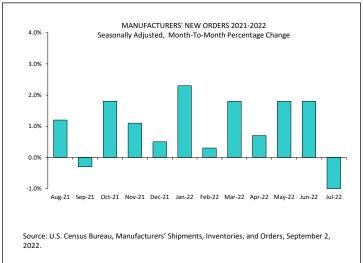
FOR RELEASE AT 10:00 AM EDT, FRIDAY, SEPTEMBER 2, 2022

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

Release Number: CB 22-135 M3-2 (22)-07

September 2, 2022 — The U.S. Census Bureau announces the July full report on manufacturers' shipments, inventories and orders:





Summary

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

New Orders

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

Data Inquiries

Economic Indicators Division, Shipments, Inventories, and Orders Branch (M3) 301-763-4832 eid.m3.qs@census.gov



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

Shipments

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

Unfilled Orders

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

Inventories

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

The Advance Report on durable goods for August is scheduled for release on September 27, 2022, at 8:30 a.m. EDT and the Full Report on October 4, 2022, at 10:00 a.m. EDT. View the full schedule in the Economic Briefing Room: www.census.gov/economic-indicators/>. The full text and tables of this release can be found at www.census.gov/m3>.

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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>.

Special Notice - New Advance Estimates Of Total Manufacturing

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

RESOURCES

API

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

<www.census.gov/developers/>.

FRED Mobile App



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

			asonally Adj	<u> </u>						Seasonally Ad	•		
Industry		Monthly		Pei	rcent Chai	nge		Mor	nthly			Year to date	% Change
muustiy	July 2022 ^p	June 2022 ^r	May 2022	June - July	May - June	Apr May	July 2022 ^p	June 2022 ^r	May 2022	July 2021	2022 ^p	2021	2022/ 2021
All manufacturing industries	545,497	550,206	545,675			2.1	523,696	586,711	553,393	472,635	3,718,439	3,279,502	13.4
Excluding transportation Excluding defense	459,289 529,121	464,926 534,326	460,563 529,519		0.9 0.9	2.0 2.1	450,454 508,971	492,725 569,839	469,929 537,837	405,687 458,474	3,144,913 3,610,508	2,767,146 3,177,525	13.7 13.6
With unfilled orders	186,554	185,506	185,669			1.5	172,412	203,114	185,852	159,025	1,270,224	1,133,309	12.1
Durable goods industries	270,137	269,545	268,814	0.2	0.3	1.5	249,255	292,868	268,375	231,481	1,835,435	1,652,166	11.1
Wood products	12,793	12,851	13,071		-1.7	-0.6	12,985	14,068	14,111	12,763	91,366	85,964	6.3
Nonmetallic mineral products	12,643	12,550	12,446	0.7	0.8	0.4	12,965	13,881	12,868	12,130	85,960	79,422	8.2
Primary metals Iron and steel mills	20,794 12,479	21,394 12,446	21,509 12,415		-0.5 0.2	2.2 3.0	19,732 11,957	22,572 12,966	21,995 12,766	18,641 10,617	147,108 84,920	128,324 71,176	14.6 19.3
Aluminum and nonferrous metals	6,882	7,459	7,561	-7.7	-1.3	1.3	6,429	7,901	7,621	6,660	51,682	47,989	7.7
Ferrous metal foundries Fabricated metal products	1,433 37,306	1,489 37,079	1,533 36,849			0.3 0.8	1,346 35,661	1,705 39,391	1,608 37,721	1,364 32,644	10,506 255,571	9,159 224,664	14.7 13.8
Machinery	37,993	37,760	37,587	0.6	0.5	1.4	35,824	41,463	38,062	32,652	260,799	228,260	14.3
Farm machinery Construction machinery	2,869 3,683	2,807 3,593	2,754 3,557			8.6 -0.4	2,647 3,599	2,901 4,048	2,881 3,700	2,395 2,854	19,748 24,855	19,126 20,030	3.3 24.1
Mining, oil field, and	3,083	3,393	3,337	2.5	1.0	-0.4	3,399	4,048	3,700	2,834	24,633	20,030	24.1
gas field machineryIndustrial machinery	1,522 6,216	1,454 6,258	1,509 6,260		-3.6 0.0	6.3 0.8	1,415 5,804	1,515 7,062	1,462 5,978	1,232 4,915	9,807 42,325	8,673 28,406	13.1 49.0
Photographic equipment	504	534	523			2.1	478	603	3,978 498	528	3,563	3,572	-0.3
Ventilation, heating, air-conditioning,	<i>1</i> E01	A 61 A	4 570	0.7	0.0	1.2	4.750	E 721	4 019	4 250	22.404	20 025	12.0
and refrigeration equipment Metalworking machinery	4,581 2,653	4,614 2,618	4,578 2,636		0.8 -0.7	1.2 0.2	4,759 2,369	5,721 2,782	4,918 2,556	4,359 2,420	32,404 17,832	28,925 17,569	12.0 1.5
Turbines, generators, and other	2 257	2 245	2 402	0.4	1.0	2.4	2 420	2 207	2.265	2 100	22.402	22.205	0.4
power transmission equipment Material handling equipment	3,257 3,412	3,245 3,421	3,183 3,450			2.1 -1.8	3,128 3,075	3,287 3,560	3,265 3,449	3,100 2,669	22,483 23,854	22,395 19,065	0.4 25.1
Computers and electronic products ²	29,088	29,030	28,579	0.2	1.6	0.6	27,214	31,441	26,926	25,433	192,463	181,966	5.8
Computers Computer storage devices	763 668	742 670	732 663		1.4 1.1	-0.4 2.0	735 565	884 898	742 548	706 471	4,940 4,356	4,958 3,824	-0.4 13.9
Other peripheral equipment	633	572	454		26.0	1.1	692	648	405	440	3,455	2,965	16.5
Nondefense communications equipment	3,168	3,097	3,053	2.3	1.4	1.3	2,660	3,837	2,802	2,360	20,360	18,392	10.7
Defense communications equipment	215	209	206			-3.7	200	215	198	194	1,412	1,316	7.3
Audio and video equipment	378 4,608	341 4,562	401 4,593		-15.0 -0.7	-11.9 1.9	323 4,449	271 4,910	375 4,625	272 3,952	2,478 31,253	1,871	32.4 14.8
Electronic components Nondefense search and navigation	4,000	4,302	4,333	1.0	-0.7	1.9	4,443	4,910	4,023	3,932	31,233	27,235	14.0
equipment Defense search and navigation	1,654	1,649	1,626	0.3	1.4	-2.2	1,429	1,798	1,600	1,418	11,130	10,948	1.7
equipment	3,161	3,195	3,232	-1.1	-1.1	0.7	2,888	3,374	3,155	2,961	21,712	21,668	0.2
Electromedical, measuring, and control instruments Electrical equipment, appliances,	8,865	8,956	8,628	-1.0	3.8	0.6	8,260	9,732	8,112	7,700	58,403	56,532	3.3
and components	13,142	13,405	13,383			2.2	12,441	14,830	13,365	11,883	90,830	81,656	11.2
Electric lighting equipment Household appliances	1,043 2,667	1,033 2,809	1,022 2,754		1.1 2.0	0.2 4.4	1,005 2,303	1,089 3,064	1,048 2,695	967 2,324	7,085 18,037	6,975 16,981	1.6 6.2
Electrical equipment	3,742	3,745	3,781	-0.1	-1.0	3.2	3,500	4,439	3,816	3,459	25,869	24,089	7.4
Batteries Transportation equipment	948 86,208	955 85,280	935 85,112		2.1 0.2	0.2 2.5	833 73,242	980 93,986	886 83,464	763 66,948	6,235 573,526	5,471 512,356	14.0 11.9
Automobiles	7,272	7,322	7,269	-0.7	0.7	-6.1	6,179	7,676	7,120	5,717	50,081	46,793	7.0
Light trucks and utility vehicles Heavy duty trucks	22,661 2,398	23,209 2,337	22,538 2,281			6.4 -0.3	18,139 2,237	24,674 2,519	21,462 2,294	16,980 1,754	147,105 15,934	128,484 13,410	14.5 18.8
Motor vehicle bodies, parts,	2,390	2,337	2,201	2.0	2.3	-0.3	2,237	2,319	2,234	1,734	13,334	13,410	10.0
and trailers Nondefense aircraft and parts	27,272 10,460	26,783 10,085	26,620 10,850		0.6 -7.1	0.5 5.8	23,806 8,514	27,972 14,417	27,356 9,914	21,475 7,873	184,839 70,444	165,517 61,852	11.7 13.9
Defense aircraft and parts	5,187	5,377	5,359			0.6	4,635	5,972	5,151	4,907	35,869	35,762	0.3
Ships and boats	3,567		3,539			3.0	•		3,768	3,308	24,391		
Furniture and related products Miscellaneous durable goods	6,187 13,983	6,158 14,038	6,218 14,060			1.0 0.4	6,234 12,957	6,390 14,846	6,212 13,651	5,853 12,534	42,528 95,284	39,954 89,600	6.4 6.3
Nondurable goods industries	275,360	280,661	276,861	-1.9	1.4	2.7	274,441	293,843	285,018	241,154	1,883,004	1,627,336	15.7
Food products	76,088	76,031	75,903		0.2	-0.2	73,465	76,155	76,135	70,920	520,278	494,705	5.2
Grain and oilseed milling	9,233	9,235	9,197	0.0	0.4	0.4	8,879	9,314	9,221	8,200	62,575	55,711	12.3
Dairy products Meat, poultry, and seafood products	12,042 22,749	12,066 22,838	11,957 23,139		0.9 -1.3	0.1 0.4	11,871 22,382	12,103 23,806	12,097 23,869	10,947 21,974	81,646 159,132	76,437 149,537	6.8 6.4
Beverage and tobacco products	16,408	16,557	15,987	-0.9	3.6	2.8	16,495	17,338	16,581	14,211	109,328	94,894	15.2
Beverages Tobacco	9,926 6,482	9,860 6,697	9,757 6,230		1.1 7.5	-1.1 9.5	10,013 6,482	10,641 6,697	10,351 6,230	9,679 4,532	68,199 41,129	64,238 30,656	6.2 34.2
Textile mills	2,299	2,286	2,302	0.6		-0.9	2,296	2,434	2,358	2,293	16,289	15,732	3.5
Textile products	1,994	1,993 732	2,025 731	0.1 -0.7	-1.6 0.1	1.9 -3.6	2,017	2,136	2,118	1,942	14,098	13,435 4,671	4.9 3.4
Apparel Leather and allied products	727 422	423	447	-0.2	0.1 -5.4	-0.4	713 437	705 441	683 484	713 402	4,830 3,001	2,730	9.9
Paper products	16,185 5,865	16,351 5,896	16,479 6,036			0.4 1.4	15,881 5,888	16,884 5 961	16,700 6,082	15,798 5,790	113,745 41,118	108,802 39,159	4.5 5.0
Pulp, paper, and paperboard mills Paperboard containers	5,865 5,978	5,896 6,062	6,036 6,002			1.4 -0.6	5,888 5,819	5,961 6,361	6,082 5,967	5,790 5,868	41,118 41,905	39,159 40,632	3.1
Printing	7,019	6,964	6,828	0.8	2.0	2.1	6,679	6,981	6,861	5,969	46,338	42,408	9.3 56.0
Petroleum and coal products Petroleum refineries	65,639 60,279	70,355 65,115	67,506 62,415		4.2 4.3	10.0 10.6	71,151 65,231	76,868 70,767	72,532 67,146	47,077 42,118	438,649 403,878	281,132 249,862	56.0 61.6
Chemical products	66,155	66,589	66,265			1.2	63,497	70,159	67,381	61,069	460,172	426,585	7.9
Pesticides, fertilizers, and other agricultural chemicals	3,269	3,247	3,178	0.7	2.2	1.3	2,535	3 <i>,</i> 536	3,687	2,284	24,235	21,388	13.3
Pharmaceuticals and medicines	21,998	22,024	21,504	-0.1	2.4	2.7	21,028	23,125	21,422	19,063	146,281	134,210	9.0
Paints, coatings, and adhesives Plastics and rubber products	3,750 22,424	3,782 22,380	3,773 22,388			1.3 -0.4	3,726 21,810	4,140 23,742	4,134 23,185	3,665 20,760	26,938 156,276	25,290 142,242	6.5 9.9
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^p Preliminary

^rRevised 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.

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, July Full Report, September 2, 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.

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

			Seasonally A	Adjusted			Not Seasonally Adjusted							
		Monthly		Pe	rcent Chang	е		Mon	thly		,	Year to date		
Industry	July 2022 ^p	June 2022 ^r	May 2022	June - July	May - June	Apr May	July 2022 ^p	June 2022 ^r	May 2022	July 2021	2022 ^p	2021	% Change 2022/ 2021	
All manufacturing industries ²	548,546	554,232	544,394	-1.0	1.8	1.8	524,183	588,313	548,989	469,713	3,738,238	3,301,320	13.2	
Excluding transportation ²	455,622	460,606	456,119	-1.1	1.0	1.8	445,368	486,409	466,221	403,579	3,129,911	2,781,175	12.5	
Excluding defense ²	531,818	534,338	528,613	-0.5	1.1	1.7	511,267	566,306	535,420	457,707	3,630,613	3,199,535		
	194,497	194,488	189,296	0.0	2.7	0.5	177,833	209,510	185,735	160,986		1,186,837	11.4	
With unfilled orders ²											1,322,440			
Durable goods industries ²	273,186	273,571	267,533	-0.1	2.3		249,742	294,470	263,971	228,559	1,855,234	1,673,984	10.8	
Primary metals	20,697	21,050	21,350	-1.7	-1.4	1.9	19,537	21,919	21,771	19,063	147,655	133,038		
Iron and steel mills	12,367	12,354	12,283	0.1	0.6	3.8	11,904	12,758	12,662	10,890	85,310	73,947	15.4	
Aluminum and nonferrous metals	6,904	7,277	7,541	-5.1	-3.5	0.8	6,315	7,564	7,479	6,730	51,478	49,408	4.2	
Ferrous metal foundries	1,426	1,419	1,526	0.5	-7.0	-7.1	1,318	1,597	1,630	1,443	10,867	9,683	12.2	
Fabricated metal products	37 <i>,</i> 368	36,922	36,810	1.2	0.3	-0.2	35,637	38 <i>,</i> 856	38,558	33,287	261,493	244,453	7.0	
Machinery	38,566	38,434	38,242	0.3	0.5	1.3	36,364	41,299	38,233	34,568	267,730	240,267	11.4	
Construction machinery Mining, oil field, and	3,728	3,743	3,730	-0.4	0.3	4.3	3,422	3,921	3,531	2,900	25,352	22,232	14.0	
gas field machinery	1,512	1,534	1,509	-1.4	1.7	1.5	1,405	1,595	1,462	1,459	9,775	8,904	9.8	
Industrial machinery	6,587	6,522	6,371	1.0	2.4	0.4	6,267	7,129	5,977	, 5,314	44,215	30,058		
Photographic equipmentVentilation, heating, air-conditioning,	553	, 566	509	-2.3	11.2	7.4	, 545	564	444	448	3,475	3,393	2.4	
and refrigeration equipment	4,919	4,844	4,925	1.5	-1.6	-1.0	5,160	5,673	5,319	4,741	34,678	30,579	13.4	
Metalworking machinery	2,564	2,518	2,725	1.8	-7.6		2,383	2,721	2,509	2,465	18,067	18,161	-0.5	
Turbines, generators, and other	2 176	2 212	2 116	4.1	6.3	4.1	2.047	2 255	2 100	2 222	22.245	22 124	2.4	
power transmission equipment	3,176	3,313	3,116	-4.1			3,047	,	3,198	3,232	*	23,124		
Material handling equipment	3,508	3,375	3,399	3.9	-0.7	-4.8	2,949	3,838	3,360	2,861	24,618	19,778	24.5	
Computers and electronic products ²	24,397	24,211	23,787	0.8	1.8		21,812	26,647	22,166	20,337	161,159	152,921	5.4	
Computers Nondefense communications	773	753	727	2.7	3.6	-0.7	745	895	737	719	4,939	4,933	0.1	
equipment	2,968	2,918	3,061	1.7	-4.7	-2.5	2,242	3,617	2,761	2,564	20,216	19,408	4.2	
Defense communications equipment	217	214	210	1.4	1.9	1.0	192	218	188	174	1,376	1,154	19.2	
Electronic components Nondefense search and navigation	4,720	4,604	4,506	2.5	2.2	1.3	4,602	4,636	4,428	4,000	31,448	28,029	12.2	
equipment Defense search and navigation	1,785	1,764	1,729	1.2	2.0	-2.9	1,560	1,937	1,652	1,622	12,154	12,254	-0.8	
equipment	3,264	3,275	3,237	-0.3	1.2	4.0	2,616	3,744	2,786	2,415	21,230	21,051	0.9	
Electromedical, measuring, and control instruments	8,910	9,019	8,716	-1.2	3.5	0.4	8,196	9,703	8,209	7,584	58,960	56,885	3.6	
Electrical equipment, appliances,	42.555	40.747	42.252	4.0	2.7	0.0	42.556	4.4.70.4	42.472	44.670	02 202	05 704	0.0	
and components	13,555	13,717	13,353	-1.2	2.7	-0.8	12,556	14,794	13,473	11,673	93,292	85,784	8.8	
Electric lighting equipment	1,064	1,026	1,009	3.7	1.7	-1.6	1,007	1,151	996	946	7,160	7,167	-0.1	
Household appliances	2,633	2,702	2,458	-2.6	9.9	-1.5	2,241	2,897	2,427	2,280	17,307	17,610	-1.7	
Electrical equipment	3,956	4,012	4,059	-1.4	-1.2	-2.0	3,708	4,524	4,089	3,328	28,290	24,219	16.8	
Transportation equipment Motor vehicle bodies, parts,	92,924	93,626	88,275	-0.7	6.1	1.6	78,815	101,904	82,768	66,134	608,327	520,145	17.0	
and trailers	27,398	26,782	26,607	2.3	0.7	-0.7	23,642	27,272	27,039	21,804	184,897	167,783	10.2	
Nondefense aircraft and parts ³	16,715	14,596	14,452	14.5	1.0	0.9	15,722	18,354	11,242	8,614	105,092	67,615	55.4	
Defense aircraft and parts	4,851	9,644	5,410	-49.7	78.3		3,865	10,507	4,364	4,119	36,744	33,452	9.8	
Ships and boats	4,768	3,221	3,545	48.0	-9.1	5.4	3,403	3,450	3,439	1,812	24,326	28,613	-15.0	
Furniture and related products	6,261	6,157	6,141	1.7	0.3	0.9	6,115	6,241	6,374	5,999	42,797	42,077	1.7	
Nondurable goods industries	275,360	280,661	276,861	-1.9	1.4	2.7	274,441	293,843	285,018	241,154	1,883,004	1,627,336	15.7	

^p Preliminary

Revised data due to late receipts and concurrent seasonal adjustment.

¹ Estimates of shipments and new orders are for the duration of the period, while estimates of unfilled orders and total inventories are for the end of the period. Not seasonally adjusted estimates of shipments and new orders include adjusted data for non-calendar reporters. Seasonally adjusted estimates include concurrent adjustments for holiday and trading-day differences, where appropriate, as well as seasonal variation, based on the results of the latest annual review of the model parameters. Estimates are not adjusted for price changes.

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, July Full Report, September 2, 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

			Seasonally Ad	ljusted				Not :	Seasonally Adju	sted	
		Monthly		P	ercent Chang	e		Mor	nthly		% Change
Industry	July 2022 ^p	June 2022 ^r	May 2022	June - July	May - June	Apr May	July 2022 ^p	June 2022 ^r	May 2022	July 2021	July 2022/ 2021
All manufacturing industries ²	1,126,664	1,118,721	1,109,739	0.7	0.8	0.3	1,126,817	1,121,396	1,115,000	1,050,111	7.3
Excluding transportation ²	471,517	470,290	469,654	0.3	0.1	0.1	473,787	473,939	475,461	446,987	6.0
Excluding defense ²	914,452	906,861	901,893	0.8	0.6	0.4	915,335	908,105	906,844	837,255	9.3
Durable goods industries ²	1,126,664	1,118,721	1,109,739	0.7	0.8	0.3	1,126,817	1,121,396	1,115,000	1,050,111	7.3
Primary metals	30,663	30,760	31,104	-0.3	-1.1	-0.5	30,792	30,987	31,640	31,071	-0.9
Iron and steel mills	15,785	15,897	15,989	-0.7	-0.6	-0.8	16,056	16,109	16,317	16,847	-4.7
Aluminum and nonferrous metals	10,767	10,745	10,927	0.2	-1.7	-0.2	10,611	10,725	11,062	10,745	-1.2
Ferrous metal foundries	4,111	4,118	4,188	-0.2	-1.7	-0.2	4,125	4,153	4,261	3,479	18.6
Fabricated metal products	117,980	117,918	118,075	0.1	-0.1	0.0	119,892	119,916	120,451	114,238	4.9
Machinery	131,525	130,952	130,278	0.4	0.5	0.5	131,853	131,313	131,477	120,524	9.4
Construction machinery Mining, oil field, and	10,068	10,023	9,873	0.4	1.5	1.8	9,762	9,939	10,066	8,513	14.7
gas field machinery	5,035	5,045	4,965	-0.2	1.6	0.0	5,035	5,045	4,965	4,773	
Industrial machinery	12,678	12,307	12,043	3.0	2.2	0.9	12,807	12,344	12,277	10,380	
Photographic equipmentVentilation, heating, air-conditioning,	3,162	3,113	3,081	1.6	1.0	-0.5	3,065	2,998	3,037	3,134	-2.2
and refrigeration equipment	11,315	10,977	10,747	3.1	2.1	3.3	11,551	11,150	11,198	8,451	36.7
Metalworking machinery Turbines, generators, and other	8,522	8,611	8,711	-1.0	-1.1	1.0		8,615	8,676	7,929	8.8
power transmission equipment	33,281	33,362	33,294	-0.2	0.2	-0.2	33,281	33,362	33,294	33,000	0.9
Material handling equipment	16,595	16,499	16,545			-0.2	-	16,700	-	14,844	
3	140,357	140,154	140,017	0.0	0.1	0.1	140,115	140,583	140,583	134,553	
Computers and electronic products ²		1,208	,	0.1	0.1	-0.4	1,218	•		1,352	
Computers Nondefense communications	1,218	1,200	1,197	0.8	0.9	-0.4	1,210	1,208	1,197	1,332	-3.3
equipment	20,954	21,154	21,333	-0.9	-0.8	0.0	20,858	21,276	21,496	18,562	12.4
Defense communications equipment	314	312	307	0.6	1.6	1.3	304	312	309	340	-10.6
Electronic components Nondefense search and navigation	16,096	15,984	15,942	0.7	0.3	-0.5	15,967	15,814	16,088	15,042	6.1
equipment	32,145	32,014	31,899	0.4	0.4	0.3	32,115	31,984	31,845	30,242	6.2
Defense search and navigation equipment	38,473	38,370	38,290	0.3	0.2	0.0	38,476	38,748	38,378	38,696	-0.6
Electromedical, measuring, and control instruments	31,157	31,112	31,049	0.1	0.2	0.3	31,177	31,241	31,270	30,319	2.8
Electrical equipment, appliances,	31,137	31,111	31,013	0.12	0.2	0.0	01,177	31,2 11	31,273	30,313	2.0
and components	39,178	38,765	38,453	1.1	0.8	-0.1	39,263	39,148	39,184	34,754	13.0
Electric lighting equipment	2,210	2,189	2,196	1.0	-0.3	-0.6	2,228	2,226	2,164	2,059	8.2
Household appliances	4,739	4,773	4,880	-0.7	-2.2	-5.7	4,677	4,739	4,906	5,099	-8.3
Electrical equipment	16,508	16,294	16,027	1.3	1.7	1.8	16,634	16,426	16,341	14,111	17.9
Transportation equipment	655 <i>,</i> 147	648,431	640,085	1.0	1.3	0.5	653,030	647,457	639,539	603,124	8.3
Motor vehicle bodies, parts,											
and trailers	28,598	28,472	28,473	0.4	0.0	0.0	27,805	27,969	28,669	25,967	7.1
Nondefense aircraft and parts	440,524	434,269	429,758	1.4	1.0	0.8	439,981	432,773	428,836	•	
Defense aircraft and parts	59,727	60,063	55 <i>,</i> 796	-0.6	7.6	0.1	59,433	60,203	55,668	57,753	
Ships and boats	49,621	48,420	48,684	2.5	-0.5	0.0	49,542	49,404	49,670	-	-7.2
Furniture and related products	10,415	10,341	10,342	0.7	0.0	-0.7	10,473	10,592	10,741	10,353	1.2

^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, July Full Report, September 2, 2022. Information on data sources and methodology can be found on our website at www.census.gov/manufacturing/m3/how_the_data_are_collected/index.html.

^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

		Monthly	Seasonally Ac		ercent Chang	e			Seasonally Adjunthly	sted	% Change
Industry	July 2022 ^p	June 2022 ^r	May 2022	June - July	May - June	Apr May	July 2022 ^p	June 2022 ^r	May 2022	July 2021	July 2022/ 2021
All manufacturing industries	801,992	801,535	798,203	0.1	0.4	1.3	806,957	802,257	804,479	733,368	10.0
Excluding transportation	644,558	643,959	640,915			1.6	•	645,909	· ·	580,323	11.7
Excluding defense	775,238	774,964	771,992		0.4	1.3	780,089	775,598	· ·	708,082	10.2
With unfilled orders	389,792	388,805	386,714	0.3	0.5	0.6	392,969	389,188	390,279	361,756	8.6
Durable goods industries	486,367	485,143	482,970	0.3	0.4	0.6	489,501	484,474	487,249	449,605	8.9
Wood products	14,788	14,772	14,703	0.1	0.5	-0.2	14,546	14,546	14,552	13,676	6.4
Nonmetallic mineral products	16,146	15,979	15,839		0.9	1.0	16,183	16,103	· ·	14,434	12.1
Primary metals Iron and steel mills	39,092 22,928	39,284 23,165	39,371 23,236	-0.5 -1.0		1.1 0.9	39,251 23,054	39,223 23,123	-	34,966 20,668	
Aluminum and nonferrous metals	13,465	13,433	13,441	0.2	-0.3 -0.1	1.6	-	13,408	-	11,859	13.9
Ferrous metal foundries	2,699	2,686	2,694	0.5	-0.3	1.2	2,684	2,692	2,768	2,439	10.0
Fabricated metal products	62,661 83,944	62,429	62,238			0.7 1.3	63,380 82.765	62,765 83,327		57,059 71 745	
Machinery Farm machinery	5,850	83,269 5,882	82,362 5,818			1.5 1.5	83,765 5,671	5,690	-	71,745 4,063	
Construction machinery	7,180	7,070	7,065			1.9	-	7,084	-	5,594	27.7
Mining, oil field,	6 207	6.422	6.040	4.2	4 -	0.5	6.250	6.474	6 000	5 745	0.4
and gas field machinery Industrial machinery	6,207 10,668	6,133 10,628	6,042 10,478			0.5 1.5	6,250 10,387	6,171 10,920	6,092 10,566	5,715 8,786	9.4 18.2
Photographic equipment	1,381	1,363	1,398			0.3	1,390	1,334	-	1,323	5.1
Ventilation, heating, air-conditioning,		·						·	,		
and refrigeration equipment	7,609 6,711	7,454	7,226	2.1 0.7		2.0 1.7	7,535	7,467	7,621	5,951 6 124	26.6
Metalworking machinery Turbines, generators, and other	6,711	6,666	6,599	0.7	1.0	1.7	6,821	6,646	6,654	6,134	11.2
power transmission equipment	10,411	10,301	10,195	1.1	1.0	1.1	10,537	10,330	10,338	9,410	12.0
Material handling equipment	6,751	6,720	6,654			0.8	<i>'</i>	6,720	-	5,865	16.4
Computers and electronic products ²	52,241 2,125	52,097	51,758 2,115		0.7 0.5	0.1 1.3	52,733 2,201	52,151 2,214	· ·	50,172 2,021	5.1 8.9
Computers Computer storage devices	2,123 859	2,125 858	2,113 878	0.0	-2.3	-2.7	2,201 883	830	· ·	898	
Other peripheral equipment	901	891	896	1.1		6.9		887	946	772	14.5
Nondefense communications	4.720	4 722	4.670	0.4	0.0	1.0	4.006	4 740	4 700	4.507	4.0
equipment Defense communications equipment	4,720 657	4,723 658	4,679 659	-0.1 -0.2	0.9 -0.2	-1.0 -0.6	,	4,719 658	-	4,587 668	4.8 -1.6
Audio and video equipment	1,139	1,174	1,106		6.1	5.2	1,076	1,204		811	32.7
Electronic components	9,894	9,870	9,832	0.2	0.4	-1.4	10,078	9,940	9,874	10,257	-1.7
Nondefense search and navigation	3,396	3,346	3,309	1.5	1.1	0.5	3,439	3,321	2 216	3,160	8.8
equipment Defense search and navigation	3,390	3,340	3,309	1.5	1.1	0.5	3,439	3,321	3,316	3,100	0.0
equipment	2,842	2,839	2,834	0.1	0.2	-0.3	2,867	2,838	2,910	2,896	-1.0
Electromedical, measuring	47.050	47.752	47.564	0.6	4.4	0.5	10.063	47 755	47.706	46.700	0.4
and control instruments Electrical equipment, appliances,	17,858	17,752	17,564	0.6	1.1	0.5	18,062	17,755	17,786	16,708	8.1
and components	22,934	22,862	22,813	0.3	0.2	1.3	23,412	23,088	23,250	20,392	14.8
Electric lighting equipment	2,072	2,081	2,073	-0.4		1.9	<i>'</i>	2,081	2,074	2,039	
Household appliances Electrical equipment	3,457 7,629	3,394 7,614	3,398 7,597		-0.1 0.2	3.6 1.0	*	3,374 7,696	· ·	2,697 6,899	31.0 13.3
Batteries	1,574	1,586	1,623			-0.3	•	1,686	· ·	1,633	0.0
Transportation equipment	157,434	157,576	157,288	-0.1	0.2	0.3	158,883	156,348	157,771	153,045	3.8
Automobiles	6,263	6,427	6,580		-2.3	0.6		6,305	· ·	6,207	3.5
Light trucks and utility vehicles Heavy duty trucks	9,693 2,905	9,633 2,883	10,056 2,720	0.6 0.8		0.3 -0.6	9,890 2,944	9,129 2,923	-	8,889 2,557	11.3 15.1
Motor vehicle bodies, parts,	_,,,,,	_,	_/				_/•	_,===	_,	_,	
and trailers	32,572	32,609	32,410		0.6	0.6	33,001	32,455	*	30,533	
Nondefense aircraft and parts Defense aircraft and parts	76,028 13,074	76,062 13,009	76,012 12,765	0.0 0.5	0.1 1.9	-0.2 0.0	76,340 13,137	75,642 13,000	76,150 12,809	76,554 12,508	
Ships and boats	4,472	4,440	4,404			1.7	4,501	4,509		3,650	
Furniture and related products	9,944	9,847	9,737		1.1	0.4	10,019	10,004		8,538	17.3
Miscellaneous durable goods	27,183	27,028	26,861	0.6	0.6	0.3	27,329	26,919	27,015	25,578	6.8
Nondurable goods industries	315,625	316,392	315,233	-0.2	0.4	2.4	317,456	317,783	317,230	283,763	11.9
Food products	62,770	62,571	62,685	0.3	-0.2	0.3	62,015	61,189	61,213	58,797	5.5
Grain and oilseed milling	7,818	7,804	7,960	0.2	-2.0	1.2	7,642	7,645	7,663	6,890	
Dairy products	9,395	9,355	9,273			1.0	,	9,631		8,670	11.6
Meat, poultry, and seafood products Beverage and tobacco products	10,893 28,253	10,755 28,232	10,650 28,203	1.3 0.1	1.0 0.1	0.4 0.5	10,927 27,608	10,556 27,861	10,586 28,467	10,377 26,167	5.3 5.5
Beverages	24,593	24,572	24,521	0.1		0.6	-	24,357	-	22,865	
Tobacco	3,660	3,660	3,682	0.0	-0.6	-0.6	3,407	3,504	-	3,302	3.2
Textile mills Textile products	3,639 4,304	3,584 4,289	3,516 4,272	1.5 0.3		1.8 0.9	*	3,577 4,254	-	3,098 3,845	18.3 11.4
Apparel	2,296	2,292	2,221	0.3	3.2	3.7	4,263 2,447	2,399	· ·	1,942	26.0
Leather and allied products	1,147	1,102	1,048		5.2	1.6	,	1,121	1,077	[*] 880	34.4
Paper products	16,674	16,550	16,412			0.4	16,878	16,545	-	15,696 4 857	
Pulp, paper, and paperboard mills Paperboard containers	4,987 6,153	4,953 6,062	4,911 5,990	0.7 1.5	0.9 1.2	0.3 0.6	5,039 6,201	4,953 6,026	4,953 6,004	4,857 5,641	3.7 9.9
Printing	6,437	6,407	6,332			0.3	6,400	6,363	-	5,961	7.4
Petroleum and coal products	53,274	55,551	55,912	-4.1	-0.6	12.2	56,076	58,694	58,309	40,782	37.5
Petroleum refineries	46,353 104,872	48,739 104,006	49,167 103 155	-4.9 0.8		12.9 0.3	-	51,777 104 098	*	35,119 98 110	
Chemical products Pesticides, fertilizers, and other	104,872	104,006	103,155	0.8	۷.8	0.3	104,985	104,098	103,780	98,110	7.0
agricultural chemicals	6,765	6,595	6,354		3.8	2.3	6,545	6,247	6,300	5,420	20.8
Pharmaceuticals and medicines	43,183	43,040	42,996			-0.7	43,312	43,719	· ·	43,658	
Paints, coatings, and adhesives Plastics and rubber products	5,087 31,959	4,981 31,808	4,898 31,477	2.1 0.5	1.7 1.1	2.1 1.0	5,118 31,914	5,003 31,682	-	3,996 28,485	28.1 12.0
astres arra rapper products	31,333	31,000	J±,4//	0.5	1.1	1.0	31,314	31,002	31,30/	20,403	12.0

^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}

[Estimates are shown in millions of dolla			asonally Adju		turcis s	лиринен	Not Seasonally Adjusted								
		Monthly	-	Per	cent Cha	nge		Mon	thly	-	Year to	o date			
Industry	July 2022 ^p	June 2022 ^r	May 2022	June - July	May - June	Apr May	July 2022 ^p	June 2022 ^r	May 2022	July 2021	2022 ^p	2021	% Change ⁶ 2022/ 2021		
<u>SHIPMENTS</u>															
All manufacturing industries	545,497	550,206	545,675	-0.9	0.8	2.1	523,696	586,711	553,393	472,635	3,718,439	3,279,502	13.4		
Construction materials and supplies Information technology Computers and related products	61,645 24,832 2,064	61,646 24,909 1,984	61,489 24,492 1,849	-0.3 4.0	0.3 1.7 7.3		62,061 23,109 1,992	2,430	64,599 23,432 1,695	57,740 21,496 1,617	165,960 12,751	386,312 154,733 11,747	7.3 8.5		
Motor vehicle and parts Capital goods Nondefense capital goods ³ Excluding aircraft	59,603 94,760 80,514 73,821	59,651 93,411 79,762 73,474	58,708 93,833 79,921 72,872	1.4 0.9 0.5	1.6 -0.4 -0.2 0.8	1.7 1.0	50,361 86,964 74,096 69,133	90,655 80,372	58,232 91,656 78,125 71,857	45,926 79,939 67,633 62,933	638,015 544,151 499,887	354,204 575,932 487,204 446,875	10.8 11.7 11.9		
Defense capital goods ⁴ Consumer goods Consumer durable goods Consumer nondurable goods	14,246 235,236 44,602 190,634	13,649 240,856 45,259 195,597	13,912 236,321 44,464 191,857	-2.3	-1.9 1.9 1.8 1.9	3.6 2.5	12,868 229,580 37,649 191,931	14,233 251,539 47,836 203,703	13,531 240,867 43,194 197,673	12,306 197,157 35,800 161,357	1,586,247 296,494	88,728 1,346,188 270,213 1,075,975	17.8 9.7		
NEW ORDERS															
All manufacturing industries ⁵	548,546	554,232	544,394	-1.0	1.8	1.8	524,183	588,313	548,989	469,713	3,738,238	3,301,320	13.2		
Construction materials and supplies Information technology Computers and related products Motor vehicle and parts	61,770 25,184 2,074 59,729	61,582 25,195 1,995 59,650	61,620 24,682 1,844 58,695	0.0 4.0	-0.1 2.1 8.2 1.6	0.2 0.7	61,998 22,522 2,002 50,197	67,586 27,817 2,441 62,141	65,682 23,257 1,690 57,915	58,703 21,141 1,630 46,255	167,486 12,750	405,409 159,602 11,722 356,470	4.9 8.8		
Capital goods Nondefense capital goods ³ Excluding aircraft Defense capital goods ⁴	101,799 87,241 74,440 14,558	98,332 84,937 74,190 13,395	97,652 84,070 73,477 13,582	2.7 0.3	0.7 1.0 1.0 -1.4		92,295 81,144 68,879 11,151	-	91,669 79,765 72,109 11,904	80,103 69,759 64,243 10,344	588,619 509,287	601,195 510,653 464,237 90,542	15.3 9.7		
Consumer goods Consumer durable goods Consumer nondurable goods	235,192 44,558 190,634	240,785 45,188 195,597	235,986 44,129 191,857	-1.4	2.0 2.4 1.9	3.5 2.1 3.8	229,549 37,618 191,931	251,269 47,566 203,703	240,531 42,858 197,673	197,430 36,073 161,357	295,731	1,348,314 272,339 1,075,975	8.6		
UNFILLED ORDERS															
All manufacturing industries ⁵	1,126,664	1,118,721	1,109,739	0.7	0.8	0.3	1,126,817	1,121,396	1,115,000	1,050,111	(X)	(X)	7.3		
Construction materials and supplies Information technology Computers and related products Motor vehicle and parts	88,935 143,144 1,218 28,598	88,810 142,792 1,208 28,472	88,874 142,506 1,197 28,473	0.2 0.8	-0.1 0.2 0.9 0.0	0.1 0.1 -0.4 0.0	90,791 142,937 1,218 27,805	90,854 143,524 1,208 27,969	91,296 143,305 1,197 28,669	83,175 136,130 1,352 25,967	(X) (X)	(X) (X) (X)	9.2 5.0 -9.9 7.1		
Capital goods Nondefense capital goods ³ Excluding aircraft Defense capital goods ⁴	821,556 636,021 265,377 185,535	814,517 629,294 264,758 185,223	809,596 624,119 264,042 185,477	1.1	0.6 0.8 0.3 -0.1		820,944 636,096 265,694 184,848	-	811,199 625,344 266,287 185,855	761,007 570,288 248,213 190,719	(X) (X)	(X) (X) (X) (X)			
Consumer goods Consumer durable goods	10,896 10,896	10,940 10,940	11,011 11,011	-0.4 -0.4	-0.6 -0.6		10,732 10,732	10,763 10,763	11,033 11,033	11,696 11,696	, ,	(X) (X)	-8.2 -8.2		
TOTAL INVENTORIES															
All manufacturing industries	801,992	801,535	798,203	0.1	0.4	1.3	806,957	802,257	804,479	733,368	(X)	(X)	10.0		
Construction materials and supplies Information technology Computers and related products Motor vehicle and parts	86,442 44,192 3,885 51,433	85,951 44,026 3,874 51,552	85,326 43,670 3,889 51,766	0.4 0.3	0.7 0.8 -0.4 -0.4	0.5 1.6	86,643 44,713 3,968 52,260	44,110 3,931	86,536 44,249 4,000 52,037	77,704 41,064 3,691 48,186	(X) (X)	(X) (X) (X) (X)	11.5 8.9 7.5 8.5		
Capital goods Nondefense capital goods ³ Excluding aircraft Defense capital goods ⁴	235,632 212,840 147,484 22,792	234,656 212,041 146,642 22,615	233,124 210,848 145,364 22,276	0.4 0.6	0.7 0.6 0.9 1.5	0.7	237,136 214,293 148,545 22,843	212,353 147,159	235,177 212,776 147,312 22,401	219,430 198,026 131,957 21,404	(X) (X)	(X) (X) (X) (X)	8.1 8.2 12.6 6.7		
Consumer goods Consumer durable goods Consumer nondurable goods	246,097 43,274 202,823	247,818 43,187 204,631	248,353 43,495 204,858	-0.7 0.2	-0.2 -0.7	2.8 1.3	248,140 43,579 204,561	249,088 42,405	250,067 43,527 206,540	222,130 38,668 183,462	(X) (X)	(X) (X) (X)	11.7 12.7 11.5		

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, July Full Report, September 2, 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

^rRevised 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.

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 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.

 $^{^{\}rm 5}\,{\rm Estimates}$ 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 from	the Manufac Seasonally Ad	•	ments, Inve	ntories, and	d Orders Surve 				
		Monthly	ocusonan, ric		ercent Chang	e			Seasonally Adjust	-	% Change
Industry	July 2022 ^p	June 2022 ^r	May 2022	June - July	May - June	Apr May	July 2022 ^p	June 2022 ^r	May 2022	July 2021	July 2022/ 2021
MATERIALS AND SUPPLIES											
All manufacturing industries	294,735	294,301	292,587	0.1	0.6	1.6	297,210	295,457	293,843	260,678	14.0
Durable goods industries	180,844	179,438	177,695		1.0	1.0	182,388	179,219		158,694	14.9
Wood products Nonmetallic mineral products	6,665 7,046	6,594 6,946	6,573 6,902		0.3 0.6	1.2 0.8		6,447 6,984	*	5,766 6,153	13.8 14.9
Primary metalsFabricated metal products	14,589 25,768	14,610 25,605	14,556 25,626		0.4 -0.1	1.3 0.3		14,610 25,697	, and the second	12,407 22,611	18.1 15.2
Machinery	36,607	36,040	35,688	1.6	1.0	1.5	36,868	36,141	35,950	30,437	21.1
Computers and electronic products Electrical equipment, appliances,	24,925	24,708	24,273	0.9	1.8	1.8	25,229	24,830	24,471	22,083	14.2
and components Transportation equipment	10,857 40,702	10,781 40,609	10,733 39,905		0.4 1.8	1.6 0.8		10,925 39,982	-	9,312 37,496	19.8 9.3
Furniture and related products	4,867 8,818	4,814 8,731	4,741 8,698	1.1	1.5 0.4	0.1	4,874	4,886 8,717	4,825	4,033 8,396	20.9 6.7
Miscellaneous products Nondurable goods industries	113,891	114,863	114,892		0.4		,	116,238		101,984	12.6
Food products	24,101	24,041	23,937	0.2	0.4	0.0	23,910	23,834	23,751	22,859	4.6
Beverage and tobacco products Textiles	5,620 1,440	5,876 1,404	5,826 1,365	2.6	0.9 2.9	-0.1 1.0	5,361 1,453	5,706 1,408	*	5,742 1,252	-6.6 16.1
Textile products Apparel	1,623 738	1,517 741	1,506 717	7.0 -0.4	0.7 3.3	0.7 2.0		1,507 756		1,368 645	18.1 19.1
Leather and allied products Paper products	373 8,790	364 8,723	356 8,584	2.5	2.2 1.6		387	370 8,695	365	310 7,999	
Printing	3,329	3,320	3,254	0.3	2.0	-1.7	3,342	3,327	3,229	2,986	11.9
Petroleum and coal products Chemical products	17,583 36,489	18,924 36,246	19,557 35,954		-3.2 0.8	15.5 0.5	18,676 36,540	20,880 36,067	20,699 36,123	13,925 32,364	34.1 12.9
Plastics and rubber products	13,805	13,707	13,836	0.7	-0.9	-0.5	13,899	13,688	13,821	12,534	10.9
WORK IN PROCESS	225 222	225 427	225 242					225 572	207.476	244.524	6.0
All manufacturing industries	226,233	226,187	226,013		0.1	0.8	ŕ	226,673		214,694	6.2
Durable goods industries Wood products	171,873 2,094	172,322 2,086	172,288 2,101	-0.3 0.4	0.0 -0.7	0.3 -0.3	173,007 2,073	172,796 2,075		166,678 1,931	3.8 7.4
Nonmetallic mineral products Primary metals	1,481 12,339	1,480 12,720	1,476 12,895		0.3 -1.4	-0.1 0.5	1,485 12,544	1,505 12,881	1,521 13,098	1,488 12,061	-0.2 4.0
Fabricated metal products	14,791	14,771	14,694	0.1	0.5	1.0	14,921	14,808	14,909	13,803	8.1 18.2
Machinery Computers and electronic products	23,143 13,090	23,403 13,153	23,306 13,317	-1.1 -0.5	0.4 -1.2	1.6 -3.2		23,616 13,254		19,417 14,357	-8.6
Electrical equipment, appliances, and components	4,203	4,176	4,215	0.6	-0.9	1.0	4,313	4,260	4,344	3,934	9.6
Transportation equipment Furniture and related products	94,793 1,354	94,626 1,347	94,369 1,327	0.2 0.5	0.3 1.5	0.3 -0.9		94,462 1,364	· ·	94,225 1,277	1.5 5.1
Miscellaneous products	4,585	4,560	4,588		-0.6			4,571	4,627	4,185	11.0
Nondurable goods industries Food products	54,360 5,872	53,865 5,995	53,725 6,041	0.9 -2.1	0.3 -0.8	2.7 -0.7	54,900 5,501	53,877 5,590	53,638 5,615	48,016 5,381	14.3 2.2
Beverage and tobacco products	8,991	8,910	8,849	0.9	0.7	0.5	8,616	8,620	8,749	8,423	2.3
Textiles Textile products	622 459	619 451	615 453	0.5 1.8	0.7 -0.4	0.5 0.7	629 461	616 443	621 448	572 414	10.0 11.4
Apparel Leather and allied products	282 123	281 120	278 115	0.4 2.5	1.1 4.3	1.5 0.9		293 119	282 116	275 117	6.2 6.0
Paper products Printing	1,444 1,270	1,446 1,271	1,453 1,277		-0.5 -0.5	0.1 4.9	. 1,475	1,462 1,208	-	1,394 1,182	5.8 4.7
Petroleum and coal products	15,204	14,881	15,015	2.2	-0.9	8.8	16,162	15,385	15,498	10,535	53.4
Chemical products Plastics and rubber products	16,580 3,513	16,348 3,543	16,076 3,553		1.7 -0.3		· ·	16,619 3,522	, and the second	16,331 3,392	3.6 2.7
FINISHED GOODS											
All manufacturing industries	281,024	281,047	279,603	0.0	0.5	1.4	281,840	280,127	283,160	257,996	9.2
Durable goods industries	133,650 6,029	133,383 6,092	132,987 6,029		0.3			132,459 6,024		124,233 5,979	7.9 -1.1
Wood products Nonmetallic mineral products	7,619	7,553	7,461	0.9	1.0 1.2		7,631	7,614	7,706	6,793	12.3
Primary metals Fabricated metal products	12,164 22,102	11,954 22,053	11,920 21,918		0.3 0.6	1.6 1.1	, and a second of the second o	11,732 22,260		10,498 20,645	14.8 8.5
Machinery Computers and electronic products	24,194 14,226	23,826 14,236	23,368 14,168		2.0 0.5	0.6 0.6		23,570 14,067		21,891 13,732	9.4 4.7
Electrical equipment, appliances,							,	•			
and components Transportation equipment	7,874 21,939	7,905 22,341	7,865 23,014	-1.8	0.5 -2.9	1.0 -0.9	22,310	7,903 21,904	23,653	7,146 21,324	11.1 4.6
Furniture and related products Miscellaneous products	3,723 13,780	3,686 13,737	3,669 13,575		0.5 1.2	1.4 0.5		3,754 13,631	*	3,228 12,997	17.8 5.6
Nondurable goods industries	147,374	147,664	146,616	-0.2	0.7	2.2	147,734	147,668	147,630	133,763	10.4
Food products Beverage and tobacco products	32,797 13,642	32,535 13,446	32,707 13,528		-0.5 -0.6	0.7 0.7	32,604 13,631	31,765 13,535		30,557 12,002	6.7 13.6
Textiles	1,577	1,561	1,536	1.0	1.6	3.0	1,583	1,553	1,540	1,274	24.3
Textile productsApparel	2,222 1,276	2,321 1,270	2,313 1,226	0.5	0.3 3.6	1.0 5.3	1,387	2,304 1,350	1,247	2,063 1,022	7.1 35.7
Leather and allied products Paper products	651 6,440	618 6,381	577 6,375		7.1 0.1	1.4 -0.6		632 6,388		453 6,303	48.3 3.6
Printing Petroleum and coal products	1,838 20,487	1,816 21,746	1,801 21,340	1.2	0.8 1.9	0.7	1,820	1,828 22,429	1,810	1,793 16,322	1.5 30.1
Chemical products	51,803	51,412	51,125	0.8	0.6	0.2	51,527	51,412	51,552	49,415	4.3
Plastics and rubber products	14,641	14,558	14,088	0.6	3.3	2.5	14,531	14,472	14,228	12,559	15.7

^p Preliminary

Revised data due to late receipts and concurrent seasonal adjustment.

¹ Estimates of shipments and new orders are for the duration of the period, while estimates of unfilled orders and total inventories are for the end of the period. Not seasonally adjusted estimates of shipments and new orders include adjusted data for non-calendar reporters. Seasonally adjusted estimates include concurrent adjustments for holiday and trading-day differences, where appropriate, as well as seasonal variation, based on the results of the latest annual review of the model parameters. Estimates are not adjusted for price changes.

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/Shi _l	oments rat	io	Unfilled Orders/Shipments ratio ²				
Industry	Jul 2022 ^p	Jun 2022 ^r	May 2022	Apr 2022	Jul 2022 ^p	Jun 2022 ^r	May 2022	Apr 2022	
All manufacturing industries ³	1.47	1.46	1.46	1.47	(X)	(X)	(X)	(X)	
Durable goods industries ³	1.80	1.80	1.80	1.81	6.04	6.03	5.98	6.05	
Wood products	1.16	1.15	1.12	1.12	(X)	(X)	(X)	(X)	
Nonmetallic mineral products	1.28	1.27	1.27	1.27	(X)	(X)	(X)	(X)	
Primary metals	1.88	1.84	1.83	1.85	1.47	1.44	1.45	1.49	
Fabricated metal products	1.68	1.68	1.69	1.69	3.24	3.26	3.28	3.31	
Machinery	2.21	2.21	2.19	2.19	3.84	3.84	3.83	3.83	
Computers and electronic products ³	1.80	1.79	1.81	1.82	6.26	6.25	6.34	6.38	
and components	1.75	1.71	1.70	1.72	3.21	3.11	3.09	3.16	
Transportation equipment	1.83	1.85	1.85	1.89	12.16	12.37	12.07	12.29	
Furniture and related products	1.61	1.60	1.57	1.57	1.90	1.90	1.88	1.92	
Miscellaneous products	1.94	1.93	1.91	1.91	(X)	(X)	(X)	(X)	
Nondurable goods industries	1.15	1.13	1.14	1.14	(X)	(X)	(X)	(X)	
Food products	0.82	0.82	0.83	0.82	(X)	(X)	(X)	(X)	
Beverage and tobacco products	1.72	1.71	1.76	1.80	(X)	(X)	(X)	(X)	
Textiles	1.58	1.57	1.53	1.49	(X)	(X)	(X)	(X)	
Textile products	2.16	2.15	2.11	2.13	(X)	(X)	(X)	(X)	
Apparel	3.16	3.13	3.04	2.82	(X)	(X)	(X)	(X)	
Leather and allied products	2.72	2.61	2.34	2.30	(X)	(X)	(X)	(X)	
Paper products	1.03	1.01	1.00	1.00	(X)	(X)	(X)	(X)	
Printing	0.92	0.92	0.93	0.94	(X)	(X)	(X)	(X)	
Petroleum and coal products	0.81	0.79	0.83	0.81	(X)	(X)	(X)	(X)	
Chemical products	1.59	1.56	1.56	1.57	(X)	(X)	(X)	(X)	
Plastics and rubber products	1.43	1.42	1.41	1.39	(X)	(X)	(X)	(X)	

^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, July Full Report, September 2, 2022. Information on data sources and methodology can be found on our website at www.census.gov/manufacturing/m3/how_the_data_are_collected/index.html>.

Table 8. Revisions to Previously Published Monthly Percent Changes ¹

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

	Ship	ments	New 0	Orders	Unfilled	Orders	Inventories		
Industry	Jul ² 2022	Jul ³ 2021- Jun 2022	Jul ² 2022	Jul ³ 2021- Jun 2022	Jul ² 2022	Jul ³ 2021- Jun 2022	Jul ² 2022	Jul ³ 2021- Jun 2022	
All manufacturing industries	(X)	0.2	(X)	0.4	(X)	0.1	(X)	0.1	
Durable goods industries	-0.2 (X) (X) -0.2 -0.1 -0.2 0.1 -0.7 0.0 (X) (X)	0.1 0.2 0.4 0.2 0.3 0.2 0.4 0.4 0.4	-0.1 (X) (X) -0.3 0.0 -0.1 0.3 -0.8 0.0 (X) (X)	0.5 (NA) (NA) 0.7 0.4 0.3 0.8 1.6 0.5 0.4	0.0 (X) (X) 0.0 0.1 0.0 0.0 0.0 (X) (X)	0.1 (NA) (NA) 0.3 0.1 0.1 0.2 0.2 0.3 0.4	0.1 (X) (X) 0.1 0.1 0.0 0.1 -0.4 0.0 (X) (X)	0.1 0.2 0.2 0.2 0.1 0.3 0.1 0.4 0.1 0.3 0.1	
Nondurable goods industries Food products Beverage and tobacco products Textiles Textile products Apparel Leather and allied products Paper products Printing Petroleum and coal products Chemical products Plastics and rubber products	(X) (X) (X) (X) (X) (X) (X) (X) (X) (X)	0.3 0.1 0.4 0.3 0.4 0.9 0.2 0.8 1.0 0.3	(X) (X) (X) (X) (X) (X) (X) (X) (X) (X)	(NA) (NA) (NA) (NA) (NA) (NA) (NA) (NA)	(X) (X) (X) (X) (X) (X) (X) (X) (X) (X)	(NA) (NA) (NA) (NA) (NA) (NA) (NA) (NA)	(X) (X) (X) (X) (X) (X) (X) (X) (X) (X)	0.2 0.1 0.2 0.3 0.2 0.7 0.7 0.1 0.4 0.6 0.2	

X Not Applicable NA Not Available

change revisions for the durable goods industries are shown in the advance report for the month.

^p Preliminary

Revised data due to late receipts and concurrent seasonal adjustment.

² Excludes the following industries with no unfilled orders: Wood products; nonmetallic mineral products; medical equipment and supplies; office supplies; 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.

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

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, July Full Report, September 2, 2022. Information on data sources and methodology can be found on our website at www.census.gov/manufacturing/m3/how_the_data_are_collected/index.html.