 | 7.9 |
| Wood products.......................... | 6,029 | 6,092 | 6,029 | -1.0 | 1.0 | -1.5 | 5,911 | 6,024 | 6,136 | 5,979 | -1.1 |
| Nonmetallic mineral products............... | 7,619 | 7,553 | 7,461 | 0.9 | 1.2 | 1.3 | 7,631 | 7,614 | 7,706 | 6,793 | 12.3 |
| Primary metals........................... | 12,164 | 11,954 | 11,920 | 1.8 | 0.3 | 1.6 | 12,052 | 11,732 | 12,268 | 10,498 | 14.8 |
| Fabricated metal products...................... | 22,102 | 22,053 | 21,918 | 0.2 | 0.6 | 1.1 | 22,409 | 22,260 | 22,499 | 20,645 | 8.5 |
| Machinery................................ | 24,194 | 23,826 | 23,368 | 1.5 | 2.0 | 0.6 | 23,938 | 23,570 | 23,662 | 21,891 | 9.4 |
| Computers and electronic products........ | 14,226 | 14,236 | 14,168 | -0.1 | 0.5 | 0.6 | 14,384 | 14,067 | 14,210 | 13,732 | 4.7 |
| Electrical equipment, appliances, and components. $\qquad$ | 7,874 | 7,905 | 7,865 | -0.4 | 0.5 | 1.0 | 7,942 | 7,903 | 8,006 | 7,146 | 11.1 |
| Transportation equipment................. | 21,939 | 22,341 | 23,014 | -1.8 | -2.9 | -0.9 | 22,310 | 21,904 | 23,653 | 21,324 | 4.6 |
| Furniture and related products............. | 3,723 | 3,686 | 3,669 | 1.0 | 0.5 | 1.4 | 3,803 | 3,754 | 3,714 | 3,228 | 17.8 |
| Miscellaneous products..................... | 13,780 | 13,737 | 13,575 | 0.3 | 1.2 | 0.5 | 13,726 | 13,631 | 13,676 | 12,997 | 5.6 |
| Nondurable goods industries.................... | 147,374 | 147,664 | 146,616 | -0.2 | 0.7 | 2.2 | 147,734 | 147,668 | 147,630 | 133,763 | 10.4 |
| Food products............................ | 32,797 | 32,535 | 32,707 | 0.8 | -0.5 | 0.7 | 32,604 | 31,765 | 31,847 | 30,557 | 6.7 |
| Beverage and tobacco products......... | 13,642 | 13,446 | 13,528 | 1.5 | -0.6 | 0.7 | 13,631 | 13,535 | 13,903 | 12,002 | 13.6 |
| Textiles.................................... | 1,577 | 1,561 | 1,536 | 1.0 | 1.6 | 3.0 | 1,583 | 1,553 | 1,540 | 1,274 | 24.3 |
| Textile products.............................. | 2,222 | 2,321 | 2,313 | -4.3 | 0.3 | 1.0 | 2,209 | 2,304 | 2,300 | 2,063 | 7.1 |
| Apparel.................................. | 1,276 | 1,270 | 1,226 | 0.5 | 3.6 | 5.3 | 1,387 | 1,350 | 1,247 | 1,022 | 35.7 |
| Leather and allied products................. | 651 | 618 | 577 | 5.3 | 7.1 | 1.4 | 672 | 632 | 596 | 453 | 48.3 |
| Paper products............................ | 6,440 | 6,381 | 6,375 | 0.9 | 0.1 | -0.6 | 6,532 | 6,388 | 6,495 | 6,303 | 3.6 |
| Printing .................................. | 1,838 | 1,816 | 1,801 | 1.2 | 0.8 | 0.7 | 1,820 | 1,828 | 1,810 | 1,793 | 1.5 |
| Petroleum and coal products............... | 20,487 | 21,746 | 21,340 | -5.8 | 1.9 | 11.7 | 21,238 | 22,429 | 22,112 | 16,322 | 30.1 |
| Chemical products. $\qquad$ Plastics and rubber products. | 51,803 | 51,412 | 51,125 | 0.8 | 0.6 | 0.2 | 51,527 | 51,412 | 51,552 | 49,415 | 4.3 |
|  | 14,641 | 14,558 | 14,088 | 0.6 | 3.3 | 2.5 | 14,531 | 14,472 | 14,228 | 12,559 | 15.7 |

[^0]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 ${ }^{2}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Jul } \\ 2022^{\text {p }} \end{gathered}$ | $\begin{gathered} \text { Jun } \\ 2022^{\prime} \end{gathered}$ | $\begin{aligned} & \text { May } \\ & 2022 \end{aligned}$ | $\begin{gathered} \text { Apr } \\ 2022 \end{gathered}$ | $\begin{gathered} \text { Jul } \\ 2022^{\text {p }} \end{gathered}$ | $\begin{gathered} \text { Jun } \\ 2022^{\prime} \end{gathered}$ | $\begin{aligned} & \text { May } \\ & 2022 \end{aligned}$ | $\begin{aligned} & \text { Apr } \\ & 2022 \end{aligned}$ |
| All manufacturing industries ${ }^{3}$.......................... | 1.47 | 1.46 | 1.46 | 1.47 | ( X ) | (x) | ( X ) | (x) |
| Durable goods industries ${ }^{3}$.... | 1.80 | 1.80 | 1.80 | 1.81 | 6.04 | 6.03 | 5.98 | 6.05 |
| Wood products......................................... | 1.16 | 1.15 | 1.12 | 1.12 | ( X ) | (X) | (X) | (X) |
| Nonmetallic mineral products..................... | 1.28 | 1.27 | 1.27 | 1.27 | (X) | (X) | (X) | (X) |
|  | 1.88 | 1.84 | 1.83 | 1.85 | 1.47 | 1.44 | 1.45 | 1.49 |
| Fabricated metal products.......................... | 1.68 | 1.68 | 1.69 | 1.69 | 3.24 | 3.26 | 3.28 | 3.31 |
| Machinery............................................... | 2.21 | 2.21 | 2.19 | 2.19 | 3.84 | 3.84 | 3.83 | 3.83 |
| Computers and electronic products ${ }^{3}$.............. | 1.80 | 1.79 | 1.81 | 1.82 | 6.26 | 6.25 | 6.34 | 6.38 |
| Electrical equipment, appliances, and components. | 1.75 | . 71 | 1.70 | 1.72 | 3.21 | 3.11 | 3.09 | 3.16 |
| Transportation equipment........................... | 1.83 | 1.85 | 1.85 | 1.89 | 12.16 | 12.37 | 12.07 | 12.29 |
| Furniture and related products...................... | 1.61 | 1.60 | 1.57 | 1.57 | 1.90 | 1.90 | 1.88 | 1.92 |
| Miscellaneous products............................ | 1.94 | 1.93 | 1.91 | 1.91 | ( $)$ | (x) | (x) | (X) |
| Nondurable goods industries.......................... | 1.15 | 1.13 | 1.14 | 1.14 | (x) | (x) | (x) | (X) |
| Food products...................................... | 0.82 | 0.82 | 0.83 | 0.82 | ( $)$ | (X) | (X) | (X) |
| Beverage and tobacco products..................... | 1.72 | 1.71 | 1.76 | 1.80 | ( $)$ | (X) | (x) | (X) |
| Textiles....................................................... | 1.58 | 1.57 | 1.53 | 1.49 | ( $)$ | (X) | (x) | (X) |
| Textile products....................................... | 2.16 | 2.15 | 2.11 | 2.13 | ( $)$ | (x) | (X) | (X) |
|  | 3.16 | 3.13 | 3.04 | 2.82 | (X) | (X) | (X) | (X) |
| Leather and allied products........................ | 2.72 | 2.61 | 2.34 | 2.30 | ( X ) | (x) | ( X ) | (X) |
| Paper products.......................................... | 1.03 | 1.01 | 1.00 | 1.00 | ( X ) | (X) | ( X ) | (X) |
| Printing................................................... | 0.92 | 0.92 | 0.93 | 0.94 | (x) | ( X ) | (X) | (X) |
| Petroleum and coal products...................... | 0.81 | 0.79 | 0.83 | 0.81 | (X) | (x) | (X) | (x) |
| Chemical products................................... | 1.59 | 1.56 | 1.56 | 1.57 | (X) | (x) | (X) | (x) |
| Plastics and rubber products........................ | 1.43 | 1.42 | 1.41 | 1.39 | (X) | (X) | ( X ) | (x) |

## ${ }^{\times}$Not Applicable

Revised data due to late receipts and concurrent seasonal adjustment.
${ }^{2}$ Excludes the following industries with no unfilled orders: Wood products; nonmetallic mineral products; medical equipment and supplies; office supplies; equipment; manufacturing and reproducing magnetic and optical media; batteries automobiles; light trucks and utility vehicles; heavy duty viducks 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
error cannot be calculated. For further details on sugurvey design, methodology, and data limitations see <http://www.census.gov/manufacturing $/ \mathrm{m} / \mathrm{mp}$.
error cannot be calculated. For further detais 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) Survey, July Full Report, September 2, 2022. Information on data
sources and methodology can be found on our website at <www.census
sources and methodology can be found on our website at <www.census.gov/manufacturing/m3/how_the_data_are_collected/index.html>.

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

| Industry | Shipments |  | New Orders |  | Unfilled Orders |  | Inventories |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \mathrm{Jul} \\ 2022 \end{gathered}$ | $\begin{gathered} \mathrm{Jul} \\ \text { 2021- } \\ \text { Jun } \\ 2022 \\ \hline \end{gathered}$ | $\begin{gathered} \mathrm{Jul}^{2} \\ 2022 \\ \hline \end{gathered}$ | $\begin{gathered} \mathrm{Jul} \\ 2021 \\ \text { jun } \\ \text { Jun } \\ 2022 \\ \hline \end{gathered}$ | $\begin{gathered} \mathrm{Jul} \\ 2022 \end{gathered}$ | $\begin{gathered} \mathrm{Jul}{ }^{3} \\ 2021- \\ \text { Jun } \\ 2022 \\ \hline \end{gathered}$ | $\begin{gathered} \mathrm{Jul}^{2} \\ 2022 \end{gathered}$ | $\begin{gathered} \mathrm{Jul} \\ \text { 2021- } \\ \text { Jun } \\ 2022 \\ \hline \end{gathered}$ |
| All manufacturing industries............... | (x) | 0.2 | (X) | 0.4 | (x) | 0.1 | (x) | 0.1 |
| Durable goods industries.................... | -0.2 | 0.1 | -0.1 | 0.5 | 0.0 | 0.1 | 0.1 | 0.1 |
| Wood products............................. | ( X ) | 0.2 | (X) | (NA) | (X) | (NA) | (x) | 0.2 |
| Nonmetallic mineral products............. | (X) | 0.4 | (X) | (NA) | (x) | (NA) | (x) | 0.2 |
|  | -0.2 | 0.4 | -0.3 | 0.7 | 0.0 | 0.3 | 0.1 | 0.2 |
| Fabricated metal products................ | -0.1 | 0.2 | 0.0 | 0.4 | 0.1 | 0.1 | 0.1 | 0.1 |
| Machinery..................................... | -0.2 | 0.3 | -0.1 | 0.4 | 0.0 | 0.1 | 0.0 | 0.3 |
| Computers and electronic products.... | 0.1 | 0.2 | 0.3 | 0.3 | 0.0 | 0.1 | 0.1 | 0.1 |
| Electrical equipment, appliances, and components | -0.7 | 0.4 | -0.8 | 0.8 | 0.0 | 0.2 | -0.4 | 0.4 |
| Transportation equipment................ | 0.0 | 0.4 | 0.0 | 1.6 | 0.0 | 0.2 | 0.0 | 0.1 |
| Furniture and related products............ | (x) | 0.4 | (X) | 0.5 | (X) | 0.3 | (X) | 0.3 |
| Miscellaneous products................... | ( $)$ | 0.4 | ( $)$ | 0.4 | ( $)$ | . 4 | ( ${ }^{\text {( }}$ | 0.1 |
| Nondurable goods industries................ | ( $)$ | 0.3 | (X) | (NA) | (x) | (NA) | (x) | 0.2 |
| Food products................................. | ( $)$ | 0.1 | (X) | (NA) | (X) | (NA) | (x) | 0.1 |
| Beverage and tobacco products........... | ( $)^{\text {a }}$ | 0.4 | (X) | (NA) | ( X$)$ | (NA) | ( X$)$ | 0.2 |
| Textiles.................................... | ( $)^{\text {a }}$ | 0.3 | (x) | (NA) | (x) | (NA) | ( X$)$ | 0.3 |
| Textile products................................. | $(\mathrm{x})$ | 0.4 | (x) | (NA) | (x) | (NA) | (x) | 0.2 |
| Apparel............................................ | ( $)^{\text {a }}$ | 0.4 | ( X$)$ | (NA) | ( X ) | (NA) | ( X$)$ | 0.7 |
|  | (x) | 0.9 | (x) | (NA) | (x) | (NA) | (x) | 0.7 0.1 |
|  | $(\mathrm{X})$ | 0.2 0.8 0.8 | $(x)$ $(x)$ (x) |  | (x) (x) | (NA) (NA) | (x) (x) | 0.1 0.4 |
| Printing. <br> Petroleum and coal products | (x) (x) | 0.8 1.0 | $(\mathrm{X})$ <br> $(\mathrm{X})$ | (NA) (NA) | (x) (x) | (NA) (NA) | (x) (x) | 0.4 0.6 |
| 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 |

[^1]
[^0]:    ${ }^{\circ}$ 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 noncalendar 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 survey
    pane 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/)
    Source: U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders (M3

[^1]:    X Not Applicable
    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 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 between the month-to-month percent changes of the preliminary and final estimates. The
    monthly averages are the simple averages of the absolute values of the differences for the month specified. The advance to final percent
    monthly vereages are the simple averages of the absolute values of the differences for the months specified. The advance to final percent
    change revisions for the durable goods industries are shown in the advance report for the month.
    error is nonsampling error, which includes errors of coverage, response, and nonreporting. Since the suvvey panel is not a compobability of 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.... Census sers (M3) Survey, July Full Report, September 2, 2022. Information
    <www.census.gov/manufacturing/m3/how_the_data__ars_collected/index.html>.

