

**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
<b>All Buildings</b> .....	4,657	4,016	492	1,460	894	96	581	1,347	185
<b>Building Floorspace (Square Feet)</b>									
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
<b>Principal Building Activity</b>									
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
<b>Year Constructed</b>									
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
<b>Census Region</b>									
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
<b>Climate Zone: 45-Year Average</b>									
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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<b>Workers (main shift)</b>									
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
<b>Weekly Operating Hours</b>									
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
<b>Multibuilding Facility Activity</b>									
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
<b>Energy Sources (more than one may apply)</b>									
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
<b>Space-Heating Energy Sources (more than one may apply)</b>									
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
<b>Primary Space-Heating Energy Source</b>									
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

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<b>Energy End Uses (more than one may apply)</b>									
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
<b>Percent of Floorspace Heated</b>									
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
<b>Heating Equipment (more than one may apply)</b>									
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
<b>Cooling Equipment (more than one may apply)</b>									
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
<b>Main Equipment Replaced Since 1995 (more than one may apply)</b>									
Heating .....	984	984	130	347	231	Q	97	381	27
Cooling .....	1,085	1,014	172	374	215	10	128	397	18
<b>Building Shell Conservation Features (more than one may apply)</b>									
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
<b>HVAC Conservation Features (more than one may apply)</b>									
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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<b>Off-Hour Equipment Reduction (more than one may apply)</b>									
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.