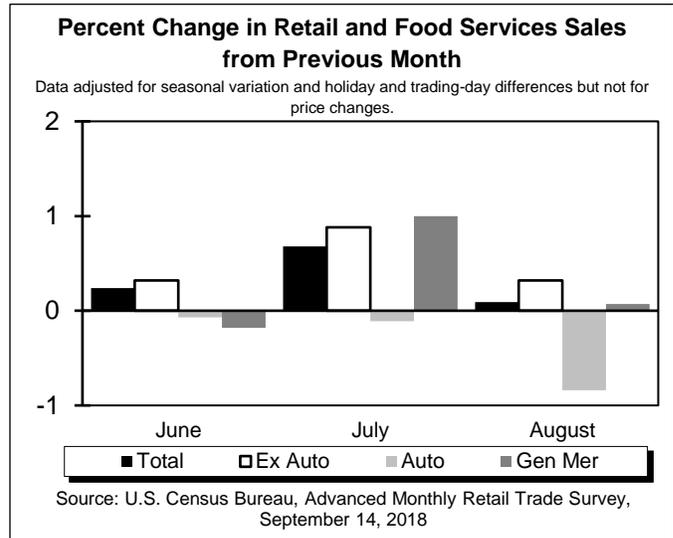# ADVANCE MONTHLY SALES FOR RETAIL AND FOOD SERVICES, AUGUST 2018

Release Number: CB18-140

September 14, 2018 — The U.S. Census Bureau announced the following advance estimates of U.S. retail and food services sales for August 2018:

<table>
<tr><td colspan="3">ADVANCE MONTHLY SALES</td></tr>
<tr><td>August 2018</td><td>$509.0 billion</td><td>0.1%*</td></tr>
<tr><td>July 2018
(revised)</td><td>$508.6 billion</td><td>0.7%</td></tr>
<tr><td colspan="3">Next release: October 15, 2018</td></tr>
</table>

* The 90 percent confidence interval includes zero. There is insufficient statistical evidence to conclude that the actual change is different from zero.
Data adjusted for seasonal variation and holiday and trading-day differences but not for price changes. Source: U.S. Census Bureau, Advanced Monthly Retail Trade Survey, September 14, 2018.

Percent Change in Retail and Food Services Sales from Previous Month

Data adjusted for seasonal variation and holiday and trading-day differences but not for price changes.

Source: U.S. Census Bureau, Advanced Monthly Retail Trade Survey, September 14, 2018

Advance Estimates of U.S. Retail and Food Services

Advance estimates of U.S. retail and food services sales for August 2018, adjusted for seasonal variation and holiday and trading-day differences, but not for price changes, were $509.0 billion, an increase of 0.1 percent (±0.4 percent)* from the previous month, and 6.6 percent (±0.5 percent) above August 2017. Total sales for the June 2018 through August 2018 period were up 6.5 percent (±0.5 percent) from the same period a year ago. The June 2018 to July 2018 percent change was revised from up 0.5 percent (±0.4 percent) to up 0.7 percent (±0.2 percent).

Retail trade sales were up 0.1 percent (±0.5 percent)* from July 2018, and 6.2 percent (±0.5 percent) above last year. Gasoline Stations were up 20.3 percent (±1.6 percent) from August 2017, while Nonstore Retailers were up 10.4 percent (±1.4 percent) from last year.

General Information

The September 2018 Advance Monthly Retail report is scheduled for release on October 15, 2018 at 8:30 a.m. EDT. View the full schedule in the Economic Briefing Room: <www.census.gov/economic-indicators/>. The full text and tables of this release can be found at <www.census.gov/retail/>.

EXPLANATORY NOTES

The advance estimates are based on a subsample of the Census Bureau's full retail and food services sample. A stratified random sampling method is used to select approximately 5,500 retail and food services

firms whose sales are then weighted and benchmarked to represent the complete universe of over three million retail and food services firms.

Survey Description

The U.S. Census Bureau conducts the Advance Monthly Retail Trade and Food Services Survey to provide an early estimate of monthly sales by kind of business for retail and food service firms located in the United States. Each month, questionnaires are mailed to a probability sample of approximately 5,500 employer firms selected from the larger Monthly Retail Trade Survey. Advance sales estimates are computed using a link relative estimator. For each detailed industry, we compute a ratio of current-to-previous month weighted sales using data from units for which we have obtained usable responses for both the current and previous month. For each detailed industry, the advance total sales estimates for the current month is computed by multiplying this ratio by the preliminary sales estimate for the previous month (derived from the larger MRTS) at the appropriate industry level. Total estimates for broader industries are computed as the sum of the detailed industry estimates. The link relative estimate is used because imputation is not performed for most nonrespondents in MARTS. For a limited number of nonresponding companies that have influential effects on the estimates, sales may be estimated based on historical performance of that company. The monthly estimates are benchmarked to the annual survey estimates from the Annual Retail Trade Survey once available. The estimates are adjusted for seasonal variation and holiday and trading day differences. Additional information on MARTS and MRTS can be found on the Census Bureau website at: <www.census.gov/retail>.

Reliability of 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 3 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 +1.2 percent and its estimated standard error is 0.9 percent, then the margin of sampling error is ±1.753 x 0.9 percent or ±1.6 percent, and the 90 percent confidence interval is –0.4 percent to +2.8 percent. If the interval contains 0, then one does not have sufficient 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 is given. The resulting confidence interval is the estimated value ±1.753 x CV x (the estimated monthly total).

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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 retail businesses, mistakes in the recording and coding of data, 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.

RESOURCES

API
The Census Bureau's application programming interface lets developers create custom apps to reach new users and makes key demographic, socio-economic and housing statistics more accessible than ever before. <www.census.gov/developers/>

FRED Mobile App

Receive the latest updates on the nation's key economic indicators by downloading the FRED App <https://fred.stlouisfed.org/fred-mobile/> for both Apple and Android devices. FRED, the signature database of the Federal Reserve Bank of St. Louis, now incorporates the Census Bureau's 13 economic indicators.

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* The 90 percent confidence interval includes zero. There is insufficient statistical evidence to conclude that the actual change is different from zero.

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Table 1. Estimated Monthly Sales for Retail and Food Services, by Kind of Business

(Total sales estimates are shown in millions of dollars and are based on data from the Advance Monthly Retail Trade Survey, Monthly Retail Trade Survey, and administrative records.)

NAICS[1] code	Kind of Business	Not Adjusted						Adjusted[2]				
		8 Month Total		2018			2017		2018			2017	
		2018	% Chg. 2017	Aug.[3] (a)	Jul. (p)	Jun. (r)	Aug.	Jul.	Aug.[3] (a)	Jul. (p)	Jun. (r)	Aug. (r)	Jul. (r)
	Retail & food services, total	3,954,923	5.7	525,743	508,986	511,348	492,031	476,983	509,025	508,585	505,168	477,345	476,685
	Total (excl. motor vehicle & parts) ...	3,128,043	6.3	415,816	403,241	404,367	386,372	373,897	407,332	406,027	402,499	379,541	377,133
	Total (excl. gasoline stations)	3,610,846	4.9	477,851	462,353	465,202	452,214	438,586	464,639	464,921	461,838	440,443	440,934
	Total (excl. motor vehicle & parts & gasoline stations)	2,783,966	5.2	367,924	356,608	358,221	346,555	335,500	362,946	362,363	359,169	342,639	341,382
	Retail	3,476,008	5.7	462,213	446,518	448,905	434,961	419,913	447,105	446,797	444,367	421,118	420,569
	GAFO[4]	(*)	(*)	(*)	106,506	107,323	109,093	102,832	(*)	111,181	110,162	106,777	106,433
441	**Motor vehicle & parts dealers**	826,880	3.7	109,927	105,745	106,981	105,659	103,086	101,693	102,558	102,669	97,804	99,552
4411, 4412	Auto & other motor veh. dealers .	766,245	3.9	101,933	97,946	99,156	97,717	95,489	94,208	95,001	95,159	90,395	92,082
44111	New car dealers	(*)	(*)	(*)	80,586	80,576	80,710	78,070	(NA)	(NA)	(NA)	(NA)	(NA)
4413	Auto parts, acc. & tire stores......	(*)	(*)	(*)	7,799	7,825	7,942	7,597	(*)	7,557	7,510	7,409	7,470
442	**Furniture & home furn. stores**	78,798	5.0	10,650	10,047	10,103	10,246	9,588	10,172	10,200	10,195	9,824	9,774
4421	Furniture stores	(*)	(*)	(*)	5,483	5,604	5,227	5,090	(NA)	(NA)	(NA)	(NA)	(NA)
4422	Home furnishings stores	(*)	(*)	(*)	4,564	4,499	5,019	4,498	(NA)	(NA)	(NA)	(NA)	(NA)
443	**Electronics & appliance stores**	61,217	2.7	8,149	7,693	7,821	7,826	7,400	8,332	8,299	8,329	8,018	7,974
444	**Building material & garden eq. & supplies dealers**	262,563	3.9	33,670	34,461	36,585	32,826	32,515	32,525	32,534	32,491	31,489	31,431
4441	Building mat. & sup. dealers	(*)	(*)	(*)	30,803	31,771	28,987	28,329	(*)	28,601	28,571	27,141	27,006
445	**Food & beverage stores**...............	489,869	4.1	63,365	62,869	62,154	60,384	60,593	62,333	62,303	61,810	59,781	59,504
4451	Grocery stores	437,755	4.0	56,372	55,925	55,249	53,769	53,859	55,484	55,481	55,029	53,184	52,959
4453	Beer, wine & liquor stores	(*)	(*)	(*)	4,976	4,939	4,647	4,798	(*)	4,808	4,781	4,583	4,574
446	**Health & personal care stores**	227,821	4.4	29,988	28,560	28,845	28,457	26,789	29,429	29,292	29,195	28,064	27,789
44611	Pharmacies & drug stores	(*)	(*)	(*)	23,872	23,779	23,519	22,286	(*)	24,285	24,141	23,332	22,952
447	**Gasoline stations**	344,077	15.6	47,892	46,633	46,146	39,817	38,397	44,386	43,664	43,330	36,902	35,751
448	**Clothing & clothing accessories stores**	171,309	5.7	24,247	22,293	21,887	22,832	20,786	23,191	23,589	23,080	21,808	21,770
44811	Men's clothing stores	(*)	(*)	(*)	717	830	688	654	(*)	821	815	720	737
44812	Women's clothing stores	(*)	(*)	(*)	3,181	3,326	3,214	3,099	(*)	3,446	3,418	3,240	3,354
44814	Family clothing stores	(*)	(*)	(*)	9,270	8,808	9,184	8,766	(NA)	(NA)	(NA)	(NA)	(NA)
4482	Shoe stores	(*)	(*)	(*)	3,158	2,848	3,870	2,926	(*)	3,180	3,072	3,012	2,926
451	**Sporting goods, hobby, musical instrument, & book stores**	50,686	-2.2	7,245	6,095	6,552	7,549	6,442	6,635	6,625	6,734	6,907	6,957
452	**General merchandise stores**.........	453,275	3.7	60,548	57,876	58,658	57,871	56,280	60,032	59,990	59,395	57,891	57,589
4521	Department stores	90,587	-0.2	12,534	11,390	11,610	12,455	11,536	12,460	12,581	12,412	12,550	12,523
4529	Other general merch. stores..... ..	(*)	(*)	(*)	46,486	47,048	45,416	44,744	(*)	47,409	46,983	45,341	45,066
45291	Warehouse clubs & supercenters.....................	(*)	(*)	(*)	39,810	40,213	38,943	38,376	(*)	40,498	40,093	38,749	38,453
45299	All oth. gen. merch. stores......	(*)	(*)	(*)	6,676	6,835	6,473	6,368	(*)	6,911	6,890	6,592	6,613
453	**Miscellaneous store retailers**	85,754	4.9	11,416	10,682	11,316	11,056	10,517	10,877	10,632	10,882	10,529	10,577
454	**Nonstore retailers**	423,759	10.1	55,116	53,564	51,857	50,438	47,520	57,500	57,111	56,257	52,101	51,901
4541	Elect. shopping & m/o houses	(*)	(*)	(*)	47,912	46,201	44,818	42,449	(*)	50,275	49,678	45,920	45,841
722	**Food services & drinking places** ...	478,915	6.2	63,530	62,468	62,443	57,070	57,070	61,920	61,788	60,801	56,227	56,116

(*) Advance estimates are not available for this kind of business. (NA) Not available (a) Advance estimate (p) Preliminary estimate (r) Revised estimate

(S) Estimate does not meet publication standards because of high sampling variability (coefficient of variation is greater than 30%), poor response quality (total quantity response rate is less than 50%), or other concerns about the estimate's quality.

(1) For a full description of the NAICS codes used in this table, see http://www.census.gov/eos/www/naics

(2) Estimates are concurrently adjusted for seasonal variation and for holiday and trading day differences, but not for price changes. Concurrent seasonal adjustment uses all available unadjusted estimates as input to the X-13ARIMA-SEATS program. The factors derived from the program are used in calculating all seasonally adjusted estimates shown in this table. Year-to-date seasonally adjusted sales estimates are not tabulated. Adjustment factors and explanatory material can be found on the Internet at http://www.census.gov/retail

(3) Advance estimates are based on early reports obtained from a small sample of firms selected from the larger Monthly Retail Trade Survey (MRTS) sample. All other estimates are from the MRTS sample.

(4) GAFO represents firms which specialize in department store types of merchandise and is comprised of furniture & home furnishings (442), electronics & appliances (443), clothing & accessories (448), sporting goods, hobby, musical instrument, and book (451), general merchandise (452), office supply, stationery, and gift stores (4532).

Source: U.S. Census Bureau, Advance Monthly Retail Trade Survey,September 14, 2018. Table 3 provides estimated measures of sampling variability. Additional information on confidentiality protection, sampling error, nonsampling error, sample design, and definitions may be found at <www.census.gov/retail/how_surveys_are_collected.html>.

Table 2. Estimated Change in Monthly Sales for Retail and Food Services, by Kind of Business

(Estimates are shown as percents and are based on data from the Advance Monthly Retail Trade Survey, Monthly Retail Trade Survey, and administrative records.)

NAICS code	Kind of Business	Percent Change[1]					
		Aug. 2018 Advance from --		Jul. 2018 Preliminary from --		Jun. 2018 through Aug. 2018 from --	
		Jul. 2018 (p)	Aug. 2017 (r)	Jun. 2018 (r)	Jul. 2017 (r)	Mar. 2018 through May 2018	Jun. 2017 through Aug. 2017
	Retail & food services, total	0.1	6.6	0.7	6.7	1.7	6.5
	Total (excl. motor vehicle & parts)	0.3	7.3	0.9	7.7	2.1	7.3
	Total (excl. gasoline stations)	-0.1	5.5	0.7	5.4	1.5	5.3
	Total (excl. motor vehicle & parts & gasoline stations)	0.2	5.9	0.9	6.1	1.9	5.9
	Retail	0.1	6.2	0.5	6.2	1.3	6.1
441	**Motor vehicle & parts dealers**	-0.8	4.0	-0.1	3.0	0.0	3.4
4411, 4412	Auto & other motor veh. dealers ..	-0.8	4.2	-0.2	3.2	0.0	3.5
442	**Furniture & home furn. stores**	-0.3	3.5	0.0	4.4	-0.1	4.0
443	**Electronics & appliance stores**	0.4	3.9	-0.4	4.1	1.1	3.8
444	**Building material & garden eq. & supplies dealers**	0.0	3.3	0.1	3.5	1.3	3.7
445	**Food & beverage stores**	0.0	4.3	0.8	4.7	0.7	4.3
4451	Grocery stores	0.0	4.3	0.8	4.8	0.7	4.3
446	**Health & personal care stores**	0.5	4.9	0.3	5.4	2.5	5.1
447	**Gasoline stations**	1.7	20.3	0.8	22.1	3.7	20.9
448	**Clothing & clothing accessories stores**	-1.7	6.3	2.2	8.4	2.2	6.8
451	**Sporting goods, hobby, musical instrument, & book stores**	0.2	-3.9	-1.6	-4.8	-4.0	-4.0
452	**General merchandise stores**	0.1	3.7	1.0	4.2	1.3	3.6
4521	Department stores	-1.0	-0.7	1.4	0.5	-0.4	-0.3
453	**Miscellaneous store retailers**	2.3	3.3	-2.3	0.5	-1.1	3.1
454	**Nonstore retailers**	0.7	10.4	1.5	10.0	2.7	9.9
722	**Food services & drinking places**	0.2	10.1	1.6	10.1	4.6	9.5

(p) Preliminary estimate   (r) Revised estimate

(1) Estimates shown in this table are derived from adjusted estimates provided in Table 1 of this report.

Source: U.S. Census Bureau, Advance Monthly Retail Trade Survey, September 14, 2018. Table 3 provides estimated measures of sampling variability. Additional information on confidentiality protection, sampling error, nonsampling error, sample design, and definitions may be found at <www.census.gov/retail/how_surveys_are_collected.html>.

Table 3. Estimated Measures of Sampling Variability and Revision to Advance Estimates Aug. 2018

(Estimates are shown as percents and are based on data from the Advance Monthly Retail Trade Survey and Monthly Retail Trade Survey)

NAICS Code	Kind of Business	Median CV [1] for Current Mo. (%)	Median standard error [1] for Percent change			Revision for month-to-month change [2]	
			Previous Mo. to Current Mo.	Previous Qtr. to Current Qtr.	Current Mo. to same Mo. Last Yr.	Average revision	Median absolute revision
	Retail & food services, total ……………..…………………	0.7	0.2	0.2	0.3	0.1	0.2
	Total (excl. motor vehicle & parts) ..	0.8	0.2	0.2	0.4	0.1	0.2
	Total (excl. gasoline stations) ……….	0.6	0.3	0.2	0.4	0.1	0.2
	Total (excl. motor vehicle & parts & gasoline stations) ……………………	0.7	0.2	0.2	0.4	0.2	0.2
	Retail, total …..………………………	0.5	0.3	0.1	0.3	0.1	0.2
441	Motor vehicle & parts dealers ……..	1.1	1.0	0.5	0.9	0.0	0.4
4411, 4412	Auto & other motor veh. dealers .	1.1	1.0	0.5	1.0	0.0	0.4
442	Furniture & home furn. stores…….	2.1	0.9	0.7	1.3	0.3	0.7
443	Electronics & appliance stores …..	1.8	0.6	0.7	1.3	0.3	0.6
444	Building material & garden eq. &…. supplies dealers……………………	1.8	0.9	0.8	1.3	0.0	0.7
445	Food & beverage stores……………	0.8	0.2	0.3	0.4	0.1	0.2
4451	Grocery stores ……………………	0.7	0.2	0.3	0.5	0.1	0.2
446	Health & personal care stores ……	1.6	0.4	0.5	1.3	0.0	0.7
447	Gasoline stations ……………………	1.8	0.5	0.6	0.9	0.4	0.5
448	Clothing & clothing accessories stores …………………………………..	1.4	0.6	0.5	0.8	0.2	0.4
451	Sporting goods, hobby, musical instrument, & book stores ………..	3.2	0.7	1.1	1.3	0.6	0.6
452	General merchandise stores……….	0.6	0.1	0.1	0.1	0.0	0.1
4521	Department stores ………………	0.0	0.0	0.0	0.0	0.0	0.1
453	Miscellaneous store retailers ……..	3.4	2.3	1.4	2.4	-0.1	1.7
454	Nonstore retailers …………………	1.2	0.5	0.3	0.8	0.1	0.6
722	Food services & drinking places ..	3.2	0.8	0.8	1.4	0.2	0.4

(1) Estimated measures of sampling variability are based on estimates not adjusted for seasonal variation or holiday or trading day variation. Medians are based on estimates for the period January 2018 - present. For measures of sampling variability where there are not enough months collected on the new sample basis to calculate medians, the last available medians from the prior sample are provided.

(2) These columns provide measures of the difference between the advance-to-preliminary and preliminary-to-final estimates of month-to-month change for the same pair of months as measured by the Advance sample and MRTS sample. The average and median revisions are based on estimates for the most recent 12 months with exception to the following: Total (excl. gasoline stations), Total (excl. motor vehicles & parts & gasoline stations), Electronics & appliance stores, and Sporting goods, hobby, musical instrument, & book stores which are based on estimates from April 2018 to present until we have 12 months of revisions.

Source: U.S. Census Bureau, Advance Monthly Retail Trade Survey, September 14, 2018. Additional information on confidentiality protection, sampling error, nonsampling error, sample design, and definitions may be found at <www.census.gov/retail/how_surveys_are_collected.html>.