

**Table C12. Sum of major fuel consumption totals and gross energy intensities by building activity subcategories, 2018**

	Sum of major fuel consumption						Distribution of building-level intensities (thousand Btu/square foot)		
	All buildings			Total (trillion British thermal units [Btu])	Per building (million Btu)	Per square foot (thousand Btu)	25th percentile	Median	75th percentile
	Number of buildings (thousand)	Total floorspace (million square feet)	Floorspace per building (thousand square feet)						
<b>All buildings</b>	5,918	96,423	16.3	6,787	1,147	70.4	22.6	45.0	80.6
<b>Principal building activity (expanded)</b>									
Education	437	13,623	31.1	854	1,952	62.7	31.1	48.6	74.4
College or university	60	1,827	30.6	157	2,625	85.8	32.7	48.6	78.4
K–12	264	10,619	40.3	632	2,395	59.5	31.9	48.6	69.5
Elementary school	133	3,626	27.3	194	1,459	53.5	29.5	45.2	59.8
Middle/junior high school	26	1,832	69.5	113	4,289	61.7	51.3	67.9	77.5
High school	69	3,510	51.1	231	3,366	65.8	31.6	52.2	75.0
Multi-grade school (any K–12)	36	1,651	46.0	94	2,605	56.7	31.9	45.4	69.1
Preschool or daycare	81	482	5.9	28	341	57.7	26.8	52.4	74.4
Other classroom education	33	695	21.3	38	1,159	54.4	11.2	34.3	72.4
Food sales	163	1,006	6.2	233	1,433	232.0	150.5	215.2	311.2
Convenience store (with or without gas station)	121	371	3.1	83	691	224.7	167.9	231.9	313.9
Grocery store or food market	33	604	18.3	147	4,460	243.3	150.5	242.2	273.2
Other food sales	Q	Q	Q	Q	Q	Q	Q	Q	Q
Food service	286	1,385	4.8	365	1,273	263.3	141.0	232.9	381.5
Fast food	70	291	4.1	95	1,356	326.8	243.1	324.9	479.6
Restaurant or cafeteria	175	924	5.3	245	1,396	265.0	132.2	225.8	365.8
Other food service	41	171	4.1	25	605	145.9	80.6	142.8	188.2
Health care	137	4,018	29.3	581	4,237	144.5	40.7	61.1	98.8
Inpatient	9	2,259	264.8	436	51,180	193.3	140.4	208.6	252.9
Outpatient	129	1,760	13.7	144	1,123	82.0	39.2	60.6	89.0
Office (diagnostic)	64	638	9.9	40	625	63.0	38.1	51.2	67.6
Clinic or other outpatient	64	1,122	17.5	104	1,621	92.8	45.1	69.5	102.8
Lodging	207	6,976	33.7	598	2,888	85.7	53.3	86.1	120.3
Hotel	66	3,551	54.0	276	4,194	77.7	37.7	72.8	98.7
Motel or inn	41	592	14.5	47	1,159	80.0	57.6	75.3	108.1
Dormitory, fraternity, or sorority	35	840	Q	64	1,824	76.7	46.8	103.0	123.3
Nursing home or assisted living	38	1,525	40.6	176	4,696	115.6	62.6	122.2	185.0
Other lodging	27	467	17.0	34	1,229	72.2	55.7	75.7	115.0
Mercantile	517	10,781	20.9	953	1,843	88.4	33.1	62.8	108.1
Retail (other than mall)	350	5,193	14.8	333	950	64.1	25.8	40.8	63.5
Retail store	296	4,487	15.2	289	977	64.4	25.0	38.7	63.1
Other retail	55	706	12.9	44	802	62.3	33.0	56.9	71.0
Enclosed and strip malls	167	5,588	33.5	620	3,723	111.0	78.0	113.5	140.1
Strip shopping center	166	4,904	29.6	585	3,532	119.3	78.0	113.5	140.1
Enclosed mall	1	684	727.8	35	37,391	51.4	26.8	47.9	68.6

**Table C12. Sum of major fuel consumption totals and gross energy intensities by building activity subcategories, 2018**

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	All buildings			Total (trillion British thermal units [Btu])	Per building (million Btu)	Per square foot (thousand Btu)	25th percentile	Median	75th percentile
	Number of buildings (thousand)	Total floorspace (million square feet)	Floorspace per building (thousand square feet)						
<b>All buildings</b>	5,918	96,423	16.3	6,787	1,147	70.4	22.6	45.0	80.6
<b>Office</b>	970	16,662	17.2	1,093	1,127	65.6	36.3	53.5	77.2
Administrative or professional	553	9,294	16.8	588	1,062	63.2	33.5	52.2	72.0
Bank or other financial	47	628	13.4	44	944	70.6	46.3	63.0	92.1
Government	129	2,526	19.6	163	1,268	64.7	36.3	52.9	68.5
Medical (non-diagnostic)	46	356	7.7	23	497	64.2	34.1	54.5	85.3
Mixed-use	119	3,359	28.3	248	2,087	73.8	42.4	57.9	82.2
Other office	76	500	6.5	27	357	54.5	40.4	51.9	77.2
<b>Public assembly</b>	488	7,192	14.7	583	1,194	81.1	26.8	53.2	90.0
Library	25	433	17.0	43	1,680	98.6	63.3	75.5	97.7
Entertainment or culture	71	1,318	18.6	109	1,540	82.6	8.5	38.5	53.9
Recreation	152	2,279	15.0	204	1,341	89.5	30.4	53.2	121.8
Social or meeting	220	2,469	11.2	158	717	64.0	21.2	54.7	82.1
Other assembly	20	694	35.0	70	3,508	100.3	61.0	64.8	112.0
<b>Public order and safety</b>	81	1,538	18.9	133	1,635	86.3	54.6	75.0	99.9
Fire or police station	61	586	9.5	45	725	76.1	47.1	75.5	99.9
Courthouse or probation office	9	452	51.2	29	3,343	65.3	33.9	58.6	69.8
Other public order	11	501	45.9	59	5,380	117.3	59.0	77.6	112.5
<b>Religious worship</b>	439	5,471	12.5	193	440	35.3	17.8	32.9	48.5
<b>Service</b>	867	6,240	7.2	318	367	50.9	19.9	37.3	66.7
Post office or postal center	35	367	10.4	26	754	72.1	24.8	38.6	96.1
Vehicle service or repair	267	1,923	7.2	85	320	44.4	18.0	37.5	53.5
Vehicle storage or maintenance	369	2,805	7.6	103	280	36.8	16.1	29.4	50.4
Other service	196	1,145	5.9	103	525	89.6	36.7	58.7	94.5
<b>Warehouse and storage</b>	1,004	17,483	17.4	528	526	30.2	2.2	14.0	35.2
Nonrefrigerated	1,001	17,155	17.1	493	493	28.8	2.2	14.0	35.2
Warehouse	548	7,050	12.9	184	335	26.1	5.5	18.8	40.1
Distribution or shipping center	167	7,998	47.8	275	1,647	34.4	15.1	27.6	52.6
Self storage units	285	2,107	7.4	34	120	16.2	0.0	2.1	5.5
Refrigerated	3	327	94.8	35	10,144	107.0	105.8	113.5	147.7
<b>Other</b>	113	2,435	21.5	328	2,899	134.8	25.0	54.2	106.5
Laboratory	11	711	65.6	131	Q	184.5	41.9	86.4	106.6
Other	102	1,724	16.8	197	1,924	114.3	25.0	51.9	104.9
<b>Vacant</b>	208	1,612	7.8	27	130	16.8	0.0	1.9	20.4

Data source: U.S. Energy Information Administration, Forms EIA-871A, C, D, E, and F of the 2018 Commercial Buildings Energy Consumption Survey

Notes: Because of rounding, data may not sum to totals. The *Guide to the 2018 CBECS Tables* and *CBECS Terminology* contain definitions of terms used in these tables and comparisons between previous CBECS tables. You can access both references from <http://www.eia.gov/consumption/commercial/data/2018/>.

Data are sample survey estimates with relative standard errors published in a tab on the Excel worksheet for this table.

Estimates in the *energy end uses* category represent total consumption in buildings that have the end use but not the consumption specifically for that end use.

Q = Data withheld either because the relative standard error was greater than 50% or the reporting sample had fewer than 20 buildings.

N = No buildings in reporting sample.

**Relative standard errors (RSEs) for Table C12. Sum of major fuel consumption totals and gross energy intensities by building activity subcategories, 2018**

	RSEs for sum of major fuel consumption									
	RSEs for all buildings						RSEs not available for quartiles			
	Number of buildings	Total floorspace	Floorspace per building	Total	Per building	Per square foot	25th percentile	Median	75th percentile	
<b>All buildings</b>	3.9	3.1	2.6	3.0	3.5	1.8	—	—	—	
<b>Principal building activity (expanded)</b>										
<b>Education</b>	7.8	5.3	6.8	6.1	8.0	2.7	—	—	—	
College or university	19.3	14.1	18.9	18.4	23.9	7.1	—	—	—	
K–12	8.9	5.9	7.5	6.0	8.3	2.5	—	—	—	
Elementary school	12.8	10.1	11.2	9.5	12.0	4.1	—	—	—	
Middle/junior high school	25.0	10.7	25.0	12.0	24.8	4.4	—	—	—	
High school	18.9	7.7	14.9	7.9	16.3	4.3	—	—	—	
Multi-grade school (any K–12)	27.4	14.2	22.0	15.8	21.9	5.3	—	—	—	
Preschool or daycare	27.3	32.8	19.8	36.1	21.4	13.8	—	—	—	
Other classroom education	21.1	17.7	16.7	20.2	21.7	10.9	—	—	—	
<b>Food sales</b>	14.3	17.0	12.9	21.4	17.8	10.5	—	—	—	
Convenience store (with or without gas station)	16.0	19.2	10.0	18.6	10.3	7.4	—	—	—	
Grocery store or food market	24.6	23.6	19.4	30.7	24.4	15.9	—	—	—	
Other food sales	41.9	58.7	37.5	53.3	25.6	76.1	—	—	—	
<b>Food service</b>	7.7	8.5	5.7	9.1	7.1	4.9	—	—	—	
Fast food	14.6	17.6	8.9	16.1	7.6	8.7	—	—	—	
Restaurant or cafeteria	9.9	11.6	7.6	12.3	9.3	6.4	—	—	—	
Other food service	19.2	19.7	12.9	22.2	16.3	11.4	—	—	—	
<b>Health care</b>	9.8	5.5	8.5	5.9	10.1	3.1	—	—	—	
Inpatient	19.4	7.2	18.5	7.3	18.5	2.7	—	—	—	
Outpatient	10.3	8.0	8.4	8.2	9.2	3.8	—	—	—	
Office (diagnostic)	14.5	14.5	13.1	15.6	15.9	6.3	—	—	—	
Clinic or other outpatient	12.8	10.0	11.3	10.0	11.6	4.9	—	—	—	
<b>Lodging</b>	9.4	8.3	9.6	10.1	11.1	3.7	—	—	—	
Hotel	15.8	13.3	16.9	17.7	20.6	7.0	—	—	—	
Motel or inn	23.0	23.9	24.4	25.8	26.4	11.3	—	—	—	
Dormitory, fraternity, or sorority	44.5	25.5	52.0	25.6	47.4	6.5	—	—	—	
Nursing home or assisted living	17.6	14.3	9.4	16.5	10.8	6.1	—	—	—	
Other lodging	43.1	29.2	35.4	26.6	35.3	11.0	—	—	—	
<b>Mercantile</b>	7.3	6.0	6.6	6.8	8.3	3.2	—	—	—	
Retail (other than mall)	10.1	8.6	7.5	8.9	9.7	4.7	—	—	—	
Retail store	10.9	9.7	7.9	9.7	10.6	4.9	—	—	—	
Other retail	22.6	19.7	18.6	24.3	22.4	13.9	—	—	—	
Enclosed and strip malls	7.6	7.6	8.4	8.6	9.2	3.1	—	—	—	
Strip shopping center	7.7	8.5	8.9	9.2	9.6	2.7	—	—	—	
Enclosed mall	19.9	19.5	10.7	22.3	15.1	9.0	—	—	—	

**Relative standard errors (RSEs) for Table C12. Sum of major fuel consumption totals and gross energy intensities by building activity subcategories, 2018**

	RSEs for sum of major fuel consumption								
	RSEs for all buildings			RSEs not available for quartiles					
	Number of buildings	Total floorspace	Floorspace per building	Total	Per building	Per square foot	25th percentile	Median	75th percentile
<b>All buildings</b>	3.9	3.1	2.6	3.0	3.5	1.8	—	—	—
<b>Office</b>	7.2	5.5	6.9	5.5	7.1	1.8	—	—	—
Administrative or professional	7.8	5.8	7.7	6.3	8.5	2.4	—	—	—
Bank or other financial	26.9	24.3	20.7	25.8	23.1	13.0	—	—	—
Government	23.4	16.5	19.5	15.0	20.3	4.6	—	—	—
Medical (non-diagnostic)	19.9	21.1	16.3	27.2	21.6	12.7	—	—	—
Mixed-use	16.0	11.9	11.6	12.5	12.6	5.7	—	—	—
Other office	24.5	20.7	23.7	20.5	23.6	6.3	—	—	—
<b>Public assembly</b>	9.1	5.8	6.9	7.3	8.2	4.3	—	—	—
Library	29.4	24.3	25.1	23.2	25.9	7.9	—	—	—
Entertainment or culture	26.8	16.3	26.4	21.1	32.8	10.4	—	—	—
Recreation	11.6	9.1	9.0	11.4	12.4	6.9	—	—	—
Social or meeting	15.0	11.2	13.4	12.6	14.8	7.1	—	—	—
Other assembly	29.7	17.8	31.1	14.7	30.8	11.5	—	—	—
<b>Public order and safety</b>	20.2	15.9	17.4	19.5	21.4	6.7	—	—	—
Fire or police station	25.2	21.7	14.5	23.0	15.0	6.6	—	—	—
Courthouse or probation office	33.5	19.7	29.3	21.8	34.5	9.4	—	—	—
Other public order	35.5	35.5	33.6	37.6	37.2	5.6	—	—	—
<b>Religious worship</b>	9.5	9.3	6.4	9.7	8.5	5.4	—	—	—
<b>Service</b>	7.4	8.1	6.5	9.4	9.1	7.0	—	—	—
Post office or postal center	35.0	31.4	38.1	31.1	40.2	9.0	—	—	—
Vehicle service or repair	11.5	15.7	10.5	16.0	14.4	10.9	—	—	—
Vehicle storage or maintenance	11.7	13.0	11.6	14.9	12.4	9.4	—	—	—
Other service	11.6	15.1	12.5	21.3	20.7	15.5	—	—	—
<b>Warehouse and storage</b>	7.4	7.2	7.0	8.3	9.1	4.9	—	—	—
Nonrefrigerated	7.4	7.2	7.0	8.4	9.0	4.8	—	—	—
Warehouse	9.3	10.6	8.6	10.7	9.6	6.4	—	—	—
Distribution or shipping center	14.1	9.5	12.8	10.9	14.2	5.6	—	—	—
Self storage units	18.1	19.4	8.6	33.4	28.0	22.9	—	—	—
Refrigerated	44.7	27.7	33.1	33.9	27.5	18.5	—	—	—
<b>Other</b>	17.1	15.1	15.2	15.3	19.0	10.0	—	—	—
Laboratory	45.8	22.9	41.5	26.9	55.7	16.2	—	—	—
Other	17.9	18.2	17.7	17.4	21.1	11.6	—	—	—
<b>Vacant</b>	17.2	14.1	12.3	15.3	18.5	12.5	—	—	—

Data source: U.S. Energy Information Administration, Forms EIA-871A, C, D, E, and F of the 2018 Commercial Buildings Energy Consumption Survey

Note: RSE is a measure of the reliability or precision of a survey statistic. Variability occurs in survey statistics because the different samples that could be drawn would each produce different values for the survey statistics. *Estimation of Standard Errors* and *What is a Relative Standard Error (RSE)?* contain more information on how RSEs are estimated and used. Both references can be accessed from <https://www.eia.gov/consumption/commercial/survey-background-technical-information.php>.