

Table B32. Heating Equipment, Number of Buildings, 1999

	Number of Buildings (thousand)								
	All Buildings	All Heated Buildings	Heating Equipment (more than one may apply)						
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged Heating Units	Other
All Buildings	4,657	4,016	492	1,460	894	96	581	1,347	185
Building Floorspace (Square Feet)									
1,001 to 5,000	2,348	1,982	240	783	397	Q	146	589	98
5,001 to 10,000	1,110	946	100	387	183	Q	144	302	Q
10,001 to 25,000	708	629	81	206	191	19	128	253	22
25,001 to 50,000	257	237	37	47	62	17	72	101	14
50,001 to 100,000	145	137	20	25	35	13	52	62	8
100,001 to 200,000	59	57	8	9	18	7	24	27	3
200,001 to 500,000	23	22	3	3	6	3	11	10	2
Over 500,000	7	7	1	1	3	2	3	3	1
Principal Building Activity									
Education	327	326	47	48	46	30	106	139	Q
Food Sales	174	149	Q	47	Q	Q	Q	65	Q
Food Service	349	321	Q	95	48	Q	Q	156	Q
Health Care	127	127	26	53	8	3	16	39	Q
Inpatient	11	11	1	Q	2	3	8	3	Q
Outpatient	116	116	Q	52	Q	Q	8	36	Q
Lodging	153	150	28	26	53	13	39	34	Q
Mercantile	667	626	53	221	116	Q	65	255	36
Retail (Other Than Mall)	534	502	28	194	107	Q	60	173	Q
Enclosed and Strip Malls	133	123	25	27	9	N	5	81	Q
Office	739	728	139	236	135	19	105	275	13
Public Assembly	305	274	30	99	68	15	49	70	Q
Public Order and Safety	72	61	Q	Q	22	3	30	11	Q
Religious Worship	307	306	17	184	101	Q	51	78	Q
Service	478	421	37	189	122	Q	33	112	29
Warehouse and Storage	603	357	45	176	104	Q	41	76	Q
Other	102	84	Q	40	29	Q	6	24	Q
Vacant	253	84	Q	37	Q	Q	Q	Q	Q
Year Constructed									
1919 or Before	419	350	6	163	79	19	100	40	Q
1920 to 1945	499	430	23	206	107	9	83	110	Q
1946 to 1959	763	666	95	251	180	21	121	157	33
1960 to 1969	665	557	39	191	110	16	98	213	19
1970 to 1979	774	691	102	205	172	Q	63	304	35
1980 to 1989	846	713	124	237	127	11	65	289	59
1990 to 1999	690	608	103	208	119	4	52	235	Q
Census Region									
Northeast	686	601	24	222	119	31	189	135	22
Midwest	1,188	1,049	28	632	205	22	175	201	52
South	1,762	1,503	338	369	370	27	123	645	62
West	1,021	863	102	237	200	17	93	366	49
Climate Zone: 45-Year Average									
Under 2,000 CDD and --									
More than 7,000 HDD	525	475	4	246	117	3	131	65	26
5,500-7,000 HDD	986	870	27	457	170	22	182	206	51
4,000-5,499 HDD	1,085	950	153	395	211	42	161	189	44
Fewer than 4,000 HDD	1,134	997	183	198	238	8	71	509	35
2,000 CDD or More and --									
Fewer than 4,000 HDD	926	724	124	164	157	21	36	378	29

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	Number of Buildings (thousand)								
	All Buildings	All Heated Buildings	Heating Equipment (more than one may apply)						
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged Heating Units	Other
Workers (main shift)									
Fewer than 5	2,376	1,835	162	742	419	30	191	504	105
5 to 9	807	773	73	370	188	14	108	204	25
10 to 19	683	667	131	164	125	10	109	290	12
20 to 49	487	456	81	141	86	12	83	210	18
50 to 99	174	166	28	24	46	15	41	84	14
100 to 249	90	81	11	17	20	8	31	40	5
250 or More	39	38	6	3	10	7	18	15	5
Weekly Operating Hours									
39 or Fewer	978	638	51	304	163	Q	76	156	Q
40 to 48	1,156	1,068	171	420	256	35	122	329	30
49 to 60	986	943	126	336	213	17	146	314	54
61 to 84	664	598	46	234	96	16	104	212	16
85 to 167	474	407	64	104	77	7	42	197	27
Open Continuously	398	361	34	62	89	20	90	139	31
Multibuilding Facility Activity									
Not Part of a Multibuilding									
Facility	3,295	2,876	314	1,176	654	18	383	933	135
College or University	70	69	Q	Q	Q	35	15	6	Q
Primary or Secondary School	224	211	35	23	31	Q	48	110	Q
Office Complex	134	121	33	31	26	Q	Q	38	3
Retail Complex	181	156	20	45	20	Q	Q	82	Q
Religious Campus or Complex	186	184	Q	76	54	Q	27	64	Q
Health Care Complex	72	65	21	Q	Q	7	12	26	Q
Government Complex	61	50	Q	Q	15	Q	8	7	Q
Other	434	284	32	97	74	5	51	81	18
Energy Sources (more than one may apply)									
Electricity	4,395	4,008	492	1,460	886	96	581	1,347	185
Natural Gas	2,670	2,588	194	1,104	581	41	416	939	71
Fuel Oil	434	432	38	172	115	7	170	40	39
District Heat	117	116	Q	Q	12	96	Q	Q	1
District Chilled Water	50	49	3	Q	9	39	3	Q	1
Propane	451	434	36	161	117	Q	87	120	28
Other	153	149	Q	46	39	Q	29	31	53
Space-Heating Energy Sources (more than one may apply)									
Electricity	1,880	1,880	475	512	584	26	193	744	110
Natural Gas	2,380	2,380	144	1,077	543	Q	381	865	67
Fuel Oil	377	377	Q	166	100	Q	152	17	34
District Heat	96	96	4	Q	7	96	Q	Q	1
Propane	307	307	12	128	104	Q	41	81	19
Other	94	94	Q	Q	27	Q	12	Q	52
Primary Space-Heating Energy Source									
Electricity	1,128	1,128	373	192	213	Q	40	494	62
Natural Gas	2,189	2,189	97	1,017	498	2	364	758	60
Fuel Oil	302	302	Q	119	79	Q	136	Q	Q
District Heat	77	77	3	Q	5	77	Q	4	Q
Propane	282	282	Q	115	91	N	Q	74	Q
Other	38	38	Q	Q	Q	N	Q	Q	Q

Table B32. Heating Equipment, Number of Buildings, 1999

	Number of Buildings (thousand)								
	All Buildings	All Heated Buildings	Heating Equipment (more than one may apply)						
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged Heating Units	Other
Energy End Uses (more than one may apply)									
Buildings with Space Heating	4,016	4,016	492	1,460	894	96	581	1,347	185
Buildings with Cooling	3,560	3,400	478	1,193	670	77	474	1,304	143
Buildings with Water Heating	3,239	3,087	383	1,094	637	80	517	1,118	126
Buildings with Cooking	857	798	101	214	172	21	182	340	33
Buildings with Manufacturing	151	143	Q	57	56	Q	8	46	Q
Buildings with Electricity Generation	172	169	30	27	45	9	77	57	9
Percent of Floorspace Heated									
Not Heated	641	N	N	N	N	N	N	N	N
1 to 50	576	576	53	236	137	Q	54	129	53
51 to 99	627	627	70	271	150	16	66	232	13
100	2,813	2,813	369	953	607	80	460	986	118
Heating Equipment (more than one may apply)									
Heat Pumps	492	492	492	76	78	4	38	78	19
Furnaces	1,460	1,460	76	1,460	271	Q	52	108	8
Individual Space Heaters	894	894	78	271	894	7	115	207	28
District Heat	96	96	4	Q	7	96	Q	Q	1
Boilers	581	581	38	52	115	Q	581	56	8
Packaged Heating Units	1,347	1,347	78	108	207	Q	56	1,347	15
Other	185	185	19	8	28	1	8	15	185
Cooling Equipment (more than one may apply)									
Residential-Type Central									
Air Conditioners	676	645	46	508	104	3	58	75	38
Heat Pumps	485	481	447	76	89	4	39	84	22
Individual Air Conditioners	799	771	84	262	294	16	211	167	47
District Chilled Water	50	49	3	Q	9	39	3	Q	1
Central Chillers	130	126	12	12	26	15	96	26	8
Packaged Air Conditioning									
Units	1,953	1,859	130	470	327	35	223	1,219	49
Swamp Coolers	136	126	9	72	47	Q	18	48	Q
Other	49	48	Q	12	4	Q	14	4	Q
Main Equipment Replaced Since 1995 (more than one may apply)									
Heating	984	984	130	347	231	Q	97	381	27
Cooling	1,085	1,014	172	374	215	10	128	397	18
Building Shell Conservation Features (more than one may apply)									
Multipaned Windows	2,130	2,047	295	830	404	45	354	602	95
Tinted, Reflective, or Shading Glass	1,283	1,225	167	364	227	35	176	576	54
HVAC Conservation Features (more than one may apply)									
Variable Air-Volume System	550	516	77	129	76	24	125	221	19
Economizer Cycle	567	559	58	88	79	32	112	334	27
HVAC Maintenance	2,786	2,704	370	954	483	93	497	1,065	88
Energy Management and Control System (EMCS)	460	452	48	64	68	48	116	241	25

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	All Buildings	All Heated Buildings	Heating Equipment (more than one may apply)						
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged Heating Units	Other
Off-Hour Equipment Reduction (more than one may apply)									
Heating	2,862	2,862	367	1,104	622	70	410	954	96
Cooling	2,622	2,519	338	930	502	58	363	969	79
Lighting	3,675	3,448	435	1,333	748	72	478	1,154	133
Office Equipment	184	181	25	40	38	9	69	73	7

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

N=No responding cases in sample.

Note: Due to rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table B33. Heating Equipment, Floorspace, 1999

	Total Floorspace (million square feet)								
	All Buildings	All Heated Buildings	Heating Equipment (more than one may apply)						
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged Heating Units	Other
All Buildings	67,338	61,602	8,923	14,449	17,349	5,534	19,522	25,743	4,073
Building Floorspace (Square Feet)									
1,001 to 5,000	6,774	5,684	679	2,271	1,183	Q	463	1,779	250
5,001 to 10,000	8,238	7,090	745	2,848	1,350	Q	1,040	2,301	Q
10,001 to 25,000	11,153	9,865	1,288	3,047	3,021	307	2,047	3,994	401
25,001 to 50,000	9,311	8,565	1,376	1,674	2,218	617	2,591	3,695	510
50,001 to 100,000	10,112	9,597	1,493	1,718	2,492	905	3,698	4,262	511
100,001 to 200,000	8,271	7,893	1,095	1,283	2,467	883	3,334	3,811	450
200,001 to 500,000	6,851	6,445	996	807	1,974	963	3,268	2,943	782
Over 500,000	6,628	6,465	1,250	802	2,643	1,698	3,081	2,959	903
Principal Building Activity									
Education	8,651	8,612	1,184	1,040	1,869	1,086	5,048	2,710	Q
Food Sales	994	880	Q	263	Q	Q	Q	402	Q
Food Service	1,851	1,721	Q	583	261	Q	Q	895	Q
Health Care	2,918	2,918	648	368	676	736	1,494	1,159	335
Inpatient	1,865	1,865	486	Q	560	641	1,235	761	Q
Outpatient	1,053	1,053	Q	264	Q	Q	259	398	Q
Lodging	4,521	4,424	1,068	649	1,659	527	1,814	1,688	Q
Mercantile	10,398	9,848	1,340	2,234	2,448	Q	1,291	6,664	701
Retail (Other Than Mall)	4,766	4,615	218	1,620	1,199	Q	536	2,171	Q
Enclosed and Strip Malls	5,631	5,233	1,122	614	1,249	N	755	4,493	Q
Office	12,044	11,810	1,949	1,807	2,631	1,487	4,211	4,304	1,244
Public Assembly	4,393	4,015	582	787	1,163	841	1,409	1,368	Q
Public Order and Safety	1,168	1,021	Q	Q	232	297	541	251	Q
Religious Worship	3,405	3,383	327	1,701	1,021	Q	1,010	1,047	Q
Service	3,388	3,027	381	1,129	1,165	Q	532	1,184	224
Warehouse and Storage	10,477	8,104	888	3,270	3,560	Q	1,369	3,542	428
Other	1,222	1,086	Q	309	257	Q	247	383	Q
Vacant	1,908	754	Q	218	Q	Q	Q	Q	Q
Year Constructed									
1919 or Before	4,034	3,593	251	1,214	1,042	480	1,397	428	Q
1920 to 1945	6,445	5,559	449	1,552	1,772	764	2,264	1,476	Q
1946 to 1959	9,127	8,402	1,064	2,082	2,551	1,065	2,762	2,917	563
1960 to 1969	10,866	9,966	1,129	2,053	2,496	1,351	4,231	3,961	560
1970 to 1979	11,840	10,916	1,651	2,235	3,345	769	3,275	4,899	684
1980 to 1989	13,931	12,566	2,583	2,927	3,428	606	3,114	6,379	1,012
1990 to 1999	11,094	10,600	1,796	2,387	2,715	499	2,479	5,684	786
Census Region									
Northeast	12,360	11,667	1,193	2,257	3,555	1,876	5,469	4,033	769
Midwest	16,761	15,916	1,015	5,767	4,667	1,514	5,961	5,081	1,113
South	23,485	20,598	4,580	3,949	5,471	1,022	4,209	10,455	1,391
West	14,731	13,421	2,135	2,476	3,657	1,121	3,883	6,175	800
Climate Zone: 45-Year Average									
Under 2,000 CDD and --									
More than 7,000 HDD	5,890	5,669	283	1,736	1,754	250	2,815	1,436	362
5,500-7,000 HDD	17,083	16,206	1,135	4,996	4,866	1,736	6,733	5,623	1,222
4,000-5,499 HDD	16,243	15,292	2,827	4,004	4,750	2,405	5,072	4,851	1,026
Fewer than 4,000 HDD	16,333	14,923	3,015	2,197	3,915	677	3,480	8,600	786
2,000 CDD or More and --									
Fewer than 4,000 HDD	11,788	9,512	1,663	1,516	2,064	466	1,422	5,233	676

Table B33. Heating Equipment, Floorspace, 1999

	Total Floorspace (million square feet)								
	All Buildings	All Heated Buildings	Heating Equipment (more than one may apply)						Other
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged Heating Units	
Workers (main shift)									
Fewer than 5	14,321	10,552	707	3,874	2,913	289	1,840	3,005	673
5 to 9	6,325	6,020	655	2,510	1,680	292	1,285	1,788	178
10 to 19	8,028	7,762	1,340	1,953	1,973	372	1,771	3,002	219
20 to 49	10,814	10,347	1,761	2,631	2,538	534	2,739	4,935	451
50 to 99	8,898	8,536	1,401	1,221	2,531	645	3,234	4,416	300
100 to 249	8,356	8,053	1,105	1,164	2,376	1,031	3,706	4,172	608
250 or More	10,595	10,333	1,954	1,095	3,339	2,371	4,948	4,426	1,644
Weekly Operating Hours									
39 or Fewer	6,596	4,217	313	1,765	1,051	Q	1,140	1,200	Q
40 to 48	13,105	12,090	1,863	3,664	3,321	730	3,170	4,093	472
49 to 60	14,200	13,677	1,963	3,580	3,657	910	4,337	5,101	1,089
61 to 84	12,458	11,787	1,501	2,183	3,086	911	3,542	5,835	915
85 to 167	9,116	8,399	1,179	1,697	2,558	830	2,316	4,436	394
Open Continuously	11,863	11,432	2,105	1,560	3,677	2,114	5,018	5,077	1,025
Multibuilding Facility Activity									
Not Part of a Multibuilding									
Facility	41,289	38,071	5,574	10,209	11,297	1,366	11,936	15,861	2,689
College or University	2,605	2,585	Q	Q	319	1,757	566	266	Q
Primary or Secondary School	3,388	3,268	428	494	747	Q	1,724	1,515	Q
Office Complex	3,353	3,250	331	345	483	Q	1,392	1,333	309
Retail Complex	3,555	3,205	472	650	857	Q	Q	2,339	Q
Religious Campus or Complex	1,907	1,885	Q	832	584	Q	462	708	Q
Health Care Complex	2,339	2,302	604	Q	530	818	1,056	922	Q
Government Complex	1,513	1,348	Q	Q	437	740	429	200	Q
Other	7,389	5,690	862	1,655	2,096	491	1,677	2,599	346
Energy Sources (more than one may apply)									
Electricity	65,716	61,565	8,923	14,449	17,321	5,534	19,514	25,743	4,073
Natural Gas	45,525	44,385	5,627	11,960	13,561	2,431	16,588	20,043	2,680
Fuel Oil	13,285	13,074	2,263	2,090	4,351	1,787	7,485	4,237	1,463
District Heat	5,891	5,862	811	Q	1,314	5,534	301	847	285
District Chilled Water	2,750	2,739	376	Q	567	2,279	326	497	159
Propane	6,290	6,076	838	1,801	1,915	Q	2,153	2,562	451
Other	2,322	2,276	316	526	1,032	Q	1,044	1,018	483
Space-Heating Energy Sources (more than one may apply)									
Electricity	32,291	32,291	8,667	6,822	12,350	1,609	8,410	16,861	2,972
Natural Gas	37,902	37,893	4,466	11,524	11,488	678	15,131	17,324	1,982
Fuel Oil	5,611	5,611	532	1,295	1,444	Q	4,176	1,040	341
District Heat	5,534	5,534	730	Q	1,210	5,534	Q	767	249
Propane	2,728	2,728	204	1,075	1,051	Q	672	937	272
Other	945	945	Q	Q	534	Q	420	Q	315
Primary Space-Heating Energy Source									
Electricity	17,627	17,627	5,009	2,281	4,788	Q	2,171	10,090	1,807
Natural Gas	32,729	32,729	3,076	10,311	9,945	211	13,918	13,958	1,634
Fuel Oil	3,719	3,719	Q	821	683	Q	2,717	333	Q
District Heat	5,077	5,077	588	Q	1,042	5,077	Q	602	Q
Propane	2,107	2,107	Q	864	725	N	Q	623	Q
Other	343	343	Q	Q	Q	N	Q	Q	Q

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	All Buildings	All Heated Buildings	Heating Equipment (more than one may apply)						Other
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged Heating Units	
Energy End Uses (more than one may apply)									
Buildings with Space Heating	61,602	61,602	8,923	14,449	17,349	5,534	19,522	25,743	4,073
Buildings with Cooling	58,474	56,361	8,766	12,819	15,708	4,844	17,947	25,134	3,592
Buildings with Water Heating	56,115	54,204	8,106	12,265	15,163	4,943	18,615	23,491	3,669
Buildings with Cooking	24,681	23,813	4,313	3,576	7,145	2,337	11,111	11,346	1,705
Buildings with Manufacturing	3,126	3,031	348	1,162	1,355	Q	730	1,349	Q
Buildings with Electricity Generation	11,882	11,643	2,396	1,437	4,275	1,986	5,704	5,016	1,444
Percent of Floorspace Heated									
Not Heated	5,736	N	N	N	N	N	N	N	N
1 to 50	7,593	7,593	1,098	2,718	2,432	Q	1,203	2,702	607
51 to 99	10,745	10,745	1,797	3,042	3,332	886	2,977	4,661	774
100	43,264	43,264	6,028	8,689	11,585	4,575	15,343	18,380	2,692
Heating Equipment (more than one may apply)									
Heat Pumps	8,923	8,923	8,923	1,585	2,644	730	2,634	3,828	444
Furnaces	14,449	14,449	1,585	14,449	4,460	Q	2,256	3,698	418
Individual Space Heaters	17,349	17,349	2,644	4,460	17,349	1,210	5,356	7,654	1,096
District Heat	5,534	5,534	730	Q	1,210	5,534	Q	767	249
Boilers	19,522	19,522	2,634	2,256	5,356	Q	19,522	5,277	795
Packaged Heating Units	25,743	25,743	3,828	3,698	7,654	767	5,277	25,743	1,193
Other	4,073	4,073	444	418	1,096	249	795	1,193	4,073
Cooling Equipment (more than one may apply)									
Residential-Type Central									
Air Conditioners	8,329	8,010	1,362	4,975	2,810	303	2,282	2,617	646
Heat Pumps	9,147	9,052	8,243	1,601	2,750	701	2,749	3,799	528
Individual Air Conditioners	14,276	13,754	2,378	3,655	6,603	1,140	6,406	5,127	887
District Chilled Water	2,750	2,739	376	Q	567	2,279	326	497	159
Central Chillers	12,909	12,560	2,109	1,259	3,863	2,069	8,549	4,425	1,679
Packaged Air Conditioning									
Units	36,527	35,247	4,709	7,240	10,774	1,884	10,047	23,495	2,138
Swamp Coolers	2,219	2,190	483	756	835	Q	823	1,253	Q
Other	1,312	1,257	285	225	285	Q	637	385	468
Main Equipment Replaced Since 1995 (more than one may apply)									
Heating	13,220	13,220	2,392	3,550	3,797	Q	2,857	6,833	623
Cooling	17,390	16,386	2,859	4,009	4,781	826	5,240	7,755	716
Building Shell Conservation Features (more than one may apply)									
Multipaned Windows	38,193	36,962	6,068	8,881	10,930	3,233	13,442	15,101	2,752
Tinted, Reflective, or Shading Glass	29,915	28,777	4,617	5,194	7,488	2,904	9,604	14,049	2,303
HVAC Conservation Features (more than one may apply)									
Variable Air-Volume System	19,387	18,942	2,773	2,473	5,022	2,780	8,355	8,506	1,734
Economizer Cycle	21,256	21,107	3,302	2,986	6,237	3,275	9,342	10,599	1,847
HVAC Maintenance	53,395	51,983	8,055	11,148	13,715	5,296	18,379	23,294	3,356
Energy Management and Control System (EMCS)	21,613	21,252	3,198	2,290	5,762	3,865	9,514	9,418	2,235

Table B33. Heating Equipment, Floorspace, 1999

	Total Floorspace (million square feet)								
	All Buildings	All Heated Buildings	Heating Equipment (more than one may apply)						Other
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged Heating Units	
Off-Hour Equipment Reduction (more than one may apply)									
Heating	39,969	39,969	5,710	10,360	10,497	2,906	12,118	16,602	2,364
Cooling	39,161	37,743	5,413	9,450	10,062	2,538	11,606	16,697	2,173
Lighting	51,083	48,300	6,650	12,514	13,135	3,377	14,096	19,932	2,883
Office Equipment	9,063	8,802	1,242	1,469	2,181	725	4,222	3,587	412

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

N=No responding cases in sample.

Note: Due to rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table B34. Cooling Equipment, Number of Buildings, 1999

	Number of Buildings (thousand)									
	All Buildings	All Cooled Buildings	Cooling Equipment (more than one may apply)							
			Residential-Type Central Air Conditioners	Heat Pumps	Individual Air Conditioners	District Chilled Water	Central Chillers	Packaged Air Conditioning Units	Swamp Coolers	Other
All Buildings	4,657	3,560	676	485	799	50	130	1,953	136	49
Building Floorspace (Square Feet)										
1,001 to 5,000	2,348	1,680	319	240	356	Q	Q	857	79	Q
5,001 to 10,000	1,110	828	211	95	184	Q	Q	423	25	Q
10,001 to 25,000	708	611	96	80	149	Q	17	387	13	Q
25,001 to 50,000	257	223	24	35	60	7	25	141	9	4
50,001 to 100,000	145	134	17	22	29	7	28	89	7	Q
100,001 to 200,000	59	55	7	9	13	5	16	37	2	Q
200,001 to 500,000	23	21	2	4	7	2	9	14	Q	Q
Over 500,000	7	7	1	1	1	1	4	4	Q	Q
Principal Building Activity										
Education	327	274	23	39	79	Q	31	164	Q	Q
Food Sales	174	166	Q	Q	Q	N	Q	99	Q	Q
Food Service	349	324	66	Q	71	Q	Q	218	Q	Q
Health Care	127	127	Q	29	15	2	9	77	Q	Q
Inpatient	11	11	1	1	Q	2	6	4	Q	Q
Outpatient	116	116	Q	Q	Q	Q	4	73	Q	Q
Lodging	153	126	17	26	64	Q	10	47	Q	Q
Mercantile	667	632	87	54	164	Q	4	370	26	Q
Retail (Other Than Mall)	534	499	77	30	154	Q	Q	264	Q	Q
Enclosed and Strip Malls	133	132	Q	24	Q	Q	2	107	Q	Q
Office	739	716	137	141	90	6	31	385	5	14
Public Assembly	305	232	61	30	39	Q	16	126	Q	Q
Public Order and Safety	72	32	Q	Q	11	Q	6	14	Q	Q
Religious Worship	307	232	50	19	69	Q	Q	123	Q	Q
Service	478	289	70	33	70	Q	Q	139	Q	Q
Warehouse and Storage	603	308	82	42	85	Q	Q	140	Q	Q
Other	102	76	Q	Q	Q	Q	Q	28	Q	Q
Vacant	253	27	Q	Q	Q	N	Q	Q	Q	Q
Year Constructed										
1919 or Before	419	260	78	Q	101	Q	Q	92	Q	Q
1920 to 1945	499	313	75	24	124	2	8	143	Q	Q
1946 to 1959	763	589	129	89	178	5	13	275	29	Q
1960 to 1969	665	496	39	39	102	7	32	332	25	Q
1970 to 1979	774	649	105	106	112	Q	17	398	33	Q
1980 to 1989	846	702	143	121	96	Q	22	421	19	Q
1990 to 1999	690	549	107	91	86	4	29	291	6	Q
Census Region										
Northeast	686	473	72	19	172	2	17	265	Q	Q
Midwest	1,188	861	285	27	214	14	25	403	Q	Q
South	1,762	1,506	258	329	312	Q	57	841	Q	Q
West	1,021	720	62	110	100	13	31	443	109	Q
Climate Zone: 45-Year Average										
Under 2,000 CDD and --										
More than 7,000 HDD	525	366	82	4	137	Q	10	170	Q	Q
5,500-7,000 HDD	986	711	175	18	177	6	22	391	Q	Q
4,000-5,499 HDD	1,085	766	178	173	207	Q	38	306	Q	Q
Fewer than 4,000 HDD	1,134	913	97	174	141	7	27	596	50	Q
2,000 CDD or More and --										
Fewer than 4,000 HDD	926	803	144	116	137	23	32	490	Q	Q

Table B34. Cooling Equipment, Number of Buildings, 1999

	Number of Buildings (thousand)									
	All Buildings	All Cooled Buildings	Cooling Equipment (more than one may apply)							
			Residential-Type Central Air Conditioners	Heat Pumps	Individual Air Conditioners	District Chilled Water	Central Chillers	Packaged Air Conditioning Units	Swamp Coolers	Other
Workers (main shift)										
Fewer than 5	2,376	1,513	339	169	350	Q	28	724	69	Q
5 to 9	807	681	133	68	163	Q	9	354	26	Q
10 to 19	683	636	101	122	146	Q	11	383	Q	Q
20 to 49	487	433	69	79	61	3	22	295	13	7
50 to 99	174	169	18	29	44	10	18	118	5	Q
100 to 249	90	88	14	10	27	4	21	54	4	3
250 or More	39	39	3	8	7	5	20	24	1	1
Weekly Operating Hours										
39 or Fewer	978	439	112	42	109	Q	4	229	Q	Q
40 to 48	1,156	968	205	180	214	Q	27	482	22	6
49 to 60	986	850	114	113	185	13	42	458	25	Q
61 to 84	664	563	137	49	125	6	18	317	42	Q
85 to 167	474	436	72	67	78	4	9	292	15	Q
Open Continuously	398	304	36	34	88	11	30	174	8	4
Multibuilding Facility Activity										
Not Part of a Multibuilding										
Facility	3,295	2,567	510	310	574	3	60	1,435	95	24
College or University	70	46	Q	Q	9	13	9	12	Q	Q
Primary or Secondary School	224	171	4	23	50	Q	17	123	Q	Q
Office Complex	134	115	Q	33	8	Q	Q	43	Q	Q
Retail Complex	181	163	Q	27	34	Q	Q	117	Q	Q
Religious Campus or Complex	186	146	Q	Q	38	Q	Q	91	Q	Q
Health Care Complex	72	61	Q	21	5	3	6	35	Q	Q
Government Complex	61	46	Q	Q	Q	Q	6	6	Q	Q
Other	434	244	85	31	65	Q	10	91	Q	Q
Energy Sources (more than one may apply)										
Electricity	4,395	3,560	676	485	799	50	130	1,953	136	49
Natural Gas	2,670	2,335	503	195	507	21	103	1,356	121	20
Fuel Oil	434	302	37	49	163	3	29	102	4	3
District Heat	117	97	4	Q	21	43	16	43	Q	Q
District Chilled Water	50	50	Q	4	Q	50	1	Q	Q	Q
Propane	451	318	64	34	107	Q	6	165	12	Q
Other	153	107	45	Q	31	Q	3	51	Q	Q
Cooling Energy Sources (more than one may apply)										
Electricity	3,450	3,450	676	485	799	24	127	1,870	135	48
Natural Gas	142	142	Q	17	18	Q	2	111	Q	Q
District Chilled Water	50	50	Q	4	Q	50	1	Q	Q	Q
Energy End Uses (more than one may apply)										
Buildings with Space Heating	4,016	3,400	645	481	771	49	126	1,859	126	48
Buildings with Cooling	3,560	3,560	676	485	799	50	130	1,953	136	49
Buildings with Water Heating	3,239	2,915	532	401	650	37	124	1,646	120	34
Buildings with Cooking	857	792	114	97	216	6	49	519	44	5
Buildings with Manufacturing	151	129	28	Q	54	Q	3	57	Q	Q
Buildings with Electricity Generation	172	149	26	30	30	5	42	88	4	4
Percent of Floorspace Cooled										
Not Cooled	1,097	N	N	N	N	N	N	N	N	N
1 to 50	1,012	1,012	241	84	414	Q	Q	390	39	Q
51 to 99	751	751	156	92	161	8	45	445	32	19
100	1,796	1,796	280	310	224	40	66	1,118	65	Q

Table B34. Cooling Equipment, Number of Buildings, 1999

	Number of Buildings (thousand)										
	All Buildings	All Cooled Buildings	Cooling Equipment (more than one may apply)							Swamp Coolers	Other
			Residential-Type Central Air Conditioners	Heat Pumps	Individual Air Conditioners	District Chilled Water	Central Chillers	Packaged Air Conditioning Units			
Heating Equipment (more than one may apply)											
Heat Pumps	492	478	46	447	84	3	12	130	9	Q	
Furnaces	1,460	1,193	508	76	262	Q	12	470	72	12	
Individual Space Heaters	894	670	104	89	294	9	26	327	47	4	
District Heat	96	77	3	4	16	39	15	35	Q	Q	
Boilers	581	474	58	39	211	3	96	223	18	14	
Packaged Heating Units	1,347	1,304	75	84	167	Q	26	1,219	48	4	
Other	185	143	38	22	47	1	8	49	Q	Q	
Cooling Equipment (more than one may apply)											
Residential-Type Central Air Conditioners	676	676	676	45	91	Q	8	85	Q	Q	
Heat Pumps	485	485	45	485	94	4	14	112	6	Q	
Individual Air Conditioners	799	799	91	94	799	Q	18	186	13	Q	
District Chilled Water	50	50	Q	4	Q	50	1	Q	Q	Q	
Central Chillers	130	130	8	14	18	1	130	39	2	Q	
Packaged Air Conditioning Units	1,953	1,953	85	112	186	Q	39	1,953	56	12	
Swamp Coolers	136	136	Q	6	13	Q	2	56	136	Q	
Other	49	49	Q	Q	Q	Q	Q	12	Q	49	
Main Equipment Replaced Since 1995 (more than one may apply)											
Heating	984	862	182	127	205	Q	17	490	39	Q	
Cooling	1,085	1,085	208	173	308	Q	27	575	58	Q	
Building Shell Conservation Features (more than one may apply)											
Multipaned Windows	2,130	1,835	386	291	425	24	86	931	38	35	
Tinted, Reflective, or Shading Glass	1,283	1,180	208	169	158	26	74	770	61	11	
HVAC Conservation Features (more than one may apply)											
Variable Air-Volume System	550	535	111	57	49	19	70	352	9	8	
Economizer Cycle	567	567	49	52	51	21	63	444	33	15	
HVAC Maintenance	2,786	2,520	451	372	445	48	126	1,524	101	30	
Energy Management and Control System (EMCS)	460	423	37	45	71	26	60	288	15	11	
Off-Hour Equipment Reduction (more than one may apply)											
Heating	2,862	2,449	489	357	506	37	85	1,346	95	31	
Cooling	2,622	2,622	512	347	562	36	88	1,469	93	33	
Lighting	3,675	3,110	605	435	694	39	93	1,692	119	45	
Office Equipment	184	175	12	27	40	4	26	125	4	Q	

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

N=No responding cases in sample.

Note: Due to rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table B35. Cooling Equipment, Floorspace, 1999

	Total Floorspace (million square feet)									
	All Buildings	All Cooled Buildings	Cooling Equipment (more than one may apply)							
			Residential-Type Central Air Conditioners	Heat Pumps	Individual Air Conditioners	District Chilled Water	Central Chillers	Packaged Air Conditioning Units	Swamp Coolers	Other
All Buildings	67,338	58,474	8,329	9,147	14,276	2,750	12,909	36,527	2,219	1,312
Building Floorspace (Square Feet)										
1,001 to 5,000	6,774	4,879	890	700	962	Q	Q	2,613	253	Q
5,001 to 10,000	8,238	6,212	1,606	707	1,396	Q	Q	3,197	181	Q
10,001 to 25,000	11,153	9,530	1,420	1,270	2,482	Q	307	6,031	207	Q
25,001 to 50,000	9,311	8,116	860	1,304	2,140	294	919	5,120	325	153
50,001 to 100,000	10,112	9,401	1,221	1,593	2,057	525	1,989	6,164	477	Q
100,001 to 200,000	8,271	7,609	905	1,229	1,834	630	2,331	5,217	307	Q
200,001 to 500,000	6,851	6,345	715	1,126	2,032	470	2,963	4,106	Q	Q
Over 500,000	6,628	6,382	712	1,219	1,373	630	4,223	4,080	Q	Q
Principal Building Activity										
Education	8,651	7,973	625	1,220	2,974	676	2,108	4,331	508	Q
Food Sales	994	978	Q	Q	Q	N	Q	610	Q	Q
Food Service	1,851	1,760	357	Q	394	Q	Q	1,323	Q	Q
Health Care	2,918	2,815	572	684	696	433	1,609	1,783	Q	Q
Inpatient	1,865	1,762	455	503	602	356	1,413	1,109	Q	Q
Outpatient	1,053	1,053	Q	Q	Q	Q	196	673	Q	Q
Lodging	4,521	4,051	736	1,014	2,075	219	980	1,956	Q	Q
Mercantile	10,398	10,174	1,043	1,296	1,441	Q	1,278	8,019	387	Q
Retail (Other Than Mall)	4,766	4,573	551	225	1,111	Q	Q	3,003	Q	Q
Enclosed and Strip Malls	5,631	5,601	492	1,070	330	Q	1,115	5,017	Q	Q
Office	12,044	11,782	1,089	2,158	1,500	678	4,559	6,838	169	565
Public Assembly	4,393	3,859	579	533	742	436	920	2,152	Q	Q
Public Order and Safety	1,168	760	Q	Q	284	Q	302	383	Q	Q
Religious Worship	3,405	2,765	694	403	781	Q	Q	1,630	Q	Q
Service	3,388	2,481	491	399	716	Q	Q	1,575	Q	Q
Warehouse and Storage	10,477	7,621	1,658	858	2,155	Q	349	5,198	179	Q
Other	1,222	1,087	Q	Q	Q	Q	Q	482	Q	Q
Vacant	1,908	368	Q	Q	Q	N	Q	Q	Q	Q
Year Constructed										
1919 or Before	4,034	2,911	677	284	1,206	Q	254	1,244	Q	Q
1920 to 1945	6,445	4,383	657	551	2,074	134	984	2,367	Q	Q
1946 to 1959	9,127	7,601	1,239	984	2,833	406	1,329	4,427	261	Q
1960 to 1969	10,866	9,325	957	1,119	2,296	633	2,765	5,686	527	Q
1970 to 1979	11,840	11,050	1,621	1,793	2,237	492	2,766	7,001	499	316
1980 to 1989	13,931	12,849	1,904	2,711	2,155	424	2,584	8,978	345	348
1990 to 1999	11,094	10,355	1,274	1,705	1,476	407	2,229	6,825	339	Q
Census Region										
Northeast	12,360	10,311	950	1,215	3,897	326	2,782	6,641	Q	Q
Midwest	16,761	14,371	2,951	1,063	3,724	746	3,149	8,198	Q	328
South	23,485	21,549	3,272	4,604	4,526	939	4,328	13,915	339	343
West	14,731	12,243	1,156	2,265	2,130	739	2,651	7,773	1,624	324
Climate Zone: 45-Year Average										
Under 2,000 CDD and --										
More than 7,000 HDD	5,890	4,804	643	246	1,682	Q	971	2,753	Q	Q
5,500-7,000 HDD	17,083	14,289	2,433	1,069	4,070	763	3,309	8,340	540	420
4,000-5,499 HDD	16,243	13,999	2,085	3,144	3,945	653	3,555	8,301	Q	266
Fewer than 4,000 HDD	16,333	14,535	1,550	2,924	2,516	683	3,061	10,105	690	284
2,000 CDD or More and --										
Fewer than 4,000 HDD	11,788	10,847	1,617	1,765	2,063	589	2,014	7,028	646	228

Table B35. Cooling Equipment, Floorspace, 1999

	Total Floorspace (million square feet)									
	All Buildings	All Cooled Buildings	Cooling Equipment (more than one may apply)							
			Residential-Type Central Air Conditioners	Heat Pumps	Individual Air Conditioners	District Chilled Water	Central Chillers	Packaged Air Conditioning Units	Swamp Coolers	Other
Workers (main shift)										
Fewer than 5	14,321	8,704	2,041	753	2,568	Q	297	4,264	315	Q
5 to 9	6,325	5,291	921	677	1,226	Q	223	2,933	317	Q
10 to 19	8,028	7,409	1,187	1,267	2,037	Q	277	4,334	Q	Q
20 to 49	10,814	9,930	1,341	1,688	2,138	162	1,054	6,776	394	210
50 to 99	8,898	8,519	791	1,493	2,046	478	1,646	5,963	365	Q
100 to 249	8,356	8,129	868	1,027	1,940	484	2,597	5,507	360	341
250 or More	10,595	10,491	1,180	2,243	2,322	1,234	6,815	6,751	335	381
Weekly Operating Hours										
39 or Fewer	6,596	3,113	671	240	961	Q	218	1,820	Q	Q
40 to 48	13,105	11,041	1,882	1,985	2,573	239	1,402	6,164	399	165
49 to 60	14,200	13,225	1,477	2,009	2,746	589	2,569	7,890	350	350
61 to 84	12,458	11,701	1,648	1,619	2,334	504	3,182	7,950	432	Q
85 to 167	9,116	8,528	1,015	1,286	2,010	505	1,098	6,194	513	Q
Open Continuously	11,863	10,866	1,637	2,007	3,652	893	4,441	6,509	370	418
Multibuilding Facility Activity										
Not Part of a Multibuilding										
Facility	41,289	36,386	5,509	5,793	9,135	309	6,902	23,072	1,344	649
College or University	2,605	2,058	Q	Q	376	933	595	666	Q	Q
Primary or Secondary School	3,388	3,001	188	372	1,056	Q	831	1,945	Q	Q
Office Complex	3,353	3,191	Q	388	281	Q	1,325	1,875	Q	Q
Retail Complex	3,555	3,463	221	494	552	Q	Q	2,882	Q	Q
Religious Campus or Complex	1,907	1,702	Q	Q	430	Q	Q	1,115	Q	Q
Health Care Complex	2,339	2,201	446	592	522	454	1,229	1,351	Q	Q
Government Complex	1,513	1,218	Q	Q	367	464	503	400	Q	Q
Other	7,389	5,254	1,285	806	1,556	293	1,133	3,220	Q	Q
Energy Sources (more than one may apply)										
Electricity	65,716	58,474	8,329	9,147	14,276	2,750	12,909	36,527	2,219	1,312
Natural Gas	45,525	42,147	6,805	5,771	10,715	1,316	10,145	27,987	1,950	773
Fuel Oil	13,285	12,185	1,314	2,435	4,276	749	6,081	7,121	407	535
District Heat	5,891	5,165	335	782	1,240	2,354	2,114	2,054	Q	Q
District Chilled Water	2,750	2,750	Q	336	359	2,750	386	721	Q	Q
Propane	6,290	5,415	867	800	1,626	Q	828	3,460	222	Q
Other	2,322	2,069	338	326	593	Q	550	1,368	Q	Q
Cooling Energy Sources (more than one may apply)										
Electricity	55,545	55,545	8,329	9,120	14,276	1,093	12,405	35,387	2,175	1,244
Natural Gas	1,914	1,914	Q	187	376	Q	272	1,595	Q	Q
District Chilled Water	2,750	2,750	Q	336	359	2,750	386	721	Q	Q
Energy End Uses (more than one may apply)										
Buildings with Space Heating	61,602	56,361	8,010	9,052	13,754	2,739	12,560	35,247	2,190	1,257
Buildings with Cooling	58,474	58,474	8,329	9,147	14,276	2,750	12,909	36,527	2,219	1,312
Buildings with Water Heating	56,115	52,589	7,278	8,409	12,888	2,455	12,484	33,328	2,060	1,191
Buildings with Cooking	24,681	23,730	2,965	4,406	6,798	1,047	8,488	15,767	1,148	641
Buildings with Manufacturing	3,126	2,861	563	422	1,198	Q	445	1,889	212	Q
Buildings with Electricity Generation	11,882	11,538	1,358	2,544	2,860	919	6,234	7,328	511	583
Percent of Floorspace Cooled										
Not Cooled	8,864	N	N	N	N	N	N	N	N	N
1 to 50	16,846	16,846	3,054	1,910	6,855	Q	903	9,465	880	233
51 to 99	16,966	16,966	2,604	3,040	3,647	772	6,368	10,695	540	591
100	24,662	24,662	2,672	4,197	3,774	1,805	5,639	16,368	800	488

Table B35. Cooling Equipment, Floorspace, 1999

	Total Floorspace (million square feet)										
	All Buildings	All Cooled Buildings	Cooling Equipment (more than one may apply)								Other
			Residential-Type Central Air Conditioners	Heat Pumps	Individual Air Conditioners	District Chilled Water	Central Chillers	Packaged Air Conditioning Units	Swamp Coolers		
Heating Equipment (more than one may apply)											
Heat Pumps	8,923	8,766	1,362	8,243	2,378	376	2,109	4,709	483	285	
Furnaces	14,449	12,819	4,975	1,601	3,655	Q	1,259	7,240	756	225	
Individual Space Heaters	17,349	15,708	2,810	2,750	6,603	567	3,863	10,774	835	285	
District Heat	5,534	4,844	303	701	1,140	2,279	2,069	1,884	Q	Q	
Boilers	19,522	17,947	2,282	2,749	6,406	326	8,549	10,047	823	637	
Packaged Heating Units	25,743	25,134	2,617	3,799	5,127	497	4,425	23,495	1,253	385	
Other	4,073	3,592	646	528	887	159	1,679	2,138	Q	468	
Cooling Equipment (more than one may apply)											
Residential-Type Central Air Conditioners	8,329	8,329	8,329	1,441	2,297	Q	1,489	3,365	Q	Q	
Heat Pumps	9,147	9,147	1,441	9,147	2,443	336	2,272	4,895	549	293	
Individual Air Conditioners	14,276	14,276	2,297	2,443	14,276	359	2,530	7,353	562	Q	
District Chilled Water	2,750	2,750	Q	336	359	2,750	386	721	Q	Q	
Central Chillers	12,909	12,909	1,489	2,272	2,530	386	12,909	6,282	312	Q	
Packaged Air Conditioning Units	36,527	36,527	3,365	4,895	7,353	721	6,282	36,527	1,499	547	
Swamp Coolers	2,219	2,219	Q	549	562	Q	312	1,499	2,219	Q	
Other	1,312	1,312	Q	293	Q	Q	Q	547	Q	1,312	
Main Equipment Replaced Since 1995 (more than one may apply)											
Heating	13,220	12,424	1,978	2,245	3,066	Q	1,672	8,991	730	230	
Cooling	17,390	17,390	2,497	2,905	5,823	Q	3,380	11,357	910	358	
Building Shell Conservation Features (more than one may apply)											
Multipaned Windows	38,193	35,476	5,424	6,148	9,049	1,705	9,288	21,728	959	903	
Tinted, Reflective, or Shading Glass	29,915	28,721	3,465	4,682	5,298	1,827	8,534	19,291	1,201	759	
HVAC Conservation Features (more than one may apply)											
Variable Air-Volume System	19,387	19,009	2,235	2,872	2,857	1,837	8,391	12,246	589	557	
Economizer Cycle	21,256	21,256	2,448	3,516	4,117	1,911	9,218	14,637	966	720	
HVAC Maintenance	53,395	50,309	6,780	8,272	11,204	2,670	12,705	32,576	2,040	1,220	
Energy Management and Control System (EMCS)	21,613	20,817	2,049	3,343	4,116	2,186	9,343	12,958	626	843	
Off-Hour Equipment Reduction (more than one may apply)											
Heating	39,969	36,639	5,217	5,804	7,866	1,631	6,968	23,102	1,560	702	
Cooling	39,161	39,161	5,697	5,916	8,668	1,573	7,368	24,691	1,528	752	
Lighting	51,083	46,004	6,512	7,018	10,240	1,855	8,214	28,904	1,800	890	
Office Equipment	9,063	8,748	860	1,350	2,329	378	2,467	5,605	258	Q	

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

N=No responding cases in sample.

Note: Due to rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table B36. Refrigeration Equipment, Number of Buildings and Floorspace, 1999

	Number of Buildings (thousand)					Total Floorspace (million square feet)				
	All Buildings	All Buildings with Refrigeration Equipment	Type of Equipment (more than one may apply)			All Buildings	All Buildings with Refrigeration Equipment	Type of Equipment (more than one may apply)		
			Walk-In	Open Cases or Cabinets	Closed Cases or Cabinets			Walk-In	Open Cases or Cabinets	Closed Cases or Cabinets
All Buildings	4,657	950	658	255	719	67,338	25,652	19,713	8,808	19,938
Building Floorspace (Square Feet)										
1,001 to 5,000	2,348	479	356	116	378	6,774	1,370	1,059	309	1,123
5,001 to 10,000	1,110	152	101	62	113	8,238	1,135	736	498	854
10,001 to 25,000	708	135	67	20	90	11,153	2,186	1,069	320	1,505
25,001 to 50,000	257	78	51	18	58	9,311	2,873	1,877	651	2,098
50,001 to 100,000	145	56	41	19	41	10,112	4,051	2,980	1,351	2,976
100,001 to 200,000	59	31	25	12	22	8,271	4,398	3,584	1,726	3,175
200,001 to 500,000	23	14	13	5	12	6,851	4,376	3,869	1,491	3,607
Over 500,000	7	6	5	2	5	6,628	5,262	4,539	2,462	4,599
Principal Building Activity										
Education	327	84	51	16	57	8,651	5,423	4,199	1,433	3,757
Food Sales	174	159	127	57	113	994	962	737	601	781
Food Service	349	334	261	90	273	1,851	1,783	1,576	514	1,287
Health Care	127	12	7	3	10	2,918	1,931	1,749	762	1,660
Inpatient	11	9	6	2	8	1,865	1,749	1,693	708	1,502
Outpatient	116	Q	Q	Q	Q	1,053	Q	Q	Q	Q
Lodging	153	30	20	6	23	4,521	2,360	1,973	458	2,022
Mercantile	667	178	127	68	136	10,398	5,600	4,424	3,020	4,788
Retail (Other Than Mall)	534	97	66	Q	70	4,766	1,090	609	414	864
Enclosed and Strip Malls	133	81	61	41	67	5,631	4,509	3,816	2,606	3,924
Office	739	26	17	5	15	12,044	3,331	2,350	1,370	2,742
Public Assembly	305	61	23	Q	44	4,393	1,664	959	378	1,398
Public Order and Safety	72	Q	3	Q	Q	1,168	221	163	Q	Q
Religious Worship	307	21	Q	Q	19	3,405	574	Q	Q	427
Service	478	Q	Q	Q	Q	3,388	Q	Q	Q	Q
Warehouse and Storage	603	20	10	Q	Q	10,477	1,177	948	Q	414
Other	102	Q	Q	Q	Q	1,222	Q	Q	Q	Q
Vacant	253	Q	Q	N	Q	1,908	Q	Q	N	Q
Year Constructed										
1919 or Before	419	61	32	Q	52	4,034	940	424	Q	854
1920 to 1945	499	104	70	Q	98	6,445	2,176	1,551	318	1,896
1946 to 1959	763	119	77	46	79	9,127	3,063	2,096	1,163	2,325
1960 to 1969	665	123	76	17	97	10,866	4,490	3,636	1,397	3,260
1970 to 1979	774	176	149	58	124	11,840	4,937	4,051	1,990	3,930
1980 to 1989	846	229	143	68	177	13,931	5,450	4,270	1,793	4,089
1990 to 1999	690	139	113	40	92	11,094	4,595	3,685	1,977	3,583
Census Region										
Northeast	686	143	101	33	94	12,360	5,536	4,335	1,917	4,489
Midwest	1,188	244	164	52	194	16,761	6,252	4,580	1,798	5,038
South	1,762	351	230	97	277	23,485	8,734	6,809	3,205	6,606
West	1,021	212	164	73	154	14,731	5,130	3,988	1,887	3,804
Workers (main shift)										
Fewer than 5	2,376	349	215	Q	266	14,321	1,586	789	Q	1,245
5 to 9	807	151	90	31	122	6,325	1,207	545	187	915
10 to 19	683	178	152	57	118	8,028	2,144	1,547	490	1,466
20 to 49	487	146	98	35	117	10,814	3,938	2,551	1,084	2,958
50 to 99	174	76	61	28	55	8,898	4,698	3,841	1,645	3,482
100 to 249	90	32	28	12	26	8,356	4,752	4,444	1,638	3,700
250 or More	39	18	14	8	15	10,595	7,328	5,996	3,466	6,172

Table B36. Refrigeration Equipment, Number of Buildings and Floorspace, 1999

	Number of Buildings (thousand)					Total Floorspace (million square feet)				
	All Buildings	All Buildings with Refrigeration Equipment	Type of Equipment (more than one may apply)			All Buildings	All Buildings with Refrigeration Equipment	Type of Equipment (more than one may apply)		
			Walk-In	Open Cases or Cabinets	Closed Cases or Cabinets			Walk-In	Open Cases or Cabinets	Closed Cases or Cabinets
Weekly Operating Hours										
39 or Fewer	978	62	13	Q	58	6,596	743	340	Q	625
40 to 48	1,156	97	63	21	52	13,105	2,581	1,711	645	1,629
49 to 60	986	148	75	41	120	14,200	4,230	2,979	1,417	3,227
61 to 84	664	210	154	49	156	12,458	6,035	4,618	2,311	4,862
85 to 167	474	321	260	102	262	9,116	5,198	4,052	1,971	4,079
Open Continuously	398	113	93	31	71	11,863	6,865	6,013	2,371	5,515
Multibuilding Facility Activity										
Not Part of a Multibuilding										
Facility	3,295	778	543	206	589	41,289	16,109	12,270	5,051	12,320
College or University	70	5	3	Q	4	2,605	445	343	Q	362
Primary or Secondary School	224	37	27	9	23	3,388	1,797	1,591	685	1,059
Office Complex	134	6	4	2	5	3,353	1,131	783	508	972
Retail Complex	181	56	35	26	44	3,555	2,064	1,543	1,307	1,864
Religious Campus or Complex	186	9	Q	Q	8	1,907	408	Q	Q	346
Health Care Complex	72	10	8	2	6	2,339	1,482	1,396	598	1,228
Government Complex	61	4	Q	Q	3	1,513	535	Q	Q	476
Other	434	45	35	Q	38	7,389	1,680	1,374	433	1,312
Energy Sources (more than one may apply)										
Electricity	4,395	950	658	255	719	65,716	25,652	19,713	8,808	19,938
Natural Gas	2,670	652	466	182	492	45,525	20,198	16,098	7,308	15,642
Fuel Oil	434	97	46	13	85	13,285	8,214	6,849	2,917	6,781
District Heat	117	25	21	Q	13	5,891	2,541	1,990	801	2,179
District Chilled Water	50	7	5	1	6	2,750	1,170	804	382	1,026
Propane	451	134	83	26	111	6,290	2,819	2,252	914	2,242
Other	153	47	20	Q	41	2,322	1,256	1,051	460	1,004
Energy End Uses (more than one may apply)										
Buildings with Space Heating	4,016	859	594	238	639	61,602	24,514	18,993	8,459	19,004
Buildings with Cooling	3,560	896	640	252	671	58,474	24,720	19,288	8,670	19,118
Buildings with Water Heating	3,239	905	647	252	680	56,115	24,625	19,141	8,569	19,106
Buildings with Cooking	857	682	488	188	532	24,681	21,775	17,386	8,113	17,428
Buildings with Manufacturing	151	12	5	Q	Q	3,126	691	569	Q	474
Buildings with Electricity Generation	172	60	50	16	48	11,882	8,172	7,044	3,378	6,819
Energy-Related Space Functions (more than one may apply)										
Commercial Food Preparation	767	640	465	178	498	23,328	21,054	16,962	7,863	16,837
Activities with Large Amounts of Hot Water	698	408	299	114	311	21,793	16,721	13,876	6,103	13,362

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

N=No responding cases in sample.

Note: Due to rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table B37. Water Heating Equipment, Number of Buildings and Floorspace, 1999

	Number of Buildings (thousand)					Total Floorspace (million square feet)				
	All Buildings	All Buildings with Water Heating	Type of Water Heating Equipment			All Buildings	All Buildings with Water Heating	Type of Water Heating Equipment		
			Centralized System	Distributed System	Combination Centralized and Distributed Systems			Centralized System	Distributed System	Combination Centralized and Distributed Systems
All Buildings	4,657	3,239	2,472	566	200	67,338	56,115	35,579	10,899	9,637
Building Floorspace (Square Feet)										
1,001 to 5,000	2,348	1,456	1,175	244	Q	6,774	4,280	3,411	767	Q
5,001 to 10,000	1,110	778	606	141	31	8,238	5,748	4,479	1,014	255
10,001 to 25,000	708	574	416	103	55	11,153	9,000	6,505	1,679	816
25,001 to 50,000	257	222	151	37	34	9,311	8,088	5,464	1,373	1,250
50,001 to 100,000	145	127	79	23	25	10,112	8,887	5,534	1,615	1,739
100,001 to 200,000	59	54	31	12	10	8,271	7,527	4,317	1,703	1,507
200,001 to 500,000	23	21	12	4	5	6,851	6,258	3,365	1,179	1,714
Over 500,000	7	7	3	2	2	6,628	6,327	2,504	1,569	2,255
Principal Building Activity										
Education	327	240	141	55	45	8,651	8,059	5,049	1,088	1,922
Food Sales	174	163	139	Q	Q	994	951	635	Q	Q
Food Service	349	349	305	Q	Q	1,851	1,846	1,548	Q	Q
Health Care	127	126	103	Q	6	2,918	2,903	1,755	363	785
Inpatient	11	11	8	Q	3	1,865	1,862	961	Q	690
Outpatient	116	115	95	Q	Q	1,053	1,040	794	Q	Q
Lodging	153	149	124	Q	9	4,521	4,442	3,589	Q	552
Mercantile	667	439	326	98	15	10,398	8,698	4,306	3,088	1,303
Retail (Other Than Mall)	534	323	260	60	Q	4,766	3,453	2,479	881	Q
Enclosed and Strip Malls	133	116	66	38	12	5,631	5,244	1,828	2,207	1,209
Office	739	615	426	156	33	12,044	10,872	6,184	2,186	2,502
Public Assembly	305	249	191	45	13	4,393	3,893	2,722	655	516
Public Order and Safety	72	41	35	Q	Q	1,168	830	605	Q	Q
Religious Worship	307	252	222	16	14	3,405	3,109	2,495	266	347
Service	478	280	226	51	Q	3,388	2,351	1,742	429	Q
Warehouse and Storage	603	227	140	79	8	10,477	6,743	3,914	2,070	759
Other	102	64	53	Q	3	1,222	983	674	Q	171
Vacant	253	44	43	Q	Q	1,908	436	361	Q	Q
Year Constructed										
1919 or Before	419	277	254	12	11	4,034	3,130	2,524	242	364
1920 to 1945	499	311	238	52	21	6,445	4,644	2,935	819	889
1946 to 1959	763	493	385	83	25	9,127	7,154	4,824	1,208	1,122
1960 to 1969	665	493	383	76	33	10,866	9,421	6,525	1,540	1,356
1970 to 1979	774	592	450	118	24	11,840	10,182	6,384	2,040	1,757
1980 to 1989	846	623	440	130	54	13,931	12,137	6,822	2,924	2,390
1990 to 1999	690	450	323	95	33	11,094	9,446	5,564	2,125	1,758
Census Region										
Northeast	686	515	411	78	26	12,360	10,577	6,941	1,823	1,813
Midwest	1,188	776	609	117	50	16,761	13,702	9,037	2,328	2,336
South	1,762	1,179	874	218	87	23,485	19,014	11,500	4,120	3,395
West	1,021	769	578	153	38	14,731	12,822	8,102	2,628	2,093
Workers (main shift)										
Fewer than 5	2,376	1,312	1,124	149	39	14,321	8,401	7,108	866	427
5 to 9	807	643	475	146	22	6,325	5,145	3,739	1,105	301
10 to 19	683	586	413	143	30	8,028	7,000	5,204	1,403	393
20 to 49	487	417	295	68	54	10,814	9,445	6,000	1,921	1,524
50 to 99	174	159	88	40	31	8,898	8,166	4,468	1,935	1,763
100 to 249	90	85	57	14	14	8,356	7,760	4,140	1,685	1,935
250 or More	39	36	20	6	10	10,595	10,199	4,920	1,984	3,294

Table B37. Water Heating Equipment, Number of Buildings and Floorspace, 1999

	Number of Buildings (thousand)					Total Floorspace (million square feet)				
	All Buildings	All Buildings with Water Heating	Type of Water Heating Equipment			All Buildings	All Buildings with Water Heating	Type of Water Heating Equipment		
			Centralized System	Distributed System	Combination Centralized and Distributed Systems			Centralized System	Distributed System	Combination Centralized and Distributed Systems
Weekly Operating Hours										
39 or Fewer	978	427	362	47	18	6,596	3,340	2,748	336	255
40 to 48	1,156	779	577	175	27	13,105	10,049	7,001	1,931	1,117
49 to 60	986	746	553	149	44	14,200	12,280	7,321	3,039	1,921
61 to 84	664	521	386	102	34	12,458	11,334	6,440	2,493	2,401
85 to 167	474	436	336	55	45	9,116	8,041	4,985	1,535	1,521
Open Continuously	398	330	259	38	33	11,863	11,070	7,084	1,564	2,422
Multibuilding Facility Activity										
Not Part of a Multibuilding										
Facility	3,295	2,361	1,909	335	117	41,289	34,705	22,835	6,269	5,601
College or University	70	65	44	16	5	2,605	2,326	1,700	253	373
Primary or Secondary School	224	122	73	22	28	3,388	2,862	1,705	429	728
Office Complex	134	106	47	51	7	3,353	3,035	1,304	948	783
Retail Complex	181	141	81	57	3	3,555	3,108	1,491	1,310	307
Religious Campus or Complex	186	128	96	Q	Q	1,907	1,656	1,286	Q	Q
Health Care Complex	72	52	35	Q	Q	2,339	2,185	1,171	Q	709
Government Complex	61	42	27	Q	Q	1,513	1,177	783	Q	Q
Other	434	222	161	43	17	7,389	5,061	3,305	1,080	676
Energy Sources (more than one may apply)										
Electricity	4,395	3,239	2,472	566	200	65,716	56,115	35,579	10,899	9,637
Natural Gas	2,670	2,191	1,706	342	143	45,525	41,366	26,479	7,585	7,302
Fuel Oil	434	288	228	37	23	13,285	11,852	6,533	1,870	3,448
District Heat	117	101	84	7	11	5,891	5,301	3,464	695	1,142
District Chilled Water	50	37	29	3	6	2,750	2,455	1,556	254	644
Propane	451	334	247	50	36	6,290	5,409	3,504	958	947
Other	153	89	71	14	5	2,322	1,887	1,184	352	351
Water-Heating Energy Sources (more than one may apply)										
Electricity	1,546	1,546	1,048	399	99	24,171	24,171	12,585	7,068	4,519
Natural Gas	1,520	1,520	1,244	173	103	29,196	29,196	19,755	4,032	5,409
Fuel Oil	110	110	88	Q	Q	2,218	2,218	1,534	Q	498
District Heat	62	62	52	5	5	4,182	4,182	2,715	566	901
Propane	130	130	104	Q	Q	1,371	1,371	1,020	Q	Q
Energy End Uses (more than one may apply)										
Buildings with Space Heating	4,016	3,087	2,344	548	195	61,602	54,204	34,201	10,502	9,500
Buildings with Cooling	3,560	2,915	2,195	525	194	58,474	52,589	32,972	10,261	9,356
Buildings with Water Heating	3,239	3,239	2,472	566	200	56,115	56,115	35,579	10,899	9,637
Buildings with Cooking	857	818	608	98	112	24,681	23,830	13,553	4,346	5,932
Buildings with Manufacturing	151	89	64	20	5	3,126	2,364	1,385	601	378
Buildings with Electricity Generation	172	143	103	Q	18	11,882	11,079	5,974	1,828	3,277
Energy-Related Space Functions (more than one may apply)										
Commercial Food Preparation	767	733	542	91	99	23,328	22,563	12,730	4,141	5,692
Activities with Large Amounts of Hot Water	698	698	522	81	94	21,793	21,793	13,070	3,452	5,271

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

Note: Due to rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table B38. Lighting Equipment, Number of Buildings, 1999

	Number of Buildings (thousand)						
	All Buildings	All Lit Buildings	Lighting Equipment (more than one may apply)				
			Incandescent	Standard Fluorescent	Compact Fluorescent	High-Intensity Discharge	Halogen
All Buildings	4,657	4,172	2,193	3,778	607	430	572
Building Floorspace (Square Feet)							
1,001 to 5,000	2,348	2,024	980	1,795	198	80	194
5,001 to 10,000	1,110	1,003	548	904	149	94	136
10,001 to 25,000	708	663	391	628	109	111	123
25,001 to 50,000	257	249	138	230	62	60	43
50,001 to 100,000	145	143	83	136	48	43	41
100,001 to 200,000	59	59	33	56	24	25	23
200,001 to 500,000	23	23	14	22	12	11	9
Over 500,000	7	7	5	7	4	5	4
Principal Building Activity							
Education	327	327	120	309	56	49	34
Food Sales	174	173	53	172	Q	Q	Q
Food Service	349	349	277	308	78	Q	84
Health Care	127	127	83	126	20	8	34
Inpatient	11	11	9	11	8	3	3
Outpatient	116	116	74	115	13	Q	31
Lodging	153	149	130	121	55	18	25
Mercantile	667	666	346	614	86	40	97
Retail (Other Than Mall)	534	532	269	483	69	27	75
Enclosed and Strip Malls	133	133	77	131	17	Q	22
Office	739	738	362	696	131	39	81
Public Assembly	305	280	164	234	56	41	40
Public Order and Safety	72	59	31	57	6	6	Q
Religious Worship	307	307	237	244	30	28	53
Service	478	465	163	436	37	82	54
Warehouse and Storage	603	411	172	340	30	92	45
Other	102	86	32	84	Q	5	Q
Vacant	253	35	Q	34	Q	Q	Q
Year Constructed							
1919 or Before	419	342	221	307	44	41	55
1920 to 1945	499	436	283	376	58	31	33
1946 to 1959	763	676	334	622	56	54	79
1960 to 1969	665	594	307	525	122	48	86
1970 to 1979	774	731	391	674	81	69	112
1980 to 1989	846	771	415	721	123	94	131
1990 to 1999	690	622	242	552	121	93	77
Census Region							
Northeast	686	608	273	565	111	63	92
Midwest	1,188	1,033	587	904	166	114	155
South	1,762	1,599	847	1,455	187	159	189
West	1,021	931	486	853	142	94	136
Workers (main shift)							
Fewer than 5	2,376	1,922	986	1,681	159	153	176
5 to 9	807	793	391	737	105	57	105
10 to 19	683	667	373	627	112	61	84
20 to 49	487	487	258	442	133	76	120
50 to 99	174	174	102	165	43	45	40
100 to 249	90	90	56	88	32	22	31
250 or More	39	39	26	39	23	14	17

Table B38. Lighting Equipment, Number of Buildings, 1999

	Number of Buildings (thousand)						
	All Buildings	All Lit Buildings	Lighting Equipment (more than one may apply)				
			Incandescent	Standard Fluorescent	Compact Fluorescent	High-Intensity Discharge	Halogen
Weekly Operating Hours							
39 or Fewer	978	579	341	465	37	20	51
40 to 48	1,156	1,147	532	1,052	166	116	105
49 to 60	986	978	499	895	135	110	138
61 to 84	664	628	322	604	95	71	125
85 to 167	474	458	256	434	79	65	96
Open Continuously	398	381	243	327	94	48	58
Space in Building Vacant for at Least Three Consecutive Months							
Completely Vacant	140	Q	Q	Q	Q	N	Q
Mostly Vacant	113	32	Q	31	Q	Q	Q
Partially Vacant	697	563	316	524	99	69	103
Not At All Vacant	3,707	3,573	1,855	3,219	506	360	469
Multibuilding Facility Activity							
Not Part of a Multibuilding							
Facility	3,295	3,000	1,598	2,710	408	287	412
College or University	70	70	43	68	18	11	10
Primary or Secondary School	224	218	70	206	27	24	10
Office Complex	134	121	38	119	18	Q	13
Retail Complex	181	167	98	162	27	17	40
Religious Campus or Complex	186	176	112	159	15	Q	30
Health Care Complex	72	65	33	64	12	4	Q
Government Complex	61	43	17	37	5	Q	Q
Other	434	313	184	252	76	49	50
Energy Sources (more than one may apply)							
Electricity	4,395	4,172	2,193	3,778	607	430	572
Natural Gas	2,670	2,610	1,463	2,349	390	287	406
Fuel Oil	434	415	202	383	74	57	64
District Heat	117	117	68	108	32	20	19
District Chilled Water	50	50	25	49	17	11	5
Propane	451	435	225	378	68	45	68
Other	153	152	104	143	Q	16	33
Energy End Uses (more than one may apply)							
Buildings with Space Heating	4,016	3,908	2,090	3,544	591	405	547
Buildings with Cooling	3,560	3,512	1,853	3,215	556	364	491
Buildings with Water Heating	3,239	3,197	1,794	2,925	516	339	487
Buildings with Cooking	857	857	550	787	179	96	207
Buildings with Manufacturing	151	145	74	141	32	22	30
Buildings with Electricity Generation	172	171	93	162	58	42	46
Percent Lit When Open							
Zero	34	Q	N	N	N	Q	N
1 to 50	835	835	476	708	112	94	110
51 to 99	1,228	1,228	780	1,117	223	120	226
100	2,096	2,096	928	1,941	271	215	236
Building Never Open/ Electricity Not Used	464	Q	Q	Q	Q	N	Q
Percent Lit When Closed							
Zero	2,174	1,959	960	1,738	220	173	187
1 to 50	1,688	1,688	938	1,589	253	187	296
51 to 100	143	143	51	123	39	22	31
Building Never Closed/ Electricity Not Used	652	381	243	327	94	48	58

Table B38. Lighting Equipment, Number of Buildings, 1999

	Number of Buildings (thousand)						
	All Buildings	All Lit Buildings	Lighting Equipment (more than one may apply)				
			Incandescent	Standard Fluorescent	Compact Fluorescent	High-Intensity Discharge	Halogen
Lighting Equipment Types (more than one may apply)							
Incandescent.....	2,193	2,193	2,193	1,904	366	233	421
Standard Fluorescent.....	3,778	3,778	1,904	3,778	490	398	520
Compact Fluorescent.....	607	607	366	490	607	141	171
High-Intensity Discharge.....	430	430	233	398	141	430	133
Halogen.....	572	572	421	520	171	133	572
Other.....	58	58	34	37	4	2	Q
Lighting Conservation Features (more than one may apply)							
Specular Reflectors	843	843	430	843	177	121	153
Electronic Ballasts	2,167	2,167	1,052	2,151	340	273	313
Skylights or Atriums	580	531	311	484	107	94	117
Off-Hour Equipment Reduction (more than one may apply)							
Heating	2,862	2,791	1,455	2,586	408	283	374
Cooling	2,622	2,589	1,367	2,392	391	263	369
Lighting	3,675	3,675	1,899	3,349	493	362	486
Office Equipment	184	184	91	177	54	37	36

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

N=No responding cases in sample.

Note: Due to rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table B39. Lighting Equipment, Floorspace, 1999

	Total Floorspace (million square feet)						
	All Buildings	All Lit Buildings	Lighting Equipment (more than one may apply)				
			Incandescent	Standard Fluorescent	Compact Fluorescent	High-Intensity Discharge	Halogen
All Buildings	67,338	64,321	38,156	60,344	20,666	19,223	17,926
Building Floorspace (Square Feet)							
1,001 to 5,000	6,774	5,859	2,946	5,154	738	245	600
5,001 to 10,000	8,238	7,464	4,047	6,722	1,108	663	991
10,001 to 25,000	11,153	10,393	6,055	9,815	1,759	1,701	1,996
25,001 to 50,000	9,311	9,053	5,004	8,344	2,296	2,224	1,611
50,001 to 100,000	10,112	9,997	5,880	9,525	3,425	3,101	2,929
100,001 to 200,000	8,271	8,197	4,685	7,817	3,429	3,633	3,241
200,001 to 500,000	6,851	6,731	4,396	6,423	3,575	3,259	2,677
Over 500,000	6,628	6,628	5,143	6,544	4,336	4,397	3,882
Principal Building Activity							
Education	8,651	8,651	5,027	8,325	2,746	3,761	2,302
Food Sales	994	992	525	985	Q	Q	Q
Food Service	1,851	1,851	1,450	1,623	575	Q	558
Health Care	2,918	2,918	2,246	2,881	1,712	943	1,350
Inpatient	1,865	1,865	1,554	1,859	1,389	782	1,009
Outpatient	1,053	1,053	692	1,022	323	Q	341
Lodging	4,521	4,476	3,713	4,109	2,587	933	1,686
Mercantile	10,398	10,383	5,586	9,824	2,793	2,494	3,058
Retail (Other Than Mall)	4,766	4,754	2,240	4,286	724	767	790
Enclosed and Strip Malls	5,631	5,628	3,346	5,539	2,068	1,727	2,268
Office	12,044	12,037	7,598	11,608	5,844	2,946	4,034
Public Assembly	4,393	4,295	2,777	3,913	1,467	1,594	980
Public Order and Safety	1,168	1,006	513	984	304	319	Q
Religious Worship	3,405	3,405	2,775	3,048	633	490	965
Service	3,388	3,336	1,276	3,218	299	1,163	384
Warehouse and Storage	10,477	9,289	3,803	8,200	1,192	3,870	1,830
Other	1,222	1,176	644	1,142	300	382	Q
Vacant	1,908	506	Q	483	Q	Q	Q
Year Constructed							
1919 or Before	4,034	3,569	2,533	3,246	1,040	682	871
1920 to 1945	6,445	5,877	3,909	5,417	1,423	1,530	921
1946 to 1959	9,127	8,544	4,951	8,031	2,019	1,981	1,861
1960 to 1969	10,866	10,541	6,268	9,939	3,445	2,986	2,916
1970 to 1979	11,840	11,638	7,089	11,099	3,824	3,413	3,511
1980 to 1989	13,931	13,284	8,028	12,619	4,755	4,166	4,272
1990 to 1999	11,094	10,869	5,377	9,993	4,160	4,464	3,574
Census Region							
Northeast	12,360	11,804	7,047	11,348	3,939	4,382	3,625
Midwest	16,761	15,996	9,903	14,840	5,518	5,513	4,405
South	23,485	22,365	12,970	20,850	6,427	5,874	5,847
West	14,731	14,156	8,236	13,305	4,781	3,454	4,049
Workers (main shift)							
Fewer than 5	14,321	11,461	6,532	9,890	1,388	1,348	1,448
5 to 9	6,325	6,251	3,289	5,796	1,118	990	880
10 to 19	8,028	7,945	4,437	7,439	1,682	1,233	1,482
20 to 49	10,814	10,814	5,841	10,106	3,032	2,984	2,585
50 to 99	8,898	8,898	5,330	8,474	2,781	3,306	2,539
100 to 249	8,356	8,356	5,082	8,164	3,573	3,551	3,003
250 or More	10,595	10,595	7,644	10,475	7,093	5,812	5,989

Table B39. Lighting Equipment, Floorspace, 1999

	Total Floorspace (million square feet)						
	All Buildings	All Lit Buildings	Lighting Equipment (more than one may apply)				
			Incandescent	Standard Fluorescent	Compact Fluorescent	High-Intensity Discharge	Halogen
Weekly Operating Hours							
39 or Fewer	6,596	4,087	2,569	3,355	401	421	596
40 to 48	13,105	13,061	6,904	12,064	2,607	2,867	1,955
49 to 60	14,200	14,170	8,181	13,256	4,298	3,691	3,615
61 to 84	12,458	12,316	7,649	11,978	4,613	4,273	4,576
85 to 167	9,116	8,905	4,873	8,525	2,769	3,653	2,616
Open Continuously	11,863	11,784	7,980	11,166	5,978	4,319	4,568
Space in Building Vacant for at Least Three Consecutive Months							
Completely Vacant	953	Q	Q	Q	Q	N	Q
Mostly Vacant	956	409	Q	386	Q	Q	Q
Partially Vacant	15,520	14,697	9,454	14,140	6,349	4,888	5,590
Not At All Vacant	49,910	49,118	28,480	45,721	14,208	14,322	12,290
Multibuilding Facility Activity							
Not Part of a Multibuilding							
Facility	41,289	39,447	23,311	36,819	12,015	11,225	10,585
College or University	2,605	2,597	1,427	2,498	1,046	716	560
Primary or Secondary School	3,388	3,338	1,945	3,169	927	1,318	840
Office Complex	3,353	3,273	1,978	3,213	1,583	899	1,200
Retail Complex	3,555	3,487	2,068	3,381	1,083	994	1,383
Religious Campus or Complex	1,907	1,887	1,310	1,800	393	Q	557
Health Care Complex	2,339	2,309	1,635	2,273	1,311	823	919
Government Complex	1,513	1,341	683	1,319	507	484	Q
Other	7,389	6,643	3,798	5,872	1,801	2,501	1,655
Energy Sources (more than one may apply)							
Electricity	65,716	64,321	38,156	60,344	20,666	19,223	17,926
Natural Gas	45,525	45,043	27,997	42,436	15,294	14,854	14,031
Fuel Oil	13,285	13,192	9,076	12,874	6,857	6,227	5,840
District Heat	5,891	5,891	3,779	5,649	3,111	2,158	1,866
District Chilled Water	2,750	2,750	1,578	2,703	1,541	900	864
Propane	6,290	6,255	3,341	5,852	1,593	2,062	1,629
Other	2,322	2,318	1,638	2,212	860	1,001	916
Energy End Uses (more than one may apply)							
Buildings with Space Heating	61,602	61,017	36,640	57,516	20,127	18,821	17,373
Buildings with Cooling	58,474	58,077	34,584	55,007	19,829	18,076	17,093
Buildings with Water Heating	56,115	55,746	34,373	52,823	19,339	17,681	16,757
Buildings with Cooking	24,681	24,681	17,469	23,810	11,262	9,908	10,335
Buildings with Manufacturing	3,126	3,069	1,509	2,926	800	1,207	911
Buildings with Electricity Generation	11,882	11,877	8,413	11,585	7,132	6,086	6,201
Percent Lit When Open							
Zero	173	Q	N	N	N	Q	N
1 to 50	9,187	9,187	5,551	8,127	1,878	1,442	1,784
51 to 99	20,665	20,665	14,573	19,430	8,141	6,629	6,977
100	34,233	34,233	17,940	32,575	10,615	11,148	9,135
Building Never Open/ Electricity Not Used							
	3,080	232	Q	213	Q	N	Q
Percent Lit When Closed							
Zero	20,771	19,428	9,760	17,697	3,314	4,052	2,966
1 to 50	30,950	30,950	19,364	29,535	10,581	10,208	9,732
51 to 100	2,160	2,160	1,052	1,946	794	645	660
Building Never Closed/ Electricity Not Used							
	13,457	11,784	7,980	11,166	5,978	4,319	4,568

Table B39. Lighting Equipment, Floorspace, 1999

	Total Floorspace (million square feet)						
	All Buildings	All Lit Buildings	Lighting Equipment (more than one may apply)				
			Incandescent	Standard Fluorescent	Compact Fluorescent	High-Intensity Discharge	Halogen
Lighting Equipment Types (more than one may apply)							
Incandescent.....	38,156	38,156	38,156	35,707	15,682	12,726	14,037
Standard Fluorescent.....	60,344	60,344	35,707	60,344	19,242	18,465	17,171
Compact Fluorescent.....	20,666	20,666	15,682	19,242	20,666	9,386	10,517
High-Intensity Discharge.....	19,223	19,223	12,726	18,465	9,386	19,223	8,832
Halogen.....	17,926	17,926	14,037	17,171	10,517	8,832	17,926
Other.....	1,004	1,004	697	862	525	461	553
Lighting Conservation Features (more than one may apply)							
Specular Reflectors	19,994	19,994	12,721	19,994	8,935	8,144	7,855
Electronic Ballasts	42,035	42,035	24,967	41,473	16,117	15,009	13,717
Skylights or Atriums	18,286	17,885	11,615	16,957	7,793	8,306	7,398
Off-Hour Equipment Reduction (more than one may apply)							
Heating	39,969	39,632	23,293	37,533	11,971	11,677	10,516
Cooling	39,161	38,842	22,573	36,804	11,882	11,390	10,549
Lighting	51,083	51,083	29,489	47,891	14,346	14,631	13,044
Office Equipment	9,063	9,052	5,132	8,742	3,264	3,668	2,760

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

N=No responding cases in sample.

Note: Due to rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.