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

Summary

New orders for manufactured goods in September, up three consecutive months, increased \$1.4 billion or 0.3 percent to \$455.5 billion, the U.S. Census Bureau reported today. This followed a 0.4 percent August increase.

Shipments, up six of the last seven months, increased \$3.9 billion or 0.8 percent to \$463.0 billion. This followed a 0.2 percent August increase.

Unfilled orders, down four consecutive months, decreased \$4.3 billion or 0.4 percent to \$1,118.8 billion. This followed a 0.2 percent August decrease. The unfilled orders-to-shipments ratio was 6.69, down from 6.79 in August.

Inventories, down following two consecutive monthly increases, decreased \$0.2 billion or virtually unchanged to \$621.4 billion. This followed a 0.1 percent August increase. The inventories-to-shipments ratio was 1.34, down from 1.35 in August.

New Orders

New orders for manufactured durable goods in September, down following two consecutive monthly increases, decreased \$0.7 billion or 0.3 percent to \$226.8 billion, down from the previously published 0.1 percent decrease. This followed a 0.2 percent August increase.

Transportation equipment, also down following two consecutive monthly increases, drove the decrease, \$0.9 billion or 1.1 percent to \$77.2 billion.

New orders for manufactured nondurable goods increased \$2.1 billion or 0.9 percent to \$228.7 billion.

Shipments

Shipments of manufactured durable goods in September, up three of the last four months, increased \$1.8 billion or 0.8 percent to \$234.3 billion, virtually unchanged from the previously published increase. This followed a virtually unchanged August decrease.

Transportation equipment, up following two consecutive monthly decreases, led the increase, \$1.7 billion or 2.2 percent to \$82.0 billion.

Shipments of manufactured nondurable goods, up six of the last seven months, increased \$2.1 billion or 0.9 percent to \$228.7 billion. This followed a 0.5 percent August increase. Petroleum and coal products, up six of the last seven months, led the increase, \$1.5 billion or 4.3 percent to \$37.1 billion.

Unfilled Orders

Unfilled orders for manufactured durable goods in September, down four consecutive months, decreased \$4.3 billion or 0.4 percent to \$1,118.8 billion, virtually unchanged from the previously published decrease. This followed a 0.2 percent August decrease.

Transportation equipment, also down four consecutive months, drove the decrease, \$4.7 billion or 0.6 percent to \$764.1 billion.

Inventories

Inventories of manufactured durable goods in September, up three consecutive months, increased \$0.3 billion or 0.1 percent to \$383.8 billion, virtually unchanged from the previously published increase. This followed a 0.1 percent August increase.

Machinery, up three of the last four months, led the increase, \$0.3 billion or 0.4 percent to \$65.9 billion.

Inventories of manufactured nondurable goods, down two of the last three months, decreased \$0.5 billion or 0.2 percent to \$237.6 billion. This followed a 0.1 percent August increase. Petroleum and coal products, also down two of the last three months, drove the decrease, \$0.6 billion or 2.2 percent to \$24.6 billion.

By stage of fabrication, September materials and supplies were virtually unchanged in durable goods and decreased 0.1 percent in nondurable goods. Work in process increased 0.2 percent in durable goods and decreased 0.2 percent in nondurable goods. Finished goods were virtually unchanged in durable goods and decreased 0.3 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 October is scheduled for release on November 23, 2016 at 8:30 a.m. EST and the Full Report on December 6, 2016 at 10:00 a.m. EST. 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. "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 Groups¹

[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 2016/ 2015
	Sep. 2016 ^p	Aug. 2016 ^f	July 2016	Aug. - Sep.	July - Aug.	June - July	Sep. 2016 ^p	Aug. 2016 ^f	July 2016	Sep. 2015	2016 ^p	2015	
All manufacturing industries.....	463,012	459,111	458,002	0.8	0.2	-0.4	484,622	480,925	436,303	487,337	4,143,261	4,247,639	-2.5
Excluding transportation.....	381,048	378,875	377,223	0.6	0.4	-0.4	395,839	396,577	368,746	397,839	3,412,404	3,521,841	-3.1
Excluding defense.....	450,411	446,417	445,391	0.9	0.2	-0.4	470,392	468,538	425,020	473,044	4,033,364	4,140,221	-2.6
With unfilled orders.....	167,204	165,300	165,699	1.2	-0.2	0.1	179,010	172,425	152,814	178,454	1,493,191	1,505,029	-0.8
Durable goods industries.....	234,337	232,525	232,559	0.8	0.0	0.0	250,616	243,977	213,250	252,078	2,107,432	2,124,080	-0.8
Wood products.....	8,406	8,330	8,266	0.9	0.8	1.4	8,819	9,036	8,542	8,203	75,887	73,165	3.7
Nonmetallic mineral products.....	9,873	9,890	9,843	-0.2	0.5	-1.0	10,707	11,223	10,111	10,405	90,174	86,045	4.8
Primary metals.....	17,764	17,751	17,882	0.1	-0.7	0.1	18,270	18,963	17,210	19,015	162,562	178,814	-9.1
Iron and steel mills.....	7,867	7,998	8,154	-1.6	-1.9	0.2	8,054	8,689	7,906	8,767	73,279	83,754	-12.5
Aluminum and nonferrous metals.....	8,500	8,299	8,273	2.4	0.3	0.4	8,707	8,706	7,957	8,448	75,628	80,004	-5.5
Ferrous metal foundries.....	1,397	1,454	1,455	-3.9	-0.1	-2.1	1,509	1,568	1,347	1,800	13,655	15,056	-9.3
Fabricated metal products.....	30,073	30,159	30,086	-0.3	0.2	0.9	31,660	32,569	29,060	30,919	272,551	269,310	1.2
Machinery.....	29,871	29,896	29,713	-0.1	0.6	-0.9	30,936	30,316	27,821	33,328	274,515	293,385	-6.4
Farm machinery.....	1,776	1,726	1,749	2.9	-1.3	-4.6	1,615	1,583	1,642	1,880	16,884	19,631	-14.0
Construction machinery.....	2,516	2,496	2,429	0.8	2.8	-10.3	2,538	2,462	2,261	3,521	24,752	33,526	-26.2
Mining, oil field, and gas field machinery.....	976	891	830	9.5	7.3	-3.7	1,010	900	777	1,599	8,851	16,116	-45.1
Industrial machinery.....	2,252	2,449	2,425	-8.0	1.0	4.0	2,584	2,338	2,250	2,910	21,496	21,224	1.3
Photographic equipment.....	396	420	421	-5.7	-0.2	-0.9	431	433	371	469	3,745	3,748	-0.1
Ventilation, heating, air-conditioning, and refrigeration equipment.....	3,467	3,565	3,449	-2.7	3.4	3.3	3,733	3,887	3,677	3,732	32,062	32,561	-1.5
Metalworking machinery.....	3,181	3,084	3,116	3.1	-1.0	2.0	3,444	3,226	2,743	3,113	27,255	24,380	11.8
Turbines, generators, and other power transmission equipment.....	4,077	3,965	4,095	2.8	-3.2	0.5	4,054	4,044	3,944	4,568	36,622	40,744	-10.1
Material handling equipment.....	2,956	2,960	2,989	-0.1	-1.0	-1.1	3,087	3,173	2,784	2,837	26,768	23,208	15.3
Computers and electronic products ²	27,313	27,433	27,279	-0.4	0.6	2.4	30,559	27,680	25,538	29,479	239,270	231,078	3.5
Computers.....	563	612	603	-8.0	1.5	7.7	657	585	553	850	5,324	7,063	-24.6
Computer storage devices.....	497	593	693	-16.2	-14.4	21.6	752	476	443	859	4,968	4,905	1.3
Other peripheral equipment.....	609	643	652	-5.3	-1.4	5.2	743	564	535	873	5,802	7,198	-19.4
Nondefense communications equipment.....	3,252	3,142	3,077	3.5	2.1	-6.1	3,997	3,050	2,704	3,738	27,938	27,688	0.9
Defense communications equipment.....	300	337	294	-11.0	14.6	4.3	344	330	271	322	2,619	2,787	-6.0
Audio and video equipment.....	377	375	365	0.5	2.7	1.7	401	352	323	358	2,982	2,141	39.3
Electronic components.....	5,001	4,950	4,788	1.0	3.4	2.6	5,252	5,332	4,869	4,738	43,178	38,463	12.3
Nondefense search and navigation equipment.....	1,397	1,369	1,395	2.0	-1.9	2.0	1,606	1,417	1,183	1,567	12,373	11,348	9.0
Defense search and navigation equipment.....	2,602	2,572	2,676	1.2	-3.9	3.9	2,824	2,579	2,477	2,750	22,580	22,293	1.3
Electromedical, measuring, and control instruments.....	9,163	9,270	9,245	-1.2	0.3	2.5	10,522	9,005	8,366	10,167	80,855	75,973	6.4
Electrical equipment, appliances, and components.....	9,665	9,598	9,520	0.7	0.8	0.7	10,446	10,123	9,072	10,669	85,963	92,195	-6.8
Electric lighting equipment.....	1,085	1,091	1,098	-0.5	-0.6	1.8	1,149	1,149	1,070	1,125	9,550	9,086	5.1
Household appliances.....	1,405	1,388	1,364	1.2	1.8	-1.3	1,510	1,448	1,267	1,578	12,521	13,984	-10.5
Electrical equipment.....	2,930	2,910	2,881	0.7	1.0	-1.0	3,265	3,028	2,654	3,397	26,792	29,305	-8.6
Batteries.....	807	820	795	-1.6	3.1	0.6	897	865	680	899	6,970	7,297	-4.5
Transportation equipment.....	81,964	80,236	80,779	2.2	-0.7	-0.3	88,783	84,348	67,557	89,498	730,857	725,798	0.7
Automobiles.....	9,223	9,471	9,436	-2.6	0.4	-1.7	9,797	10,195	7,189	11,203	87,950	95,922	-8.3
Light trucks and utility vehicles.....	15,314	15,265	14,999	0.3	1.8	2.7	16,835	16,731	11,793	17,226	137,473	132,421	3.8
Heavy duty trucks.....	2,100	2,050	2,099	2.4	-2.3	-5.5	2,215	2,142	2,000	2,757	20,454	24,359	-16.0
Motor vehicle bodies, parts, and trailers.....	29,081	28,363	28,223	2.5	0.5	-1.2	30,403	30,662	24,136	27,106	255,679	232,648	9.9
Nondefense aircraft and parts.....	14,117	12,974	14,028	8.8	-7.5	1.2	15,758	12,737	11,999	16,385	121,204	126,046	-3.8
Defense aircraft and parts.....	4,149	4,475	4,052	-7.3	10.4	-2.5	4,853	4,247	3,472	6,136	37,550	43,008	-12.7
Ships and boats.....	3,174	3,143	3,152	1.0	-0.3	10.5	3,355	3,107	2,947	3,029	27,440	24,927	10.1
Furniture and related products.....	6,363	6,292	6,269	1.1	0.4	0.0	6,616	6,789	6,328	6,413	57,152	54,851	4.2
Miscellaneous durable goods.....	13,045	12,940	12,922	0.8	0.1	-2.5	13,820	12,930	12,011	14,149	118,501	119,439	-0.8
Nondurable goods industries.....	228,675	226,586	225,443	0.9	0.5	-0.8	234,006	236,948	223,053	235,259	2,035,829	2,123,559	-4.1
Food products.....	65,059	65,011	64,960	0.1	0.1	-0.1	66,705	66,389	62,056	66,749	577,166	575,019	0.4
Grain and oilseed milling.....	7,981	7,870	8,087	1.4	-2.7	-1.7	7,978	8,306	7,550	8,185	70,749	70,475	0.4
Dairy products.....	9,279	9,290	9,151	-0.1	1.5	2.1	9,518	9,631	8,919	9,354	81,832	82,124	-0.6
Meat, poultry, and seafood products.....	17,704	17,752	17,791	-0.3	-0.2	-1.3	17,987	18,062	17,577	18,624	160,319	168,054	-4.6
Beverage and tobacco products.....	12,450	12,640	12,472	-1.5	1.3	1.0	12,822	13,220	12,543	12,743	110,855	109,864	0.9
Beverages.....	9,301	9,524	9,444	-2.3	0.8	1.9	9,673	10,104	9,515	9,587	84,056	81,698	2.9
Tobacco.....	3,149	3,116	3,028	1.1	2.9	-1.5	3,149	3,116	3,028	3,156	26,799	28,166	-4.9
Textile mills.....	2,458	2,525	2,499	-2.7	1.0	-0.5	2,530	2,670	2,459	2,646	23,002	23,568	-2.4
Textile products.....	1,982	2,018	1,982	-1.8	1.8	0.1	1,968	2,131	2,019	2,019	18,159	18,702	-2.9
Apparel.....	1,044	1,065	1,075	-2.0	-0.9	-0.1	1,114	1,193	1,073	1,078	9,226	8,696	6.1
Leather and allied products.....	333	336	331	-0.9	1.5	-2.1	337	343	326	379	3,067	3,613	-15.1
Paper products.....	15,183	15,096	15,027	0.6	0.5	-1.1	15,488	15,871	14,913	15,457	137,380	137,326	0.0
Pulp, paper, and paperboard mills.....	6,718	6,683	6,699	0.5	-0.2	-0.8	6,829	7,063	6,720	6,859	61,137	61,820	-1.1
Paperboard containers.....	4,684	4,648	4,579	0.8	1.5	-1.1	4,821	4,940	4,577	4,774	42,300	41,833	1.1
Printing.....	7,171	7,171	7,111	0.0	0.8	-0.5	7,483	7,401	6,621	7,491	64,044	63,819	0.4
Petroleum and coal products.....	37,127	35,597	34,977	4.3	1.8	-3.5	38,118	38,688	38,160	39,339	314,834	417,131	-24.5
Petroleum refineries.....	33,250	31,780	31,122	4.6	2.1	-4.2	33,788	34,050	33,960	35,659	281,020	386,182	-27.2
Chemical products.....	66,466	65,918	65,799	0.8	0.2	-0.7	67,482	68,589	63,878	67,973	602,967	591,382	2.0
Pesticides, fertilizers, and other agricultural chemicals.....	4,183	4,239	4,135	-1.3	2.5	1.7	3,691	3,684	3,334	3,613	39,549	37,115	6.6
Pharmaceuticals and medicines.....	21,725	21,381	21,481	1.6	-0.5	-0.4	22,245	22,295	20,672	22,254	194,779	172,230	13.1
Paints, coatings, and adhesives.....	3,648	3,642	3,615	0.2	0.7	0.1	3,746	3,931	3,687	3,531	33,894	31,507	7.6
Plastics and rubber products.....	19,402	19,209	19,210	1.0	0.0	0.0	19,959	20,453	19,005	19,385	175,129	174,439	0.4

^p Preliminary^f 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 Groups¹

[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		
	Sep. 2016 ^P	Aug. 2016 ^f	July 2016	Aug. - Sep.	July - Aug.	June - July	Sep. 2016 ^P	Aug. 2016 ^f	July 2016	Sep. 2015	2016 ^P	2015	% Change 2016/2015
All manufacturing industries ²	455,471	454,056	452,391	0.3	0.4	1.4	475,863	467,452	430,190	475,312	4,085,574	4,181,205	-2.3
Excluding transportation ²	378,242	375,953	374,758	0.6	0.3	-0.1	391,577	390,113	364,865	392,705	3,391,729	3,492,384	-2.9
Excluding defense ²	442,992	439,667	440,164	0.8	-0.1	1.0	461,332	455,745	420,532	463,340	3,975,631	4,086,842	-2.7
With unfilled orders ²	162,921	163,548	163,299	-0.4	0.2	5.2	173,391	162,660	150,254	169,345	1,463,569	1,466,995	-0.2
Durable goods industries ²	226,796	227,470	226,948	-0.3	0.2	3.6	241,857	230,504	207,137	240,053	2,049,745	2,057,646	-0.4
Primary metals.....	17,782	17,827	17,818	-0.3	0.1	1.2	17,578	18,467	17,028	17,729	163,530	176,901	-7.6
Iron and steel mills.....	7,887	8,167	8,129	-3.4	0.5	2.3	7,430	8,398	7,641	7,456	74,520	82,275	-9.4
Aluminum and nonferrous metals.....	8,397	8,198	8,295	2.4	-1.2	0.9	8,602	8,567	8,070	8,538	75,009	79,777	-6.0
Ferrous metal foundries.....	1,498	1,462	1,394	2.5	4.9	-2.7	1,546	1,502	1,317	1,735	14,001	14,849	-5.7
Fabricated metal products.....	30,036	30,223	30,296	-0.6	-0.2	1.4	30,903	32,019	29,351	30,339	275,129	268,840	2.3
Machinery.....	30,003	29,672	29,671	1.1	0.0	1.0	30,463	29,878	27,645	32,379	271,367	287,703	-5.7
Construction machinery.....	2,347	2,316	2,385	1.3	-2.9	-4.9	2,284	2,376	2,082	3,228	23,052	30,403	-24.2
Mining, oil field, and gas field machinery.....	941	836	791	12.6	5.7	48.4	919	895	701	1,399	6,545	14,517	-54.9
Industrial machinery.....	2,157	2,369	2,234	-8.9	6.0	1.8	2,364	2,162	2,079	2,652	20,800	20,627	0.8
Photographic equipment.....	455	475	414	-4.2	14.7	5.9	512	497	379	481	3,776	3,985	-5.2
Ventilation, heating, air-conditioning, and refrigeration equipment.....	3,345	3,291	3,620	1.6	-9.1	7.4	3,593	3,498	3,799	3,865	31,710	33,130	-4.3
Metalworking machinery.....	3,275	3,213	3,199	1.9	0.4	2.2	3,474	3,298	2,843	2,923	28,094	23,950	17.3
Turbines, generators, and other power transmission equipment.....	4,161	4,030	4,045	3.3	-0.4	-0.7	4,091	4,004	3,952	4,563	36,576	38,568	-5.2
Material handling equipment.....	3,078	3,055	3,071	0.8	-0.5	2.0	3,255	3,100	2,622	3,091	27,258	24,604	10.8
Computers and electronic products ²	24,211	24,427	24,464	-0.9	-0.2	2.5	28,180	23,127	21,917	27,365	215,975	209,316	3.2
Computers.....	586	615	595	-4.7	3.4	7.8	680	588	545	839	5,298	7,153	-25.9
Nondefense communications equipment.....	3,304	3,348	3,382	-1.3	-1.0	-1.2	4,278	2,871	2,871	4,128	30,075	30,752	-2.2
Defense communications equipment.....	279	281	265	-0.7	6.0	-15.3	346	261	239	349	2,659	2,912	-8.7
Electronic components.....	4,988	4,900	4,923	1.8	-0.5	7.3	5,098	5,354	5,075	4,579	43,278	38,867	11.3
Nondefense search and navigation equipment.....	1,469	1,452	1,500	1.2	-3.2	2.5	1,674	1,466	1,306	1,696	13,224	13,412	-1.4
Defense search and navigation equipment.....	2,567	2,667	2,413	-3.7	10.5	-4.0	3,041	2,343	1,982	3,033	23,504	21,852	7.6
Electromedical, measuring, and control instruments.....	9,241	9,286	9,396	-0.5	-1.2	2.3	10,846	8,570	8,337	10,310	81,599	77,305	5.6
Electrical equipment, appliances, and components.....	9,714	9,625	9,837	0.9	-2.2	3.6	10,365	10,058	9,135	10,511	87,194	92,089	-5.3
Electric lighting equipment.....	1,118	1,087	1,081	2.9	0.6	1.0	1,144	1,135	1,043	1,073	9,597	9,051	6.0
Household appliances.....	1,436	1,384	1,452	3.8	-4.7	0.6	1,556	1,432	1,296	1,569	12,543	13,827	-9.3
Electrical equipment.....	2,893	2,849	2,907	1.5	-2.0	2.1	3,096	2,901	2,737	3,284	26,687	29,863	-10.6
Transportation equipment.....	77,229	78,103	77,633	-1.1	0.6	8.9	84,286	77,339	65,325	82,607	693,845	688,821	0.7
Motor vehicle bodies, parts, and trailers.....	29,051	28,321	28,048	2.6	1.0	-1.0	30,385	30,873	23,595	26,972	253,549	231,538	9.5
Nondefense aircraft and parts.....	9,671	8,626	11,394	12.1	-24.3	72.9	11,400	5,310	11,710	12,618	88,278	107,306	-17.7
Defense aircraft and parts.....	2,749	5,251	4,444	-47.6	18.2	22.0	3,270	4,064	3,419	7,781	37,987	37,764	0.6
Ships and boats.....	2,826	3,439	2,965	-17.8	16.0	11.2	2,920	3,076	2,556	-977	25,278	17,829	41.8
Furniture and related products.....	6,507	6,430	6,192	1.2	3.8	0.5	6,746	6,424	6,066	6,373	58,139	55,332	5.1
Nondurable goods industries.....	228,675	226,586	225,443	0.9	0.5	-0.8	234,006	236,948	223,053	235,259	2,035,829	2,123,559	-4.1

^P Preliminary^f 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 non-sampling 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 Groups¹

[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				% Change September 2016/ 2015
	Monthly			Percent Change			Monthly				
	Sep. 2016 ²	Aug. 2016 ²	July 2016	Aug. - Sep.	July - Aug.	June - July	Sep. 2016 ²	Aug. 2016 ²	July 2016	Sep. 2015	
All manufacturing industries ²	1,118,802	1,123,085	1,124,837	-0.4	-0.2	-0.2	1,110,078	1,115,697	1,125,462	1,129,535	-1.7
Excluding transportation ²	354,739	354,287	353,906	0.1	0.1	0.2	352,232	353,354	356,110	350,419	0.5
Excluding defense ²	944,542	948,703	952,150	-0.4	-0.4	-0.2	936,815	942,735	951,820	959,462	-2.4
Durable goods industries ²	1,118,802	1,123,085	1,124,837	-0.4	-0.2	-0.2	1,110,078	1,115,697	1,125,462	1,129,535	-1.7
Primary metals.....	32,506	32,488	32,412	0.1	0.2	-0.2	31,581	32,273	32,769	31,202	1.2
Iron and steel mills.....	18,333	18,313	18,144	0.1	0.9	-0.1	17,601	18,225	18,516	15,750	11.8
Aluminum and nonferrous metals.....	10,286	10,389	10,490	-1.0	-1.0	0.2	10,197	10,302	10,441	11,938	-14.6
Ferrous metal foundries.....	3,887	3,786	3,778	2.7	0.2	-1.6	3,783	3,746	3,812	3,514	7.7
Fabricated metal products.....	74,099	74,136	74,072	0.0	0.1	0.3	74,025	74,782	75,332	73,644	0.5
Machinery.....	92,691	92,559	92,783	0.1	-0.2	0.0	91,808	92,281	92,719	98,035	-6.4
Construction machinery.....	3,942	4,111	4,291	-4.1	-4.2	-1.0	3,695	3,949	4,035	5,747	-35.7
Mining, oil field, and gas field machinery.....	5,862	5,897	5,952	-0.6	-0.9	-0.7	5,864	5,955	5,960	10,029	-41.5
Industrial machinery.....	7,332	7,427	7,507	-1.3	-1.1	-2.5	7,221	7,441	7,617	8,449	-14.5
Photographic equipment.....	1,283	1,224	1,169	4.8	4.7	-0.6	1,306	1,225	1,161	1,383	-5.6
Ventilation, heating, air-conditioning, and refrigeration equipment.....	6,126	6,248	6,522	-2.0	-4.2	2.7	5,976	6,116	6,505	6,177	-3.3
Metalworking machinery.....	7,543	7,449	7,320	1.3	1.8	1.1	7,458	7,428	7,356	6,732	10.8
Turbines, generators, and other power transmission equipment.....	25,724	25,640	25,575	0.3	0.3	-0.2	25,646	25,609	25,649	25,452	0.8
Material handling equipment.....	12,211	12,089	11,994	1.0	0.8	0.7	12,123	11,955	12,028	11,272	7.5
Computers and electronic products ²	129,272	129,116	128,819	0.1	0.2	0.3	128,961	128,200	129,045	123,007	4.8
Computers.....	2,421	2,398	2,395	1.0	0.1	-0.3	2,421	2,398	2,395	2,370	2.2
Nondefense communications equipment.....	32,852	32,800	32,594	0.2	0.6	0.9	32,662	32,381	32,560	29,778	9.7
Defense communications equipment.....	2,224	2,245	2,301	-0.9	-2.4	-1.2	2,277	2,275	2,344	2,414	-5.7
Electronic components.....	12,107	12,120	12,170	-0.1	-0.4	1.1	12,054	12,208	12,186	11,801	2.1
Nondefense search and navigation equipment.....	17,896	17,824	17,741	0.4	0.5	0.6	17,976	17,908	17,859	16,876	6.5
Defense search and navigation equipment.....	28,298	28,333	28,238	-0.1	0.3	-0.9	28,279	28,062	28,298	27,380	3.3
Electromedical, measuring, and control instruments.....	33,474	33,396	33,380	0.2	0.0	0.5	33,292	32,968	33,403	32,388	2.8
Electrical equipment, appliances, and components.....	17,717	17,668	17,641	0.3	0.2	1.8	17,534	17,615	17,680	16,646	5.3
Electric lighting equipment.....	1,352	1,319	1,323	2.5	-0.3	-1.3	1,315	1,320	1,334	1,238	6.2
Household appliances.....	1,221	1,190	1,194	2.6	-0.3	8.0	1,173	1,127	1,143	1,063	10.3
Electrical equipment.....	7,851	7,888	7,949	-0.5	-0.8	0.3	7,758	7,927	8,054	7,975	-2.7
Transportation equipment.....	764,063	768,798	770,931	-0.6	-0.3	-0.4	757,846	762,343	769,352	779,116	-2.7
Motor vehicle bodies, parts, and trailers.....	21,922	21,952	21,994	-0.1	-0.2	-0.8	21,429	21,447	21,236	22,885	-6.4
Nondefense aircraft and parts.....	582,268	586,714	591,062	-0.8	-0.7	-0.4	577,710	582,068	589,495	597,159	-3.3
Defense aircraft and parts.....	70,125	71,525	70,749	-2.0	1.1	0.6	69,055	70,638	70,821	64,762	6.6
Ships and boats.....	16,483	16,831	16,535	-2.1	1.8	-1.1	16,428	16,863	16,894	21,292	-22.8
Furniture and related products.....	8,212	8,068	7,930	1.8	1.7	-1.0	8,081	7,951	8,316	7,651	5.6

² Preliminary ¹ 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 Groups¹

[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				% Change September 2016/ 2015
	Monthly			Percent Change			Monthly				
	Sep. 2016 ²	Aug. 2016 ²	July 2016	Aug. - Sep.	July - Aug.	June - July	Sep. 2016 ²	Aug. 2016 ²	July 2016	Sep. 2015	
All manufacturing industries.....	621,350	621,552	620,953	0.0	0.1	0.2	621,341	626,826	625,169	633,336	-1.9
Excluding transportation.....	497,810	497,959	497,184	0.0	0.2	0.2	498,388	502,410	500,543	508,388	-2.0
Excluding defense.....	595,863	596,000	595,074	0.0	0.2	0.1	595,842	601,188	598,956	606,655	-1.8
With unfilled orders.....	311,817	311,286	311,123	0.2	0.1	0.4	310,623	314,287	314,148	318,121	-2.4
Durable goods industries.....	383,795	383,467	383,221	0.1	0.1	0.4	382,054	386,776	386,083	388,997	-1.8
Wood products.....	11,408	11,384	11,284	0.2	0.9	0.6	11,300	11,281	11,111	11,197	0.9
Nonmetallic mineral products.....	13,136	13,113	13,032	0.2	0.6	0.3	12,912	13,013	13,041	12,618	2.3
Primary metals.....	31,706	31,718	31,648	0.0	0.2	1.3	31,757	31,938	31,751	34,705	-8.5
Iron and steel mills.....	17,410	17,377	17,251	0.2	0.7	1.9	17,567	17,516	17,278	19,918	-11.8
Aluminum and nonferrous metals.....	12,285	12,298	12,321	-0.1	-0.2	0.6	12,235	12,371	12,406	12,757	-4.1
Ferrous metal foundries.....	2,011	2,043	2,076	-1.6	-1.6	-0.4	1,955	2,051	2,067	2,030	-3.7
Fabricated metal products.....	48,946	48,886	49,107	0.1	-0.5	0.7	48,604	48,902	49,503	49,170	-1.2
Machinery.....	65,911	65,645	65,350	0.4	0.5	-0.5	65,767	66,467	65,865	67,878	-3.1
Farm machinery.....	3,019	2,967	2,893	1.8	2.6	-0.7	2,823	2,871	2,823	3,142	-10.2
Construction machinery.....	5,496	5,554	5,481	-1.0	1.3	0.7	5,521	5,535	5,419	6,506	-15.1
Mining, oil field, and gas field machinery.....	7,437	7,364	7,233	1.0	1.8	0.6	7,397	7,488	7,277	7,766	-4.8
Industrial machinery.....	6,471	6,439	6,383	0.5	0.9	-0.6	6,501	6,489	6,319	6,304	3.1
Photographic equipment.....	1,582	1,563	1,583	1.2	-1.3	-0.2	1,604	1,619	1,623	1,590	0.9
Ventilation, heating, air-conditioning, and refrigeration equipment.....	4,584	4,431	4,339	3.5	2.1	-1.0	4,449	4,410	4,404	4,493	-1.0
Metalworking machinery.....	5,696	5,692	5,684	0.1	0.1	1.1	5,791	5,817	5,740	5,789	0.0
Turbines, generators, and other power transmission equipment.....	9,387	9,278	9,377	1.2	-1.1	-3.0	9,440	9,565	9,592	9,895	-4.6
Material handling equipment.....	4,656	4,633	4,613	0.5	0.4	-0.5	4,791	4,806	4,763	4,520	6.0
Computers and electronic products ²	42,568	42,651	42,568	-0.2	0.2	-0.3	42,236	43,524	43,156	42,311	-0.2
Computers.....	1,628	1,642	1,589	-0.9	3.3	1.2	1,689	1,750	1,691	1,514	11.6
Computer storage devices.....	1,016	995	984	2.1	1.1	-0.2	1,016	1,028	1,009	967	5.1
Other peripheral equipment.....	1,031	1,061	1,034	-2.8	2.6	0.3	989	1,098	1,055	1,052	-6.0
Nondefense communications equipment.....	3,921	3,986	3,972	-1.6	0.4	-0.3	3,856	4,078	3,966	4,154	-7.2
Defense communications equipment.....	549	565	602	-2.8	-6.1	-2.4	549	565	602	758	-27.6
Audio and video equipment.....	798	792	793	0.8	-0.1	0.8	903	854	806	821	10.0
Electronic components.....	7,626	7,660	7,685	-0.4	-0.3	-0.8	7,511	7,709	7,805	7,457	0.7
Nondefense search and navigation equipment.....	3,085	3,069	3,055	0.5	0.5	-0.5	3,084	3,123	3,095	3,068	0.5
Defense search and navigation equipment.....	3,081	3,024	2,955	1.9	2.3	-0.7	3,009	3,045	3,055	2,700	11.4
Electromedical, measuring and control instruments.....	14,178	14,051	14,053	0.9	0.0	-0.3	14,007	14,453	14,248	14,319	-2.2
Electrical equipment, appliances, and components.....	16,300	16,210	16,350	0.6	-0.9	1.1	16,075	16,479	16,639	16,408	-2.0
Electric lighting equipment.....	1,998	2,001	2,001	-0.1	0.0	0.1	1,986	2,035	2,058	1,926	3.1
Household appliances.....	2,251	2,240	2,220	0.5	0.9	-0.4	2,262	2,330	2,288	2,275	-0.6
Electrical equipment.....	4,857	4,868	4,863	-0.2	0.1	-0.6	4,605	4,905	4,909	4,781	-3.7
Batteries.....	1,308	1,306	1,315	0.2	-0.7	-1.1	1,358	1,398	1,386	1,459	-6.9
Transportation equipment.....	123,540	123,593	123,769	0.0	-0.1	0.5	122,953	124,416	124,626	124,948	-1.6
Automobiles.....	4,359	4,361	4,682	0.0	-6.9	-5.1	4,333	4,398	4,671	4,446	-2.5
Light trucks and utility vehicles.....	4,426	4,392	4,283	0.8	2.5	-0.6	4,365	4,418	4,261	4,060	7.5
Heavy duty trucks.....	1,864	2,028	2,091	-8.1	-3.0	-0.1	1,814	2,033	2,069	2,124	-14.6
Motor vehicle bodies, parts, and trailers.....	23,946	23,940	23,857	0.0	0.3	1.0	23,828	24,118	24,034	23,508	1.4
Nondefense aircraft and parts.....	62,670	62,426	62,128	0.4	0.5	-0.4	62,155	62,707	62,538	63,154	-1.6
Defense aircraft and parts.....	11,093	11,285	11,547	-1.7	-2.3	7.5	11,070	11,300	11,629	11,413	-3.0
Ships and boats.....	2,925	2,945	2,950	-0.7	-0.2	0.1	2,936	2,931	2,931	2,989	-1.8
Furniture and related products.....	7,165	7,147	7,137	0.3	0.1	-0.2	7,170	7,300	7,338	7,130	0.6
Miscellaneous durable goods.....	23,115	23,120	22,976	0.0	0.6	1.5	23,280	23,456	23,053	22,632	2.9
Non-durable goods industries.....	237,555	238,085	237,732	-0.2	0.1	0.0	239,287	240,050	239,086	244,339	-2.1
Food products.....	53,920	53,995	53,724	-0.1	0.5	-0.1	54,745	54,545	53,263	54,436	0.6
Grain and oilseed milling.....	5,780	5,766	5,730	0.2	0.6	-0.6	5,551	5,527	5,537	5,640	-1.6
Dairy products.....	7,396	7,410	7,361	-0.2	0.7	0.5	7,442	7,595	7,600	7,484	-0.6
Meat, poultry, and seafood products.....	8,968	8,950	8,993	0.2	-0.5	-0.7	8,928	9,053	9,043	9,574	-6.7
Beverage and tobacco products.....	20,656	20,664	20,531	0.0	0.6	0.3	20,655	20,099	19,765	20,637	0.1
Beverages.....	16,794	16,850	16,748	-0.3	0.6	0.4	16,893	16,525	16,225	16,833	0.4
Tobacco.....	3,862	3,814	3,783	1.3	0.8	-0.1	3,762	3,574	3,540	3,804	-1.1
Textile mills.....	3,196	3,183	3,178	0.4	0.2	0.1	3,206	3,198	3,198	3,144	2.0
Textile products.....	3,053	3,063	3,069	-0.3	-0.2	0.1	3,067	3,076	3,069	3,093	-0.8
Apparel.....	2,477	2,530	2,560	-2.1	-1.2	0.0	2,576	2,694	2,695	2,469	4.3
Leather and allied products.....	782	789	796	-0.9	-0.9	0.3	798	808	807	836	-4.5
Paper products.....	16,164	16,111	16,194	0.3	-0.5	0.4	16,145	16,168	16,269	16,542	-2.4
Pulp, paper, and paperboard mills.....	6,661	6,646	6,669	0.2	-0.3	0.8	6,582	6,619	6,684	6,728	-2.2
Paperboard containers.....	5,115	5,070	5,127	0.9	-1.1	0.1	5,118	5,079	5,128	5,261	-2.7
Printing.....	5,825	5,861	5,867	-0.6	-0.1	-0.5	5,896	6,062	5,911	6,032	-2.3
Petroleum and coal products.....	24,636	25,192	24,978	-2.2	0.9	-0.5	26,115	26,440	26,472	31,885	-18.1
Petroleum refineries.....	20,060	20,582	20,331	-2.5	1.2	-0.7	21,642	21,786	21,762	27,237	-20.5
Chemical products.....	81,496	81,406	81,491	0.1	-0.1	0.1	80,890	81,744	82,248	80,068	1.0
Pesticides, fertilizers, and other agricultural chemicals.....	4,178	4,206	4,234	-0.7	-0.7	1.0	3,935	3,987	3,958	4,251	-7.4
Pharmaceuticals and medicines.....	32,815	32,807	32,903	0.0	-0.3	-0.1	32,509	32,844	33,276	31,044	4.7
Paints, coatings, and adhesives.....	3,747	3,744	3,692	0.1	1.4	-0.1	3,657	3,699	3,722	3,518	4.0
Plastics and rubber products.....	25,350	25,291	25,344	0.2	-0.2	0.1	25,194	25,216	25,389	25,197	0.0

¹ Preliminary ² Revised data due to late receipts and concurrent seasonal adjustment.¹ Estimates of shipments and new orders are for the duration of the period, while estimates of unfilled orders and total inventories are for the end of the period. Not seasonally adjusted estimates of shipments and new orders include adjusted data for non-calendar reporters. Seasonally adjusted estimates include concurrent adjustments for holiday and trading-day differences, where appropriate, as well as seasonal variation, based on the results of the latest annual review of the model parameters. 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						% Change ⁶
	Monthly			Percent Change			Monthly			Year to date			
	Sep. 2016 ⁶	Aug. 2016 ⁷	July 2016	Aug. - Sep.	July - Aug.	June - July	Sep. 2016 ⁶	Aug. 2016 ⁷	July 2016	Sep. 2015	2016 ⁶	2015	
SHIPMENTS													
All manufacturing industries.....	463,012	459,111	458,002	0.8	0.2	-0.4	484,622	480,925	436,303	487,337	4,143,261	4,247,639	-2.5
Construction materials and supplies.....	46,390	46,571	46,326	-0.4	0.5	-0.1	49,122	51,279	47,087	48,303	425,592	416,961	2.1
Information technology.....	22,888	22,989	23,083	-0.4	-0.4	2.1	26,223	22,706	20,888	25,964	201,902	200,486	0.7
Computers and related products.....	1,669	1,848	1,948	-9.7	-5.1	11.3	2,152	1,625	1,531	2,582	16,094	19,166	-16.0
Motor vehicle and parts.....	55,718	55,149	54,757	1.0	0.7	-0.5	59,250	59,730	45,118	58,292	501,556	485,350	3.3
Capital goods.....	82,311	80,679	82,021	2.0	-1.6	0.2	90,214	81,075	74,832	94,303	734,180	767,591	-4.4
Nondefense capital goods ³	71,879	70,340	71,442	2.2	-1.5	-0.4	78,471	70,854	65,276	82,785	643,903	681,769	-5.6
Excluding aircraft.....	62,484	62,263	62,204	0.4	0.1	-0.7	67,538	62,706	57,492	71,100	566,486	596,598	-5.0
Defense capital goods ⁴	10,432	10,339	10,579	0.9	-2.3	3.7	11,743	10,221	9,556	11,518	90,277	85,822	5.2
Consumer goods.....	186,744	185,049	183,924	0.9	0.6	-0.6	192,944	193,490	176,568	195,501	1,654,183	1,731,830	-4.5
Consumer durable goods.....	37,815	37,872	37,562	0.2	0.8	0.5	40,609	40,104	31,107	42,212	344,404	345,907	-0.4
Consumer nondurable goods.....	148,929	147,177	146,362	1.2	0.6	-0.9	152,335	153,386	145,461	153,289	1,309,779	1,385,923	-5.5
NEW ORDERS													
All manufacturing industries ⁵	455,471	454,056	452,391	0.3	0.4	1.4	475,863	467,452	430,190	475,312	4,085,574	4,181,205	-2.3
Construction materials and supplies.....	46,034	46,206	46,230	-0.4	-0.1	-0.1	48,411	50,366	47,052	48,131	426,440	418,531	1.9
Information technology.....	23,138	23,487	23,557	-1.5	-0.3	2.4	27,266	21,995	20,600	26,953	207,870	206,485	0.7
Computers and related products.....	1,692	1,851	1,940	-8.6	-4.6	11.4	2,175	1,628	1,523	2,571	16,068	19,256	-16.6
Motor vehicle and parts.....	55,688	55,107	54,582	1.1	1.0	-0.3	59,232	59,941	44,577	58,158	499,426	484,240	3.1
Capital goods.....	79,467	79,511	79,627	-0.1	-0.1	10.7	86,441	74,164	72,390	82,946	709,187	734,902	-3.5
Nondefense capital goods ³	68,153	67,265	70,020	1.3	-3.9	7.7	73,410	64,043	64,851	75,242	617,152	659,841	-6.5
Excluding aircraft.....	62,846	63,681	62,931	-1.3	1.2	0.8	67,378	62,537	57,273	70,011	570,207	593,580	-3.9
Defense capital goods ⁴	11,314	12,246	9,607	-7.6	27.5	38.4	13,031	10,121	7,539	7,704	92,035	75,061	22.6
Consumer goods.....	186,854	185,060	184,019	1.0	0.6	-0.6	193,125	193,361	176,639	195,549	1,654,353	1,731,530	-4.5
Consumer durable goods.....	37,925	37,883	37,657	0.1	0.6	0.7	40,790	39,975	31,178	42,260	344,574	345,607	-0.3
Consumer nondurable goods.....	148,929	147,177	146,362	1.2	0.6	-0.9	152,335	153,386	145,461	153,289	1,309,779	1,385,923	-5.5
UNFILLED ORDERS													
All manufacturing industries ⁵	1,118,802	1,123,085	1,124,837	-0.4	-0.2	-0.2	1,110,078	1,115,697	1,125,462	1,129,535	(X)	(X)	-1.7
Construction materials and supplies.....	45,184	45,540	45,905	-0.8	-0.8	-0.2	45,155	45,866	46,779	45,678	(X)	(X)	-1.1
Information technology.....	125,741	125,491	124,993	0.2	0.4	0.4	125,501	124,458	125,169	118,959	(X)	(X)	5.5
Computers and related products.....	2,421	2,398	2,395	1.0	0.1	-0.3	2,421	2,398	2,395	2,370	(X)	(X)	2.2
Motor vehicle and parts.....	21,922	21,952	21,994	-0.1	-0.2	-0.8	21,429	21,447	21,236	22,885	(X)	(X)	-6.4
Capital goods.....	831,108	833,952	835,120	-0.3	-0.1	-0.3	825,883	829,656	836,567	849,921	(X)	(X)	-2.8
Nondefense capital goods ³	692,617	696,343	699,418	-0.5	-0.4	-0.2	687,721	692,782	699,593	714,721	(X)	(X)	-3.8
Excluding aircraft.....	222,745	222,383	220,965	0.2	0.6	0.3	221,407	221,567	221,736	222,761	(X)	(X)	-0.6
Defense capital goods ⁴	138,491	137,609	135,702	0.6	1.4	-0.7	138,162	136,874	136,974	135,200	(X)	(X)	2.2
Consumer goods.....	4,543	4,433	4,422	2.5	0.2	2.2	4,362	4,181	4,310	4,028	(X)	(X)	8.3
Consumer durable goods.....	4,543	4,433	4,422	2.5	0.2	2.2	4,362	4,181	4,310	4,028	(X)	(X)	8.3
TOTAL INVENTORIES													
All manufacturing industries.....	621,350	621,552	620,953	0.0	0.1	0.2	621,341	626,826	625,169	633,336	(X)	(X)	-1.9
Construction materials and supplies.....	65,603	65,399	65,296	0.3	0.2	0.6	64,969	65,248	65,561	65,059	(X)	(X)	-0.1
Information technology.....	36,948	36,743	36,773	0.6	-0.1	0.4	36,760	37,633	37,348	37,116	(X)	(X)	-1.0
Computers and related products.....	3,675	3,698	3,607	-0.6	2.5	0.6	3,694	3,876	3,755	3,533	(X)	(X)	4.6
Motor vehicle and parts.....	34,595	34,721	34,913	-0.4	-0.5	-0.1	34,340	34,967	35,035	34,138	(X)	(X)	0.6
Capital goods.....	191,061	190,693	190,460	0.2	0.1	0.4	190,402	193,002	192,393	194,689	(X)	(X)	-2.2
Nondefense capital goods ³	170,278	169,875	169,334	0.2	0.3	-0.1	169,584	172,113	171,015	172,918	(X)	(X)	-1.9
Excluding aircraft.....	118,682	118,591	118,394	0.1	0.2	0.2	118,409	120,671	119,620	120,828	(X)	(X)	-2.0
Defense capital goods ⁴	20,783	20,818	21,126	-0.2	-1.5	4.0	20,818	20,889	21,378	21,771	(X)	(X)	-4.4
Consumer goods.....	176,985	177,611	177,222	-0.4	0.2	-0.2	179,244	179,568	178,038	182,779	(X)	(X)	-1.9
Consumer durable goods.....	29,744	29,713	29,786	0.1	-0.2	-0.9	29,780	30,152	29,797	29,191	(X)	(X)	2.0
Consumer nondurable goods.....	147,241	147,898	147,436	-0.4	0.3	-0.1	149,464	149,416	148,241	153,588	(X)	(X)	-2.7

X Not Applicable ⁶ Preliminary ⁷ 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 Group¹

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

Industry	Seasonally Adjusted						Not Seasonally Adjusted				
	Monthly			Percent Change			Monthly				% Change September 2016/ 2015
	Sep. 2016 ^p	Aug. 2016 ^f	July 2016	Aug. - Sep.	July - Aug.	June - July	Sep. 2016 ^p	Aug. 2016 ^f	July 2016	Sep. 2015	
MATERIALS AND SUPPLIES											
All manufacturing industries.....	208,368	208,409	209,615	0.0	-0.6	1.1	208,465	209,570	210,588	209,597	-0.5
Durable goods industries.....	129,953	129,925	130,872	0.0	-0.7	1.6	130,157	131,226	131,610	130,464	-0.2
Wood products.....	4,698	4,694	4,643	0.1	1.1	0.9	4,811	4,731	4,585	4,774	0.8
Nonmetallic mineral products.....	5,267	5,259	5,216	0.2	0.8	-1.0	5,258	5,257	5,224	5,218	0.8
Primary metals.....	12,665	12,747	12,535	-0.6	1.7	0.6	12,787	12,785	12,464	13,235	-3.4
Fabricated metal products.....	18,003	17,934	17,995	0.4	-0.3	1.4	18,025	17,957	18,113	18,054	-0.2
Machinery.....	23,732	23,664	23,783	0.3	-0.5	-0.9	23,711	23,979	24,294	25,660	-7.6
Computers and electronic products.....	17,406	17,473	17,642	-0.4	-1.0	0.6	17,320	17,686	17,835	16,767	3.3
Electrical equipment, appliances, and components.....	6,516	6,470	6,537	0.7	-1.0	0.7	6,413	6,560	6,641	6,773	-5.3
Transportation equipment.....	30,627	30,553	31,426	0.2	-2.8	5.8	30,768	30,976	31,211	28,991	6.1
Furniture and related products.....	3,623	3,664	3,642	-1.1	0.6	1.1	3,621	3,693	3,695	3,636	-0.4
Miscellaneous products.....	7,416	7,467	7,453	-0.7	0.2	1.1	7,443	7,602	7,548	7,356	1.2
Nondurable goods industries.....	78,415	78,484	78,743	-0.1	-0.3	0.2	78,308	78,344	78,978	79,133	-1.0
Food products.....	18,263	18,189	18,271	0.4	-0.4	-0.5	18,131	17,925	18,076	18,036	0.5
Beverage and tobacco products.....	5,071	5,057	5,053	0.3	0.1	0.6	4,931	4,778	4,787	4,894	0.8
Textiles.....	1,161	1,164	1,165	-0.3	-0.1	0.9	1,162	1,171	1,168	1,176	-1.2
Textile products.....	1,058	1,059	1,066	-0.1	-0.7	-0.4	1,064	1,062	1,068	1,072	-0.7
Apparel.....	653	679	690	-3.8	-1.6	0.6	682	701	705	767	-11.1
Leather and allied products.....	231	235	238	-1.7	-1.3	-0.4	235	241	243	257	-8.6
Paper products.....	8,270	8,249	8,254	0.3	-0.1	0.5	8,269	8,256	8,255	8,466	-2.3
Printing.....	2,669	2,687	2,675	-0.7	0.4	-1.3	2,717	2,744	2,911	2,911	-6.7
Petroleum and coal products.....	5,509	5,802	5,963	-5.0	-2.7	-0.2	5,763	6,062	6,255	7,358	-21.7
Chemical products.....	25,463	25,303	25,366	0.6	-0.1	0.9	25,288	25,363	25,622	24,070	5.1
Plastics and rubber products.....	10,067	10,060	10,032	0.1	0.3	0.1	10,066	10,041	10,084	10,126	-0.6
WORK IN PROCESS											
All manufacturing industries.....	191,864	191,724	190,486	0.1	0.6	-0.7	190,590	192,737	192,178	197,013	-3.3
Durable goods industries.....	143,582	143,327	142,480	0.2	0.6	-0.6	142,747	144,557	144,379	148,728	-4.0
Wood products.....	2,300	2,260	2,196	1.8	2.9	0.1	2,284	2,235	2,187	2,149	6.3
Nonmetallic mineral products.....	1,481	1,476	1,468	0.3	0.5	1.2	1,448	1,471	1,478	1,390	4.2
Primary metals.....	9,255	9,214	9,151	0.4	0.7	1.1	9,233	9,393	9,328	10,581	-12.7
Fabricated metal products.....	12,831	12,835	12,865	0.0	-0.2	-0.1	12,857	12,963	12,979	12,976	-0.9
Machinery.....	19,268	19,177	19,321	0.5	-0.7	0.2	19,323	19,559	19,435	18,628	3.7
Computers and electronic products.....	13,241	13,277	13,023	-0.3	2.0	-0.6	12,955	13,533	13,365	14,063	-7.9
Electrical equipment, appliances, and components.....	3,454	3,443	3,518	0.3	-2.1	1.9	3,410	3,490	3,557	3,465	-1.6
Transportation equipment.....	76,677	76,621	75,977	0.1	0.8	-1.4	76,108	76,813	77,057	80,606	-5.6
Furniture and related products.....	1,084	1,070	1,068	1.3	0.2	-2.0	1,083	1,079	1,083	1,031	5.0
Miscellaneous products.....	3,991	3,954	3,893	0.9	1.6	2.3	4,046	4,021	3,910	3,839	5.4
Nondurable goods industries.....	48,282	48,397	48,006	-0.2	0.8	-0.9	47,843	48,180	47,799	48,285	-0.9
Food products.....	6,284	6,156	6,081	2.1	1.2	-0.8	5,734	5,655	5,632	5,420	5.8
Beverage and tobacco products.....	7,585	7,572	7,549	0.2	0.3	0.3	7,587	7,088	6,962	7,592	-0.1
Textiles.....	670	660	671	1.5	-1.6	-2.9	678	667	679	695	-2.4
Textile products.....	431	439	442	-1.8	-0.7	-0.5	437	443	443	439	-0.5
Apparel.....	329	332	326	-0.9	1.8	2.5	343	357	349	338	1.5
Leather and allied products.....	108	108	108	0.0	0.0	1.9	110	109	109	107	2.8
Paper products.....	1,256	1,231	1,254	2.0	-1.8	-0.5	1,258	1,254	1,269	1,314	-4.3
Printing.....	1,508	1,543	1,574	-2.3	-2.0	-0.9	1,513	1,682	1,595	1,535	-1.4
Petroleum and coal products.....	7,958	7,923	7,884	0.4	0.5	-3.8	8,404	8,350	8,389	9,987	-15.9
Chemical products.....	19,067	19,377	19,089	-1.6	1.5	-0.4	18,719	19,527	19,330	17,915	4.5
Plastics and rubber products.....	3,086	3,056	3,028	1.0	0.9	0.1	3,060	3,048	3,042	2,943	4.0
FINISHED GOODS											
All manufacturing industries.....	221,118	221,419	220,852	-0.1	0.3	0.2	222,286	224,519	222,403	226,726	-2.0
Durable goods industries.....	110,260	110,215	109,869	0.0	0.3	0.3	109,150	110,993	110,094	109,805	-0.6
Wood products.....	4,410	4,430	4,445	-0.5	-0.3	0.5	4,205	4,315	4,339	4,274	-1.6
Nonmetallic mineral products.....	6,388	6,378	6,348	0.2	0.5	1.2	6,206	6,285	6,339	6,010	3.3
Primary metals.....	9,786	9,757	9,962	0.3	-2.1	2.3	9,737	9,760	9,959	10,889	-10.6
Fabricated metal products.....	18,112	18,117	18,247	0.0	-0.7	0.5	17,722	17,982	18,411	18,140	-2.3
Machinery.....	22,911	22,804	22,246	0.5	2.5	-0.6	22,733	22,929	22,136	23,590	-3.6
Computers and electronic products.....	11,921	11,901	11,903	0.2	0.0	-1.4	11,961	12,305	11,956	11,481	4.2
Electrical equipment, appliances, and components.....	6,330	6,297	6,295	0.5	0.0	1.0	6,252	6,429	6,441	6,170	1.3
Transportation equipment.....	16,236	16,419	16,366	-1.1	0.3	-0.1	16,077	16,627	16,358	15,351	4.7
Furniture and related products.....	2,458	2,413	2,427	1.9	-0.6	-1.1	2,466	2,528	2,560	2,463	0.1
Miscellaneous products.....	11,708	11,699	11,630	0.1	0.6	1.5	11,791	11,833	11,595	11,437	3.1
Nondurable goods industries.....	110,858	111,204	110,983	-0.3	0.2	0.2	113,136	113,526	112,309	116,921	-3.2
Food products.....	29,373	29,650	29,372	-0.9	0.9	0.2	30,880	30,965	29,555	30,980	-0.3
Beverage and tobacco products.....	8,000	8,035	7,929	-0.4	1.3	0.0	8,137	8,233	8,016	8,151	-0.2
Textiles.....	1,365	1,359	1,342	0.4	1.3	0.9	1,366	1,360	1,351	1,273	7.3
Textile products.....	1,564	1,565	1,561	-0.1	0.3	0.5	1,566	1,571	1,558	1,582	-1.0
Apparel.....	1,495	1,519	1,544	-1.6	-1.6	-0.8	1,551	1,636	1,641	1,364	13.7
Leather and allied products.....	443	446	450	-0.7	-0.9	0.2	453	458	455	472	-4.0
Paper products.....	6,638	6,631	6,686	0.1	-0.8	0.5	6,618	6,658	6,745	6,762	-2.1
Printing.....	1,648	1,631	1,618	1.0	0.8	1.4	1,666	1,636	1,601	1,586	5.0
Petroleum and coal products.....	11,169	11,467	11,131	-2.6	3.0	1.8	11,948	12,028	11,828	14,540	-17.8
Chemical products.....	36,966	36,726	37,066	0.7	-0.9	-0.2	36,883	36,854	37,296	38,083	-3.2
Plastics and rubber products.....	12,197	12,175	12,284	0.2	-0.9	0.1	12,068	12,127	12,263	12,128	-0.5

^p Preliminary ^f 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			
	Sep 2016 ⁶	Aug 2016 ⁷	Jul 2016	Jun 2016	Sep 2016 ⁶	Aug 2016 ⁷	Jul 2016	Jun 2016
	All manufacturing industries ³	1.34	1.35	1.36	1.35	(X)	(X)	(X)
Durable goods industries ³	1.64	1.65	1.65	1.64	6.69	6.79	6.79	6.81
Wood products.....	1.36	1.37	1.37	1.38	(X)	(X)	(X)	(X)
Nonmetallic mineral products.....	1.33	1.33	1.32	1.31	(X)	(X)	(X)	(X)
Primary metals.....	1.78	1.79	1.77	1.75	1.83	1.83	1.81	1.82
Fabricated metal products.....	1.63	1.62	1.63	1.64	2.53	2.53	2.53	2.55
Machinery.....	2.21	2.20	2.20	2.19	3.39	3.38	3.41	3.39
Computers and electronic products ³	1.56	1.55	1.56	1.60	5.80	5.80	5.83	5.91
Electrical equipment, appliances, and components.....	1.69	1.69	1.72	1.71	2.00	2.01	2.02	2.00
Transportation equipment.....	1.51	1.54	1.53	1.52	13.81	14.38	14.21	14.17
Furniture and related products.....	1.13	1.14	1.14	1.14	1.53	1.52	1.50	1.53
Miscellaneous products.....	1.77	1.79	1.78	1.71	(X)	(X)	(X)	(X)
Nondurable goods industries.....	1.04	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.....	1.66	1.63	1.65	1.66	(X)	(X)	(X)	(X)
Textiles.....	1.30	1.26	1.27	1.26	(X)	(X)	(X)	(X)
Textile products.....	1.54	1.52	1.55	1.55	(X)	(X)	(X)	(X)
Apparel.....	2.37	2.38	2.38	2.38	(X)	(X)	(X)	(X)
Leather and allied products.....	2.35	2.35	2.40	2.35	(X)	(X)	(X)	(X)
Paper products.....	1.06	1.07	1.08	1.06	(X)	(X)	(X)	(X)
Printing.....	0.81	0.82	0.83	0.82	(X)	(X)	(X)	(X)
Petroleum and coal products.....	0.66	0.71	0.71	0.69	(X)	(X)	(X)	(X)
Chemical products.....	1.23	1.23	1.24	1.23	(X)	(X)	(X)	(X)
Plastics and rubber products.....	1.31	1.32	1.32	1.32	(X)	(X)	(X)	(X)

X Not Applicable ⁶ Preliminary ⁷ 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	
	Sep ² 2016	Sep ³ 2015- Aug 2016	Sep ² 2016	Sep ³ 2015- Aug 2016	Sep ² 2016	Sep ³ 2015- Aug 2016	Sep ² 2016	Sep ³ 2015- Aug 2016
	All manufacturing industries.....	(X)	0.2	(X)	0.3	(X)	0.1	(X)
Durable goods industries.....	0.0	0.2	-0.2	0.5	0.0	0.1	0.0	0.1
Wood products.....	(X)	0.5	(X)	(NA)	(X)	(NA)	(X)	0.2
Nonmetallic mineral products.....	(X)	0.1	(X)	(NA)	(X)	(NA)	(X)	0.2
Primary metals.....	-0.1	0.5	0.0	0.7	-0.2	0.3	-0.1	0.4
Fabricated metal products.....	-0.1	0.2	-0.2	0.3	-0.1	0.2	-0.1	0.3
Machinery.....	0.0	0.6	-0.1	0.6	-0.1	0.2	-0.1	0.1
Computers and electronic products.....	0.1	0.4	0.1	0.6	0.0	0.1	0.0	0.3
Electrical equipment, appliances, and components.....	0.1	0.4	-0.6	0.9	-0.2	0.4	0.0	0.2
Transportation equipment.....	-0.1	0.3	-0.3	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)	0.2	(X)	(NA)	(X)	(NA)	(X)	0.3
Beverage and tobacco products.....	(X)	0.7	(X)	(NA)	(X)	(NA)	(X)	0.2
Textiles.....	(X)	0.5	(X)	(NA)	(X)	(NA)	(X)	0.3
Textile products.....	(X)	0.8	(X)	(NA)	(X)	(NA)	(X)	0.3
Apparel.....	(X)	0.8	(X)	(NA)	(X)	(NA)	(X)	0.3
Leather and allied products.....	(X)	1.4	(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)	1.1	(X)	(NA)	(X)	(NA)	(X)	1.0
Chemical products.....	(X)	0.2	(X)	(NA)	(X)	(NA)	(X)	0.1
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>.

2017 Release Dates for the M3 Survey

Survey month	Advance Report (8:30 a.m. release time)	Full Report (10:00 a.m. release time)
Nov-16	Thu 12/22/2016	Fri 1/6/2017
Dec-16	Fri 1/27/2017	Fri 2/3/2017
Jan-17	Mon 2/27/2017	Mon 3/6/2017
Feb-17	Fri 3/24/2017	Tue 4/4/2017
Mar-17	Thu 4/27/2017	Thu 5/4/2017
Apr-17	Fri 5/26/2017	Mon 6/5/2017
May-17	Mon 6/26/2017	Wed 7/5/2017
Jun-17	Thu 7/27/2017	Thu 8/3/2017
Jul-17	Fri 8/25/2017	Tue 9/5/2017
Aug-17	Wed 9/27/2017	Thu 10/5/2017
Sep-17	Wed 10/25/2017	Fri 11/3/2017
Oct-17	Wed 11/22/2017	Mon 12/4/2017
Nov-17	Fri 12/22/2017	Not available at this time