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Full Report on Manufacturers' Shipments, Inventories and Orders August 2016

Summary

New orders for manufactured goods in August, up two consecutive months, increased $0.7 billion or 0.2 percent to $453.1 billion, the U.S. Census Bureau reported today. This followed a 1.4 percent July increase.

Shipments, up five of the last six months, increased $0.1 billion or virtually unchanged to $458.1 billion. This followed a 0.4 percent July decrease.

Unfilled orders, down three consecutive months, decreased $1.6 billion or 0.1 percent to $1,123.2 billion. This followed a 0.2 percent July decrease. The unfilled orders-to-shipments ratio was 6.81, up from 6.79 in July.

Inventories, up two consecutive months, increased $1.0 billion or 0.2 percent to $622.0 billion. This followed a 0.2 percent July increase. The inventories-to-shipments ratio was 1.36, unchanged from July.

New Orders

New orders for manufactured durable goods in August, up two consecutive months, increased $0.3 billion or 0.1 percent to $227.3 billion, up from the previously published virtually unchanged decrease. This followed a 3.6 percent July increase.

Transportation equipment, also up two consecutive months, drove the increase, $0.6 billion or 0.7 percent to $78.2 billion.

New orders for manufactured nondurable goods increased $0.4 billion or 0.2 percent to $225.9 billion.

Shipments

Shipments of manufactured durable goods in August, down following two consecutive monthly increases, decreased $0.4 billion or 0.2 percent to $232.2 billion, up from the previously published 0.4 percent decrease. This followed a virtually unchanged July increase.

Transportation equipment, down three of the last four months, drove the decrease, $0.7 billion or 0.9 percent to $80.1 billion.

Shipments of manufactured nondurable goods, up five of the last six months, increased $0.4 billion or 0.2 percent to $225.9 billion. This followed a 0.8 percent July decrease. Beverage and tobacco products, up three consecutive months, led the increase, $0.1 billion or 1.0 percent to $12.6 billion.

Unfilled Orders

Unfilled orders for manufactured durable goods in August, down three consecutive months, decreased $1.6 billion or 0.1 percent to $1,123.2 billion, virtually unchanged from the previously published decrease. This followed a 0.2 percent July decrease.

Transportation equipment, also down three consecutive months, drove the decrease, $1.9 billion or 0.2 percent to $769.1 billion.

Inventories

Inventories of manufactured durable goods in August, up two consecutive months, increased $0.6 billion or 0.2 percent to $383.8 billion, up from the previously published 0.1 percent increase. This followed a 0.4 percent July increase.

Machinery, up two of the last three months, led the increase, $0.3 billion or 0.5 percent to $65.7 billion.

Inventories of manufactured nondurable goods, up five of the last six months, increased $0.4 billion or 0.2 percent to $238.1 billion. This followed a virtually unchanged July decrease. Petroleum and coal products, up four of the last five months, led the increase, $0.4 billion or 1.5 percent to $25.4 billion.

By stage of fabrication, August materials and supplies decreased 0.4 percent in durable goods and in nondurable goods. Work in process increased 0.4 percent in durable goods and increased 1.3 percent in nondurable goods. Finished goods increased 0.5 percent in durable goods and increased 0.1 percent in nondurable goods.

Figures in text are adjusted for seasonality, but not for inflation. Figures on new and unfilled orders exclude data for semiconductor manufacturing. For data, call (301) 763-4673 or go to www.census.gov/m3. The Advance Report on durable goods for September is scheduled for release on October 27, 2016 at 8:30 a.m. EDT and the Full Report on November 3, 2016 at 10:00 a.m. EDT. See back page for survey description. To receive the latest updates on the Nation's key economic indicators, download the America's Economy app for Apple and Android smartphones and tablets. To learn more about this release and the other indicators the U.S. Census Bureau publishes, join us for the Investigating Economic Indicators Webinar Series. For more information, visit www.census.gov/econ/webinar.
"Virtually unchanged" indicates that the change is less than 0.05 percent for a percent increase or decrease.

Table 1. Value of Manufacturers' Shipments for Industry Groups[1]

[Estimates are shown in millions of dollars and are based on data from the Manufacturers' Shipments, Inventories, and Orders Survey.]

Industry	Seasonally Adjusted						Not Seasonally Adjusted						
	Monthly			Percent Change			Monthly				Year to date		
	Aug. 2016[p]	July 2016[r]	June 2016	July - Aug.	June - July	May - June	Aug. 2016[p]	July 2016[r]	June 2016	Aug. 2015	2016[p]	2015	% Change 2016/ 2015
All manufacturing industries	458,056	458,002	459,724	0.0	-0.4	0.6	480,345	436,303	490,264	477,743	3,658,059	3,760,302	-2.7
Excluding transportation	377,974	377,223	378,668	0.2	-0.4	0.5	396,105	368,746	400,567	393,672	3,016,093	3,124,002	-3.5
Excluding defense	445,436	445,391	447,298	0.0	-0.4	0.6	467,976	425,020	476,363	465,378	3,562,410	3,667,177	-2.9
With unfilled orders	165,028	165,699	165,483	-0.4	0.1	0.3	172,289	152,814	181,906	170,249	1,314,045	1,326,575	-0.9
Durable goods industries	232,178	232,559	232,448	-0.2	0.0	0.4	243,745	213,250	254,143	240,804	1,856,584	1,872,002	-0.8
Wood products	8,290	8,266	8,148	0.3	1.4	-0.3	9,001	8,542	9,082	8,252	67,033	64,962	3.2
Nonmetallic mineral products	9,880	9,843	9,947	0.4	-1.0	1.0	11,203	10,111	10,960	10,372	79,447	75,640	5.0
Primary metals	17,757	17,882	17,862	-0.7	0.1	1.4	18,964	17,210	18,795	19,289	144,293	159,799	-9.7
Iron and steel mills	8,024	8,154	8,137	-1.6	0.2	1.4	8,669	7,906	8,466	9,010	65,205	74,987	-13.0
Aluminum and nonferrous metals	8,269	8,273	8,239	0.0	0.4	1.8	8,738	7,957	8,649	8,565	66,953	71,556	-6.4
Ferrous metal foundries	1,464	1,455	1,486	0.6	-2.1	-0.7	1,557	1,347	1,680	1,714	12,135	13,256	-8.5
Fabricated metal products	30,215	30,086	29,826	0.4	0.9	-0.5	32,606	29,060	31,889	30,759	240,928	238,391	1.1
Machinery	29,851	29,713	29,992	0.5	-0.9	-0.5	30,314	27,821	32,755	31,992	243,577	260,057	-6.3
Farm machinery	1,712	1,749	1,834	-2.1	-4.6	1.4	1,574	1,642	1,807	1,999	15,260	17,751	-14.0
Construction machinery	2,460	2,429	2,708	1.3	-10.3	-6.8	2,462	2,261	2,896	3,420	22,214	30,005	-26.0
Mining, oil field, and gas field machinery	880	830	862	6.0	-3.7	-3.9	900	777	903	1,558	7,841	14,517	-46.0
Industrial machinery	2,499	2,425	2,331	3.1	4.0	1.1	2,357	2,250	2,677	2,301	18,931	18,314	3.4
Photographic equipment	421	421	425	0.0	-0.9	-4.5	426	371	468	420	3,307	3,279	0.9
Ventilation, heating, air-conditioning, and refrigeration equipment	3,555	3,449	3,338	3.1	3.3	0.3	3,875	3,677	4,234	3,743	28,317	28,829	-1.8
Metalworking machinery	3,064	3,116	3,056	-1.7	2.0	-0.2	3,240	2,743	3,271	2,986	23,825	21,267	12.0
Turbines, generators, and other power transmission equipment	3,961	4,095	4,073	-3.3	0.5	-2.8	4,053	3,944	4,188	4,490	32,577	36,176	-9.9
Material handling equipment	2,952	2,989	3,021	-1.2	-1.1	2.7	3,150	2,784	3,151	2,818	23,658	20,371	16.1
Computers and electronic products[2]	27,338	27,279	26,645	0.2	2.4	0.4	27,636	25,538	30,084	26,214	208,667	201,599	3.5
Computers	599	603	560	-0.7	7.7	-6.2	568	553	739	760	4,650	6,213	-25.2
Computer storage devices	607	693	570	-12.4	21.6	-3.4	476	443	918	435	4,216	4,046	4.2
Other peripheral equipment	641	652	620	-1.7	5.2	-7.0	564	535	874	637	5,059	6,325	-20.0
Nondefense communications equipment	3,108	3,077	3,276	1.0	-6.1	6.0	3,043	2,704	4,052	3,011	23,934	23,950	-0.1
Defense communications equipment	338	294	282	15.0	4.3	-1.1	330	271	280	308	2,275	2,465	-7.7
Audio and video equipment	371	365	359	1.6	1.7	-0.6	352	323	345	314	2,581	1,783	44.8
Electronic components	4,905	4,788	4,666	2.4	2.6	-1.7	5,317	4,869	5,346	4,727	37,911	33,725	12.4
Nondefense search and navigation equipment	1,370	1,395	1,367	-1.8	2.0	3.2	1,421	1,183	1,528	1,323	10,771	9,781	10.1
Defense search and navigation equipment	2,564	2,676	2,575	-4.2	3.9	0.7	2,600	2,477	2,850	2,653	19,777	19,543	1.2
Electromedical, measuring, and control instruments	9,287	9,245	9,019	0.5	2.5	-0.5	8,976	8,366	10,262	8,238	70,304	65,806	6.8
Electrical equipment, appliances, and components	9,548	9,520	9,453	0.3	0.7	0.2	10,081	9,072	10,290	10,260	75,475	81,526	-7.4
Electric lighting equipment	1,093	1,098	1,079	-0.5	1.8	0.6	1,150	1,070	1,072	1,085	8,402	7,961	5.5
Household appliances	1,374	1,364	1,382	0.7	-1.3	0.0	1,437	1,267	1,501	1,520	11,000	12,406	-11.3
Electrical equipment	2,883	2,881	2,911	0.1	-1.0	-0.2	2,997	2,654	3,384	3,174	23,496	25,908	-9.3
Batteries	820	795	790	3.1	0.6	1.3	865	680	813	823	6,073	6,398	-5.1
Transportation equipment	80,082	80,779	81,056	-0.9	-0.3	1.3	84,240	67,557	89,697	84,071	641,966	636,300	0.9
Automobiles	9,516	9,436	9,603	0.8	-1.7	3.6	10,195	7,189	10,552	10,805	78,153	84,719	-7.8
Light trucks and utility vehicles	15,246	14,999	14,610	1.6	2.7	1.7	16,731	11,793	15,676	16,018	120,638	115,195	4.7
Heavy duty trucks	2,033	2,099	2,221	-3.1	-5.5	-2.5	2,142	2,000	2,453	2,674	18,239	21,602	-15.6
Motor vehicle bodies, parts, and trailers	28,264	28,223	28,575	0.1	-1.2	3.2	30,602	24,136	30,502	27,285	225,216	205,542	9.6
Nondefense aircraft and parts	12,992	14,028	13,862	-7.4	1.2	-4.7	12,737	11,999	16,843	14,552	105,446	109,661	-3.8
Defense aircraft and parts	4,417	4,052	4,156	9.0	-2.5	-3.3	4,208	3,472	4,926	4,935	32,658	36,872	-11.4
Ships and boats	3,126	3,152	2,853	-0.8	10.5	-4.1	3,107	2,947	3,037	2,836	24,085	21,898	10.0
Furniture and related products	6,290	6,269	6,272	0.3	0.0	-0.5	6,796	6,328	6,481	6,658	50,543	48,438	4.3
Miscellaneous durable goods	12,927	12,922	13,247	0.0	-2.5	-0.7	12,904	12,011	14,110	12,937	104,655	105,290	-0.6
Nondurable goods industries	225,878	225,443	227,276	0.2	-0.8	0.8	236,600	223,053	236,121	236,939	1,801,475	1,888,300	-4.6
Food products	64,998	64,960	64,993	0.1	-0.1	0.2	66,306	62,056	64,228	65,288	510,378	508,270	0.4
Grain and oilseed milling	7,890	8,087	8,229	-2.4	-1.7	1.7	8,327	7,550	7,809	8,303	62,792	62,290	0.8
Dairy products	9,286	9,151	8,959	1.5	2.1	-0.7	9,573	8,919	8,861	9,331	72,056	72,770	-1.0
Meat, poultry, and seafood products	17,756	17,791	18,031	-0.2	-1.3	0.0	18,064	17,577	18,503	18,618	142,334	149,430	-4.7
Beverage and tobacco products	12,601	12,472	12,345	1.0	1.0	2.9	13,136	12,543	13,126	12,440	97,949	97,121	0.9
Beverages	9,517	9,444	9,271	0.8	1.9	1.4	10,052	9,515	10,052	9,404	74,331	72,111	3.1
Tobacco	3,084	3,028	3,074	1.8	-1.5	7.6	3,084	3,028	3,074	3,036	23,618	25,010	-5.6
Textile mills	2,536	2,499	2,511	1.5	-0.5	-0.4	2,676	2,459	2,691	2,686	20,478	20,922	-2.1
Textile products	2,018	1,982	1,981	1.8	0.1	0.1	2,124	2,019	2,120	2,165	16,184	16,683	-3.0
Apparel	1,079	1,075	1,076	0.4	-0.1	-1.3	1,200	1,073	1,012	1,126	8,119	7,618	6.6
Leather and allied products	337	331	338	1.8	-2.1	-0.9	345	326	358	376	2,732	3,234	-15.5
Paper products	15,055	15,027	15,190	0.2	-1.1	-0.2	15,860	14,913	15,636	15,624	121,881	121,869	0.0
Pulp, paper, and paperboard mills	6,664	6,699	6,753	-0.5	-0.8	-0.1	7,062	6,720	6,895	7,064	54,307	54,961	-1.2
Paperboard containers	4,631	4,579	4,632	1.1	-1.1	-0.3	4,934	4,577	4,857	4,770	37,473	37,059	1.1
Printing	7,174	7,111	7,147	0.9	-0.5	-0.3	7,404	6,621	7,073	7,207	56,564	56,328	0.4
Petroleum and coal products	35,079	34,977	36,232	0.3	-3.5	2.9	38,445	38,160	40,003	44,096	276,473	377,792	-26.8
Petroleum refineries	31,260	31,122	32,478	0.4	-4.2	3.0	33,784	33,960	35,696	40,220	246,966	350,523	-29.5
Chemical products	65,833	65,799	66,259	0.1	-0.7	0.4	68,628	63,878	69,223	66,301	535,524	523,409	2.3
Pesticides, fertilizers, and other agricultural chemicals	4,248	4,135	4,066	2.7	1.7	1.4	3,684	3,334	4,244	3,296	35,858	33,502	7.0
Pharmaceuticals and medicines	21,430	21,481	21,574	-0.2	-0.4	0.0	22,389	20,672	22,265	20,469	172,628	149,976	15.1
Paints, coatings, and adhesives	3,641	3,615	3,612	0.7	0.1	-1.3	3,931	3,687	3,997	3,616	30,148	27,976	7.8
Plastics and rubber products	19,168	19,210	19,204	-0.2	0.0	0.7	20,476	19,005	20,651	19,630	155,193	155,054	0.1

[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.

See note at end of Table 2 relating to survey error and revision.

[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 Groups[1]

[Estimates are shown in millions of dollars and are based on data from the Manufacturers' Shipments, Inventories, and Orders Survey.]

Industry	Seasonally Adjusted						Not Seasonally Adjusted						
	Monthly			Percent Change			Monthly				Year to date		
	Aug. 2016[p]	July 2016[r]	June 2016	July - Aug.	June - July	May - June	Aug. 2016[p]	July 2016[r]	June 2016	Aug. 2015	2016[p]	2015	% Change 2016/ 2015
All manufacturing industries[2]	453,135	452,391	446,331	0.2	1.4	-1.8	466,880	430,190	477,376	461,892	3,609,139	3,705,893	-2.6
Excluding transportation[2]	374,931	374,758	375,014	0.0	-0.1	0.4	389,585	364,865	395,571	387,004	2,999,624	3,099,679	-3.2
Excluding defense[2]	438,812	440,164	435,955	-0.3	1.0	-1.6	455,233	420,532	462,786	454,153	3,513,787	3,623,502	-3.0
With unfilled orders[2]	163,391	163,299	155,169	0.1	5.2	-6.2	162,531	150,254	171,631	157,824	1,290,049	1,297,650	-0.6
Durable goods industries[2]	227,257	226,948	219,055	0.1	3.6	-4.3	230,280	207,137	241,255	224,953	1,807,664	1,817,593	-0.5
Primary metals	17,891	17,818	17,599	0.4	1.2	-1.0	18,555	17,028	18,410	18,608	146,040	159,172	-8.3
Iron and steel mills	8,254	8,129	7,943	1.5	2.3	-4.5	8,478	7,641	8,278	8,412	67,170	74,819	-10.2
Aluminum and nonferrous metals	8,185	8,295	8,224	-1.3	0.9	4.0	8,590	8,070	8,582	8,577	66,430	71,239	-6.8
Ferrous metal foundries	1,452	1,394	1,432	4.2	-2.7	-8.0	1,487	1,317	1,550	1,619	12,440	13,114	-5.1
Fabricated metal products	30,196	30,296	29,889	-0.3	1.4	0.0	31,980	29,351	31,352	29,630	244,187	238,501	2.4
Machinery	29,538	29,671	29,390	-0.4	1.0	0.3	29,853	27,645	31,336	31,233	240,879	255,324	-5.7
Construction machinery	2,306	2,385	2,507	-3.3	-4.9	-4.8	2,376	2,082	2,509	3,432	20,768	27,175	-23.6
Mining, oil field, and gas field machinery	839	791	533	6.1	48.4	223.0	906	701	662	1,290	5,637	13,118	-57.0
Industrial machinery	2,381	2,234	2,195	6.6	1.8	-6.8	2,127	2,079	2,571	2,239	18,401	17,975	2.4
Photographic equipment	439	414	391	6.0	5.9	-8.6	468	379	345	458	3,235	3,504	-7.7
Ventilation, heating, air-conditioning, and refrigeration equipment	3,264	3,620	3,370	-9.8	7.4	1.8	3,470	3,799	4,097	3,636	28,089	29,265	-4.0
Metalworking machinery	3,163	3,199	3,129	-1.1	2.2	3.1	3,304	2,843	3,232	2,869	24,626	21,027	17.1
Turbines, generators, and other power transmission equipment	4,015	4,045	4,074	-0.7	-0.7	-0.3	4,012	3,952	4,277	4,224	32,493	34,005	-4.4
Material handling equipment	3,044	3,071	3,012	-0.9	2.0	-4.3	3,089	2,622	3,119	2,610	23,992	21,513	11.5
Computers and electronic products[2]	24,310	24,464	23,865	-0.6	2.5	-1.2	22,959	21,917	27,571	22,603	187,627	181,951	3.1
Computers	583	595	552	-2.0	7.8	-8.5	552	545	731	751	4,582	6,314	-27.4
Nondefense communications equipment	3,369	3,382	3,423	-0.4	-1.2	-0.9	2,862	2,871	3,985	3,096	25,788	26,624	-3.1
Defense communications equipment	282	265	313	6.4	-15.3	7.9	261	239	364	312	2,313	2,563	-9.8
Electronic components	4,833	4,923	4,590	-1.8	7.3	-2.8	5,320	5,075	5,113	4,820	38,146	34,288	11.3
Nondefense search and navigation equipment	1,463	1,500	1,464	-2.5	2.5	6.2	1,465	1,306	1,714	1,517	11,549	11,716	-1.4
Defense search and navigation equipment	2,583	2,413	2,514	7.0	-4.0	-6.7	2,285	1,982	2,900	2,324	20,405	18,819	8.4
Electromedical, measuring, and control instruments	9,314	9,396	9,188	-0.9	2.3	0.7	8,540	8,337	10,350	8,015	70,723	66,995	5.6
Electrical equipment, appliances, and components	9,612	9,837	9,491	-2.3	3.6	1.1	10,089	9,135	10,320	10,191	76,860	81,578	-5.8
Electric lighting equipment	1,077	1,081	1,070	-0.4	1.0	-0.7	1,135	1,043	1,069	1,093	8,453	7,978	6.0
Household appliances	1,398	1,452	1,443	-3.7	0.6	9.7	1,474	1,296	1,490	1,413	11,029	12,258	-10.0
Electrical equipment	2,841	2,907	2,848	-2.3	2.1	-0.9	2,891	2,737	3,300	3,203	23,581	26,579	-11.3
Transportation equipment	78,204	77,633	71,317	0.7	8.9	-11.5	77,295	65,325	81,805	74,888	609,515	606,214	0.5
Motor vehicle bodies, parts, and trailers	28,245	28,048	28,329	0.7	-1.0	2.1	30,851	23,595	29,780	27,425	223,142	204,566	9.1
Nondefense aircraft and parts	8,806	11,394	6,591	-22.7	72.9	-59.7	5,310	11,710	9,228	10,663	76,878	94,688	-18.8
Defense aircraft and parts	5,641	4,444	3,643	26.9	22.0	-7.5	4,062	3,419	5,634	3,210	34,715	29,983	15.8
Ships and boats	3,420	2,965	2,667	15.3	11.2	2.7	3,076	2,556	3,362	1,367	22,358	18,806	18.9
Furniture and related products	6,406	6,192	6,161	3.5	0.5	-2.6	6,438	6,066	6,308	6,245	51,407	48,959	5.0
Nondurable goods industries	225,878	225,443	227,276	0.2	-0.8	0.8	236,600	223,053	236,121	236,939	1,801,475	1,888,300	-4.6

[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/>.

Table 3. Value of Manufacturers' Unfilled Orders for Industry Groups[1]

[Estimates are shown in millions of dollars and are based on data from the Manufacturers' Shipments, Inventories, and Orders Survey.]

Industry	Seasonally Adjusted						Not Seasonally Adjusted				
	Monthly			Percent Change			Monthly				% Change
	Aug. 2016[p]	July 2016[r]	June 2016	July - Aug.	June - July	May - June	Aug. 2016[p]	July 2016[r]	June 2016	Aug. 2015	August 2016/ 2015
All manufacturing industries[2]	1,123,200	1,124,837	1,127,237	-0.1	-0.2	-0.9	1,115,704	1,125,462	1,128,022	1,138,644	-2.0
Excluding transportation[2]	354,147	353,906	353,160	0.1	0.2	-0.2	353,297	356,110	356,438	352,637	0.2
Excluding defense[2]	948,810	952,150	954,166	-0.4	-0.2	-0.9	942,784	951,820	952,755	966,250	-2.4
Durable goods industries[2]	1,123,200	1,124,837	1,127,237	-0.1	-0.2	-0.9	1,115,704	1,125,462	1,128,022	1,138,644	-2.0
Primary metals	32,546	32,412	32,476	0.4	-0.2	-0.8	32,360	32,769	32,951	32,488	-0.4
Iron and steel mills	18,374	18,144	18,169	1.3	-0.1	-1.1	18,325	18,516	18,781	17,061	7.4
Aluminum and nonferrous metals	10,406	10,490	10,468	-0.8	0.2	-0.1	10,293	10,441	10,328	11,848	-13.1
Ferrous metal foundries	3,766	3,778	3,839	-0.3	-1.6	-1.4	3,742	3,812	3,842	3,579	4.6
Fabricated metal products	74,053	74,072	73,862	0.0	0.3	0.1	74,706	75,332	75,041	74,224	0.6
Machinery	92,470	92,783	92,825	-0.3	0.0	-0.6	92,258	92,719	92,895	98,984	-6.8
Construction machinery	4,137	4,291	4,335	-3.6	-1.0	-4.4	3,949	4,035	4,214	6,040	-34.6
Mining, oil field, and gas field machinery	5,911	5,952	5,991	-0.7	-0.7	-5.2	5,966	5,960	6,036	10,229	-41.7
Industrial machinery	7,389	7,507	7,698	-1.6	-2.5	-1.7	7,387	7,617	7,788	8,707	-15.2
Photographic equipment	1,187	1,169	1,176	1.5	-0.6	-2.8	1,203	1,161	1,153	1,371	-12.3
Ventilation, heating, air-conditioning, and refrigeration equipment	6,231	6,522	6,351	-4.5	2.7	0.5	6,100	6,505	6,383	6,044	0.9
Metalworking machinery	7,419	7,320	7,237	1.4	1.1	1.0	7,420	7,356	7,256	6,922	7.2
Turbines, generators, and other power transmission equipment	25,629	25,575	25,625	0.2	-0.2	0.0	25,608	25,649	25,641	25,457	0.6
Material handling equipment	12,086	11,994	11,912	0.8	0.7	-0.1	11,967	12,028	12,190	11,018	8.6
Computers and electronic products[2]	129,075	128,819	128,423	0.2	0.3	0.2	128,075	129,045	129,113	122,205	4.8
Computers	2,379	2,395	2,403	-0.7	-0.3	-0.3	2,379	2,395	2,403	2,381	-0.1
Nondefense communications equipment	32,855	32,594	32,289	0.8	0.9	0.5	32,379	32,560	32,393	29,388	10.2
Defense communications equipment	2,245	2,301	2,330	-2.4	-1.2	1.3	2,275	2,344	2,376	2,387	-4.7
Electronic components	12,098	12,170	12,035	-0.6	1.1	-0.6	12,189	12,186	11,980	11,960	1.9
Nondefense search and navigation equipment	17,834	17,741	17,636	0.5	0.6	0.6	17,903	17,859	17,736	16,747	6.9
Defense search and navigation equipment	28,257	28,238	28,501	0.1	-0.9	-0.2	27,983	28,298	28,793	27,097	3.3
Electromedical, measuring, and control instruments	33,407	33,380	33,229	0.1	0.5	0.5	32,967	33,403	33,432	32,245	2.2
Electrical equipment, appliances, and components	17,705	17,641	17,324	0.4	1.8	0.2	17,688	17,680	17,617	16,804	5.3
Electric lighting equipment	1,307	1,323	1,340	-1.2	-1.3	-0.7	1,319	1,334	1,361	1,290	2.2
Household appliances	1,218	1,194	1,106	2.0	8.0	5.8	1,180	1,143	1,114	1,072	10.1
Electrical equipment	7,907	7,949	7,923	-0.5	0.3	-0.8	7,948	8,054	7,971	8,088	-1.7
Transportation equipment	769,053	770,931	774,077	-0.2	-0.4	-1.2	762,407	769,352	771,584	786,007	-3.0
Motor vehicle bodies, parts, and trailers	21,975	21,994	22,169	-0.1	-0.8	-1.1	21,485	21,236	21,777	23,019	-6.7
Nondefense aircraft and parts	586,876	591,062	593,696	-0.7	-0.4	-1.2	582,068	589,495	589,784	600,926	-3.1
Defense aircraft and parts	71,973	70,749	70,357	1.7	0.6	-0.7	70,675	70,821	70,874	63,117	12.0
Ships and boats	16,829	16,535	16,722	1.8	-1.1	-1.1	16,863	16,894	17,285	25,298	-33.3
Furniture and related products	8,046	7,930	8,007	1.5	-1.0	-1.4	7,958	8,316	8,578	7,691	3.5

[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 unfilled orders are not available for the semiconductor industry. Estimates and percent changes for unfilled orders exclude semiconductor industry data.

See note at end of Table 2 relating to survey error and revision.

Table 4. Value of Manufacturers' Inventories for Industry Groups[1]

[Estimates are shown in millions of dollars and are based on data from the Manufacturers' Shipments, Inventories, and Orders Survey.]

Industry	Seasonally Adjusted						Not Seasonally Adjusted				
	Monthly			Percent Change			Monthly				% Change
	Aug. 2016[p]	July 2016[r]	June 2016	July - Aug.	June - July	May - June	Aug. 2016[p]	July 2016[r]	June 2016	Aug. 2015	August 2016/ 2015
All manufacturing industries	621,952	620,953	619,472	0.2	0.2	0.0	627,284	625,169	616,964	641,370	-2.2
Excluding transportation	498,395	497,184	496,325	0.2	0.2	0.2	502,797	500,543	495,096	514,482	-2.3
Excluding defense	596,500	595,074	594,381	0.2	0.1	0.1	601,716	598,956	591,612	613,990	-2.0
With unfilled orders	311,531	311,123	309,757	0.1	0.4	-0.5	314,750	314,148	308,053	323,874	-2.8
Durable goods industries	383,821	383,221	381,715	0.2	0.4	-0.1	387,258	386,083	378,959	395,748	-2.1
Wood products	11,414	11,284	11,217	1.2	0.6	0.7	11,302	11,111	10,984	11,194	1.0
Nonmetallic mineral products	13,124	13,032	12,991	0.7	0.3	0.2	13,023	13,041	13,093	12,776	1.9
Primary metals	31,911	31,648	31,253	0.8	1.3	0.1	32,034	31,751	30,828	35,305	-9.3
Iron and steel mills	17,467	17,251	16,924	1.3	1.9	-0.2	17,525	17,278	16,571	20,235	-13.4
Aluminum and nonferrous metals	12,385	12,321	12,244	0.5	0.6	0.5	12,453	12,406	12,191	12,985	-4.1
Ferrous metal foundries	2,059	2,076	2,085	-0.8	-0.4	-0.8	2,056	2,067	2,066	2,085	-1.4
Fabricated metal products	49,119	49,107	48,788	0.0	0.7	0.5	49,166	49,503	48,691	49,442	-0.6
Machinery	65,662	65,350	65,649	0.5	-0.5	0.4	66,598	65,865	65,157	69,204	-3.8
Farm machinery	2,941	2,893	2,912	1.7	-0.7	-2.4	2,879	2,823	2,972	3,383	-14.9
Construction machinery	5,580	5,481	5,441	1.8	0.7	1.2	5,546	5,419	5,410	6,549	-15.3
Mining, oil field, and gas field machinery	7,382	7,233	7,189	2.1	0.6	1.0	7,509	7,277	7,256	7,974	-5.8
Industrial machinery	6,431	6,383	6,419	0.8	-0.6	1.6	6,483	6,319	6,392	6,420	1.0
Photographic equipment	1,571	1,583	1,586	-0.8	-0.2	-0.2	1,637	1,623	1,547	1,605	2.0
Ventilation, heating, air-conditioning, and refrigeration equipment	4,380	4,339	4,384	0.9	-1.0	-0.9	4,408	4,404	4,433	4,683	-5.9
Metalworking machinery	5,715	5,684	5,624	0.5	1.1	0.1	5,831	5,740	5,599	5,847	-0.3
Turbines, generators, and other power transmission equipment	9,284	9,377	9,663	-1.0	-3.0	0.8	9,612	9,592	9,263	10,104	-4.9
Material handling equipment	4,624	4,613	4,637	0.2	-0.5	-1.4	4,812	4,763	4,671	4,492	7.1
Computers and electronic products[2]	42,563	42,568	42,708	0.0	-0.3	0.0	43,406	43,156	42,379	43,942	-1.2
Computers	1,633	1,589	1,570	2.8	1.2	3.1	1,732	1,691	1,590	1,550	11.7
Computer storage devices	981	984	986	-0.3	-0.2	-2.8	1,028	1,009	957	1,168	-12.0
Other peripheral equipment	1,035	1,034	1,031	0.1	0.3	-0.5	1,067	1,055	1,007	1,165	-8.4
Nondefense communications equipment	3,994	3,972	3,984	0.6	-0.3	-2.7	4,078	3,966	3,907	4,365	-6.6
Defense communications equipment	565	602	617	-6.1	-2.4	3.7	565	602	617	755	-25.2
Audio and video equipment	792	793	787	-0.1	0.8	1.8	854	806	737	805	6.1
Electronic components	7,687	7,685	7,746	0.0	-0.8	1.6	7,704	7,805	7,679	7,630	1.0
Nondefense search and navigation equipment	3,063	3,055	3,071	0.3	-0.5	-0.2	3,118	3,095	3,046	3,154	-1.1
Defense search and navigation equipment	2,955	2,955	2,976	0.0	-0.7	2.2	2,976	3,055	3,000	2,889	3.0
Electromedical, measuring and control instruments	13,994	14,053	14,097	-0.4	-0.3	0.1	14,463	14,248	13,991	14,969	-3.4
Electrical equipment, appliances, and components	16,177	16,350	16,175	-1.1	1.1	-0.7	16,475	16,639	16,180	17,050	-3.4
Electric lighting equipment	2,005	2,001	1,999	0.2	0.1	0.2	2,036	2,058	1,998	1,961	3.8
Household appliances	2,238	2,220	2,230	0.8	-0.4	-1.2	2,333	2,288	2,246	2,341	-0.3
Electrical equipment	4,869	4,863	4,890	0.1	-0.6	-0.5	4,896	4,909	4,848	5,107	-4.1
Batteries	1,300	1,315	1,329	-1.1	-1.1	-1.4	1,399	1,386	1,354	1,524	-8.2
Transportation equipment	123,557	123,769	123,147	-0.2	0.5	-0.8	124,487	124,626	121,868	126,888	-1.9
Automobiles	4,383	4,682	4,933	-6.4	-5.1	18.6	4,398	4,671	4,536	4,559	-3.5
Light trucks and utility vehicles	4,393	4,283	4,311	2.6	-0.6	8.3	4,418	4,261	4,045	4,024	9.8
Heavy duty trucks	2,055	2,091	2,093	-1.7	-0.1	-2.2	2,033	2,069	2,079	2,154	-5.6
Motor vehicle bodies, parts, and trailers	23,929	23,857	23,613	0.3	1.0	0.7	24,072	24,034	23,266	24,046	0.1
Nondefense aircraft and parts	62,365	62,128	62,356	0.4	-0.4	-2.3	62,825	62,538	61,957	63,753	-1.5
Defense aircraft and parts	11,292	11,547	10,742	-2.2	7.5	-3.5	11,303	11,629	10,744	12,180	-7.2
Ships and boats	2,948	2,950	2,946	-0.1	0.1	0.1	2,931	2,931	2,998	2,815	4.1
Furniture and related products	7,143	7,137	7,148	0.1	-0.2	-0.3	7,302	7,338	7,343	7,226	1.1
Miscellaneous durable goods	23,151	22,976	22,639	0.8	1.5	0.2	23,465	23,053	22,436	22,721	3.3
Nondurable goods industries	238,131	237,732	237,757	0.2	0.0	0.1	240,026	239,086	238,005	245,622	-2.3
Food products	53,842	53,724	53,801	0.2	-0.1	0.3	54,371	53,263	52,310	53,906	0.9
Grain and oilseed milling	5,712	5,730	5,763	-0.3	-0.6	-1.6	5,479	5,537	5,589	5,702	-3.9
Dairy products	7,448	7,361	7,322	1.2	0.5	0.2	7,632	7,600	7,561	7,463	2.3
Meat, poultry, and seafood products	8,944	8,993	9,057	-0.5	-0.7	-1.4	9,057	9,043	8,971	9,863	-8.2
Beverage and tobacco products	20,683	20,531	20,473	0.7	0.3	-1.2	20,173	19,765	19,886	20,159	0.1
Beverages	16,890	16,748	16,687	0.8	0.4	-1.3	16,562	16,225	16,250	16,368	1.2
Tobacco	3,793	3,783	3,786	0.3	-0.1	-0.9	3,611	3,540	3,636	3,791	-4.7
Textile mills	3,180	3,178	3,176	0.1	0.1	0.3	3,200	3,198	3,195	3,129	2.3
Textile products	3,070	3,069	3,067	0.0	0.1	-0.3	3,081	3,069	3,084	3,071	0.3
Apparel	2,551	2,560	2,561	-0.4	0.0	-0.2	2,696	2,695	2,592	2,509	7.5
Leather and allied products	792	796	794	-0.5	0.3	-0.6	807	807	806	844	-4.4
Paper products	16,119	16,194	16,132	-0.5	0.4	-0.1	16,178	16,269	16,005	16,658	-2.9
Pulp, paper, and paperboard mills	6,646	6,669	6,613	-0.3	0.8	0.5	6,621	6,684	6,549	6,798	-2.6
Paperboard containers	5,071	5,127	5,123	-1.1	0.1	-0.8	5,081	5,128	5,077	5,289	-3.9
Printing	5,885	5,867	5,894	0.3	-0.5	-0.9	6,067	5,911	5,905	6,055	0.2
Petroleum and coal products	25,355	24,978	25,107	1.5	-0.5	0.7	26,505	26,472	27,111	32,614	-18.7
Petroleum refineries	20,717	20,331	20,474	1.9	-0.7	0.6	21,828	21,762	22,417	27,939	-21.9
Chemical products	81,384	81,491	81,429	-0.1	0.1	0.4	81,740	82,248	81,723	81,353	0.5
Pesticides, fertilizers, and other agricultural chemicals	4,208	4,234	4,192	-0.6	1.0	0.2	3,993	3,958	3,846	4,255	-6.2
Pharmaceuticals and medicines	32,820	32,903	32,938	-0.3	-0.1	1.0	32,848	33,276	33,541	31,347	4.8
Paints, coatings, and adhesives	3,749	3,692	3,696	1.5	-0.1	0.2	3,699	3,722	3,755	3,508	5.4
Plastics and rubber products	25,270	25,344	25,323	-0.3	0.1	-0.1	25,208	25,389	25,388	25,324	-0.5

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

See note at end of Table 2 relating to survey error and revision.

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

[Estimates are shown in millions of dollars and are based on data from the Manufacturers' Shipments, Inventories, and Orders Survey.]

Industry	Seasonally Adjusted						Not Seasonally Adjusted						
	Monthly			Percent Change			Monthly				Year to date		% Change[6]
	Aug. 2016[p]	July 2016[r]	June 2016	July - Aug.	June - July	May - June	Aug. 2016[p]	July 2016[r]	June 2016	Aug. 2015	2016[p]	2015	2016/ 2015
SHIPMENTS													
All manufacturing industries	458,056	458,002	459,724	0.0	-0.4	0.6	480,345	436,303	490,264	477,743	3,658,059	3,760,302	-2.7
Construction materials and supplies	46,602	46,326	46,356	0.6	-0.1	-0.4	51,286	47,087	51,188	48,659	376,477	368,658	2.1
Information technology	22,948	23,083	22,616	-0.6	2.1	0.3	22,670	20,888	26,113	22,139	175,643	174,522	0.6
Computers and related products	1,847	1,948	1,750	-5.2	11.3	-5.6	1,608	1,531	2,531	1,832	13,925	16,584	-16.0
Motor vehicle and parts	55,059	54,757	55,009	0.6	-0.5	2.6	59,670	45,118	59,183	56,782	442,246	427,058	3.6
Capital goods	80,541	82,021	81,898	-1.8	0.2	-0.8	81,010	74,832	91,649	85,516	643,901	673,288	-4.4
Nondefense capital goods[3]	70,217	71,442	71,701	-1.7	-0.4	-1.3	70,768	65,276	80,514	75,546	565,346	598,984	-5.6
Excluding aircraft	62,147	62,204	62,642	-0.1	-0.7	-0.4	62,620	57,492	69,366	65,127	498,862	525,498	-5.1
Defense capital goods[4]	10,324	10,579	10,197	-2.4	3.7	3.1	10,242	9,556	11,135	9,970	78,555	74,304	5.7
Consumer goods	184,473	183,924	185,051	0.3	-0.6	1.2	193,117	176,568	192,092	194,471	1,460,866	1,536,329	-4.9
Consumer durable goods	37,846	37,562	37,374	0.8	0.5	1.5	40,073	31,107	40,007	39,759	303,764	303,695	0.0
Consumer nondurable goods	146,627	146,362	147,677	0.2	-0.9	1.1	153,044	145,461	152,085	154,712	1,157,102	1,232,634	-6.1
NEW ORDERS													
All manufacturing industries[5]	453,135	452,391	446,331	0.2	1.4	-1.8	466,880	430,190	477,376	461,892	3,609,139	3,705,893	-2.6
Construction materials and supplies	46,181	46,230	46,265	-0.1	-0.1	-0.4	50,288	47,052	50,748	47,958	377,951	370,400	2.0
Information technology	23,392	23,557	23,006	-0.7	2.4	-0.9	21,831	20,600	26,451	21,900	180,440	179,532	0.5
Computers and related products	1,831	1,940	1,742	-5.6	11.4	-6.3	1,592	1,523	2,523	1,823	13,857	16,685	-16.9
Motor vehicle and parts	55,040	54,582	54,763	0.8	-0.3	2.1	59,919	44,577	58,461	56,922	440,172	426,082	3.3
Capital goods	79,006	79,627	71,926	-0.8	10.7	-12.4	73,988	72,390	83,088	76,086	622,570	651,956	-4.5
Nondefense capital goods[3]	67,152	70,020	64,987	-4.1	7.7	-10.9	63,925	64,851	73,114	70,107	543,624	584,599	-7.0
Excluding aircraft	63,523	62,931	62,437	0.9	0.8	0.5	62,419	57,273	68,292	62,984	502,711	523,569	-4.0
Defense capital goods[4]	11,854	9,607	6,939	23.4	38.4	-24.3	10,063	7,539	9,974	5,979	78,946	67,357	17.2
Consumer goods	184,500	184,019	185,084	0.3	-0.6	1.2	193,053	176,639	191,845	194,354	1,460,920	1,535,981	-4.9
Consumer durable goods	37,873	37,657	37,407	0.6	0.7	1.7	40,009	31,178	39,760	39,642	303,818	303,347	0.2
Consumer nondurable goods	146,627	146,362	147,677	0.2	-0.9	1.1	153,044	145,461	152,085	154,712	1,157,102	1,232,634	-6.1
UNFILLED ORDERS													
All manufacturing industries[5]	1,123,200	1,124,837	1,127,237	-0.1	-0.2	-0.9	1,115,704	1,125,462	1,128,022	1,138,644	(X)	(X)	-2.0
Construction materials and supplies	45,484	45,905	46,001	-0.9	-0.2	-0.2	45,781	46,779	46,814	45,850	(X)	(X)	-0.2
Information technology	125,437	124,993	124,519	0.4	0.4	0.3	124,330	125,169	125,457	117,970	(X)	(X)	5.4
Computers and related products	2,379	2,395	2,403	-0.7	-0.3	-0.3	2,379	2,395	2,403	2,381	(X)	(X)	-0.1
Motor vehicle and parts	21,975	21,994	22,169	-0.1	-0.8	-1.1	21,485	21,236	21,777	23,019	(X)	(X)	-6.7
Capital goods	833,585	835,120	837,514	-0.2	-0.3	-1.2	829,545	836,567	839,009	861,278	(X)	(X)	-3.7
Nondefense capital goods[3]	696,353	699,418	700,840	-0.4	-0.2	-0.9	692,750	699,593	700,018	722,264	(X)	(X)	-4.1
Excluding aircraft	222,341	220,965	220,238	0.6	0.3	-0.1	221,535	221,736	221,955	223,850	(X)	(X)	-1.0
Defense capital goods[4]	137,232	135,702	136,674	1.1	-0.7	-2.3	136,795	136,974	138,991	139,014	(X)	(X)	-1.6
Consumer goods	4,449	4,422	4,327	0.6	2.2	0.8	4,246	4,310	4,239	3,980	(X)	(X)	6.7
Consumer durable goods	4,449	4,422	4,327	0.6	2.2	0.8	4,246	4,310	4,239	3,980	(X)	(X)	6.7
TOTAL INVENTORIES													
All manufacturing industries	621,952	620,953	619,472	0.2	0.2	0.0	627,284	625,169	616,964	641,370	(X)	(X)	-2.2
Construction materials and supplies	65,643	65,296	64,913	0.5	0.6	0.3	65,553	65,561	64,829	65,466	(X)	(X)	0.1
Information technology	36,550	36,773	36,631	-0.6	0.4	-0.1	37,538	37,348	36,327	38,758	(X)	(X)	-3.1
Computers and related products	3,649	3,607	3,587	1.2	0.6	0.4	3,827	3,755	3,554	3,883	(X)	(X)	-1.4
Motor vehicle and parts	34,760	34,913	34,950	-0.4	-0.1	3.6	34,921	35,035	33,926	34,783	(X)	(X)	0.4
Capital goods	190,365	190,460	189,734	0.0	0.4	-0.9	193,012	192,393	189,235	199,218	(X)	(X)	-3.1
Nondefense capital goods[3]	169,654	169,334	169,427	0.2	-0.1	-0.7	172,196	171,015	168,669	176,742	(X)	(X)	-2.6
Excluding aircraft	118,556	118,394	118,167	0.1	0.2	0.2	120,754	119,620	117,483	123,853	(X)	(X)	-2.5
Defense capital goods[4]	20,711	21,126	20,307	-2.0	4.0	-2.3	20,816	21,378	20,566	22,476	(X)	(X)	-7.4
Consumer goods	177,708	177,222	177,652	0.3	-0.2	0.8	179,541	178,038	177,180	183,093	(X)	(X)	-1.9
Consumer durable goods	29,760	29,786	30,067	-0.1	-0.9	3.5	30,165	29,797	29,178	29,478	(X)	(X)	2.3
Consumer nondurable goods	147,948	147,436	147,585	0.3	-0.1	0.3	149,376	148,241	148,002	153,615	(X)	(X)	-2.8

X Not Applicable **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] Topical series are regroupings of the separate industry categories.

[3] Nondefense capital goods industries include: small arms and ordnance; farm machinery and equipment; construction machinery; mining, oil, and gas field machinery; industrial machinery; vending, laundry, and other machinery; photographic equipment; metalworking machinery; turbines and generators; other power transmission equipment; pumps and compressors; material handling equipment; all other machinery; electronic computers; computer storage devices; other computer peripheral equipment; communications equipment; search and navigation equipment; electromedical, measuring, and control instruments; electrical equipment; other electrical equipment, appliances, and components; heavy duty trucks; aircraft; railroad rolling stock; ships and boats; office and institutional furniture; and medical equipment and supplies.

[4] Defense capital goods industries include: small arms and ordnance; communications equipment; aircraft; missiles, space vehicles, and parts; ships and boats; and search and navigation equipment.

[5] Estimates and percent changes exclude semiconductor industry data.

[6] Based on year-to-date for shipments and new orders, but on same month prior year for unfilled orders and inventories.

See note at end of Table 2 relating to survey error and revision.

Table 6. Value of Manufacturers' Inventories, by Stage of Fabrication, by Industry Group[1]

[Estimates are shown in millions of dollars and are based on data from the Manufacturers' Shipments, Inventories, and Orders Survey.]

Industry	Seasonally Adjusted						Not Seasonally Adjusted				
	Monthly			Percent Change			Monthly				% Change
	Aug. 2016[p]	July 2016[r]	June 2016	July - Aug.	June - July	May - June	Aug. 2016[p]	July 2016[r]	June 2016	Aug. 2015	August 2016/ 2015
MATERIALS AND SUPPLIES											
All manufacturing industries	208,754	209,615	207,339	-0.4	1.1	0.2	209,742	210,588	205,725	211,221	-0.7
Durable goods industries	130,349	130,872	128,776	-0.4	1.6	0.5	131,489	131,610	127,158	132,216	-0.5
Wood products	4,696	4,643	4,603	1.1	0.9	1.1	4,721	4,585	4,386	4,693	0.6
Nonmetallic mineral products	5,240	5,216	5,270	0.5	-1.0	-0.5	5,239	5,224	5,294	5,258	-0.4
Primary metals	12,859	12,535	12,459	2.6	0.6	1.7	12,837	12,464	12,230	13,142	-2.3
Fabricated metal products	18,081	17,995	17,750	0.5	1.4	0.4	18,122	18,113	17,668	18,115	0.0
Machinery	23,624	23,783	23,992	-0.7	-0.9	-0.5	24,002	24,294	23,954	26,149	-8.2
Computers and electronic products	17,540	17,642	17,532	-0.6	0.6	0.2	17,738	17,835	17,311	17,207	3.1
Electrical equipment, appliances, and components	6,453	6,537	6,490	-1.3	0.7	-0.7	6,556	6,641	6,450	7,075	-7.3
Transportation equipment	30,724	31,426	29,702	-2.2	5.8	1.5	30,995	31,211	28,843	29,473	5.2
Furniture and related products	3,644	3,642	3,603	0.1	1.1	-0.2	3,676	3,695	3,644	3,657	0.5
Miscellaneous products	7,488	7,453	7,375	0.5	1.1	0.2	7,603	7,548	7,378	7,447	2.1
Nondurable goods industries	78,405	78,743	78,563	-0.4	0.2	-0.3	78,253	78,978	78,567	79,005	-1.0
Food products	18,132	18,271	18,365	-0.8	-0.5	-1.8	17,862	18,076	18,056	17,890	-0.2
Beverage and tobacco products	5,047	5,053	5,022	-0.1	0.6	0.1	4,801	4,787	4,843	4,792	0.2
Textiles	1,162	1,165	1,155	-0.3	0.9	0.6	1,171	1,168	1,163	1,185	-1.2
Textile products	1,060	1,066	1,070	-0.6	-0.4	0.1	1,063	1,068	1,080	1,069	-0.6
Apparel	685	690	686	-0.7	0.6	-1.9	704	705	696	756	-6.9
Leather and allied products	236	238	239	-0.8	-0.4	0.4	242	243	238	252	-4.0
Paper products	8,252	8,254	8,217	0.0	0.5	-0.3	8,258	8,255	8,129	8,456	-2.3
Printing	2,676	2,675	2,710	0.0	-1.3	-1.9	2,731	2,715	2,732	2,909	-6.1
Petroleum and coal products	5,849	5,963	5,974	-1.9	-0.2	3.7	6,062	6,255	6,466	7,144	-15.1
Chemical products	25,250	25,336	25,104	-0.3	0.9	-0.1	25,315	25,622	25,136	24,412	3.7
Plastics and rubber products	10,056	10,032	10,021	0.2	0.1	-0.2	10,044	10,084	10,028	10,140	-0.9
WORK IN PROCESS											
All manufacturing industries	191,677	190,486	191,821	0.6	-0.7	-1.2	192,919	192,178	191,652	201,409	-4.2
Durable goods industries	143,046	142,480	143,367	0.4	-0.6	-1.9	144,567	144,379	143,387	151,973	-4.9
Wood products	2,214	2,196	2,193	0.8	0.1	-0.2	2,190	2,187	2,208	2,149	1.9
Nonmetallic mineral products	1,492	1,468	1,450	1.6	1.2	-0.3	1,488	1,478	1,476	1,432	3.9
Primary metals	9,255	9,151	9,052	1.1	1.1	-2.9	9,410	9,328	9,061	11,086	-15.1
Fabricated metal products	12,870	12,865	12,882	0.0	-0.1	0.8	12,991	12,979	12,845	13,045	-0.4
Machinery	19,201	19,321	19,273	-0.6	0.2	3.6	19,597	19,435	19,000	19,275	1.7
Computers and electronic products	13,163	13,023	13,107	1.1	-0.6	-2.3	13,431	13,365	13,318	14,723	-8.8
Electrical equipment, appliances, and components	3,427	3,518	3,453	-2.6	1.9	0.3	3,487	3,557	3,457	3,581	-2.6
Transportation equipment	76,388	75,977	77,061	0.5	-1.4	-3.6	76,854	77,057	77,096	81,829	-6.1
Furniture and related products	1,094	1,068	1,090	2.4	-2.0	2.0	1,104	1,083	1,103	1,020	8.2
Miscellaneous products	3,942	3,893	3,806	1.3	2.3	0.1	4,015	3,910	3,823	3,833	4.7
Nondurable goods industries	48,631	48,006	48,454	1.3	-0.9	0.9	48,352	47,799	48,265	49,436	-2.2
Food products	6,130	6,081	6,128	0.8	-0.8	1.6	5,670	5,632	5,531	5,646	0.4
Beverage and tobacco products	7,639	7,549	7,525	1.2	0.3	-1.4	7,136	6,962	7,105	7,115	0.3
Textiles	660	671	691	-1.6	-2.9	-0.3	667	679	690	692	-3.6
Textile products	443	442	444	0.2	-0.5	0.0	446	443	442	434	2.8
Apparel	335	326	318	2.8	2.5	-1.5	356	349	339	355	0.3
Leather and allied products	109	108	106	0.9	1.9	0.0	109	109	105	110	-0.9
Paper products	1,233	1,254	1,260	-1.7	-0.5	-0.2	1,255	1,269	1,267	1,338	-6.2
Printing	1,555	1,574	1,588	-1.2	-0.9	-0.2	1,675	1,595	1,539	1,582	5.9
Petroleum and coal products	8,025	7,884	8,196	1.8	-3.8	3.8	8,447	8,389	8,710	10,726	-21.2
Chemical products	19,454	19,089	19,172	1.9	-0.4	0.7	19,546	19,330	19,494	18,479	5.8
Plastics and rubber products	3,048	3,028	3,026	0.7	0.1	0.4	3,045	3,042	3,043	2,959	2.9
FINISHED GOODS											
All manufacturing industries	221,521	220,852	220,312	0.3	0.2	0.8	224,623	222,403	219,587	228,740	-1.8
Durable goods industries	110,426	109,869	109,572	0.5	0.3	1.4	111,202	110,094	108,414	111,559	-0.3
Wood products	4,504	4,445	4,421	1.3	0.5	0.8	4,391	4,339	4,390	4,352	0.9
Nonmetallic mineral products	6,392	6,348	6,271	0.7	1.2	0.9	6,296	6,339	6,323	6,086	3.5
Primary metals	9,797	9,962	9,742	-1.7	2.3	0.9	9,787	9,959	9,537	11,077	-11.6
Fabricated metal products	18,168	18,247	18,156	-0.4	0.5	0.3	18,053	18,411	18,178	18,282	-1.3
Machinery	22,837	22,246	22,384	2.7	-0.6	-1.3	22,999	22,136	22,203	23,780	-3.3
Computers and electronic products	11,860	11,903	12,069	-0.4	-1.4	2.2	12,237	11,956	11,750	12,012	1.9
Electrical equipment, appliances, and components	6,297	6,295	6,232	0.0	1.0	-1.2	6,432	6,441	6,273	6,394	0.6
Transportation equipment	16,445	16,366	16,384	0.5	-0.1	9.6	16,638	16,358	15,929	15,586	6.7
Furniture and related products	2,405	2,427	2,455	-0.9	-1.1	-1.4	2,522	2,560	2,596	2,549	-1.1
Miscellaneous products	11,721	11,630	11,458	0.8	1.5	0.2	11,847	11,595	11,235	11,441	3.5
Nondurable goods industries	111,095	110,983	110,740	0.1	0.2	0.1	113,421	112,309	111,173	117,181	-3.2
Food products	29,580	29,372	29,308	0.7	0.2	1.3	30,839	29,555	28,723	30,370	1.5
Beverage and tobacco products	7,997	7,929	7,926	0.9	0.0	-1.8	8,236	8,016	7,938	8,252	-0.2
Textiles	1,358	1,342	1,330	1.2	0.9	0.3	1,362	1,351	1,342	1,252	8.8
Textile products	1,567	1,561	1,553	0.4	0.5	-0.6	1,572	1,558	1,562	1,568	0.3
Apparel	1,531	1,544	1,557	-0.8	-0.8	0.8	1,636	1,641	1,557	1,398	17.0
Leather and allied products	447	450	449	-0.7	0.2	-1.3	456	455	463	482	-5.4
Paper products	6,634	6,686	6,655	-0.8	0.5	0.2	6,665	6,745	6,609	6,864	-2.9
Printing	1,654	1,618	1,596	2.2	1.4	0.2	1,661	1,601	1,634	1,564	6.2
Petroleum and coal products	11,481	11,131	10,937	3.1	1.8	-2.9	11,996	11,828	11,935	14,744	-18.6
Chemical products	36,680	37,066	37,153	-1.0	-0.2	0.6	36,879	37,296	37,093	38,462	-4.1
Plastics and rubber products	12,166	12,284	12,276	-1.0	0.1	-0.1	12,119	12,263	12,317	12,225	-0.9

[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.

See note at end of Table 2 relating to survey error and revisions.

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.]

Industry	Inventory/Shipments ratio				Unfilled Orders/Shipments ratio[2]			
	Aug 2016[p]	Jul 2016[r]	Jun 2016	May 2016	Aug 2016[p]	Jul 2016[r]	Jun 2016	May 2016
All manufacturing industries[3]	1.36	1.36	1.35	1.36	(X)	(X)	(X)	(X)
Durable goods industries[3]	1.65	1.65	1.64	1.65	6.81	6.79	6.81	6.89
Wood products	1.38	1.37	1.38	1.36	(X)	(X)	(X)	(X)
Nonmetallic mineral products	1.33	1.32	1.31	1.32	(X)	(X)	(X)	(X)
Primary metals	1.80	1.77	1.75	1.77	1.83	1.81	1.82	1.86
Fabricated metal products	1.63	1.63	1.64	1.62	2.52	2.53	2.55	2.53
Machinery	2.20	2.20	2.19	2.17	3.38	3.41	3.39	3.39
Computers and electronic products[3]	1.56	1.56	1.60	1.61	5.82	5.83	5.91	5.92
Electrical equipment, appliances, and components	1.69	1.72	1.71	1.73	2.03	2.02	2.00	2.00
Transportation equipment	1.54	1.53	1.52	1.55	14.43	14.21	14.17	14.48
Furniture and related products	1.14	1.14	1.14	1.14	1.51	1.50	1.53	1.53
Miscellaneous products	1.79	1.78	1.71	1.69	(X)	(X)	(X)	(X)
Nondurable goods industries	1.05	1.05	1.05	1.05	(X)	(X)	(X)	(X)
Food products	0.83	0.83	0.83	0.83	(X)	(X)	(X)	(X)
Beverage and tobacco products	1.64	1.65	1.66	1.73	(X)	(X)	(X)	(X)
Textiles	1.25	1.27	1.26	1.26	(X)	(X)	(X)	(X)
Textile products	1.52	1.55	1.55	1.55	(X)	(X)	(X)	(X)
Apparel	2.36	2.38	2.38	2.36	(X)	(X)	(X)	(X)
Leather and allied products	2.35	2.40	2.35	2.34	(X)	(X)	(X)	(X)
Paper products	1.07	1.08	1.06	1.06	(X)	(X)	(X)	(X)
Printing	0.82	0.83	0.82	0.83	(X)	(X)	(X)	(X)
Petroleum and coal products	0.72	0.71	0.69	0.71	(X)	(X)	(X)	(X)
Chemical products	1.24	1.24	1.23	1.23	(X)	(X)	(X)	(X)
Plastics and rubber products	1.32	1.32	1.32	1.33	(X)	(X)	(X)	(X)

X Not Applicable **[p] Preliminary** **[r] 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.

Table 8. Revisions to Previously Published Monthly Percent Changes [1]

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

Industry	Shipments		New Orders		Unfilled Orders		Inventories	
	Aug[2] 2016	Aug[3] 2015-Jul 2016	Aug[2] 2016	Aug[3] 2015-Jul 2016	Aug[2] 2016	Aug[3] 2015-Jul 2016	Aug[2] 2016	Aug[3] 2015-Jul 2016
All manufacturing industries	(X)	0.2	(X)	0.3	(X)	0.1	(X)	0.1
Durable goods industries	0.2	0.2	0.1	0.5	0.0	0.1	0.1	0.1
Wood products	(X)	0.6	(X)	(NA)	(X)	(NA)	(X)	0.2
Nonmetallic mineral products	(X)	0.1	(X)	(NA)	(X)	(NA)	(X)	0.2
Primary metals	0.2	0.5	0.2	0.8	0.0	0.3	0.1	0.4
Fabricated metal products	0.1	0.2	0.2	0.4	0.0	0.2	0.0	0.2
Machinery	0.0	0.6	0.1	0.7	0.1	0.2	0.0	0.2
Computers and electronic products	0.2	0.4	-0.4	0.6	-0.2	0.1	0.0	0.3
Electrical equipment, appliances, and components	0.2	0.3	0.2	0.9	0.1	0.4	-0.1	0.2
Transportation equipment	0.2	0.3	0.1	0.9	0.0	0.1	0.0	0.2
Furniture and related products	(X)	0.3	(X)	0.8	(X)	0.4	(X)	0.3
Miscellaneous products	(X)	0.5	(X)	0.5	(X)	0.4	(X)	0.2
Nondurable goods industries	(X)	0.2	(X)	(NA)	(X)	(NA)	(X)	0.2
Food products	(X)	0.3	(X)	(NA)	(X)	(NA)	(X)	0.2
Beverage and tobacco products	(X)	0.7	(X)	(NA)	(X)	(NA)	(X)	0.3
Textiles	(X)	0.5	(X)	(NA)	(X)	(NA)	(X)	0.3
Textile products	(X)	0.9	(X)	(NA)	(X)	(NA)	(X)	0.3
Apparel	(X)	0.8	(X)	(NA)	(X)	(NA)	(X)	0.3
Leather and allied products	(X)	1.8	(X)	(NA)	(X)	(NA)	(X)	0.5
Paper products	(X)	0.3	(X)	(NA)	(X)	(NA)	(X)	0.2
Printing	(X)	0.3	(X)	(NA)	(X)	(NA)	(X)	0.4
Petroleum and coal products	(X)	1.0	(X)	(NA)	(X)	(NA)	(X)	1.0
Chemical products	(X)	0.2	(X)	(NA)	(X)	(NA)	(X)	0.2
Plastics and rubber products	(X)	0.4	(X)	(NA)	(X)	(NA)	(X)	0.2

X Not Applicable **NA Not Available**

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

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

[3] The twelve month revisions are the differences between the month-to-month percent changes of the preliminary and final estimates. The monthly averages are the simple averages of the absolute values of the differences for the months specified. The advance to final percent change revisions for the durable goods industries are shown in the advance report for the month.

Survey Description

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-in-process, and finished goods). Data published from the M3 survey are based on a panel of approximately 4,800 reporting units that represent approximately 3,000 companies and provide an indication of month-to-month change for the Manufacturing Sector. These reporting units may be divisions of diversified large companies, large homogenous companies, or single-unit manufacturers in 92 industry categories, which are combined into 65 publication levels due to the small monthly panel size. The survey methodology assumes that the month-to-month changes of the total operations of the reporting units in the M3 panel effectively represent the month-to-month movements of all establishments that make up the category.

The companies for which shipments data are currently reported or imputed in the M3 survey represent approximately 61 percent of the total value of shipments for manufacturing establishments in the 2012 Economic Census, and these companies include almost two-thirds of the manufacturing companies with $500 million or more in shipments in the 2012 Economic Census. The companies for which shipments data are currently reported in the M3 survey represent approximately 54 percent of the total value of shipments for manufacturing establishments in the 2012 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. 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: http://www.census.gov/m3.