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## Full Report on Manufacturers' Shipments, Inventories and Orders July 2016

### Summary

New orders for manufactured goods in July, up following two consecutive monthly decreases, increased \$8.4 billion or 1.9 percent to \$454.8 billion, the U.S. Census Bureau reported today. This followed a 1.8 percent June decrease.

Shipments, down following four consecutive monthly increases, decreased \$0.9 billion or 0.2 percent to \$458.9 billion. This followed a 0.6 percent June increase.

Unfilled orders, down two consecutive months, decreased \$1.0 billion or 0.1 percent to \$1,126.3 billion. This followed a 0.9 percent June decrease. The unfilled orders-to-shipments ratio was 6.79, down from 6.81 in June.

Inventories, up following twelve consecutive monthly decreases, increased \$0.9 billion or 0.1 percent to \$620.3 billion. This followed a virtually unchanged June decrease. The inventories-to-shipments ratio was 1.35, unchanged from June.

### New Orders

New orders for manufactured durable goods in July, up following two consecutive monthly decreases, increased \$9.6 billion or 4.4 percent to \$228.6 billion, virtually unchanged from the previously published increase. This followed a 4.3 percent June decrease.

Transportation equipment, also up following two consecutive monthly decreases, led the increase, \$7.6 billion or 10.6 percent to \$78.9 billion.

New orders for manufactured nondurable goods decreased \$1.1 billion or 0.5 percent to \$226.1 billion.

### Shipments

Shipments of manufactured durable goods in July, up three of the last four months, increased \$0.3 billion or 0.1 percent to \$232.7 billion, down from the previously published 0.2 percent increase. This followed a 0.4 percent June increase.

Computers and electronic products, up four consecutive months, drove the increase, \$0.5 billion or 1.7 percent to \$27.1 billion.

Shipments of manufactured nondurable goods, down following four consecutive monthly increases, decreased \$1.1 billion or 0.5 percent to \$226.1 billion. This followed a 0.8 percent June increase. Petroleum and coal products, also down following four consecutive monthly increases, drove the decrease, \$1.5 billion or 4.0 percent to \$34.8 billion.

### Unfilled Orders

Unfilled orders for manufactured durable goods in July, down two consecutive months, decreased \$1.0 billion or 0.1 percent to \$1,126.3 billion, virtually unchanged from the previously published decrease. This followed a 0.9 percent June decrease.

Transportation equipment, also down two consecutive months, drove the decrease, \$2.1 billion or 0.3 percent to \$772.0 billion.

### Inventories

Inventories of manufactured durable goods in July, up following six consecutive monthly decreases, increased \$1.4 billion or 0.4 percent to \$383.1 billion, up from the previously published 0.3 percent increase. This followed a 0.1 percent June decrease.

Transportation equipment, up following five consecutive monthly decreases, led the increase, \$0.5 billion or 0.4 percent to \$123.7 billion.

Inventories of manufactured nondurable goods, down following four consecutive monthly increases, decreased \$0.5 billion or 0.2 percent to \$237.2 billion. This followed a 0.1 percent June increase. Petroleum and coal products, down following three consecutive monthly increases, led the decrease, \$0.5 billion or 1.9 percent to \$24.6 billion.

By stage of fabrication, July materials and supplies increased 1.4 percent in durable goods and decreased 0.2 percent in nondurable goods. Work in process decreased 0.5 percent in durable goods and decreased 1.1 percent in nondurable goods. Finished goods increased 0.3 percent in durable goods and increased 0.1 percent in nondurable goods.

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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](http://www.census.gov/m3). The Advance Report on durable goods for August is scheduled for release on September 28, 2016 at 8:30 a.m. EDT and the Full Report on October 5, 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](http://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<sup>1</sup>

[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
	July 2016 <sup>p</sup>	June 2016 <sup>f</sup>	May 2016	June - July	May - June	Apr. - May	July 2016 <sup>p</sup>	June 2016 <sup>f</sup>	May 2016	July 2015	2016 <sup>p</sup>	2015	
All manufacturing industries.....	458,864	459,724	456,889	-0.2	0.6	0.1	437,519	490,264	465,958	462,331	3,178,930	3,282,559	-3.2
Excluding transportation.....	377,912	378,668	376,840	-0.2	0.5	0.2	369,869	400,567	385,523	389,194	2,621,111	2,730,330	-4.0
Excluding defense.....	446,285	447,298	444,819	-0.2	0.6	0.0	426,295	476,363	454,279	450,789	3,095,709	3,201,799	-3.3
With unfilled orders.....	165,806	165,483	165,049	0.2	0.3	0.7	152,841	181,906	166,603	159,946	1,141,783	1,156,326	-1.3
Durable goods industries.....	232,726	232,448	231,421	0.1	0.4	-0.3	213,497	254,143	233,408	225,288	1,613,086	1,631,198	-1.1
Wood products.....	8,269	8,148	8,169	1.5	-0.3	-0.6	8,544	9,082	8,915	8,251	58,034	56,710	2.3
Nonmetallic mineral products.....	9,849	9,947	9,850	-1.0	1.0	-0.4	10,133	10,960	10,242	10,302	68,266	65,268	4.6
Primary metals.....	17,950	17,862	17,614	0.5	1.4	-0.1	17,212	18,795	18,002	18,678	125,331	140,510	-10.8
Iron and steel mills.....	8,254	8,137	8,025	1.4	1.4	0.1	7,941	8,466	8,200	8,751	56,571	65,977	-14.3
Aluminum and nonferrous metals.....	8,241	8,239	8,093	0.0	1.8	-0.3	7,924	8,649	8,289	8,351	58,182	62,991	-7.6
Ferrous metal foundries.....	1,455	1,486	1,496	-2.1	-0.7	0.1	1,347	1,680	1,513	1,576	10,578	11,542	-8.4
Fabricated metal products.....	30,072	29,826	29,973	0.8	-0.5	-0.1	29,135	31,889	30,700	29,577	208,397	207,632	0.4
Machinery.....	29,704	29,992	30,142	-1.0	-0.5	-1.3	27,874	32,755	30,827	31,374	213,316	228,065	-6.5
Farm machinery.....	1,758	1,834	1,808	-4.1	1.4	2.4	1,645	1,807	1,935	2,010	13,689	15,752	-13.1
Construction machinery.....	2,509	2,708	2,905	-7.3	-6.8	-2.4	2,342	2,896	2,939	3,671	19,833	26,585	-25.4
Mining, oil field, and gas field machinery.....	825	862	897	-4.3	-3.9	-6.0	785	903	863	1,583	6,949	12,959	-46.4
Industrial machinery.....	2,355	2,331	2,305	1.0	1.1	-9.0	2,230	2,677	2,224	2,313	16,554	16,013	3.4
Photographic equipment.....	422	425	445	-0.7	-4.5	0.5	371	468	410	404	2,881	2,859	0.8
Ventilation, heating, air-conditioning, and refrigeration equipment.....	3,337	3,338	3,329	0.0	0.3	-2.1	3,557	4,234	3,604	3,974	24,322	25,086	-3.0
Metalworking machinery.....	3,128	3,056	3,062	2.4	-0.2	-0.4	2,735	3,271	3,022	2,601	20,577	18,281	12.6
Turbines, generators, and other power transmission equipment.....	4,123	4,073	4,190	1.2	-2.8	3.0	3,985	4,188	4,336	4,138	28,565	31,686	-9.8
Material handling equipment.....	3,010	3,021	2,943	-0.4	2.7	-1.9	2,800	3,151	2,957	2,692	20,524	17,553	16.9
Computers and electronic products <sup>2</sup> .....	27,107	26,645	26,541	1.7	0.4	0.6	25,431	30,084	25,315	24,758	180,924	175,385	3.2
Computers.....	599	560	597	7.0	-6.2	-4.6	552	739	567	737	4,081	5,453	-25.2
Computer storage devices.....	691	570	590	21.2	-3.4	-5.3	442	918	434	338	3,739	3,611	3.5
Other peripheral equipment.....	648	620	667	4.5	-7.0	0.3	533	874	622	654	4,493	5,688	-21.0
Nondefense communications equipment.....	3,095	3,276	3,091	-5.5	6.0	3.2	2,708	4,052	2,967	2,730	20,895	20,939	-0.2
Defense communications equipment.....	290	282	285	2.8	-1.1	5.2	271	280	282	270	1,945	2,157	-9.8
Audio and video equipment.....	362	359	361	0.8	-0.6	-0.8	323	345	343	291	2,229	1,469	51.7
Electronic components.....	4,773	4,666	4,746	2.3	-1.7	0.8	4,880	5,346	4,834	4,670	32,605	28,998	12.4
Nondefense search and navigation equipment.....	1,402	1,367	1,325	2.6	3.2	-2.9	1,188	1,528	1,346	1,128	9,355	8,458	10.6
Defense search and navigation equipment.....	2,663	2,575	2,556	3.4	0.7	1.1	2,449	2,850	2,474	2,351	17,149	16,890	1.5
Electromedical, measuring, and control instruments.....	9,174	9,019	9,060	1.7	-0.5	0.6	8,270	10,262	8,734	7,842	61,232	57,568	6.4
Electrical equipment, appliances, and components.....	9,517	9,453	9,434	0.7	0.2	-0.3	9,086	10,290	9,504	9,971	65,408	71,266	-8.2
Electric lighting equipment.....	1,096	1,079	1,073	1.6	0.6	0.1	1,066	1,072	1,017	1,041	7,248	6,876	5.4
Household appliances.....	1,360	1,382	1,382	-1.6	0.0	2.4	1,267	1,501	1,439	1,485	9,563	10,886	-12.2
Electrical equipment.....	2,883	2,911	2,918	-1.0	-0.2	-1.0	2,660	3,384	2,952	3,107	20,505	22,734	-9.8
Batteries.....	790	790	780	0.0	1.3	-2.7	680	813	728	745	5,208	5,575	-6.6
Transportation equipment.....	80,952	81,056	80,049	-0.1	1.3	-0.4	67,650	89,697	80,435	73,137	557,819	552,229	1.0
Automobiles.....	9,430	9,603	9,269	-1.8	3.6	-6.4	7,193	10,552	9,308	8,818	67,962	73,914	-8.1
Light trucks and utility vehicles.....	14,929	14,610	14,364	2.2	1.7	-7.2	11,793	15,676	14,268	13,173	103,907	99,177	4.8
Heavy duty trucks.....	2,174	2,221	2,278	-2.1	-2.5	-3.8	2,070	2,453	2,323	2,747	16,167	18,928	-14.6
Motor vehicle bodies, parts, and trailers.....	28,309	28,575	27,680	-0.9	3.2	-0.4	24,216	30,502	28,624	23,795	194,694	178,257	9.2
Nondefense aircraft and parts.....	14,094	13,862	14,543	1.7	-4.7	6.8	11,953	16,843	14,031	12,082	92,663	95,109	-2.6
Defense aircraft and parts.....	4,040	4,156	4,298	-2.8	-3.3	20.7	3,472	4,926	4,115	4,546	28,450	31,937	-10.9
Ships and boats.....	3,146	2,853	2,974	10.3	-4.1	-1.9	2,932	3,037	3,076	2,634	20,963	19,062	10.0
Furniture and related products.....	6,284	6,272	6,302	0.2	-0.5	0.0	6,344	6,481	6,261	6,405	43,763	41,780	4.7
Miscellaneous durable goods.....	13,022	13,247	13,347	-1.7	-0.7	-0.3	12,088	14,110	13,207	12,835	91,828	92,353	-0.6
Nondurable goods industries.....	226,138	227,276	225,468	-0.5	0.8	0.6	224,022	236,121	232,550	237,043	1,565,844	1,651,361	-5.2
Food products.....	65,319	64,993	64,856	0.5	0.2	1.1	62,489	64,228	63,863	62,045	444,505	442,982	0.3
Grain and oilseed milling.....	8,246	8,229	8,090	0.2	1.7	0.8	7,673	7,809	7,528	7,691	54,588	53,987	1.1
Dairy products.....	9,021	8,959	9,021	0.7	-0.7	-0.6	8,842	8,861	8,984	9,094	62,406	63,439	-1.6
Meat, poultry, and seafood products.....	18,099	18,031	18,023	0.4	0.0	1.3	17,923	18,503	18,162	18,255	124,616	130,812	-4.7
Beverage and tobacco products.....	12,561	12,345	11,998	1.7	2.9	-2.0	12,680	13,126	12,669	12,112	84,950	84,681	0.3
Beverages.....	9,479	9,271	9,142	2.2	1.4	0.2	9,598	10,052	9,813	9,208	64,362	62,707	2.6
Tobacco.....	3,082	3,074	2,856	0.3	7.6	-8.4	3,082	3,074	2,856	2,904	20,588	21,974	-6.3
Textile mills.....	2,494	2,511	2,520	-0.7	-0.4	0.3	2,472	2,691	2,582	2,582	17,815	18,236	-2.3
Textile products.....	1,984	1,981	1,980	0.2	0.1	0.4	2,032	2,120	2,042	2,089	14,073	14,518	-3.1
Apparel.....	1,080	1,076	1,090	0.4	-1.3	0.9	1,083	1,012	1,005	1,029	6,929	6,492	6.7
Leather and allied products.....	335	338	341	-0.9	-0.9	1.5	334	358	343	387	2,395	2,858	-16.2
Paper products.....	15,057	15,190	15,218	-0.9	-0.2	-0.2	14,932	15,636	15,442	15,497	106,040	106,245	-0.2
Pulp, paper, and paperboard mills.....	6,712	6,753	6,761	-0.6	-0.1	0.1	6,720	6,895	6,769	6,969	47,245	47,897	-1.4
Paperboard containers.....	4,578	4,632	4,645	-1.2	-0.3	-1.8	4,577	4,857	4,693	4,822	32,539	32,289	0.8
Printing.....	7,098	7,147	7,167	-0.7	-0.3	1.1	6,653	7,073	7,369	7,022	49,192	49,121	0.1
Petroleum and coal products.....	34,769	36,232	35,210	-4.0	2.9	3.6	38,092	40,003	38,492	48,778	237,960	333,696	-28.7
Petroleum refineries.....	30,905	32,478	31,522	-4.8	3.0	3.9	33,884	35,696	34,581	44,860	213,106	310,303	-31.3
Chemical products.....	66,130	66,259	66,014	-0.2	0.4	-0.5	64,140	69,223	68,924	65,957	467,158	457,108	2.2
Pesticides, fertilizers, and other agricultural chemicals.....	4,095	4,066	4,009	0.7	1.4	1.1	3,331	4,244	5,261	3,336	32,171	30,206	6.5
Pharmaceuticals and medicines.....	21,490	21,574	21,584	-0.4	0.0	-1.0	20,490	22,265	21,816	20,301	150,507	129,507	15.9
Paints, coatings, and adhesives.....	3,625	3,612	3,659	0.4	-1.3	-1.0	3,698	3,997	4,059	3,671	26,228	24,360	7.7
Plastics and rubber products.....	19,311	19,204	19,074	0.6	0.7	-0.2	19,115	20,651	19,819	19,545	134,827	135,424	-0.4

<sup>p</sup> Preliminary<sup>f</sup> Revised data due to late receipts and concurrent seasonal adjustment.

<sup>1</sup> 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.

<sup>2</sup> 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<sup>1</sup>

[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		
	July 2016 <sup>p</sup>	June 2016 <sup>f</sup>	May 2016	June - July	May - June	Apr. - May	July 2016 <sup>p</sup>	June 2016 <sup>f</sup>	May 2016	July 2015	2016 <sup>p</sup>	2015	% Change 2016/2015
All manufacturing industries <sup>2</sup> .....	454,759	446,331	454,295	1.9	-1.8	-1.2	431,743	477,376	459,330	459,347	3,143,812	3,244,001	-3.1
Excluding transportation <sup>2</sup> .....	375,858	375,014	373,705	0.2	0.4	0.2	366,312	395,571	382,283	384,296	2,611,486	2,712,675	-3.7
Excluding defense <sup>2</sup> .....	442,564	435,955	442,939	1.5	-1.6	-0.5	422,175	462,786	450,115	448,932	3,060,197	3,169,349	-3.4
With unfilled orders <sup>2</sup> .....	164,829	155,169	165,438	6.2	-6.2	-2.9	150,619	171,631	162,426	160,391	1,127,883	1,139,826	-1.0
Durable goods industries <sup>2</sup> .....	228,621	219,055	228,827	4.4	-4.3	-2.9	207,721	241,255	226,780	222,304	1,577,968	1,592,640	-0.9
Primary metals.....	17,745	17,599	17,783	0.8	-1.0	-1.3	16,934	18,410	17,871	18,341	127,391	140,564	-9.4
Iron and steel mills.....	8,164	7,943	8,319	2.8	-4.5	0.1	7,682	8,278	8,357	8,242	58,733	66,407	-11.6
Aluminum and nonferrous metals.....	8,185	8,224	7,908	-0.5	4.0	-2.5	7,933	8,582	7,934	8,474	57,703	62,662	-7.9
Ferrous metal foundries.....	1,396	1,432	1,556	-2.5	-8.0	-2.8	1,319	1,550	1,580	1,625	10,955	11,495	-4.7
Fabricated metal products.....	30,304	29,889	29,889	1.4	0.0	-0.7	29,453	31,352	30,975	29,679	212,309	208,871	1.6
Machinery.....	29,808	29,390	29,313	1.4	0.3	0.2	27,828	31,336	29,493	30,396	211,209	224,091	-5.7
Construction machinery.....	2,422	2,507	2,634	-3.4	-4.8	-0.4	2,113	2,509	2,471	3,029	18,423	23,743	-22.4
Mining, oil field, and gas field machinery.....	776	533	165	45.6	223.0	139.1	709	662	190	1,338	4,739	11,828	-59.9
Industrial machinery.....	2,214	2,195	2,355	0.9	-6.8	2.1	2,106	2,571	2,082	2,304	16,301	15,736	3.6
Photographic equipment.....	410	391	428	4.9	-8.6	13.2	379	345	419	426	2,767	3,046	-9.2
Ventilation, heating, air-conditioning, and refrigeration equipment.....	3,544	3,370	3,311	5.2	1.8	-3.0	3,660	4,097	3,561	3,765	24,480	25,629	-4.5
Metalworking machinery.....	3,198	3,129	3,034	2.2	3.1	-10.2	2,844	3,232	2,935	2,511	21,323	18,158	17.4
Turbines, generators, and other power transmission equipment.....	4,074	4,074	4,088	0.0	-0.3	-0.9	3,995	4,277	4,105	4,010	28,524	29,781	-4.2
Material handling equipment.....	3,078	3,012	3,147	2.2	-4.3	7.0	2,615	3,119	3,198	2,760	20,896	18,903	10.5
Computers and electronic products <sup>2</sup> .....	24,670	23,865	24,166	3.4	-1.2	-0.9	22,053	27,571	23,049	21,674	164,804	159,348	3.4
Computers.....	584	552	603	5.8	-8.5	-2.6	537	731	573	702	4,022	5,563	-27.7
Nondefense communications equipment.....	3,427	3,423	3,454	0.1	-0.9	5.8	2,888	3,985	3,074	3,072	22,943	23,528	-2.5
Defense communications equipment.....	270	313	290	-13.7	7.9	2.8	239	364	259	299	2,052	2,251	-8.8
Electronic components.....	4,928	4,590	4,723	7.4	-2.8	0.5	5,077	5,113	4,815	4,721	32,828	29,468	11.4
Nondefense search and navigation equipment.....	1,502	1,464	1,379	2.6	6.2	4.2	1,310	1,714	1,359	1,337	10,088	10,199	-1.1
Defense search and navigation equipment.....	2,444	2,514	2,695	-2.8	-6.7	-11.3	1,996	2,900	2,459	2,252	18,134	16,495	9.9
Electromedical, measuring, and control instruments.....	9,532	9,188	9,124	3.7	0.7	-0.8	8,447	10,350	8,850	7,690	62,293	58,980	5.6
Electrical equipment, appliances, and components.....	9,842	9,491	9,388	3.7	1.1	-0.5	9,162	10,320	9,500	9,654	66,798	71,387	-6.4
Electric lighting equipment.....	1,097	1,070	1,078	2.5	-0.7	-0.4	1,055	1,069	1,029	1,023	7,330	6,885	6.5
Household appliances.....	1,449	1,443	1,316	0.4	9.7	-1.8	1,296	1,490	1,424	1,403	9,555	10,845	-11.9
Electrical equipment.....	2,902	2,848	2,875	1.9	-0.9	-1.7	2,731	3,300	2,905	3,236	20,684	23,376	-11.5
Transportation equipment.....	78,901	71,317	80,590	10.6	-11.5	-7.1	65,431	81,805	77,047	75,051	532,326	531,326	0.2
Motor vehicle bodies, parts, and trailers.....	28,188	28,329	27,748	-0.5	2.1	0.3	23,733	29,780	28,745	23,317	192,429	177,141	8.6
Nondefense aircraft and parts.....	12,520	6,591	16,341	90.0	-59.7	-5.6	11,665	9,228	13,358	16,144	71,523	84,025	-14.9
Defense aircraft and parts.....	4,405	3,643	3,940	20.9	-7.5	-30.0	3,344	5,634	2,504	3,366	30,578	26,773	14.2
Ships and boats.....	3,042	2,667	2,596	14.1	2.7	-18.8	2,568	3,362	2,697	1,767	19,294	17,439	10.6
Furniture and related products.....	6,203	6,161	6,326	0.7	-2.6	0.3	6,087	6,308	6,475	6,118	44,990	42,714	5.3
Nondurable goods industries.....	226,138	227,276	225,468	-0.5	0.8	0.6	224,022	236,121	232,550	237,043	1,565,844	1,651,361	-5.2

<sup>p</sup> Preliminary<sup>f</sup> Revised data due to late receipts and concurrent seasonal adjustment.

<sup>1</sup> 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.

<sup>2</sup> 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 Groups<sup>1</sup>**

[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 July 2016/ 2015
	Monthly			Percent Change			Monthly				
	July 2016 <sup>p</sup>	June 2016 <sup>r</sup>	May 2016	June - July	May - June	Apr. - May	July 2016 <sup>p</sup>	June 2016 <sup>r</sup>	May 2016	July 2015	
All manufacturing industries <sup>2</sup> .....	1,126,260	1,127,237	1,137,551	-0.1	-0.9	0.0	1,125,800	1,128,022	1,138,297	1,151,069	-2.2
Excluding transportation <sup>2</sup> .....	354,234	353,160	353,735	0.3	-0.2	0.0	356,435	356,438	358,821	355,879	0.2
Excluding defense <sup>2</sup> .....	953,573	954,166	962,430	-0.1	-0.9	0.1	952,189	952,755	963,719	974,049	-2.2
Durable goods industries <sup>2</sup> .....	1,126,260	1,127,237	1,137,551	-0.1	-0.9	0.0	1,125,800	1,128,022	1,138,297	1,151,069	-2.2
Primary metals.....	32,271	32,476	32,739	-0.6	-0.8	0.5	32,673	32,951	33,336	33,169	-1.5
Iron and steel mills.....	18,079	18,169	18,363	-0.5	-1.1	1.6	18,522	18,781	18,969	17,659	4.9
Aluminum and nonferrous metals.....	10,412	10,468	10,483	-0.5	-0.1	-1.7	10,337	10,328	10,395	11,836	-12.7
Ferrous metal foundries.....	3,780	3,839	3,893	-1.5	-1.4	1.6	3,814	3,842	3,972	3,674	3.8
Fabricated metal products.....	74,094	73,862	73,799	0.3	0.1	-0.1	75,359	75,041	75,578	75,353	0.0
Machinery.....	92,929	92,825	93,427	0.1	-0.6	-0.9	92,849	92,895	94,314	99,743	-6.9
Construction machinery.....	4,248	4,335	4,536	-2.0	-4.4	-5.6	3,985	4,214	4,601	6,028	-33.9
Mining, oil field, and gas field machinery.....	5,942	5,991	6,320	-0.8	-5.2	-10.4	5,960	6,036	6,277	10,497	-43.2
Industrial machinery.....	7,557	7,698	7,834	-1.8	-1.7	0.6	7,664	7,788	7,894	8,769	-12.6
Photographic equipment.....	1,164	1,176	1,210	-1.0	-2.8	-1.4	1,161	1,153	1,276	1,333	-12.9
Ventilation, heating, air-conditioning, and refrigeration equipment.....	6,558	6,351	6,319	3.3	0.5	-0.3	6,486	6,383	6,520	6,151	5.4
Metalworking machinery.....	7,307	7,237	7,164	1.0	1.0	-0.4	7,365	7,256	7,295	7,039	4.6
Turbines, generators, and other power transmission equipment.....	25,576	25,625	25,624	-0.2	0.0	-0.4	25,651	25,641	25,552	25,723	-0.3
Material handling equipment.....	11,980	11,912	11,921	0.6	-0.1	1.7	12,005	12,190	12,222	11,226	6.9
Computers and electronic products <sup>2</sup> .....	129,114	128,423	128,124	0.5	0.2	0.5	129,289	129,113	129,013	122,390	5.6
Computers.....	2,388	2,403	2,411	-0.6	-0.3	0.2	2,388	2,403	2,411	2,390	-0.1
Nondefense communications equipment.....	32,621	32,289	32,142	1.0	0.5	1.1	32,573	32,393	32,460	29,303	11.2
Defense communications equipment.....	2,310	2,330	2,299	-0.9	1.3	0.2	2,344	2,376	2,292	2,383	-1.6
Electronic components.....	12,190	12,035	12,111	1.3	-0.6	-0.2	12,177	11,980	12,213	11,867	2.6
Nondefense search and navigation equipment.....	17,736	17,636	17,539	0.6	0.6	0.3	17,858	17,736	17,550	16,553	7.9
Defense search and navigation equipment.....	28,282	28,501	28,562	-0.8	-0.2	0.5	28,340	28,793	28,743	27,426	3.3
Electromedical, measuring, and control instruments.....	33,587	33,229	33,060	1.1	0.5	0.2	33,609	33,432	33,344	32,468	3.5
Electrical equipment, appliances, and components.....	17,649	17,324	17,286	1.9	0.2	-0.3	17,693	17,617	17,587	16,873	4.9
Electric lighting equipment.....	1,341	1,340	1,349	0.1	-0.7	0.4	1,350	1,361	1,364	1,282	5.3
Household appliances.....	1,195	1,106	1,045	8.0	5.8	-5.9	1,143	1,114	1,125	1,179	-3.1
Electrical equipment.....	7,942	7,923	7,986	0.2	-0.8	-0.5	8,042	7,971	8,055	8,059	-0.2
Transportation equipment.....	772,026	774,077	783,816	-0.3	-1.2	0.1	769,365	771,584	779,476	795,190	-3.2
Motor vehicle bodies, parts, and trailers.....	22,048	22,169	22,415	-0.5	-1.1	0.3	21,294	21,777	22,499	22,879	-6.9
Nondefense aircraft and parts.....	592,122	593,696	600,967	-0.3	-1.2	0.3	589,496	589,784	597,399	604,815	-2.5
Defense aircraft and parts.....	70,722	70,357	70,870	0.5	-0.7	-0.5	70,746	70,874	70,166	64,842	9.1
Ships and boats.....	16,618	16,722	16,908	-0.6	-1.1	-2.2	16,921	17,285	16,960	26,767	-36.8
Furniture and related products.....	7,926	8,007	8,118	-1.0	-1.4	0.3	8,321	8,578	8,751	8,104	2.7

<sup>p</sup> Preliminary      <sup>r</sup> Revised data due to late receipts and concurrent seasonal adjustment.<sup>1</sup> 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.<sup>2</sup> 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<sup>1</sup>

[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 July 2016/ 2015
	Monthly			Percent Change			Monthly				
	July 2016 <sup>2</sup>	June 2016 <sup>2</sup>	May 2016	June - July	May - June	Apr. - May	July 2016 <sup>2</sup>	June 2016 <sup>2</sup>	May 2016	July 2015	
All manufacturing industries.....	620,329	619,472	619,667	0.1	0.0	-0.1	625,189	616,964	624,889	643,934	-2.9
Excluding transportation.....	496,645	496,325	495,491	0.1	0.2	0.0	500,486	495,096	499,624	517,335	-3.3
Excluding defense.....	594,460	594,381	593,986	0.0	0.1	-0.1	598,989	591,612	599,048	617,052	-2.9
With unfilled orders.....	311,087	309,757	311,162	0.4	-0.5	-0.4	314,317	308,053	314,327	324,700	-3.2
Durable goods industries.....	383,116	381,715	382,258	0.4	-0.1	-0.4	386,307	378,959	385,715	396,577	-2.6
Wood products.....	11,302	11,217	11,137	0.8	0.7	0.7	11,161	10,984	11,018	11,248	-0.8
Nonmetallic mineral products.....	13,037	12,991	12,965	0.4	0.2	0.4	13,068	13,093	13,271	12,890	1.4
Primary metals.....	31,621	31,253	31,235	1.2	0.1	-0.1	31,711	30,828	31,033	35,733	-11.3
Iron and steel mills.....	17,244	16,924	16,955	1.9	-0.2	0.2	17,259	16,571	16,689	20,495	-15.8
Aluminum and nonferrous metals.....	12,298	12,244	12,179	0.4	0.5	-0.6	12,386	12,191	12,205	13,152	-5.8
Ferrous metal foundries.....	2,079	2,085	2,101	-0.3	-0.8	-0.1	2,066	2,066	2,139	2,086	-1.0
Fabricated metal products.....	49,233	48,788	48,568	0.9	0.5	0.0	49,597	48,691	49,032	49,873	-0.6
Machinery.....	65,301	65,649	65,400	-0.5	0.4	-0.8	65,917	65,157	66,280	69,322	-4.9
Farm machinery.....	2,856	2,912	2,983	-1.9	-2.4	0.9	2,824	2,972	3,093	3,479	-18.8
Construction machinery.....	5,445	5,441	5,378	0.1	1.2	-4.4	5,408	5,410	5,371	6,724	-19.6
Mining, oil field, and gas field machinery.....	7,203	7,189	7,115	0.2	1.0	-1.8	7,277	7,256	7,292	7,986	-8.9
Industrial machinery.....	6,363	6,419	6,321	-0.9	1.6	0.5	6,304	6,392	6,369	6,208	1.5
Photographic equipment.....	1,587	1,586	1,589	0.1	-0.2	-0.5	1,623	1,547	1,599	1,571	3.3
Ventilation, heating, air-conditioning, and refrigeration equipment.....	4,342	4,384	4,423	-1.0	-0.9	-0.6	4,420	4,433	4,687	4,869	-9.2
Metalworking machinery.....	5,674	5,624	5,621	0.9	0.1	-0.3	5,745	5,599	5,682	5,800	-0.9
Turbines, generators, and other power transmission equipment.....	9,400	9,663	9,582	-2.7	0.8	-0.7	9,594	9,263	9,726	9,995	-4.0
Material handling equipment.....	4,616	4,637	4,703	-0.5	-1.4	1.6	4,770	4,671	4,698	4,458	7.0
Computers and electronic products <sup>2</sup> .....	42,485	42,708	42,714	-0.5	0.0	-0.2	43,077	42,379	43,412	43,999	-2.1
Computers.....	1,575	1,570	1,523	0.3	3.1	-0.2	1,684	1,590	1,573	1,672	0.7
Computer storage devices.....	960	986	1,014	-2.6	-2.8	-1.6	987	957	1,027	1,173	-15.9
Other peripheral equipment.....	1,019	1,031	1,036	-1.2	-0.5	-0.3	1,038	1,007	1,087	1,221	-15.0
Nondefense communications equipment.....	3,952	3,984	4,095	-0.8	-2.7	0.3	3,953	3,907	4,142	4,316	-8.4
Defense communications equipment.....	602	617	595	-2.4	3.7	-0.5	602	617	595	763	-21.1
Audio and video equipment.....	795	787	773	1.0	1.8	2.0	806	737	701	775	4.0
Electronic components.....	7,682	7,746	7,622	-0.8	1.6	0.3	7,805	7,679	7,671	7,742	0.8
Nondefense search and navigation equipment.....	3,053	3,071	3,076	-0.6	-0.2	0.6	3,094	3,046	3,086	3,125	-1.0
Defense search and navigation equipment.....	2,953	2,976	2,912	-0.8	2.2	0.3	3,046	3,000	3,044	2,898	5.1
Electromedical, measuring and control instruments.....	14,048	14,097	14,081	-0.3	0.1	-0.4	14,232	13,991	14,444	14,819	-4.0
Electrical equipment, appliances, and components.....	16,328	16,175	16,289	0.9	-0.7	-0.3	16,644	16,180	16,553	17,108	-2.7
Electric lighting equipment.....	2,003	1,999	1,995	0.2	0.2	0.3	2,058	1,995	2,019	1,969	4.5
Household appliances.....	2,214	2,230	2,256	-0.7	-1.2	-0.1	2,288	2,246	2,295	2,323	-1.5
Electrical equipment.....	4,864	4,890	4,917	-0.5	-0.5	-0.9	4,916	4,848	5,032	5,163	-4.8
Batteries.....	1,320	1,329	1,348	-0.7	-1.4	0.5	1,386	1,354	1,365	1,500	-7.6
Transportation equipment.....	123,684	123,147	124,176	0.4	-0.8	-0.6	124,703	121,868	125,265	126,599	-1.5
Automobiles.....	4,735	4,933	4,159	-4.0	18.6	-2.8	4,673	4,536	4,035	4,335	7.8
Light trucks and utility vehicles.....	4,205	4,311	3,981	-2.5	8.3	-2.9	4,261	4,045	3,880	4,196	1.5
Heavy duty trucks.....	2,087	2,093	2,140	-0.3	-2.2	-0.9	2,056	2,079	2,217	2,161	-4.9
Motor vehicle bodies, parts, and trailers.....	23,871	23,613	23,458	1.1	0.7	0.9	24,029	23,266	23,507	24,153	-0.5
Nondefense aircraft and parts.....	62,072	62,356	63,833	-0.5	-2.3	-0.9	62,611	61,957	65,040	63,979	-2.1
Defense aircraft and parts.....	11,543	10,742	11,131	7.5	-3.5	-2.9	11,629	10,744	11,214	11,896	-2.2
Ships and boats.....	2,951	2,946	2,944	0.2	0.1	2.6	2,932	2,998	2,890	2,835	3.4
Furniture and related products.....	7,148	7,148	7,171	0.0	-0.3	-0.2	7,354	7,343	7,221	7,246	1.5
Miscellaneous durable goods.....	22,977	22,639	22,603	1.5	0.2	-0.4	23,075	22,436	22,630	22,559	2.3
Nondurable goods industries.....	237,213	237,757	237,409	-0.2	0.1	0.3	238,882	238,005	239,174	247,357	-3.4
Food products.....	53,602	53,801	53,643	-0.4	0.3	-0.4	53,161	52,310	52,147	52,741	0.8
Grain and oilseed milling.....	5,700	5,763	5,856	-1.1	-1.6	-0.8	5,509	5,589	5,520	5,687	-3.1
Dairy products.....	7,308	7,322	7,306	-0.2	0.2	-1.1	7,563	7,561	7,551	7,542	0.3
Meat, poultry, and seafood products.....	8,969	9,057	9,187	-1.0	-1.4	0.0	9,010	8,971	9,103	9,764	-7.7
Beverage and tobacco products.....	20,450	20,473	20,722	-0.1	-1.2	0.6	19,706	19,886	20,627	19,963	-1.3
Beverages.....	16,684	16,687	16,901	0.0	-1.3	0.8	16,157	16,250	16,891	16,203	-0.3
Tobacco.....	3,766	3,786	3,821	-0.5	-0.9	-0.2	3,549	3,636	3,736	3,760	-5.6
Textile mills.....	3,170	3,176	3,167	-0.2	0.3	0.9	3,188	3,195	3,198	3,120	2.2
Textile products.....	3,033	3,067	3,076	-1.1	-0.3	-0.2	3,037	3,084	3,095	3,046	-0.3
Apparel.....	2,569	2,561	2,567	0.3	-0.2	-0.3	2,705	2,592	2,527	2,476	9.2
Leather and allied products.....	797	794	799	0.4	-0.6	-2.1	807	806	814	847	-4.7
Paper products.....	16,193	16,132	16,146	0.4	-0.1	-1.2	16,256	16,005	16,160	16,601	-2.1
Pulp, paper, and paperboard mills.....	6,665	6,613	6,577	0.8	0.5	-1.5	6,673	6,549	6,629	6,789	-1.7
Paperboard containers.....	5,132	5,123	5,164	0.2	-0.8	-1.4	5,128	5,077	5,159	5,239	-2.1
Printing.....	5,842	5,894	5,946	-0.9	-0.9	-0.9	5,915	5,905	5,908	5,931	-0.3
Petroleum and coal products.....	24,633	25,107	24,923	-1.9	0.7	0.1	26,464	27,111	26,619	35,582	-25.6
Petroleum refineries.....	19,994	20,474	20,353	-2.3	0.6	0.4	21,752	22,417	21,963	30,861	-29.5
Chemical products.....	81,594	81,429	81,077	0.2	0.4	1.0	82,291	81,723	82,294	81,627	0.8
Pesticides, fertilizers, and other agricultural chemicals.....	4,260	4,192	4,184	1.6	0.2	1.3	3,961	3,846	4,053	4,215	-6.0
Pharmaceuticals and medicines.....	33,005	32,938	32,598	0.2	1.0	1.4	33,350	33,541	33,378	31,345	6.4
Paints, coatings, and adhesives.....	3,678	3,696	3,688	-0.5	0.2	1.8	3,716	3,755	3,772	3,612	2.9
Plastics and rubber products.....	25,330	25,323	25,343	0.0	-0.1	0.7	25,352	25,388	25,785	25,423	-0.3

<sup>2</sup> Preliminary <sup>1</sup> Revised data due to late receipts and concurrent seasonal adjustment.<sup>1</sup> 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.<sup>2</sup> 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<sup>1, 2</sup>**

[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 <sup>6</sup>	
	July 2016 <sup>6</sup>	June 2016 <sup>7</sup>	May 2016	June - July	May - June	Apr. - May	July 2016 <sup>6</sup>	June 2016 <sup>7</sup>	May 2016	July 2015	2016 <sup>6</sup>		2015
<b>SHIPMENTS</b>													
All manufacturing industries.....	458,864	459,724	456,889	-0.2	0.6	0.1	437,519	490,264	465,958	462,331	3,178,930	3,282,559	-3.2
Construction materials and supplies.....	46,304	46,356	46,542	-0.1	-0.4	-0.6	47,129	51,188	48,924	48,288	325,233	319,999	1.6
Information technology.....	23,016	22,616	22,538	1.8	0.3	0.3	20,781	26,113	21,808	20,656	152,866	152,383	0.3
Computers and related products.....	1,938	1,750	1,854	10.7	-5.6	-3.1	1,527	2,531	1,623	1,729	12,313	14,752	-16.5
Motor vehicle and parts.....	54,842	55,009	53,591	-0.3	2.6	-3.5	45,272	59,183	54,523	48,533	382,730	370,276	3.4
Capital goods.....	82,248	81,898	82,532	0.4	-0.8	1.2	74,944	91,649	81,666	80,958	563,003	587,772	-4.2
Nondefense capital goods <sup>3</sup> .....	71,698	71,701	72,641	0.0	-1.3	1.0	65,447	80,514	71,989	71,622	494,749	523,438	-5.5
Excluding aircraft.....	62,344	62,642	62,921	-0.5	-0.4	-0.7	57,663	69,366	62,624	63,638	436,413	460,371	-5.2
Defense capital goods <sup>4</sup> .....	10,550	10,197	9,891	3.5	3.1	3.0	9,497	11,135	9,677	9,336	68,254	64,334	6.1
Consumer goods.....	184,209	185,051	182,850	-0.5	1.2	-0.1	177,005	192,092	186,250	189,834	1,268,186	1,341,858	-5.5
Consumer durable goods.....	37,569	37,374	36,807	0.5	1.5	-4.5	31,183	40,007	37,013	34,496	263,767	263,936	-0.1
Consumer nondurable goods.....	146,640	147,677	146,043	-0.7	1.1	1.1	145,822	152,085	149,237	155,338	1,004,419	1,077,922	-6.8
<b>NEW ORDERS</b>													
All manufacturing industries <sup>5</sup> .....	454,759	446,331	454,295	1.9	-1.8	-1.2	431,743	477,376	459,330	459,347	3,143,812	3,244,001	-3.1
Construction materials and supplies.....	46,276	46,265	46,448	0.0	-0.4	-1.1	47,103	50,748	49,440	48,278	327,714	322,442	1.6
Information technology.....	23,756	23,006	23,210	3.3	-0.9	-0.6	20,755	26,451	22,067	20,626	158,764	157,632	0.7
Computers and related products.....	1,923	1,742	1,860	10.4	-6.3	-2.5	1,512	2,523	1,629	1,694	12,254	14,862	-17.5
Motor vehicle and parts.....	54,721	54,763	53,659	-0.1	2.1	-3.2	44,789	58,461	54,644	48,055	380,465	369,160	3.1
Capital goods.....	81,157	71,926	82,084	12.8	-12.4	-6.0	72,951	83,088	78,134	82,685	549,143	575,870	-4.6
Nondefense capital goods <sup>3</sup> .....	71,557	64,987	72,920	10.1	-10.9	-1.7	65,427	73,114	70,193	73,940	480,275	514,492	-6.7
Excluding aircraft.....	63,394	62,437	62,153	1.5	0.5	-0.6	57,849	68,292	61,201	62,330	440,868	460,585	-4.3
Defense capital goods <sup>4</sup> .....	9,600	6,939	9,164	38.3	-24.3	-30.1	7,524	9,974	7,941	8,745	68,868	61,378	12.2
Consumer goods.....	184,301	185,084	182,817	-0.4	1.2	-0.1	177,062	191,845	186,189	189,657	1,268,290	1,341,627	-5.5
Consumer durable goods.....	37,661	37,407	36,774	0.7	1.7	-4.5	31,240	39,760	36,952	34,319	263,871	263,705	0.1
Consumer nondurable goods.....	146,640	147,677	146,043	-0.7	1.1	1.1	145,822	152,085	149,237	155,338	1,004,419	1,077,922	-6.8
<b>UNFILLED ORDERS</b>													
All manufacturing industries <sup>5</sup> .....	1,126,260	1,127,237	1,137,551	-0.1	-0.9	0.0	1,125,800	1,128,022	1,138,297	1,151,069	(X)	(X)	-2.2
Construction materials and supplies.....	45,973	46,001	46,092	-0.1	-0.2	-0.2	46,788	46,814	47,254	46,551	(X)	(X)	0.5
Information technology.....	125,259	124,519	124,129	0.6	0.3	0.5	125,431	125,457	125,119	118,209	(X)	(X)	6.1
Computers and related products.....	2,388	2,403	2,411	-0.6	-0.3	0.2	2,388	2,403	2,411	2,390	(X)	(X)	-0.1
Motor vehicle and parts.....	22,048	22,169	22,415	-0.5	-1.1	0.3	21,294	21,777	22,499	22,879	(X)	(X)	-6.9
Capital goods.....	836,423	837,514	847,486	-0.1	-1.2	-0.1	837,016	839,009	847,570	870,708	(X)	(X)	-3.9
Nondefense capital goods <sup>3</sup> .....	700,699	700,840	707,554	0.0	-0.9	0.0	699,998	700,018	707,418	727,703	(X)	(X)	-3.8
Excluding aircraft.....	221,288	220,238	220,443	0.5	-0.1	-0.3	222,141	221,955	223,029	225,993	(X)	(X)	-1.7
Defense capital goods <sup>4</sup> .....	135,724	136,674	139,932	-0.7	-2.3	-0.5	137,018	138,991	140,152	143,005	(X)	(X)	-4.2
Consumer goods.....	4,419	4,327	4,294	2.1	0.8	-0.8	4,296	4,239	4,486	4,097	(X)	(X)	4.9
Consumer durable goods.....	4,419	4,327	4,294	2.1	0.8	-0.8	4,296	4,239	4,486	4,097	(X)	(X)	4.9
<b>TOTAL INVENTORIES</b>													
All manufacturing industries.....	620,329	619,472	619,667	0.1	0.0	-0.1	625,189	616,964	624,889	643,934	(X)	(X)	-2.9
Construction materials and supplies.....	65,434	64,913	64,695	0.8	0.3	0.1	65,747	64,829	65,615	66,222	(X)	(X)	-0.7
Information technology.....	36,673	36,631	36,652	0.1	-0.1	-0.1	37,261	36,327	37,327	38,689	(X)	(X)	-3.7
Computers and related products.....	3,554	3,587	3,573	-0.9	0.4	-0.6	3,709	3,554	3,687	4,066	(X)	(X)	-8.8
Motor vehicle and parts.....	34,898	34,950	33,738	-0.1	3.6	-0.2	35,019	33,926	33,639	34,845	(X)	(X)	0.5
Capital goods.....	190,232	189,734	191,485	0.3	-0.9	-0.6	192,381	189,235	194,178	199,159	(X)	(X)	-3.4
Nondefense capital goods <sup>3</sup> .....	169,112	169,427	170,690	-0.2	-0.7	-0.7	171,016	168,669	173,306	177,144	(X)	(X)	-3.5
Excluding aircraft.....	118,268	118,167	117,990	0.1	0.2	-0.5	119,621	117,483	119,529	123,821	(X)	(X)	-3.4
Defense capital goods <sup>4</sup> .....	21,120	20,307	20,795	4.0	-2.3	-0.4	21,365	20,566	20,872	22,015	(X)	(X)	-3.0
Consumer goods.....	176,694	177,652	176,246	-0.5	0.8	0.0	177,912	177,180	176,697	184,169	(X)	(X)	-3.4
Consumer durable goods.....	29,726	30,067	29,044	-1.1	3.5	-1.1	29,804	29,178	28,731	29,115	(X)	(X)	2.4
Consumer nondurable goods.....	146,968	147,585	147,202	-0.4	0.3	0.2	148,108	148,002	147,966	155,054	(X)	(X)	-4.5

X Not Applicable      <sup>6</sup> Preliminary      <sup>7</sup> Revised data due to late receipts and concurrent seasonal adjustment.

<sup>1</sup> 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.

<sup>2</sup> Topical series are regroupings of the separate industry categories.

<sup>3</sup> 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.

<sup>4</sup> 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.

<sup>5</sup> Estimates and percent changes exclude semiconductor industry data.

<sup>6</sup> 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<sup>1</sup>

[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 July 2016/ 2015
	July 2016 <sup>p</sup>	June 2016 <sup>f</sup>	May 2016	June - July	May - June	Apr. - May	July 2016 <sup>p</sup>	June 2016 <sup>f</sup>	May 2016	July 2015	
<b>MATERIALS AND SUPPLIES</b>											
All manufacturing industries.....	208,984	207,339	206,954	0.8	0.2	0.1	210,434	205,725	207,068	212,950	-1.2
Durable goods industries.....	130,562	128,776	128,157	1.4	0.5	0.0	131,771	127,158	127,984	132,365	-0.4
Wood products.....	4,659	4,603	4,552	1.2	1.1	-0.4	4,611	4,386	4,309	4,681	-1.5
Nonmetallic mineral products.....	5,212	5,270	5,299	-1.1	-0.5	0.0	5,226	5,294	5,331	5,344	-2.2
Primary metals.....	12,603	12,459	12,254	1.2	1.7	-0.4	12,550	12,230	11,918	13,386	-6.2
Fabricated metal products.....	18,009	17,750	17,681	1.5	0.4	0.0	18,133	17,668	17,663	18,339	-1.1
Machinery.....	23,834	23,992	24,115	-0.7	-0.5	-1.3	24,343	23,954	24,390	26,573	-8.4
Computers and electronic products.....	17,701	17,532	17,489	1.0	0.2	1.0	17,837	17,311	17,656	17,221	3.6
Electrical equipment, appliances, and components.....	6,531	6,490	6,537	0.6	-0.7	-0.6	6,634	6,450	6,611	7,101	-6.6
Transportation equipment.....	30,944	29,702	29,257	4.2	1.5	0.6	31,215	28,843	29,081	28,582	9.2
Furniture and related products.....	3,622	3,603	3,611	0.5	-0.2	0.2	3,680	3,644	3,615	3,696	-0.4
Miscellaneous products.....	7,447	7,375	7,362	1.0	0.2	0.4	7,542	7,378	7,410	7,442	1.3
Nondurable goods industries.....	78,422	78,563	78,797	-0.2	-0.3	0.4	78,663	78,567	79,084	80,585	-2.4
Food products.....	18,122	18,365	18,693	-1.3	-1.8	2.1	17,892	18,056	18,198	18,040	-0.8
Beverage and tobacco products.....	5,048	5,022	5,018	0.5	0.1	1.2	4,767	4,843	4,983	4,803	-0.7
Textiles.....	1,164	1,155	1,148	0.8	0.6	-0.9	1,164	1,163	1,161	1,174	-0.9
Textile products.....	1,043	1,070	1,069	-2.5	0.1	0.1	1,046	1,080	1,077	1,057	-1.0
Apparel.....	694	686	699	1.2	-1.9	-2.5	713	696	696	745	-4.3
Leather and allied products.....	240	239	238	0.4	0.4	-2.1	244	238	240	254	-3.9
Paper products.....	8,229	8,217	8,239	0.1	-0.3	-1.3	8,240	8,129	8,197	8,500	-3.1
Printing.....	2,654	2,710	2,762	-2.1	-1.9	-1.1	2,706	2,732	2,706	2,926	-7.5
Petroleum and coal products.....	5,907	5,974	5,762	-1.1	3.7	1.5	6,249	6,466	6,246	8,069	-22.6
Chemical products.....	25,320	25,104	25,124	0.9	-0.1	-0.4	25,569	25,136	25,437	24,688	3.6
Plastics and rubber products.....	10,001	10,021	10,045	-0.2	-0.2	0.2	10,073	10,028	10,093	10,329	-2.5
<b>WORK IN PROCESS</b>											
All manufacturing industries.....	190,612	191,821	194,097	-0.6	-1.2	0.3	192,357	191,652	196,136	202,768	-5.1
Durable goods industries.....	142,700	143,367	146,073	-0.5	-1.9	-0.2	144,397	143,387	147,893	152,488	-5.3
Wood products.....	2,186	2,193	2,197	-0.2	-0.2	0.2	2,176	2,208	2,227	2,184	-0.4
Nonmetallic mineral products.....	1,476	1,450	1,454	1.8	-0.3	0.2	1,493	1,476	1,502	1,449	3.0
Primary metals.....	9,104	9,052	9,325	0.6	-2.9	0.7	9,282	9,061	9,382	11,252	-17.5
Fabricated metal products.....	12,938	12,882	12,785	0.4	0.8	0.3	13,047	12,845	12,814	13,074	-0.2
Machinery.....	19,346	19,273	18,599	0.4	3.6	0.5	19,424	19,000	18,752	18,711	3.8
Computers and electronic products.....	12,832	13,107	13,421	-2.1	-2.3	-1.5	13,256	13,318	13,871	15,080	-12.1
Electrical equipment, appliances, and components.....	3,513	3,453	3,443	1.7	0.3	-0.1	3,557	3,457	3,517	3,581	-0.7
Transportation equipment.....	76,321	77,061	79,976	-1.0	-3.6	-0.3	77,138	77,096	80,926	82,371	-6.4
Furniture and related products.....	1,089	1,090	1,069	-0.1	2.0	-2.0	1,106	1,103	1,070	1,025	7.9
Miscellaneous products.....	3,895	3,806	3,804	2.3	0.1	-1.7	3,918	3,823	3,832	3,761	4.2
Nondurable goods industries.....	47,912	48,454	48,024	-1.1	0.9	2.1	47,960	48,265	48,243	50,280	-4.6
Food products.....	6,183	6,128	6,029	0.9	1.6	-1.4	5,754	5,531	5,452	5,603	2.7
Beverage and tobacco products.....	7,477	7,525	7,629	-0.6	-1.4	0.3	6,922	7,105	7,407	6,928	-2.1
Textiles.....	668	691	693	-3.3	-0.3	0.3	676	690	698	690	-2.0
Textile products.....	440	444	444	-0.9	0.0	-0.4	442	442	446	428	3.3
Apparel.....	317	318	323	-0.3	-1.5	-1.5	346	339	331	372	-7.0
Leather and allied products.....	106	106	106	0.0	0.0	2.9	106	105	107	104	1.9
Paper products.....	1,256	1,260	1,262	-0.3	-0.2	-0.7	1,270	1,267	1,266	1,315	-3.4
Printing.....	1,577	1,588	1,591	-0.7	-0.2	-0.4	1,591	1,539	1,525	1,453	9.5
Petroleum and coal products.....	7,772	8,196	7,897	-5.2	3.8	3.3	8,393	8,710	8,428	11,521	-27.2
Chemical products.....	19,092	19,172	19,036	-0.4	0.7	4.4	19,417	19,494	19,518	18,859	3.0
Plastics and rubber products.....	3,024	3,026	3,014	-0.1	0.4	0.4	3,043	3,043	3,065	3,007	1.2
<b>FINISHED GOODS</b>											
All manufacturing industries.....	220,733	220,312	218,616	0.2	0.8	-0.8	222,398	219,587	221,685	228,216	-2.5
Durable goods industries.....	109,854	109,572	108,028	0.3	1.4	-1.0	110,139	108,414	109,838	111,724	-1.4
Wood products.....	4,457	4,421	4,388	0.8	0.8	2.2	4,374	4,390	4,482	4,383	-0.2
Nonmetallic mineral products.....	6,349	6,271	6,212	1.2	0.9	0.8	6,349	6,323	6,438	6,097	4.1
Primary metals.....	9,914	9,742	9,656	1.8	0.9	-0.4	9,879	9,537	9,733	11,095	-11.0
Fabricated metal products.....	18,286	18,156	18,102	0.7	0.3	-0.3	18,417	18,178	18,555	18,460	-0.2
Machinery.....	22,121	22,384	22,686	-1.2	-1.3	-1.2	22,150	22,203	23,138	24,038	-7.9
Computers and electronic products.....	11,952	12,069	11,804	-1.0	2.2	-0.3	11,984	11,750	11,885	11,698	2.4
Electrical equipment, appliances, and components.....	6,284	6,232	6,309	0.8	-1.2	0.0	6,453	6,273	6,425	6,426	0.4
Transportation equipment.....	16,419	16,384	14,943	0.2	9.6	-4.5	16,350	15,929	15,258	15,646	4.5
Furniture and related products.....	2,437	2,455	2,491	-0.7	-1.4	0.0	2,568	2,596	2,536	2,525	1.7
Miscellaneous products.....	11,635	11,458	11,437	1.5	0.2	-0.5	11,615	11,235	11,388	11,356	2.3
Nondurable goods industries.....	110,879	110,740	110,588	0.1	0.1	-0.6	112,259	111,173	111,847	116,492	-3.6
Food products.....	29,297	29,308	28,921	0.0	1.3	-1.8	29,515	28,723	28,497	29,098	1.4
Beverage and tobacco products.....	7,925	7,926	8,075	0.0	-1.8	0.6	8,017	7,938	8,237	8,232	-2.6
Textiles.....	1,338	1,330	1,326	0.6	0.3	3.0	1,348	1,342	1,339	1,256	7.3
Textile products.....	1,550	1,553	1,563	-0.2	-0.6	-0.3	1,549	1,562	1,572	1,561	-0.8
Apparel.....	1,558	1,557	1,545	0.1	0.8	1.0	1,646	1,557	1,500	1,359	21.1
Leather and allied products.....	451	449	455	0.4	-1.3	-3.2	457	463	467	489	-6.5
Paper products.....	6,708	6,655	6,645	0.8	0.2	-1.1	6,746	6,609	6,697	6,786	-0.6
Printing.....	1,611	1,596	1,593	0.9	0.2	-1.1	1,618	1,634	1,627	1,552	4.3
Petroleum and coal products.....	10,954	10,937	11,264	0.2	-2.9	-2.6	11,822	11,935	11,945	15,992	-26.1
Chemical products.....	37,182	37,153	36,917	0.1	0.6	0.2	37,305	37,093	37,339	38,080	-2.0
Plastics and rubber products.....	12,305	12,276	12,284	0.2	-0.1	1.1	12,236	12,317	12,627	12,087	1.2

<sup>p</sup> Preliminary <sup>f</sup> Revised data due to late receipts and concurrent seasonal adjustment.<sup>1</sup> Estimates of shipments and new orders are for the duration of the period, while estimates of fulfilled 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 <sup>1</sup>**

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

Industry	Inventory/Shipments ratio				Unfilled Orders/Shipments ratio <sup>2</sup>			
	Jul 2016 <sup>3</sup>	Jun 2016 <sup>1</sup>	May 2016	Apr 2016	Jul 2016 <sup>3</sup>	Jun 2016 <sup>1</sup>	May 2016	Apr 2016
	All manufacturing industries <sup>3</sup> .....	1.35	1.35	1.36	1.36	(X)	(X)	(X)
Durable goods industries <sup>3</sup> .....	1.65	1.64	1.65	1.65	6.79	6.81	6.89	6.94
Wood products.....	1.37	1.38	1.36	1.35	(X)	(X)	(X)	(X)
Nonmetallic mineral products.....	1.32	1.31	1.32	1.31	(X)	(X)	(X)	(X)
Primary metals.....	1.76	1.75	1.77	1.77	1.80	1.82	1.86	1.85
Fabricated metal products.....	1.64	1.64	1.62	1.62	2.54	2.55	2.53	2.53
Machinery.....	2.20	2.19	2.17	2.16	3.42	3.39	3.39	3.37
Computers and electronic products <sup>3</sup> .....	1.57	1.60	1.61	1.62	5.87	5.91	5.92	5.93
Electrical equipment, appliances, and components.....	1.72	1.71	1.73	1.73	2.02	2.00	2.00	2.00
Transportation equipment.....	1.53	1.52	1.55	1.55	14.19	14.17	14.48	14.88
Furniture and related products.....	1.14	1.14	1.14	1.14	1.50	1.53	1.53	1.53
Miscellaneous products.....	1.76	1.71	1.69	1.70	(X)	(X)	(X)	(X)
Nondurable goods industries.....	1.05	1.05	1.05	1.06	(X)	(X)	(X)	(X)
Food products.....	0.82	0.83	0.83	0.84	(X)	(X)	(X)	(X)
Beverage and tobacco products.....	1.63	1.66	1.73	1.68	(X)	(X)	(X)	(X)
Textiles.....	1.27	1.26	1.26	1.25	(X)	(X)	(X)	(X)
Textile products.....	1.53	1.55	1.55	1.56	(X)	(X)	(X)	(X)
Apparel.....	2.38	2.38	2.36	2.38	(X)	(X)	(X)	(X)
Leather and allied products.....	2.38	2.35	2.34	2.43	(X)	(X)	(X)	(X)
Paper products.....	1.08	1.06	1.06	1.07	(X)	(X)	(X)	(X)
Printing.....	0.82	0.82	0.83	0.85	(X)	(X)	(X)	(X)
Petroleum and coal products.....	0.71	0.69	0.71	0.73	(X)	(X)	(X)	(X)
Chemical products.....	1.23	1.23	1.23	1.21	(X)	(X)	(X)	(X)
Plastics and rubber products.....	1.31	1.32	1.33	1.32	(X)	(X)	(X)	(X)

X Not Applicable    <sup>1</sup> Preliminary    <sup>2</sup> Revised data due to late receipts and concurrent seasonal adjustment.

<sup>2</sup> 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.

<sup>3</sup> Unfilled orders to shipments ratio excludes semiconductor manufacturing.

**Table 8. Revisions to Previously Published Monthly Percent Changes <sup>1</sup>**

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

Industry	Shipments		New Orders		Unfilled Orders		Inventories	
	Jul <sup>2</sup> 2016	Jul <sup>3</sup> 2015- Jun 2016	Jul <sup>2</sup> 2016	Jul <sup>3</sup> 2015- Jun 2016	Jul <sup>2</sup> 2016	Jul <sup>3</sup> 2015- Jun 2016	Jul <sup>2</sup> 2016	Jul <sup>3</sup> 2015- Jun 2016
	All manufacturing industries.....	(X)	0.2	(X)	0.3	(X)	0.1	(X)
Durable goods industries.....	-0.1	0.2	0.0	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.....	-0.6	0.5	-0.6	0.7	0.1	0.3	0.6	0.4
Fabricated metal products.....	-0.4	0.2	-0.1	0.4	0.0	0.2	0.0	0.2
Machinery.....	-0.2	0.7	-0.2	0.7	-0.1	0.2	0.0	0.2
Computers and electronic products.....	0.2	0.3	-0.2	0.6	-0.2	0.1	0.0	0.3
Electrical equipment, appliances, and components.....	-0.4	0.3	1.1	1.0	1.1	0.4	0.1	0.2
Transportation equipment.....	0.3	0.3	0.1	0.8	-0.1	0.1	0.0	0.2
Furniture and related products.....	(X)	0.4	(X)	0.8	(X)	0.5	(X)	0.3
Miscellaneous products.....	(X)	0.4	(X)	0.5	(X)	0.3	(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)	0.2
Beverage and tobacco products.....	(X)	0.6	(X)	(NA)	(X)	(NA)	(X)	0.2
Textiles.....	(X)	0.5	(X)	(NA)	(X)	(NA)	(X)	0.3
Textile products.....	(X)	1.0	(X)	(NA)	(X)	(NA)	(X)	0.2
Apparel.....	(X)	1.0	(X)	(NA)	(X)	(NA)	(X)	0.5
Leather and allied products.....	(X)	1.7	(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)	0.3
Petroleum and coal products.....	(X)	1.0	(X)	(NA)	(X)	(NA)	(X)	1.0
Chemical products.....	(X)	0.2	(X)	(NA)	(X)	(NA)	(X)	0.1
Plastics and rubber products.....	(X)	0.4	(X)	(NA)	(X)	(NA)	(X)	0.2

X Not Applicable    NA Not Available

<sup>1</sup> 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.

<sup>2</sup> The current month revisions are the difference between the advance percent change and the percent change as shown in this publication.

<sup>3</sup> 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>.