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

Release Number: CB 22-158 M3-2 (22)-08

October 4, 2022 — The U.S. Census Bureau announces the August full report on manufacturers' shipments, inventories and orders:





Summary

New orders for manufactured goods in August, down two consecutive months, decreased less than \$0.1 billion or virtually unchanged to \$548.4 billion, the U.S. Census Bureau reported today. This followed a 1.0 percent July decrease. Shipments, up seventeen of the last eighteen months, increased \$2.7 billion or 0.5 percent to \$547.9 billion. This followed a 0.9 percent July decrease. Unfilled orders, up twenty-four consecutive months, increased \$5.3 billion or 0.5 percent to \$1,132.1 billion. This followed a 0.7 percent July increase. The unfilled orders-to-shipments ratio was 6.01, down from 6.05 in July. Inventories, down two consecutive months, decreased \$1.2 billion or 0.1 percent to \$800.2 billion. This followed a virtually unchanged July decrease. The inventories-to-shipments ratio was 1.46, down from 1.47 in July.

New Orders

New orders for manufactured durable goods in August, down two consecutive months, decreased \$0.5 billion or 0.2 percent to \$272.7 billion, unchanged from the previously published decrease. This followed a 0.1 percent July decrease. Transportation equipment, also down two consecutive months, drove the decrease, \$1.0 billion or 1.1 percent to \$92.0 billion. New orders for manufactured nondurable goods increased \$0.5 billion or 0.2 percent to \$275.7 billion.

Data Inquiries

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



Shipments

Shipments of manufactured durable goods in August, up fifteen of the last sixteen months, increased \$2.2 billion or 0.8 percent to \$272.2 billion, up from the previously published 0.7 percent increase. This followed a 0.2 percent July increase. Transportation equipment, up ten of the last eleven months, led the increase, \$1.7 billion or 2.0 percent to \$88.1 billion. Shipments of manufactured nondurable goods, up seventeen of the last eighteen months, increased \$0.5 billion or 0.2 percent to \$275.7 billion. This followed a 1.9 percent July decrease. Chemical products, up three of the last four months, drove the increase, \$0.6 billion or 0.9 percent to \$66.8 billion.

Unfilled Orders

Unfilled orders for manufactured durable goods in August, up twenty-four consecutive months, increased \$5.3 billion or 0.5 percent to \$1,132.1 billion, unchanged from the previously published increase. This followed a 0.7 percent July increase. Transportation equipment, up eighteen of the last nineteen months, led the increase, \$3.9 billion or 0.6 percent to \$659.0 billion.

Inventories

Inventories of manufactured durable goods in August, up nineteen consecutive months, increased \$1.1 billion or 0.2 percent to \$487.5 billion, unchanged from the previously published increase. This followed a 0.2 percent July increase. Machinery, up twenty-two consecutive months, led the increase, \$0.5 billion or 0.6 percent to \$84.4 billion. Inventories of manufactured nondurable goods, down two consecutive months, decreased \$2.3 billion or 0.7 percent to \$312.7 billion. This followed a 0.4 percent July decrease. Petroleum and coal products, down three consecutive months, drove the decrease, \$3.2 billion or 6.1 percent to \$49.5 billion. By stage of fabrication, August materials and supplies were virtually unchanged in durable goods and increased 0.1 percent in nondurable goods. Work in process increased 0.2 percent in durable goods and decreased 2.9 percent in nondurable goods. Finished goods increased 0.6 percent in durable goods and decreased 0.6 percent in nondurable goods.

The Advance Report on durable goods for September is scheduled for release on October 27, 2022, at 8:30 a.m. EDT and the Full Report on November 3, 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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United States U.S. Department of Commerce U.S. CENSUS BUREAU census.gov

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	irers' Shi	pments, In	ventories, a		Seasonally Ac	liusted		
		Monthly	asonany Aaj		rcent Char	nge		Mor	nthly	Seasonany Ad	-justeu	Year to date	
Industry	Aug. 2022 ^p	July 2022 ^r	June 2022	July - Aug.	June - July	May - June	Aug. 2022 ^p	July 2022 ^r	June 2022	Aug. 2021	2022 ^p	2021	% Change 2022/ 2021
All manufacturing industries	547,944	545,282	550,206	0.5	-0.9	0.8	569,812	523,169	586,711	501,241	4,287,724	3,780,743	13.4
Excluding transportation	459,857	458,928	464,926	0.2			477,459	450,006	492,725	424,552	3,621,924		13.5
Excluding defense With unfilled orders	531,313 188,215	528,868 186,298	534,326 185,506	0.5 1.0			553,570 195,186	508,432 172,121	569,839 203,114	486,350 173,089	4,163,539 1,465,119		13.6 12.1
Durable goods industries	272,224	270,036	269,545	0.8		0.3	284,852	248,929	292,868	251,983	2,119,961	1,904,149	11.3
							-	-					
Wood products Nonmetallic mineral products	12,851 12,476	12,781 12,579	12,851 12,550	0.5 -0.8		-1.7 0.8	13,724 14,093	12,984 12,946	14,068 13,881	12,971 12,899	105,089 100,034	98,935 92,321	6.2 8.4
Primary metals Iron and steel mills	20,722	20,670	21,394	0.3		-0.5	21,868	19,709	22,572	19,887	168,953	148,211	14.0
Aluminum and nonferrous metals	12,277 6,972	12,437 6,786	12,446 7,459	-1.3 2.7	-0.1 -9.0	0.2 -1.3	13,047 7,230	11,949 6,407	12,966 7,901	11,389 7,035	97,959 58,890	82,565 55,024	18.6 7.0
Ferrous metal foundries	1,473	1,447	1,489	1.8 -0.7			1,591	1,353	1,705	1,463	12,104	-	14.0 13.3
Fabricated metal products Machinery	36,872 38,032	37,116 38,009	37,079 37,760	0.7	0.1	0.6 0.5	39,421 38,731	35,522 35,791	39,391 41,463	35,687 34,481	294,853 299,497	260,351 262,741	14.0
Farm machinery	2,791	2,866	2,807	-2.6		1.9	2,649	2,647	2,901	2,237	22,397	21,363	4.8
Construction machinery Mining, oil field, and	3,609	3,668	3,593	-1.6	2.1	1.0	3,719	3,599	4,048	3,037	28,574	23,067	23.9
gas field machinery	1,543	-	1,454				1,535	1,415	1,515	1,232	11,342	9,905	14.5
Industrial machineryPhotographic equipment	6,219 523	6,218 504	6,258 534	0.0 3.8			6,111 519	5,801 478	7,062 603	5,289 494	48,433 4,082	33,695 4,066	43.7 0.4
Ventilation, heating, air-conditioning,	4.664	4.504	4.64.4	1.0	0.7	0.0	F 4 4 7	4.722	F 724	4.462	27 525	22.207	42.4
and refrigeration equipment Metalworking machinery	4,664 2,593		4,614 2,618			0.8 -0.7	5,147 2,672	4,733 2,369	5,721 2,782	4,462 2,656	37,525 20,504	-	12.4 1.4
Turbines, generators, and other	2 240	2 274	2.245	4.4	0.0	1.0	2.470	2.420	2 207	2 270	25.064	25 772	0.7
power transmission equipment Material handling equipment	3,318 3,439	3,271 3,407	3,245 3,421	1.4 0.9			3,478 3,596	3,128 3,064	3,287 3,560	3,378 2,933	25,961 27,439	25,773 21,998	0.7 24.7
Computers and electronic products ²	29,304	29,189	29,030	0.4		1.6	29,624	27,226	31,441	27,438	222,099	209,404	6.1
Computers Computer storage devices	761 679	768 670	742 670	-0.9 1.3		1.4 1.1	796 604	735 565	884 898	796 527	5,736 4,960	,	-0.3 14.0
Other peripheral equipment	750	726	572	3.3			726	692	648	428	4,181	3,393	23.2
Nondefense communications equipment	3,083	3,153	3,097	-2.2	1.8	1.4	2,758	2,660	3,837	2,515	23,118	20,907	10.6
Defense communications equipment	215	216	209	-0.5		1.5	2,730	200	215	209	1,633	1,525	7.1
Audio and video equipment	381 4,663	378 4,611	341 4,562	0.8 1.1	10.9 1.1	-15.0 -0.7	339 5,030	323 4,462	271 4,910	287 4,267	2,817 36,296	2,158 31,502	30.5 15.2
Electronic components Nondefense search and navigation	4,003	4,011	4,302	1.1	1.1	-0.7	3,030	4,402	4,910	4,207	30,290	31,302	15.2
equipment	1,657	1,663	1,649	-0.4	0.8	1.4	1,693	1,435	1,798	1,645	12,829	12,593	1.9
Defense search and navigation equipment	3,234	3,169	3,195	2.1	-0.8	-1.1	3,218	2,888	3,374	3,161	24,930	24,829	0.4
Electromedical, measuring,	9.047	0 007	9.056	0.7	0.0	2.0	9.051	0.261	0.722	0 220	67.255	CA 9C1	2.0
and control instruments Electrical equipment, appliances,	8,947	8,887	8,956	0.7	-0.8	3.8	8,951	8,261	9,732	8,329	67,355	64,861	3.8
and components	13,484	13,152	13,405	2.5			14,131	12,413	14,830	12,660	104,933	94,316	11.3
Electric lighting equipment Household appliances	1,041 2,757	1,043 2,671	1,033 2,809	-0.2 3.2	1.0 -4.9		1,111 2,868	1,005 2,302	1,089 3,064	1,048 2,600	8,196 20,904	8,023 19,581	2.2 6.8
Electrical equipment	3,788	3,733	3,745	1.5			3,920	3,473	4,439	3,642	29,762	27,731	7.3
Batteries Transportation equipment	957 88,087	949 86,354	955 85,280	0.8 2.0			1,069 92,353	833 73,163	980 93,986	937 76,689	7,304 665,800	-	14.0 13.0
Automobiles	7,713	7,453	7,322	3.5			8,873	6,179	7,676	7,080	58,954	53,873	9.4
Light trucks and utility vehicles Heavy duty trucks	22,555 2,464	22,620 2,411	23,209 2,337	-0.3 2.2		3.0 2.5	24,279 2,577	18,139 2,237	24,674 2,519	19,983 1,882	171,384 18,511	148,467 15,292	15.4 21.1
Motor vehicle bodies, parts,	27 202	27 475	26 702	0.4	4 5	0.6	20.420	22.720	27.072	25.766	24.4.04	101 202	12.0
and trailers Nondefense aircraft and parts	27,203 12,006	27,175 10,534	26,783 10,085	0.1 14.0	1.5 4.5	0.6 -7.1	29,438 11,215	23,720 8,508	27,972 14,417	25,766 7,859	214,191 81,653	191,283 69,711	12.0 17.1
Defense aircraft and parts	5,519	5,192	5,377	6.3			5,493	4,635	5,972	5,323	41,362	41,085	0.7 0.0
Ships and boats Furniture and related products	3,571 6,200	3,580 6,184	3,485 6,158	-0.3 0.3		-1.5 -1.0	3,566 6,693	3,276 6,227	3,716 6,390	3,540 6,173	27,968 49,214	27,955 46,127	6.7
Miscellaneous durable goods	14,196	14,002	14,038	1.4	-0.3	-0.2	14,214	12,948	14,846	13,098	109,489	102,698	6.6
Nondurable goods industries	275,720	275,246	280,661	0.2	-1.9	1.4	284,960	274,240	293,843	249,258	2,167,763	1,876,594	15.5
Food products	76,163	76,097	76,031	0.1	0.1	0.2	77,890	73,465	76,155	73,949	598,168	-	5.2
Grain and oilseed milling Dairy products	9,090 11,952	9,201 12,029	9,235 12,066	-1.2 -0.6	-0.4 -0.3	0.4 0.9	9,575 12,193	8,879 11,871	9,314 12,103	8,576 11,188	72,150 93,839	*	12.2 7.1
Meat, poultry, and seafood products	22,804	22,763	22,838	0.2	-0.3	-1.3	23,192	22,382	23,806	22,533	182,324	172,070	6.0
Beverage and tobacco products Beverages	16,737 10,028	16,424 9,942	16,557 9,860	1.9 0.9		3.6 1.1	17,359 10,650	16,495 10,013	17,338 10,641	15,043 10,038	126,687 78,849	109,937 74,276	15.2 6.2
Tobacco	6,709	6,482	6,697	3.5	-3.2	7.5	6,709	6,482	6,697	5,005	47,838	35,661	34.1
Textile mills Textile products	2,349 1,977	2,325 1,981	2,286 1,993	1.0 -0.2		-0.7 -1.6	2,495 2,060	2,295 2,003	2,434 2,136	2,373 1,990	18,783 16,144	18,105 15,425	3.7 4.7
Apparel	714	724	732	-1.4	-1.1	0.1	774	711	705	773	5,602	5,444	2.9
Leather and allied products Paper products	441 16,224	421 16,192	423 16,351	4.8 0.2	-0.5 -1.0	-5.4 -0.8	473 17,193	432 15,880	441 16,884	423 16,640	3,469 130,937	3,153 125,442	10.0 4.4
Pulp, paper, and paperboard mills	5,833	5,859	5,896	-0.4	-0.6	-2.3	6,195	5,888	5,961	6,001	47,313	45,160	4.8
Paperboard containers Printing	6,021 6,935	5,989 6,968	6,062 6,964	0.5 -0.5	-1.2 0.1	1.0 2.0	6,513 7,159	5,818 6,672	6,361 6,981	6,277 6,343	48,417 53,490	46,909 48,751	3.2 9.7
Petroleum and coal products	64,807	65,500	70,355	-1.1	-6.9	4.2	67,413	71,115	76,868	46,545	506,026	327,677	54.4
Petroleum refineries Chemical products	59,550 66,832	60,187 66,238	65,115 66,589	-1.1 0.9			61,217 68,568	65,208 63,417	70,767 70,159	41,295 63,541	465,072 528,660	291,157 490,126	59.7 7.9
Pesticides, fertilizers, and other	ŕ									·			
agricultural chemicalsPharmaceuticals and medicines	3,219 22,031	3,240 21,970	3,247 22,024	-0.6 0.3		2.2 2.4	2,648 23,114	2,535 21,028	3,536 23,125	2,414 20,405	26,883 169,395	23,802 154,615	12.9 9.6
Paints, coatings, and adhesives	3,837	3,762	3,782	2.0	-0.5	0.2	4,205	3,726	4,140	3,859	31,143	29,149	6.8
Plastics and rubber products	22,541	22,376	22,380	0.7	0.0	0.0	23,576	21,755	23,742	21,638	179,797	163,880	9.7

^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, August Full Report, October 4, 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.

^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 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		.a on aata n	Seasonally /		o ompine	1103) 11110	tories, and t	Jideis Sait		Seasonally A	djusted		
		Monthly		Pe	rcent Chang	ge		Mon	thly			Year to date	
Industry	Aug.	July	June	July -	June -	May -	Aug.	July	June	Aug.	a a a a p	2024	% Change 2022/
	2022 ^p	2022'	2022	Aug.	July	June	2022 ^p	2022'	2022	2021	2022 ^p	2021	2021
All manufacturing industries ²	548,419	548,449	554,232	0.0	-1.0	1.8	564,168	523,696	588,313	500,229	4,301,919	3,801,549	13.2
Excluding transportation ²	456,432	455,462	460,606	0.2	-1.1	1.0	470,017	444,965	486,409	421,015	3,599,525	3,202,190	12.4
Excluding defense ²	529,602	531,192	534,338	-0.3	-0.6	1.1	547,747	510,766	566,306	488,742	4,177,859	3,688,277	13.3
With unfilled orders ²	193,542	194,332	194,488	-0.4	-0.1	2.7	194,745	177,574	209,510	177,269	1,516,926	1,364,106	11.2
Durable goods industries ²	272,699	273,203	273,571	-0.2	-0.1	2.3	279,208	249,456	294,470	250,971	2,134,156	1,924,955	10.9
Primary metals	20,769	20,649	21,050	0.6	-1.9		21,424	19,522	21,919	19,463	169,064	152,501	10.9
Iron and steel mills	12,468	12,419	12,354	0.4	0.5	0.6	12,991	11,907	12,758	11,090	98,304	85,037	15.6
Aluminum and nonferrous metals	6,838	6,780	7,277	0.9	-6.8		-	6,290	7,564	6,890	58,318	56,298	
Ferrous metal foundries	1,463	1,450	1,419	0.9	2.2		1,568	1,325	1,597	1,483	12,442		11.4
Fabricated metal products	36,934	37,195	36,922	-0.7	0.7		38,753	35,493	38,856	36,757	300,102	· ·	
Machinery Construction machinery	38,757 3,650	38,622 3,692	38,434 3,743	0.3 -1.1	0.5 -1.4	0.5 0.3	38,732 3,584	36,345 3,422	41,299 3,921	35,487 3,027	306,443 28,936	275,754 25,259	11.1 14.6
Mining, oil field, and													
gas field machinery	1,663	1,516	1,534	9.7	-1.2	1.7	1,655	1,405	1,595	1,335	11,430	10,239	11.6
Industrial machinery	6,301	6,576	6,522	-4.2	0.8		5,979	6,264	7,129	5,314	50,191	35,372	41.9
Photographic equipment Ventilation, heating, air-conditioning,	523	553	566	-5.4	-2.3	11.2	533	545	564	513	4,008	3,906	2.6
and refrigeration equipment	4,939	4,959	4,844	-0.4	2.4	-1.6	5,257	5,153	5,673	4,579	39,928	35,158	13.6
Metalworking machinery	2,596	2,551	2,518	1.8	1.3		-	2,383	2,721	2,630	20,672	20,791	-0.6
Turbines, generators, and other	ŕ	·	,				ŕ	·	·	ŕ	ŕ	ŕ	
power transmission equipment	3,275	3,190	3,313	2.7	-3.7	6.3	3,435	3,047	3 <i>,</i> 355	3,367	25,780	26,491	-2.7
Material handling equipment	3,607	3,528	3,375	2.2	4.5	-0.7	3,764	2,938	3,838	3,221	28,371	22,999	23.4
Computers and electronic products ²	24,712	24,547	24,211	0.7	1.4	1.8	23,475	21,803	26,647	22,006	184,625	174,927	5.5
Computers	753	778	753	-3.2	3.3	3.6	788	745	895	782	5,727	5,715	0.2
Nondefense communications													
equipment	3,159	3,053	2,918	3.5	4.6		2,617	2,242	3,617	2,687	22,833	22,095	3.3
Defense communications equipment	219	222	214	-1.4	3.7		219	192	218	194	1,595	1,348	
Electronic components	4,714	4,667	4,604	1.0	1.4	2.2	4,932	4,586	4,636	4,385	36,364	32,414	12.2
Nondefense search and navigation	1 700	1,786	1,764	0.1	1.2	2.0	1 704	1 566	1 027	1 906	12 044	14.060	-0.8
equipment Defense search and navigation	1,788	1,760	1,704	0.1	1.2	2.0	1,784	1,566	1,937	1,806	13,944	14,060	-0.6
equipment	3,157	3,250	3,275	-2.9	-0.8	1.2	2,768	2,616	3,744	2,810	23,998	23,861	0.6
Electromedical, measuring, and control instruments	9,030	8,936	9,019	1.1	-0.9	3.5	8,613	8,197	9,703	8,018	67,574	64,903	4.1
Electrical equipment, appliances,	9,030	8,930	9,019	1.1	-0.9	3.5	8,013	8,197	9,703	8,018	07,574	04,903	4.1
and components	13,885	13,661	13,717	1.6	-0.4	2.7	14,274	12,611	14,794	13,051	107,621	98,835	8.9
Electric lighting equipment	1,100	1,075	1,026	2.3	4.8		1,152	1,007	1,151	1,031	8,312	8,198	
Household appliances	2,764	2,642	2,702	4.6	-2.2		2,807	2,240	2,897	2,590	20,113	20,200	
Electrical equipment	3,958	4,046	4,012	-2.2	0.8	-1.2	4,009	3,779	4,524	3,801	32,370	28,020	
Transportation equipment	91,987	92,987	93,626	-1.1	-0.7	6.1	94,151	78,731	101,904	79,214	702,394	599,359	17.2
Motor vehicle bodies, parts,													
and trailers	27,098	27,139	26,782	-0.2	1.3		29,382	23,551	27,272	26,257	214,188	194,040	
Nondefense aircraft and parts ³	13,338	16,366	14,596	-18.5	12.1	1.0	12,043	15,716	18,354	13,035	-	80,650	
Defense aircraft and parts	6,878	5,244	9,644	31.2	-45.6		•	3,865	10,507	3,851	43,285	37,303	
Ships and boats	5,517	5,097	3,221	8.2	58.2	-9.1	4,616	3,414	3,450	2,254	28,953	30,867	-6.2
Furniture and related products	6,133	6,181	6,157	-0.8	0.4	0.3	6,369	6,074	6,241	6,116	49,125	48,193	1.9
Nondurable goods industries	275,720	275,246	280,661	0.2	-1.9	1.4	284,960	274,240	293,843	249,258	2,167,763	1,876,594	15.5

^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, August Full Report, October 4, 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 Adjusted					
		Monthly		Р	ercent Chang	е		Mor	nthly		% Change	
Industry	Aug. 2022 ^p	July 2022 ^r	June 2022	July - Aug.	June - July	May - June	Aug. 2022 ^p	July 2022 ^r	June 2022	Aug. 2021	August 2022/ 2021	
All manufacturing industries ²	1,132,082	1,126,755	1,118,721	0.5	0.7	0.8	1,126,408	1,126,849	1,121,396	1,054,291	6.8	
Excluding transportation ²	473,118	471,691	470,290	0.3	0.3	0.1	471,585	473,824	473,939	448,642	5.1	
Excluding defense ²	917,193	914,052	906,861	0.3	0.8	0.6	914,745	915,365	908,105	844,839	8.3	
Durable goods industries ²	1,132,082	1,126,755	1,118,721	0.5	0.7	0.8	1,126,408	1,126,849	1,121,396	1,054,291	6.8	
Primary metals	30,786	30,739	30,760	0.2	-0.1	-1.1	30,356	30,800	30,987	30,647	-0.9	
Iron and steel mills	16,070	15,879	15,897	1.2	-0.1	-0.6	16,011	16,067	16,109	16,548	-3.2	
Aluminum and nonferrous metals	10,605	10,739	10,745	-1.2	-0.1	-1.7	10,243	10,608	10,725	10,600	-3.4	
Ferrous metal foundries	4,111	4,121	4,118	-0.2	0.1	-1.7	4,102	4,125	4,153	3,499	17.2	
Fabricated metal products	118,059	117,997	117,918	0.1	0.1	-0.1	119,219	119,887	119,916	115,308		
Machinery	132,290	131,565	130,952	0.6	0.5	0.5	*	131,867	131,313	121,530		
Construction machinery Mining, oil field, and	10,088	10,047	10,023	0.4	0.2	1.5	9,627	9,762	9,939	8,503	13.2	
gas field machinery	5,155	5,035	5,045	2.4	-0.2	1.6	5,155	5,035	5,045	4,876	5.7	
Industrial machinery	12,747	12,665	12,307	0.6	2.9	2.2	12,675	12,807	12,344	10,405	21.8	
Photographic equipment	3,162	3,162	3,113	0.0	1.6	1.0	3,079	3,065	2,998	3,153	-2.3	
Ventilation, heating, air-conditioning,	11 620	11 255	10,977	2.4	3.4	2.1	11,680	11 570	11 150	8,568	36.3	
and refrigeration equipment Metalworking machinery	11,630	11,355	8,611	2.4 0.0		-1.1	-	11,570 8,629	11,150	-		
Turbines, generators, and other	8,523	8,520	0,011	0.0	-1.1	-1.1	8,302	0,029	8,615	7,903	0.5	
power transmission equipment	33,238	33,281	33,362	-0.1	-0.2	0.2	33,238	33,281	33,362	32,989	0.8	
Material handling equipment	16,788	16,620	16,499	1.0	-0.2 0.7	-0.3	33,238 16,742	16,574	16,700	15,132	10.6	
•		*	•	0.2	0.7	0.1	,	· ·	•	ŕ		
Computers and electronic products ²	140,639	140,379	140,154				139,140	140,086	140,583	134,313		
Computers	1,210	1,218	1,208	-0.7	0.8	0.9	1,210	1,218	1,208	1,338	-9.6	
Nondefense communications	24 420	24.05.4	24.454	0.4	0.5	0.0	20.747	20.050	24 276	40.724	10.6	
equipment	21,130	21,054	21,154	0.4		-0.8	,	20,858	21,276	18,734	10.6	
Defense communications equipment	322	318	312	1.3	1.9	1.6		304 15 038	312	325	-7.1	
Electronic components Nondefense search and navigation	16,091	16,040	15,984	0.3	0.4	0.3	15,840	15,938	15,814	15,160	4.5	
equipment Defense search and navigation	32,268	32,137	32,014	0.4	0.4	0.4	32,206	32,115	31,984	30,403	5.9	
equipment	38,374	38,451	38,370	-0.2	0.2	0.2	38,026	38,476	38,748	38,345	-0.8	
Electromedical, measuring,												
and control instruments	31,244	31,161	31,112	0.3	0.2	0.2	30,839	31,177	31,241	30,008	2.8	
Electrical equipment, appliances,										_	_	
and components	39,675	39,274	38,765	1.0	1.3	0.8	,	39,346	39,148	35,145		
Electric lighting equipment	2,280	2,221	2,189	2.7	1.5	-0.3	,	2,228	2,226	2,042	11.1	
Household appliances	4,751	4,744	4,773	0.1	-0.6	-2.2	4,616	4,677	4,739	5,089		
Electrical equipment	16,777	16,607	16,294	1.0	1.9	1.7	16,821	16,732		14,270		
Transportation equipment Motor vehicle bodies, parts,	658,964	655,064	648,431	0.6	1.0	1.3	654,823	653,025	647,457	605,649	8.1	
and trailers	28,331	28,436	28,472	-0.4	-0.1	0.0	27,744	27,800	27,969	26,458	4.9	
Nondefense aircraft and parts	441,433	440,101	434,269	0.3	1.3	1.0	440,809	439,981	432,773	395,285	11.5	
Defense aircraft and parts	61,474	60,115	60,063	2.3	0.1	7.6	60,481	59,433	60,203	56,281	7.5	
Ships and boats	51,883	49,937	48,420	3.9	3.1	-0.5	50,592	49,542	49,404	52,075	-2.8	
Furniture and related products	10,271	10,338	10,341	-0.6	0.0	0.0	10,115	10,439	10,592	10,296	-1.8	

^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, August Full Report, October 4, 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			Seasonally Ad			<u> </u>			Seasonally Adjus	sted	
La dividant	ļ	Monthly		P	ercent Chang	e		Mor	nthly		% Change
Industry	Aug. 2022 ^p	July 2022 ^r	June 2022	July - Aug.	June - July	May - June	Aug. 2022 ^p	July 2022 ^r	June 2022	Aug. 2021	August 2022/ 2021
All manufacturing industries	800,189	801,381	801,535	-0.1	0.0	0.4	802,917	807,098	802,257	737,806	8.8
Excluding transportation	642,711	643,867	643,959	-0.2	0.0	0.5	643,594	648,188		583,023	10.4
Excluding defense	773,529	774,581	774,964	-0.1	0.0	0.4		780,199	775,598	712,267	9.0 7.8
With unfilled orders	390,156	389,669	388,805	0.1	0.2	0.5	392,447	393,015	389,188	364,213	
Durable goods industries	487,488	486,343	485,143	0.2	0.2	0.4	490,270	489,587	484,474	453,745	8.0
Wood products	14,709	14,726	14,772	-0.1	-0.3			14,523	14,546	13,672	6.0
Nonmetallic mineral products Primary metals	16,273 38,956	16,170	15,979 20,284	0.6 -0.3	1.2 -0.5	0.9 -0.2	16,178	16,226 39,251	16,103	14,471 25,206	11.8 10.0
Iron and steel mills	22,814	39,084 22,939	39,284 23,165	-0.5 -0.5	-0.5 -1.0	-0.2	38,848 22,745	23,054	39,223 23,123	35,306 20,982	8.4
Aluminum and nonferrous metals	13,431	13,448	13,433	-0.1	0.1	-0.1	13,437	13,513	13,408	11,909	12.8
Ferrous metal foundries	2,711	2,697	2,686	0.5	0.4	-0.3	,	2,684	2,692	2,415	10.4
Fabricated metal products Machinery	62,781 84,416	62,608 83,911	62,429 83,269	0.3 0.6	0.3 0.8	0.3 1.1	62,811 84,767	63,350 83,812	62,765 83,327	57,203 73,276	9.8 15.7
Farm machinery	5,980	5,871	5,882	1.9	-0.2	1.1	5,735	5,671	5,690	4,199	36.6
Construction machinery	7,126	7,159	7,070	-0.5	1.3	0.1	7,087	7,144	7,084	5,652	25.4
Mining, oil field, and gas field machinery	6,152	6,181	6,133	-0.5	0.8	1.5	6,233	6,250	6,171	5,844	6.7
Industrial machinery	10,765	10,643	10,628	1.1	0.1		10,968	10,387	10,920	9,501	15.4
Photographic equipment	1,387	1,381	1,363	0.4	1.3	-2.5	1,425	1,390	1,334	1,365	4.4
Ventilation, heating, air-conditioning, and refrigeration equipment	7,774	7,651	7,454	1.6	2.6	3.2	7,653	7,577	7,467	6,011	27.3
Metalworking machinery	6,768	6,715	6,666	0.8	0.7	1.0		6,821	6,646	6,105	12.4
Turbines, generators, and other											
power transmission equipment	10,296	10,348	10,301	-0.5	0.5	1.0	,	10,537	10,330	9,382	10.9
Material handling equipment Computers and electronic products ²	6,895 52,457	6,778 52,278	6,720 52,097	1.7 0.3	0.9 0.3	1.0 0.7	7,018 52,833	6,827 52,755	6,720 52,151	6,006 50,240	16.8 5.2
Computers	2,151	2,129	2,125	1.0	0.2	0.5	2,261	2,200	2,214	2,097	7.8
Computer storage devices	867	861	858	0.7	0.3	-2.3	911	883	830	930	-2.0
Other peripheral equipment Nondefense communications	949	913	891	3.9	2.5	-0.6	962	884	887	781	23.2
equipment	4,733	4,735	4,723	0.0	0.3	0.9	4,881	4,806	4,719	4,686	4.2
Defense communications equipment	, 654	657	658	-0.5	-0.2	-0.2	654	, 657	, 658	662	-1.2
Audio and video equipment	1,165	1,141	1,174	2.1	-2.8		1,127	1,076	1,204	836	34.8
Electronic components Nondefense search and navigation	9,871	9,893	9,870	-0.2	0.2	0.4	9,622	10,087	9,940	9,816	-2.0
equipment	3,457	3,402	3,346	1.6	1.7	1.1	3,510	3,438	3,321	3,186	10.2
Defense search and navigation											
equipment Electromedical, measuring	2,826	2,838	2,839	-0.4	0.0	0.2	2,849	2,867	2,838	2,899	-1.7
and control instruments	17,949	17,861	17,752	0.5	0.6	1.1	18,210	18,062	17,755	16,841	8.1
Electrical equipment, appliances,											
and components Electric lighting equipment	23,149 2,080	22,949 2,074	22,862 2,081	0.9 0.3	0.4 -0.3	0.2 0.4	23,398 2,093	23,400 2,088	23,088 2,081	20,348 2,064	15.0 1.4
Household appliances	3,322	3,424	3,394	-3.0	0.9	-0.1	3,432	3,522	3,374	2,809	22.2
Electrical equipment	7,778	7,652	7,614	1.6	0.5	0.2	7,880	7,814	7,696	6,797	15.9
Batteries Transportation equipment	1,559 157,478	1,570 157,514	1,586 157,576	-0.7 0.0	-1.0 0.0	-2.3 0.2	1,625 159,323	1,633 158,910	1,686 156,348	1,618 154,783	0.4 2.9
Automobiles	6,334	6,304	6,427	0.5	-1.9	-2.3	6,681	6,425	6,305	6,735	-0.8
Light trucks and utility vehicles	10,025	9,777	9,633	2.5	1.5		10,517	9,890	· ·	9,432	11.5
Heavy duty trucks Motor vehicle bodies, parts,	2,848	2,871	2,883	-0.8	-0.4	6.0	2,855	2,946	2,923	2,647	7.9
and trailers	32,527	32,545	32,609	-0.1	-0.2	0.6	32,508	33,022	32,455	30,373	7.0
Nondefense aircraft and parts	75,804	76,006	76,062	-0.3	-0.1		76,514	76,341	75,642	77,162	-0.8
Defense aircraft and parts Ships and boats	12,868 4,583	13,076 4,492	13,009 4,440	-1.6 2.0	0.5 1.2	1.9 0.8	12,893 4,652	13,137 4,501	13,000 4,509	12,592 3,754	2.4 23.9
Furniture and related products	9,994	9,918	9,847	0.8	0.7	1.1	10,039	10,022	10,004	3,734 8,628	16.4
Miscellaneous durable goods	27,275	27,185	27,028	0.3	0.6	0.6		27,338	•	25,818	6.8
Nondurable goods industries	312,701	315,038	316,392	-0.7	-0.4	0.4	312,647	317,511	317,783	284,061	10.1
Food products	62,884	62,768	62,571	0.2	0.3	-0.2	62,807	62,015	61,189	59,577	5.4
Grain and oilseed milling	7,857	7,813	7,804	0.2	0.3	-2.0		7,642	7,645	6,977	9.6
Dairy products	9,323	9,369	9,355	-0.5	0.1	0.9	9,418	9,679	9,631	8,524	10.5
Meat, poultry, and seafood products	11,021	10,925	10,755	0.9 0.6	1.6 0.2	1.0 0.1	,	10,927 27,603	10,556	10,564	6.0 6.0
Beverage and tobacco products Beverages	28,465 24,801	28,295 24,633	28,232 24,572	0.6	0.2	0.1	27,802 24,392	27,603	27,861 24,357	26,232 22,921	6.4
Tobacco	3,664	3,662	3,660	0.1	0.1	-0.6		3,407	3,504	3,311	3.0
Textile mills	3,640	3,656	3,584	-0.4	2.0	1.9	3,646	3,690	3,577	3,106	17.4
Textile products Apparel	4,335 2,378	4,310 2,323	4,289 2,292	0.6 2.4	0.5 1.4	0.4 3.2	4,334 2,503	4,289 2,447	4,254 2,399	3,907 1,925	10.9 30.0
Leather and allied products	1,179	1,150	1,102	2.5	4.4	5.2	1,201	1,185	1,121	865	38.8
Paper products	16,728	16,660	16,550	0.4	0.7	0.8	<i>'</i>	16,879	16,545	15,712	7.3
Pulp, paper, and paperboard mills Paperboard containers	4,989 6,169	4,982 6,137	4,953 6,062	0.1 0.5	0.6 1.2	0.9 1.2	5,012 6,238	5,039 6,202	4,953 6,026	4,844 5,705	3.5 9.3
Printing	6,504	6,463	6,407	0.6	0.9	1.2	6,578	6,422	6,363	6,100	7.8
Petroleum and coal products	49,469	52,704	55,551	-6.1	-5.1	-0.6	49,839	55,974	58,694	39,470	26.3
Petroleum refineries Chemical products	43,016 104,855	45,775 104,645	48,739 104,006	-6.0 0.2	-6.1 0.6	-0.9 0.8	43,338 104,903	48,900 104,991		33,830 98,319	28.1 6.7
Pesticides, fertilizers, and other	104,033	104,045	104,000	0.2	0.0	0.8	104,903	104,331	104,098	J0,519	0.7
agricultural chemicals	6,768	6,781	6,595	-0.2	2.8	3.8	· ·	6,545	6,247	5,483	19.7
Pharmaceuticals and medicines	43,069 5 160	43,097	43,040	-0.1	0.1	0.1	42,834	43,312	43,719	43,010	-0.4 29.1
Paints, coatings, and adhesives Plastics and rubber products	5,169 32,264	5,078 32,064	4,981 31,808	1.8 0.6	1.9 0.8	1.7 1.1	5,109 32,175	5,118 32,016	5,003 31,682	3,988 28,848	28.1 11.5
]	,	22,000	5.5	3.5		,-, 3	,	52,552	_5,5 10	

^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 noncalendar reporters. Seasonally adjusted estimates include concurrent adjustments for holiday and trading-day differences, where appropriate, as well as seasonal variation, based on the results of the latest annual review of the model parameters. Estimates are not adjusted for price changes.

² Estimates of inventories for the semiconductor industry data are included in computers and electronic products, and all other applicable aggregate totals.

Note: Estimates of manufacturers' shipments, inventories and orders are subject to survey error and revision. One major component of survey error is nonsampling error, which includes errors of coverage, response, and nonreporting. Since the survey panel is not a probability sample, estimates of sampling error cannot be calculated. For further details on survey design, methodology, and data limitations see http://www.census.gov/manufacturing/m3/. Source: U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders (M3) Survey, August Full Report, October 4, 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 5. Value of Manufacturers' Shipments, New Orders, Unfilled Orders, and Total Inventories for **Topical Series**^{1, 2}

[Estimates are shown in millions of dolla	13 and are ba		asonally Adju		turers 3	притеп	s, ilivelitori	es, and Ord		Seasonally A	Adjusted		
		Monthly		Per	cent Char	nge		Mon	thly	-	Year t	o date	
Industry	Aug. 2022 ^p	July 2022 ^r	June 2022	July - Aug.	June - July	May - June	Aug. 2022 ^p	July 2022 ^r	June 2022	Aug. 2021	2022 ^p	2021	% Change ⁶ 2022/ 2021
<u>SHIPMENTS</u>													
All manufacturing industries	547,944	545,282	550,206	0.5	-0.9	0.8	569,812	523,169	586,711	501,241	4,287,724	3,780,743	13.4
Construction materials and supplies Information technology Computers and related products Motor vehicle and parts	61,466 25,253 2,190 59,935	61,442 24,971 2,164 59,659	61,646 24,909 1,984 59,651	1.1	0.2 9.1	0.3 1.7 7.3 1.6	67,360 25,073 2,126 65,167	61,893 23,116 1,992 50,275	68,028 27,598 2,430 62,841	60,930 22,906 1,751 54,711	191,040 14,877	447,242 177,639 13,498 408,915	7.5 10.2
Capital goods Nondefense capital goods ³ Excluding aircraft Defense capital goods ⁴	96,633 82,126 74,246 14,507	94,963 80,660 73,946 14,303	93,411 79,762 73,474 13,649	0.4	1.1 0.6	-0.4 -0.2 0.8 -1.9	96,191 82,115 74,913 14,076	86,947 74,067 69,104 12,880	104,888 90,655 80,372 14,233	84,350 71,432 66,851 12,918	626,237 574,771	660,282 558,636 513,726 101,646	12.1 11.9
Consumer goods Consumer durable goods Consumer nondurable goods	235,274 45,050 190,224	235,226 44,755 190,471	240,856 45,259 195,597		-1.1	1.9 1.8 1.9	244,352 48,237 196,115	229,511 37,635 191,876	251,539 47,836 203,703	207,630 41,220 166,410	344,717	1,553,818 311,433 1,242,385	10.7
NEW ORDERS	540440	- 40 440	554.000	0.0			564.460		500.040	500.000		2 224 5 42	40.0
All manufacturing industries ⁵ Construction materials and supplies Information technology Computers and related products Motor vehicle and parts	548,419 61,708 25,627 2,182 59,830	548,449 61,566 25,382 2,174 59,623	554,232 61,582 25,195 1,995 59,650	0.2 1.0 0.4	0.0 0.7 9.0	1.8 -0.1 2.1 8.2 1.6	564,168 66,749 24,313 2,118 65,111	523,696 61,806 22,514 2,002 50,106	588,313 67,586 27,817 2,441 62,141	500,229 62,244 22,826 1,737 55,202	500,602 191,791 14,868	467,653	7.0 5.1 10.5
Capital goods Nondefense capital goods ³ Excluding aircraft Defense capital goods ⁴	101,399 84,785 75,723 16,614	102,190 87,100 74,709 15,090	98,332 84,937 74,190 13,395	-2.7 1.4	2.5 0.7	0.7 1.0 1.0 -1.4	97,592 82,905 74,684 14,687	92,343 81,178 68,913 11,165	109,302 94,359 80,033 14,943	88,105 77,852 67,947 10,253	671,558 584,005	689,300 588,505 532,184 100,795	14.1 9.7
Consumer goods Consumer durable goods Consumer nondurable goods	235,203 44,979 190,224	235,138 44,667 190,471	240,785 45,188 195,597		-2.3 -1.2 -2.6	2.0 2.4 1.9	244,223 48,108 196,115	229,446 37,570 191,876	251,269 47,566 203,703	207,594 41,184 166,410	343,791	1,555,908 313,523 1,242,385	9.7
<u>UNFILLED ORDERS</u>													
All manufacturing industries ⁵	1,132,082	1,126,755	1,118,721	0.5	0.7	0.8	1,126,408	1,126,849	1,121,396	1,054,291	(X)	(X)	6.8
Construction materials and supplies Information technology Computers and related products Motor vehicle and parts	89,176 143,577 1,210 28,331	88,934 143,203 1,218 28,436	88,810 142,792 1,208 28,472	0.3 -0.7	0.3 0.8	-0.1 0.2 0.9 0.0	90,156 142,162 1,210 27,744	90,767 142,922 1,218 27,800	90,854 143,524 1,208 27,969	84,489 136,050 1,338 26,458	(X) (X)	(X) (X) (X) (X)	4.5 -9.6
Capital goods Nondefense capital goods ³ Excluding aircraft Defense capital goods ⁴	826,510 638,393 266,998 188,117	821,744 635,734 265,521 186,010	814,517 629,294 264,758 185,223	0.4 0.6	1.0 0.3	0.6 0.8 0.3 -0.1	822,410 636,949 265,528 185,461	821,009 636,159 265,757 184,850	815,613 629,048 265,948 186,565	764,762 576,708 249,309 188,054	(X)	(X) (X) (X) (X)	10.4 6.5
Consumer goods Consumer durable goods	10,781 10,781	10,852 10,852	10,940 10,940		-0.8 -0.8	-0.6 -0.6	10,569 10,569	10,698 10,698	10,763 10,763	11,660 11,660		(X) (X)	
TOTAL INVENTORIES		_	_				_	_					
All manufacturing industries	800,189	801,381	801,535		0.0		802,917	807,098	802,257	737,806		(X)	
Construction materials and supplies Information technology Computers and related products Motor vehicle and parts	86,671 44,660 3,967 51,734	86,335 44,259 3,903 51,497	85,951 44,026 3,874 51,552	0.9 1.6	0.5 0.7	0.7 0.8 -0.4 -0.4	86,165 45,268 4,134 52,561	86,593 44,713 3,967 52,283	86,052 44,110 3,931 50,812	78,017 41,444 3,808 49,187	(X) (X)	(X) (X) (X) (X)	9.2 8.6
Capital goods Nondefense capital goods ³ Excluding aircraft Defense capital goods ⁴	236,323 213,631 148,515 22,692	235,687 212,851 147,514 22,836	234,656 212,041 146,642 22,615	0.4 0.7	0.4 0.6	0.7 0.6 0.9 1.5	238,533 215,759 149,939 22,774	237,201 214,327 148,579 22,874	235,065 212,353 147,159 22,712	221,924 200,274 133,654 21,650	(X) (X)	(X) (X) (X) (X)	7.7 12.2
Consumer goods Consumer durable goods Consumer nondurable goods	242,973 43,606 199,367	245,562 43,321 202,241	247,818 43,187 204,631	-1.1 0.7	-0.9 0.3	-0.2 -0.7 -0.1	243,711 44,724 198,987	248,032 43,556 204,476	249,088 42,405	222,688 40,257 182,431	(X) (X)	(x) (x) (x)	9.4 11.1

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, August Full Report, October 4, 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

^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 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.

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 Adju	sted	
Industry		Monthly		P	ercent Chang	ge I		Mor	nthly		% Change August
mausti y	Aug. 2022 ^p	July 2022 ^r	June 2022	July - Aug.	June - July	May - June	Aug. 2022 ^p	July 2022 ^r	June 2022	Aug. 2021	2022/ 2021
MATERIALS AND SUPPLIES											_
All manufacturing industries	294,493	294,320	294,301	0.1	0.0	0.6	294,929	297,138	295,457	262,065	12.5
Durable goods industries	180,471	180,414	179,438	0.0	0.5		•	182,243		160,391	13.1
Wood products Nonmetallic mineral products	6,522 7,261	6,624 7,053	6,594 6,946	-1.5 2.9	0.5 1.5		6,484 7,267	6,564 7,068	-	5,880 6,183	10.3 17.5
Primary metalsFabricated metal products	14,286 25,606	14,557	14,610	-1.9 0.1	-0.4 -0.1		14,268	14,653	-	12,471	14.4 12.2
Machinery	36,432	25,572 36,468	25,605 36,040		-0.1 1.2		25,686 36,716	25,853 36,891		22,889 30,838	19.1
Computers and electronic products Electrical equipment, appliances,	25,281	24,966	24,708	1.3	1.0	1.8	25,517	25,251	24,830	22,444	13.7
and components	10,988	10,859	10,781	1.2	0.7		11,110	11,150	· ·	9,182	21.0
Transportation equipment Furniture and related products	40,397 4,890	40,650 4,851	40,609 4,814	-0.6 0.8	0.1 0.8		40,461 4,887	40,982 4,870	· ·	37,895 4,094	6.8 19.4
Miscellaneous products	8,808	8,814	8,731	-0.1	1.0	0.4	8,979	8,961	8,717	8,515	5.4
Nondurable goods industries Food products	114,022 23,983	113,906 24,078	114,863 24,041	0.1 -0.4	-0.8 0.2		· · · · · · · · · · · · · · · · · · ·	114,895 23,910		101,674 22,652	11.7 4.2
Beverage and tobacco products	5,700	5,621	5,876	1.4	-4.3	0.9	5,420	5,361	5,706	5,731	-5.4
Textiles Textile products	1,431 1,583	1,444 1,620	1,404 1,517	-0.9 -2.3	2.8 6.8		1,438 1,584	1,457 1,617	1,408 1,507	1,260 1,392	14.1 13.8
Apparel	739	737	741	0.3	-0.5	3.3	766	768		642	19.3
Leather and allied products Paper products	373 8,895	373 8,793	364 8,723	0.0 1.2	2.5 0.8	2.2 1.6	381 8,953	387 8,871	8,695	302 8,024	26.2 11.6
Printing Petroleum and coal products	3,364 17,687	3,359 17,652	3,320 18,924	0.1 0.2	1.2 -6.7	2.0 -3.2	3,408 17,572	3,375 18,656	3,327 20,880	3,050 13,311	11.7 32.0
Chemical products	36,355	36,383	36,246	-0.1	0.4	0.8	36,372	36,557	36,067	32,478	12.0
Plastics and rubber products	13,912	13,846	13,707	0.5	1.0	-0.9	14,050	13,936	13,688	12,832	9.5
WORK IN PROCESS All manufacturing industries	224,836	226,143	226,187	-0.6	0.0	0.1	226,026	228,046	226,673	214,612	5.3
_	172,373		172,322	0.2	-0.1		173,850	173,143		167,970	3.5
Durable goods industries Wood products	2,083	172,093 2,090	2,086	-0.3	0.2		•	2,074		1,966	5.4
Nonmetallic mineral products Primary metals	1,485 12,617	1,484 12,390	1,480 12,720	0.1 1.8	0.3 -2.6		1,473 12,894	1,488 12,549	· ·	1,486 12,410	-0.9 3.9
Fabricated metal products	14,953	14,859	14,771	0.6	0.6	0.5	14,976	15,007	14,808	13,821	8.4
Machinery Computers and electronic products	23,518 13,098	23,198 13,116	23,403 13,153	1.4 -0.1	-0.9 -0.3		23,824 12,815	22,989 13,124		20,202 14,053	17.9 -8.8
Electrical equipment, appliances,	4 222	4 200		0.5	0.0	0.0	4 201			2 005	9.6
and components Transportation equipment	4,232 94,415	4,209 94,809	4,176 94,626		0.8 0.2	-0.9 0.3	4,281 95,451	4,313 95,615	94,462	3,905 94,590	0.9
Furniture and related products Miscellaneous products	1,342 4,630	1,347 4,591	1,347 4,560	-0.4 0.8	0.0 0.7	1.5 -0.6	1,345 4,718	1,339 4,645		1,308 4,229	2.8 11.6
Nondurable goods industries	52,463	54,050	53 <i>,</i> 865	-2.9	0.3	0.3	52,176	54,903	53,877	46,642	11.9
Food products Beverage and tobacco products	6,080 8,959	5,881 8,990	5,995 8,910	3.4 -0.3	-1.9 0.9	-0.8 0.7	5,624 8,620	5,501 8,611	5,590 8,620	5,296 8,432	6.2 2.2
Textiles	624	622	619	0.3	0.5	0.7	624	629	616	575	8.5
Textile products Apparel	471 281	464 281	451 281	1.5 0.0	2.9 0.0	-0.4 1.1	473 293	464 292	443 293	415 279	14.0 5.0
Leather and allied products Paper products	118 1,406	123 1,438	120 1,446	-4.1 -2.2	2.5 -0.6	4.3 -0.5	121 1,439	124 1,476		123 1,398	-1.6 2.9
Printing	1,254	1,257	1,440	-2.2 -0.2	-1.1	-0.5	1,439	1,470	1,208	1,223	4.7
Petroleum and coal products Chemical products	13,192 16,473	14,925 16,518	14,881 16,348	-11.6 -0.3	0.3 1.0		13,550 16,538	16,151 16,914	-	9,654 15,767	40.4 4.9
Plastics and rubber products	3,605	3,551	3,543	1.5	0.2	-0.3	3,613	3,514	-	3,480	3.8
FINISHED GOODS											
All manufacturing industries	280,860	280,918	281,047	0.0	0.0	0.5	281,962	281,914	280,127	261,129	8.0
Durable goods industries Wood products	134,644 6,104	133,836 6,012	133,383 6,092	0.6 1.5	0.3 -1.3		135,045 5,932	134,201 5,885		125,384 5,826	7.7 1.8
Nonmetallic mineral products	7,527	7,633	7,553	-1.4	1.1	1.2	7,438	7,670	7,614	6,802	9.4
Primary metals Fabricated metal products	12,053 22,222	12,137 22,177	11,954 22,053	-0.7 0.2	1.5 0.6		11,686 22,149	12,049 22,490		10,425 20,493	12.1 8.1
Machinery Computers and electronic products	24,466 14,078	24,245 14,196	23,826 14,236	0.9 -0.8	1.8 -0.3		24,227 14,501	23,932 14,380	· ·	22,236 13,743	9.0 5.5
Electrical equipment, appliances,								·			
and components Transportation equipment	7,929 22,666	7,881 22,055	7,905 22,341	0.6 2.8	-0.3 -1.3		8,007 23,411	7,937 22,313		7,261 22,298	10.3 5.0
Furniture and related products	3,762	3,720	3,686	1.1	0.9	0.5	3,807	3,813	3,754	3,226	18.0
Miscellaneous products	13,837	13,780	13,737	0.4	0.3		13,887	13,732		13,074	6.2
Nondurable goods industries Food products	146,216 32,821	147,082 32,809	147,664 32,535	0.0	-0.4 0.8	-0.5	146,917 33,573	147,713 32,604	31,765	135,745 31,629	8.2 6.1
Beverage and tobacco products Textiles	13,806 1,585	13,684 1,590	13,446 1,561	0.9 -0.3	1.8 1.9		· · · · · · · · · · · · · · · · · · ·	13,631 1,604	-	12,069 1,271	14.0 24.6
Textile products	2,281	2,226	2,321	2.5	-4.1	0.3	2,277	2,208	2,304	2,100	8.4
Apparel Leather and allied products	1,358 688	1,305 654	1,270 618	4.1 5.2	2.8 5.8	3.6 7.1	1,444 699	1,387 674	1,350 632	1,004 440	43.8 58.9
Paper products	6,427 1,886	6,429 1,847	6,381 1,816	0.0 2.1	0.8 1.7		6,467 1,889	6,532 1,820	6,388 1,828	6,290 1,827	2.8 3.4
Printing Petroleum and coal products	18,590	20,127	21,746	-7.6	-7.4	1.9	18,717	21,167	22,429	16,505	13.4
Chemical products Plastics and rubber products	52,027 14,747	51,744 14,667	51,412 14,558		0.6 0.7			51,520 14,566	-	50,074 12,536	3.8 15.8
	- 17, 77	- 1,007	1,,550	5.5	5.7	<u> </u>	1 1,012	- 1,500	-1,772	12,330	

^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 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 rat	io	Unfilled Orders/Shipments ratio ²					
Industry	Aug 2022 ^p	Jul 2022 ^r	Jun 2022	May 2022	Aug 2022 ^p	Jul 2022 ^r	Jun 2022	May 2022		
All manufacturing industries ³	1.46	1.47	1.46	1.46	(X)	(X)	(X)	(X)		
Durable goods industries ³	1.79	1.80	1.80	1.80	6.01	6.05	6.03	5.98		
Wood products	1.14	1.15	1.15	1.12	(X)	(X)	(X)	(X)		
Nonmetallic mineral products	1.30	1.29	1.27	1.27	(X)	(X)	(X)	(X)		
Primary metals	1.88	1.89	1.84	1.83	1.49	1.49	1.44	1.45		
Fabricated metal products	1.70	1.69	1.68	1.69	3.28	3.26	3.26	3.28		
Machinery	2.22	2.21	2.21	2.19	3.84	3.84	3.84	3.83		
Computers and electronic products ³ Electrical equipment, appliances,	1.79	1.79	1.79	1.81	6.23	6.25	6.25	6.34		
and components	1.72	1.74	1.71	1.70	3.17	3.22	3.11	3.09		
Transportation equipment	1.79	1.82	1.85	1.85	11.90	12.16	12.37	12.07		
Furniture and related products	1.61	1.60	1.60	1.57	1.87	1.89	1.90	1.88		
Miscellaneous products	1.92	1.94	1.93	1.91	(X)	(X)	(X)	(X)		
Nondurable goods industries	1.13	1.14	1.13	1.14	(X)	(X)	(X)	(X)		
Food products	0.83	0.82	0.82	0.83	(X)	(X)	(X)	(X)		
Beverage and tobacco products	1.70	1.72	1.71	1.76	(X)	(X)	(X)	(X)		
Textiles	1.55	1.57	1.57	1.53	(X)	(X)	(X)	(X)		
Textile products	2.19	2.18	2.15	2.11	(X)	(X)	(X)	(X)		
Apparel	3.33	3.21	3.13	3.04	(X)	(X)	(X)	(X)		
Leather and allied products	2.67	2.73	2.61	2.34	(X)	(X)	(X)	(X)		
Paper products	1.03	1.03	1.01	1.00	(X)	(X)	(X)	(X)		
Printing	0.94	0.93	0.92	0.93	(X)	(X)	(X)	(X)		
Petroleum and coal products	0.76	0.80	0.79	0.83	(X)	(X)	(X)	(X)		
Chemical products	1.57	1.58	1.56	1.56	(X)	(X)	(X)	(X)		
Plastics and rubber products	1.43	1.43	1.42	1.41	(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, August Full Report, October 4, 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 (Orders	Unfilled	Orders	Inventories	
Industry	. 2	Aug ³ 2021-	. 2	Aug ³ 2021-	. 2	Aug ³ 2021-	. 2	Aug ³ 2021-
	Aug ²	Jul	Aug ²	Jul	Aug²	Jul	Aug ²	Jul
	2022	2022	2022	2022	2022	2022	2022	2022
All manufacturing industries	(X)	0.2	(X)	0.3	(X)	0.1	(X)	0.:
Durable goods industries	0.1	0.1	0.0	0.5	0.0	0.1	0.0	0.
Wood products	(X)	0.2	(X)	(NA)	(X)	(NA)	(X)	0.
Nonmetallic mineral products	(X)	0.4	(X)	(NA)	(X)	(NA)	(X)	0.
Primary metals	0.3	0.4	0.2	0.6	0.0	0.2	0.0	0.
Fabricated metal products	-0.1	0.2	0.0	0.4	0.1	0.1	0.1	0.
Machinery	0.0	0.3	0.0	0.4	0.1	0.1	0.1	0
Computers and electronic products	0.0	0.2	-0.1	0.3	0.0	0.1	0.0	0
Electrical equipment, appliances,								
and components	0.5	0.3	0.6	0.8	0.0	0.2	0.0	0
Transportation equipment	0.1	0.3	0.0	1.5	0.0	0.2	0.0	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)	0.3	(X)	(NA)	(X)	(NA)	(X)	0
Textiles	(X)	0.4	(X)	(NA)	(X)	(NA)	(X)	0
Textile products	(X)	0.5	(X)	(NA)	(X)	(NA)	(X)	0
Apparel	(X)	0.5	(X)	(NA)	(X)	(NA)	(X)	0
Leather and allied products	(X)	0.9	(X)	(NA)	(X)	(NA)	(X)	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,

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, August Full Report, October 4, 2022. Information on data sources and methodology can be found on our website at

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<www.census.gov/manufacturing/m3/how_the_data_are_collected/index.html>.

^p Preliminary

Revised data due to late receipts and concurrent seasonal adjustment.

based on the results of the latest annual review of the model parameters. Estimates are not adjusted for price changes.

The current month revisions are the difference between the advance percent change and the percent change as shown in this publication.

The twelve month revisions are the differences between the month-to-month percent changes of the preliminary and final estimates. The monthly averages are the simple averages of the absolute values of the differences for the months specified. The advance to final percent