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

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November 3, 2022 - The U.S. Census Bureau announces the September full report on manufacturers' shipments, inventories and orders:


## Summary

New orders for manufactured goods in September, up eleven of the last twelve months, increased \$1.5 billion or 0.3 percent to $\$ 551.0$ billion, the U.S. Census Bureau reported today. This followed a 0.2 percent August increase. Shipments, up eighteen of the last nineteen months, increased $\$ 1.1$ billion or 0.2 percent to $\$ 550.3$ billion. This followed a 0.7 percent August increase. Unfilled orders, up twenty-five consecutive months, increased $\$ 5.9$ billion or 0.5 percent to $\$ 1,137.8$ billion. This followed a 0.5 percent August increase. The unfilled orders-to-shipments ratio was 6.04, up from 5.98 in August. Inventories, up following two consecutive monthly decreases, increased $\$ 1.3$ billion or 0.2 percent to $\$ 801.6$ billion. This followed a 0.1 percent August decrease. The inventories-to-shipments ratio was 1.46, unchanged from August.

## New Orders

New orders for manufactured durable goods in September, up six of the last seven months, increased \$1.1 billion or 0.4 percent to $\$ 274.9$ billion, unchanged from the previously published increase. This followed a 0.2 percent August increase. Transportation equipment, up five of the last six months, drove the increase,

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$\$ 2.0$ billion or 2.2 percent to $\$ 95.5$ billion. New orders for manufactured nondurable goods increased $\$ 0.5$ billion or 0.2 percent to $\$ 276.1$ billion.

## Shipments

Shipments of manufactured durable goods in September, up sixteen of the last seventeen months, increased $\$ 0.6$ billion or 0.2 percent to $\$ 274.1$ billion, down from the previously published 0.3 percent increase. This followed a 1.3 percent August increase. Transportation equipment, up eleven of the last twelve months, drove the increase, $\$ 1.1$ billion or 1.2 percent to $\$ 90.6$ billion. Shipments of manufactured nondurable goods, up eighteen of the last nineteen months, increased $\$ 0.5$ billion or 0.2 percent to $\$ 276.1$ billion. This followed a 0.2 percent August increase. Petroleum and coal products, up following two consecutive monthly decreases, drove the increase, $\$ 0.7$ billion or 1.0 percent to $\$ 65.5$ billion.

## Unfilled Orders

Unfilled orders for manufactured durable goods in September, up twenty-five consecutive months, increased $\$ 5.9$ billion or 0.5 percent to $\$ 1,137.8$ billion, unchanged from the previously published increase. This followed a 0.5 percent August increase. Transportation equipment, up nineteen of the last twenty months, led the increase, $\$ 4.9$ billion or 0.7 percent to $\$ 663.9$ billion.

## Inventories

Inventories of manufactured durable goods in September, up twenty consecutive months, increased \$1.2 billion or 0.2 percent to $\$ 488.7$ billion, unchanged from the previously published increase. This followed a 0.2 percent August increase. Machinery, up twenty-three consecutive months, led the increase, $\$ 0.9$ billion or 1.0 percent to $\$ 85.3$ billion. Inventories of manufactured nondurable goods, up following two consecutive monthly decreases, increased $\$ 0.1$ billion or virtually unchanged to $\$ 313.0$ billion. This followed a 0.7 percent August decrease. Food products, up thirteen of the last fourteen months, drove the increase, $\$ 0.5$ billion or 0.8 percent to $\$ 63.6$ billion. By stage of fabrication, September materials and supplies increased 0.3 percent in durable goods and 1.0 percent in nondurable goods. Work in process decreased 0.1 percent in durable goods and 0.5 percent in nondurable goods. Finished goods increased 0.6 percent in durable goods and decreased 0.5 percent in nondurable goods.

The Advance Report on durable goods for October is scheduled for release on November 23, 2022, at 8:30 a.m. EST and the Full Report on December 5, 2022, at 10:00 a.m. EST. 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>.

## 2023 Release Dates for the M3 Survey

| Survey month | Advance Report on Durable Goods and Advance Total Manufacturing (8:30 a.m. release time) | Full Report (10:00 a.m. release time) |
| :---: | :---: | :---: |
| Nov-22 | Fri 12/23/2022 | Fri 1/6/2023 |
| Dec-22 | Thu 1/26/2023 | Thu 2/2/2023 |
| Jan-23 | Mon 2/27/2023 | Mon 3/6/2023 |
| Feb-23 | Fri 3/24/2023 | Tue 4/4/2023 |
| Mar-23 | Wed 4/26/2023 | Tue 5/2/2023 |
| Apr-23 | Fri 5/26/2023 | Mon 6/5/2023 |
| May-23 | Tue 6/27/2023 | Wed 7/5/2023 |
| Jun-23 | Thu 7/27/2023 | Thu 8/3/2023 |
| Jul-23 | Thu 8/24/2023 | Tue 9/5/2023 |
| Aug-23 | Wed 9/27/2023 | Wed 10/4/2023 |
| Sep-23 | Thu 10/26/2023 | Thu 11/2/2023 |
| Oct-23 | Wed 11/22/2023 | Mon 12/4/2023 |
| Nov-23 | Fri 12/22/2023 | Not available at this time |

OMB: Schedule of Release Dates 2023 (whitehouse.gov)

## 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".

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## 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



Receive 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 ${ }^{1}$
[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 |  |  |
|  | $\begin{gathered} \text { Sep. } \\ 2022^{p} \end{gathered}$ | $\begin{aligned} & \text { Aug. } \\ & 2022^{r} \end{aligned}$ | $\begin{aligned} & \text { July } \\ & 2022 \end{aligned}$ | $\begin{aligned} & \text { Aug. - } \\ & \text { Sep. } \end{aligned}$ | July - <br> Aug. | June July | $\begin{gathered} \text { Sep. } \\ 2022^{p} \end{gathered}$ | $\begin{aligned} & \text { Aug. } \\ & 2022^{r} \end{aligned}$ | $\begin{aligned} & \text { July } \\ & 2022 \end{aligned}$ | $\begin{aligned} & \text { Sep. } \\ & 2021 \end{aligned}$ | $2022^{\text {p }}$ | 2021 | $\begin{aligned} & \text { \% Change } \\ & 2022 / \\ & 2021 \end{aligned}$ |
| All manufacturing industries... | 550,270 | 549,197 | 545,282 | 0.2 | 0.7 | -0.9 | 567,384 | 570,039 | 523,169 | 508,666 | 4,855,335 | 4,289,409 | 13.2 |
| Excluding transportation................. | 459,686 | 459,663 | 458,928 | 0.0 | 0.2 | -1.3 | 469,909 | 477,547 | 450,006 | 428,578 | 4,091,921 | 3,620,276 | 13.0 |
| Excluding defense........................ | 533,762 | 532,587 | 528,868 | 0.2 | 0.7 | -1.0 | 549,329 | 553,835 | 508,432 | 491,911 | 4,713,133 | 4,155,786 | 13.4 |
| With unfilled orders....................... | 188,509 | 189,347 | 186,298 | -0.4 | 1.6 | 0.4 | 199,491 | 195,363 | 172,121 | 183,095 | 1,664,787 | 1,489,493 | 11.8 |
| Durable goods industries..................... | 274,141 | 273,530 | 270,036 | 0.2 | 1.3 | 0.2 | 290,438 | 285,036 | 248,929 | 261,078 | 2,410,583 | 2,165,227 | 11.3 |
| Wood products............................... | 12,847 | 12,805 | 12,781 | 0.3 | 0.2 | -0.5 | 13,333 | 13,681 | 12,984 | 12,787 | 118,379 | 111,722 | 6.0 |
| Nonmetallic mineral products.......... | 12,488 | 12,498 | 12,579 | -0.1 | -0.6 | 0.2 | 13,362 | 14,131 | 12,946 | 12,535 | 113,434 | 104,856 | 8.2 |
| Primary metals............................... | 20,344 | 20,754 | 20,670 | -2.0 | 0.4 | -3.4 | 20,543 | 21,894 | 19,709 | 19,956 | 189,522 | 168,167 | 12.7 |
| Iron and steel mills....................... | 12,106 | 12,267 | 12,437 | -1.3 | -1.4 | -0.1 | 12,326 | 13,055 | 11,949 | 11,661 | 110,293 | 94,226 | 17.1 |
| Aluminum and nonferrous metals....... | 6,743 | 7,003 | 6,786 | -3.7 | 3.2 | -9.0 | 6,713 | 7,246 | 6,407 | 6,892 | 65,619 | 61,916 | 6.0 |
| Ferrous metal foundries.................... | 1,495 | 1,484 | 1,447 | 0.7 | 2.6 | -2.8 | 1,504 | 1,593 | 1,353 | 1,403 | 13,610 | 12,025 | 13.2 |
| Fabricated metal products................... | 36,779 | 36,836 | 37,116 | -0.2 | -0.8 | 0.1 | 38,047 | 39,441 | 35,522 | 35,867 | 332,920 | 296,218 | 12.4 |
| Machinery................................... | 38,187 | 38,151 | 38,009 | 0.1 | 0.4 | 0.7 | 39,511 | 38,882 | 35,791 | 36,116 | 339,159 | 298,857 | 13.5 |
| Farm machinery............................ | 2,514 | 2,735 | 2,866 | -8.1 | -4.6 | 2.1 | 2,385 | 2,649 | 2,647 | 2,629 | 24,782 | 23,992 | 3.3 |
| Construction machinery.................... | 3,873 | 3,699 | 3,668 | 4.7 | 0.8 | 2.1 | 3,855 | 3,719 | 3,599 | 2,944 | 32,429 | 26,011 | 24.7 |
| Mining, oil field, and gas field machinery. $\qquad$ | 1,532 | 1,541 | 1,526 | -0.6 | 1.0 | 5.0 | 1,580 | 1,535 | 1,415 | 1,367 | 12,922 | 11,272 | 14.6 |
| Industrial machinery..................... | 6,112 | 6,206 | 6,218 | -1.5 | -0.2 | -0.6 | 7,000 | 6,110 | 5,801 | 6,577 | 55,432 | 40,272 | 37.6 |
| Photographic equipment.................. | 500 | 520 | 504 | -3.8 | 3.2 | -5.6 | 571 | 521 | 478 | 617 | 4,655 | 4,683 | -0.6 |
| Ventilation, heating, air-conditioning, and refrigeration equipment | 4,773 | 4,763 | 4,581 | 0.2 | 4.0 | -0.7 | 5,047 | 5,294 | 4,733 | 4,367 | 42,719 | 37,754 | 13.2 |
| Metalworking machinery.................. | 2,589 | 2,585 | 2,642 | 0.2 | -2.2 | 0.9 | 2,725 | 2,672 | 2,369 | 2,659 | 23,229 | 22,884 | 1.5 |
| Turbines, generators, and other power transmission equipment....... | 3,406 | 3,321 | 3,271 | 2.6 | 1.5 | 0.8 | 3,346 | 3,478 | 3,128 | 3,175 | 29,307 | 28,948 | 1.2 |
| Material handling equipment............. | 3,427 | 3,437 | 3,407 | -0.3 | 0.9 | -0.4 | 3,434 | 3,600 | 3,064 | 2,910 | 30,877 | 24,908 | 24.0 |
| Computers and electronic products ${ }^{2}$. | 29,405 | 29,193 | 29,189 | 0.7 | 0.0 | 0.5 | 32,887 | 29,477 | 27,226 | 30,400 | 254,839 | 239,804 | 6.3 |
| Computers....................... | 744 | 753 | 768 | -1.2 | -2.0 | 3.5 | 824 | 796 | 735 | 799 | 6,560 | 6,553 | 0.1 |
| Computer storage devices................ | 648 | 666 | 670 | -2.7 | -0.6 | 0.0 | 663 | 604 | 565 | 574 | 5,623 | 4,925 | 14.2 |
| Other peripheral equipment.............. | 781 | 748 | 726 | 4.4 | 3.0 | 26.9 | 983 | 726 | 692 | 528 | 5,164 | 3,921 | 31.7 |
| Nondefense communications equipment. $\qquad$ | 3,040 | 3,065 | 3,153 | -0.8 | -2.8 | 1.8 | 3,774 | 2,758 | 2,660 | 3,529 | 26,892 | 24,436 | 10.1 |
| Defense communications equipment.... | 210 | 213 | 216 | -1.4 | -1.4 | 3.3 | 248 | 218 | 200 | 235 | 1,878 | 1,760 | 6.7 |
| Audio and video equipment................. | 382 | 379 | 378 | 0.8 | 0.3 | 10.9 | 371 | 339 | 323 | 336 | 3,188 | 2,494 | 27.8 |
| Electronic components.................... | 4,612 | 4,582 | 4,611 | 0.7 | -0.6 | 1.1 | 4,767 | 4,902 | 4,462 | 4,340 | 40,935 | 35,842 | 14.2 |
| Nondefense search and navigation equipment $\qquad$ | 1,641 | 1,655 | 1,663 | -0.8 | -0.5 | 0.8 | 1,805 | 1,693 | 1,435 | 1,814 | 14,634 | 14,407 | 1.6 |
| Defense search and navigation equipment. $\qquad$ | 3,257 | 3,237 | 3,169 | 0.6 | 2.1 | -0.8 | 3,489 | 3,213 | 2,888 | 3,482 | 28,414 | 28,311 | 0.4 |
| Electromedical, measuring, and control instruments. | 8,915 | 8,929 | 8,887 | -0.2 | 0.5 | -0.8 | 10,025 | 8,938 | 8,261 | 9,287 | 77,367 | 74,148 | 4.3 |
| Electrical equipment, appliances, |  |  |  |  |  |  |  |  |  |  |  |  |  |
| and components............................ | 13,371 | 13,451 | 13,152 | -0.6 | 2.3 | -1.9 | 14,415 | 14,125 | 12,413 | 13,263 | 119,342 | 107,579 | 10.9 |
| Electric lighting equipment............... | 1,049 | 1,045 | 1,043 | 0.4 | 0.2 | 1.0 | 1,097 | 1,115 | 1,005 | 1,066 | 9,297 | 9,089 | 2.3 |
| Household appliances.................... | 2,766 | 2,749 | 2,671 | 0.6 | 2.9 | -4.9 | 3,058 | 2,869 | 2,302 | 2,914 | 23,963 | 22,495 | 6.5 |
| Electrical equipment........................ | 3,740 | 3,779 | 3,733 | -1.0 | 1.2 | -0.3 | 4,140 | 3,919 | 3,473 | 3,922 | 33,901 | 31,653 | 7.1 |
| Batteries.................................. | 953 | 956 | 949 | -0.3 | 0.7 | -0.6 | 1,039 | 1,069 | 833 | 893 | 8,343 | 7,301 | 14.3 |
| Transportation equipment................... | 90,584 | 89,534 | 86,354 | 1.2 | 3.7 | 1.3 | 97,475 | 92,492 | 73,163 | 80,088 | 763,414 | 669,133 | 14.1 |
| Automobiles............................. | 8,017 | 7,822 | 7,453 | 2.5 | 5.0 | 1.8 | 8,323 | 8,873 | 6,179 | 6,061 | 67,277 | 59,934 | 12.3 |
| Light trucks and utility vehicles......... | 23,731 | 22,696 | 22,620 | 4.6 | 0.3 | -2.5 | 25,920 | 24,279 | 18,139 | 19,134 | 197,304 | 167,601 | 17.7 |
| Heavy duty trucks ........................ | 2,596 | 2,488 | 2,411 | 4.3 | 3.2 | 3.2 | 2,792 | 2,577 | 2,237 | 2,110 | 21,303 | 17,402 | 22.4 |
| Motor vehicle bodies, parts, and trailers. $\qquad$ | 27,278 | 27,257 | 27,175 | 0.1 | 0.3 | 1.5 | 27,985 | 29,570 | 23,720 | 24,795 | 242,308 | 216,078 | 12.1 |
| Nondefense aircraft and parts........... | 12,955 | 13,137 | 10,534 | -1.4 | 24.7 | 4.5 | 15,058 | 11,223 | 8,508 | 12,393 | 96,719 | 82,104 | 17.8 |
| Defense aircraft and parts............... | 5,393 | 5,505 | 5,192 | -2.0 | 6.0 | -3.4 | 6,043 | 5,502 | 4,635 | 5,875 | 47,414 | 46,960 | 1.0 |
| Ships and boats........................... | 3,370 | 3,530 | 3,580 | -4.5 | -1.4 | 2.7 | 3,439 | 3,556 | 3,276 | 3,633 | 31,397 | 31,588 | -0.6 |
| Furniture and related products............... | 6,197 | 6,202 | 6,184 | -0.1 | 0.3 | 0.4 | 6,215 | 6,688 | 6,227 | 5,887 | 55,424 | 52,014 | 6.6 |
| Miscellaneous durable goods............... | 13,939 | 14,106 | 14,002 | -1.2 | 0.7 | -0.3 | 14,650 | 14,225 | 12,948 | 14,179 | 124,150 | 116,877 | 6.2 |
| Nondurable goods industries.................. | 276,129 | 275,667 | 275,246 | 0.2 | 0.2 | -1.9 | 276,946 | 285,003 | 274,240 | 247,588 | 2,444,752 | 2,124,182 | 15.1 |
| Food products............................... | 75,876 | 76,148 | 76,097 | -0.4 | 0.1 | 0.1 | 77,408 | 77,890 | 73,465 | 74,627 | 675,576 | 643,281 | 5.0 |
| Grain and oilseed milling................... | 9,304 | 9,114 | 9,201 | 2.1 | -0.9 | -0.4 | 9,191 | 9,575 | 8,879 | 8,301 | 81,341 | 72,588 | 12.1 |
| Dairy products.......................... | 11,873 | 11,937 | 12,029 | -0.5 | -0.8 | -0.3 | 11,869 | 12,193 | 11,871 | 11,035 | 105,708 | 98,660 | 7.1 |
| Meat, poultry, and seafood products... | 22,831 | 22,803 | 22,763 | 0.1 | 0.2 | -0.3 | 23,115 | 23,192 | 22,382 | 22,531 | 205,439 | 194,601 | 5.6 |
| Beverage and tobacco products.............. | 16,859 | 16,919 | 16,424 | -0.4 | 3.0 | -0.8 | 17,306 | 17,538 | 16,495 | 15,079 | 144,172 | 125,016 | 15.3 |
| Beverages................................ | 10,058 | 10,031 | 9,942 | 0.3 | 0.9 | 0.8 | 10,505 | 10,650 | 10,013 | 9,941 | 89,354 | 84,217 | 6.1 |
| Tobacco.................................. | 6,801 | 6,888 | 6,482 | -1.3 | 6.3 | -3.2 | 6,801 | 6,888 | 6,482 | 5,138 | 54,818 | 40,799 | 34.4 |
| Textile mills.................................. | 2,335 | 2,340 | 2,325 | -0.2 | 0.6 | 1.7 | 2,343 | 2,498 | 2,295 | 2,279 | 21,129 | 20,384 | 3.7 |
| Textile products........................... | 2,006 | 1,983 | 1,981 | 1.2 | 0.1 | -0.6 | 2,000 | 2,061 | 2,003 | 1,906 | 18,145 | 17,331 | 4.7 |
| Apparel................................... | 729 | 718 | 724 | 1.5 | -0.8 | -1.1 | 769 | 774 | 711 | 754 | 6,371 | 6,198 | 2.8 |
| Leather and allied products.................. | 461 | 444 | 421 | 3.8 | 5.5 | -0.5 | 475 | 472 | 432 | 406 | 3,943 | 3,559 | 10.8 |
| Paper products............................. | 16,237 | 16,217 | 16,192 | 0.1 | 0.2 | -1.0 | 16,521 | 17,174 | 15,880 | 16,316 | 147,439 | 141,758 | 4.0 |
| Pulp, paper, and paperboard mills....... | 5,829 | 5,818 | 5,859 | 0.2 | -0.7 | -0.6 | 5,980 | 6,175 | 5,888 | 5,921 | 53,273 | 51,081 | 4.3 |
| Paperboard containers..................... | 5,974 | 6,007 | 5,989 | -0.5 | 0.3 | -1.2 | 6,157 | 6,513 | 5,818 | 6,093 | 54,574 | 53,002 | 3.0 |
| Printing...................................... | 6,981 | 6,938 | 6,968 | 0.6 | -0.4 | 0.1 | 7,201 | 7,155 | 6,672 | 6,418 | 60,687 | 55,169 | 10.0 |
| Petroleum and coal products................ | 65,526 | 64,866 | 65,500 | 1.0 | -1.0 | -6.9 | 63,403 | 67,391 | 71,115 | 44,658 | 569,407 | 372,335 | 52.9 |
| Petroleum refineries...................... | 60,181 | 59,585 | 60,187 | 1.0 | -1.0 | -7.6 | 57,516 | 61,194 | 65,208 | 39,677 | 522,565 | 330,834 | 58.0 |
| Chemical products............................. | 66,809 | 66,655 | 66,238 | 0.2 | 0.6 | -0.5 | 66,741 | 68,477 | 63,417 | 63,615 | 595,310 | 553,741 | 7.5 |
| Pesticides, fertilizers, and other agricultural chemicals | 3,304 | 3,175 | 3,240 | 4.1 | -2.0 | -0.2 | 2,930 | 2,586 | 2,535 | 2,591 | 29,751 | 26,393 | 12.7 |
| Pharmaceuticals and medicines............ | 22,493 | 22,112 | 21,970 | 1.7 | 0.6 | -0.2 | 23,306 | 23,117 | 21,028 | 21,256 | 192,704 | 175,871 | 9.6 |
| Paints, coatings, and adhesives......... | 3,778 | 3,827 | 3,762 | -1.3 | 1.7 | -0.5 | 3,801 | 4,204 | 3,726 | 3,688 | 34,943 | 32,837 | 6.4 |
| Plastics and rubber products................ | 22,310 | 22,439 | 22,376 | -0.6 | 0.3 | 0.0 | 22,779 | 23,573 | 21,755 | 21,530 | 202,573 | 185,410 | 9.3 |

${ }^{\mathrm{p}}$ Preliminary
Revised data due to late receipts and concurrent seasonal adjustment.
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 in
Estimates and percent changes of shipments for the semiconductor
Este: Estimates of manufacturers' shipments inventories and
 source: U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders (M3) Survey, September Full Report, November 3, 2022. Information on data sources and methodology can be found on our website a
<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 |  |  |
|  | $\begin{gathered} \text { Sep. } \\ 2022^{p} \end{gathered}$ | $\begin{aligned} & \text { Aug. } \\ & 2022^{r} \end{aligned}$ | $\begin{aligned} & \text { July } \\ & 2022 \end{aligned}$ | $\begin{aligned} & \text { Aug. - } \\ & \text { Sep. } \end{aligned}$ | July Aug. | June July | $\begin{gathered} \text { Sep. } \\ 2022^{p} \end{gathered}$ | $\begin{aligned} & \text { Aug. } \\ & 2022^{r} \end{aligned}$ | $\begin{gathered} \text { July } \\ 2022 \end{gathered}$ | $\begin{aligned} & \text { Sep. } \\ & 2021 \end{aligned}$ | $2022^{\text {p }}$ | 2021 | $\begin{aligned} & \hline \text { \% Change } \\ & 2022 / \\ & 2021 \end{aligned}$ |
| All manufacturing industries ${ }^{2}$. | 551,039 | 549,508 | 548,449 | 0.3 | 0.2 | -1.0 | 567,145 | 564,326 | 523,696 | 507,709 | 4,869,222 | 4,309,258 | 13.0 |
| Excluding transportation ${ }^{2}$................... | 455,543 | 456,025 | 455,462 | -0.1 | 0.1 | -1.1 | 463,274 | 470,103 | 444,965 | 425,478 | 4,062,885 | 3,627,668 | 12.0 |
| Excluding defense ${ }^{2} . . . . . . . . . . . . . . . . . . . . . . . . . ~$ | 535,139 | 530,931 | 531,192 | 0.8 | 0.0 | -0.6 | 546,625 | 547,912 | 510,766 | 487,989 | 4,724,649 | 4,176,266 | 13.1 |
| With unfilled orders ${ }^{2} . . . . . . . . . . . . . . . . . . . . . . . . ~$ | 194,371 | 194,542 | 194,332 | -0.1 | 0.1 | -0.1 | 205,103 | 194,855 | 177,574 | 187,526 | 1,722,139 | 1,551,632 | 11.0 |
| Durable goods industries ${ }^{2}$.................... | 274,910 | 273,841 | 273,203 | 0.4 | 0.2 | -0.1 | 290,199 | 279,323 | 249,456 | 260,121 | 2,424,470 | 2,185,076 | 11.0 |
| Primary metals.............................. | 20,339 | 20,738 | 20,649 | -1.9 | 0.4 | -1.9 | 20,183 | 21,451 | 19,522 | 19,446 | 189,274 | 171,947 | 10.1 |
| Iron and steel mills........................... | 12,187 | 12,425 | 12,419 | -1.9 | 0.0 | 0.5 | 12,178 | 13,038 | 11,907 | 11,283 | 110,529 | 96,320 | 14.8 |
| Aluminum and nonferrous metals.......... | 6,625 | 6,823 | 6,780 | -2.9 | 0.6 | -6.8 | 6,505 | 6,842 | 6,290 | 6,706 | 64,800 | 63,004 | 2.9 |
| Ferrous metal foundries................... | 1,527 | 1,490 | 1,450 | 2.5 | 2.8 | 2.2 | 1,500 | 1,571 | 1,325 | 1,457 | 13,945 | 12,623 | 10.5 |
| Fabricated metal products.................... | 36,693 | 36,860 | 37,195 | -0.5 | -0.9 | 0.7 | 36,866 | 38,767 | 35,493 | 36,160 | 336,982 | 317,370 | 6.2 |
| Machinery.................................. | 38,834 | 38,888 | 38,622 | -0.1 | 0.7 | 0.5 | 39,574 | 38,864 | 36,345 | 36,869 | 346,149 | 312,623 | 10.7 |
| Construction machinery.................... | 3,639 | 3,674 | 3,692 | -1.0 | -0.5 | -1.4 | 3,609 | 3,584 | 3,422 | 3,370 | 32,545 | 28,629 | 13.7 |
| Mining, oil field, and gas field machinery $\qquad$ | 1,551 | 1,661 | 1,516 | -6.6 | 9.6 | -1.2 | 1,599 | 1,655 | 1,405 | 1,396 | 13,029 | 11,635 | 12.0 |
| Industrial machinery....................... | 6,238 | 6,297 | 6,576 | -0.9 | -4.2 | 0.8 | 7,011 | 5,978 | 6,264 | 6,530 | 57,201 | 41,902 | 36.5 |
| Photographic equipment................... | 460 | 16 | 553 | -10.9 | -6.7 | -2.3 | 748 | 541 | 545 | 891 | 4,764 | 4,797 | -0.7 |
| Ventilation, heating, air-conditioning, and refrigeration equipment | 5,028 | 5,058 | 4,959 | -0.6 | 2.0 | 2.4 | 5,157 | 5,411 | 5,153 | 4,492 | 45,239 | 39,650 | 14.1 |
| Metalworking machinery................... | 2,649 | 2,611 | 2,551 | 1.5 | 2.4 | 1.3 | 2,670 | 2,605 | 2,383 | 2,851 | 23,342 | 23,642 | -1.3 |
| Turbines, generators, and other power transmission equipment........... | 3,401 | 3,278 | 3,190 | 3.8 | 2.8 | -3.7 | 3,341 | 3,435 | 3,047 | 3,162 | 29,121 | 29,653 | -1.8 |
| Material handling equipment............... | 3,739 | 3,649 | 3,528 | 2.5 | 3.4 | 4.5 | 3,726 | 3,760 | 2,938 | 3,065 | 32,093 | 26,064 | 23.1 |
| Computers and electronic products ${ }^{2}$......... | 24,429 | 24,519 | 24,547 | -0.4 | -0.1 | 1.4 | 27,746 | 23,357 | 21,803 | 26,156 | 212,253 | 201,083 | 5.6 |
| Computers................................ | 732 | 745 | 778 | -1.7 | -4.2 | 3.3 | 812 | 788 | 745 | 781 | 6,539 | 6,496 | 0.7 |
| Nondefense communications equipment $\qquad$ | 2,979 | 3,082 | 3,053 | -3.3 | 0.9 | 4.6 | 3,622 | 2,617 | 2,242 | 3,615 | 26,455 | 25,710 | 2.9 |
| Defense communications equipment....... | 207 | 210 | 222 | -1.4 | -5.4 | 3.7 | 254 | 217 | 192 | 258 | 1,847 | 1,606 | 15.0 |
| Electronic components..................... | 4,663 | 4,648 | 4,667 | 0.3 | -0.4 | 1.4 | 4,853 | 4,804 | 4,586 | 4,508 | 41,089 | 36,922 | 11.3 |
| Nondefense search and navigation equipment. | 1,692 | 1,757 | 1,786 | -3.7 | -1.6 | 1.2 | 1,860 | 1,784 | 1,566 | 2,019 | 15,804 | 16,079 | -1.7 |
| Defense search and navigation equipment. $\qquad$ | 3,352 | 3,195 | 3,250 | 4.9 | -1.7 | -0.8 | 3,931 | 2,771 | 2,616 | 3,871 | 27,932 | 27,732 | 0.7 |
| Electromedical, measuring, and control instruments. | 8,911 | 9,007 | 8,936 | -1.1 | 0.8 | -0.9 | 10,310 | 8,622 | 8,197 | 9,578 | 77,893 | 74,481 | 4.6 |
| Electrical equipment, appliances, and components. $\qquad$ | 13,686 | 13,851 | 13,661 | -1.2 | 1.4 | -0.4 | 14,345 | 14,262 | 12,611 | 13,591 | 121,954 | 112,426 | 8.5 |
| Electric lighting equipment................... | 1,031 | 1,104 | 1,075 | -6.6 | 2.7 | 4.8 | 1,071 | 1,156 | 1,007 | 1,057 | 9,387 | 9,255 | 1.4 |
| Household appliances...................... | 2,752 | 2,753 | 2,642 | 0.0 | 4.2 | -2.2 | 3,230 | 2,803 | 2,240 | 3,181 | 23,339 | 23,381 | -0.2 |
| Electrical equipment...................... | 3,975 | 3,960 | 4,046 | 0.4 | -2.1 | 0.8 | 3,865 | 4,008 | 3,779 | 3,604 | 36,234 | 31,624 | 14.6 |
| Transportation equipment..................... | 95,496 | 93,483 | 92,987 | 2.2 | 0.5 | -0.7 | 103,871 | 94,223 | 78,731 | 82,231 | 806,337 | 681,590 | 18.3 |
| Motor vehicle bodies, parts, and trailers.. $\qquad$ | 26,993 | 27,027 | 27,139 | -0.1 | -0.4 | 1.3 | 27,685 | 29,494 | 23,551 | 24,978 | 241,985 | 219,018 | 10.5 |
| Nondefense aircraft and parts ${ }^{3}$............ | 18,228 | 14,954 | 16,366 | 21.9 | -8.6 | 12.1 | 19,141 | 12,049 | 15,716 | 11,942 | 136,276 | 92,592 | 47.2 |
| Defense aircraft and parts................. | 4,479 | 6,611 | 5,244 | -32.2 | 26.1 | -45.6 | 5,508 | 6,541 | 3,865 | 7,059 | 48,793 | 44,362 | 10.0 |
| Ships and boats.......................... | 2,776 | 5,386 | 5,097 | -48.5 | 5.7 | 58.2 | 3,251 | 4,570 | 3,414 | 2,538 | 32,158 | 33,405 | -3.7 |
| Furniture and related products................ | 6,145 | 6,094 | 6,181 | 0.8 | -1.4 | 0.4 | 6,255 | 6,363 | 6,074 | 6,194 | 55,374 | 54,387 | 1.8 |
| Nondurable goods industries.................. | 276,129 | 275,667 | 275,246 | 0.2 | 0.2 | -1.9 | 276,946 | 285,003 | 274,240 | 247,588 | 2,444,752 | 2,124,182 | 15.1 |

${ }^{p}$ 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/). Source: U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders (M3) Survey, September Full Report, November 3, 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 |  |  |  | \% Change September 2022/ 2021 |
|  | $\begin{aligned} & \text { Sep. } \\ & 2022^{p} \end{aligned}$ | $\begin{aligned} & \text { Aug. } \\ & 2022^{r} \end{aligned}$ | $\begin{gathered} \text { July } \\ 2022 \end{gathered}$ | $\begin{aligned} & \text { Aug. - } \\ & \text { Sep. } \end{aligned}$ | July - <br> Aug. | June July | $\begin{gathered} \text { Sep. } \\ 2022^{p} \end{gathered}$ | $\begin{aligned} & \text { Aug. } \\ & 2022^{r} \end{aligned}$ | $\begin{gathered} \text { July } \\ 2022 \end{gathered}$ | $\begin{aligned} & \text { Sep. } \\ & 2021 \end{aligned}$ |  |
| All manufacturing industries ${ }^{2}$ $\qquad$ <br> Excluding transportation ${ }^{2}$ $\qquad$ <br> Excluding defense ${ }^{2}$. $\qquad$ | 1,137,812 <br> 473,887 <br> 923,750 | $1,131,950$ 472,937 917,280 | $1,126,755$ 471,691 914,052 | 0.5 0.2 0.7 | 0.5 0.3 0.4 | 0.7 0.3 0.8 | $1,131,953$ 470,801 917,794 | $1,126,341$ 471,585 914,647 | $1,126,849$ 473,824 915,365 | $1,058,722$ 450,930 846,305 | 6.9 4.4 8.4 |
| Durable goods industries ${ }^{2} . . . . . . . . . . . . . . . . . . . . ~$ | 1,137,812 | 1,131,950 | 1,126,755 | 0.5 | 0.5 | 0.7 | 1,131,953 | 1,126,341 | 1,126,849 | 1,058,722 | 6.9 |
| Primary metals.................................. | 30,718 | 30,723 | 30,739 | 0.0 | -0.1 | -0.1 | 29,997 | 30,357 | 30,800 | 30,137 | -0.5 |
| Iron and steel mills......................... | 16,118 | 16,037 | 15,879 | 0.5 | 1.0 | -0.1 | 15,902 | 16,050 | 16,067 | 16,170 | -1.7 |
| Aluminum and nonferrous metals............ | 10,441 | 10,559 | 10,739 | -1.1 | -1.7 | -0.1 | 9,996 | 10,204 | 10,608 | 10,414 | -4.0 |
| Ferrous metal foundries................... | 4,159 | 4,127 | 4,121 | 0.8 | 0.1 | 0.1 | 4,099 | 4,103 | 4,125 | 3,553 | 15.4 |
| Fabricated metal products.................... | 117,935 | 118,021 | 117,997 | -0.1 | 0.0 | 0.1 | 118,032 | 119,213 | 119,887 | 115,601 | 2.1 |
| Machinery.................................. | 132,949 | 132,302 | 131,565 | 0.5 | 0.6 | 0.5 | 131,912 | 131,849 | 131,867 | 122,283 | 7.9 |
| Construction machinery.................... | 9,788 | 10,022 | 10,047 | -2.3 | -0.2 | 0.2 | 9,381 | 9,627 | 9,762 | 8,929 | 5.1 |
| Mining, oil field, and gas field machinery $\qquad$ | 5,174 | 5,155 | 5,035 | 0.4 | 2.4 | -0.2 | 5,174 | 5,155 | 5,035 | 4,905 | 5.5 |
| Industrial machinery....................... | 12,882 | 12,756 | 12,665 | 1.0 | 0.7 | 2.9 | 12,686 | 12,675 | 12,807 | 10,358 | 22.5 |
| Photographic equipment.................... | 3,118 | 3,158 | 3,162 | -1.3 | -0.1 | 1.6 | 3,262 | 3,085 | 3,065 | 3,427 | -4.8 |
| Ventilation, heating, air-conditioning, and refrigeration equipment. | 11,905 | 11,650 | 11,355 | 2.2 | 2.6 | 3.4 | 11,797 | 11,687 | 11,570 | 8,693 | 35.7 |
| Metalworking machinery.................... | 8,606 | 8,546 | 8,520 | 0.7 | 0.3 | -1.1 | 8,507 | 8,562 | 8,629 | 8,095 | 5.1 |
| Turbines, generators, and other power transmission equipment............ | 33,233 | 33,238 | 33,281 | 0.0 | -0.1 | -0.2 | 33,233 | 33,238 | 33,281 | 32,976 | 0.8 |
| Material handling equipment............... | 17,144 | 16,832 | 16,620 | 1.9 | 1.3 | 0.7 | 17,026 | 16,734 | 16,574 | 15,287 | 11.4 |
| Computers and electronic products ${ }^{2}$.......... | 140,706 | 140,589 | 140,379 | 0.1 | 0.1 | 0.2 | 139,881 | 139,171 | 140,086 | 135,457 | 3.3 |
| Computers................................ | 1,198 | 1,210 | 1,218 | -1.0 | -0.7 | 0.8 | 1,198 | 1,210 | 1,218 | 1,320 | -9.2 |
| Nondefense communications equipment... | 21,010 | 21,071 | 21,054 | -0.3 | 0.1 | -0.5 | 20,565 | 20,717 | 20,858 | 18,820 | 9.3 |
| Defense communications equipment........ | 312 | 315 | 318 | -1.0 | -0.9 | 1.9 | 309 | 303 | 304 | 348 | -11.2 |
| Electronic components..................... | 16,157 | 16,106 | 16,040 | 0.3 | 0.4 | 0.4 | 15,926 | 15,840 | 15,938 | 15,328 | 3.9 |
| Nondefense search and navigation equipment. | 32,290 | 32,239 | 32,137 | 0.2 | 0.3 | 0.4 | 32,261 | 32,206 | 32,115 | 30,608 | 5.4 |
| Defense search and navigation equipment. $\qquad$ | 38,504 | 38,409 | 38,451 | 0.2 | -0.1 | 0.2 | 38,476 | 38,034 | 38,476 | 38,734 | -0.7 |
| Electromedical, measuring, and control instruments.. | 31,235 | 31,239 | 31,161 | 0.0 | 0.3 | 0.2 | 31,146 | 30,861 | 31,177 | 30,299 | 2.8 |
| Electrical equipment, appliances, and components. | 39,989 | 39,674 | 39,274 | 0.8 | 1.0 | 1.3 | 39,413 | 39,483 | 39,346 | 35,473 | 11.1 |
| Electric lighting equipment................... | 2,262 | 2,280 | 2,221 | -0.8 | 2.7 | 1.5 | 2,243 | 2,269 | 2,228 | 2,033 | 10.3 |
| Household appliances...................... | 4,734 | 4,748 | 4,744 | -0.3 | 0.1 | -0.6 | 4,783 | 4,611 | 4,677 | 5,356 | -10.7 |
| Electrical equipment....................... | 17,023 | 16,788 | 16,607 | 1.4 | 1.1 | 1.9 | 16,546 | 16,821 | 16,732 | 13,952 | 18.6 |
| Transportation equipment...................... | 663,925 | 659,013 | 655,064 | 0.7 | 0.6 | 1.0 | 661,152 | 654,756 | 653,025 | 607,792 | 8.8 |
| Motor vehicle bodies, parts, and trailers. $\qquad$ | 27,921 | 28,206 | 28,436 | -1.0 | -0.8 | -0.1 | 27,424 | 27,724 | 27,800 | 26,641 | 2.9 |
| Nondefense aircraft and parts............... | 447,191 | 441,918 | 440,101 | 1.2 | 0.4 | 1.3 | 444,890 | 440,807 | 439,981 | 394,834 | 12.7 |
| Defense aircraft and parts................. | 60,307 | 61,221 | 60,115 | -1.5 | 1.8 | 0.1 | 59,937 | 60,472 | 59,433 | 57,465 | 4.3 |
| Ships and boats........................... | 51,199 | 51,793 | 49,937 | -1.1 | 3.7 | 3.1 | 50,368 | 50,556 | 49,542 | 50,980 | -1.2 |
| Furniture and related products................ | 10,178 | 10,230 | 10,338 | -0.5 | -1.0 | 0.0 | 10,154 | 10,114 | 10,439 | 10,603 | -4.2 |

## ${ }^{p}$ 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
 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, September Full Report, November 3, 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 |  |  |  | \% Change <br> September $\begin{gathered} 2022 / \\ 2021 \end{gathered}$ |
|  | $\begin{gathered} \text { Sep. } \\ 2022^{p} \end{gathered}$ | $\begin{aligned} & \text { Aug. } \\ & 2022^{r} \end{aligned}$ | $\begin{aligned} & \text { July } \\ & 2022 \end{aligned}$ | $\begin{aligned} & \text { Aug. - } \\ & \text { Sep. } \end{aligned}$ | July - <br> Aug. | June July | $\begin{gathered} \text { Sep. } \\ 2022^{p} \end{gathered}$ | $\begin{aligned} & \text { Aug. } \\ & 2022^{r} \end{aligned}$ | $\begin{aligned} & \text { July } \\ & 2022 \end{aligned}$ | $\begin{aligned} & \text { Sep. } \\ & 2021 \end{aligned}$ |  |
| All manufacturing industries. $\qquad$ <br> Excluding transportation. $\qquad$ <br> Excluding defense $\qquad$ <br> With unfilled orders. $\qquad$ | 801,626 644,458 775,190 390,676 | 800,301 642,901 773,650 390,121 | 801,381 643,867 774,581 389,669 | 0.2 0.2 0.2 0.1 | -0.1 -0.2 -0.1 0.1 | 0.0 0.0 0.0 0.2 | 799,658 641,382 773,203 390,243 | 803,059 643,752 776,297 392,399 | 807,098 648,188 780,199 393,015 | 742,032 586,973 716,531 365,348 | 7.8 9.3 7.9 6.8 |
| Durable goods industries.................... | 488,666 | 487,486 | 486,343 | 0.2 | 0.2 | 0.2 | 487,774 | 490,238 | 489,587 | 455,138 | 7.2 |
| Wood products.................................. | 14,781 | 14,744 | 14,726 | 0.3 | 0.1 | -0.3 | 14,397 | 14,501 | 14,523 | 13,504 | 6.6 |
|  | 16,358 | 16,273 | 16,170 | 0.5 | 0.6 | 1.2 | 16,121 | 16,181 | 16,226 | 14,521 | 11.0 |
| Primary metals......................................... | 38,867 | 38,991 | 39,084 | -0.3 | -0.2 | -0.5 | 38,463 | 38,890 | 39,251 | 35,378 | 8.7 |
| Iron and steel mills.......................... | 22,795 | 22,820 | 22,939 | -0.1 | -0.5 | -1.0 | 22,577 | 22,730 | 23,054 | 21,083 | 7.1 |
| Aluminum and nonferrous metals.......... | 13,379 | 13,469 | 13,448 | -0.7 | 0.2 | 0.1 | 13,273 | 13,495 | 13,513 | 11,860 | 11.9 |
| Ferrous metal foundries.................... | 2,693 | 2,702 | 2,697 | -0.3 | 0.2 | 0.4 | 2,613 | 2,665 | 2,684 | 2,435 | 7.3 |
| Fabricated metal products.................... | 62,816 | 62,752 | 62,608 | 0.1 | 0.2 | 0.3 | 62,450 | 62,805 | 63,350 | 57,853 | 7.9 |
| Machinery.................................. | 85,270 | 84,401 | 83,911 | 1.0 | 0.6 | 0.8 | 85,321 | 84,693 | 83,812 | 74,274 | 14.9 |
| Farm machinery........................... | 6,049 | 5,975 | 5,871 | 1.2 | 1.8 | -0.2 | 5,712 | 5,735 | 5,671 | 4,263 | 34.0 |
| Construction machinery..................... | 7,196 | 7,137 | 7,159 | 0.8 | -0.3 | 1.3 | 7,205 | 7,087 | 7,144 | 5,853 | 23.1 |
| Mining, oil field, and gas field machinery. | 6,274 | 6,178 | 6,181 | 1.6 | 0.0 | 0.8 | 6,308 | 6,233 | 6,250 | 5,835 | 8.1 |
| Industrial machinery....................... | 10,785 | 10,732 | 10,643 | 0.5 | 0.8 | 0.1 | 11,181 | 10,970 | 10,387 | 9,911 | 12.8 |
| Photographic equipment................... | 1,395 | 1,389 | 1,381 | 0.4 | 0.6 | 1.3 | 1,374 | 1,424 | 1,390 | 1,302 | 5.5 |
| Ventilation, heating, air-conditioning, and refrigeration equipment. | 7,898 | 7,782 | 7,651 | 1.5 | 1.7 | 2.6 | 7,671 | 7,651 | 7,577 | 6,126 | 25.2 |
| Metalworking machinery..................... | 6,790 | 6,768 | 6,715 | 0.3 | 0.8 | 0.7 | 6,826 | 6,862 | 6,821 | 6,134 | 11.3 |
| Turbines, generators, and other power transmission equipment. $\qquad$ | 10,577 | 10,294 | 10,348 | 2.7 | -0.5 | 0.5 | 10,591 | 10,331 | 10,537 | 9,345 | 13.3 |
| Material handling equipment............... | 6,963 | 6,895 | 6,778 | 1.0 | 1.7 | 0.9 | 7,108 | 7,014 | 6,827 | 6,128 | 16.0 |
| Computers and electronic products ${ }^{2}$........... | 52,711 | 52,468 | 52,278 | 0.5 | 0.4 | 0.3 | 52,525 | 52,815 | 52,755 | 50,036 | 5.0 |
| Computers................................... | 2,137 | 2,148 | 2,129 | -0.5 | 0.9 | 0.2 | 2,248 | 2,261 | 2,200 | 2,129 | 5.6 |
| Computer storage devices................... | 859 | 865 | 861 | -0.7 | 0.5 | 0.3 | 848 | 911 | 883 | 862 | -1.6 |
| Other peripheral equipment................. | 952 | 948 | 913 | 0.4 | 3.8 | 2.5 | 935 | 962 | 884 | 774 | 20.8 |
| Nondefense communications equipment. $\qquad$ | 4,774 | 4,737 | 4,735 | 0.8 | 0.0 | 0.3 | 4,775 | 4,881 | 4,806 | 4,530 | 5.4 |
| Defense communications equipment....... | 653 | 654 | 657 | -0.2 | -0.5 | -0.2 | 653 | 654 | 657 | 661 | -1.2 |
| Audio and video equipment................. | 1,147 | 1,155 | 1,141 | -0.7 | 1.2 | -2.8 | 1,169 | 1,127 | 1,076 | 912 | 28.2 |
| Electronic components..................... | 9,987 | 9,876 | 9,893 | 1.1 | -0.2 | 0.2 | 9,818 | 9,598 | 10,087 | 9,920 | -1.0 |
| Nondefense search and navigation equipment. $\qquad$ | 3,440 | 3,455 | 3,402 | -0.4 | 1.6 | 1.7 | 3,462 | 3,510 | 3,438 | 3,190 | 8.5 |
| Defense search and navigation equipment. $\qquad$ | 2,835 | 2,827 | 2,838 | 0.3 | -0.4 | 0.0 | 2,770 | 2,849 | 2,867 | 2,807 | -1.3 |
| Electromedical, measuring and control instruments. | 18,047 | 17,953 | 17,861 | 0.5 | 0.5 | 0.6 | 17,998 | 18,213 | 18,062 | 16,741 | 7.5 |
| Electrical equipment, appliances, and components. | 23,215 | 23,170 | 22,949 | 0.2 | 1.0 | 0.4 | 22,774 | 23,414 | 23,400 | 20,045 | 13.6 |
| Electric lighting equipment.................. | 2,106 | 2,091 | 2,074 | 0.7 | 0.8 | -0.3 | 2,107 | 2,104 | 2,088 | 2,054 | 2.6 |
| Household appliances...................... | 3,199 | 3,292 | 3,424 | -2.8 | -3.9 | 0.9 | 3,183 | 3,428 | 3,522 | 2,761 | 15.3 |
| Electrical equipment....................... | 7,900 | 7,809 | 7,652 | 1.2 | 2.1 | 0.5 | 7,504 | 7,881 | 7,814 | 6,428 | 16.7 |
| Batteries.................................. | 1,566 | 1,560 | 1,570 | 0.4 | -0.6 | -1.0 | 1,616 | 1,625 | 1,633 | 1,618 | -0.1 |
| Transportation equipment.................... | 157,168 | 157,400 | 157,514 | -0.1 | -0.1 | 0.0 | 158,276 | 159,307 | 158,910 | 155,059 | 2.1 |
| Automobiles............................. | 6,153 | 6,313 | 6,304 | -2.5 | 0.1 | -1.9 | 6,436 | 6,681 | 6,425 | 6,927 | -7.1 |
| Light trucks and utility vehicles............. | 10,474 | 10,064 | 9,777 | 4.1 | 2.9 | 1.5 | 10,744 | 10,517 | 9,890 | 9,439 | 13.8 |
| Heavy duty trucks ........................... | 2,909 | 2,853 | 2,871 | 2.0 | -0.6 | -0.4 | 2,877 | 2,855 | 2,946 | 2,660 | 8.2 |
| Motor vehicle bodies, parts, and trailers. $\qquad$ | 32,401 | 32,466 | 32,545 | -0.2 | -0.2 | -0.2 | 32,309 | 32,465 | 33,022 | 30,725 | 5.2 |
| Nondefense aircraft and parts............. | 75,400 | 75,725 | 76,006 | -0.4 | -0.4 | -0.1 | 75,946 | 76,515 | 76,341 | 76,910 | -1.3 |
| Defense aircraft and parts.................. | 12,757 | 12,873 | 13,076 | -0.9 | -1.6 | 0.5 | 12,744 | 12,897 | 13,137 | 12,620 | 1.0 |
| Ships and boats........................... | 4,512 | 4,597 | 4,492 | -1.8 | 2.3 | 1.2 | 4,609 | 4,670 | 4,501 | 3,837 | 20.1 |
| Furniture and related products................. | 10,082 | 9,987 | 9,918 | 1.0 | 0.7 | 0.7 | 9,974 | 10,049 | 10,022 | 8,657 | 15.2 |
| Miscellaneous durable goods.................. | 27,398 | 27,300 | 27,185 | 0.4 | 0.4 | 0.6 | 27,473 | 27,583 | 27,338 | 25,811 | 6.4 |
| Nondurable goods industries................... | 312,960 | 312,815 | 315,038 | 0.0 | -0.7 | -0.4 | 311,884 | 312,821 | 317,511 | 286,894 | 8.7 |
| Food products.................................. | 63,572 | 63,064 | 62,768 | 0.8 | 0.5 | 0.3 | 64,103 | 62,807 | 62,015 | 60,536 | 5.9 |
| Grain and oilseed milling.................... | 7,851 | 7,848 | 7,813 | 0.0 | 0.4 | 0.1 | 7,620 | 7,646 | 7,642 | 7,106 | 7.2 |
| Dairy products............................ | 9,377 | 9,334 | 9,369 | 0.5 | -0.4 | 0.1 | 9,344 | 9,418 | 9,679 | 8,399 | 11.3 |
| Meat, poultry, and seafood products....... | 11,121 | 11,034 | 10,925 | 0.8 | 1.0 | 1.6 | 11,224 | 11,200 | 10,927 | 10,490 | 7.0 |
| Beverage and tobacco products.............. | 28,534 | 28,461 | 28,295 | 0.3 | 0.6 | 0.2 | 28,159 | 27,794 | 27,603 | 26,515 | 6.2 |
| Beverages................................... | 24,873 | 24,814 | 24,633 | 0.2 | 0.7 | 0.2 | 24,652 | 24,406 | 24,196 | 23,109 | 6.7 |
| Tobacco.................................... | 3,661 | 3,647 | 3,662 | 0.4 | -0.4 | 0.1 | 3,507 | 3,388 | 3,407 | 3,406 | 3.0 |
| Textile mills.................................. | 3,625 | 3,635 | 3,656 | -0.3 | -0.6 | 2.0 | 3,615 | 3,646 | 3,690 | 3,146 | 14.9 |
| Textile products.............................. | 4,335 | 4,330 | 4,310 | 0.1 | 0.5 | 0.5 | 4,343 | 4,333 | 4,289 | 3,956 | 9.8 |
| Apparel.................................... | 2,421 | 2,381 | 2,323 | 1.7 | 2.5 | 1.4 | 2,468 | 2,503 | 2,447 | 1,902 | 29.8 |
| Leather and allied products................... | 1,207 | 1,186 | 1,150 | 1.8 | 3.1 | 4.4 | 1,207 | 1,209 | 1,185 | 856 | 41.0 |
| Paper products.............................. | 16,742 | 16,708 | 16,660 | 0.2 | 0.3 | 0.7 | 16,750 | 16,867 | 16,879 | 15,665 | 6.9 |
| Pulp, paper, and paperboard mills........ | 5,031 | 5,001 | 4,982 | 0.6 | 0.4 | 0.6 | 4,981 | 5,020 | 5,039 | 4,785 | 4.1 |
| Paperboard containers..................... | 6,153 | 6,154 | 6,137 | 0.0 | 0.3 | 1.2 | 6,209 | 6,238 | 6,202 | 5,732 | 8.3 |
| Printing...................................... | 6,514 | 6,503 | 6,463 | 0.2 | 0.6 | 0.9 | 6,635 | 6,590 | 6,422 | 6,207 | 6.9 |
| Petroleum and coal products................... | 48,500 | 49,449 | 52,704 | -1.9 | -6.2 | -5.1 | 48,213 | 49,867 | 55,974 | 40,722 | 18.4 |
| Petroleum refineries.......................... | 41,698 | 42,969 | 45,775 | -3.0 | -6.1 | -6.1 | 41,472 | 43,365 | 48,900 | 35,027 | 18.4 |
| Chemical products............................... | 105,414 | 104,937 | 104,645 | 0.5 | 0.3 | 0.6 | 104,373 | 105,010 | 104,991 | 98,245 | 6.2 |
| Pesticides, fertilizers, and other agricultural chemicals. $\qquad$ | 6,933 | 6,822 | 6,781 | 1.6 | 0.6 | 2.8 | 6,603 | 6,592 | 6,545 | 5,479 | 20.5 |
| Pharmaceuticals and medicines............. | 43,000 | 43,047 | 43,097 | -0.1 | -0.1 | 0.1 | 42,644 | 42,834 | 43,312 | 42,920 | -0.6 |
| Paints, coatings, and adhesives............. | 5,250 | 5,167 | 5,078 | 1.6 | 1.8 | 1.9 | 5,135 | 5,111 | 5,118 | 4,014 | 27.9 |
| Plastics and rubber products.................. | 32,096 | 32,161 | 32,064 | -0.2 | 0.3 | 0.8 | 32,018 | 32,195 | 32,016 | 29,144 | 9.9 |

${ }^{\mathrm{p}}$ 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 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.
${ }^{2}$ 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 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 |  | $\begin{gathered} \text { \% Change }{ }^{6} \\ 2022 / \\ 2021 \end{gathered}$ |
|  | $\begin{aligned} & \text { Sep. } \\ & 2022^{p} \end{aligned}$ | $\begin{aligned} & \text { Aug. } \\ & 2022^{r} \end{aligned}$ | $\begin{aligned} & \text { July } \\ & 2022 \end{aligned}$ | $\begin{aligned} & \text { Aug. - } \\ & \text { Sep. } \end{aligned}$ | July Aug. | June July | $\begin{gathered} \text { Sep. } \\ 2022^{p} \end{gathered}$ | $\begin{aligned} & \text { Aug. } \\ & 2022^{r} \end{aligned}$ | $\begin{aligned} & \text { July } \\ & 2022 \end{aligned}$ | $\begin{aligned} & \text { Sep. } \\ & 2021 \end{aligned}$ | $2022{ }^{\text {p }}$ | 2021 |  |
| SHIPMENTS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All manufacturing industries...................... | 550,270 | 549,197 | 545,282 | 0.2 | 0.7 | -0.9 | 567,384 | 570,039 | 523,169 | 508,666 | 4,855,335 | 4,289,409 | 13.2 |
| Construction materials and supplies....... | 61,281 | 61,503 | 61,442 | -0.4 | 0.1 | -0.3 | 64,084 | 67,523 | 61,893 | 60,078 | 559,554 | 507,320 | 10.3 |
| Information technology.................... | 25,063 | 25,169 | 24,971 | -0.4 | 0.8 | 0.2 | 27,921 | 25,044 | 23,116 | 25,757 | 218,932 | 203,396 | 7.6 |
| Computers and related products.......... | 2,173 | 2,167 | 2,164 | 0.3 | 0.1 | 9.1 | 2,470 | 2,126 | 1,992 | 1,901 | 17,347 | 15,399 | 12.7 |
| Motor vehicle and parts.................... | 61,622 | 60,263 | 59,659 | 2.3 | 1.0 | 0.0 | 65,020 | 65,299 | 50,275 | 52,100 | 528,192 | 461,015 | 14.6 |
| Capital goods............................. | 97,072 | 97,643 | 94,963 | -0.6 | 2.8 | 1.7 | 104,941 | 96,155 | 86,947 | 95,091 | 839,094 | 755,373 | 11.1 |
| Nondefense capital goods ${ }^{3}$............... | 82,634 | 83,134 | 80,660 | -0.6 | 3.1 | 1.1 | 89,240 | 82,126 | 74,067 | 80,624 | 715,488 | 639,260 | 11.9 |
| Excluding aircraft....................... | 73,764 | 74,121 | 73,946 | -0.5 | 0.2 | 0.6 | 78,545 | 74,924 | 69,104 | 71,872 | 653,327 | 585,598 | 11.6 |
| Defense capital goods ${ }^{4} . . . . . . . . . . . . . . . . . . .$. | 14,438 | 14,509 | 14,303 | -0.5 | 1.4 | 4.8 | 15,701 | 14,029 | 12,880 | 14,467 | 123,606 | 116,113 | 6.5 |
| Consumer goods........................... | 237,966 | 235,803 | 235,226 | 0.9 | 0.2 | -2.3 | 241,242 | 244,487 | 229,511 | 206,096 | 2,071,907 | 1,759,914 | 17.7 |
| Consumer durable goods................. | 46,600 | 45,259 | 44,755 | 3.0 | 1.1 | -1.1 | 49,601 | 48,235 | 37,635 | 40,108 | 394,316 | 351,541 | 12.2 |
| Consumer nondurable goods............... | 191,366 | 190,544 | 190,471 | 0.4 | 0.0 | -2.6 | 191,641 | 196,252 | 191,876 | 165,988 | 1,677,591 | 1,408,373 | 19.1 |
| NEW ORDERS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All manufacturing industries ${ }^{5}$.................. | 551,039 | 549,508 | 548,449 | 0.3 | 0.2 | -1.0 | 567,145 | 564,326 | 523,696 | 507,709 | 4,869,222 | 4,309,258 | 13.0 |
| Construction materials and supplies....... | 61,602 | 61,803 | 61,566 | -0.3 | 0.4 | 0.0 | 63,441 | 66,927 | 61,806 | 60,619 | 564,221 | 528,272 | 6.8 |
| Information technology..................... | 25,201 | 25,465 | 25,382 | -1.0 | 0.3 | 0.7 | 28,781 | 24,320 | 22,514 | 27,395 | 220,579 | 209,823 | 5.1 |
| Computers and related products.......... | 2,161 | 2,159 | 2,174 | 0.1 | -0.7 | 9.0 | 2,458 | 2,118 | 2,002 | 1,883 | 17,326 | 15,342 | 12.9 |
| Motor vehicle and parts.................... | 61,337 | 60,033 | 59,623 | 2.2 | 0.7 | 0.0 | 64,720 | 65,223 | 50,106 | 52,283 | 527,869 | 463,955 | 13.8 |
| Capital goods............................ | 103,200 | 102,525 | 102,190 | 0.7 | 0.3 | 3.9 | 111,517 | 97,526 | 92,343 | 97,918 | 887,879 | 787,218 | 12.8 |
| Nondefense capital goods ${ }^{3} . . . . . . . . . . . . .$. | 89,415 | 86,162 | 87,100 | 3.8 | -1.1 | 2.5 | 93,827 | 82,846 | 81,178 | 81,063 | 765,326 | 669,568 | 14.3 |
| Excluding aircraft....................... | 75,040 | 75,379 | 74,709 | -0.4 | 0.9 | 0.7 | 78,968 | 74,625 | 68,913 | 73,094 | 662,914 | 605,278 | 9.5 |
| Defense capital goods ${ }^{4} . . . . . . . . . . . . . . . . . .$. | 13,785 | 16,363 | 15,090 | -15.8 | 8.4 | 12.7 | 17,690 | 14,680 | 11,165 | 16,855 | 122,553 | 117,650 | 4.2 |
| Consumer goods........................... | 237,966 | 235,720 | 235,138 | 1.0 | 0.2 | -2.3 | 241,527 | 244,355 | 229,446 | 206,529 | 2,071,263 | 1,762,437 | 17.5 |
| Consumer durable goods................. | 46,600 | 45,176 | 44,667 | 3.2 | 1.1 | -1.2 | 49,886 | 48,103 | 37,570 | 40,541 | 393,672 | 354,064 | 11.2 |
| Consumer nondurable goods............ | 191,366 | 190,544 | 190,471 | 0.4 | 0.0 | -2.6 | 191,641 | 196,252 | 191,876 | 165,988 | 1,677,591 | 1,408,373 | 19.1 |
| UNFILLED ORDERS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All manufacturing industries ${ }^{5}$................... | 1,137,812 | 1,131,950 | 1,126,755 | 0.5 | 0.5 | 0.7 | 1,131,953 | 1,126,341 | 1,126,849 | 1,058,722 | (x) | (X) | 6.9 |
| Construction materials and supplies....... | 89,555 | 89,234 | 88,934 | 0.4 | 0.3 | 0.1 | 89,528 | 90,171 | 90,767 | 85,030 | (x) | (X) | 5.3 |
| Information technology.................... | 143,637 | 143,499 | 143,203 | 0.1 | 0.2 | 0.3 | 143,058 | 142,198 | 142,922 | 137,688 | (x) | (X) | 3.9 |
| Computers and related products.......... | 1,198 | 1,210 | 1,218 | -1.0 | -0.7 | 0.8 | 1,198 | 1,210 | 1,218 | 1,320 | (x) | (X) | -9.2 |
| Motor vehicle and parts...................... | 27,921 | 28,206 | 28,436 | -1.0 | -0.8 | -0.1 | 27,424 | 27,724 | 27,800 | 26,641 | (x) | (X) | 2.9 |
| Capital goods............................ | 832,754 | 826,626 | 821,744 | 0.7 | 0.6 | 0.9 | 828,956 | 822,380 | 821,009 | 767,589 | (x) | (X) | 8.0 |
|  | 645,543 | 638,762 | 635,734 | 1.1 | 0.5 | 1.0 | 641,466 | 636,879 | 636,159 | 577,147 | (x) | (X) | 11.1 |
| Excluding aircraft....................... | 268,055 | 266,779 | 265,521 | 0.5 | 0.5 | 0.3 | 265,881 | 265,458 | 265,757 | 250,531 | (X) | (X) | 6.1 |
| Defense capital goods ${ }^{4} . . . . . . . . . . . . . . . . . . . ~$ | 187,211 | 187,864 | 186,010 | -0.3 | 1.0 | 0.4 | 187,490 | 185,501 | 184,850 | 190,442 | (x) | (X) | -1.6 |
| Consumer goods............................. | 10,769 | 10,769 | 10,852 | 0.0 | -0.8 | -0.8 | 10,851 | 10,566 | 10,698 | 12,093 | (x) | (X) | -10.3 |
| Consumer durable goods................... | 10,769 | 10,769 | 10,852 | 0.0 | -0.8 | -0.8 | 10,851 | 10,566 | 10,698 | 12,093 | (X) | (X) | -10.3 |
| TOTAL INVENTORIES |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All manufacturing industries................... | 801,626 | 800,301 | 801,381 | 0.2 | -0.1 | 0.0 | 799,658 | 803,059 | 807,098 | 742,032 | (x) | (X) | 7.8 |
| Construction materials and supplies....... | 87,105 | 86,736 | 86,335 | 0.4 | 0.5 | 0.4 | 86,083 | 86,192 | 86,593 | 78,776 | (X) | (X) | 9.3 |
| Information technology..................... | 44,794 | 44,660 | 44,259 | 0.3 | 0.9 | 0.5 | 44,702 | 45,278 | 44,713 | 41,188 | (x) | (X) | 8.5 |
| Computers and related products.......... | 3,948 | 3,961 | 3,903 | -0.3 | 1.5 | 0.7 | 4,031 | 4,134 | 3,967 | 3,765 | (x) | (x) | 7.1 |
| Motor vehicle and parts..................... | 51,937 | 51,696 | 51,497 | 0.5 | 0.4 | -0.1 | 52,366 | 52,518 | 52,283 | 49,751 | (x) | (X) | 5.3 |
| Capital goods............................ | 237,069 | 236,338 | 235,687 | 0.3 | 0.3 | 0.4 | 237,408 | 238,474 | 237,201 | 221,888 | (x) | (X) | 7.0 |
| Nondefense capital goods ${ }^{3} . . . .{ }_{\cdots}$........ | 214,614 | 213,660 | 212,851 | 0.4 | 0.4 | 0.4 | 214,921 | 215,709 | 214,327 | 200,231 | (X) | (X) | 7.3 |
| Excluding aircraft........................ | 149,868 | 148,613 | 147,514 | 0.8 | 0.7 | 0.6 | 149,580 | 149,889 | 148,579 | 133,849 | (x) | (X) | 11.8 |
| Defense capital goods ${ }^{4}$................... | 22,455 | 22,678 | 22,836 | -1.0 | -0.7 | 1.0 | 22,487 | 22,765 | 22,874 | 21,657 | (X) | (X) | 3.8 |
| Consumer goods......................... | 242,852 | 243,037 | 245,562 | -0.1 | -1.0 | -0.9 | 243,093 | 243,749 | 248,032 | 225,493 | (x) | (X) | 7.8 |
| Consumer durable goods................... | 43,754 | 43,557 | 43,321 | 0.5 | 0.5 | 0.3 | 44,343 | 44,730 | 43,546 | 40,641 | (x) | (x) | 9.1 |
| Consumer nondurable goods............... | 199,098 | 199,480 | 202,241 | -0.2 | -1.4 | -1.2 | 198,750 | 199,019 | 204,476 | 184,852 | (X) | (X) | 7.5 |

[^1]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 |  |  |  | \% Change <br> September 2022/ <br> 2021 |
|  | $\begin{aligned} & \text { Sep. } \\ & 2022^{p} \end{aligned}$ | $\begin{aligned} & \text { Aug. } \\ & 2022^{r} \end{aligned}$ | $\begin{aligned} & \text { July } \\ & 2022 \end{aligned}$ | Aug.Sep. | July - <br> Aug. | June July | $\begin{gathered} \text { Sep. } \\ 2022^{p} \end{gathered}$ | $\begin{aligned} & \text { Aug. } \\ & 2022^{r} \end{aligned}$ | $\begin{aligned} & \text { July } \\ & 2022 \end{aligned}$ | $\begin{aligned} & \text { Sep. } \\ & 2021 \end{aligned}$ |  |
| MATERIALS AND SUPPLIES |  |  |  |  |  |  |  |  |  |  |  |
| All manufacturing industries........... | 296,281 | 294,673 | 294,320 | 0.5 | 0.1 | 0.0 | 295,853 | 294,978 | 297,138 | 265,798 | 11.3 |
| Durable goods industries...................... | 180,921 | 180,464 | 180,414 | 0.3 | 0.0 | 0.5 | 181,348 | 181,323 | 182,243 | 162,984 | 11.3 |
| Wood products........................... | 6,550 | 6,540 | 6,624 | 0.2 | -1.3 | 0.5 | 6,482 | 6,492 | 6,564 | 5,928 | 9.3 |
| Nonmetallic mineral products............ | 7,266 | 7,259 | 7,053 | 0.1 | 2.9 | 1.5 | 7,230 | 7,273 | 7,068 | 6,209 | 16.4 |
| Primary metals........................... | 14,197 | 14,305 | 14,557 | -0.8 | -1.7 | -0.4 | 14,171 | 14,275 | 14,653 | 12,867 | 10.1 |
| Fabricated metal products................... | 25,411 | 25,556 | 25,572 | -0.6 | -0.1 | -0.1 | 25,559 | 25,672 | 25,853 | 23,611 | 8.3 |
|  | 36,880 | 36,473 | 36,468 | 1.1 | 0.0 | 1.2 | 37,146 | 36,698 | 36,891 | 31,312 | 18.6 |
| Computers and electronic products........ | 25,428 | 25,294 | 24,966 | 0.5 | 1.3 | 1.0 | 25,432 | 25,501 | 25,251 | 22,413 | 13.5 |
| Electrical equipment, appliances, and components. | 11,087 | 11,019 | 10,859 | 0.6 | 1.5 | 0.7 | 10,892 | 11,124 | 11,150 | 9,105 | 19.6 |
| Transportation equipment.................. | 40,317 | 40,311 | 40,650 | 0.0 | -0.8 | 0.1 | 40,669 | 40,421 | 40,982 | 38,813 | 4.8 |
| Furniture and related products............. | 4,917 | 4,876 | 4,851 | 0.8 | 0.5 | 0.8 | 4,842 | 4,888 | 4,870 | 4,094 | 18.3 |
| Miscellaneous products................... | 8,868 | 8,831 | 8,814 | 0.4 | 0.2 | 1.0 | 8,925 | 8,979 | 8,961 | 8,632 | 3.4 |
| Nondurable goods industries.................. | 115,360 | 114,209 | 113,906 | 1.0 | 0.3 | -0.8 | 114,505 | 113,655 | 114,895 | 102,814 | 11.4 |
| Food products.......................... | 24,516 | 24,065 | 24,078 | 1.9 | -0.1 | 0.2 | 24,414 | 23,610 | 23,910 | 23,008 | 6.1 |
| Beverage and tobacco products........ | 5,837 | 5,718 | 5,621 | 2.1 | 1.7 | $-4.3$ | 5,719 | 5,418 | 5,361 | 5,854 | -2.3 |
|  | 1,433 | 1,431 | 1,444 | 0.1 | -0.9 | 2.8 | 1,427 | 1,437 | 1,457 | 1,283 | 11.2 |
| Textile products....................... | 1,574 | 1,583 | 1,620 | -0.6 | -2.3 | 6.8 | 1,581 | 1,583 | 1,617 | 1,408 | 12.3 |
|  | 739 | 739 | 737 | 0.0 | 0.3 | -0.5 | 745 | 766 | 768 | 631 | 18.1 |
| Leather and allied products................ | 382 | 376 | 373 | 1.6 | 0.8 | 2.5 | 383 | 384 | 387 | 305 | 25.6 |
| Paper products......................... | 8,885 | 8,873 | 8,793 | 0.1 | 0.9 | 0.8 | 8,924 | 8,953 | 8,871 | 8,084 | 10.4 |
| Printing ................................... | 3,407 | 3,369 | 3,359 | 1.1 | 0.3 | 1.2 | 3,452 | 3,416 | 3,375 | 3,160 | 9.2 |
|  | 17,579 | 17,664 | 17,652 | -0.5 | 0.1 | -6.7 | 17,208 | 17,554 | 18,656 | 13,363 | 28.8 |
| Petroleum and coal products............. | 36,781 | 36,467 | 36,383 | 0.9 | 0.2 | 0.4 | 36,357 | 36,463 | 36,557 | 32,844 | 10.7 |
| Plastics and rubber products WORK IN PROCESS | 14,227 | 13,924 | 13,846 | 2.2 | 0.6 | 1.0 | 14,295 | 14,071 | 13,936 | 12,874 | 11.0 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| All manufacturing industries................... | 224,532 | 224,917 | 226,143 | -0.2 | -0.5 | 0.0 | 224,329 | 226,201 | 228,046 | 215,285 | 4.2 |
| Durable goods industries...................... | 172,363 | 172,469 | 172,093 | -0.1 | 0.2 | -0.1 | 172,716 | 173,967 | 173,143 | 167,847 | 2.9 |
| Wood products......................... | 2,064 | 2,053 | 2,090 | 0.5 | -1.8 | 0.2 | 2,019 | 2,038 | 2,074 | 1,914 | 5.5 |
| Nonmetallic mineral products.............. | 1,493 | 1,484 | 1,484 | 0.6 | 0.0 | 0.3 | 1,458 | 1,475 | 1,488 | 1,466 | -0.5 |
| Primary metals........................... | 12,771 | 12,667 | 12,390 | 0.8 | 2.2 | -2.6 | 12,763 | 12,947 | 12,549 | 12,129 | 5.2 |
| Fabricated metal products................... | 14,917 | 14,918 | 14,859 | 0.0 | 0.4 | 0.6 | 14,862 | 14,973 | 15,007 | 13,896 | 7.0 |
| Machinery.............................. | 23,808 | 23,514 | 23,198 | 1.3 | 1.4 | -0.9 | 23,921 | 23,776 | 22,989 | 20,684 | 15.6 |
| Computers and electronic products.. | 13,203 | 13,219 | 13,116 | -0.1 | 0.8 | -0.3 | 12,941 | 12,935 | 13,124 | 14,040 | -7.8 |
| Electrical equipment, appliances, and components. | 4,195 | 4,223 | 4,209 | -0.7 | 0.3 | 0.8 | 4,106 | 4,274 | 4,313 | 3,828 | 7.3 |
| Transportation equipment................ | 93,900 | 94,412 | 94,809 | -0.5 | -0.4 | 0.2 | 94,573 | 95,485 | 95,615 | 94,314 | 0.3 |
| Furniture and related products............. | 1,358 | 1,347 | 1,347 | 0.8 | 0.0 | 0.0 | 1,366 | 1,348 | 1,339 | 1,345 | 1.6 |
|  | 4,654 | 4,632 | 4,591 | 0.5 | 0.9 | 0.7 | 4,707 | 4,716 | 4,645 | 4,231 | 11.3 |
| Nondurable goods industries................... | 52,169 | 52,448 | 54,050 | -0.5 | -3.0 | 0.3 | 51,613 | 52,234 | 54,903 | 47,438 | 8.8 |
| Nondurable goods industries.................. | 5,890 | 6,086 | 5,881 | -3.2 | 3.5 | -1.9 | 5,499 | 5,624 | 5,501 | 5,319 | 3.4 |
| Beverage and tobacco products........ | 8,946 | 9,003 | 8,990 | -0.6 | 0.1 | 0.9 | 8,912 | 8,666 | 8,611 | 8,668 | 2.8 |
| Textiles.................................... | 617 | 622 | 622 | -0.8 | 0.0 | 0.5 | 619 | 625 | 629 | 580 | 6.7 |
| Textile products......................... | 465 | 470 | 464 | -1.1 | 1.3 | 2.9 | 472 | 473 | 464 | 420 | 12.4 |
|  | 285 | 283 | 281 | 0.7 | 0.7 | 0.0 | 290 | 293 | 292 | 280 | 3.6 |
| Leather and allied products. $\qquad$ Paper products $\qquad$ | 118 | 118 | 123 | 0.0 | -4.1 | 2.5 | 116 | 121 | 124 | 117 | -0.9 |
|  | 1,424 | 1,407 | 1,438 | 1.2 | -2.2 | -0.6 | 1,415 | 1,439 | 1,476 | 1,354 | 4.5 |
| Paper products <br> Printing $\qquad$ | 1,253 | 1,260 | 1,257 | -0.6 | 0.2 | -1.1 | 1,319 | 1,288 | 1,227 | 1,276 | 3.4 |
| Petroleum and coal products............. | 13,769 | 13,218 | 14,925 | 4.2 | -11.4 | 0.3 | 13,806 | 13,554 | 16,151 | 10,370 | 33.1 |
| Chemical products...................... | 15,986 | 16,386 | 16,518 | -2.4 | -0.8 | 1.0 | 15,725 | 16,536 | 16,914 | 15,579 | 0.9 |
|  | 3,416 | 3,595 | 3,551 | -5.0 | 1.2 | 0.2 | 3,440 | 3,615 | 3,514 | 3,475 | -1.0 |
| FINISHED GOODS |  |  |  |  |  |  |  |  |  |  |  |
| All manufacturing industries.................. | 280,813 | 280,711 | 280,918 | 0.0 | -0.1 | 0.0 | 279,476 | 281,880 | 281,914 | 260,949 | 7.1 |
| Durable goods industries..................... | 135,382 | 134,553 | 133,836 | 0.6 | 0.5 | 0.3 | 133,710 | 134,948 | 134,201 | 124,307 | 7.6 |
| Wood products. $\qquad$ Nonmetallic mineral products | 6,167 | 6,151 | 6,012 | 0.3 | 2.3 | -1.3 | 5,896 | 5,971 | 5,885 | 5,662 | 4.1 |
|  | 7,599 | 7,530 | 7,633 | 0.9 | -1.3 | 1.1 | 7,433 | 7,433 | 7,670 | 6,846 | 8.6 |
| Primary metals......................... | 11,899 | 12,019 | 12,137 | -1.0 | -1.0 | 1.5 | 11,529 | 11,668 | 12,049 | 10,382 | 11.0 |
| Fabricated metal products.............. | 22,488 | 22,278 | 22,177 | 0.9 | 0.5 | 0.6 | 22,029 | 22,160 | 22,490 | 20,346 | 8.3 |
|  | 24,582 | 24,414 | 24,245 | 0.7 | 0.7 | 1.8 | 24,254 | 24,219 | 23,932 | 22,278 | 8.9 |
| Computers and electronic products. | 14,080 | 13,955 | 14,196 | 0.9 | -1.7 | -0.3 | 14,152 | 14,379 | 14,380 | 13,583 | 4.2 |
| Electrical equipment, appliances, and components. | 7,933 | 7,928 | 7,881 | 0.1 | 0.6 | -0.3 | 7,776 | 8,016 | 7,937 | 7,112 | 9.3 |
| Transportation equipment.....). | 22,951 | 22,677 | 22,055 | 1.2 | 2.8 | -1.3 | 23,034 | 23,401 | 22,313 | 21,932 | 5.0 |
| Furniture and related products $\qquad$ Miscellaneous products | 3,807 | 3,764 | 3,720 | 1.1 | 1.2 | 0.9 | 3,766 | 3,813 | 3,813 | 3,218 | 17.0 |
|  | 13,876 | 13,837 | 13,780 | 0.3 | 0.4 | 0.3 | 13,841 | 13,888 | 13,732 | 12,948 | 9 |
|  | 145,431 | 146,158 | 147,082 | -0.5 | -0.6 | -0.4 | 145,766 | 146,932 | 147,713 | 136,642 | 6.7 |
| Food products........................... | 33,166 | 32,913 | 32,809 | 0.8 | 0.3 | 0.8 | 34,190 | 33,573 | 32,604 | 32,209 | 6.2 |
|  | 13,751 | 13,740 | 13,684 | 0.1 | 0.4 | 1.8 | 13,528 | 13,710 | 13,631 | 11,993 | 12.8 |
| Textile....................................... | 1,575 | 1,582 | 1,590 | -0.4 | -0.5 | 1.9 | 1,569 | 1,584 | 1,604 | 1,283 | 22.3 |
| Textile products. | 2,296 | 2,277 | 2,226 | 0.8 | 2.3 | -4.1 | 2,290 | 2,277 | 2,208 | 2,128 | 7.6 |
|  | 1,397 | 1,359 | 1,305 | 2.8 | 4.1 | 2.8 | 1,433 | 1,444 | 1,387 | 991 | 44.6 |
| Apparel........................... Leather and allied products............ | 707 | 692 | 654 | 2.2 | 5.8 | 5.8 | 708 | 704 | 674 | 434 | 63.1 |
| Paper products........................... | 6,433 | 6,428 | 6,429 | 0.1 | 0.0 | 0.8 | 6,411 | 6,475 | 6,532 | 6,227 | 3.0 |
| Printing .................................. | 1,854 | 1,874 | 1,847 | -1.1 | 1.5 | 1.7 | 1,864 | 1,886 | 1,820 | 1,771 | 5.3 |
| Petroleum and coal products............. | 17,152 | 18,567 | 20,127 | $-7.6$ | -7.8 | -7.4 | 17,199 | 18,759 | 21,167 | 16,989 | 1.2 |
| Chemical products $\qquad$ Plastics and rubber products. $\qquad$ | 52,647 | 52,084 | 51,744 | 1.1 | 0.7 | 0.6 | 52,291 | 52,011 | 51,520 | 49,822 | 5.0 |
|  | 14,453 | 14,642 | 14,667 | -1.3 | -0.2 | 0.7 | 14,283 | 14,509 | 14,566 | 12,795 | 11.6 |

[^2]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. Estimate re 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, rester
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 $/ \mathrm{manufacturing} / \mathrm{m} 3 />$
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: $/ / \mathrm{www} . c e n s u s . g \mathrm{gov} / \mathrm{manufacturing} / \mathrm{m} 3 />$.
Source: U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders (M3) Survey, September Full Report, November 3, 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 7. Ratios of Manufacturers' Inventories to Shipments and Unfilled Orders to Shipments, by Industry Group ${ }^{1}$

| [Based on Seasonally Adjusted data from the Manufacturers' Shipments, Inventories, and Orders Survey.] |
| :--- |

${ }^{\mathrm{x}}$ Not Applicable
Preliminary
Tectar $a$
${ }^{2}$ Excludes the following industries with no unfilled orders: Wood products; nonmetallic mineral products; medical equipment and supplies; office supplies; ther miscellaneous manufacturing; cutlery and handtools; farm and garden machinery; computer storage and peripheral devices; audio and video miscellaneous furniture.
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 $/ \mathrm{m} 3 / \mathrm{l}$.
 data 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 ${ }^{1}$

| [Based on Seasonally Adjusted data from the Manufacturers' Shipments, Inventories, and Orders Survey.] |
| :--- |

X Not Applicable
NA Not Available
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.
The current month revisions are the difference between the advance percent change and the percent change as shown in this publication.
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 montht specified. The advance to final percent
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
error is nonsampling error, which includes errors of coverage, response, and nonreporting. Since the survey panel is not a probability sample, error is nonsampling error, which includes errors of coverage, respoise, and nonreporting. Since the survey panel in not a probat
estimates of sampling error cannot be calculated. For further detais 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, September Full Report, November 3, 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


[^0]:    U.S. Department of Commerce U.S. CENSUS BUREAU
    census.gov

[^1]:    ${ }^{x}$ 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 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.
    ${ }^{2}$ Topical series are regroupings of the separate industry categories.
    ${ }^{3}$ 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 trucks; aircraft; railroad rolling stock; ships and boats; office and institutional furniture; and medical equipment and supplies.
    ${ }^{4}$ 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/).
    Source: U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders (M3) Survey, September Full Report, November 3, 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>.

[^2]:    Preliminary

