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

Release Number: CB 22-190 M3-2 (22)-10

December 5, 2022 — The U.S. Census Bureau announces the October full report on manufacturers' shipments, inventories and orders:





Summary

New orders for manufactured goods in October, up twelve of the last thirteen months, increased \$5.8 billion or 1.0 percent to \$556.6 billion, the U.S. Census Bureau reported today. This followed a 0.3 percent September increase. Shipments, up nineteen of the last twenty months, increased \$3.9 billion or 0.7 percent to \$554.8 billion. This followed a 0.3 percent September increase. Unfilled orders, up twenty-six consecutive months, increased \$6.9 billion or 0.6 percent to \$1,144.0 billion. This followed a 0.5 percent September increase. The unfilled orders-to-shipments ratio was 6.03, unchanged from September. Inventories, up two consecutive months, increased \$4.0 billion or 0.5 percent to \$805.3 billion. This followed a 0.1 percent September increase. The inventories-to-shipments ratio was 1.45, unchanged from September.

New Orders

New orders for manufactured durable goods in October, up seven of the last eight months, increased \$3.0 billion or 1.1 percent to \$277.4 billion, up from the previously published 1.0 percent increase. This followed a 0.2 percent September increase. Transportation equipment, up six of the last seven months,

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led the increase, \$2.1 billion or 2.2 percent to \$97.7 billion. New orders for manufactured nondurable goods increased \$2.8 billion or 1.0 percent to \$279.3 billion.

Shipments

Shipments of manufactured durable goods in October, up seventeen of the last eighteen months, increased \$1.1 billion or 0.4 percent to \$275.5 billion, unchanged from the previously published increase. This followed a 0.3 percent September increase. Machinery, up nineteen of the last twenty months, led the increase, \$0.6 billion or 1.4 percent to \$38.8 billion. Shipments of manufactured nondurable goods, up nineteen of the last twenty months, increased \$2.8 billion or 1.0 percent to \$279.3 billion. This followed a 0.3 percent September increase. Petroleum and coal products, up two consecutive months, drove the increase, \$2.9 billion or 4.4 percent to \$69.1 billion.

Unfilled Orders

Unfilled orders for manufactured durable goods in October, up twenty-six consecutive months, increased \$6.9 billion or 0.6 percent to \$1,144.0 billion, unchanged from the previously published increase. This followed a 0.5 percent September increase. Transportation equipment, up twenty of the last twenty-one months, led the increase, \$6.8 billion or 1.0 percent to \$670.9 billion.

Inventories

Inventories of manufactured durable goods in October, up twenty-one consecutive months, increased \$0.8 billion or 0.2 percent to \$489.5 billion, unchanged from the previously published increase. This followed a 0.3 percent September increase. Machinery, up twenty-four consecutive months, drove the increase, \$0.9 billion or 1.1 percent to \$86.6 billion. Inventories of manufactured nondurable goods, up following three consecutive monthly decreases, increased \$3.2 billion or 1.0 percent to \$315.8 billion. This followed a 0.1 percent September decrease. Petroleum and coal products, up following four consecutive monthly decreases, led the increase, \$2.9 billion or 5.9 percent to \$51.6 billion. By stage of fabrication, October materials and supplies increased 0.4 percent in both durable and nondurable goods. Work in process decreased 0.3 percent in durable goods and increased 1.5 percent in nondurable goods. Finished goods increased 0.4 percent in durable goods and 1.3 percent in nondurable goods.

The Advance Report on durable goods for November is scheduled for release on December 23, 2022, at 8:30 a.m. EST and the Full Report on January 6, 2023, 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>.

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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 monthto-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	Full Report
	Goods and Advance Total	(10:00 a.m. release time)
	Manufacturing	
	(8:30 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/ 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 Groups¹

[Estimates are shown in millions of do	ollars and a		n data fror asonally Adj		anufactu	ırers' Shi	pments, In	ventories,		s Survey.] : Seasonally Ad	liusted		
		Monthly	acondity Au		rcent Char	nge		Mor		Judgerlany Au	.,	Year to date	
Industry	Oct. 2022 ^p	Sep. 2022 ^r	Aug. 2022	Sep Oct.	Aug Sep.	July - Aug.	Oct. 2022 ^p	Sep. 2022 ^r	Aug. 2022	Oct. 2021	2022 ^p	2021	% Change 2022/ 2021
All manufacturing industries	554,785	550,844	549,197	0.7	0.3	0.7	559,641	567,627	570,039	506,744	5,415,219	4,796,153	12.9
Excluding transportation	463,809	460,249	459,663			0.2	468,683	470,051	477,547	428,242	4,560,746		12.7
Excluding defense With unfilled orders	538,319 189,640	534,383 188,553	532,587 189,347	0.7 0.6		0.7 1.6	543,394 188,470	549,636 199,708	553,835 195,363	491,341 173,699	5,256,834 1,853,474	4,647,127 1,663,192	13.1 11.4
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Durable goods industries	275,490	274,348	273,530			1.3	277,165	290,707	285,036	253,454	2,688,017	2,418,681	11.1
Wood products Nonmetallic mineral products	12,703 12,658	12,811 12,564	12,805 12,498			0.2 -0.6	13,091 13,379	13,333 13,416	13,681 14,131	12,885 12,532	131,470 126,867	124,607 117,388	5.5 8.1
Primary metals	20,330	20,329	20,754			0.4	20,013	20,550	21,894	19,664	209,542	187,831	11.6
Iron and steel mills	12,023	12,098	12,267	-0.6		-1.4	11,867	12,341	13,055	11,268	122,175	105,494	15.8
Aluminum and nonferrous metals Ferrous metal foundries	6,782 1,525	6,727 1,504	7,003 1,484			3.2 2.6	6,648 1,498	6,705 1,504	7,246 1,593	7,005 1,391	72,259 15,108	68,921 13,416	4.8 12.6
Fabricated metal products	36,660	36,691	36,836			-0.8	37,659	37,943	39,441	35,927	370,475	-	11.5
Machinery Farm machinery	38,835 2,398	38,282 2,510	38,151 2,735	1.4 -4.5		0.4 -4.6	38,301 2,331	39,554 2,385	38,882 2,649	34,650 2,376	377,503 27,113	333,507 26,368	13.2 2.8
Construction machinery	3,888	3,861	3,699			0.8	3,849	3,855	3,719	2,871	36,278	28,882	25.6
Mining, oil field, and gas field machinery	1,597	1,528	1,541	4.5	-0.8	1.0	1,618	1,565	1,535	1,321	14,525	12,593	15.3
Industrial machinery	6,347	6,210	6,206			-0.2	6,427	7,120	6,110	5,843	61,979	46,115	34.4
Photographic equipment	522	503	520	3.8	-3.3	3.2	468	571	521	457	5,123	5,140	-0.3
Ventilation, heating, air-conditioning, and refrigeration equipment	4,743	4,753	4,763	-0.2	-0.2	4.0	4,449	5,047	5,294	4,056	47,168	41,810	12.8
Metalworking machinery	2,602	2,559	2,585			-2.2	2,668	2,672	2,672	2,612	25,844	25,496	1.4
Turbines, generators, and other power transmission equipment	3,555	3,439	3,321	3.4	3.6	1.5	3,649	3,347	3,478	3,293	32,957	32,241	2.2
Material handling equipment	3,594	3,456	3,437	4.0		0.9	3,542	3,434	3,478	2,928	34,419	27,836	23.6
Computers and electronic products ²	29,491	29,380	29,193			0.0	29,707	32,882	29,477	27,206	284,541	267,010	6.6
Computers Computer storage devices	733 674	735 657	753 666	-0.3 2.6		-2.0 -0.6	761 628	824 663	796 604	717 554	7,321 6,251	7,270 5,479	0.7 14.1
Other peripheral equipment	862	778	748			3.0	882	983	726	408	6,046		39.7
Nondefense communications	2.057	2 020	2.065	0.0	4.2	2.0	2 744	2 774	2.750	2.464	20.602	26.007	10.1
equipment Defense communications equipment	3,057 213	3,029 211	3,065 213	0.9 0.9		-2.8 -1.4	2,711 213	3,774 248	2,758 218	2,461 211	29,603 2,091	26,897 1,971	10.1 6.1
Audio and video equipment	353	371	379	-4.9	-2.1	0.3	447	371	339	450	3,635	2,944	23.5
Electronic components Nondefense search and navigation	4,569	4,588	4,582	-0.4	0.1	-0.6	4,453	4,766	4,902	4,053	45,387	39,895	13.8
equipment	1,661	1,641	1,655	1.2	-0.8	-0.5	1,616	1,805	1,693	1,556	16,250	15,963	1.8
Defense search and navigation	2 200	2.200	2 227	0.4	1.0	2.4	2 240	2.400	2 242	2 422	24 722	24 442	0.0
equipment Electromedical, measuring,	3,280	3,268	3,237	0.4	1.0	2.1	3,318	3,489	3,213	3,132	31,732	31,443	0.9
and control instruments	8,990	8,920	8,929	0.8	-0.1	0.5	8,753	10,021	8,938	8,025	86,116	82,173	4.8
Electrical equipment, appliances, and components	13,514	13,465	13,451	0.4	0.1	2.3	13,511	14,509	14,125	12,481	132,947	120,060	10.7
Electric lighting equipment	1,048	1,048	1,045	0.0	0.3	0.2	1,088	1,097	1,115	1,034	10,385	10,123	2.6
Household appliances Electrical equipment	2,786 3,822	2,755 3,873	2,749 3,779	1.1 -1.3		2.9 1.2	2,730 3,619	3,058 4,332	2,869 3,919	2,504 3,437	26,693 37,712	24,999 35,090	6.8 7.5
Batteries	983	956	956	2.8		0.7	1,119	1,039	1,069	972	9,462	8,273	14.4
Transportation equipment	90,976	90,595	89,534			3.7	90,958	97,576	92,492	78,502	854,473	-	14.3
Automobiles Light trucks and utility vehicles	7,905 23,920	8,037 23,777	7,822 22,696	-1.6 0.6		5.0 0.3	8,124 24,549	8,323 25,920	8,873 24,279	6,917 20,324	75,401 221,853	66,851 187,925	12.8 18.1
Heavy duty trucks	2,677	2,607	2,488	2.7		3.2	2,783	2,792	2,577	2,064	24,086	19,466	23.7
Motor vehicle bodies, parts, and trailers	27,395	27,336	27,257	0.2	0.3	0.3	28,095	28,103	29,570	25,778	270,521	241,856	11.9
Nondefense aircraft and parts	12,990	12,849	13,137	1.1	-2.2	24.7	11,535	15,058	11,223	8,726	108,254	90,830	19.2
Defense aircraft and parts Ships and boats	5,375 3,558	5,401 3,364	5,505 3,530			6.0 -1.4	5,383 3,568	6,041 3,420	5,502 3,556	5,445 3,556	52,795 34,946	-	0.7 -0.6
Furniture and related products	6,257	6,245	6,202	0.2		0.3	6,346	6,272	6,688	6,009	61,827	58,023	6.6
Miscellaneous durable goods	14,066	13,986	14,106	0.6	-0.9	0.7	14,200	14,672	14,225	13,598	138,372	130,475	6.1
Nondurable goods industries	279,295	276,496	275,667	1.0	0.3	0.2	282,476	276,920	285,003	253,290	2,727,202	2,377,472	14.7
Food products	76,036	75,849	76,148	0.2	-0.4	0.1	78,806	77,433	77,890	75,594	754,407	718,875	4.9
Grain and oilseed milling	9,327 11 070	9,280 11,874	9,114	0.5 0.0		-0.9 -0.8	9,513	9,191	9,575 12,102	8,521	90,854 117,851	81,109 109,869	12.0 7.3
Dairy products Meat, poultry, and seafood products	11,878 22,812	22,809	11,937 22,803	0.0		-0.8 0.2	12,143 23,036	11,869 23,115	12,193 23,192	11,209 22,465	228,475		7.3 5.3
Beverage and tobacco products	16,821	16,917	16,919	-0.6		3.0	16,998	17,312	17,538	14,430	161,176	-	15.6
Beverages Tobacco	10,349 6,472	10,116 6,801	10,031 6,888	2.3 -4.8		0.9 6.3	10,526 6,472	10,511 6,801	10,650 6,888	9,956 4,474	99,886 61,290		6.1 35.4
Textile mills	2,309	2,320	2,340	-0.5	-0.9	0.6	2,343	2,343	2,498	2,335	23,472	22,719	3.3
Textile products Apparel	1,959 756	1,999 737	1,983 718	-2.0 2.6		0.1 -0.8	1,984 862	2,000 771	2,061 774	1,965 806	20,129 7,235	19,296 7,004	4.3 3.3
Leather and allied products	471	462	444	1.9	4.1	5.5	471	471	472	392	4,410	3,951	11.6
Paper products	16,192 5,810	16,213	16,217	-0.1		0.2	16,403	16,514	17,174 6 175	16,358	163,835		3.6
Pulp, paper, and paperboard mills Paperboard containers	5,810 6,011	5,796 6,003	5,818 6,007	0.2 0.1		-0.7 0.3	5,891 6,104	5,933 6,197	6,175 6,513	5,846 6,062	59,117 60,718	56,927 59,064	3.8 2.8
Printing	7,062	7,030	6,938	0.5	1.3	-0.4	7,484	7,288	7,155	6,717	68,258	61,886	10.3
Petroleum and coal products Petroleum refineries	69,114 63,643	66,196 60,817	64,866 59,585	4.4 4.6		-1.0 -1.0	69,210 63,309	63,377 57,484	67,391 61,194	49,274 44,286	638,591 585,842	421,609 375,120	51.5 56.2
Chemical products	66,342	66,547	66,655			0.6	65,328	66,673	68,477	63,473	660,570		7.0
Pesticides, fertilizers, and other agricultural chemicals	3,509	3,366	3,175	4.2	6.0	-2.0	2,913	2,896	2,586	2,610	32,630	29,003	12.5
Pharmaceuticals and medicines	22,524	22,475	22,112	0.2		0.6	2,913	2,896	2,586 23,117	20,495	215,214	196,366	9.6
Plastics and rubbor products	3,830	3,786	3,827	1.2 0.0		1.7 0.3	3,768	3,799	4,204	3,645	38,709	36,482	6.1 8.6
Plastics and rubber products	22,233	22,226	22,439	0.0	-0.9	0.3	22,587	22,738	23,573	21,946	225,119	207,356	٥.٥

^p Preliminary

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/. Source: U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders (M3) Survey, October Full Report, December 5, 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>.

^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 Estimates and percent changes of shipments for the semiconductor industry are included in computers and electronic products, and all other applicable aggregate totals.

Table 2. Value of Manufacturers' New Orders for Industry Groups¹

LESTIMATES are snown in millions of dollars a			Seasonally /							Seasonally A	djusted		
		Monthly	-	Pe	rcent Chang	e		Mon	thly			Year to date	
Industry	Oct. 2022 ^p	Sep. 2022 ^r	Aug. 2022	Sep Oct.	Aug Sep.	July - Aug.	Oct. 2022 ^p	Sep. 2022 ^r	Aug. 2022	Oct. 2021	2022 ^p	2021	% Change 2022/ 2021
All manufacturing industries ²	556,645	550,895	549,508	1.0	0.3	0.2	555,957	566,852	564,326	500,376	5,424,886	4,809,634	12.8
Excluding transportation ²	458,901	455,219	456,025	0.8	-0.2	0.1	460,746	463,031	470,103	423,805	4,523,388	4,051,473	11.6
Excluding defense ²	540,085	535,072	530,931	0.9	0.8	0.0	541,395	546,400	547,912	487,467	5,265,819	4,663,733	12.9
With unfilled orders ²	196,518	193,704	194,542	1.5		0.1	190,621	204,784	194,855	172,878	1,912,441	1,724,510	10.9
Durable goods industries ²	277,350	274,399	273,841	1.1	0.2	0.2	273,481	289,932	279,323	247,086	2,697,684	2,432,162	10.9
Primary metals	20,254	20,241	20,738	0.1	-2.4	0.4	19,712	20,137	21,451	19,439	208,940	191,386	9.2
Iron and steel mills	12,037	12,146	12,425	-0.9	-2.2	0.0	11,589	12,181	13,038	11,041	122,121	107,361	13.7
Aluminum and nonferrous metals	6,670	6,555	6,823	1.8	-3.9	0.6	6,670	6,456	6,842	7,046	71,421	70,050	2.0
Ferrous metal foundries	1,547	1,540	1,490	0.5	3.4	2.8	1,453	1,500	1,571	1,352	15,398	13,975	
Fabricated metal products	36,511	36,444	36,860	0.2		-0.9	-	36,717	38,767	35,011	372,823		
Machinery	39,203	38,633	38,888	1.5		0.7	38,344	39,435	38,864	36,052	384,354		
Construction machinery Mining, oil field, and	3,965	3,651	3,674	8.6	-0.6	-0.5	3,901	3,609	3,584	3,010	36,446	31,639	15.2
gas field machinery	1,610	1,533	1,661	5.0	-7.7	9.6	1,631	1,570	1,655	1,403	14,631	13,038	12.2
Industrial machinery	6,305	6,178	6,297	2.1	-1.9	-4.2	6,553	6,999	5,978	6,513	63,742		
Photographic equipment	489	448	516	9.2		-6.7	496	748	541	488	5,260	5,285	-0.5
Ventilation, heating, air-conditioning,											ŕ	·	
and refrigeration equipment	4,945	5,004	5,058	-1.2	-1.1	2.0	4,431	5,157	5,411	4,096	49,670	43,746	13.5
Metalworking machinery	2,564	2,595	2,611	-1.2	-0.6	2.4	2,648	2,601	2,605	2,733	25,921	26,375	-1.7
Turbines, generators, and other													
power transmission equipment	3,560	3,434	3,278	3.7	4.8	2.8	-	3,342	3,435	3,558	32,776	-	-1.3
Material handling equipment	3,775	3,759	3,649	0.4		3.4	,	3,726	3,760	2,963	35,765	·	23.2
Computers and electronic products ²	24,357	24,239	24,519	0.5		-0.1	23,613	27,743	23,357	22,214	235,863	•	5.6
Computers	734	723	745	1.5	-3.0	-4.2	762	812	788	686	7,301	7,182	1.7
Nondefense communications	2 222	2 272	2 222				2 500	2.522	0.647	2 22 5	22.24	22.525	
equipment	2,983	2,879	3,082	3.6	-6.6	0.9	,	3,622	2,617	2,896	29,044	-	
Defense communications equipment	214	209	210	2.4	-0.5	-5.4		254	217	186	2,052	,	
Electronic components Nondefense search and navigation	4,507	4,601	4,648	-2.0	-1.0	-0.4	4,427	4,854	4,804	4,204	45,517	41,126	10.7
equipment	1,680	1,663	1,757	1.0	-5.4	-1.6	1,746	1,860	1,784	1,854	17,550	17,933	-2.1
Defense search and navigation	2 246	2 220	2.405	2.0	4.5	4 7	2 004	2.024	2 774	2.660	24 022	20.400	2.0
equipment	3,246	3,339	3,195	-2.8	4.5	-1.7	3,091	3,931	2,771	2,668	31,023	30,400	2.0
Electromedical, measuring, and control instruments	0.022	9 027	0.007	1.0	-0.8	0.8	9 746	10 206	9 622	9 216	96 635	92 607	4.8
Electrical equipment, appliances,	9,023	8,937	9,007	1.0	-0.8	0.8	8,746	10,306	8,622	8,216	86,635	82,697	4.8
and components	13,771	13,701	13,851	0.5	-1.1	1.4	13,832	14,402	14,262	13,082	135,843	125,508	8.2
Electric lighting equipment	1,090	1,038	1,104	5.0		2.7	1,164	1,071	1,156	1,093	10,551		
Household appliances	2,875	2,761	2,753	4.1	0.3	4.2	2,874	3,230	2,803	2,578	26,213	-	
Electrical equipment	3,881	3,962	3,960	-2.0		-2.1	-	3,945	4,008	3,586	40,108		
Transportation equipment	97,744	95,676	93,483	2.2	2.3	0.5	,	103,821	94,223	76,571	901,498	· ·	18.9
Motor vehicle bodies, parts,	1	ŕ	,				,	,	ŕ	,	,	,	
and trailers	27,364	26,903	27,027	1.7	-0.5	-0.4	27,334	27,645	29,494	25,530	269,279	244,548	10.1
Nondefense aircraft and parts ³	19,840	18,458	14,954	7.5	23.4	-8.6	18,125	19,141	12,049	9,190	154,401	101,782	51.7
Defense aircraft and parts	5,422	4,456	6,611	21.7	-32.6	26.1	4,689	5,504	6,541	4,904	53,478	49,266	
Ships and boats	3,034	2,730	5,386	11.1	-49.3	5.7	2,854	3,232	4,570	3,100	34,993	36,505	
Furniture and related products	6,109	6,090	6,094	0.3	-0.1	-1.4	6,135	6,242	6,363	5,806	61,496	60,193	2.2
Nondurable goods industries	279,295	276,496	275,667	1.0	0.3	0.2	282,476	276,920	285,003	253,290	2,727,202	2,377,472	14.7

^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 new orders are not available for the semiconductor industry. Estimates and percent changes for new 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/. Source: U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders (M3) Survey, October Full Report, December 5, 2022. Information on data sources and methodology can be found on our website at https://www.census.gov/manufacturing/m3/how_the_data_are_collected/index.html.

Table 3. Value of Manufacturers' Unfilled Orders for Industry Groups¹

Industry		0.4 4 - 1 - 1									
Industry		Monthly		Po	ercent Change	e		Mon	thly		% Change
·	Oct. 2022 ^p	Sep. 2022 ^r	Aug. 2022	Sep Oct.	Aug Sep.	July - Aug.	Oct. 2022 ^p	Sep. 2022 ^r	Aug. 2022	Oct. 2021	October 2022/ 2021
All manufacturing industries ²	1,143,979	1,137,101	1,131,950	0.6	0.5	0.5	1,133,568	1,131,417	1,126,341	1,057,901	7.2
Excluding transportation ²	473,117	473,007	472,937	0.0	0.0	0.3	468,314	470,416	471,585	452,040	3.6
Excluding defense ²	929,853	923,069	917,280	0.7	0.6	0.4	921,098	917,262	914,647	847,978	8.6
Durable goods industries ²	1,143,979	1,137,101	1,131,950	0.6	0.5	0.5	1,133,568	1,131,417	1,126,341	1,057,901	7.2
Primary metals	30,559	30,635	30,723	-0.2	-0.3	-0.1	29,643	29,944	30,357	29,912	-0.9
Iron and steel mills	16,099	16,085	16,037	0.1	0.3	1.0	15,612	15,890	16,050	15,943	-2.1
Aluminum and nonferrous metals	10,275	10,387	10,559	-1.1	-1.6	-1.7	9,977	9,955	10,204	10,455	-4.6
Ferrous metal foundries	4,185	4,163	4,127	0.5	0.9	0.1	4,054	4,099	4,103	3,514	15.4
Fabricated metal products	117,625	117,774	118,021	-0.1	-0.2	0.0	116,318	117,987	119,213	114,685	1.4
Machinery	133,021	132,653	132,302	0.3	0.3	0.6	131,773	131,730	131,849	123,685	6.5
Construction machinery Mining, oil field, and	9,889	9,812	10,022	0.8	-2.1	-0.2	9,433	9,381	9,627	9,068	4.0
gas field machinery	5,173	5,160	5,155	0.3	0.1	2.4	5,173	5,160	5,155	4,987	3.7
Industrial machinery	12,682	12,724	12,756	-0.3	-0.3	0.7	12,680	12,554	12,675	11,028	15.0
Photographic equipment	3,070	3,103	3,158	-0.5	-0.3 -1.7	-0.1	3,290	3,262	3,085	3,458	-4.9
Ventilation, heating, air-conditioning,	3,070	3,103	3,130	1.1	1.7	0.1	3,230	3,202	3,003	3,430	7.5
and refrigeration equipment	12,103	11,901	11,650	1.7	2.2	2.6	11,779	11,797	11,687	8,733	34.9
Metalworking machinery	8,544	8,582	8,546	-0.4	0.4	0.3	8,471	8,491	8,562	8,216	
Turbines, generators, and other	0,544	0,302	0,540	0.4	0.4	0.5	0,471	0,431	0,302	0,210	3.1
power transmission equipment	33,238	33,233	33,238	0.0	0.0	-0.1	33,238	33,233	33,238	33,241	0.0
Material handling equipment	17,316	17,135	16,832	1.1	1.8	1.3	17,156	17,026	16,734	15,322	12.0
Computers and electronic products ²	140,432	140,548	140,589	-0.1	0.0	0.1	139,624	139,883	139,171	136,012	2.7
Computers	1,199	1,198	1,210	0.1	-1.0	-0.7	1,199	1,198	1,210	1,289	-7.0
Nondefense communications	1,199	1,198	1,210	0.1	-1.0	-0.7	1,199	1,198	1,210	1,209	-7.0
equipment	20,847	20,921	21,071	-0.4	-0.7	0.1	20,443	20,565	20,717	19,255	6.2
Defense communications equipment	314	313	315	0.4	-0. <i>7</i> -0.6	-0.9	301	309	303	323	-6.8
Electronic components	16,057	16,119	16,106	-0.4	0.0	0.4	15,902	15,928	15,840	15,479	2.7
Nondefense search and navigation	10,037	10,113	10,100	0.4	0.1	0.4	13,302	13,320	13,040	13,473	2.,
equipment	32,280	32,261	32,239	0.1	0.1	0.3	32,391	32,261	32,206	30,906	4.8
Defense search and navigation equipment	38,446	38,480	38,409	-0.1	0.2	-0.1	38,249	38,476	38,034	38,270	-0.1
Electromedical, measuring,	38,440	38,480	36,409	-0.1	0.2	-0.1	36,249	38,470	38,034	38,270	-0.1
and control instruments	31,289	31,256	31,239	0.1	0.1	0.3	31,139	31,146	30,861	30,490	2.1
Electrical equipment, appliances,	31,203	31,230	31,233	0.1	0.1	0.5	31,133	31,140	30,801	30,430	2.1
and components	40,167	39,910	39,674	0.6	0.6	1.0	39,697	39,376	39,483	36,074	10.0
Electric lighting equipment	2,312	2,270	2,280	1.9	-0.4	2.7	2,319	2,243	2,269	2,092	10.9
Household appliances	4,843	4,754	2,280 4,748	1.9	0.4	0.1	4,927	2,243 4,783	4,611	5,430	-9.3
Electrical equipment	16,936	16,877	16,788	0.3	0.5	1.1	16,609	16,434	16,821	14,101	17.8
Transportation equipment	670,862	664,094	659,013	1.0	0.8	0.6	665,254	661,001	654,756	605,861	9.8
Motor vehicle bodies, parts,	3, 3,332	33 1,334	333,013	1.0	0.0	0.0	333,234	231,001	33 1,730	203,001	3.0
and trailers	27,742	27,773	28,206	-0.1	-1.5	-0.8	26,505	27,266	27,724	26,393	0.4
Nondefense aircraft and parts	454,377	447,527	441,918	1.5	1.3	0.4	451,480	444,890	440,807	395,298	14.2
Defense aircraft and parts	60,323	60,276	61,221	0.1	-1.5	1.8	59,241	59,935	60,472	56,924	4.1
Ships and boats	50,635	51,159	51,793	-1.0	-1.2	3.7	49,654	50,368	50,556	50,524	-1.7
Furniture and related products	9,927	10,075	10,230	-1.5	-1.5	-1.0	9,873	10,084	10,114	10,400	

^p Preliminary

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/.

Source: U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders (M3) Survey, October Full Report, December 5, 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.

^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.

Table 4. Value of Manufacturers' Inventories for Industry Groups¹

Estimates are shown in millions of dollars a	and are basea	on data non	Seasonally Ad	-	J	cintories, a	The Graces sur		Seasonally Adjus	sted	
		Monthly		Pe	ercent Chang	e		Mor	nthly		% Change
Industry	Oct. 2022 ^p	Sep. 2022 ^r	Aug. 2022	Sep Oct.	Aug Sep.	July - Aug.	Oct. 2022 ^p	Sep. 2022 ^r	Aug. 2022	Oct. 2021	October 2022/ 2021
All manufacturing industries Excluding transportation Excluding defense With unfilled orders	805,278 648,413 778,714 391,097	801,300 644,204 774,904 390,571	800,301 642,901 773,650 390,121	0.5 0.7 0.5 0.1	0.1 0.2 0.2 0.1	-0.1 -0.2 -0.1 0.1	806,306 647,818 779,716 390,220	799,558 641,356 773,158 390,230	776,297	751,086 595,904 725,435 368,114	7.4 8.7 7.5 6.0
Durable goods industries	489,489	488,706	487,486	0.2	0.3	0.2	488,602	487,826	490,238	458,533	6.6
Wood products Nonmetallic mineral products Primary metals Iron and steel mills	14,662	14,742	14,744	-0.5	0.0	0.1	14,504	14,409	14,501	13,860	4.6
	16,474	16,401	16,273	0.4	0.8	0.6	16,110	16,168	16,181	14,548	10.7
	38,467	38,807	38,991	-0.9	-0.5	-0.2	38,117	38,453	38,890	36,130	5.5
	22,430	22,752	22,820	-1.4	-0.3	-0.5	22,309	22,572	22,730	21,667	3.0
Aluminum and nonferrous metals Ferrous metal foundries Fabricated metal products Machinery	13,285	13,351	13,469	-0.5	-0.9	0.2	13,107	13,273	13,495	11,972	9.5
	2,752	2,704	2,702	1.8	0.1	0.2	2,701	2,608	2,665	2,491	8.4
	62,399	62,587	62,752	-0.3	-0.3	0.2	61,683	62,289	62,805	58,417	5.6
	86,599	85,656	84,401	1.1	1.5	0.6	85,974	85,546	84,693	74,732	15.0
Farm machinery Construction machinery Mining, oil field, and gas field machinery	6,080	6,035	5,975	0.7	1.0	1.8	5,693	5,712	5,735	4,358	30.6
	7,321	7,223	7,137	1.4	1.2	-0.3	7,302	7,205	7,087	6,027	21.2
	6,426	6,295	6,178	2.1	1.9	0.0	6,490	6,308	6,233	5,943	9.2
Industrial machinery Photographic equipment Ventilation, heating, air-conditioning, and refrigeration equipment	11,143	10,964	10,732	1.6	2.2	0.8	10,835	11,322	10,970	9,153	18.4
	1,396	1,395	1,389	0.1	0.4	0.6	1,415	1,374	1,424	1,358	4.2
	8,104	7,937	7,782	2.1	2.0	1.7	7,959	7,671	7,651	6,349	25.4
Metalworking machinery Turbines, generators, and other power transmission equipment Material handling equipment	6,827	6,806	6,768	0.3	0.6	0.8	6,893	6,843	6,862	6,244	10.4
	10,644	10,587	10,294	0.5	2.8	-0.5	10,630	10,591	10,331	9,493	12.0
	7,087	6,983	6,895	1.5	1.3	1.7	7,232	7,108	7,014	6,288	15.0
Computers and electronic products ² Computers Computer storage devices Other peripheral equipment Nondefense communications	53,091	52,754	52,468	0.6	0.5	0.4	53,246	52,533	52,815	50,459	5.5
	2,126	2,133	2,148	-0.3	-0.7	0.9	2,101	2,248	2,261	2,012	4.4
	865	861	865	0.5	-0.5	0.5	878	848	911	902	-2.7
	968	955	948	1.4	0.7	3.8	956	935	962	785	21.8
equipment Defense communications equipment Audio and video equipment Electronic components	4,764	4,774	4,737	-0.2	0.8	0.0	4,885	4,775	4,881	4,701	3.9
	655	653	654	0.3	-0.2	-0.5	655	653	654	664	-1.4
	1,124	1,136	1,155	-1.1	-1.6	1.2	1,096	1,169	1,127	905	21.1
	10,198	10,025	9,876	1.7	1.5	-0.2	9,952	9,819	9,598	9,674	2.9
Nondefense search and navigation equipment Defense search and navigation	3,476	3,443	3,455	1.0	-0.3	1.6	3,545	3,462	3,510	3,232	9.7
equipment Electromedical, measuring	2,829	2,835	2,827	-0.2	0.3	-0.4	2,807	2,770	2,849	2,853	-1.6
and control instruments Electrical equipment, appliances,	18,064	18,025	17,953	0.2	0.4	0.5	18,170	18,006	18,213	16,976	7.0
and components Electric lighting equipment Household appliances Electrical equipment Batteries Transportation equipment Automobiles Light trucks and utility vehicles Heavy duty trucks	23,359 2,106 3,168 8,054 1,570 156,865 6,643 9,994 2,948	23,259 2,106 3,200 7,953 1,567 157,096 6,234 10,486 2,909	23,170 2,091 3,292 7,809 1,560 157,400 6,313 10,064 2,853	0.4 0.0 -1.0 1.3 0.2 -0.1 6.6 -4.7 1.3	0.4 0.7 -2.8 1.8 0.4 -0.2 -1.3 4.2 2.0	1.0 0.8 -3.9 2.1 -0.6 -0.1 2.9 -0.6	22,949 2,113 3,199 7,747 1,553 158,488 6,962 10,371 2,907	22,841 2,107 3,183 7,549 1,616 158,202 6,436 10,744 2,877	23,414 2,104 3,428 7,881 1,625 159,307 6,681 10,517 2,855	20,435 2,086 2,911 6,624 1,548 155,182 6,901 9,126 2,637	12.3 1.3 9.9 17.0 0.3 2.1 0.9 13.6 10.2
Motor vehicle bodies, parts, and trailers Nondefense aircraft and parts Defense aircraft and parts Ships and boats Furniture and related products Miscellaneous durable goods	32,310	32,282	32,466	0.1	-0.6	-0.2	32,045	32,220	32,465	30,723	4.3
	74,952	75,331	75,725	-0.5	-0.5	-0.4	76,019	75,946	76,515	77,259	-1.6
	12,776	12,764	12,873	0.1	-0.8	-1.6	12,781	12,747	12,897	12,675	0.8
	4,627	4,521	4,597	2.3	-1.7	2.3	4,680	4,614	4,670	3,921	19.4
	10,087	10,024	9,987	0.6	0.4	0.7	9,828	9,914	10,049	8,662	13.5
	27,486	27,380	27,300	0.4	0.3	0.4	27,703	27,471	27,583	26,108	6.1
Nondurable goods industries	315,789	312,594	312,815	1.0	-0.1	-0.7	317,704	311,732	312,821	292,553	8.6
	63,855	63,571	63,064	0.4	0.8	0.5	67,015	64,098	62,807	62,964	6.4
Grain and oilseed milling Dairy products Meat, poultry, and seafood products Beverage and tobacco products Beverages Tobacco	7,806	7,812	7,848	-0.1	-0.5	0.4	8,092	7,620	7,646	7,411	9.2
	9,443	9,382	9,334	0.7	0.5	-0.4	9,257	9,344	9,418	8,272	11.9
	11,107	11,101	11,034	0.1	0.6	1.0	11,326	11,224	11,200	10,521	7.7
	28,447	28,449	28,461	0.0	0.0	0.6	28,669	28,084	27,794	27,157	5.6
	24,811	24,792	24,814	0.1	-0.1	0.7	24,981	24,577	24,406	23,562	6.0
	3,636	3,657	3,647	-0.6	0.3	-0.4	3,688	3,507	3,388	3,595	2.6
Textile mills Textile products Apparel Leather and allied products	3,632	3,626	3,635	0.2	-0.2	-0.6	3,592	3,615	3,646	3,156	13.8
	4,326	4,333	4,330	-0.2	0.1	0.5	4,320	4,345	4,333	4,011	7.7
	2,394	2,395	2,381	0.0	0.6	2.5	2,470	2,468	2,503	1,972	25.3
	1,263	1,221	1,186	3.4	3.0	3.1	1,237	1,213	1,209	841	47.1
	16,738	16,750	16,708	-0.1	0.3	0.3	16,495	16,772	16,867	15,544	6.1
Paper products Pulp, paper, and paperboard mills Paperboard containers Printing Petroleum and coal products Petroleum refineries Chemical products	5,035 6,175 6,459 51,559 44,613 105,106	5,070 6,144 6,503 48,669 41,855 105,028	5,001 6,154 6,503 49,449 42,969 104,937	-0.1 -0.7 0.5 -0.7 5.9 6.6 0.1	0.3 1.4 -0.2 0.0 -1.6 -2.6 0.1	0.3 0.4 0.3 0.6 -6.2 -6.1 0.3	4,925 6,121 6,653 50,720 43,985 104,710	5,023 6,183 6,678 48,221 41,472 104,224	5,020 6,238	4,750 5,645 6,303 42,223 36,609 98,913	3.7 8.4 5.6 20.1 20.1 5.9
Pesticides, fertilizers, and other agricultural chemicals Pharmaceuticals and medicines Paints, coatings, and adhesives Plastics and rubber products	6,850 43,144 5,311 32,010	6,878 43,003 5,246 32,049	6,822 43,047 5,167 32,161	-0.4 0.3 1.2 -0.1	0.8 -0.1 1.5 -0.3	0.6 -0.1 1.8 0.3		6,599 42,644 5,141 32,014	6,592 42,834 5,111 32,195	5,499 43,312 4,081 29,469	19.5 0.0 26.3 8.0

^p Preliminary

r Revised data due to late receipts and concurrent seasonal adjustment.

¹Estimates 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.

Table 5. Value of Manufacturers' Shipments, New Orders, Unfilled Orders, and Total Inventories for Topical Series^{1, 2}

Lestimates are snown in millions of dolla			asonally Adju						<i></i>	Seasonally A	Adjusted		
		Monthly		Pei	rcent Chai	nge		Mon	thly		Year t	o date	
Industry	Oct. 2022 ^p	Sep. 2022 ^r	Aug. 2022	Sep Oct.	Aug Sep.	July - Aug.	Oct. 2022 ^p	Sep. 2022 ^r	Aug. 2022	Oct. 2021	2022 ^p	2021	% Change ⁶ 2022/ 2021
<u>SHIPMENTS</u>													
All manufacturing industries	554,785	550,844	549,197	0.7	0.3	0.7	559,641	567,627	570,039	506,744	5,415,219	4,796,153	12.9
Construction materials and supplies Information technology Computers and related products Motor vehicle and parts	61,419 25,301 2,269 61,897	61,329 25,028 2,170 61,757	61,503 25,169 2,167 60,263	1.1 4.6	-0.6 0.1	0.1 0.8 0.1 1.0	63,656 24,842 2,271 63,551	64,113 27,819 2,470 65,138	67,523 25,044 2,126 65,299	60,390 22,597 1,679 55,083	243,672 19,618	567,710 225,993 17,078 516,098	7.8 14.9
Capital goods Nondefense capital goods ³ Excluding aircraft Defense capital goods ⁴	98,376 84,069 75,197 14,307	97,199 82,827 74,080 14,372	97,643 83,134 74,121 14,509	1.5 1.5	-0.4 -0.1	2.8 3.1 0.2 1.4	95,797 81,807 74,446 13,990	105,079 89,440 78,745 15,639	96,155 82,126 74,924 14,029	85,595 72,225 67,151 13,370	797,495 727,973	840,968 711,485 652,749 129,483	12.1 11.5
Consumer goods Consumer durable goods Consumer nondurable goods	241,580 46,583 194,997	238,616 46,619 191,997	235,803 45,259 190,544	-0.1	3.0		245,487 47,582 197,905	241,178 49,604 191,574	244,487 48,235 196,252	212,116 41,693 170,423	441,901	1,972,030 393,234 1,578,796	12.4
NEW ORDERS All manufacturing industries ⁵	556,645	550,895	549,508	1.0	0.3	0.2	555,957	566,852	564,326	500,376	5,424,886	4,809,634	12.8
Construction materials and supplies Information technology Computers and related products Motor vehicle and parts	61,632 25,281 2,270 61,866	61,568 25,070 2,158 61,324	61,803 25,465 2,159 60,033	0.1 0.8 5.2	-0.4 -1.6 0.0	0.4 0.3	62,462 24,563 2,272 62,790	63,471 28,754 2,458 64,680	66,927 24,320 2,118	59,870 23,351 1,648 54,835	626,713 245,115 19,598	588,142 233,174 16,990 518,790	6.6 5.1 15.4
Capital goods Nondefense capital goods ³ Excluding aircraft Defense capital goods ⁴	105,077 90,969 75,275 14,108	102,993 89,346 74,819 13,647	102,525 86,162 75,379 16,363	1.8 0.6	3.7 -0.7	0.3 -1.1 0.9 8.4	100,610 88,498 74,324 12,112	111,392 93,766 78,907 17,626	97,526 82,846 74,625 14,680	86,620 75,380 69,852 11,240	853,763 737,177	873,838 744,948 675,130 128,890	14.6 9.2
Consumer goods Consumer durable goods Consumer nondurable goods	241,585 46,588 194,997	238,599 46,602 191,997	235,720 45,176 190,544	0.0	3.2	0.2 1.1 0.0	245,513 47,608 197,905	241,442 49,868 191,574	244,355 48,103 196,252	211,773 41,350 170,423	441,262	1,974,210 395,414 1,578,796	11.6
<u>UNFILLED ORDERS</u>													
All manufacturing industries ⁵	1,143,979	1,137,101	1,131,950	0.6	0.5	0.5	1,133,568	1,131,417	1,126,341	1,057,901	(X)	(X)	7.2
Construction materials and supplies Information technology Computers and related products Motor vehicle and parts	89,686 143,521 1,199 27,742	89,473 143,541 1,198 27,773	89,234 143,499 1,210 28,206	0.0 0.1	0.0 -1.0	0.2	88,335 142,854 1,199 26,505	89,529 143,133 1,198 27,266	90,171 142,198 1,210 27,724	84,510 138,442 1,289 26,393	(X) (X)	(X) (X) (X) (X)	3.2 -7.0
Capital goods Nondefense capital goods ³ Excluding aircraft Defense capital goods ⁴	839,121 652,181 267,596 186,940	832,420 645,281 267,518 187,139	826,626 638,762 266,779 187,864	1.1 0.0	1.0 0.3	0.6 0.5 0.5 1.0	833,506 647,896 265,498 185,610	828,693 641,205 265,620 187,488	822,380 636,879 265,458 185,501	768,614 580,302 253,232 188,312	(X)	(X) (X) (X) (X)	11.6 4.8
Consumer goods Consumer durable goods	10,757 10,757	10,752 10,752	10,769 10,769			-0.8 -0.8	10,856 10,856	10,830 10,830	10,566 10,566	11,750 11,750	• •	(X) (X)	
TOTAL INVENTORIES													
All manufacturing industries	805,278	801,300	800,301	0.5	0.1	-0.1	806,306	799,558	803,059	751,086	(X)	(X)	7.4
Construction materials and supplies Information technology Computers and related products Motor vehicle and parts	87,137 44,842 3,959 51,895	87,078 44,755 3,949 51,911	86,736 44,660 3,961 51,696	0.2 0.3	0.2 -0.3	0.5 0.9 1.5 0.4	85,832 44,958 3,935 52,285	86,119 44,732 4,031 52,277	86,192 45,278 4,134 52,518	79,689 41,755 3,699 49,387	(X) (X)	(X) (X) (X) (X)	7.7 6.4
Capital goods Nondefense capital goods ³ Excluding aircraft Defense capital goods ⁴	238,163 215,604 151,315 22,559	237,277 214,869 150,196 22,408	236,338 213,660 148,613 22,678	0.3 0.7	0.6 1.1	0.3 0.4 0.7 -0.7	238,524 215,944 150,555 22,580	237,623 215,194 149,853 22,429	238,474 215,709 149,889 22,765	223,461 201,707 134,978 21,754	(X)	(X) (X) (X) (X)	7.1 11.5
Consumer goods Consumer durable goods Consumer nondurable goods	246,187 43,781 202,406	242,974 43,809 199,165	243,037 43,557 199,480	1.3 -0.1	0.6		249,686 44,500 205,186	243,047 44,322 198,725	243,749 44,730 199,019	230,536 40,575 189,961	(X) (X)	(X) (X) (X)	9.7

X Not Applicable

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/.

Source: U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders (M3) Survey, October Full Report, December 5, 2022. Information on data sources and methodology can be found on our website at http://www.census.gov/manufacturing/m3/how_the_data_are_collected/index.html.

^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 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.

²Topical 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, 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.

Table 6. Value of Manufacturers' Inventories, by Stage of Fabrication, by Industry Group¹

[Estimates are shown in millions of dollars	and are based	on data nom	Seasonally Ad	-	nents, mve	intories, and	orders survey	_	Seasonally Adjus	sted	
Industry		Monthly		P	ercent Chang	re I	1	Mor	nthly I I		% Change October
mustry	Oct. 2022 ^p	Sep. 2022 ^r	Aug. 2022	Sep Oct.	Aug Sep.	July - Aug.	Oct. 2022 ^p	Sep. 2022 ^r	Aug. 2022	Oct. 2021	2022/ 2021
MATERIALS AND SUPPLIES											
All manufacturing industries	297,397	296,095	294,673	0.4	0.5	0.1	. 296,513	295,613	294,978	269,991	9.8
Durable goods industries	181,759	180,955	180,464	0.4	0.3		· ·	181,149	· · · · · · · · · · · · · · · · · · ·	165,044	9.8
Wood products Nonmetallic mineral products	6,453 7,308	6,505 7,308	6,540 7,259	-0.8 0.0	-0.5 0.7			6,478 7,277	· ·	6,076 6,224	6.7 16.4
Primary metals Fabricated metal products	14,198 25,120	14,182	14,305	0.1 -0.7	-0.9 -0.9			14,151	-	13,206	8.1 5.4
Machinery	25,139 37,715	25,328 37,115	25,556 36,473	1.6	-0.9 1.8		24,896 37,560	25,505 37,144		23,623 32,446	5.4 15.8
Computers and electronic products Electrical equipment, appliances,	25,398	25,405	25,294	0.0	0.4	1.3	25,468	25,445	25,501	22,716	12.1
and components	11,027	10,998	11,019	0.3	-0.2		· ·	10,818	*	9,249	16.9
Transportation equipment Furniture and related products	40,739 4,806	40,420 4,807	40,311 4,876	0.8 0.0	0.3 -1.4		· ·	40,678 4,721	*	38,770 4,099	5.3 13.6
Miscellaneous products	8,976	8,887	8,831	1.0	0.6			8,932	1	8,635	4.3
Nondurable goods industries	115,638	115,140	114,209	0.4	0.8		· ·	114,464	-	104,947	9.9
Food products Beverage and tobacco products	24,559 5,832	24,507 5,853	24,065 5,718	0.2 -0.4	1.8 2.4		· ·	24,414 5,734	-	23,848 6,101	5.8 -3.4
Textiles Textile products	1,445 1,568	1,433 1,577	1,431 1,583	0.8 -0.6	0.1 -0.4	-0.9 -2.3		1,426 1,582		1,278 1,415	11.2 10.3
Apparel	731	735	739	-0.5	-0.5	0.3	741	745	766	660	12.3
Leather and allied products Paper products	397 8,841	385 8,853	376 8,873	3.1 -0.1	2.4 -0.2	0.8 0.9		384 8,896		301 8,063	28.9 8.4
Printing	3,444	3,443	3,369	0.0	2.2		1	3,525	3,416	3,179	10.1
Petroleum and coal products Chemical products	17,995 36,728	17,505 36,647	17,664 36,467	2.8 0.2	-0.9 0.5		,	17,178 36,283	*	14,101 33,049	23.9 10.2
Plastics and rubber products	14,098	14,202	13,924	-0.7	2.0	0.6	13,955	14,297	14,071	12,952	7.7
WORK IN PROCESS											
All manufacturing industries	224,688	224,408	224,917	0.1	-0.2	-0.5	226,533	224,165	226,201	217,526	4.1
Durable goods industries Wood products	171,865 2,116	172,380 2,088	172,469 2,053	-0.3 1.3	-0.1 1.7	0.2 -1.8	· ·	172,816 2,031		167,880 1,941	2.7 7.1
Nonmetallic mineral products	1,502	1,493	1,484	0.6	0.6	0.0	1,442	1,458	1,475	1,451	-0.6
Primary metals Fabricated metal products	12,549 14,901	12,782 14,834	12,667 14,918	-1.8 0.5	0.9 -0.6		*	12,793 14,769		12,271 13,965	2.2 6.3
Machinery	23,700	23,805	23,514	-0.4	1.2		23,444	24,027	23,776	19,905	17.8 -5.1
Computers and electronic products Electrical equipment, appliances,	13,379	13,255	13,219	0.9	0.3	0.8	13,218	12,936	12,935	13,928	-5.1
and components Transportation equipment	4,303 93,354	4,270 93,823	4,223 94,412	0.8 -0.5	1.1 -0.6	0.3 -0.4	,	4,182 94,528	*	3,946 94,887	7.7 -0.4
Furniture and related products	1,423	1,383	1,347	2.9	2.7	0.0	1,405	1,387	1,348	1,329	5.7
Miscellaneous products	4,638	4,647	4,632	-0.2	0.3		,	4,705		4,257	10.5
Nondurable goods industries Food products	52,823 5,975	52,028 5,838	52,448 6,086	1.5 2.3	-0.8 -4.1	-3.0 3.5	· ·	51,349 5,440		49,646 6,443	9.0 6.4
Beverage and tobacco products	8,816	8,835	9,003	-0.2	-1.9	0.1	9,055	8,778	8,666	8,913	1.6
Textiles Textile products	609 454	616 464	622 470	-1.1 -2.2	-1.0 -1.3			619 473		590 417	3.1 8.6
Apparel Leather and allied products	287 120	284 118	283 118	1.1 1.7	0.4 0.0	0.7 -4.1		290 116		280 117	4.3 0.0
Paper products	1,429	1,427	1,407	0.1	1.4	-2.2	1,410	1,416	1,439	1,359	3.8
Printing Petroleum and coal products	1,186 14,600	1,198 13,898	1,260 13,218	-1.0 5.1	-4.9 5.1	0.2 -11.4		1,258 13,810	*	1,310 10,758	-3.8 36.6
Chemical products Plastics and rubber products	15,882 3,465	15,945 3,405	16,386 3,595	-0.4 1.8	-2.7 -5.3	-0.8 1.2	1	15,716 3,433	*	15,946 3,513	-0.3 -0.7
FINISHED GOODS	3,403	3,403	3,333	1.6	-5.5	1.2	. 3,490	5,455	3,013	3,313	-0.7
All manufacturing industries	283,193	280,797	280,711	0.9	0.0	-0.1	283,260	279,780	281,880	263,569	7.5
Durable goods industries	135,865	135,371	134,553	0.4	0.6		ŕ	133,861		125,609	7.5
Wood products	6,093	6,149	6,151	-0.9	0.0	2.3	5,945	5,900	5,971	5,843	1.7
Nonmetallic mineral products Primary metals	7,664 11,720	7,600 11,843	7,530 12,019	0.8 -1.0	0.9 -1.5			7,433 11,509	, , , , , , , , , , , , , , , , , , ,	6,873 10,653	8.0 6.1
Fabricated metal products	22,359	22,425	22,278	-0.3	0.7	0.5	21,936	22,015	22,160	20,829	5.3
Machinery Computers and electronic products	25,184 14,314	24,736 14,094	24,414 13,955	1.8 1.6	1.3 1.0			24,375 14,152	-	22,381 13,815	11.6 5.4
Electrical equipment, appliances, and components	8,029	7,991	7,928	0.5	0.8	0.6	7,886	7,841	8,016	7,240	8.9
Transportation equipment	22,772	22,853	22,677	-0.4	0.8	2.8	23,209	22,996	23,401	21,525	7.8
Furniture and related products Miscellaneous products	3,858 13,872	3,834 13,846	3,764 13,837	0.6 0.2	1.9 0.1	1.2 0.4		3,806 13,834	1	3,234 13,216	16.5 5.9
Nondurable goods industries	147,328	145,426	146,158	1.3	-0.5		,	145,919		137,960	7.5
Food products	33,321	33,226	32,913	0.3	1.0	0.3	34,936	34,244	33,573	32,673	6.9
Beverage and tobacco products Textiles	13,799 1,578	13,761 1,577	13,740 1,582	0.3 0.1	0.2 -0.3	0.4 -0.5	13,718 1,563	13,572 1,570		12,143 1,288	13.0 21.4
Textile products Apparel	2,304 1,376	2,292 1,376	2,277 1,359	0.5 0.0	0.7 1.3	2.3 4.1		2,290 1,433	-	2,179 1,032	5.8 39.2
Leather and allied products	746	718	692	3.9	3.8	5.8	732	713	704	423	73.0
Paper products Printing	6,468 1,829	6,470 1,862	6,428 1,874	0.0 -1.8	0.7 -0.6	0.0 1.5	1	6,460 1,895	*	6,122 1,814	3.6 4.4
Petroleum and coal products	18,964	17,266	18,567	9.8	-7.0	-7.8	18,557	17,233	18,759	17,364	6.9
Chemical products Plastics and rubber products	52,496 14,447	52,436 14,442	52,084 14,642	0.1 0.0	0.7 -1.4	0.7 -0.2	•	52,225 14,284		49,918 13,004	5.0 10.6
	<u> </u>					<u> </u>	1		<u> </u>		

^p Preliminary

^r 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 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.

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.]

	Inve	entory/Ship	oments rati	io	Unfille	ed Orders/	Shipments	ratio ²
Industry	Oct 2022 ^p	Sep 2022 ^r	Aug 2022	Jul 2022	Oct 2022 ^p	Sep 2022 ^r	Aug 2022	Jul 2022
All manufacturing industries ³	1.45	1.45	1.46	1.47	(X)	(X)	(X)	(X)
Durable goods industries ³	1.78	1.78	1.78	1.80	6.03	6.03	5.98	6.05
Wood products	1.15	1.15	1.15	1.15	(X)	(X)	(X)	(X)
Nonmetallic mineral products	1.30	1.31	1.30	1.29	(X)	(X)	(X)	(X)
Primary metals	1.89	1.91	1.88	1.89	1.50		1.48	1.49
Fabricated metal products	1.70	1.71	1.70	1.69	3.29	3.29	3.28	3.26
Machinery	2.23	2.24	2.21	2.21	3.75	3.82	3.83	3.84
Computers and electronic products ³ Electrical equipment, appliances,	1.80	1.80	1.80	1.79	6.24	6.28	6.27	6.25
and components	1.73	1.73	1.72	1.74	3.21	3.19	3.18	3.22
Transportation equipment	1.72	1.73	1.76	1.82	11.88	11.82	11.66	12.16
Furniture and related products	1.61	1.61	1.61	1.60	1.79	1.82	1.86	1.89
Miscellaneous products	1.95	1.96	1.94	1.94	(X)	(X)	(X)	(X)
Nondurable goods industries	1.13	1.13	1.13	1.14	(X)	(X)	(X)	(X)
Food products	0.84	0.84	0.83	0.82	(X)	(X)	(X)	(X)
Beverage and tobacco products	1.69	1.68	1.68	1.72	(X)	(X)	(X)	(X)
Textiles	1.57	1.56	1.55	1.57	(X)	(X)	(X)	(X)
Textile products	2.21	2.17	2.18	2.18	(X)	(X)	(X)	(X)
Apparel	3.17	3.25	3.32	3.21	(X)	(X)	(X)	(X)
Leather and allied products	2.68	2.64	2.67	2.73	(X)	(X)	(X)	(X)
Paper products	1.03	1.03	1.03	1.03	(X)	(X)	(X)	(X)
Printing	0.91	0.93	0.94	0.93	(X)	(X)	(X)	(X)
Petroleum and coal products	0.75	0.74	0.76	0.80	(X)	(X)	(X)	(X)
Chemical products	1.58	1.58	1.57	1.58	(X)	(X)	(X)	(X)
Plastics and rubber products	1.44	1.44	1.43	1.43	(X)	(X)	(X)	(X)

X Not Applicable

² Excludes the following industries with no unfilled orders: Wood products; nonmetallic mineral products; medical equipment and supplies; office supplies; other miscellaneous manufacturing; cutlery and handtools; farm and garden machinery; computer storage and peripheral devices; audio and video equipment; manufacturing and reproducing magnetic and optical media; batteries; automobiles; light trucks and utility vehicles; heavy duty trucks; and miscellaneous furniture.

³ Unfilled orders to shipments ratio excludes semiconductor manufacturing.

Note: Estimates of manufacturers' shipments, inventories and orders are subject to survey error and revision. One major component of survey error is nonsampling error, which includes errors of coverage, response, and nonreporting. Since the survey panel is not a probability sample, estimates of sampling error cannot be calculated. For further details on survey design, methodology, and data limitations see http://www.census.gov/manufacturing/m3/. Source: U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders (M3) Survey, October Full Report, December 5, 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 8. Revisions to Previously Published Monthly Percent Changes 1

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

	Shipr	ments	New C	Orders	Unfilled	Orders	Inven	tories
Industry	Oct ²	Oct ³ 2021- Sep						
	2022	2022	2022	2022	2022	2022	2022	2022
All manufacturing industries	(X)	0.2	(X)	0.3	(X)	0.1	(X)	0.1
Durable goods industries	0.0	0.2	0.1	0.5	0.0	0.1	0.0	0.1
Wood products	(X)	0.2	(X)	(NA)	(X)	(NA)	(X)	0.2
Nonmetallic mineral products	(X)	0.5	(X)	(NA)	(X)	(NA)	(X)	0.2
Primary metals	-0.2	0.4	0.2	0.6	0.1	0.3	-0.1	0.:
Fabricated metal products	0.1	0.2	0.1	0.4	0.0	0.1	-0.2	0.
Machinery	0.1	0.3	0.0	0.4	0.0	0.1	0.0	0.
Computers and electronic products	0.0	0.2	0.1	0.4	0.0	0.1	0.0	0.
Electrical equipment, appliances,								
and components	0.2	0.4	0.1	0.7	0.0	0.2	-0.3	0.
Transportation equipment	0.1	0.4	0.1	1.5	0.0	0.1	0.1	0.
Furniture and related products	(X)	0.4	(X)	0.6	(X)	0.4	(X)	0.
Miscellaneous products	(X)	0.4	(X)	0.4	(X)	0.4	(X)	0.:
Nondurable goods industries	(X)	0.3	(X)	(NA)	(X)	(NA)	(X)	0.
Food products	(X)	0.1	(X)	(NA)	(X)	(NA)	(X)	0.
Beverage and tobacco products	(X)	0.4	(X)	(NA)	(X)	(NA)	(X)	0.
Textiles	(X)	0.4	(X)	(NA)	(X)	(NA)	(X)	0.4
Textile products	(X)	0.5	(X)	(NA)	(X)	(NA)	(X)	0.
Apparel	(X)	0.6	(X)	(NA)	(X)	(NA)	(X)	0.
Leather and allied products	(X)	0.8	(X)	(NA)	(X)	(NA)		0.
Paper products	(X)	0.2	(X)	(NA)	(X)	(NA)	(X)	0.
Printing	(X)	0.8	(X)	(NA)	(X)	(NA)	(X)	0.
Petroleum and coal products	(X)	1.0	(X)	(NA)	(X)	(NA)	(X)	0.
Chemical products	(X)	0.3	(X)	(NA)	(X)	(NA)	(X)	0.
Plastics and rubber products	(X)	0.2	(X)	(NA)	(X)	(NA)	(X)	0.

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 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 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 months 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, estimates of sampling error cannot be calculated. For further details on survey design, methodology, and data limitations see http://www.census.gov/manufacturing/m3/.

Source: U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders (M3) Survey, October Full Report, December 5, 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>.

^p Preliminary

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