

Table C12. Consumption and gross energy intensity by year constructed for sum of major fuels, 2012

	Sum of major fuel consumption (trillion Btu)			Total floorspace of buildings (million square feet)			Energy intensity for sum of major fuels (thousand Btu/square foot)		
	1959 or before	1960 to 1989	1990 to 2012	1959 or before	1960 to 1989	1990 to 2012	1959 or before	1960 to 1989	1990 to 2012
All buildings	1,193	3,078	2,692	17,390	36,439	33,265	68.6	84.5	80.9
Building floorspace (square feet)									
1,001 to 5,000	170	284	268	2,336	3,018	2,687	72.9	94.2	99.7
5,001 to 10,000	125	303	218	1,946	3,874	3,080	64.0	78.3	70.8
10,001 to 25,000	169	412	296	3,251	6,065	4,789	51.9	67.9	61.7
25,001 to 50,000	122	425	275	2,236	5,387	4,293	54.8	78.9	64.1
50,001 to 100,000	172	386	509	2,355	5,144	6,419	73.0	75.1	79.3
100,001 to 200,000	130	444	461	2,089	4,692	5,634	62.3	94.7	81.8
200,001 to 500,000	169	472	385	1,838	5,157	3,728	92.0	91.5	103.3
Over 500,000	136	351	280	1,338	3,102	2,634	101.6	113.1	106.4
Principal building activity									
Education	188	324	330	2,829	4,625	4,784	66.3	70.1	69.0
Food sales	Q	100	135	Q	485	609	Q	205.6	222.2
Food service	103	211	201	501	716	603	205.4	294.8	332.7
Health care	87	326	305	553	1,846	1,757	156.7	176.8	173.4
Inpatient	68	264	217	307	1,161	906	221.5	227.2	239.4
Outpatient	19	63	88	246	685	851	76.0	91.3	103.0
Lodging	71	257	237	738	2,768	2,319	96.5	92.7	102.0
Mercantile	85	455	467	1,296	4,877	5,156	65.9	93.4	90.5
Retail (other than mall)	48	105	211	935	1,689	2,816	51.1	62.3	74.9
Enclosed and strip malls	38	350	256	361	3,189	2,340	104.2	109.8	109.4
Office	289	632	320	3,760	7,521	4,671	76.9	84.0	68.5
Public assembly	104	201	175	1,541	2,051	1,968	67.4	97.9	89.1
Public order and safety	Q	51	55	Q	503	671	Q	100.6	82.2
Religious worship	48	68	57	1,316	1,629	1,613	36.2	42.1	35.5
Service	59	129	85	1,001	2,026	1,603	58.7	63.4	52.8
Warehouse and storage	69	171	189	1,893	5,146	6,038	36.6	33.2	31.3
Other	28	131	127	511	774	716	55.7	169.2	176.7
Vacant	8	22	11	1,028	1,471	756	8.2	14.9	14.7
Census region and division									
Northeast	402	611	446	5,172	5,935	4,427	77.8	102.9	100.8
New England	107	133	128	1,469	1,555	1,278	72.7	85.5	100.2
Middle Atlantic	296	478	318	3,703	4,380	3,149	79.8	109.1	101.1
Midwest	309	708	548	4,470	7,922	6,526	69.2	89.4	84.0
East North Central	225	500	406	3,169	5,008	4,564	71.0	99.8	88.9
West North Central	84	209	142	1,301	2,914	1,962	64.7	71.6	72.4
South	317	1,170	1,080	5,119	14,133	15,027	61.8	82.8	71.9
South Atlantic	163	556	639	2,630	6,986	8,364	62.0	79.6	76.4
East South Central	58	187	124	766	2,193	1,945	75.9	85.4	63.6
West South Central	95	426	317	1,722	4,954	4,718	55.3	86.1	67.2
West	165	589	618	2,628	8,448	7,284	62.9	69.7	84.8
Mountain	38	164	216	573	2,189	2,219	65.9	74.8	97.3
Pacific	127	425	402	2,056	6,259	5,065	62.0	67.9	79.4

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	1959 or before	1960 to 1989	1990 to 2012	1959 or before	1960 to 1989	1990 to 2012	1959 or before	1960 to 1989	1990 to 2012
All buildings	1,193	3,078	2,692	17,390	36,439	33,265	68.6	84.5	80.9
Climate region¹									
Very cold/Cold	579	1,127	1,041	7,958	12,657	11,283	72.8	89.0	92.2
Mixed-humid	416	994	860	5,914	10,988	10,971	70.4	90.4	78.4
Mixed-dry/Hot-dry	98	372	334	1,800	5,537	4,700	54.6	67.1	71.0
Hot-humid	81	493	373	1,319	5,969	5,543	61.2	82.6	67.3
Marine	19	92	85	398	1,287	768	48.1	71.6	111.1
Number of floors									
One	295	1,270	1,266	5,274	16,837	17,699	55.9	75.4	71.5
Two	236	694	531	3,642	9,327	7,237	64.8	74.4	73.3
Three	194	267	207	2,788	2,766	2,585	69.4	96.5	80.3
Four to nine	356	547	529	4,483	4,595	4,457	79.5	119.0	118.8
Ten or more	113	300	159	1,203	2,914	1,286	93.7	102.9	123.6
Elevators and escalators (more than one may apply)									
Any elevators	583	1,352	1,248	7,057	12,884	12,178	82.6	105.0	102.5
Number of elevators									
One	199	345	340	2,941	3,781	4,437	67.6	91.3	76.6
Two to five	199	526	518	2,528	5,208	5,081	78.5	100.9	101.9
Six or more	185	482	390	1,589	3,896	2,660	116.7	123.7	146.7
Any escalators	76	158	144	866	1,673	1,115	87.3	94.2	128.9
Number of workers (main shift)									
Fewer than 5	213	316	227	5,228	6,886	5,637	40.8	45.9	40.2
5 to 9	108	275	214	1,844	3,803	3,326	58.6	72.4	64.4
10 to 19	122	323	327	1,598	4,158	3,866	76.4	77.8	84.5
20 to 49	155	571	462	2,109	6,493	5,912	73.3	87.9	78.2
50 to 99	210	450	489	2,766	5,152	5,558	76.1	87.4	88.0
100 to 249	136	430	492	1,624	4,308	5,010	83.7	99.9	98.2
250 or more	249	711	481	2,221	5,638	3,956	112.2	126.1	121.6
Weekly operating hours									
Fewer than 40	73	94	62	2,745	3,196	2,280	26.6	29.4	27.1
40 to 48	212	362	258	4,214	6,226	5,388	50.3	58.1	47.9
49 to 60	234	543	480	3,663	9,125	7,742	64.0	59.5	62.0
61 to 84	191	645	534	2,631	7,082	6,154	72.6	91.1	86.7
85 to 167	198	395	505	1,627	3,247	4,521	121.8	121.5	111.8
Open continuously	285	1,039	853	2,510	7,563	7,180	113.6	137.3	118.8
Ownership and occupancy									
Nongovernment owned	824	2,385	2,166	12,440	28,684	26,426	66.3	83.1	82.0
Owner occupied	444	1,059	1,113	6,338	11,439	12,861	70.0	92.6	86.5
Leased to tenant(s)	267	952	822	3,824	12,093	10,198	69.9	78.7	80.6
Owner occupied and leased	111	370	229	1,682	4,236	2,956	65.8	87.2	77.4
Unoccupied	3	5	Q	597	916	412	4.3	5.1	Q
Government owned	369	693	526	4,950	7,755	6,839	74.6	89.3	76.9
Federal	52	39	47	624	436	513	82.5	89.8	90.9
State	137	272	146	1,440	2,466	1,633	95.2	110.1	89.4
Local	181	382	333	2,885	4,853	4,694	62.6	78.7	71.0

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	1959 or before	1960 to 1989	1990 to 2012	1959 or before	1960 to 1989	1990 to 2012	1959 or before	1960 to 1989	1990 to 2012
All buildings	1,193	3,078	2,692	17,390	36,439	33,265	68.6	84.5	80.9
Party responsible for operation and maintenance of energy systems									
Building owner	1,057	2,549	2,202	15,671	30,180	27,851	67.5	84.4	79.1
Business owner or tenant	113	447	424	1,467	5,297	4,544	76.7	84.3	93.3
Property management	Q	54	30	Q	652	499	Q	83.6	60.6
Other	Q	28	36	Q	310	370	Q	89.8	96.7
Provider of direct input on energy-related equipment purchases									
Building owner	1,073	2,645	2,266	15,895	31,704	28,672	67.5	83.4	79.0
Business owner or tenant	95	342	329	1,134	3,568	3,554	84.2	95.8	92.6
Property management	Q	28	22	Q	472	317	Q	59.4	67.9
Other	14	63	75	270	695	722	53.3	90.6	104.5
Number of establishments									
One	785	1,891	1,809	11,056	21,758	22,180	71.0	86.9	81.6
2 to 5	277	607	517	4,016	7,196	6,545	69.0	84.3	78.9
6 to 10	53	180	130	708	2,180	1,538	75.2	82.7	84.6
11 to 20	22	177	156	294	1,816	1,594	75.4	97.5	97.8
More than 20	53	216	78	550	2,426	844	96.0	89.0	92.3
Currently unoccupied	3	7	Q	766	1,062	564	4.1	6.2	Q
Predominant exterior wall material									
Brick, stone, or stucco	801	1,475	1,180	11,151	15,810	13,502	71.8	93.3	87.4
Concrete (block or poured)	241	893	585	3,561	10,059	7,106	67.8	88.8	82.3
Concrete panels	25	254	386	323	3,740	4,630	76.4	67.9	83.3
Siding or shingles	78	151	171	1,544	2,052	2,154	50.5	73.5	79.5
Metal panels	Q	185	212	457	3,669	4,547	Q	50.4	46.6
Window glass	Q	71	90	Q	641	642	Q	111.3	140.7
Other	Q	27	46	Q	264	411	Q	104.3	111.7
No one major type	Q	Q	22	Q	Q	272	Q	Q	79.3
Predominant roof material									
Metal surfacing	105	311	449	1,990	5,225	8,701	52.6	59.6	51.6
Synthetic or rubber	393	969	1,080	5,325	10,611	9,880	73.7	91.3	109.3
Built-up	283	1,026	554	4,040	11,034	6,760	70.0	93.0	81.9
Slate or tile shingles	123	123	125	1,644	1,427	1,235	74.7	86.2	101.3
Wooden materials (including shingles)	22	47	24	232	524	384	93.7	88.9	63.1
Asphalt, fiberglass, or other shingles	237	487	380	3,499	6,208	5,397	67.8	78.5	70.5
Concrete	14	63	55	292	744	605	49.5	84.5	91.1
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
No one major type	Q	17	Q	Q	321	Q	Q	53.0	Q

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All buildings	1,193	3,078	2,692	17,390	36,439	33,265	68.6	84.5	80.9
Roof characteristics									
Roof tilt									
Flat	733	2,218	1,525	9,686	23,717	16,220	75.7	93.5	94.0
Shallow pitch	233	564	800	3,900	8,739	11,214	59.7	64.5	71.4
Steeper pitch	228	296	367	3,803	3,983	5,831	59.9	74.3	62.9
Cool roof	238	779	820	2,868	8,047	8,715	83.1	96.8	94.0
Renovations in buildings constructed before 2008 (more than one may apply)									
Any type of renovation	845	2,047	869	11,392	21,646	9,178	74.2	94.6	94.7
Addition or annex	280	628	383	2,996	6,369	3,657	93.6	98.7	104.7
Reduction in floorspace	43	157	26	372	1,122	260	114.7	140.1	100.0
Roof replacement	459	1,215	312	5,877	11,922	3,117	78.1	101.9	100.0
Exterior wall replacement	109	189	101	1,447	1,892	891	75.6	99.8	112.8
Interior wall reconfiguration	469	1,088	499	5,658	11,070	4,612	82.9	98.3	108.1
Window replacement	373	545	172	5,015	5,800	1,450	74.4	94.0	118.6
HVAC equipment upgrade	604	1,432	509	7,510	14,545	4,724	80.4	98.4	107.7
Lighting upgrade	596	1,329	514	7,257	13,491	4,754	82.2	98.5	108.2
Electrical upgrade	498	792	318	5,719	7,721	2,720	87.0	102.6	116.8
Plumbing system upgrade	390	698	308	4,566	6,613	2,650	85.4	105.6	116.4
Insulation upgrade	199	375	197	2,326	3,563	1,718	85.5	105.3	114.7
Fire, safety, or security upgrade	444	924	318	5,038	9,199	2,959	88.1	100.4	107.3
Structural upgrade	89	194	141	1,063	1,737	1,113	84.0	111.5	126.8
Other	Q	42	Q	Q	484	Q	Q	86.1	Q
No renovations	348	1,030	1,339	5,998	14,792	18,364	58.0	69.6	72.9
Buildings constructed 2008 or later	N	N	484	N	N	5,723	N	N	84.5
Energy sources (more than one may apply)									
Electricity	1,193	3,078	2,692	16,874	35,545	32,449	70.7	86.6	83.0
Natural gas	921	2,470	2,153	11,504	25,420	21,801	80.1	97.2	98.7
Fuel oil	362	992	878	4,076	8,826	7,298	88.8	112.3	120.3
District heat	193	377	239	1,874	2,380	1,710	102.7	158.2	139.7
District chilled water	90	325	251	804	2,044	1,759	111.4	158.8	142.7
Propane	72	221	290	1,110	3,015	3,581	65.0	73.1	81.1
Other	72	135	94	870	1,581	1,375	82.9	85.2	68.6
Space-heating energy sources (more than one may apply)									
Electricity	588	1,746	1,564	8,447	20,696	19,888	69.6	84.4	78.6
Natural gas	772	1,943	1,731	10,080	21,118	18,313	76.6	92.0	94.5
Fuel oil	113	162	85	1,790	1,707	855	63.2	94.9	99.2
District heat	191	376	236	1,857	2,378	1,690	103.1	158.2	139.8
Propane	23	48	81	522	1,143	1,402	43.7	41.7	57.6
Other	20	23	Q	357	451	201	56.0	51.3	Q

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	1959 or before	1960 to 1989	1990 to 2012	1959 or before	1960 to 1989	1990 to 2012	1959 or before	1960 to 1989	1990 to 2012
All buildings	1,193	3,078	2,692	17,390	36,439	33,265	68.6	84.5	80.9
Primary space-heating energy source									
Electricity	178	847	821	3,200	11,143	11,862	55.5	76.0	69.2
Natural gas	709	1,675	1,487	9,209	18,153	15,625	77.0	92.3	95.2
Fuel oil	75	68	45	1,248	797	497	60.0	84.7	90.2
District heat	190	374	231	1,850	2,365	1,582	102.6	158.1	145.8
Propane	7	21	36	345	704	898	18.9	29.3	39.8
Other	Q	15	Q	Q	336	Q	Q	44.5	Q
Cooling energy sources (more than one may apply)									
Electricity	1,093	2,787	2,441	14,558	32,233	29,243	75.1	86.5	83.5
Natural gas	Q	39	Q	Q	282	Q	Q	139.6	Q
District chilled water	90	325	251	804	2,044	1,759	111.4	158.8	142.7
Water-heating energy sources (more than one may apply)									
Electricity	422	1,395	1,285	7,044	18,122	17,589	59.9	77.0	73.1
Natural gas	649	1,805	1,576	7,294	17,542	14,687	88.9	102.9	107.3
Fuel oil	56	83	36	770	760	381	72.1	108.8	94.2
District heat	159	306	188	1,502	1,747	1,302	105.8	175.1	144.0
Propane	9	34	44	215	629	732	43.1	53.5	60.1
Cooking energy sources (more than one may apply)									
Electricity	394	1,066	1,051	4,764	10,195	10,192	82.8	104.6	103.1
Natural gas	458	1,338	1,219	4,443	10,793	9,534	103.0	123.9	127.9
Propane	26	79	61	342	804	856	76.3	98.8	71.7
Energy end uses (more than one may apply)									
Buildings with space heating	1,162	2,999	2,621	16,006	33,499	30,573	72.6	89.5	85.7
Buildings with cooling	1,136	3,000	2,637	14,981	33,675	30,637	75.8	89.1	86.1
Buildings with water heating	1,151	3,016	2,631	15,112	33,688	30,215	76.1	89.5	87.1
Buildings with cooking	678	1,784	1,617	7,614	16,026	14,906	89.1	111.3	108.5
Buildings with manufacturing	64	185	111	1,246	2,294	1,539	51.6	80.8	72.0
Buildings with electricity generation	340	1,193	1,270	3,328	10,918	11,395	102.2	109.2	111.5
Percent of floorspace heated									
Not heated	31	79	71	1,384	2,940	2,692	22.5	26.8	26.5
1 to 50	81	189	198	2,140	4,564	3,427	37.9	41.4	57.6
51 to 99	239	569	490	3,449	5,872	5,328	69.3	96.9	92.0
100	842	2,241	1,934	10,417	23,062	21,818	80.8	97.2	88.6
Percent of floorspace cooled									
Not cooled	57	77	55	2,409	2,763	2,627	23.7	27.9	20.9
1 to 50	262	414	312	4,311	8,396	6,184	60.9	49.4	50.5
51 to 99	402	907	835	5,149	9,200	8,378	78.0	98.6	99.6
100	472	1,679	1,491	5,521	16,080	16,075	85.5	104.4	92.7

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All buildings	1,193	3,078	2,692	17,390	36,439	33,265	68.6	84.5	80.9
Percent lit when open									
Zero	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50	185	239	219	3,513	4,801	4,315	52.5	49.7	50.8
51 to 99	530	1,379	1,140	6,938	15,190	12,687	76.4	90.8	89.8
100	472	1,446	1,325	5,907	15,017	14,801	80.0	96.3	89.5
Building never open/electricity not used	5	12	Q	1,010	1,381	1,212	5.3	8.5	5.6
Percent lit during off hours									
Zero	273	532	489	5,584	9,684	9,478	48.9	54.9	51.6
1 to 50	790	1,899	1,657	9,964	21,827	18,962	79.2	87.0	87.4
51 to 100	109	513	396	1,154	3,047	2,725	94.6	168.3	145.1
Building always open with no "off hours"	Q	134	151	Q	987	1,284	Q	135.2	117.5
Electricity not used	N	N	N	515	894	816	N	N	N
Heating equipment (more than one may apply)									
Heat pumps	144	394	361	2,021	4,880	4,945	71.5	80.7	72.9
Furnaces	118	290	207	1,603	4,277	2,775	73.9	67.7	74.8
Individual space heaters	338	740	494	5,436	8,933	6,397	62.1	82.8	77.2
District heat	191	376	236	1,857	2,378	1,690	103.1	158.2	139.8
Boilers	484	972	806	5,896	9,242	7,305	82.0	105.1	110.4
Packaged heating units	541	1,812	1,730	7,683	20,863	20,642	70.4	86.8	83.8
Other	Q	76	98	Q	620	756	Q	122.4	129.6
Cooling equipment (more than one may apply)									
Residential-type central air conditioners	222	509	356	3,062	6,623	5,079	72.4	76.8	70.1
Heat pumps	158	416	365	2,204	5,185	5,148	71.6	80.3	70.9
Individual air conditioners	306	473	234	3,978	5,157	3,285	76.8	91.8	71.2
District chilled water	90	325	251	804	2,044	1,759	111.4	158.8	142.7
Central chillers	338	852	663	3,529	7,633	5,879	95.6	111.6	112.8
Packaged air conditioning units	612	1,769	1,591	7,815	19,583	17,755	78.4	90.3	89.6
Swamp coolers	34	84	57	360	773	785	95.2	109.3	72.3
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
Main equipment replaced since 1990 (more than one may apply)									
Heating	574	1,590	N	8,694	18,863	N	66.0	84.3	N
Cooling	711	1,809	N	9,732	20,970	N	73.1	86.3	N
Water-heating equipment									
Centralized system	736	1,825	1,649	9,510	19,888	18,136	77.4	91.8	90.9
Distributed system	149	387	296	2,213	5,666	4,809	67.3	68.3	61.5
Combination of centralized and distributed system	266	804	686	3,390	8,134	7,270	78.4	98.8	94.3

Table C12. Consumption and gross energy intensity by year constructed for sum of major fuels, 2012

	Sum of major fuel consumption (trillion Btu)			Total floorspace of buildings (million square feet)			Energy intensity for sum of major fuels (thousand Btu/square foot)		
	1959 or before	1960 to 1989	1990 to 2012	1959 or before	1960 to 1989	1990 to 2012	1959 or before	1960 to 1989	1990 to 2012
All buildings	1,193	3,078	2,692	17,390	36,439	33,265	68.6	84.5	80.9
Lighting equipment types (more than one may apply)									
Incandescent	657	1,685	1,199	8,536	17,161	12,708	76.9	98.2	94.3
Standard fluorescent	1,138	2,995	2,580	15,612	34,113	30,356	72.9	87.8	85.0
Compact fluorescent	821	2,225	2,048	10,400	22,575	20,842	79.0	98.6	98.3
High-intensity discharge (HID)	309	995	882	3,884	10,426	9,086	79.6	95.5	97.1
Halogen	444	1,125	1,125	5,184	11,489	11,386	85.7	98.0	98.8
LED	342	1,022	1,000	3,578	9,230	9,263	95.5	110.7	107.9
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
Refrigeration equipment (more than one may apply)									
Any refrigeration	1,082	2,863	2,527	14,123	30,838	28,684	76.6	92.8	88.1
Walk-in units	464	1,600	1,461	4,362	12,772	11,227	106.4	125.3	130.1
Cases or cabinets	466	1,446	1,404	4,627	12,078	12,013	100.6	119.8	116.8
Large cold storage areas	62	207	261	554	1,713	1,904	111.6	120.8	137.1
Commercial ice makers	514	1,689	1,529	4,686	13,981	14,067	109.6	120.8	108.7
Residential-type or compact units	880	2,376	1,927	11,908	26,467	24,006	73.9	89.8	80.3
Vending machines	598	1,902	1,678	6,931	18,916	18,089	86.3	100.6	92.8
No refrigeration	111	215	166	3,266	5,601	4,581	34.1	38.4	36.2
Office equipment (more than one may apply)									
Desktop computers	1,103	2,908	2,576	14,509	32,652	29,902	76.0	89.1	86.1
With flat screen monitors	1,090	2,874	2,559	14,222	32,261	29,677	76.7	89.1	86.2
With multiple monitors	422	1,317	1,204	4,825	13,279	12,842	87.4	99.1	93.7
Laptop computers	916	2,474	2,076	11,877	27,542	24,067	77.1	89.8	86.3
Dedicated servers	722	2,133	1,929	9,080	23,038	21,251	79.5	92.6	90.8
Laser printers	800	2,085	1,910	9,908	22,701	21,646	80.8	91.8	88.2
Inkjet printers	501	1,312	1,090	7,215	15,507	13,513	69.4	84.6	80.7
FAX machines	921	2,544	2,241	12,128	28,379	26,175	76.0	89.6	85.6
Photocopiers	837	2,254	2,019	10,859	25,382	23,036	77.1	88.8	87.6
Number of desktop computers									
None	91	170	116	2,881	3,787	3,363	31.5	44.8	34.6
1 to 4	261	514	409	4,241	6,160	5,268	61.5	83.5	77.7
5 to 9	106	314	317	1,361	4,235	3,825	78.2	74.3	82.9
10 to 19	82	269	325	1,230	3,728	4,431	66.4	72.3	73.4
20 to 49	149	503	469	1,852	5,630	5,612	80.3	89.4	83.5
50 to 99	138	282	226	1,797	3,397	3,090	76.5	82.9	73.2
100 to 249	139	432	390	1,826	3,948	3,953	75.9	109.5	98.6
250 or more	229	592	440	2,201	5,554	3,723	104.0	106.6	118.2

Table C12. Consumption and gross energy intensity by year constructed for sum of major fuels, 2012

	Sum of major fuel consumption (trillion Btu)			Total floorspace of buildings (million square feet)			Energy intensity for sum of major fuels (thousand Btu/square foot)		
	1959 or before	1960 to 1989	1990 to 2012	1959 or before	1960 to 1989	1990 to 2012	1959 or before	1960 to 1989	1990 to 2012
All buildings	1,193	3,078	2,692	17,390	36,439	33,265	68.6	84.5	80.9
Number of laptop computers									
None	277	603	616	5,512	8,896	9,198	50.3	67.8	67.0
1 to 4	274	687	556	4,318	8,926	7,918	63.4	76.9	70.2
5 to 9	78	365	255	1,210	3,945	3,191	64.7	92.4	79.8
10 to 19	103	294	321	1,315	3,424	3,604	78.2	86.0	89.2
20 to 49	162	372	373	1,836	4,121	3,686	88.0	90.4	101.3
50 to 99	102	220	184	1,173	2,109	1,951	86.6	104.5	94.2
100 to 249	76	257	192	858	2,557	1,802	88.8	100.6	106.3
250 or more	122	278	195	1,167	2,459	1,916	104.2	113.2	102.0
Number of dedicated servers									
None	472	944	763	8,310	13,401	12,014	56.8	70.5	63.5
1 to 4	426	1,207	1,086	6,037	14,100	13,960	70.6	85.6	77.8
5 to 9	80	250	235	871	2,894	2,476	91.9	86.3	94.9
10 to 19	75	237	281	972	2,476	2,262	77.6	95.6	124.2
20 to 49	38	188	170	456	1,898	1,404	83.8	99.0	121.3
50 or more	102	252	157	744	1,671	1,148	137.2	151.0	137.1
Number of photocopiers									
None	356	824	673	6,531	11,056	10,229	54.6	74.5	65.8
One	191	520	491	3,284	7,278	6,518	58.3	71.4	75.3
2 to 4	246	680	670	3,383	8,374	8,555	72.8	81.2	78.3
5 to 9	130	373	281	1,567	3,740	3,556	83.0	99.8	78.9
10 or more	269	680	578	2,625	5,990	4,406	102.5	113.6	131.2
Number of TVs or video displays									
None	268	515	431	5,947	9,923	8,469	45.1	51.9	50.9
One	119	327	251	2,275	3,965	3,751	52.4	82.5	66.9
2 to 4	253	544	514	3,303	6,650	6,511	76.4	81.8	79.0
5 to 9	161	305	310	1,651	2,895	3,602	97.5	105.5	86.1
10 to 19	110	406	294	1,513	3,931	2,724	72.6	103.3	108.0
20 to 49	89	325	302	1,078	3,618	3,362	82.9	89.9	89.9
50 to 99	66	183	183	723	1,633	2,022	90.7	112.2	90.3
100 or more	128	472	407	900	3,823	2,824	141.8	123.4	144.1
Food preparation or serving areas in non-food service buildings (more than one may apply)									
Snack bar or concession stand	155	486	471	1,571	4,371	3,943	98.4	111.3	119.5
Fast food or small restaurant	111	531	565	973	4,522	4,292	114.0	117.3	131.6
Cafeteria or large restaurant	257	757	610	2,763	6,865	5,594	93.2	110.3	109.0
Commercial kitchen/ food preparation area	257	823	719	2,882	6,932	6,336	89.1	118.7	113.4
Small kitchen area	254	499	434	3,432	5,626	4,996	74.1	88.7	86.8

Table C12. Consumption and gross energy intensity by year constructed for sum of major fuels, 2012

	Sum of major fuel consumption (trillion Btu)			Total floorspace of buildings (million square feet)			Energy intensity for sum of major fuels (thousand Btu/square foot)		
	1959 or before	1960 to 1989	1990 to 2012	1959 or before	1960 to 1989	1990 to 2012	1959 or before	1960 to 1989	1990 to 2012
All buildings	1,193	3,078	2,692	17,390	36,439	33,265	68.6	84.5	80.9
Separate computer areas (more than one may apply)									
Data center or server farm	167	621	568	1,582	5,332	4,192	105.4	116.4	135.5
Computer-based training room	271	693	732	3,192	6,743	7,789	84.9	102.8	94.0
Student or public computer center	218	563	494	2,719	6,200	5,422	80.0	90.8	91.1
HVAC conservation features (more than one may apply)									
Economizer cycle	447	1,346	1,350	5,107	12,760	12,881	87.5	105.5	104.8
Regular HVAC maintenance	979	2,755	2,469	12,116	29,468	27,660	80.8	93.5	89.2
Building automation system (BAS) ²	492	1,513	1,704	5,489	14,738	16,823	89.7	102.7	101.3
Window and interior lighting features (more than one may apply)									
Multipaned windows	766	2,169	2,315	10,444	23,874	26,044	73.3	90.8	88.9
Tinted window glass	483	1,849	1,641	6,117	20,403	18,505	78.9	90.6	88.7
Reflective window glass	166	720	767	2,073	6,648	7,188	80.1	108.3	106.7
External overhangs or awnings	432	1,406	1,251	4,928	14,352	12,908	87.6	97.9	96.9
Skylights or atriums	269	934	807	3,029	10,563	8,668	88.7	88.5	93.1
Light scheduling	373	1,204	1,353	4,203	12,411	13,649	88.6	97.0	99.1
Occupancy sensors	544	1,419	1,472	5,917	14,314	15,640	91.9	99.1	94.1
Multi-level lighting or dimming	194	640	784	2,057	5,860	6,617	94.4	109.2	118.6
Daylight harvesting	67	259	292	802	2,393	2,919	84.1	108.4	100.2
Demand responsive lighting	42	194	173	536	2,236	1,966	78.9	86.9	88.1
Building automation system (BAS) for lighting ²	129	430	642	1,140	4,512	6,416	113.3	95.2	100.1
Equipment usage reduced when building not in full use (more than one may apply)									
Heating	884	2,165	1,972	12,611	26,348	24,208	70.1	82.2	81.5
Cooling	876	2,166	1,966	11,857	26,347	24,312	73.9	82.2	80.9
Lighting	1,145	2,845	2,436	15,895	33,301	29,398	72.0	85.4	82.9

¹These climate regions were created by the Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE).

²In earlier CBECS publications, BAS was referred to as *Energy Management and Control System (EMCS)*.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 20 buildings were sampled.

N = No cases in reporting sample.

Notes: • Because of rounding, data may not sum to totals. • See the *Guide to the 2012 CBECS Detailed Tables* or *CBECS Terminology* for definitions of terms used in these tables and/or comparison of differences with prior CBECS tables. Both references can be accessed from <http://www.eia.gov/consumption/commercial/data/2012/> • Site electricity is the amount of electricity delivered to commercial buildings. Primary electricity, which is not included in the *Total of major fuels* category, is site electricity plus the conversion losses in the generation, transmission, and distribution processes. • Statistics for the *Energy end uses* category represent total consumption in buildings that have the end use, not consumption specifically for that particular end use. • HVAC = Heating, ventilation, and air conditioning.

Source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Forms EIA-871A, C, D, E, and F of the 2012 Commercial Buildings Energy Consumption Survey.