

Release date: September 2021

Revised date: December 2022

Table B13. Selected principal building activity: part 2, number of buildings, 2018

Number of buildings (thousand)

	Principal building activity							Public order and safety
	All buildings	Food service	Lodging	Food sales	Health care All health care	In-patient	Out-patient	
All buildings	5,918	286	207	163	137	9	129	81
Building floorspace (square feet)								
1,001 to 10,000	4,192	276	87	147	93	N	93	Q
10,001 to 100,000	1,585	Q	107	16	38	4	34	30
Over 100,000	142	Q	12	Q	6	5	2	2
Year constructed								
Before 1946	709	64	11	Q	11	Q	Q	Q
1946 to 1979	2,033	80	59	63	33	3	31	22
1980 to 1999	1,715	60	62	40	45	2	43	30
2000 to 2018	1,461	82	76	43	48	3	44	24
Census region								
Northeast	793	29	34	Q	23	1	21	Q
Midwest	1,719	72	68	58	20	1	18	Q
South	2,143	110	55	71	50	3	47	28
West	1,264	75	50	Q	45	3	42	28
Climate zone^a								
Cold or very cold	539	28	24	Q	9	Q	Q	Q
Cool	1,727	78	71	36	28	3	25	26
Mixed mild	1,216	68	43	Q	31	1	30	20
Warm	1,606	70	47	45	49	2	46	19
Hot or very hot	831	42	22	Q	20	1	19	Q
Number of floors								
1	4,106	217	62	149	80	Q	78	58
2	1,286	47	85	Q	36	Q	35	Q
3	370	Q	29	Q	13	Q	11	Q
4 to 9	142	Q	28	Q	8	3	4	2
10 or more	16	N	4	N	1	1	Q	1
Elevators and escalators (more than one may apply)								
Any elevators	503	Q	58	Q	29	6	23	15
1 elevator	366	Q	34	Q	17	Q	16	Q
2 to 5 elevator	121	Q	23	Q	9	3	6	3
6 or more elevators	16	N	2	N	3	3	Q	1
Any escalators	14	Q	Q	N	Q	Q	Q	Q
Number of workers (main shift)								
Fewer than 10	4,386	175	127	143	55	N	55	48
10 to 99	1,405	111	78	19	72	4	68	29
100 or more	127	Q	3	Q	11	5	6	4

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All buildings	5,918	286	207	163	137	9	129	81
Weekly operating hours								
Fewer than 49	2,853	37	N	Q	74	N	74	21
49 to 84	1,896	143	Q	Q	48	N	48	1
85 to 167	465	92	N	83	Q	N	Q	Q
Open continuously	705	Q	203	34	12	9	4	60
Ownership and occupancy								
Nongovernment owned	4,982	260	197	163	130	7	123	Q
Owner occupied	3,249	162	130	126	74	6	68	Q
Leased to tenant or tenants	1,581	98	67	37	56	Q	55	Q
Unoccupied	152	N	N	N	N	N	N	N
Government owned	937	Q	Q	N	7	Q	Q	57
Federal	70	Q	Q	N	Q	Q	Q	Q
State	256	Q	Q	N	Q	Q	Q	Q
Local	610	Q	Q	N	Q	Q	Q	43
Party responsible for operation of energy systems								
Building owner	4,872	228	181	134	109	8	101	75
Business owner or tenant	831	55	Q	Q	27	Q	26	Q
Property management	97	Q	6	N	Q	Q	Q	N
Other	118	Q	Q	Q	Q	Q	Q	Q
Provider of direct input on energy-related equipment purchases								
Building owner	5,127	230	184	142	114	8	106	72
Business owner or tenant	483	43	Q	Q	18	Q	Q	Q
Property management	49	Q	Q	Q	Q	Q	Q	N
Other	260	Q	Q	Q	5	Q	Q	Q
Number of establishments								
1	4,719	263	194	148	91	7	84	65
2 to 5	811	Q	12	15	40	1	38	15
6 to 10	135	Q	Q	N	4	Q	Q	Q
11 to 20	63	N	Q	N	Q	Q	Q	Q
More than 20	19	N	Q	N	Q	Q	Q	Q
Currently unoccupied	170	N	N	N	N	N	N	N

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All buildings	5,918	286	207	163	137	9	129	81
Campus or complex activity								
Not part of a campus or complex	3,622	235	91	151	110	4	106	63
Primary or secondary school	247	Q	N	N	N	N	N	N
College or university	103	Q	Q	N	Q	Q	Q	Q
Office complex	141	Q	N	N	Q	N	Q	Q
Retail complex	250	Q	Q	Q	Q	N	Q	N
Storage complex	418	N	N	N	N	N	N	N
Religious campus or complex	253	Q	Q	N	N	N	N	N
Health care complex	60	Q	8	N	24	5	19	Q
Lodging or resort complex	102	Q	57	N	N	N	N	N
Transportation complex	36	N	N	N	N	N	N	N
Government complex	124	Q	N	N	N	N	N	Q
Other	563	Q	24	Q	Q	N	Q	Q
Predominant exterior wall material								
Brick, stone, or stucco	2,490	187	109	60	86	6	80	27
Concrete (block or poured)	935	51	23	43	17	Q	16	18
Concrete panels	137	Q	1	Q	2	1	Q	Q
Siding or shingles	948	35	63	Q	24	Q	23	Q
Metal panels	1,250	Q	Q	Q	Q	Q	Q	Q
Window glass	19	Q	Q	N	Q	Q	Q	Q
Other	139	Q	Q	Q	Q	Q	Q	Q
Predominant roof material								
Metal surfacing	2,198	59	24	46	Q	Q	Q	Q
Synthetic or rubber	940	75	24	41	31	5	26	16
Built-up	708	48	16	Q	25	1	23	9
Slate or tile shingles	376	Q	27	Q	Q	Q	Q	Q
Wooden materials (including shingles)	166	Q	17	Q	Q	Q	Q	Q
Asphalt, fiberglass, or other shingles	1,311	47	91	Q	48	1	46	Q
Concrete	83	Q	7	Q	Q	Q	Q	Q
Other	136	Q	Q	Q	Q	Q	Q	Q
Roof tilt								
Flat	1,914	132	40	68	70	7	63	26
Shallow pitch	2,313	84	72	50	24	Q	23	33
Steeper pitch	1,691	71	95	Q	43	Q	42	Q

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All buildings	5,918	286	207	163	137	9	129	81
Cool roof characteristics (more than one may apply)								
White or reflective coating or paint	1,285	94	25	39	36	5	31	12
White or reflective tiles or shingles	140	Q	14	Q	18	Q	Q	Q
Aluminum coating	528	Q	Q	Q	Q	Q	Q	Q
Ballasted roof system	114	Q	2	Q	3	1	2	Q
Other cool roof property	35	Q	Q	N	Q	Q	Q	Q
Renovations since 2000 (more than one may apply)								
Any type of renovation	2,032	120	82	66	65	6	60	36
Addition or annex	327	32	13	Q	11	3	8	Q
Reduction in floorspace	35	Q	Q	Q	Q	Q	Q	N
Roof replacement	847	52	42	Q	35	3	32	11
Interior wall reconfiguration	709	31	12	Q	44	4	41	15
Window replacement	484	38	19	Q	12	2	Q	Q
HVAC equipment upgrade	1,006	71	35	Q	46	4	42	19
Lighting upgrade	1,012	68	43	51	34	3	31	12
Electrical upgrade	565	58	15	Q	23	2	21	Q
Plumbing system upgrade	584	62	28	Q	25	2	23	6
Insulation upgrade	307	25	6	Q	15	1	14	Q
Fire, safety, or security upgrade	570	56	36	Q	30	3	27	Q
Structural upgrade	147	Q	10	Q	6	1	Q	Q
Other	43	Q	Q	N	Q	N	Q	Q
No renovations	3,530	144	99	86	64	2	62	41
Buildings constructed 2013 or later	357	23	26	Q	8	Q	Q	Q
Energy sources (more than one may apply)								
Electricity	5,613	286	207	163	137	9	129	81
Natural gas	2,974	203	138	90	77	7	70	54
Fuel oil	583	Q	32	Q	20	8	13	29
District heat	86	Q	9	N	2	1	Q	Q
District chilled water	55	Q	3	N	2	1	Q	Q
Propane	676	48	26	Q	6	Q	Q	Q
Solar	99	Q	Q	Q	Q	Q	Q	Q
Wood, coal, and other	180	Q	Q	Q	Q	Q	Q	N
Space-heating energy sources (more than one may apply)								
Electricity	2,563	135	141	75	87	4	83	37
Natural gas	2,587	144	89	73	67	6	62	52
Fuel oil	266	Q	Q	Q	4	2	Q	Q
District heat	83	Q	9	N	2	1	Q	Q
Propane	431	Q	Q	Q	Q	Q	Q	Q
Other sources ^b	127	N	Q	Q	Q	Q	Q	N

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All buildings	5,918	286	207	163	137	9	129	81
Primary space-heating energy source								
Electricity	1,856	112	120	52	71	1	69	Q
Natural gas	2,344	133	63	71	58	5	53	48
Fuel oil	222	Q	Q	Q	Q	Q	Q	Q
District heat	78	Q	8	N	2	1	Q	Q
Propane	338	Q	Q	Q	Q	Q	Q	Q
Other sources ^b	63	N	N	Q	Q	Q	N	N
Cooling energy sources (more than one may apply)								
Electricity	4,584	274	203	157	134	8	126	76
Natural gas	4	Q	Q	N	Q	Q	Q	N
District chilled water	55	Q	3	N	2	1	Q	Q
Water-heating energy sources (more than one may apply)								
Electricity	2,785	124	80	90	77	3	74	45
Natural gas	1,885	156	116	66	67	6	61	41
Fuel oil	72	Q	Q	Q	3	Q	Q	Q
District heat	38	Q	6	N	1	1	Q	Q
Propane	145	Q	Q	Q	Q	Q	Q	Q
Cooking energy sources (more than one may apply)								
Electricity	1,216	139	112	76	20	5	15	39
Natural gas	727	186	62	33	7	6	1	23
Propane	159	40	6	Q	Q	Q	N	Q
Energy end uses (more than one may apply)								
Buildings with space heating	4,901	265	199	139	136	8	127	77
Buildings with cooling	4,631	274	205	157	136	9	128	76
Buildings with water heating	4,595	286	205	157	136	9	127	79
Buildings with cooking	1,738	280	150	101	23	7	16	55
Buildings with manufacturing	322	Q	Q	Q	Q	Q	Q	Q
Buildings with electricity generation	706	Q	53	17	30	9	21	37
Buildings with lighting	5,503	286	207	163	137	9	129	81
Percent of floorspace heated								
Not heated	1,017	Q	Q	Q	Q	Q	Q	Q
1 to 50%	693	Q	15	Q	Q	Q	Q	Q
51 to 99%	905	55	25	33	25	1	24	15
100%	3,303	187	159	102	105	7	98	62

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All buildings	5,918	286	207	163	137	9	129	81
Percent of floorspace cooled								
Not cooled	1,288	Q	Q	Q	Q	N	Q	Q
1 to 50%	1,111	38	28	Q	Q	Q	Q	Q
51 to 99%	998	60	44	49	28	2	25	28
100%	2,522	176	134	98	103	6	97	26
Percent lit when open								
0%	Q	N	N	N	N	N	N	N
1 to 50%	1,280	38	45	Q	Q	N	Q	Q
51 to 99%	1,784	85	77	58	60	3	56	22
100%	2,272	164	84	88	69	5	64	30
Building never open or electricity not used	513	N	N	N	N	N	N	Q
Percent lit during off hours								
0%	2,062	81	Q	Q	Q	N	Q	Q
1 to 50%	3,246	188	156	105	106	4	102	49
51 to 100%	240	Q	24	Q	8	3	5	Q
Building always open with no off hours	64	Q	14	Q	2	Q	Q	Q
Electricity not used	305	N	N	N	N	N	N	N
Heating equipment (more than one may apply)								
Packaged heating units	2,187	177	64	71	79	4	75	48
Furnaces	1,621	49	54	Q	28	Q	28	Q
Individual space heaters	1,246	25	67	Q	21	1	20	Q
Boilers	703	32	50	Q	24	7	18	14
Heat pumps	673	Q	60	Q	30	3	28	Q
District heat	83	Q	9	N	2	1	Q	Q
Duct reheat	134	Q	3	Q	3	Q	Q	Q
Other	17	N	Q	Q	Q	Q	N	N
Cooling equipment (more than one may apply)								
Packaged air-conditioning units	2,565	206	70	95	85	5	80	38
Residential-type central air conditioners	1,309	46	51	Q	35	3	33	28
Individual air conditioners	735	30	104	Q	11	2	Q	Q
Central chillers	202	Q	8	Q	9	5	5	5
Heat pumps	492	Q	40	Q	23	2	21	9
District chilled water	55	Q	3	N	2	1	Q	Q
Swamp coolers	85	Q	2	Q	Q	Q	Q	Q
Other	Q	Q	N	N	Q	Q	Q	N

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All buildings	5,918	286	207	163	137	9	129	81
HVAC features (more than one may apply)								
Economizer cycle	747	59	47	31	31	6	25	11
Variable air volume (VAV) system	698	45	27	Q	28	7	21	8
Dedicated outside air system (DOAS)	249	Q	9	Q	5	3	Q	Q
Demand controlled ventilation (DCV)	349	Q	10	Q	7	1	Q	Q
Regular HVAC maintenance	3,554	213	173	113	105	9	97	62
Building automation system (BAS) controls heating or cooling	933	49	34	38	31	6	25	14
Internet-connected or smart thermostat	325	Q	7	Q	Q	Q	Q	Q
Programmable thermostat	1,545	99	56	41	63	Q	62	Q
Main equipment replaced since 2000 (more than one may apply)								
Heating	1,937	104	72	42	57	2	55	15
Cooling	1,269	59	83	Q	32	3	29	12
Water-heating equipment								
Centralized system	3,538	206	179	124	108	6	103	72
Distributed system	782	66	19	Q	21	Q	20	Q
Combination of centralized and distributed systems	274	Q	6	Q	7	2	5	Q
Generation technologies (more than one may apply)								
Reciprocating engine generators	580	Q	42	Q	24	8	15	35
Solar panels	94	Q	Q	Q	Q	Q	Q	Q
Other generation technology	43	Q	8	N	2	Q	Q	Q
Lighting equipment types (more than one may apply)								
Incandescent	1,100	68	61	Q	30	2	27	18
Standard fluorescent	4,012	187	129	96	111	7	104	62
Compact fluorescent	1,130	59	86	Q	36	5	31	24
High-intensity discharge (HID)	238	Q	7	Q	6	2	Q	4
Halogen	552	39	21	Q	22	2	20	Q
LED	2,593	166	150	106	72	7	65	36
Other	Q	Q	N	N	N	N	N	N

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All buildings	5,918	286	207	163	137	9	129	81
Refrigeration equipment (more than one may apply)								
Any refrigeration	3,850	286	168	163	125	9	117	77
Walk-in units	706	224	39	115	9	7	Q	Q
Cases or cabinets	837	189	44	136	13	5	8	5
Large cold storage areas	69	Q	Q	Q	0	0	Q	Q
Commercial ice makers	872	212	78	67	17	8	9	14
Residential-type or compact units	3,321	142	149	76	121	8	113	71
Vending machines	800	25	71	44	23	8	15	20
No refrigeration	2,068	N	39	N	Q	N	Q	Q
Office equipment (more than one may apply)								
Desktop computers	3,804	176	150	122	137	8	128	76
With multiple monitors	1,504	33	46	Q	54	8	46	30
Laptop computers	2,786	91	120	60	103	8	94	42
Dedicated servers	1,400	53	44	23	80	8	72	22
Tablets charged in building	1,556	102	82	31	60	6	54	26
Large floor-standing office devices ^c	1,456	Q	51	Q	70	8	63	21
Smaller desktop office devices ^c	3,560	159	137	102	126	8	118	67
Interactive whiteboards	262	Q	4	Q	4	2	Q	Q
Televisions or video displays	2,451	140	173	89	92	8	84	54
Point-of-sale devices or cash registers	1,420	249	26	141	46	5	41	5
Food preparation or serving areas in non-food service buildings (more than one may apply)								
Snack bar, concession stand, or coffee shop	144	N	10	Q	3	1	Q	Q
Fast food or small restaurant	160	N	6	45	2	1	Q	Q
Cafeteria or large restaurant	129	N	8	Q	4	4	Q	Q
Commercial kitchen or food preparation area	284	N	49	18	6	5	Q	Q
Small kitchen area	1,018	N	115	36	16	2	14	44
Separate computer areas (more than one may apply)								
Server closet	1,237	27	44	21	68	7	60	22
Data center	116	N	Q	Q	7	3	3	2
Computer-based training room	228	Q	8	Q	9	3	6	6
Student or public computer center	236	N	16	Q	2	1	Q	Q

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All buildings	5,918	286	207	163	137	9	129	81
Window and interior lighting features (more than one may apply)								
Multipaned windows	3,527	211	175	113	96	8	88	53
Tinted window glass	1,679	88	41	47	53	5	48	22
Reflective window glass	497	Q	18	Q	18	4	14	9
External overhangs or awnings	1,513	119	58	50	44	3	40	17
Skylights or atriums	509	Q	33	Q	27	4	23	5
Light scheduling	910	62	55	28	36	4	32	Q
Occupancy sensors	1,025	37	45	23	38	6	32	20
Multilevel lighting or dimming	332	40	14	Q	8	3	5	Q
Daylight harvesting	138	Q	10	Q	6	1	Q	Q
Plug-load control	58	Q	4	Q	Q	Q	Q	Q
Demand responsive lighting	98	Q	Q	Q	Q	Q	Q	Q
Building automation system (BAS) for lighting	317	Q	Q	20	6	1	5	Q
Electric vehicle (EV) charging								
Charging stations associated with the building	132	N	16	Q	4	1	Q	Q

Data source: U.S. Energy Information Administration, Form EIA-871A 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.

^aClimate zones are based on ASHRAE Standard 169-2021; see <https://www.eia.gov/consumption/commercial/maps.php#defined>.

^bOther sources includes wood, coal, solar, and all other energy sources.

^cOffice devices refers to any combination of printers, copiers, scanners, or FAX machines.

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.

Release date: September 2021

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Relative standard errors (RSEs) for Table B13. Selected principal building activity: part 2, number of buildings, 2018

RSEs for number of buildings

	Principal building activity							Public order and safety
	All buildings	Food service	Lodging	Food sales	Health care All health care	In-patient	Out-patient	
All buildings	3.9	7.7	9.4	14.3	9.8	19.4	10.3	20.2
Building floorspace (square feet)								
1,001 to 10,000	4.6	8.2	18.4	14.7	13.1	0.0	13.1	30.0
10,001 to 100,000	4.1	23.8	10.4	32.1	14.5	42.3	14.8	23.8
Over 100,000	4.3	77.0	12.9	37.1	7.6	8.7	15.2	21.5
Year constructed								
Before 1946	8.6	15.4	38.0	41.1	28.1	83.3	29.7	51.3
1946 to 1979	4.5	15.6	20.0	22.5	19.1	16.5	20.6	45.0
1980 to 1999	6.1	15.2	13.4	26.0	19.0	33.7	19.9	33.4
2000 to 2018	7.5	16.6	20.4	27.2	14.9	30.9	15.3	29.4
Census region								
Northeast	9.9	21.5	22.6	53.7	20.8	43.4	21.4	52.1
Midwest	10.9	14.2	18.7	24.3	31.0	19.6	33.6	48.6
South	7.7	13.2	17.3	22.2	15.9	27.0	16.3	37.6
West	8.1	16.9	16.7	37.1	18.1	48.2	19.2	29.4
Climate zone^a								
Cold or very cold	18.8	24.4	25.5	47.6	41.3	29.2	43.5	84.3
Cool	11.8	16.8	22.5	28.2	18.3	45.8	20.3	29.9
Mixed mild	15.1	20.4	30.2	32.2	28.5	20.5	29.2	49.0
Warm	11.4	16.1	20.9	26.9	17.5	34.2	17.7	40.2
Hot or very hot	18.8	30.5	26.4	42.2	16.8	31.2	18.0	51.3
Number of floors								
1	4.3	9.4	23.9	15.0	12.6	38.7	12.9	25.9
2	5.8	18.8	20.1	47.1	19.4	38.7	19.5	38.2
3	10.5	30.4	22.6	62.6	22.7	51.3	24.9	53.0
4 to 9	9.4	44.7	16.8	50.1	15.7	18.0	25.7	39.2
10 or more	9.8	0.0	20.2	0.0	24.2	15.3	53.4	39.4
Elevators and escalators (more than one may apply)								
Any elevators	6.5	53.1	15.0	60.7	17.4	16.6	20.4	39.0
1 elevator	7.7	54.1	23.2	69.7	28.3	102.8	28.3	53.5
2 to 5 elevator	6.7	51.5	11.6	51.0	14.2	25.9	17.6	49.8
6 or more elevators	7.8	0.0	19.4	0.0	10.2	10.8	38.9	26.6
Any escalators	28.9	99.8	76.9	0.0	91.0	47.7	96.9	86.4
Number of workers (main shift)								
Fewer than 10	4.8	10.6	13.3	14.8	16.2	0.0	16.2	26.6
10 to 99	4.3	11.8	12.4	27.0	12.6	43.6	12.7	30.9
100 or more	6.0	52.6	18.8	48.1	12.0	9.4	21.1	29.6

Relative standard errors (RSEs) for Table B13. Selected principal building activity: part 2, number of buildings, 2018

RSEs for number of buildings

	Principal building activity							Public order and safety
	All buildings	Food service	Lodging	Food sales	Health care All health care	In-patient	Out-patient	
All buildings	3.9	7.7	9.4	14.3	9.8	19.4	10.3	20.2
Campus or complex activity								
Not part of a campus or complex	4.3	7.8	11.5	14.8	11.9	26.5	12.2	21.9
Primary or secondary school	12.1	43.7	0.0	0.0	0.0	0.0	0.0	0.0
College or university	21.8	78.4	67.3	0.0	87.7	56.1	89.4	7.9
Office complex	12.7	57.6	0.0	0.0	44.4	0.0	44.4	70.3
Retail complex	13.2	45.1	5.5	42.2	50.4	0.0	50.4	0.0
Storage complex	14.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Religious campus or complex	11.5	50.3	79.8	0.0	0.0	0.0	0.0	0.0
Health care complex	18.0	99.9	36.6	0.0	24.1	28.2	30.8	45.3
Lodging or resort complex	15.1	69.2	19.3	0.0	0.0	0.0	0.0	0.0
Transportation complex	34.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Government complex	18.1	70.8	0.0	0.0	0.0	0.0	0.0	64.1
Other	9.2	50.7	40.8	51.2	62.6	0.0	62.6	43.0
Predominant exterior wall material								
Brick, stone, or stucco	5.3	10.2	15.3	23.8	12.1	18.5	12.7	25.1
Concrete (block or poured)	5.3	22.0	22.2	25.0	31.6	55.6	34.2	47.0
Concrete panels	12.1	100.0	48.7	104.6	39.6	34.0	55.6	43.1
Siding or shingles	7.3	21.7	22.4	35.8	23.2	54.1	23.3	63.5
Metal panels	7.6	53.7	89.4	31.1	49.0	58.1	49.8	48.4
Window glass	21.3	60.6	48.4	0.0	40.8	40.3	54.2	70.2
Other	14.7	42.4	69.1	64.4	44.9	50.2	100.1	91.2
Predominant roof material								
Metal surfacing	6.2	16.0	36.6	24.2	33.4	83.2	33.6	33.5
Synthetic or rubber	6.0	15.7	20.3	25.2	18.5	27.2	21.5	37.6
Built-up	7.7	21.8	16.1	38.3	25.7	19.5	27.6	37.3
Slate or tile shingles	10.1	27.8	27.5	45.2	34.8	66.9	35.3	97.8
Wooden materials (including shingles)	12.9	35.2	28.7	56.5	69.3	51.4	69.5	50.9
Asphalt, fiberglass, or other shingles	6.2	18.0	18.3	35.8	17.8	46.4	18.0	47.1
Concrete	20.6	70.8	42.0	72.4	73.3	68.1	74.8	56.3
Other	15.6	48.9	33.4	48.0	82.6	87.1	85.3	68.8
Roof tilt								
Flat	4.9	11.5	14.9	21.1	11.7	20.4	13.0	35.7
Shallow pitch	5.0	13.2	11.8	23.0	22.5	59.2	22.5	31.8
Steeper pitch	7.5	15.9	17.2	25.3	20.0	63.2	20.0	38.5

Relative standard errors (RSEs) for Table B13. Selected principal building activity: part 2, number of buildings, 2018

RSEs for number of buildings

	Principal building activity							
	All buildings	Food service	Lodging	Health care			Public order and safety	
				Food sales	All health care	In-patient		Out-patient
All buildings	3.9	7.7	9.4	14.3	9.8	19.4	10.3	20.2
Cool roof characteristics (more than one may apply)								
White or reflective coating or paint	5.8	14.2	16.9	28.2	18.1	30.4	20.0	46.1
White or reflective tiles or shingles	15.4	51.2	42.7	48.9	36.0	87.1	36.5	74.5
Aluminum coating	8.8	23.3	50.8	39.5	40.6	47.7	41.7	65.5
Ballasted roof system	14.8	74.5	33.4	67.0	33.6	22.9	44.3	44.9
Other cool roof property	29.3	60.5	50.4	0.0	46.6	65.2	67.3	84.6
Renovations since 2000 (more than one may apply)								
Any type of renovation	5.0	10.0	14.7	19.7	13.9	17.6	15.2	28.7
Addition or annex	9.4	22.8	28.5	47.9	25.3	12.6	32.9	56.8
Reduction in floorspace	22.2	47.7	53.2	50.1	69.1	39.0	72.9	0.0
Roof replacement	6.8	15.2	23.4	30.8	20.6	22.8	22.3	37.1
Interior wall reconfiguration	6.0	21.2	29.1	48.0	17.2	25.0	18.5	44.2
Window replacement	9.5	21.6	31.2	36.8	41.0	36.6	46.8	55.9
HVAC equipment upgrade	7.0	15.9	20.2	33.7	17.9	17.9	19.4	31.0
Lighting upgrade	5.9	13.6	18.0	23.4	22.0	10.2	24.3	39.1
Electrical upgrade	7.1	13.5	27.7	38.7	25.3	12.3	27.5	76.7
Plumbing system upgrade	7.8	15.4	24.3	35.0	24.6	26.2	26.9	36.0
Insulation upgrade	9.2	20.6	32.0	46.6	31.3	14.5	33.5	49.8
Fire, safety, or security upgrade	6.2	15.5	16.7	37.2	22.9	12.0	24.9	47.1
Structural upgrade	13.9	31.2	42.9	50.1	42.2	28.6	47.4	63.4
Other	29.5	68.5	78.2	0.0	3.2	0.0	3.2	76.5
No renovations	4.3	10.5	20.3	18.3	13.8	39.0	13.7	31.9
Buildings constructed 2013 or later	11.9	26.1	35.4	49.2	27.4	46.2	30.6	67.5
Energy sources (more than one may apply)								
Electricity	3.9	7.7	9.4	14.3	9.8	19.4	10.3	20.2
Natural gas	4.8	8.9	11.9	19.6	14.3	14.9	15.3	22.0
Fuel oil	9.7	36.6	23.3	40.9	17.2	20.8	23.3	24.7
District heat	14.7	79.3	30.6	0.0	34.0	20.1	67.7	54.0
District chilled water	20.1	101.1	39.5	0.0	43.4	27.1	72.8	48.8
Propane	10.0	17.4	25.5	39.2	44.9	53.4	55.2	47.3
Solar	15.5	69.2	62.5	76.6	80.4	53.5	81.6	69.6
Wood, coal, and other	17.3	60.7	98.3	73.7	71.9	56.6	73.1	0.0
Space-heating energy sources (more than one may apply)								
Electricity	4.7	10.7	13.0	19.6	10.7	29.4	11.0	35.8
Natural gas	5.2	10.1	14.6	20.6	15.4	17.6	16.4	22.5
Fuel oil	13.9	63.3	54.5	55.2	41.6	46.4	60.1	79.8
District heat	15.4	79.3	30.7	0.0	36.7	20.1	68.3	54.0
Propane	13.5	30.1	40.0	57.9	59.1	64.3	63.2	91.5
Other sources ^b	21.3	0.0	49.8	108.7	70.0	49.5	71.0	0.0

Relative standard errors (RSEs) for Table B13. Selected principal building activity: part 2, number of buildings, 2018

RSEs for number of buildings

	Principal building activity							Public order and safety
	All buildings	Food service	Lodging	Food sales	Health care All health care	In-patient	Out-patient	
All buildings	3.9	7.7	9.4	14.3	9.8	19.4	10.3	20.2
Primary space-heating energy source								
Electricity	6.4	12.5	16.6	22.5	11.9	44.6	11.9	44.6
Natural gas	5.5	10.7	19.4	21.1	16.3	15.1	17.7	23.8
Fuel oil	16.1	63.3	57.0	55.2	52.6	74.2	70.9	80.9
District heat	15.8	79.3	30.4	0.0	37.3	20.4	68.3	58.1
Propane	17.5	36.6	70.6	66.9	61.0	51.2	63.2	51.4
Other sources ^b	22.4	0.0	0.0	62.8	49.5	49.5	0.0	0.0
Cooling energy sources (more than one may apply)								
Electricity	3.9	7.9	9.6	14.5	10.0	20.4	10.4	21.1
Natural gas	37.3	50.2	64.0	0.0	59.0	31.4	69.6	0.0
District chilled water	20.1	101.1	39.5	0.0	43.4	27.1	72.8	48.8
Water-heating energy sources (more than one may apply)								
Electricity	4.0	11.5	20.6	16.7	11.2	38.1	11.5	33.1
Natural gas	5.5	11.3	15.0	23.1	15.1	16.2	16.2	23.7
Fuel oil	24.0	79.7	52.6	50.1	47.4	58.9	60.1	112.5
District heat	17.4	51.1	35.3	0.0	27.4	29.5	37.6	69.2
Propane	15.8	30.5	38.0	56.2	60.8	100.8	64.9	72.4
Cooking energy sources (more than one may apply)								
Electricity	5.7	12.0	15.7	18.5	21.6	21.6	27.0	26.1
Natural gas	5.4	9.6	16.1	31.9	12.1	12.7	40.9	42.1
Propane	14.8	19.8	27.0	54.0	81.6	81.6	0.0	57.5
Energy end uses (more than one may apply)								
Buildings with space heating	4.1	7.8	9.6	15.1	9.9	19.7	10.3	20.5
Buildings with cooling	3.9	7.9	9.4	14.5	9.8	19.4	10.3	21.1
Buildings with water heating	3.9	7.7	9.3	14.6	9.8	19.4	10.3	20.4
Buildings with cooking	5.0	7.8	12.8	17.6	18.9	15.8	26.3	24.8
Buildings with manufacturing	11.3	32.2	38.9	45.1	46.3	56.7	46.7	50.4
Buildings with electricity generation	7.4	30.8	16.6	36.8	17.9	19.4	23.2	22.4
Buildings with lighting	3.9	7.7	9.4	14.3	9.8	19.4	10.3	20.2
Percent of floorspace heated								
Not heated	8.2	30.5	52.6	34.8	88.6	104.9	99.3	98.9
1 to 50%	8.5	31.1	41.5	76.3	42.4	44.6	43.8	99.0
51 to 99%	6.7	18.8	16.4	27.8	24.8	25.4	25.5	32.4
100%	4.1	9.8	11.0	16.9	10.7	22.4	11.4	24.2

Relative standard errors (RSEs) for Table B13. Selected principal building activity: part 2, number of buildings, 2018

RSEs for number of buildings

	Principal building activity							Public order and safety
	All buildings	Food service	Lodging	Food sales	Health care All health care	In-patient	Out-patient	
All buildings	3.9	7.7	9.4	14.3	9.8	19.4	10.3	20.2
Percent of floorspace cooled								
Not cooled	7.1	44.5	46.3	76.3	50.1	0.0	50.1	80.7
1 to 50%	5.9	19.9	28.8	44.0	38.4	71.0	38.5	40.5
51 to 99%	6.6	17.6	17.7	22.5	23.5	37.4	24.8	29.2
100%	4.3	10.4	12.6	18.7	10.0	18.4	10.4	36.9
Percent lit when open								
0%	35.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1 to 50%	6.7	19.9	24.8	40.6	30.4	0.0	30.4	38.3
51 to 99%	4.8	16.5	19.7	22.2	16.3	18.9	17.2	30.7
100%	4.7	10.0	13.9	18.0	12.5	24.5	13.1	38.5
Building never open or electricity not used	11.6	0.0	0.0	0.0	0.0	0.0	0.0	65.1
Percent lit during off hours								
0%	6.5	16.1	53.8	40.1	28.4	0.0	28.4	49.7
1 to 50%	3.8	9.0	10.8	18.7	11.1	25.2	11.4	23.4
51 to 100%	10.6	46.3	19.6	32.6	27.2	20.0	48.0	67.9
Building always open with no off hours	15.2	38.6	24.2	38.4	49.5	55.0	90.5	44.0
Electricity not used	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Heating equipment (more than one may apply)								
Packaged heating units	4.0	10.1	14.5	19.2	12.4	34.7	12.8	26.1
Furnaces	7.2	17.1	21.5	25.1	22.6	51.0	22.9	40.6
Individual space heaters	5.9	25.1	19.3	39.5	19.7	25.9	20.9	40.5
Boilers	6.2	22.6	19.3	49.4	15.9	23.9	19.4	34.2
Heat pumps	7.7	23.1	25.7	43.8	23.1	45.4	23.8	42.2
District heat	15.4	79.3	30.7	0.0	36.7	20.1	68.3	54.0
Duct reheat	12.6	43.5	27.4	99.2	42.1	52.6	65.5	62.8
Other	46.4	0.0	49.7	52.3	49.5	49.5	0.0	0.0
Cooling equipment (more than one may apply)								
Packaged air-conditioning units	4.3	9.2	15.3	18.4	10.0	29.4	10.6	32.3
Residential-type central air conditioners	7.6	20.1	31.6	27.4	19.0	26.0	20.1	35.9
Individual air conditioners	6.6	21.5	15.7	48.7	24.6	21.9	29.3	40.8
Central chillers	9.0	55.9	17.7	68.4	16.0	18.2	27.6	39.3
Heat pumps	11.0	28.2	39.8	48.7	33.5	41.7	35.5	36.9
District chilled water	20.1	101.1	39.5	0.0	43.4	27.1	72.8	48.8
Swamp coolers	12.8	41.1	39.9	60.8	45.3	56.3	70.4	81.6
Other	53.2	50.8	0.0	0.0	97.6	77.8	99.6	0.0

Relative standard errors (RSEs) for Table B13. Selected principal building activity: part 2, number of buildings, 2018

RSEs for number of buildings

	Principal building activity							Public order and safety
	All buildings	Food service	Lodging	Food sales	Health care All health care	In-patient	Out-patient	
All buildings	3.9	7.7	9.4	14.3	9.8	19.4	10.3	20.2
HVAC features (more than one may apply)								
Economizer cycle	5.6	17.1	22.2	31.9	13.7	22.1	15.9	32.5
Variable air volume (VAV) system	8.4	22.8	32.1	35.2	12.8	22.2	15.8	31.3
Dedicated outside air system (DOAS)	11.0	26.1	23.3	43.1	21.7	32.7	32.0	75.2
Demand controlled ventilation (DCV)	8.8	25.9	43.0	52.8	31.7	25.1	37.8	37.9
Regular HVAC maintenance	4.2	9.2	10.7	17.3	12.8	19.4	13.4	21.3
Building automation system (BAS) controls heating or cooling	6.4	22.6	26.9	29.2	16.0	15.4	19.7	37.7
Internet-connected or smart thermostat	12.2	31.6	22.5	40.7	39.0	67.6	40.2	75.2
Programmable thermostat	4.7	12.0	28.7	25.1	18.6	61.6	18.9	29.4
Main equipment replaced since 2000 (more than one may apply)								
Heating	4.9	11.9	16.2	23.2	18.3	31.6	19.0	35.2
Cooling	4.8	19.8	13.8	24.5	23.9	30.2	26.0	44.6
Water-heating equipment								
Centralized system	4.4	9.7	9.7	15.9	11.3	24.2	11.9	21.9
Distributed system	8.9	15.5	47.0	42.6	25.4	65.3	26.2	66.2
Combination of centralized and distributed systems	8.8	30.9	33.8	57.7	33.5	33.0	43.7	61.1
Generation technologies (more than one may apply)								
Reciprocating engine generators	8.8	36.8	18.4	41.7	16.7	19.8	22.3	23.0
Solar panels	15.4	70.6	63.2	76.6	80.9	60.0	81.7	77.3
Other generation technology	21.4	54.0	41.9	0.0	46.4	49.3	53.2	87.0
Lighting equipment types (more than one may apply)								
Incandescent	7.8	15.0	24.3	33.5	18.3	14.9	19.9	36.5
Standard fluorescent	4.2	8.6	15.5	19.0	11.3	16.2	11.8	25.2
Compact fluorescent	5.2	14.5	20.7	52.0	18.3	18.2	20.1	29.3
High-intensity discharge (HID)	9.8	85.0	32.6	89.5	26.3	28.4	38.9	43.5
Halogen	8.0	19.0	30.3	64.9	19.8	14.6	21.7	67.9
LED	3.6	9.5	10.3	16.4	13.4	20.2	14.6	23.0
Other	57.3	51.3	0.0	0.0	0.0	0.0	0.0	0.0

Relative standard errors (RSEs) for Table B13. Selected principal building activity: part 2, number of buildings, 2018

RSEs for number of buildings

	Principal building activity							Public order and safety
	All buildings	Food service	Lodging	Food sales	Health care All health care	In-patient	Out-patient	
All buildings	3.9	7.7	9.4	14.3	9.8	19.4	10.3	20.2
Refrigeration equipment (more than one may apply)								
Any refrigeration	4.1	7.7	9.6	14.3	9.2	19.4	9.7	20.9
Walk-in units	5.4	8.5	14.5	15.6	16.4	13.4	55.3	52.1
Cases or cabinets	5.8	9.7	20.3	15.7	18.5	16.5	29.2	43.1
Large cold storage areas	17.2	29.6	60.3	37.2	23.8	24.7	54.1	50.4
Commercial ice makers	5.5	8.9	12.0	20.5	12.9	19.1	19.0	26.8
Residential-type or compact units	4.3	10.7	9.9	21.2	9.6	20.4	10.1	21.8
Vending machines	6.1	22.0	11.7	25.2	15.8	20.5	21.6	30.5
No refrigeration	5.3	0.0	30.8	0.0	35.9	0.0	35.9	56.6
Office equipment (more than one may apply)								
Desktop computers	4.0	9.9	12.3	16.4	9.8	19.7	10.3	21.1
With multiple monitors	5.0	23.6	27.8	38.6	16.7	20.4	19.1	26.6
Laptop computers	4.0	13.3	15.5	21.7	11.7	19.9	12.6	25.6
Dedicated servers	4.9	16.9	15.9	33.2	11.2	20.8	12.2	29.1
Tablets charged in building	4.4	12.9	22.6	28.1	14.9	15.4	16.3	30.8
Large floor-standing office devices ^c	4.4	33.8	12.9	35.8	12.3	19.5	13.7	30.6
Smaller desktop office devices ^c	4.1	9.4	12.7	17.0	10.0	19.6	10.6	21.9
Interactive whiteboards	8.7	59.0	40.1	71.5	36.8	22.5	60.0	60.4
Televisions or video displays	3.8	10.5	10.2	19.5	13.7	19.3	14.7	23.5
Point-of-sale devices or cash registers	5.2	8.2	17.9	15.0	13.9	10.9	15.3	39.0
Food preparation or serving areas in non-food service buildings (more than one may apply)								
Snack bar, concession stand, or coffee shop	11.0	0.0	19.3	31.7	31.1	13.8	57.5	62.9
Fast food or small restaurant	9.4	0.0	27.9	26.7	37.4	41.1	39.1	110.5
Cafeteria or large restaurant	7.7	0.0	20.1	83.3	10.2	10.9	46.0	84.6
Commercial kitchen or food preparation area	8.5	0.0	18.8	28.3	17.2	17.7	73.7	61.8
Small kitchen area	6.5	0.0	14.3	29.1	25.6	27.9	28.8	25.6
Separate computer areas (more than one may apply)								
Server closet	5.3	26.2	13.1	32.9	11.9	20.6	13.4	30.2
Data center	13.1	0.0	57.0	99.3	17.4	12.0	31.8	39.5
Computer-based training room	8.4	100.0	26.8	44.8	24.6	10.7	36.8	48.9
Student or public computer center	8.0	0.0	34.5	6.5	39.0	19.7	58.5	51.5

Relative standard errors (RSEs) for Table B13. Selected principal building activity: part 2, number of buildings, 2018

RSEs for number of buildings

	Principal building activity							Public order and safety
	All buildings	Food service	Lodging	Food sales	Health care All health care	In-patient	Out-patient	
All buildings	3.9	7.7	9.4	14.3	9.8	19.4	10.3	20.2
Window and interior lighting features (more than one may apply)								
Multipaned windows	4.2	9.0	10.3	17.0	11.2	20.1	12.0	25.8
Tinted window glass	4.2	15.3	19.5	22.7	14.2	14.5	15.6	29.2
Reflective window glass	7.0	29.3	32.6	34.3	27.4	26.5	33.2	35.6
External overhangs or awnings	5.0	12.7	18.4	25.0	19.2	16.7	20.3	42.4
Skylights or atriums	7.1	36.1	14.4	45.6	30.2	22.6	34.4	38.7
Light scheduling	5.2	19.1	15.4	31.5	21.1	25.8	23.3	53.8
Occupancy sensors	6.5	26.5	21.7	30.1	13.3	17.8	15.2	29.2
Multilevel lighting or dimming	10.0	25.2	28.2	43.7	24.4	27.9	33.9	59.3
Daylight harvesting	12.0	106.1	37.1	56.0	36.5	29.7	46.0	57.9
Plug-load control	18.4	33.8	48.9	84.9	67.8	72.4	76.0	46.6
Demand responsive lighting	30.7	84.7	91.9	5.6	70.3	38.0	84.8	111.9
Building automation system (BAS) for lighting	9.3	33.4	54.6	32.4	24.7	27.2	28.6	48.8
Electric vehicle (EV) charging								
Charging stations associated with the building	11.5	0.0	35.3	57.3	40.0	40.8	58.6	55.6

Data source: U.S. Energy Information Administration, Forms EIA-871A 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>.

^aClimate zones are based on ASHRAE Standard 169-2021; see <https://www.eia.gov/consumption/commercial/maps.php#defined>.

^bOther sources includes wood, coal, solar, and all other energy sources.

^cOffice devices refers to any combination of printers, copiers, scanners, or FAX machines.