

Table 1. Estimated Monthly Sales, Inventories, and Inventories/Sales Ratios of Merchant Wholesalers

[Total sales and inventory estimates are shown in millions of dollars. Estimates are based on data from the Monthly Wholesale Trade Survey, Annual Wholesale Trade Survey, and administrative records. Except for NAICS code 4225, estimates have been adjusted using results of the most recent economic census.]

NAICS ¹ code	Kind of Business	Sales						Inventories						Inventories/Sales Ratios		
		Monthly			Percent change			Monthly			Percent change			Ratios		
		Jan. 2003 (p)	Dec. 2002 (r)	Jan. 2002 (r)	Jan./ Dec.	Dec./ Nov.	Jan. 03 Jan. 02	Jan. 2003 (p)	Dec. 2002 (r)	Jan. 2002 (r)	Jan./ Dec.	Dec./ Nov.	Jan. 03 Jan. 02	Jan. 2003 (p)	Dec. 2002 (r)	Jan. 2002 (r)
Adjusted²																
42	U.S. Total	236,899	234,635	223,341	1.0	-0.4	6.1	286,498	287,126	286,354	-0.2	0.8	0.1	1.21	1.22	1.28
421	Durable	113,913	112,730	111,809	1.0	-1.0	1.9	169,902	170,538	172,590	-0.4	0.2	-1.6	1.49	1.51	1.54
4211	Automotive	18,113	18,013	17,221	0.6	-0.6	5.2	24,751	24,948	23,639	-0.8	-1.2	4.7	1.37	1.38	1.37
4212	Furniture	3,472	3,363	3,558	3.2	-3.6	-2.4	5,234	5,246	5,282	-0.2	0.9	-0.9	1.51	1.56	1.48
4213	Lumber	6,981	6,500	6,567	7.4	0.0	6.3	6,911	6,846	6,704	0.9	0.9	3.1	0.99	1.05	1.02
4214	Prof. equip.	22,057	22,208	21,554	-0.7	-1.5	2.3	23,049	22,921	22,964	0.6	0.7	0.4	1.04	1.03	1.07
42143	Comp. equip.	11,384	11,680	11,591	-2.5	0.9	-1.8	7,906	7,801	8,014	1.3	1.5	-1.3	0.69	0.67	0.69
4215	Metals	7,183	6,952	7,168	3.3	-3.5	0.2	12,721	12,931	12,153	-1.6	0.2	4.7	1.77	1.86	1.70
4216	Electrical	17,303	17,147	17,323	0.9	-2.8	-0.1	23,512	23,709	23,786	-0.8	0.4	-1.2	1.36	1.38	1.37
4217	Hardware	5,261	5,146	5,439	2.2	-0.5	-3.3	10,196	10,078	10,234	1.2	1.6	-0.4	1.94	1.96	1.88
4218	Machinery	19,989	19,903	19,806	0.4	3.5	0.9	43,854	44,298	47,685	-1.0	0.1	-8.0	2.19	2.23	2.41
4219	Misc. Durable	13,554	13,498	13,173	0.4	-3.4	2.9	19,674	19,561	20,143	0.6	0.6	-2.3	1.45	1.45	1.53
422	Nondurable	122,986	121,905	111,532	0.9	0.2	10.3	116,596	116,588	113,764	0.0	1.6	2.5	0.95	0.96	1.02
4221	Paper	6,314	6,345	6,189	-0.5	0.2	2.0	6,021	6,071	6,237	-0.8	0.0	-3.5	0.95	0.96	1.01
4222	Drugs	19,225	19,257	17,735	-0.2	-1.0	8.4	28,303	28,342	27,867	-0.1	1.8	1.6	1.47	1.47	1.57
4223	Apparel	6,803	6,884	6,765	-1.2	-3.8	0.6	12,410	12,454	12,724	-0.4	0.5	-2.5	1.82	1.81	1.88
4224	Groceries	35,555	35,432	34,500	0.3	-0.4	3.1	22,753	22,500	21,371	1.1	1.5	6.5	0.64	0.64	0.62
4225	Farm products	10,545	10,911	8,516	-3.4	2.1	23.8	9,036	9,289	10,082	-2.7	-0.7	-10.4	0.86	0.85	1.18
4226	Chemicals	5,161	5,018	4,924	2.8	-0.7	4.8	6,279	6,130	6,089	2.4	-1.3	3.1	1.22	1.22	1.24
4227	Petroleum	18,922	17,578	12,629	7.6	4.2	49.8	5,303	5,232	4,623	1.4	17.2	14.7	0.28	0.30	0.37
4228	Alcohol	6,618	6,919	6,271	-4.4	5.4	5.5	7,135	7,087	6,533	0.7	1.8	9.2	1.08	1.02	1.04
4229	Misc. Nondur.	13,843	13,561	14,003	2.1	-2.5	-1.1	19,356	19,483	18,238	-0.7	1.0	6.1	1.40	1.44	1.30
Not Adjusted																
Sales to date																
														2003		2002
42	U.S. Total	228,591	233,001	215,493	-1.9	1.6	6.1	290,550	289,379	290,493	0.4	0.8	0.0	228,591	215,493	
421	Durable	106,489	110,184	104,947	-3.4	-0.1	1.5	169,259	168,148	171,764	0.7	-0.5	-1.5	106,489	104,947	
4211	Automotive	16,628	18,067	15,895	-8.0	0.3	4.6	25,073	24,773	23,923	1.2	-3.5	4.8	16,628	15,895	
4212	Furniture	3,232	3,151	3,305	2.6	-11.1	-2.2	5,150	5,146	5,197	0.1	-0.3	-0.9	3,232	3,305	
4213	Lumber	6,374	5,343	5,943	19.3	-10.2	7.3	6,842	6,558	6,624	4.3	-0.2	3.3	6,374	5,943	
4214	Prof. equip.	20,756	23,474	20,304	-11.6	9.9	2.2	23,141	22,669	23,056	2.1	-1.3	0.4	20,756	20,304	
42143	Comp. equip.	10,667	12,743	10,861	-16.3	19.2	-1.8	7,906	7,661	8,046	3.2	-2.1	-1.7	10,667	10,861	
4215	Metals	7,111	6,201	7,154	14.7	-8.1	-0.6	12,708	13,151	12,153	-3.4	2.9	4.6	7,111	7,154	
4216	Electrical	16,351	16,598	16,440	-1.5	-4.7	-0.5	23,441	23,401	23,762	0.2	-1.0	-1.4	16,351	16,440	
4217	Hardware	4,966	4,575	5,156	8.5	-7.1	-3.7	10,155	9,927	10,162	2.3	2.5	-0.1	4,966	5,156	
4218	Machinery	18,710	19,803	18,618	-5.5	10.9	0.5	42,977	43,412	46,684	-1.0	0.5	-7.9	18,710	18,618	
4219	Misc. Durable	12,361	12,972	12,132	-4.7	-10.3	1.9	19,772	19,111	20,203	3.5	-1.1	-2.1	12,361	12,132	
422	Nondurable	122,102	122,817	110,546	-0.6	3.1	10.5	121,291	121,231	118,729	0.0	2.6	2.2	122,102	110,546	
4221	Paper	6,314	6,161	6,214	2.5	0.6	1.6	6,009	6,162	6,231	-2.5	0.4	-3.6	6,314	6,214	
4222	Drugs	20,032	20,124	18,569	-0.5	5.2	7.9	30,171	29,986	29,650	0.6	7.1	1.8	20,032	18,569	
4223	Apparel	6,272	5,356	6,447	17.1	-21.9	-2.7	12,820	12,354	13,157	3.8	3.7	-2.6	6,272	6,447	
4224	Groceries	34,346	35,645	33,327	-3.6	1.2	3.1	22,730	22,860	21,328	-0.6	-0.5	6.6	34,346	33,327	
4225	Farm products	11,578	12,242	9,564	-5.4	8.8	21.1	11,033	11,333	12,371	-2.6	-0.9	-10.8	11,578	9,564	
4226	Chemicals	5,182	4,571	4,954	13.4	-2.8	4.6	6,248	6,142	6,059	1.7	-0.4	3.1	5,182	4,954	
4227	Petroleum	19,774	17,437	12,919	13.4	6.8	53.1	5,330	5,389	4,632	-1.1	18.3	15.1	19,774	12,919	
4228	Alcohol	5,301	7,964	5,067	-33.4	18.9	4.6	6,800	6,548	6,206	3.8	-10.0	9.6	5,301	5,067	
4229	Misc. Nondur.	13,303	13,317	13,485	-0.1	3.7	-1.3	20,150	20,457	19,095	-1.5	3.6	5.5	13,303	13,485	

^p Preliminary estimate. ^r Revised.

¹ For a full description of the NAICS codes used in this table, see <http://www.census.gov/svsd/www/naicsdef.html>.

² Estimates are adjusted for seasonal variations and, in the case of sales, also for trading-day differences. See Table 3 for the seasonal adjustment factors used. Cumulative seasonally adjusted sales estimates are not tabulated.

Note: 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 <http://www.census.gov/svsd/www/mwtsreliability.html>.

Table 2. Coefficients of Variation and Standard Errors for Sales and Inventories Estimates

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

NAICS code	Kind of Business	Median coefficients of variation for level (%)				Median standard errors for trend				Coefficients of variation for level (%)		Standard errors for trend
		Preliminary estimates		Final estimates		Ratio of two consecutive months		Year-to-year estimates		Cumulative sales estimates		Current year cumulative
		Sales	Inv.	Sales	Inv.	Sales	Inv.	Sales	Inv.	Current year	Previous year	to previous year cumulative
42	U.S. Total	1.2	1.6	1.3	1.6	0.4	0.2	0.6	0.5	1.2	1.2	0.8
421	Durable	1.4	1.5	1.5	1.5	0.5	0.3	0.8	0.6	1.2	1.7	1.0
4211	Automotive	3.2	4.4	3.2	4.5	0.9	0.8	1.2	1.4	4.1	3.7	1.2
4212	Furniture	4.7	7.0	4.6	6.9	1.6	0.7	2.9	1.3	5.3	4.4	2.2
4213	Lumber	4.9	6.3	4.8	6.3	1.0	0.6	1.9	2.4	5.2	4.9	1.4
4214	Prof. equip.	4.9	6.4	4.9	6.4	1.3	0.6	2.0	1.7	4.8	6.2	2.5
42143	Comp. equip.	8.9	7.2	8.9	7.2	2.1	1.3	2.9	4.0	8.3	7.8	2.4
4215	Metals	6.8	9.2	6.8	9.2	1.6	0.7	2.7	3.4	5.6	6.2	2.8
4216	Electrical	3.5	5.0	3.5	4.9	1.2	0.6	1.6	1.7	3.8	4.2	1.8
4217	Hardware	7.9	10.9	8.0	10.9	1.3	0.6	2.4	1.8	7.9	8.6	2.8
4218	Machinery	3.9	3.1	3.8	3.1	1.6	0.5	2.1	1.3	3.1	3.2	2.3
4219	Misc. Durable	4.7	7.5	4.8	7.6	1.7	0.8	2.8	2.6	4.1	5.4	2.7
422	Nondurable	1.8	2.5	1.9	2.5	0.5	0.4	0.9	0.9	1.7	1.5	1.1
4221	Paper	4.3	3.3	4.3	3.3	1.0	0.7	1.1	1.5	4.0	4.4	0.9
4222	Drugs	5.3	5.5	5.3	5.5	0.9	0.4	2.0	2.1	5.5	6.1	1.8
4223	Apparel	5.0	4.9	5.0	4.9	2.0	0.9	2.9	2.4	4.8	4.7	2.9
4224	Groceries	3.7	6.1	3.4	6.0	0.8	0.7	1.6	1.7	3.9	3.5	2.0
4225	Farm products	6.1	10.0	6.1	10.1	2.1	1.8	2.5	3.7	6.3	5.9	2.4
4226	Chemicals	5.2	7.1	5.3	7.1	1.0	0.8	1.7	1.8	5.2	5.0	2.0
4227	Petroleum	6.1	6.8	6.0	6.9	0.7	1.1	1.4	1.7	6.5	5.8	3.0
4228	Alcohol	4.1	5.3	4.1	5.3	1.0	0.7	1.1	1.1	3.8	4.0	2.4
4229	Misc. Nondur.	7.7	8.2	7.8	8.2	2.0	1.2	3.4	1.8	6.9	8.5	3.9

Note: Estimated measures of sampling variability are based on estimates unadjusted for seasonal variation or trading-day differences. Medians are computed using final monthly estimates for the latest 12 months. Additional information on confidentiality protection, sampling error, nonsampling error, sample design, and definitions may be found at www.census.gov/svsd/www/mwtsreliability.html.

Reliability of Estimates

There are two types of errors possible in an estimate based on a sample survey: sampling and nonsampling.

Sampling errors occur because observations are made on a sample, not on the entire population, and different samples could have led to different estimates. Standard errors and coefficients of variation, as calculated for this report, are measures of sampling variation. The margin of sampling error, as used on page 1, gives a range about the estimate which is a 90% confidence interval. If, for example, the percent change estimate is up 1.2% and the standard error is 0.9%, then the margin of sampling error is $\pm 1.65 \times 0.9\%$ or $\pm 1.5\%$, and the 90% confidence interval is -0.3% to $+2.7\%$. If the interval contains zero, then we do not have sufficient evidence to conclude the estimated change was statistically different from zero. For monthly totals, the coefficient of variation (CV) is given. The resulting confidence interval is the estimated value $\pm 1.65 \times CV \times$ (the estimated value).

Nonsampling errors can occur because of nonresponse, insufficient coverage of the universe of wholesale businesses, mistakes in the recording and coding of data, and response errors. Imputed data accounts for approximately 28% of the sales estimates and 31% of the inventories estimates. Additionally, estimates of sales and inventories prior to March 2001 have been restated from SIC-based estimates. The restatement methodology may have introduced additional nonsampling error. The calculated median standard errors of year-to-year change estimates may also be influenced by the methodology used to impute historical data for units in the NAICS sample. The effect of this historic imputation methodology on published estimates will decrease as more data from the NAICS sample is accumulated. Precautionary steps are taken to minimize nonsampling errors, but their magnitude is not directly measured.

Further information regarding the reliability of estimates can be found on the Internet on our web page at <http://www.census.gov/svsd/www/mwtsreliability.html>.

Table 3. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers

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

NAICS code	Kind of Business	Sales						Inventories					
		2003		2002		2002	2003		2002		2002		
		Feb.	Jan.r	Dec.r	Nov.	Oct.	Jan.r	Feb.	Jan.r	Dec.r	Nov.	Oct.	Jan.r
42	U.S. Total ¹	0.916	0.961	0.989	0.971	1.069	0.965	1.005	1.014	1.005	1.009	1.011	1.014
421	Durable	0.908	0.933	0.971	0.968	1.076	0.938	0.999	0.996	0.986	0.994	0.998	0.996
4211	Automotive	0.902	0.918	1.003	0.994	1.063	0.923	1.034	1.013	0.993	1.016	1.005	1.012
4212	Furniture	0.898	0.931	0.937	1.016	1.105	0.929	0.981	0.984	0.981	0.993	1.022	0.984
4213	Lumber	0.878	0.913	0.822	0.915	1.101	0.905	0.997	0.990	0.958	0.969	0.979	0.988
4214	Prof. equip.	0.892	0.941	1.057	0.947	1.052	0.942	0.990	1.004	0.989	1.009	1.017	1.004
42143	Comp. equip.	0.874	0.937	1.091	0.923	1.068	0.937	0.988	1.000	0.982	1.019	1.018	1.004
4215	Metals	0.935	0.990	0.892	0.937	1.082	0.998	0.996	0.999	1.017	0.990	0.995	1.000
4216	Electrical	0.916	0.945	0.968	0.987	1.101	0.949	0.990	0.997	0.987	1.001	1.005	0.999
4217	Hardware	0.921	0.944	0.889	0.952	1.089	0.948	1.000	0.996	0.985	0.977	0.984	0.993
4218	Machinery	0.907	0.936	0.995	0.929	1.057	0.940	0.993	0.980	0.980	0.976	0.983	0.979
4219	Misc. Durable	0.919	0.912	0.961	1.035	1.112	0.921	1.001	1.005	0.977	0.994	1.012	1.003
422	Nondurable	0.924	0.988	1.001	0.976	1.064	0.992	1.011	1.044	1.042	1.034	1.028	1.044
4221	Paper	0.919	1.000	0.971	0.967	1.085	1.004	0.989	0.998	1.015	1.011	1.001	0.999
4222	Drugs	0.933	1.042	1.045	0.984	1.061	1.047	0.991	1.066	1.058	1.006	1.022	1.064
4223	Apparel	1.017	0.922	0.778	0.959	1.142	0.953	0.999	1.033	0.992	0.962	1.002	1.034
4224	Groceries	0.902	0.966	1.006	0.990	1.040	0.966	0.974	0.999	1.016	1.036	1.040	0.998
4225	Farm products	0.975	1.098	1.122	1.053	1.147	1.123	1.140	1.221	1.220	1.222	1.127	1.227
4226	Chemicals	0.944	1.004	0.911	0.931	1.059	1.006	1.003	0.995	1.002	0.993	0.981	0.995
4227	Petroleum	0.938	1.045	0.992	0.968	1.051	1.023	1.001	1.005	1.030	1.021	1.005	1.002
4228	Alcohol	0.833	0.801	1.151	1.020	1.082	0.808	0.967	0.953	0.924	1.045	1.069	0.950
4229	Misc. Nondur.	0.931	0.961	0.982	0.923	1.011	0.963	1.052	1.041	1.050	1.023	1.004	1.047

r Revised.

¹Adjusted sales and inventory estimates for detailed kind-of business levels in Table 1 are computed by dividing each unadjusted estimate by the seasonal 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. Seasonal 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.

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