U.S. Census Bureau News

U.S. Department of Commerce • Washington, D.C. 20233

MONTHLY WHOLESALE TRADE: SALES AND INVENTORIES
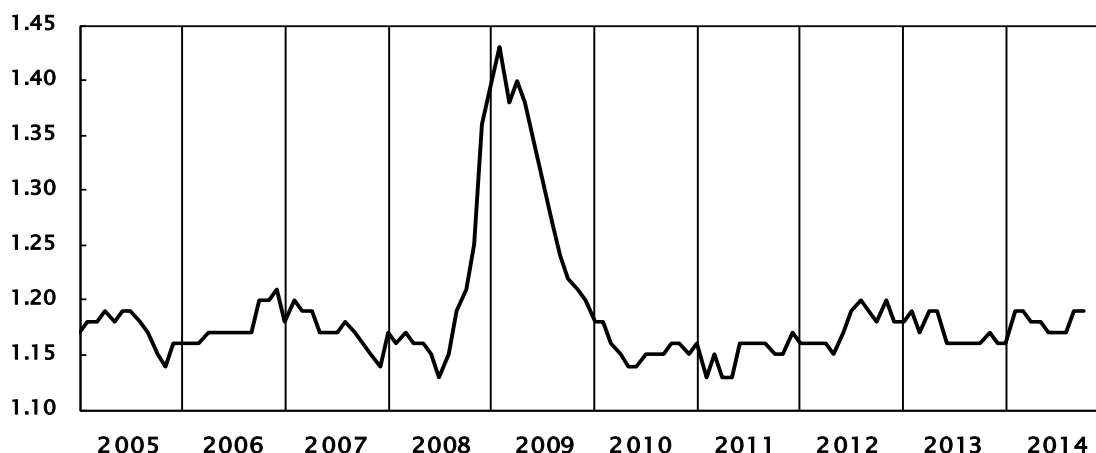### September 2014

Sales. The U.S. Census Bureau announced today that September 2014 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 $454.3 billion, up 0.2 percent (+/-0.9)* from the revised August level and were up 5.2 percent (+/-1.6%) from the September 2013 level. The August preliminary estimate was revised downward $0.4 billion or 0.1 percent. September sales of durable goods were up 0.5 percent (+/-0.9%)* from last month and were up 5.4 percent (+/-1.6%) from a year ago. Sales of hardware and plumbing and heating equipment and supplies were up 4.8 percent from last month and sales of lumber and other construction materials were up 1.8 percent. Sales of nondurable goods were down 0.1 percent (+/-1.4%)* from August, but were up 5.1 percent (+/-3.0%) from last September. Sales of paper and paper products were down 2.6 percent from last month, while sales of apparel, piece goods, and notions were up 4.0 percent.

Inventories. Total inventories of merchant wholesalers, except manufacturers' sales branches and offices, after adjustment for seasonal variations but not for price changes, were $538.8 billion at the end of September, up 0.3 percent (+/-0.4%)* from the revised August level and were up 7.4 percent (+/-0.9%) from the September 2013 level. The August preliminary estimate was revised downward $0.6 billion or 0.1 percent. September inventories of durable goods were up 0.8 percent (+/-0.4%) from last month and were up 9.0 percent (+/-1.4%) from a year ago. Inventories of computer and computer peripheral equipment and software were up 3.4 percent from last month and inventories of metals and minerals, except petroleum, were up 1.8 percent. Inventories of nondurable goods were were down 0.6% (+/-0.4%) from August, but were up 4.9 percent (+/-0.7%) from last September. Inventories of petroleum and petroleum products were down 5.3 percent from last month and inventories of farm product raw materials were down 3.0 percent.

Inventories/Sales Ratio. The Septmber inventories/sales ratio for merchant wholesalers, except manufacturers' sales branches and offices, based on seasonally adjusted data, was 1.19. The September 2013 ratio was 1.16.

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: <http://www.census.gov/wholesale/www/how_surveys_are_collected/monthly_methodology.html>.

Monthly Inventories/Sales Ratios of Merchant Wholesalers, Except Manufacturers' Sales Branches and Offices: 2005 to 2014
(Estimates adjusted for seasonal and trading-day differences, but not for price changes)

Monthly Wholesale Trade for October is scheduled to be released December 9, 2014 at 10:00 a.m. EST.

For customized wholesale time series estimates by industry visit the Census Bureau's website at <http://www.census.gov/timeseries>.

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.

The U.S. Census Bureau updated its Application Programming Interface (API) with monthly and quarterly economic indicators. The API allows developers to combine Census Bureau statistics with other data sets to create tools for research on a variety of topics. For more information, visit <http://www.census.gov/developers>.

For additional survey information visit <http://www.census.gov/wholesale>.

* 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.]

NAICS[1] code	Kind of Business	Sales						Inventories						Inventories/Sales Ratios		
		Monthly			Percent change			Monthly			Percent change					
		Sep. 2014 (p)	Aug. 2014 (r)	Sep. 2013 (r)	Sep./ Aug.	Aug./ Jul.	Sep. 14/ Sep. 13	Sep. 2014 (p)	Aug. 2014 (r)	Sep. 2013 (r)	Sep./ Aug.	Aug./ Jul.	Sep. 14/ Sep. 13	Sep. 2014 (p)	Aug. 2014 (r)	Sep. 2013 (r)
Adjusted[2]																
42	**U.S. Total**	454,298	453,506	431,815	0.2	−0.8	5.2	538,832	537,450	501,497	0.3	0.6	7.4	1.19	1.19	1.16
423	**.Durable**	211,796	210,767	200,988	0.5	0.0	5.4	336,036	333,359	308,172	0.8	0.8	9.0	1.59	1.58	1.53
4231	..Automotive	35,275	34,784	34,699	1.4	−1.4	1.7	55,909	55,245	49,304	1.2	0.8	13.4	1.58	1.59	1.42
4232	..Furniture	5,462	5,366	5,213	1.8	1.7	4.8	8,924	8,791	8,479	1.5	1.2	5.2	1.63	1.64	1.63
4233	..Lumber	10,602	10,415	9,766	1.8	−0.4	8.6	15,659	15,422	14,107	1.5	1.8	11.0	1.48	1.48	1.44
4234	..Prof. equip.	39,439	39,392	38,149	0.1	−0.8	3.4	42,916	42,208	39,408	1.7	2.3	8.9	1.09	1.07	1.03
42343	...Comp. equip.	22,254	22,282	21,677	−0.1	−1.9	2.7	19,411	18,767	17,476	3.4	5.0	11.1	0.87	0.84	0.81
4235	..Metals	15,131	14,973	12,796	1.1	1.7	18.2	29,579	29,066	26,407	1.8	0.4	12.0	1.95	1.94	2.06
4236	..Electrical	36,370	36,246	35,625	0.3	0.3	2.1	37,539	37,799	35,596	−0.7	−0.9	5.5	1.03	1.04	1.00
4237	..Hardware	10,671	10,181	9,700	4.8	2.3	10.0	20,147	20,025	18,544	0.6	−0.1	8.6	1.89	1.97	1.91
4238	..Machinery	40,055	40,333	36,170	−0.7	1.3	10.7	97,785	97,292	88,522	0.5	0.7	10.5	2.44	2.41	2.45
4239	..Misc. Durable	18,791	19,077	18,870	−1.5	−1.5	−0.4	27,578	27,511	27,805	0.2	−0.7	−0.8	1.47	1.44	1.47
424	**.Nondurable**	242,502	242,739	230,827	−0.1	−1.4	5.1	202,796	204,091	193,325	−0.6	0.2	4.9	0.84	0.84	0.84
4241	..Paper[3]	7,849	8,061	7,542	−2.6	−3.9	4.1	7,348	7,360	7,037	−0.2	−1.9	4.4	0.94	0.91	0.93
4242	..Drugs	42,161	41,663	36,395	1.2	1.3	15.8	44,476	45,549	37,617	−2.4	0.8	18.2	1.05	1.09	1.03
4243	..Apparel	13,697	13,167	11,887	4.0	4.5	15.2	25,919	25,604	23,311	1.2	0.8	11.2	1.89	1.94	1.96
4244	..Groceries	53,376	52,847	49,950	1.0	−0.8	6.9	34,245	33,643	33,470	1.8	−0.1	2.3	0.64	0.64	0.67
4245	..Farm products	18,590	19,754	20,524	−5.9	−4.2	−9.4	18,161	18,715	18,433	−3.0	−0.6	−1.5	0.98	0.95	0.90
4246	..Chemicals[3]	10,838	11,080	10,512	−2.2	1.3	3.1	12,598	12,304	12,078	2.4	−2.8	4.3	1.16	1.11	1.15
4247	..Petroleum	63,930	65,031	63,101	−1.7	−4.4	1.3	19,560	20,648	22,524	−5.3	−0.2	−13.2	0.31	0.32	0.36
4248	..Alcohol	10,911	10,775	10,630	1.3	1.6	2.6	14,973	14,803	14,396	1.1	0.1	4.0	1.37	1.37	1.35
4249	..Misc. Nondur.	21,150	20,361	20,286	3.9	−1.8	4.3	25,516	25,465	24,459	0.2	1.5	4.3	1.21	1.25	1.21

NAICS[1] code	Kind of Business	Sales						Inventories						Sales to date	
		Sep. 2014 (p)	Aug. 2014 (r)	Sep. 2013 (r)	Sep./ Aug.	Aug./ Jul.	Sep. 14/ Sep. 13	Sep. 2014 (p)	Aug. 2014 (r)	Sep. 2013 (r)	Sep./ Aug.	Aug./ Jul.	Sep. 14/ Sep. 13	2014	2013
Not Adjusted															
42	**U.S. Total**	460,367	449,041	422,868	2.5	−3.3	8.9	535,174	528,931	498,249	1.2	−0.1	7.4	4,028,841	3,803,346
423	**.Durable**	221,332	210,406	202,537	5.2	−1.3	9.3	336,948	332,886	309,227	1.2	−0.1	9.0	1,851,045	1,752,701
4231	..Automotive	34,711	35,236	33,207	−1.5	0.4	4.5	54,623	52,759	48,269	3.5	−3.4	13.2	305,822	291,693
4232	..Furniture	5,850	5,489	5,380	6.6	0.5	8.7	9,254	9,064	8,776	2.1	2.1	5.4	47,283	45,265
4233	..Lumber	11,302	11,259	10,059	0.4	−4.3	12.4	15,236	15,376	13,726	−0.9	−0.7	11.0	93,902	88,774
4234	..Prof. equip.	42,634	37,580	39,751	13.4	−6.7	7.3	43,302	42,503	39,723	1.9	2.5	9.0	346,635	332,405
42343	...Comp. equip.	24,034	20,834	22,566	15.4	−11.7	6.5	19,644	18,767	17,703	4.7	2.7	11.0	195,775	188,475
4235	..Metals	15,494	15,168	12,553	2.1	−1.6	23.4	29,638	29,153	26,486	1.7	−0.5	11.9	128,027	115,751
4236	..Electrical	38,952	35,847	36,908	8.7	−1.2	5.5	38,703	38,820	36,699	−0.3	2.5	5.5	319,046	307,267
4237	..Hardware	11,098	10,548	9,661	5.2	−2.8	14.9	20,167	20,205	18,581	−0.2	−0.6	8.5	91,729	88,018
4238	..Machinery	41,297	40,736	35,808	1.4	3.3	15.3	97,785	97,000	88,522	0.8	−0.4	10.5	352,025	314,128
4239	..Misc. Durable	19,994	18,543	19,210	7.8	−0.4	4.1	28,240	28,006	28,445	0.8	0.1	−0.7	166,576	169,400
424	**.Nondurable**	239,035	238,635	220,331	0.2	−5.0	8.5	198,226	196,045	189,022	1.1	−0.2	4.9	2,177,796	2,050,645
4241	..Paper	8,257	8,246	7,685	0.1	−2.8	7.4	7,348	7,360	7,037	−0.2	−1.9	4.4	71,620	67,064
4242	..Drugs	42,962	40,246	35,631	6.7	−4.1	20.6	44,520	46,004	37,805	−3.2	1.1	17.8	360,927	323,238
4243	..Apparel	15,039	14,233	12,481	5.7	5.1	20.5	27,526	27,217	24,803	1.1	1.7	11.0	114,188	104,567
4244	..Groceries	53,590	52,900	48,851	1.3	−3.4	9.7	34,587	33,105	33,771	4.5	−0.3	2.4	469,168	438,884
4245	..Farm products	16,564	16,712	17,589	−0.9	−12.1	−5.8	14,057	12,595	14,617	11.6	−1.3	−3.8	178,305	181,756
4246	..Chemicals	10,925	11,291	10,197	−3.2	−1.1	7.1	12,598	12,304	12,078	2.4	−2.8	4.3	100,289	94,162
4247	..Petroleum	61,629	66,071	59,630	−6.7	−5.6	3.4	18,934	20,152	21,803	−6.0	−3.7	−13.2	598,140	552,775
4248	..Alcohol	10,780	10,937	10,152	−1.4	0.1	6.2	15,003	14,670	14,410	2.3	−2.4	4.1	94,255	92,313
4249	..Misc. Nondur.	19,289	17,999	18,115	7.2	−14.3	6.5	23,653	22,638	22,698	4.5	2.6	4.2	190,904	195,886

Footnotes:

[p] Preliminary estimate.

[r] Revised estimate.

[1] For a full description of the NAICS codes used in this table, see the 2007 NAICS manual or http://www.census.gov/eos/www/naics.

[2] 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.

[3] 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.

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/wholesale/www/how_surveys_are_collected/monthly_methodology.html.

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	Coefficient of variation for monthly total				Standard error for monthly total				Coefficient of variation for total		Standard error for percent change
		Preliminary estimates		Final estimates		Ratio of two consecutive months		Current month to current month last year		Sales to date		Current year sales to date to previous year sales to date
		Sales	Inv.	Sales	Inv.	Sales	Inv.	Sales	Inv.	Current year	Previous year	
42	U.S. Total	0.9	1.6	1.1	1.6	0.5	0.2	0.9	0.5	1.1	0.9	0.9
423	.Durable	1.3	1.9	1.3	1.8	0.5	0.2	0.9	0.8	1.1	1.1	0.5
4231	..Automotive	2.3	4.0	2.1	4.0	0.5	0.5	1.4	1.8	2.4	2.1	1.1
4232	..Furniture	6.2	6.0	5.5	5.6	2.3	0.9	4.7	3.0	5.2	4.3	2.2
4233	..Lumber	4.5	5.2	4.7	5.3	0.7	0.2	1.8	1.4	4.3	3.9	1.2
4234	..Prof. equip.	4.2	4.5	3.4	4.4	1.6	0.8	2.1	2.2	3.4	2.5	1.7
42343	...Comp. equip.	4.4	5.0	3.6	5.0	2.1	0.4	2.5	2.6	3.5	2.0	2.2
4235	..Metals	6.5	7.4	6.1	8.0	1.1	0.7	2.9	1.7	5.6	4.6	1.9
4236	..Electrical	2.1	3.3	2.0	3.3	0.7	0.5	2.2	1.7	1.6	2.5	1.9
4237	..Hardware	2.5	4.7	2.3	4.7	1.5	0.3	1.9	1.2	2.2	2.1	1.2
4238	..Machinery	3.2	3.6	3.2	3.5	1.0	0.6	3.1	1.8	2.9	3.2	1.9
4239	..Misc. Durable	3.7	5.9	4.3	6.0	1.8	0.6	1.4	2.0	3.9	3.9	1.4
424	.Nondurable	2.0	2.0	2.2	2.1	0.8	0.2	1.7	0.4	2.1	1.6	1.6
4241	..Paper	4.1	6.3	4.2	6.3	0.7	0.4	2.1	3.0	4.2	3.2	1.9
4242	..Drugs	2.8	5.9	2.8	5.9	0.3	0.2	1.0	1.3	3.0	2.8	0.9
4243	..Apparel	7.6	6.1	6.1	6.0	2.1	1.0	2.9	2.5	5.4	5.3	3.4
4244	..Groceries	4.1	7.0	3.8	7.1	1.7	0.8	1.8	3.0	3.9	3.4	1.7
4245	..Farm products	3.8	4.6	6.6	4.7	4.9	1.5	4.8	3.0	2.2	2.2	1.0
4246	..Chemicals	4.3	5.3	4.5	5.4	1.4	1.3	2.5	2.3	4.3	4.4	1.7
4247	..Petroleum	6.0	4.2	6.1	4.0	0.4	0.3	5.5	1.6	5.9	3.3	5.6
4248	..Alcohol	4.2	4.6	4.2	4.6	1.1	0.5	2.5	1.5	3.8	3.6	1.2
4249	..Misc. Nondur.	3.8	5.5	4.3	5.7	3.3	0.8	4.0	1.4	4.2	4.0	1.1

Note:
  Estimated measures of sampling variability are based on estimates not adjusted for seasonal variation, trading–day differences, or moving holidays. 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/monthly_methodology.html.

Reliability of the Estimates

Because the estimates presented in this report are based on a sample survey, they 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 can be used to construct a 90–percent confidence interval. If, for example, the percent change estimate is +1.2 percent and its estimated standard error is 0.8 percent, then the margin of sampling error is ±1.753 x 0.8 percent or ±1.4 percent, and the 90 percent confidence interval is 1.2 +/–1.4 or –0.2 percent to 2.6 percent. If the interval contains 0, then one does not have sufficient statistical evidence to conclude at the 90 percent confidence level that the actual change is different from zero. Estimated changes shown in the text are statistically significant unless otherwise noted. For a monthly total, the estimated coefficient of variation is given. The resulting confidence interval is the estimated monthly total $\pm$ 1.753 $\times$ CV $\times$ (the estimated monthly total). 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[1] Adjustment Factors for Monthly Wholesale Sales and Inventory Estimates

[Combined adjustment factors are computed using the Census Bureau's X-13 ARIMA-SEATS program and are based on data from the Monthly Wholesale Trade Survey.]

NAICS code	Kind of Business	Sales						Inventories					
		2014					2013	2014					2013
		Oct.	Sep.r	Aug.r	Jul.	Jun.	Sep.r	Oct.	Sep.r	Aug.r	Jul.	Jun.	Sep.r
42	U.S. Total[2]	1.059	1.012	0.987	1.014	1.014	0.981	1.010	0.991	0.982	0.988	0.985	0.991
423	.Durable	1.078	1.046	0.997	1.013	1.031	1.010	1.009	1.004	1.001	1.008	1.001	1.004
4231	..Automotive	1.063	0.984	1.013	0.995	1.015	0.957	1.017	0.977	0.955	0.996	0.991	0.979
4232	..Furniture	1.122	1.071	1.023	1.035	1.008	1.032	1.023	1.037	1.031	1.022	0.997	1.035
4233	..Lumber	1.114	1.066	1.081	1.125	1.113	1.030	0.942	0.973	0.997	1.022	1.037	0.973
4234	..Prof. equip.	1.072	1.081	0.954	1.014	1.064	1.042	1.024	1.009	1.007	1.005	0.999	1.008
42343	...Comp. equip.	1.094	1.080	0.935	1.039	1.088	1.041	1.043	1.012	1.000	1.023	1.013	1.013
4235	..Metals	1.061	1.024	1.013	1.047	1.019	0.981	0.987	1.002	1.003	1.012	1.006	1.003
4236	..Electrical	1.109	1.071	0.989	1.004	1.016	1.036	1.029	1.031	1.027	1.011	0.995	1.031
4237	..Hardware	1.065	1.040	1.036	1.090	1.096	0.996	0.989	1.001	1.009	1.014	1.013	1.002
4238	..Machinery	1.047	1.031	1.010	0.991	1.032	0.990	1.000	1.000	0.997	1.008	1.002	1.000
4239	..Misc. Durable	1.106	1.064	0.972	0.961	0.965	1.018	1.033	1.024	1.018	1.010	0.989	1.023
424	.Nondurable	1.041	0.981	0.977	1.016	0.998	0.956	1.013	0.968	0.952	0.955	0.960	0.969
4241	..Paper[3]	1.090	1.052	1.023	1.012	0.994	1.019	1.000	1.000	1.000	1.000	1.000	1.000
4242	..Drugs	1.069	1.019	0.966	1.021	0.979	0.979	1.010	1.001	1.010	1.007	0.988	1.005
4243	..Apparel	1.162	1.098	1.081	1.075	0.954	1.050	1.004	1.062	1.063	1.054	1.014	1.064
4244	..Groceries	1.021	1.004	1.001	1.028	1.000	0.978	1.032	1.010	0.984	0.986	0.988	1.009
4245	..Farm products	1.123	0.891	0.846	0.923	0.902	0.857	1.123	0.774	0.673	0.678	0.757	0.793
4246	..Chemicals[3]	1.029	1.008	1.019	1.044	1.022	0.970	1.000	1.000	1.000	1.000	1.000	1.000
4247	..Petroleum	1.002	0.964	1.016	1.029	0.989	0.945	0.955	0.968	0.976	1.011	1.017	0.968
4248	..Alcohol	1.064	0.988	1.015	1.030	1.088	0.955	1.031	1.002	0.991	1.017	1.013	1.001
4249	..Misc. Nondur.	0.996	0.912	0.884	1.013	1.135	0.893	0.945	0.927	0.889	0.880	0.912	0.928

Footnotes:

r Revised factors.

[1] 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.

[2] 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.

[3] 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.

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-13 ARIMA-SEATS program may be found at http://www.census.gov/srd/www/x13as/.

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 4,200. Approximately 70% 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 30% of the total sales estimate and 31% 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.