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John Miller /William Abriatis Service Sector Statistics Division (301) 763-2703

# MONTHLY WHOLESALE TRADE: SALES AND INVENTORIES AUGUST 2008

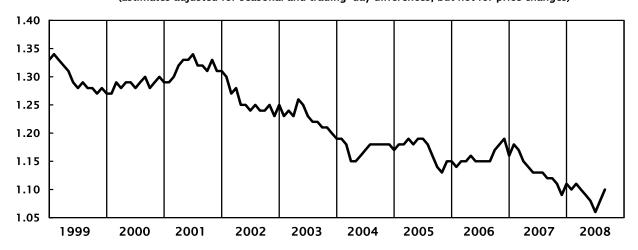
**Sales.** The U.S. Census Bureau announced today that August 2008 sales of merchant wholesalers, except manufacturers' sales branches and offices, after adjustment for seasonal variations and trading-day differences but not for price changes, were \$404.9 billion, down 1.0 percent (+/-0.5%) from the revised July level, but up 13.4 percent (+/-1.0%) from the August 2007 level. The July preliminary estimate was revised downward \$1.7 billion or 0.4 percent. August sales of durable goods were down 1.5 percent (+/-0.8%) from last month, but were up 5.5 percent (+/-1.7%) from a year ago. Compared to last month, sales of hardware, and plumbing and heating equipment and supplies were down 6.5 percent and sales of lumber and other construction materials were down 5.2 percent. Sales of nondurable goods were down 0.6 percent (+/-0.8%)\* from last month, but were up 20.7 percent (+/-1.7%) from last year. Sales of petroleum and petroleum products were down 2.1 percent from last month.

**Inventories.** Total inventories of merchant wholesalers, except manufacturers' sales branches and offices, after adjustment for seasonal variations but not for price changes, were \$445.4 billion at the end of August, up 0.8 percent (+/-0.3%) from the revised July level and were up 11.1 percent (+/-1.2%) from a year ago. The July preliminary estimate was revised upward \$0.6 billion or 0.1 percent. End-of-month inventories of durable goods were up 1.4 percent (+/-0.5%) from last month and were up 10.0 percent (+/-1.3%) from last August. Inventories of metals and minerals, except petroleum, were up 3.3 percent and inventories of computer and computer peripheral equipment and software were up 2.1 percent. End-of-month inventories of nondurable goods decreased 0.1 percent (+/-0.7%)\* from July, but were up 13.0 percent (+/-3.1%) compared to last August. Inventories of farm product raw materials were down 2.3 percent from last month, while inventories of grocery and related products were up 2.1 percent.

**Inventories/Sales Ratio.** The August inventories/sales ratio for merchant wholesalers, except manufacturers' sales branches and offices, based on seasonally adjusted data, was 1.10. The August 2007 ratio was 1.12.

Data in this report are based on a sample and, therefore, are subject to sampling and nonsampling error. A discussion of the reliability of the estimates and general survey methodology can be found at: <a href="http://www.census.gov/wholesale/www/methodology/011340.html">http://www.census.gov/wholesale/www/methodology/011340.html</a>>.

Monthly Inventories/Sales Ratios of Merchant Wholesalers, Except Manufacturers'
Sales Branches and Offices: 1999 to 2008
(Estimates adjusted for seasonal and trading-day differences, but not for price changes)



Monthly Wholesale Trade for September is scheduled to be released November 7, 2008 at 10:00 a.m. EST.

For information, visit the Census Bureau's Web site at <a href="http://www.census.gov/wholesale">http://www.census.gov/wholesale</a>. This report is also available the day of issue through the Department of Commerce's STAT-USA (202-482-1986).

<sup>\*</sup> The 90 percent confidence interval includes zero. The Census Bureau does not have sufficient statistical evidence to conclude that the actual change is different from zero.

Table 1. Estimates of Monthly Sales, Inventories, and Inventories/Sales Ratios of Merchant Wholesalers, Except Manufacturers' Sales Branches and Offices

[Total sales and inventories estimates are shown in millions of dollars. Estimates are based on data from the Monthly Wholesale Trade Survey.]

	Kind of Business	Sales							Inventories						Inventories/Sales		
NAICS <sup>1</sup> code		Monthly			Percent change								cent change		Ratios		
		Aug. 2008 (p)	Jul. 2008 (r)	Aug. 2007 (r)	Aug./ Jul.	Jul./ Jun.	Aug. 08/ Aug. 07	Aug. 2008 (p)	Jul. 2008 (r)	Aug. 2007 (r)	Aug./ Jul.	Jul./ Jun.	Aug. 08/ Aug. 07	Aug. 2008 (p)	Jul. 2008 (r)	Aug. 2007 (r)	
Adjusted <sup>2</sup>		d-7	.,	. ,				d-7						d-7	.,		
42	U.S. Total	404,862	408,862	357,087	-1.0	-0.8	13.4	445,394	441,823	400,986	0.8	1.5	11.1	1.10	1.08	1.12	
423	.Durable	180,415		171,074	-1.5	-0.2	5.5	,	271,365		1.4	1.8	9.9	1.53	1.48	1.46	
4231		24,145		27,269	-2.2	-2.4	-11.5	42,644	42,153	37,880	1.2	2.5	12.6	1.77	1.71	1.39	
4231	Automotive Furniture	5,526	1 '	5,620	-2.2 -0.3	-2.4 1.4	-11.5	8,115	8,149		-0.4	0.8		1.77	1.71	1.39	
4233	Lumber	9,506		10,433	-5.2	-0.6	-8.9		14,893	14,484	0.4	1.9		1.57	1.49	1.39	
4234	Prof. equip.	30,712		29,570	-0.5	0.2	3.9	32,844	32,383	30,756	1.4	-0.3	6.8	1.07	1.05	1.04	
42343	Comp. equip.	15,393	1	15,122	-0.2	-1.8	1.8		11,696		2.1	1.0	9.3	0.78	0.76	0.72	
4235	Metals	16,172	15,820	13,587	2.2	3.0	19.0	28,589	27,679	23,422	3.3	2.9	22.1	1.77	1.75	1.72	
4236	Electrical	29,295	30,166	26,864	-2.9	0.2	9.0	35,542	34,875	32,353	1.9	0.7	9.9	1.21	1.16	1.20	
4237	Hardware	7,518	8,037	8,089	-6.5	1.3	-7.1	15,379	15,310	15,356	0.5	1.4	0.1	2.05	1.90	1.90	
4238	Machinery	31,943		28,567	2.2	-3.3	11.8	70,874	70,200	64,416	1.0	2.9		2.22	2.25	2.25	
4239	Misc. Durable	25,598	26,691	21,075	-4.1	2.3	21.5	26,200	25,723	23,546	1.9	1.6	11.3	1.02	0.96	1.12	
424	.Nondurable	224,447	225,761	186,013	-0.6	-1.2	20.7	170,248	170,458	150,730	-0.1	1.1	12.9	0.76	0.76	0.81	
4241	Paper <sup>3</sup>	8,483	1 '	7,770	0.7	4.6	9.2	7,172	7,253	6,876	-1.1	2.8	4.3	0.85	0.86	0.88	
4242	Drugs	32,178		30,789	0.4	1.9	4.5	32,130	32,122	30,153	0.0	6.1	6.6	1.00	1.00	0.98	
4243	Apparel	11,436		10,993	-1.0	7.5	4.0	16,270	16,519	16,881	-1.5	-0.8	-3.6	1.42	1.43	1.54	
4244	Groceries	45,066	1	42,596	0.7	0.2	5.8	-	27,172	25,834	2.0	1.6		0.62	0.61	0.61	
4245	Farm products	23,027	23,446	16,726	-1.8	1.1	37.7	25,780	26,386	20,262	-2.3	-5.6		1.12	1.13	1.21	
4246	Chemicals <sup>3</sup>	10,098	1	8,133	1.8	3.2	24.2	10,082	10,191	8,945	-1.1	6.3	12.7	1.00	1.03 0.26	1.10	
4247 4248	Petroleum Alcohol	64,243 9,084	65,587 9,162	41,907 8,735	-2.0 -0.9	-7.2 0.0	53.3 4.0	,	16,874 10,769	12,359 10,025	1.3 0.0	2.7 1.3	38.3 7.4	0.27 1.19	1.18	0.29 1.15	
4248 4249	Misc. Nondur.	20,832	20,898	18,364	-0.9	-0.4	13.4	23,228	23,172	19,395	0.0	-0.6		1.19	1.10	1.13	
	•									,					les to da		
NOC Auj	ot Adjusted													2008		2007	
42	U.S. Total	401,743	418,401	374,186	-4.0	-0.4	7.4	439,332	439,006	396,260	0.1	1.7	10.9	3,164		,776,855	
423	.Durable	178,842	186,476	180,105	-4.1	-1.9	-0.7	275,762	273,566	250,705	0.8	2.3	10.0	1,425	.995 1	,341,347	
4231	Automotive	23,686		28,142	-4.3	-2.3	-15.8		41,984	35,948	-3.4	2.9			,836	215,340	
4232	Furniture	5,548		6,008	-2.3	3.8	-7.7	8,375	8,377	8,300	0.0	3.5	0.9		,126	46,061	
4233	Lumber	10,133	11,241	11,987	-9.9	1.6	-15.5	15,094	15,116	14,600	-0.1	1.1	3.4	79	,555	88,959	
4234	Prof. equip.	29,391	30,714	30,161	-4.3	-6.2	-2.6	33,304	32,674	31,156	1.9	1.3	6.9	235	,932	225,037	
42343	Comp. equip.	14,423	15,080	15,031	-4.4	-13.4	-4.0	11,999	11,743	10,959	2.2	3.2	9.5	117	,405	114,163	
4235	Metals	16,463	16,769	14,715	-1.8	4.6	11.9	29,046	28,066	23,726	3.5	2.9	22.4	123	,227	114,133	
4236	Electrical	29,441	30,709	28,449	-4.1	1.5	3.5	36,253	35,433	33,000	2.3	2.1	9.9		,622	209,042	
4237	Hardware	7,759		8,857	-8.9	0.0	-12.4	15,517	15,478	15,479	0.3	2.2	0.2		,949	63,646	
4238	Machinery	31,847	31,418	30,395	1.4	-7.4	4.8	71,157	70,972	64,738	0.3	2.6	9.9		,214	222,822	
4239	Misc. Durable	24,574	26,664	21,391	-7.8	-0.1	14.9		25,466		3.9	1.8			,534	156,307	
424	.Nondurable	222,901		194,081	-3.9	0.9	14.8		165,440		-1.1	0.6		1,738	-	,435,508	
4241	Paper	8,619		8,415	2.0	4.4	2.4	7,172	7,253	6,876	-1.1	2.8			,845	61,736	
4242	Drugs	30,827		31,713	-4.2	4.6	-2.8	-	31,801	29,851	0.5	4.7	7.1		,207	238,613	
4243	Apparel	12,339	1	12,521	-1.9	19.9	-1.5	17,230	17,328	17,894	-0.6	3.2	-3.7		3,890	84,828	
4244	Groceries	44,615 19,757	1	43,959 15,020	-1.1	0.8 4.8	1.5 31.5	27,756 19,593	26,710 21,320	25,808 15,460	3.9	0.7 -9.6	7.5 26.7		,182 ,303	337,186 109,594	
4245 4246	Farm productsChemicals	19,757		8,816	-9.6 -0.4	4.8 5.5	16.6	19,593	10,191	8,945	-8.1 -1.1	-9.6 6.3			,860	66,128	
4246	Petroleum	66,620		45,050	-0.4 -5.2	-3.6	47.9	17,003	17,768	12,322	-1.1 -4.3	4.3	38.0		.099	321,499	
4248	Alcohol	9,366		9,635	-2.2	-3.9	-2.8		10,963	9,935	-2.8	2.2	7.2		,272	66,663	
4249	Misc. Nondur.	20,478	1	18,952	-5.2	-3.5	8.1	22,113	22,106		0.0	-2.7			,166	149,261	
Footnotes			•														

Estimates have not been adjusted for price changes. Table 2 provides estimated measures of sampling variability. Additional information on confidentiality protection, sampling error, nonsampling error, sample design, and definitions may be found at <a href="http://www.census.gov/wholesale/www/how\_surveys\_are\_collected/011340.html">http://www.census.gov/wholesale/www/how\_surveys\_are\_collected/011340.html</a>.

<sup>&</sup>lt;sup>p</sup> Preliminary estimate.

r Revised estimate.

<sup>&</sup>lt;sup>1</sup> For a full description of the NAICS codes used in this table, see the 2002 NAICS manual or <a href="http://www.census.gov/epcd/naics02/naicod02.htm#N42">http://www.census.gov/epcd/naics02/naicod02.htm#N42</a>.

<sup>&</sup>lt;sup>2</sup> Except where indicated, sales and inventories estimates are adjusted for seasonal variation. Estimates of sales are also adjusted for trading-day differences and moving holidays. See Table 3 for the combined adjustment factors. Adjusted sales-to-date estimates are not tabulated.

<sup>&</sup>lt;sup>3</sup> No discernible seasonal pattern for this NAICS code was detected in the latest annual review of the seasonal adjustment for inventories. Consequently, the "Adjusted" inventories estimates are equal to the "Not Adjusted" estimates.

Table 2. Estimated Measures of Sampling Variability of Monthly Wholesale Sales and Inventory Estimates

[Estimates are shown as percents and are based on data from the Monthly Wholesale Trade Survey.]

NAICS code	Kind of Business		pefficient of to	variation fo			tandard erro	•	Coeffic variation	Standard error for percent change		
		Preliminar	/ estimates	Final estimates			of two ve months		month to nonth last ear	Sales to date		Current year sales to date to
		Sales	Inv.	Sales	Inv.	Sales	Inv.	Sales	Inv.	Current year	Previous year	previous year sales to date
42	U.S. Total	0.8	1.3	0.8	1.3	0.3	0.2	0.6	0.7	0.9	0.8	0.7
423	.Durable	1.6	1.8	1.6	1.7	0.5	0.3	1.0	0.8	1.6	1.3	1.1
4231	Automotive	2.7	4.0	2.5	4.0	0.7	0.5	1.3	1.8	2.7	2.9	0.6
4232	Furniture	3.9	5.0	3.9	5.0	1.9	0.8	2.8	2.4	3.7	3.3	1.9
4233	Lumber	4.8	8.9	4.7	8.8	1.1	0.7	2.0	2.7	4.9	4.3	1.8
4234	Prof. equip.	4.5	4.4	4.4	4.5	1.0	0.5	1.6	1.5	4.3	4.1	1.3
42343	Comp. equip.	6.9	6.6	6.7	6.6	2.0	1.0	2.2	2.8	6.8	6.5	1.0
4235	Metals	5.2	6.6	5.2	6.5	1.7	0.7	2.3	2.3	5.1	4.7	1.9
4236	Electrical	7.8	4.5	7.8	4.5	0.9	0.3	5.2	3.7	8.5	3.3	6.2
4237	Hardware	5.4	4.9	5.5	5.0	1.5	0.5	2.7	2.4	5.0	5.0	2.2
4238	Machinery	3.5	3.3	3.6	3.1	2.0	0.6	3.0	1.3	3.7	2.9	1.7
4239	Misc. Durable	6.1	4.2	5.9	4.2	1.8	1.2	3.5	2.4	5.9	6.5	2.6
424	.Nondurable	1.2	1.8	1.2	1.7	0.5	0.4	1.0	1.9	1.3	1.1	0.9
4241	Paper	7.2	7.0	7.0	7.0	1.0	0.9	3.6	5.2	6.8	8.1	3.7
4242	Drugs	3.9	5.1	3.9	5.2	0.6	0.4	2.1	3.8	3.8	4.1	2.1
4243	Apparel	4.0	7.0	4.0	6.9	2.5	0.9	3.0	3.5	3.5	4.1	2.1
4244	Groceries	4.1	7.4	4.1	7.4	0.9	0.9	1.6	3.8	4.1	3.8	1.2
4245	Farm products	3.7	6.4	3.9	6.0	2.2	1.3	5.1	7.1	3.4	3.7	4.8
4246	Chemicals	7.5	7.2	7.5	7.3	1.7	0.9	2.8	2.1	7.5	6.9	1.9
4247	Petroleum	3.7	3.8	3.7	3.7	1.2	0.8	3.7	3.0	3.8	3.5	3.3
4248	Alcohol	7.2	4.3	7.2	4.4	1.1	0.9	1.6	1.8	7.3	7.4	1.3
4249	Misc. Nondur.	4.9	6.8	4.8	6.5	1.6	0.9	2.3	3.2	4.6	4.2	1.2
Note:	•				•	•					•	•

Note:

Estimated measures of sampling variability are based on estimates not adjusted for seasonal variation, trading-day differences, or moving holidays. Medians are based on estimates for the most recent 12 months. Additional information on confidentiality protection, sampling error, nonsampling error, sample design, and definitions may be found at http://www.census.gov/wholesale/www/how\_surveys\_are\_collected/011340.html.

#### Reliability of the Estimates

Because the estimates presented in this report are based on a sample survey, they may contain sampling error and nonsampling error.

Sampling error is the difference between the estimate and the result that would be obtained from a complete enumeration of the sampling frame conducted under the same survey conditions. This error occurs because only a subset of the entire sampling frame is measured in a sample survey. Standard errors and coefficients of variation (CV), as given in Table 2 of this report, are estimated measures of sampling variation.

The margin of sampling error , as used on page 1, gives a range about the estimate which is a 90-percent confidence interval. If, for example, the percent change estimate is  $\pm 1.2$  percent and its estimated standard error is 0.9 percent, then the margin of sampling error is  $\pm 1.645 \times 0.9$  percent or  $\pm 1.5$  percent, and the 90 percent confidence interval is  $\pm 0.3$  percent to  $\pm 0.4$  percent. If the interval contains 0, then one does not have sufficient statistical evidence to conclude at the 90 percent confidence level that the change is different from zero and therefore the change is not statistically significant. Estimated changes shown in the text are statistically significant unless otherwise noted. For a monthly total, the median estimated coefficient of variation (CV) is given. The resulting confidence interval is the estimated value  $\pm 1.645 \times CV \times$  (the estimated value). The Census Bureau recommends that individuals using estimates in this report incorporate this information into their analyses, as sampling error could affect the conclusions drawn from the estimates.

Nonsampling error encompasses all other factors that contribute to the total error of a sample survey estimate. This type of error can occur because of nonresponse, insufficient coverage of the universe of wholesale businesses, mistakes in the recording and coding of data, model error, and other errors of collection, response, coverage, or processing. Although nonsampling error is not measured directly, the Census Bureau employs quality control procedures throughout the process to minimize this type of error.

Table 3. Combined <sup>1</sup> Adjustment Factors for Monthly Wholesale Sales and Inventory Estimates

[Combined adjustment factors are computed using the Census Bureau's X-12 ARIMA program and are based on data from the Monthly Wholesale Trade Survey.]

NAICS	Kind of	Sales							Inventories					
code	Business	2008					2007	2008					2007	
		Sep.	Aug.r	Jul.r	Jun.	May	Aug.r	Sep.	Aug.r	Jul.r	Jun.	May	Aug.r	
42	U.S. Total <sup>2</sup>	1.023	0.993	1.025	1.023	1.019	1.050	0.994	0.989	0.996	0.993	0.989	0.989	
423	.Durable	1.039	0.994	1.017	1.035	1.007	1.055	0.999	1.000	1.009	1.002	1.003	1.000	
4231	Automotive	0.970	0.981	1.003	1.002	1.007	1.032	0.977	0.951	0.996	0.992	0.991	0.949	
4232	Furniture	1.056	1.004	1.025	1.001	0.999	1.069	1.019	1.032	1.028	1.001	0.992	1.032	
4233	Lumber	1.042	1.066	1.121	1.097	1.073	1.149	0.999	1.009	1.015	1.023	1.023	1.008	
4234	Prof. equip.	1.104	0.957	0.995	1.063	0.952	1.020	1.008	1.014	1.009	0.993	0.992	1.013	
42343	Comp. equip.	1.128	0.937	0.978	1.109	0.925	0.994	1.017	1.005	1.004	0.982	0.983	1.003	
4235	Metals	1.005	1.018	1.060	1.044	1.063	1.083	1.017	1.016	1.014	1.014	1.004	1.013	
4236	Electrical	1.067	1.005	1.018	1.005	0.980	1.059	1.016	1.020	1.016	1.002	1.002	1.020	
4237	Hardware	1.049	1.032	1.060	1.074	1.019	1.095	1.004	1.009	1.011	1.003	1.012	1.008	
4238	Machinery	1.054	0.997	1.005	1.050	1.024	1.064	0.989	1.004	1.011	1.014	1.011	1.005	
4239	Misc. Durable	1.001	0.960	0.999	1.023	1.047	1.015	1.022	1.010	0.990	0.988	0.999	1.009	
424	.Nondurable	1.006	0.988	1.026	1.006	1.027	1.041	0.982	0.967	0.979	0.980	0.965	0.969	
4241	Paper <sup>3</sup>	1.046	1.016	1.003	1.005	0.997	1.083	1.000	1.000	1.000	1.000	1.000	1.000	
4242	Drugs	1.024	0.958	1.005	0.979	0.991	1.030	1.017	0.995	0.990	1.003	0.985	0.990	
4243	Apparel	1.087	1.079	1.089	0.976	0.923	1.139	1.050	1.059	1.049	1.008	0.952	1.060	
4244	Groceries	0.997	0.990	1.008	1.002	1.043	1.032	1.003	1.001	0.983	0.992	0.991	0.999	
4245	Farm products	0.944	0.858	0.932	0.899	0.982	0.898	0.802	0.760	0.808	0.844	0.840	0.763	
4246	Chemicals <sup>3</sup>	1.031	1.018	1.041	1.019	1.017	1.084	1.000	1.000	1.000	1.000	1.000	1.000	
4247	Petroleum	0.997	1.037	1.071	1.031	1.038	1.075	1.004	0.995	1.053	1.037	0.948	0.997	
4248	Alcohol	0.979	1.031	1.045	1.088	1.070	1.103	1.026	0.989	1.018	1.009	1.002	0.991	
4249	Misc. Nondur.	0.986	0.983	1.034	1.068	1.147	1.032	0.971	0.952	0.954	0.975	1.001	0.952	

Footnotes:

#### Note:

The seasonal adjustment factors shown are estimates derived from a model that uses sample survey data as input. Therefore, these estimates may contain sampling error and nonsampling error. Additional information on the general form of the model and the X-12 ARIMA program may be found at <a href="http://www.census.gov/srd/www/x12a/">http://www.census.gov/srd/www/x12a/</a>.

#### Description of the Survey

The Census Bureau conducts the Monthly Wholesale Trade Survey (MWTS) to provide national estimates of monthly sales, end-of-month inventories, and inventories-to-sales ratios by kind of business for wholesale firms located in the United States. Specifically, the MWTS covers wholesale merchants who sell goods on their own account and include such businesses as wholesale merchants or jobbers, industrial distributors, exporters, and importers. Sales offices and branches maintained by manufacturing, refining, or mining firms for the purpose of marketing their products are not covered in this report. Also excluded is NAICS Industry Group 4251: Wholesale Electronic Markets and Agents and Brokers.

The MWTS sample was selected using a stratified, one-stage design with strata defined by kind of business (e.g., Automotive, Furniture, Lumber, etc.) and annual sales size. The sample includes firms of all sizes and is updated on a quarterly basis to account for new wholesale firms, deaths, and other changes to the wholesale universe. Each month, questionnaires are mailed to employer firms selected in a probability sample of approximately 4,500. Approximately 77% of those mailed provided data for this reporting period. Data for nonresponding firms are imputed based on data for similar-sized firms classified in the same kind of business. Approximately 26% of the total sales estimate and 27% of the total end-of-month inventories estimate is based on imputed data.

Monthly sales and inventories estimates are obtained by summing weighted data (either reported or imputed). The monthly estimates are benchmarked to annual survey estimates and are adjusted for seasonal variation and trading-day differences. Individuals who use estimates in this report to create new estimates should cite the Census Bureau as the source of only the original estimates. Additional information on the MWTS can be found on the Census Bureau website at: http://www.census.gov/wholesale.

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<sup>&</sup>lt;sup>1</sup> Combined factors for sales include the effects of seasonal variation, trading day differences, and moving holidays. Combined factors for inventories include only the effects of seasonal variation.

<sup>&</sup>lt;sup>2</sup> Adjusted sales and inventories estimates for detailed kind-of-business levels in Table 1 are computed by dividing each "Not Adjusted" estimate by the combined adjustment factor for the corresponding kind of business and month. Adjusted estimates for broad kind-of-business levels are obtained by summing adjusted estimates at the appropriate detailed levels. Combined factors shown for broad kind-of-business levels may be used to approximate adjusted estimates at these levels, but the resulting estimates may differ slightly from the published estimates.

<sup>&</sup>lt;sup>3</sup> No discernible seasonal pattern for this NAICS code was detected in the latest annual review of the seasonal adjustment for inventories. Therefore, the combined adjustment factors for inventories are set to one for this NAICS code.