

# 1999 Commercial Buildings Energy Consumption Survey Detailed Tables

## Consumption and Expenditures Tables

Table C1. Total Energy Consumption by Major Fuel .....	<a href="#">124</a>
Table C2. Total Energy Expenditures by Major Fuel.....	<a href="#">130</a>
Table C3. Consumption for Sum of Major Fuels .....	<a href="#">135</a>
Table C4. Expenditures for Sum of Major Fuels.....	<a href="#">140</a>
Table C5. Consumption and Gross Energy Intensity by Census Region for Sum of Major Fuels.....	<a href="#">145</a>
Table C6. Expenditures by Census Region for Sum of Major Fuels.....	<a href="#">150</a>
Table C7. Consumption and Gross Energy Intensity by Building Size for Sum of Major Fuels .....	<a href="#">155</a>
Table C8. Consumption and Gross Energy Intensity by Year Constructed for Sum of Major Fuels .....	<a href="#">160</a>
Table C9. Total Electricity Consumption and Expenditures .....	<a href="#">165</a>
Table C10. Electricity Consumption and Expenditure Intensities.....	<a href="#">170</a>
Table C11. Electricity Consumption and Conditional Energy Intensity by Census Region.....	<a href="#">175</a>
Table C12. Electricity Expenditures by Census Region.....	<a href="#">180</a>
Table C13. Electricity Consumption and Conditional Energy Intensity by Building Size.....	<a href="#">185</a>
Table C14. Electricity Consumption and Conditional Energy Intensity by Year Constructed .....	<a href="#">190</a>
Table C15. Total Natural Gas Consumption and Expenditures.....	<a href="#">195</a>
Table C16. Natural Gas Consumption and Expenditure Intensities .....	<a href="#">199</a>
Table C17. Natural Gas Consumption and Conditional Energy Intensity by Census Region .....	<a href="#">203</a>
Table C18. Natural Gas Expenditures by Census Region .....	<a href="#">207</a>
Table C19. Natural Gas Consumption and Conditional Energy Intensity by Building Size.....	<a href="#">211</a>
Table C20. Natural Gas Consumption and Conditional Energy Intensity by Year Constructed .....	<a href="#">215</a>
Table C21. Total Fuel Oil Consumption and Expenditures.....	<a href="#">219</a>
Table C22. Fuel Oil Consumption and Expenditure Intensities .....	<a href="#">223</a>
Table C23. Fuel Oil Consumption and Conditional Energy Intensity by Census Region.....	<a href="#">227</a>

Table C24. Fuel Oil Expenditures by Census Region .....	<a href="#"><u>230</u></a>
Table C25. Total District Heat Consumption and Expenditures .....	<a href="#"><u>233</u></a>
Table C26. District Heat Consumption and Expenditure Intensities .....	<a href="#"><u>237</u></a>

**Table C1. Total Energy Consumption by Major Fuel, 1999**

	All Buildings		Total Energy Consumption (trillion Btu)					Primary Electricity (trillion Btu)
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Site Electricity	Natural Gas	Fuel Oil	District Heat	
<b>All Buildings</b> .....	4,657	67,338	5,733	3,098	2,023	179	433	9,352
<b>Building Floorspace (Square Feet)</b>								
1,001 to 5,000 .....	2,348	6,774	772	415	312	29	Q	1,254
5,001 to 10,000 .....	1,110	8,238	608	283	292	Q	Q	853
10,001 to 25,000 .....	708	11,153	743	370	319	24	Q	1,118
25,001 to 50,000 .....	257	9,311	692	371	234	25	61	1,121
50,001 to 100,000 .....	145	10,112	865	494	250	24	97	1,491
100,001 to 200,000 .....	59	8,271	772	451	230	19	72	1,361
200,001 to 500,000 .....	23	6,851	660	340	237	25	57	1,028
Over 500,000 .....	7	6,628	621	373	149	16	84	1,127
<b>Principal Building Activity</b>								
Education .....	327	8,651	649	257	227	48	117	777
Food Sales .....	174	994	201	165	31	Q	Q	498
Food Service .....	349	1,851	447	216	216	Q	Q	653
Health Care .....	127	2,918	515	232	217	19	46	701
Inpatient .....	11	1,865	427	172	195	18	Q	520
Outpatient .....	116	1,053	88	60	22	Q	Q	181
Lodging .....	153	4,521	450	196	181	Q	68	591
Mercantile .....	667	10,398	724	521	186	Q	Q	1,573
Retail (Other Than Mall) .....	534	4,766	344	221	110	Q	Q	666
Enclosed and Strip Malls .....	133	5,631	380	301	76	Q	N	907
Office .....	739	12,044	1,089	767	219	29	74	2,314
Public Assembly .....	305	4,393	359	191	96	Q	59	577
Public Order and Safety .....	72	1,168	102	40	33	7	Q	122
Religious Worship .....	307	3,405	110	42	62	Q	Q	126
Service .....	478	3,388	421	138	260	18	Q	417
Warehouse and Storage .....	603	10,477	461	220	230	8	Q	664
Other .....	102	1,222	176	101	45	Q	Q	306
Vacant .....	253	1,908	31	10	19	Q	Q	31
<b>Year Constructed</b>								
1919 or Before .....	419	4,034	275	91	120	26	Q	275
1920 to 1945 .....	499	6,445	461	184	195	22	60	556
1946 to 1959 .....	763	9,127	674	310	256	33	76	934
1960 to 1969 .....	665	10,866	975	468	372	36	100	1,413
1970 to 1979 .....	774	11,840	1,044	621	326	29	69	1,875
1980 to 1989 .....	846	13,931	1,214	755	391	21	47	2,280
1990 to 1999 .....	690	11,094	1,090	669	364	13	Q	2,020
<b>Floors</b>								
One .....	2,879	26,800	2,003	1,174	750	48	Q	3,545
Two .....	1,168	16,985	1,330	707	530	39	Q	2,136
Three .....	420	8,928	733	355	274	39	66	1,071
Four to Nine .....	178	10,180	1,217	599	377	43	198	1,810
Ten or More .....	11	4,445	449	262	92	10	86	790
<b>Census Region and Division</b>								
Northeast .....	686	12,360	1,116	543	299	138	136	1,638
New England .....	208	3,735	279	132	59	73	Q	399
Middle Atlantic .....	479	8,625	837	411	240	65	121	1,239
Midwest .....	1,188	16,761	1,509	662	709	5	132	2,000
East North Central .....	782	11,205	1,009	429	497	Q	80	1,296
West North Central .....	406	5,556	500	233	212	2	52	704
South .....	1,762	23,485	1,961	1,247	618	29	67	3,766
South Atlantic .....	748	11,001	916	613	249	26	Q	1,851
East South Central .....	396	5,220	473	271	186	Q	Q	817
West South Central .....	618	7,264	573	364	183	1	Q	1,098
West .....	1,021	14,731	1,147	645	396	8	98	1,948
Mountain .....	315	4,579	356	175	145	1	Q	530
Pacific .....	705	10,152	791	470	252	Q	Q	1,418

**Table C1. Total Energy Consumption by Major Fuel, 1999**

	All Buildings		Total Energy Consumption (trillion Btu)					Primary Electricity (trillion Btu)
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Site Electricity	Natural Gas	Fuel Oil	District Heat	
<b>Climate Zone: 45-Year Average</b>								
Under 2,000 CDD and --								
More than 7,000 HDD .....	525	5,890	510	220	228	41	Q	665
5,500-7,000 HDD .....	986	17,083	1,535	671	642	62	160	2,027
4,000-5,499 HDD .....	1,085	16,243	1,545	790	520	69	166	2,385
Fewer than 4,000 HDD .....	1,134	16,333	1,291	827	425	Q	34	2,496
2,000 CDD or More and --								
Fewer than 4,000 HDD .....	926	11,788	853	589	208	2	Q	1,779
<b>Workers (main shift)</b>								
Fewer than 5 .....	2,376	14,321	677	334	280	20	Q	1,009
5 to 9 .....	807	6,325	465	217	194	23	Q	654
10 to 19 .....	683	8,028	691	350	281	Q	Q	1,055
20 to 49 .....	487	10,814	1,016	507	435	29	45	1,530
50 to 99 .....	174	8,898	730	418	222	33	57	1,260
100 to 249 .....	90	8,356	865	508	252	27	79	1,534
250 or More .....	39	10,595	1,289	765	359	28	138	2,309
<b>Weekly Operating Hours</b>								
39 or Fewer .....	978	6,596	164	68	82	11	Q	205
40 to 48 .....	1,156	13,105	746	387	269	35	55	1,169
49 to 60 .....	986	14,200	1,068	581	387	43	57	1,754
61 to 84 .....	664	12,458	1,050	588	358	31	73	1,776
85 to 167 .....	474	9,116	1,057	607	348	28	73	1,833
Open Continuously .....	398	11,863	1,648	866	577	32	173	2,614
<b>Ownership and Occupancy</b>								
Nongovernment Owned .....								
Owner Occupied .....	4,135	54,994	4,565	2,534	1,659	121	250	7,651
Nonowner Occupied .....	2,801	37,785	3,340	1,807	1,202	105	226	5,455
Unoccupied .....	1,099	15,596	1,207	720	447	16	Q	2,173
Government Owned .....								
Federal .....	236	1,613	17	Q	Q	Q	N	Q
State .....	521	12,343	1,169	563	364	58	184	1,701
Local .....	63	1,797	218	123	37	3	55	370
	83	3,391	376	160	114	6	96	484
	375	7,156	574	280	212	49	Q	846
<b>Vacancy Status</b>								
Completely Vacant .....	140	953	Q	Q	Q	N	N	Q
Mostly Vacant .....	113	956	Q	4	Q	Q	Q	13
Partially Vacant .....	697	15,520	1,049	648	306	24	71	1,955
Not At All Vacant .....	3,707	49,910	4,654	2,440	1,698	154	362	7,366
<b>Number of Establishments</b>								
One .....	3,528	43,343	4,047	2,021	1,542	136	347	6,102
2 to 5 .....	688	10,582	761	429	273	26	33	1,294
6 to 10 .....	114	3,574	304	202	86	Q	Q	611
11 to 20 .....	48	3,260	251	184	50	10	Q	555
More than 20 .....	27	4,811	350	253	60	4	33	764
Currently Unoccupied .....	251	1,769	21	9	12	Q	N	26
<b>Energy Sources (more than one may apply)</b>								
Electricity .....	4,395	65,716	5,733	3,098	2,023	179	433	9,352
Natural Gas .....	2,670	45,525	4,455	2,191	2,023	59	182	6,616
Fuel Oil .....	434	13,285	1,487	772	428	179	107	2,331
District Heat .....	117	5,891	905	359	108	Q	433	1,083
District Chilled Water .....	50	2,750	428	189	53	Q	185	571
Propane .....	451	6,290	430	262	Q	51	Q	791
Other .....	153	2,322	203	113	75	9	Q	341

**Table C1. Total Energy Consumption by Major Fuel, 1999**

	All Buildings		Total Energy Consumption (trillion Btu)					Primary Electricity (trillion Btu)
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Site Electricity	Natural Gas	Fuel Oil	District Heat	
<b>Space-Heating Energy Sources</b> (more than one may apply)								
Electricity .....	1,880	32,291	2,634	1,701	780	43	109	5,135
Natural Gas .....	2,380	37,902	3,554	1,736	1,764	24	Q	5,241
Fuel Oil .....	377	5,611	521	204	140	172	Q	617
District Heat .....	96	5,534	834	339	80	Q	412	1,022
Propane .....	307	2,728	119	99	Q	9	Q	299
Other .....	94	945	63	43	Q	Q	Q	130
<b>Primary Space-Heating Energy Source</b>								
Electricity .....	1,128	17,627	1,346	1,031	282	10	Q	3,114
Natural Gas .....	2,189	32,729	3,063	1,442	1,602	13	Q	4,353
Fuel Oil .....	302	3,719	271	101	17	153	Q	305
District Heat .....	77	5,077	759	308	48	1	402	928
Propane .....	282	2,107	73	72	Q	Q	N	216
Other .....	38	343	Q	Q	Q	Q	N	Q
<b>Cooling Energy Sources</b> (more than one may apply)								
Electricity .....	3,450	55,545	4,938	2,816	1,756	144	222	8,503
Natural Gas .....	142	1,914	212	107	102	Q	Q	323
District Chilled Water .....	50	2,750	428	189	53	Q	185	571
<b>Water-Heating Energy Sources</b> (more than one may apply)								
Electricity .....	1,546	24,171	1,835	1,290	445	47	54	3,896
Natural Gas .....	1,520	29,196	2,961	1,444	1,451	32	Q	4,358
Fuel Oil .....	110	2,218	233	86	53	92	Q	259
District Heat .....	62	4,182	677	255	78	3	341	769
Propane .....	130	1,371	87	73	Q	Q	Q	220
<b>Cooking Energy Sources</b> (more than one may apply)								
Electricity .....	437	13,733	1,520	931	462	40	87	2,811
Natural Gas .....	505	16,785	1,928	982	823	39	84	2,963
Propane .....	118	1,754	162	123	Q	28	Q	370
<b>Energy End Uses (more than one may apply)</b>								
Buildings with Space Heating .....	4,016	61,602	5,529	2,965	1,954	179	431	8,950
Buildings with Cooling .....	3,560	58,474	5,344	2,996	1,834	145	369	9,046
Buildings with Water Heating .....	3,239	56,115	5,262	2,844	1,864	163	392	8,585
Buildings with Cooking .....	857	24,681	2,679	1,504	941	86	149	4,540
Buildings with Manufacturing .....	151	3,126	277	149	114	7	Q	449
Buildings with Electricity Generation .....	172	11,882	1,494	836	470	48	139	2,525
<b>Percent of Floorspace Heated</b>								
Not Heated .....	641	5,736	205	133	Q	Q	Q	402
1 to 50 .....	576	7,593	333	191	130	9	Q	576
51 to 99 .....	627	10,745	979	557	344	20	57	1,683
100 .....	2,813	43,264	4,216	2,216	1,480	150	371	6,691
<b>Percent of Floorspace Cooled</b>								
Not Cooled .....	1,097	8,864	389	101	189	34	Q	306
1 to 50 .....	1,012	16,846	1,122	436	561	76	50	1,315
51 to 99 .....	751	16,966	1,743	1,002	589	40	112	3,026
100 .....	1,796	24,662	2,479	1,559	684	29	207	4,705

**Table C1. Total Energy Consumption by Major Fuel, 1999**

	All Buildings		Total Energy Consumption (trillion Btu)					Primary Electricity (trillion Btu)
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Site Electricity	Natural Gas	Fuel Oil	District Heat	
<b>Percent Lit When Open</b>								
Zero .....	34	173	Q	Q	Q	Q	N	Q
1 to 50 .....	835	9,187	452	223	185	16	Q	672
51 to 99 .....	1,228	20,665	1,993	1,005	760	69	159	3,034
100 .....	2,096	34,233	3,255	1,853	1,062	94	246	5,594
Building Never Open/ Electricity Not Used.....	464	3,080	29	14	14	Q	N	41
<b>Percent Lit When Closed</b>								
Zero .....	2,174	20,771	1,170	587	458	47	78	1,772
1 to 50 .....	1,688	30,950	2,604	1,462	879	96	167	4,413
51 to 100 .....	143	2,160	310	183	108	Q	Q	553
Building Never Closed/ Electricity Not Used.....	652	13,457	1,649	866	578	32	173	2,614
<b>Heating Equipment (more than one may apply)</b>								
Heat Pumps .....	492	8,923	862	516	292	9	Q	1,557
Furnaces .....	1,460	14,449	1,082	475	566	33	Q	1,435
Individual Space Heaters .....	894	17,349	1,374	734	530	32	79	2,215
District Heat .....	96	5,534	834	339	80	Q	412	1,022
Boilers .....	581	19,522	1,911	912	841	142	Q	2,755
Packaged Heating Units .....	1,347	25,743	2,369	1,469	826	25	49	4,435
Other .....	185	4,073	387	229	134	9	Q	691
<b>Cooling Equipment (more than one may apply)</b>								
Residential-Type Central								
Air Conditioners .....	676	8,329	672	343	295	14	Q	1,037
Heat Pumps .....	485	9,147	871	521	291	16	Q	1,574
Individual Air Conditioners .....	799	14,276	1,196	544	486	82	84	1,642
District Chilled Water .....	50	2,750	428	189	53	Q	185	571
Central Chillers .....	130	12,909	1,598	902	522	40	135	2,723
Packaged Air Conditioning								
Units .....	1,953	36,527	3,390	1,995	1,193	71	131	6,024
Swamp Coolers .....	136	2,219	215	102	102	Q	Q	308
Other .....	49	1,312	130	82	40	Q	Q	247
<b>Main Equipment Replaced Since 1995 (more than one may apply)</b>								
Heating .....	984	13,220	1,085	623	431	17	Q	1,880
Cooling .....	1,085	17,390	1,535	864	557	49	65	2,609
<b>Lighting Equipment Types (more than one may apply)</b>								
Incandescent .....	2,193	38,156	3,441	1,852	1,214	97	278	5,591
Standard Fluorescent .....	3,778	60,344	5,400	2,939	1,874	169	418	8,872
Compact Fluorescent .....	607	20,666	2,162	1,197	677	62	227	3,613
High Intensity Discharge .....	430	19,223	1,903	1,023	676	57	148	3,088
Halogen .....	572	17,926	1,805	998	647	38	121	3,014
Other .....	58	1,004	117	59	Q	Q	Q	179
<b>Water Heating Equipment</b>								
Centralized System .....	2,472	35,579	3,368	1,710	1,258	120	279	5,164
Distributed System .....	566	10,899	872	533	278	20	Q	1,610
Combination of Centralized and Distributed System .....	200	9,637	1,023	600	328	23	72	1,811

**Table C1. Total Energy Consumption by Major Fuel, 1999**

	All Buildings		Total Energy Consumption (trillion Btu)					Primary Electricity (trillion Btu)
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Site Electricity	Natural Gas	Fuel Oil	District Heat	
<b>Commercial Refrigeration Equipment (more than one may apply)</b>								
Any Equipment .....	950	25,652	2,874	1,655	980	91	148	4,997
Walk-In Units .....	658	19,713	2,407	1,386	839	66	115	4,186
Cases or Cabinets .....	820	22,001	2,481	1,448	821	77	136	4,370
None .....	3,707	41,686	2,859	1,442	1,043	89	285	4,355
<b>Personal Computers</b>								
None .....	1,617	9,583	458	193	214	18	Q	584
1 to 4 .....	1,636	13,853	1,078	556	447	32	Q	1,678
5 to 9 .....	542	6,528	584	307	254	11	Q	927
10 to 19 .....	403	7,514	626	329	229	29	Q	992
20 to 49 .....	247	8,087	655	382	209	23	41	1,153
50 to 99 .....	105	5,867	532	266	200	19	46	803
100 to 249 .....	71	6,818	688	411	184	25	69	1,240
250 or More .....	36	9,088	1,113	654	286	22	151	1,974
<b>Photocopiers</b>								
None .....	2,825	21,631	1,522	743	644	51	84	2,242
One .....	1,114	12,928	1,037	577	362	26	Q	1,741
2 to 4 .....	540	15,620	1,304	682	483	48	90	2,059
5 to 9 .....	102	5,384	530	284	184	24	38	857
10 or More .....	75	11,774	1,341	813	350	30	148	2,453
<b>Other Electronic Equipment (more than one may apply)</b>								
Laser Printers .....	1,949	46,567	4,356	2,450	1,432	130	345	7,396
FAX Machines .....	2,807	54,764	5,044	2,817	1,706	154	367	8,505
Medical Diagnostic Equipment .....	86	2,493	468	211	205	16	Q	637
<b>Energy-Related Space Functions (more than one may apply)</b>								
Commercial Food Preparation .....	767	23,328	2,548	1,425	899	81	142	4,302
Activities with Large Amounts of Hot Water .....	698	21,793	2,539	1,234	1,020	74	212	3,724
<b>Building Shell Conservation Features (more than one may apply)</b>								
Multipaned Windows .....	2,130	38,193	3,583	1,929	1,275	113	266	5,823
Tinted, Reflective, or Shading Glass .....	1,283	29,915	2,835	1,716	845	57	217	5,180
<b>HVAC Conservation Features (more than one may apply)</b>								
Variable Air-Volume System .....	550	19,387	2,115	1,245	619	47	203	3,759
Economizer Cycle .....	567	21,256	2,387	1,369	748	42	228	4,133
HVAC Maintenance .....	2,786	53,395	5,064	2,781	1,706	165	413	8,395
Energy Management and Control System (EMCS) .....	460	21,613	2,391	1,343	704	54	290	4,055

**Table C1. Total Energy Consumption by Major Fuel, 1999**

	All Buildings		Total Energy Consumption (trillion Btu)					Primary Electricity (trillion Btu)
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Site Electricity	Natural Gas	Fuel Oil	District Heat	
<b>Lighting Conservation Features (more than one may apply)</b>								
Specular Reflectors .....	843	19,994	1,917	1,139	585	69	124	3,440
Electronic Ballasts .....	2,167	42,035	3,901	2,205	1,269	125	302	6,658
Skylights or Atriums .....	580	18,286	1,619	898	572	47	102	2,710

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.

Notes: \* 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 electric generation process at the utility plant. \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* HVAC=Heating, Ventilation, and Air Conditioning. \* 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 C2. Total Energy Expenditures by Major Fuel, 1999**

	All Buildings		Total Energy Expenditures (million dollars)				
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Electricity	Natural Gas	Fuel Oil	District Heat
<b>All Buildings</b> .....	4,657	67,338	81,552	66,424	10,609	956	3,564
<b>Building Floorspace (Square Feet)</b>							
1,001 to 5,000 .....	2,348	6,774	12,355	10,262	1,802	197	Q
5,001 to 10,000 .....	1,110	8,238	9,228	7,146	1,810	95	Q
10,001 to 25,000 .....	708	11,153	10,873	8,663	1,813	145	Q
25,001 to 50,000 .....	257	9,311	10,090	8,188	1,274	131	496
50,001 to 100,000 .....	145	10,112	12,057	10,023	1,253	114	667
100,001 to 200,000 .....	59	8,271	10,344	8,555	1,104	87	598
200,001 to 500,000 .....	23	6,851	8,015	6,432	958	120	504
Over 500,000 .....	7	6,628	8,592	7,155	594	68	775
<b>Principal Building Activity</b>							
Education .....	327	8,651	8,018	5,820	1,111	208	879
Food Sales .....	174	994	3,587	3,359	195	Q	Q
Food Service .....	349	1,851	6,380	5,082	1,185	Q	Q
Health Care .....	127	2,918	5,653	4,268	881	87	Q
Inpatient .....	11	1,865	4,151	2,948	757	79	Q
Outpatient .....	116	1,053	1,503	1,320	124	Q	Q
Lodging .....	153	4,521	5,716	4,266	943	26	482
Mercantile .....	667	10,398	13,085	11,851	1,126	Q	Q
Retail (Other Than Mall) .....	534	4,766	5,922	5,166	670	Q	Q
Enclosed and Strip Malls .....	133	5,631	7,164	6,685	456	Q	N
Office .....	739	12,044	17,775	15,683	1,215	168	709
Public Assembly .....	305	4,393	5,096	3,983	560	Q	487
Public Order and Safety .....	72	1,168	1,222	805	176	Q	Q
Religious Worship .....	307	3,405	1,494	1,041	409	Q	Q
Service .....	478	3,388	4,639	3,108	1,371	102	Q
Warehouse and Storage .....	603	10,477	6,029	4,829	1,124	55	Q
Other .....	102	1,222	2,498	2,063	224	Q	Q
Vacant .....	253	1,908	361	265	89	Q	Q
<b>Year Constructed</b>							
1919 or Before .....	419	4,034	3,271	2,170	684	149	268
1920 to 1945 .....	499	6,445	5,797	4,174	968	119	535
1946 to 1959 .....	763	9,127	9,216	6,989	1,390	184	652
1960 to 1969 .....	665	10,866	13,237	10,250	1,986	185	815
1970 to 1979 .....	774	11,840	15,858	13,461	1,726	132	538
1980 to 1989 .....	846	13,931	18,342	15,777	2,033	113	Q
1990 to 1999 .....	690	11,094	15,832	13,604	1,820	73	Q
<b>Floors</b>							
One .....	2,879	26,800	30,962	26,384	4,075	288	Q
Two .....	1,168	16,985	19,465	15,870	2,936	214	Q
Three .....	420	8,928	9,483	7,284	1,460	195	544
Four to Nine .....	178	10,180	14,974	11,438	1,766	216	1,553
Ten or More .....	11	4,445	6,670	5,448	372	43	806
<b>Census Region and Division</b>							
Northeast .....	686	12,360	18,996	15,133	1,895	704	1,264
New England .....	208	3,735	4,658	3,783	403	362	Q
Middle Atlantic .....	479	8,625	14,338	11,351	1,491	342	1,154
Midwest .....	1,188	16,761	17,258	12,933	3,277	27	1,021
East North Central .....	782	11,205	11,682	8,798	2,252	13	618
West North Central .....	406	5,556	5,577	4,135	1,024	14	Q
South .....	1,762	23,485	27,303	23,275	3,294	180	554
South Atlantic .....	748	11,001	13,771	11,968	1,397	157	Q
East South Central .....	396	5,220	5,943	4,830	999	Q	Q
West South Central .....	618	7,264	7,590	6,476	898	5	Q
West .....	1,021	14,731	17,995	15,083	2,144	45	724
Mountain .....	315	4,579	4,338	3,365	739	8	Q
Pacific .....	705	10,152	13,657	11,718	1,405	Q	Q

**Table C2. Total Energy Expenditures by Major Fuel, 1999**

	All Buildings		Total Energy Expenditures (million dollars)				
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Electricity	Natural Gas	Fuel Oil	District Heat
<b>Climate Zone: 45-Year Average</b>							
Under 2,000 CDD and --							
More than 7,000 HDD .....	525	5,890	6,009	4,505	1,125	206	Q
5,500-7,000 HDD .....	986	17,083	19,809	15,163	3,108	319	1,219
4,000-5,499 HDD .....	1,085	16,243	21,900	17,164	2,874	369	1,492
Fewer than 4,000 HDD .....	1,134	16,333	20,548	17,847	2,341	Q	314
2,000 CDD or More and --							
Fewer than 4,000 HDD .....	926	11,788	13,286	11,745	1,160	15	Q
<b>Workers (main shift)</b>							
Fewer than 5 .....	2,376	14,321	10,245	8,046	1,747	132	Q
5 to 9 .....	807	6,325	6,930	5,462	1,111	147	Q
10 to 19 .....	683	8,028	10,426	8,439	1,509	Q	Q
20 to 49 .....	487	10,814	13,937	11,068	2,386	153	Q
50 to 99 .....	174	8,898	10,937	9,122	1,177	153	485
100 to 249 .....	90	8,356	11,684	9,683	1,210	120	671
250 or More .....	39	10,595	17,393	14,604	1,468	136	1,185
<b>Weekly Operating Hours</b>							
39 or Fewer .....	978	6,596	2,316	1,717	502	68	Q
40 to 48 .....	1,156	13,105	10,960	8,799	1,480	183	Q
49 to 60 .....	986	14,200	15,814	12,980	2,123	245	466
61 to 84 .....	664	12,458	15,896	13,082	2,045	164	605
85 to 167 .....	474	9,116	15,569	13,107	1,810	136	516
Open Continuously .....	398	11,863	20,997	16,739	2,650	160	1,449
<b>Ownership and Occupancy</b>							
Nongovernment Owned .....	4,135	54,994	66,801	55,086	8,913	693	2,110
Owner Occupied .....	2,801	37,785	47,362	38,540	6,383	591	1,848
Nonowner Occupied .....	1,099	15,596	19,195	16,358	2,474	101	Q
Unoccupied .....	236	1,613	244	Q	Q	Q	N
Government Owned .....	521	12,343	14,751	11,338	1,696	263	1,454
Federal .....	63	1,797	2,707	2,195	159	17	336
State .....	83	3,391	4,516	3,189	470	29	828
Local .....	375	7,156	7,529	5,955	1,067	217	Q
<b>Vacancy Status</b>							
Completely Vacant .....	140	953	Q	Q	Q	N	N
Mostly Vacant .....	113	956	191	121	Q	Q	Q
Partially Vacant .....	697	15,520	16,227	13,761	1,600	128	737
Not At All Vacant .....	3,707	49,910	64,965	52,397	8,920	823	2,824
<b>Number of Establishments</b>							
One .....	3,528	43,343	54,521	43,175	7,939	727	2,680
2 to 5 .....	688	10,582	11,256	9,297	1,524	137	Q
6 to 10 .....	114	3,574	5,148	4,492	511	18	Q
11 to 20 .....	48	3,260	4,247	3,846	275	47	Q
More than 20 .....	27	4,811	6,103	5,402	297	25	379
Currently Unoccupied .....	251	1,769	278	211	64	Q	N
<b>Energy Sources (more than one may apply)</b>							
Electricity .....	4,395	65,716	81,548	66,424	10,607	953	3,564
Natural Gas .....	2,670	45,525	58,798	46,431	10,609	297	1,461
Fuel Oil .....	434	13,285	18,854	15,165	1,786	956	948
District Heat .....	117	5,891	10,915	6,841	488	23	3,564
District Chilled Water .....	50	2,750	4,807	3,224	226	Q	1,349
Propane .....	451	6,290	7,054	6,286	433	272	Q
Other .....	153	2,322	3,001	2,512	381	55	Q

**Table C2. Total Energy Expenditures by Major Fuel, 1999**

	All Buildings		Total Energy Expenditures (million dollars)				
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Electricity	Natural Gas	Fuel Oil	District Heat
<b>Space-Heating Energy Sources (more than one may apply)</b>							
Electricity .....	1,880	32,291	40,678	35,332	4,167	244	934
Natural Gas .....	2,380	37,902	46,471	36,918	9,122	130	Q
Fuel Oil .....	377	5,611	6,565	5,013	610	909	Q
District Heat .....	96	5,534	10,208	6,432	385	Q	3,371
Propane .....	307	2,728	2,690	2,583	Q	46	Q
Other .....	94	945	1,016	891	Q	Q	Q
<b>Primary Space-Heating Energy Source</b>							
Electricity .....	1,128	17,627	23,523	21,622	1,608	Q	Q
Natural Gas .....	2,189	32,729	38,998	30,654	8,225	71	Q
Fuel Oil .....	302	3,719	3,839	2,923	108	802	Q
District Heat .....	77	5,077	9,287	5,784	220	7	3,277
Propane .....	282	2,107	1,966	1,960	Q	Q	N
Other .....	38	343	Q	Q	Q	Q	N
<b>Cooling Energy Sources (more than one may apply)</b>							
Electricity .....	3,450	55,545	72,249	60,281	9,247	752	1,968
Natural Gas .....	142	1,914	3,034	2,487	518	Q	Q
District Chilled Water .....	50	2,750	4,807	3,224	226	Q	1,349
<b>Water-Heating Energy Sources (more than one may apply)</b>							
Electricity .....	1,546	24,171	30,746	27,581	2,441	262	462
Natural Gas .....	1,520	29,196	38,398	30,391	7,556	166	Q
Fuel Oil .....	110	2,218	2,747	2,089	188	454	Q
District Heat .....	62	4,182	7,911	4,710	319	14	2,868
Propane .....	130	1,371	2,147	2,075	Q	Q	Q
<b>Cooking Energy Sources (more than one may apply)</b>							
Electricity .....	437	13,733	21,428	18,252	2,274	183	719
Natural Gas .....	505	16,785	25,164	20,171	4,019	183	790
Propane .....	118	1,754	3,241	3,038	Q	140	Q
<b>Energy End Uses (more than one may apply)</b>							
Buildings with Space Heating .....	4,016	61,602	77,862	63,164	10,189	954	3,556
Buildings with Cooling .....	3,560	58,474	77,278	63,845	9,647	758	3,028
Buildings with Water Heating .....	3,239	56,115	74,711	60,875	9,705	849	3,283
Buildings with Cooking .....	857	24,681	37,233	30,873	4,672	409	1,279
Buildings with Manufacturing .....	151	3,126	3,811	3,060	634	39	Q
Buildings with Electricity Generation .....	172	11,882	18,991	15,509	2,080	243	1,159
<b>Percent of Floorspace Heated</b>							
Not Heated .....	641	5,736	3,690	3,261	Q	Q	Q
1 to 50 .....	576	7,593	5,293	4,533	679	49	Q
51 to 99 .....	627	10,745	13,939	11,384	1,896	125	534
100 .....	2,813	43,264	58,630	47,247	7,614	779	2,990
<b>Percent of Floorspace Cooled</b>							
Not Cooled .....	1,097	8,864	4,275	2,579	962	198	Q
1 to 50 .....	1,012	16,846	14,072	10,363	2,897	397	Q
51 to 99 .....	751	16,966	24,422	20,141	3,056	195	1,031
100 .....	1,796	24,662	38,784	33,342	3,694	166	1,582

**Table C2. Total Energy Expenditures by Major Fuel, 1999**

	All Buildings		Total Energy Expenditures (million dollars)				
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Electricity	Natural Gas	Fuel Oil	District Heat
<b>Percent Lit When Open</b>							
Zero .....	34	173	Q	Q	Q	Q	N
1 to 50 .....	835	9,187	6,822	5,396	1,081	93	Q
51 to 99 .....	1,228	20,665	27,188	21,574	4,085	355	1,173
100 .....	2,096	34,233	47,058	39,065	5,354	502	2,138
Building Never Open/ Electricity Not Used.....	464	3,080	403	319	79	Q	N
<b>Percent Lit When Closed</b>							
Zero .....	2,174	20,771	17,327	14,034	2,565	264	464
1 to 50 .....	1,688	30,950	38,650	31,794	4,845	501	1,510
51 to 100 .....	143	2,160	4,575	3,857	548	Q	Q
Building Never Closed/ Electricity Not Used.....	652	13,457	21,001	16,739	2,651	163	1,449
<b>Heating Equipment (more than one may apply)</b>							
Heat Pumps .....	492	8,923	12,150	10,243	1,481	51	Q
Furnaces .....	1,460	14,449	14,052	10,722	3,054	212	Q
Individual Space Heaters .....	894	17,349	18,689	15,110	2,712	170	697
District Heat .....	96	5,534	10,208	6,432	385	Q	3,371
Boilers .....	581	19,522	23,671	18,848	3,974	705	Q
Packaged Heating Units .....	1,347	25,743	35,951	31,069	4,291	132	459
Other .....	185	4,073	5,151	4,400	559	48	Q
<b>Cooling Equipment (more than one may apply)</b>							
Residential-Type Central							
Air Conditioners .....	676	8,329	8,891	7,113	1,538	82	Q
Heat Pumps .....	485	9,147	12,330	10,416	1,477	89	Q
Individual Air Conditioners .....	799	14,276	15,537	11,793	2,519	421	803
District Chilled Water .....	50	2,750	4,807	3,224	226	Q	1,349
Central Chillers .....	130	12,909	20,759	17,041	2,301	190	1,227
Packaged Air Conditioning							
Units .....	1,953	36,527	50,789	43,059	6,277	360	1,094
Swamp Coolers .....	136	2,219	2,832	2,238	518	Q	Q
Other .....	49	1,312	1,821	1,580	172	Q	Q
<b>Main Equipment Replaced Since 1995 (more than one may apply)</b>							
Heating .....	984	13,220	16,100	13,421	2,431	102	Q
Cooling .....	1,085	17,390	22,162	18,381	2,949	249	583
<b>Lighting Equipment Types (more than one may apply)</b>							
Incandescent .....	2,193	38,156	48,515	39,345	6,273	493	2,404
Standard Fluorescent .....	3,778	60,344	76,738	62,616	9,788	891	3,443
Compact Fluorescent .....	607	20,666	29,689	24,269	3,255	313	1,852
High Intensity Discharge .....	430	19,223	24,549	19,743	3,203	269	1,334
Halogen .....	572	17,926	25,096	20,656	3,246	190	1,005
Other .....	58	1,004	1,506	1,235	Q	Q	Q
<b>Water Heating Equipment</b>							
Centralized System .....	2,472	35,579	47,665	38,010	6,762	631	2,261
Distributed System .....	566	10,899	13,260	11,383	1,409	111	Q
Combination of Centralized and Distributed System .....	200	9,637	13,786	11,481	1,533	108	665

**Table C2. Total Energy Expenditures by Major Fuel, 1999**

	All Buildings		Total Energy Expenditures (million dollars)				
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Electricity	Natural Gas	Fuel Oil	District Heat
<b>Commercial Refrigeration Equipment (more than one may apply)</b>							
Any Equipment .....	950	25,652	40,917	34,282	4,858	442	1,336
Walk-In Units .....	658	19,713	33,935	28,489	4,086	313	1,048
Cases or Cabinets .....	820	22,001	35,710	30,056	4,052	365	1,237
None .....	3,707	41,686	40,635	32,142	5,751	514	2,228
<b>Personal Computers</b>							
None .....	1,617	9,583	6,478	4,762	1,291	119	Q
1 to 4 .....	1,636	13,853	16,059	13,009	2,502	198	Q
5 to 9 .....	542	6,528	8,451	6,947	1,327	68	Q
10 to 19 .....	403	7,514	9,636	7,747	1,374	158	Q
20 to 49 .....	247	8,087	9,782	8,162	1,171	109	341
50 to 99 .....	105	5,867	6,928	5,601	903	98	326
100 to 249 .....	71	6,818	9,137	7,675	840	105	516
250 or More .....	36	9,088	15,083	12,521	1,202	101	1,260
<b>Photocopiers</b>							
None .....	2,825	21,631	22,207	17,615	3,624	321	647
One .....	1,114	12,928	15,654	12,840	2,079	144	Q
2 to 4 .....	540	15,620	17,906	14,526	2,514	240	626
5 to 9 .....	102	5,384	6,938	5,626	852	117	343
10 or More .....	75	11,774	18,847	15,816	1,540	134	1,357
<b>Other Electronic Equipment (more than one may apply)</b>							
Laser Printers .....	1,949	46,567	61,755	51,039	7,229	662	2,826
FAX Machines .....	2,807	54,764	72,276	59,661	8,864	798	2,954
Medical Diagnostic Equipment .....	86	2,493	4,977	3,775	813	69	Q
<b>Energy-Related Space Functions (more than one may apply)</b>							
Commercial Food Preparation .....	767	23,328	35,213	29,173	4,443	383	1,214
Activities with Large Amounts of Hot Water .....	698	21,793	32,545	25,383	4,972	353	1,838
<b>Building Shell Conservation Features (more than one may apply)</b>							
Multipaned Windows .....	2,130	38,193	49,189	39,911	6,557	585	2,136
Tinted, Reflective, or Shading Glass .....	1,283	29,915	41,475	35,125	4,359	272	1,718
<b>HVAC Conservation Features (more than one may apply)</b>							
Variable Air-Volume System .....	550	19,387	29,233	24,379	2,946	230	1,677
Economizer Cycle .....	567	21,256	33,194	27,641	3,563	194	1,795
HVAC Maintenance .....	2,786	53,395	71,785	58,705	8,812	861	3,406
Energy Management and Control System (EMCS) .....	460	21,613	31,814	26,143	3,177	246	2,248
<b>Lighting Conservation Features (more than one may apply)</b>							
Specular Reflectors .....	843	19,994	28,083	23,678	3,000	350	1,054
Electronic Ballasts .....	2,167	42,035	55,999	46,324	6,436	633	2,606
Skylights or Atriums .....	580	18,286	21,710	17,867	2,796	223	824

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.

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* HVAC=Heating, Ventilation, and Air Conditioning. \* 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 C3. Consumption and Gross Energy Intensity for Sum of Major Fuels, 1999**

	All Buildings			Sum of Major Fuel Consumption			
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	per Building (million Btu)	per Square Foot (thousand Btu)	per Worker (million Btu)
<b>All Buildings</b> .....	4,657	67,338	14.5	5,733	1,231	85.1	70.0
<b>Building Floorspace (Square Feet)</b>							
1,001 to 5,000 .....	2,348	6,774	2.9	772	329	114.0	69.4
5,001 to 10,000 .....	1,110	8,238	7.4	608	548	73.8	55.4
10,001 to 25,000 .....	708	11,153	15.7	743	1,049	66.6	65.3
25,001 to 50,000 .....	257	9,311	36.2	692	2,693	74.3	74.9
50,001 to 100,000 .....	145	10,112	69.9	865	5,985	85.6	67.7
100,001 to 200,000 .....	59	8,271	139.4	772	13,008	93.3	87.1
200,001 to 500,000 .....	23	6,851	296.3	660	28,531	96.3	75.0
Over 500,000 .....	7	6,628	929.0	621	87,102	93.8	71.4
<b>Principal Building Activity</b>							
Education .....	327	8,651	26.4	649	1,982	75.0	72.7
Food Sales .....	174	994	5.7	201	1,156	202.2	205.1
Food Service .....	349	1,851	5.3	447	1,280	241.2	110.8
Health Care .....	127	2,918	22.9	515	4,047	176.4	82.8
Inpatient .....	11	1,865	168.2	427	38,499	228.9	127.4
Outpatient .....	116	1,053	9.1	88	755	83.3	30.6
Lodging .....	153	4,521	29.5	450	2,938	99.5	190.9
Mercantile .....	667	10,398	15.6	724	1,085	69.6	63.6
Retail (Other Than Mall) .....	534	4,766	8.9	344	644	72.1	73.7
Enclosed and Strip Malls .....	133	5,631	42.2	380	2,848	67.5	56.6
Office .....	739	12,044	16.3	1,089	1,475	90.5	37.6
Public Assembly .....	305	4,393	14.4	359	1,177	81.7	114.1
Public Order and Safety .....	72	1,168	16.2	102	1,407	86.9	59.6
Religious Worship .....	307	3,405	11.1	110	357	32.2	66.3
Service .....	478	3,388	7.1	421	881	124.4	92.5
Warehouse and Storage .....	603	10,477	17.4	461	764	44.0	74.2
Other .....	102	1,222	12.0	176	1,729	144.0	121.1
Vacant .....	253	1,908	7.6	31	121	16.0	Q
<b>Year Constructed</b>							
1919 or Before .....	419	4,034	9.6	275	656	68.1	70.3
1920 to 1945 .....	499	6,445	12.9	461	923	71.5	77.8
1946 to 1959 .....	763	9,127	12.0	674	884	73.9	68.6
1960 to 1969 .....	665	10,866	16.3	975	1,465	89.7	75.7
1970 to 1979 .....	774	11,840	15.3	1,044	1,349	88.2	65.9
1980 to 1989 .....	846	13,931	16.5	1,214	1,435	87.2	61.2
1990 to 1999 .....	690	11,094	16.1	1,090	1,579	98.3	80.0
<b>Floors</b>							
One .....	2,879	26,800	9.3	2,003	696	74.7	67.0
Two .....	1,168	16,985	14.5	1,330	1,139	78.3	71.0
Three .....	420	8,928	21.3	733	1,746	82.1	76.8
Four to Nine .....	178	10,180	57.2	1,217	6,845	119.6	80.8
Ten or More .....	11	4,445	386.9	449	39,120	101.1	52.4
<b>Census Region and Division</b>							
Northeast .....	686	12,360	18.0	1,116	1,626	90.3	77.5
New England .....	208	3,735	18.0	279	1,342	74.6	71.7
Middle Atlantic .....	479	8,625	18.0	837	1,749	97.1	79.6
Midwest .....	1,188	16,761	14.1	1,509	1,270	90.0	82.5
East North Central .....	782	11,205	14.3	1,009	1,291	90.1	86.5
West North Central .....	406	5,556	13.7	500	1,231	89.9	75.6
South .....	1,762	23,485	13.3	1,961	1,113	83.5	67.2
South Atlantic .....	748	11,001	14.7	916	1,225	83.3	65.2
East South Central .....	396	5,220	13.2	473	1,194	90.5	80.0
West South Central .....	618	7,264	11.8	573	927	78.9	62.1
West .....	1,021	14,731	14.4	1,147	1,124	77.9	57.4
Mountain .....	315	4,579	14.5	356	1,130	77.8	68.5
Pacific .....	705	10,152	14.4	791	1,122	77.9	53.5

**Table C3. Consumption and Gross Energy Intensity for Sum of Major Fuels, 1999**

	All Buildings			Sum of Major Fuel Consumption			
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	per Building (million Btu)	per Square Foot (thousand Btu)	per Worker (million Btu)
<b>Climate Zone: 45-Year Average</b>							
Under 2,000 CDD and --							
More than 7,000 HDD .....	525	5,890	11.2	510	971	86.6	87.1
5,500-7,000 HDD .....	986	17,083	17.3	1,535	1,557	89.8	83.8
4,000-5,499 HDD .....	1,085	16,243	15.0	1,545	1,423	95.1	69.8
Fewer than 4,000 HDD .....	1,134	16,333	14.4	1,291	1,139	79.1	61.1
2,000 CDD or More and --							
Fewer than 4,000 HDD .....	926	11,788	12.7	853	920	72.3	59.2
<b>Workers (main shift)</b>							
Fewer than 5 .....	2,376	14,321	6.0	677	285	47.3	159.7
5 to 9 .....	807	6,325	7.8	465	576	73.5	87.5
10 to 19 .....	683	8,028	11.8	691	1,012	86.1	80.5
20 to 49 .....	487	10,814	22.2	1,016	2,085	93.9	72.1
50 to 99 .....	174	8,898	51.1	730	4,195	82.0	63.9
100 to 249 .....	90	8,356	92.4	865	9,560	103.5	68.6
250 or More .....	39	10,595	270.0	1,289	32,847	121.7	50.4
<b>Weekly Operating Hours</b>							
39 or Fewer .....	978	6,596	6.7	164	168	24.9	46.7
40 to 48 .....	1,156	13,105	11.3	746	646	57.0	47.8
49 to 60 .....	986	14,200	14.4	1,068	1,083	75.2	51.6
61 to 84 .....	664	12,458	18.7	1,050	1,581	84.3	65.0
85 to 167 .....	474	9,116	19.2	1,057	2,229	115.9	97.9
Open Continuously .....	398	11,863	29.8	1,648	4,136	138.9	109.4
<b>Ownership and Occupancy</b>							
Nongovernment Owned .....							
Owner Occupied .....	4,135	54,994	13.3	4,565	1,104	83.0	67.3
Nonowner Occupied .....	2,801	37,785	13.5	3,340	1,193	88.4	71.7
Unoccupied .....	1,099	15,596	14.2	1,207	1,098	77.4	56.8
Government Owned .....							
Federal .....	236	1,613	6.8	17	74	10.8	.
State .....	521	12,343	23.7	1,169	2,242	94.7	83.1
Local .....	63	1,797	28.5	218	3,457	121.3	75.7
	83	3,391	40.7	376	4,522	111.0	105.5
	375	7,156	19.1	574	1,531	80.3	75.4
<b>Vacancy Status</b>							
Completely Vacant .....	140	953	6.8	Q	Q	Q	.
Mostly Vacant .....	113	956	8.5	Q	Q	Q	Q
Partially Vacant .....	697	15,520	22.3	1,049	1,505	67.6	51.1
Not At All Vacant .....	3,707	49,910	13.5	4,654	1,255	93.2	76.2
<b>Number of Establishments</b>							
One .....	3,528	43,343	12.3	4,047	1,147	93.4	83.1
2 to 5 .....	688	10,582	15.4	761	1,105	71.9	61.5
6 to 10 .....	114	3,574	31.4	304	2,669	85.0	46.1
11 to 20 .....	48	3,260	68.0	251	5,240	77.1	42.1
More than 20 .....	27	4,811	175.2	350	12,732	72.7	42.4
Currently Unoccupied .....	251	1,769	7.0	21	83	11.7	.
<b>Energy Sources (more than one may apply)</b>							
Electricity .....	4,395	65,716	15.0	5,733	1,304	87.2	70.1
Natural Gas .....	2,670	45,525	17.1	4,455	1,669	97.9	79.2
Fuel Oil .....	434	13,285	30.6	1,487	3,426	111.9	75.9
District Heat .....	117	5,891	50.2	905	7,707	153.6	104.5
District Chilled Water .....	50	2,750	55.4	428	8,630	155.7	92.4
Propane .....	451	6,290	14.0	430	953	68.3	67.7
Other .....	153	2,322	15.2	203	1,330	87.4	59.7

**Table C3. Consumption and Gross Energy Intensity for Sum of Major Fuels, 1999**

	All Buildings			Sum of Major Fuel Consumption			
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	per Building (million Btu)	per Square Foot (thousand Btu)	per Worker (million Btu)
<b>Space-Heating Energy Sources (more than one may apply)</b>							
Electricity .....	1,880	32,291	17.2	2,634	1,401	81.6	60.9
Natural Gas .....	2,380	37,902	15.9	3,554	1,493	93.8	77.3
Fuel Oil .....	377	5,611	14.9	521	1,383	92.8	79.6
District Heat .....	96	5,534	57.7	834	8,693	150.7	102.8
Propane .....	307	2,728	8.9	119	387	43.5	48.9
Other .....	94	945	10.0	63	667	66.5	49.4
<b>Primary Space-Heating Energy Source</b>							
Electricity .....	1,128	17,627	15.6	1,346	1,193	76.4	52.9
Natural Gas .....	2,189	32,729	15.0	3,063	1,399	93.6	78.2
Fuel Oil .....	302	3,719	12.3	271	898	73.0	63.9
District Heat .....	77	5,077	66.0	759	9,867	149.4	108.2
Propane .....	282	2,107	7.5	73	258	34.4	38.1
Other .....	38	343	9.1	Q	Q	Q	50.5
<b>Cooling Energy Sources (more than one may apply)</b>							
Electricity .....	3,450	55,545	16.1	4,938	1,431	88.9	67.9
Natural Gas .....	142	1,914	13.5	212	1,497	111.0	74.6
District Chilled Water .....	50	2,750	55.4	428	8,630	155.7	92.4
<b>Water-Heating Energy Sources (more than one may apply)</b>							
Electricity .....	1,546	24,171	15.6	1,835	1,187	75.9	54.8
Natural Gas .....	1,520	29,196	19.2	2,961	1,948	101.4	82.4
Fuel Oil .....	110	2,218	20.2	233	2,123	104.9	80.0
District Heat .....	62	4,182	67.5	677	10,918	161.9	115.3
Propane .....	130	1,371	10.5	87	670	63.7	59.7
<b>Cooking Energy Sources (more than one may apply)</b>							
Electricity .....	437	13,733	31.4	1,520	3,476	110.7	82.8
Natural Gas .....	505	16,785	33.2	1,928	3,817	114.8	90.3
Propane .....	118	1,754	14.9	162	1,381	92.6	74.3
<b>Energy End Uses (more than one may apply)</b>							
Buildings with Space Heating .....	4,016	61,602	15.3	5,529	1,377	89.7	70.8
Buildings with Cooling .....	3,560	58,474	16.4	5,344	1,501	91.4	69.1
Buildings with Water Heating .....	3,239	56,115	17.3	5,262	1,625	93.8	71.7
Buildings with Cooking .....	857	24,681	28.8	2,679	3,124	108.5	84.8
Buildings with Manufacturing .....	151	3,126	20.7	277	1,834	88.7	63.7
Buildings with Electricity Generation .....	172	11,882	69.3	1,494	8,706	125.7	79.0
<b>Percent of Floorspace Heated</b>							
Not Heated .....	641	5,736	8.9	205	319	35.7	54.3
1 to 50 .....	576	7,593	13.2	333	578	43.8	63.5
51 to 99 .....	627	10,745	17.1	979	1,563	91.1	75.0
100 .....	2,813	43,264	15.4	4,216	1,499	97.5	70.5
<b>Percent of Floorspace Cooled</b>							
Not Cooled .....	1,097	8,864	8.1	389	355	43.9	86.8
1 to 50 .....	1,012	16,846	16.6	1,122	1,108	66.6	79.3
51 to 99 .....	751	16,966	22.6	1,743	2,320	102.7	73.1
100 .....	1,796	24,662	13.7	2,479	1,381	100.5	62.9



**Table C3. Consumption and Gross Energy Intensity for Sum of Major Fuels, 1999**

	All Buildings			Sum of Major Fuel Consumption			
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	per Building (million Btu)	per Square Foot (thousand Btu)	per Worker (million Btu)
<b>Percent Lit When Open</b>							
Zero .....	34	173	5.1	Q	Q	Q	Q
1 to 50 .....	835	9,187	11.0	452	541	49.2	91.9
51 to 99 .....	1,228	20,665	16.8	1,993	1,622	96.4	69.5
100 .....	2,096	34,233	16.3	3,255	1,553	95.1	67.9
Building Never Open/ Electricity Not Used.....	464	3,080	6.6	29	62	9.3	Q
<b>Percent Lit When Closed</b>							
Zero .....	2,174	20,771	9.6	1,170	538	56.3	54.0
1 to 50 .....	1,688	30,950	18.3	2,604	1,543	84.1	62.1
51 to 100 .....	143	2,160	15.1	310	2,163	143.7	100.2
Building Never Closed/ Electricity Not Used.....	652	13,457	20.7	1,649	2,530	122.5	108.9
<b>Heating Equipment (more than one may apply)</b>							
Heat Pumps .....	492	8,923	18.1	862	1,752	96.6	68.3
Furnaces .....	1,460	14,449	9.9	1,082	741	74.9	68.3
Individual Space Heaters .....	894	17,349	19.4	1,374	1,538	79.2	71.8
District Heat .....	96	5,534	57.7	834	8,693	150.7	102.8
Boilers .....	581	19,522	33.6	1,911	3,289	97.9	78.4
Packaged Heating Units .....	1,347	25,743	19.1	2,369	1,759	92.0	73.5
Other .....	185	4,073	22.1	387	2,094	94.9	55.2
<b>Cooling Equipment (more than one may apply)</b>							
Residential-Type Central Air Conditioners .....	676	8,329	12.3	672	993	80.6	66.3
Heat Pumps .....	485	9,147	18.8	871	1,794	95.2	64.7
Individual Air Conditioners .....	799	14,276	17.9	1,196	1,497	83.8	71.8
District Chilled Water .....	50	2,750	55.4	428	8,630	155.7	92.4
Central Chillers .....	130	12,909	99.7	1,598	12,341	123.8	74.0
Packaged Air Conditioning Units .....	1,953	36,527	18.7	3,390	1,736	92.8	70.2
Swamp Coolers .....	136	2,219	16.3	215	1,582	96.9	88.7
Other .....	49	1,312	26.7	130	2,640	99.0	70.6
<b>Main Equipment Replaced Since 1995 (more than one may apply)</b>							
Heating .....	984	13,220	13.4	1,085	1,102	82.0	64.1
Cooling .....	1,085	17,390	16.0	1,535	1,415	88.3	66.3
<b>Lighting Equipment Types (more than one may apply)</b>							
Incandescent .....	2,193	38,156	17.4	3,441	1,569	90.2	69.3
Standard Fluorescent .....	3,778	60,344	16.0	5,400	1,430	89.5	69.4
Compact Fluorescent .....	607	20,666	34.1	2,162	3,564	104.6	71.9
High Intensity Discharge .....	430	19,223	44.8	1,903	4,430	99.0	87.9
Halogen .....	572	17,926	31.3	1,805	3,153	100.7	70.3
Other .....	58	1,004	17.5	117	2,033	116.5	83.9
<b>Water Heating Equipment</b>							
Centralized System .....	2,472	35,579	14.4	3,368	1,362	94.6	74.6
Distributed System .....	566	10,899	19.3	872	1,540	80.0	60.8
Combination of Centralized and Distributed System .....	200	9,637	48.1	1,023	5,108	106.1	73.6

**Table C3. Consumption and Gross Energy Intensity for Sum of Major Fuels, 1999**

	All Buildings			Sum of Major Fuel Consumption			
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	per Building (million Btu)	per Square Foot (thousand Btu)	per Worker (million Btu)
<b>Commercial Refrigeration Equipment (more than one may apply)</b>							
Any Equipment .....	950	25,652	27.0	2,874	3,025	112.0	85.8
Walk-In Units .....	658	19,713	29.9	2,407	3,656	122.1	92.3
Cases or Cabinets .....	820	22,001	26.8	2,481	3,026	112.8	84.4
None .....	3,707	41,686	11.2	2,859	771	68.6	59.1
<b>Personal Computers</b>							
None .....	1,617	9,583	5.9	458	283	47.8	95.7
1 to 4 .....	1,636	13,853	8.5	1,078	659	77.8	84.8
5 to 9 .....	542	6,528	12.0	584	1,078	89.5	78.1
10 to 19 .....	403	7,514	18.7	626	1,554	83.3	68.0
20 to 49 .....	247	8,087	32.7	655	2,649	81.0	67.7
50 to 99 .....	105	5,867	55.9	532	5,064	90.6	73.2
100 to 249 .....	71	6,818	96.0	688	9,687	100.9	71.9
250 or More .....	36	9,088	252.4	1,113	30,907	122.5	52.6
<b>Photocopiers</b>							
None .....	2,825	21,631	7.7	1,522	539	70.3	80.5
One .....	1,114	12,928	11.6	1,037	932	80.2	80.0
2 to 4 .....	540	15,620	28.9	1,304	2,413	83.5	77.7
5 to 9 .....	102	5,384	52.6	530	5,180	98.5	64.5
10 or More .....	75	11,774	156.7	1,341	17,835	113.9	53.6
<b>Other Electronic Equipment (more than one may apply)</b>							
Laser Printers .....	1,949	46,567	23.9	4,356	2,235	93.5	65.0
FAX Machines .....	2,807	54,764	19.5	5,044	1,797	92.1	67.5
Medical Diagnostic Equipment .....	86	2,493	29.1	468	5,460	187.7	83.2
<b>Energy-Related Space Functions (more than one may apply)</b>							
Commercial Food Preparation .....	767	23,328	30.4	2,548	3,320	109.2	83.9
Activities with Large Amounts of Hot Water .....	698	21,793	31.2	2,539	3,638	116.5	98.2
<b>Building Shell Conservation Features (more than one may apply)</b>							
Multipaned Windows .....	2,130	38,193	17.9	3,583	1,683	93.8	71.8
Tinted, Reflective, or Shading Glass .....	1,283	29,915	23.3	2,835	2,209	94.8	65.7
<b>HVAC Conservation Features (more than one may apply)</b>							
Variable Air-Volume System .....	550	19,387	35.3	2,115	3,849	109.1	69.3
Economizer Cycle .....	567	21,256	37.5	2,387	4,210	112.3	72.5
HVAC Maintenance .....	2,786	53,395	19.2	5,064	1,818	94.8	71.0
Energy Management and Control System (EMCS) .....	460	21,613	47.0	2,391	5,196	110.7	75.3
<b>Lighting Conservation Features (more than one may apply)</b>							
Specular Reflectors .....	843	19,994	23.7	1,917	2,275	95.9	66.6
Electronic Ballasts .....	2,167	42,035	19.4	3,901	1,800	92.8	69.8
Skylights or Atriums .....	580	18,286	31.5	1,619	2,793	88.5	76.5

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

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* HVAC=Heating, Ventilation, and Air Conditioning. \* 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 C4. Expenditures for Sum of Major Fuels, 1999**

	All Buildings			Sum of Major Fuel Expenditures			
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (million dollars)	per Building (thousand dollars)	per Square Foot (dollars)	per Million Btu (dollars)
<b>All Buildings</b> .....	4,657	67,338	14.5	81,552	17.5	1.21	14.22
<b>Building Floorspace (Square Feet)</b>							
1,001 to 5,000 .....	2,348	6,774	2.9	12,355	5.3	1.82	15.99
5,001 to 10,000 .....	1,110	8,238	7.4	9,228	8.3	1.12	15.17
10,001 to 25,000 .....	708	11,153	15.7	10,873	15.4	0.97	14.64
25,001 to 50,000 .....	257	9,311	36.2	10,090	39.3	1.08	14.58
50,001 to 100,000 .....	145	10,112	69.9	12,057	83.4	1.19	13.93
100,001 to 200,000 .....	59	8,271	139.4	10,344	174.3	1.25	13.40
200,001 to 500,000 .....	23	6,851	296.3	8,015	346.6	1.17	12.15
Over 500,000 .....	7	6,628	929.0	8,592	1204.3	1.30	13.83
<b>Principal Building Activity</b>							
Education .....	327	8,651	26.4	8,018	24.5	0.93	12.36
Food Sales .....	174	994	5.7	3,587	20.6	3.61	17.84
Food Service .....	349	1,851	5.3	6,380	18.3	3.45	14.29
Health Care .....	127	2,918	22.9	5,653	44.5	1.94	10.99
Inpatient .....	11	1,865	168.2	4,151	374.3	2.23	9.72
Outpatient .....	116	1,053	9.1	1,503	12.9	1.43	17.14
Lodging .....	153	4,521	29.5	5,716	37.3	1.26	12.71
Mercantile .....	667	10,398	15.6	13,085	19.6	1.26	18.08
Retail (Other Than Mall) .....	534	4,766	8.9	5,922	11.1	1.24	17.22
Enclosed and Strip Malls .....	133	5,631	42.2	7,164	53.7	1.27	18.85
Office .....	739	12,044	16.3	17,775	24.1	1.48	16.32
Public Assembly .....	305	4,393	14.4	5,096	16.7	1.16	14.19
Public Order and Safety .....	72	1,168	16.2	1,222	16.9	1.05	12.03
Religious Worship .....	307	3,405	11.1	1,494	4.9	0.44	13.61
Service .....	478	3,388	7.1	4,639	9.7	1.37	11.01
Warehouse and Storage .....	603	10,477	17.4	6,029	10.0	0.58	13.08
Other .....	102	1,222	12.0	2,498	24.5	2.05	14.20
Vacant .....	253	1,908	7.6	361	1.4	0.19	11.79
<b>Year Constructed</b>							
1919 or Before .....	419	4,034	9.6	3,271	7.8	0.81	11.90
1920 to 1945 .....	499	6,445	12.9	5,797	11.6	0.90	12.58
1946 to 1959 .....	763	9,127	12.0	9,216	12.1	1.01	13.67
1960 to 1969 .....	665	10,866	16.3	13,237	19.9	1.22	13.58
1970 to 1979 .....	774	11,840	15.3	15,858	20.5	1.34	15.18
1980 to 1989 .....	846	13,931	16.5	18,342	21.7	1.32	15.11
1990 to 1999 .....	690	11,094	16.1	15,832	22.9	1.43	14.52
<b>Floors</b>							
One .....	2,879	26,800	9.3	30,962	10.8	1.16	15.46
Two .....	1,168	16,985	14.5	19,465	16.7	1.15	14.63
Three .....	420	8,928	21.3	9,483	22.6	1.06	12.93
Four to Nine .....	178	10,180	57.2	14,974	84.2	1.47	12.30
Ten or More .....	11	4,445	386.9	6,670	580.5	1.50	14.84
<b>Census Region and Division</b>							
Northeast .....	686	12,360	18.0	18,996	27.7	1.54	17.02
New England .....	208	3,735	18.0	4,658	22.4	1.25	16.71
Middle Atlantic .....	479	8,625	18.0	14,338	30.0	1.66	17.13
Midwest .....	1,188	16,761	14.1	17,258	14.5	1.03	11.44
East North Central .....	782	11,205	14.3	11,682	14.9	1.04	11.58
West North Central .....	406	5,556	13.7	5,577	13.7	1.00	11.16
South .....	1,762	23,485	13.3	27,303	15.5	1.16	13.92
South Atlantic .....	748	11,001	14.7	13,771	18.4	1.25	15.03
East South Central .....	396	5,220	13.2	5,943	15.0	1.14	12.58
West South Central .....	618	7,264	11.8	7,590	12.3	1.04	13.25
West .....	1,021	14,731	14.4	17,995	17.6	1.22	15.69
Mountain .....	315	4,579	14.5	4,338	13.8	0.95	12.17
Pacific .....	705	10,152	14.4	13,657	19.4	1.35	17.27

**Table C4. Expenditures for Sum of Major Fuels, 1999**

	All Buildings			Sum of Major Fuel Expenditures			
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (million dollars)	per Building (thousand dollars)	per Square Foot (dollars)	per Million Btu (dollars)
<b>Climate Zone: 45-Year Average</b>							
Under 2,000 CDD and --							
More than 7,000 HDD .....	525	5,890	11.2	6,009	11.4	1.02	11.78
5,500-7,000 HDD .....	986	17,083	17.3	19,809	20.1	1.16	12.91
4,000-5,499 HDD .....	1,085	16,243	15.0	21,900	20.2	1.35	14.18
Fewer than 4,000 HDD .....	1,134	16,333	14.4	20,548	18.1	1.26	15.91
2,000 CDD or More and --							
Fewer than 4,000 HDD .....	926	11,788	12.7	13,286	14.3	1.13	15.58
<b>Workers (main shift)</b>							
Fewer than 5 .....	2,376	14,321	6.0	10,245	4.3	0.72	15.12
5 to 9 .....	807	6,325	7.8	6,930	8.6	1.10	14.91
10 to 19 .....	683	8,028	11.8	10,426	15.3	1.30	15.08
20 to 49 .....	487	10,814	22.2	13,937	28.6	1.29	13.72
50 to 99 .....	174	8,898	51.1	10,937	62.9	1.23	14.99
100 to 249 .....	90	8,356	92.4	11,684	129.1	1.40	13.51
250 or More .....	39	10,595	270.0	17,393	443.2	1.64	13.49
<b>Weekly Operating Hours</b>							
39 or Fewer .....	978	6,596	6.7	2,316	2.4	0.35	14.12
40 to 48 .....	1,156	13,105	11.3	10,960	9.5	0.84	14.68
49 to 60 .....	986	14,200	14.4	15,814	16.0	1.11	14.81
61 to 84 .....	664	12,458	18.7	15,896	23.9	1.28	15.14
85 to 167 .....	474	9,116	19.2	15,569	32.8	1.71	14.73
Open Continuously .....	398	11,863	29.8	20,997	52.7	1.77	12.74
<b>Ownership and Occupancy</b>							
Nongovernment Owned .....	4,135	54,994	13.3	66,801	16.2	1.21	14.63
Owner Occupied .....	2,801	37,785	13.5	47,362	16.9	1.25	14.18
Nonowner Occupied .....	1,099	15,596	14.2	19,195	17.5	1.23	15.90
Unoccupied .....	236	1,613	6.8	244	1.0	0.15	14.01
Government Owned .....	521	12,343	23.7	14,751	28.3	1.20	12.62
Federal .....	63	1,797	28.5	2,707	42.9	1.51	12.42
State .....	83	3,391	40.7	4,516	54.3	1.33	12.00
Local .....	375	7,156	19.1	7,529	20.1	1.05	13.11
<b>Vacancy Status</b>							
Completely Vacant .....	140	953	6.8	170	1.2	0.18	Q
Mostly Vacant .....	113	956	8.5	191	1.7	0.20	Q
Partially Vacant .....	697	15,520	22.3	16,227	23.3	1.05	15.47
Not At All Vacant .....	3,707	49,910	13.5	64,965	17.5	1.30	13.96
<b>Number of Establishments</b>							
One .....	3,528	43,343	12.3	54,521	15.5	1.26	13.47
2 to 5 .....	688	10,582	15.4	11,256	16.3	1.06	14.79
6 to 10 .....	114	3,574	31.4	5,148	45.3	1.44	16.96
11 to 20 .....	48	3,260	68.0	4,247	88.6	1.30	16.90
More than 20 .....	27	4,811	175.2	6,103	222.2	1.27	17.45
Currently Unoccupied .....	251	1,769	7.0	278	1.1	0.16	13.39
<b>Energy Sources (more than one may apply)</b>							
Electricity .....	4,395	65,716	15.0	81,548	18.6	1.24	14.23
Natural Gas .....	2,670	45,525	17.1	58,798	22.0	1.29	13.20
Fuel Oil .....	434	13,285	30.6	18,854	43.5	1.42	12.68
District Heat .....	117	5,891	50.2	10,915	93.0	1.85	12.07
District Chilled Water .....	50	2,750	55.4	4,807	96.8	1.75	11.22
Propane .....	451	6,290	14.0	7,054	15.6	1.12	16.41
Other .....	153	2,322	15.2	3,001	19.7	1.29	14.79

**Table C4. Expenditures for Sum of Major Fuels, 1999**

	All Buildings			Sum of Major Fuel Expenditures			
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (million dollars)	per Building (thousand dollars)	per Square Foot (dollars)	per Million Btu (dollars)
<b>Space-Heating Energy Sources</b> (more than one may apply)							
Electricity .....	1,880	32,291	17.2	40,678	21.6	1.26	15.44
Natural Gas .....	2,380	37,902	15.9	46,471	19.5	1.23	13.08
Fuel Oil .....	377	5,611	14.9	6,565	17.4	1.17	12.60
District Heat .....	96	5,534	57.7	10,208	106.4	1.84	12.24
Propane .....	307	2,728	8.9	2,690	8.8	0.99	22.67
Other .....	94	945	10.0	1,016	10.8	1.08	16.17
<b>Primary Space-Heating Energy Source</b>							
Electricity .....	1,128	17,627	15.6	23,523	20.8	1.33	17.48
Natural Gas .....	2,189	32,729	15.0	38,998	17.8	1.19	12.73
Fuel Oil .....	302	3,719	12.3	3,839	12.7	1.03	14.14
District Heat .....	77	5,077	66.0	9,287	120.8	1.83	12.24
Propane .....	282	2,107	7.5	1,966	7.0	0.93	27.09
Other .....	38	343	9.1	249	6.6	0.73	Q
<b>Cooling Energy Sources</b> (more than one may apply)							
Electricity .....	3,450	55,545	16.1	72,249	20.9	1.30	14.63
Natural Gas .....	142	1,914	13.5	3,034	21.4	1.59	14.29
District Chilled Water .....	50	2,750	55.4	4,807	96.8	1.75	11.22
<b>Water-Heating Energy Sources</b> (more than one may apply)							
Electricity .....	1,546	24,171	15.6	30,746	19.9	1.27	16.75
Natural Gas .....	1,520	29,196	19.2	38,398	25.3	1.32	12.97
Fuel Oil .....	110	2,218	20.2	2,747	25.1	1.24	11.82
District Heat .....	62	4,182	67.5	7,911	127.6	1.89	11.69
Propane .....	130	1,371	10.5	2,147	16.5	1.57	24.56
<b>Cooking Energy Sources</b> (more than one may apply)							
Electricity .....	437	13,733	31.4	21,428	49.0	1.56	14.10
Natural Gas .....	505	16,785	33.2	25,164	49.8	1.50	13.05
Propane .....	118	1,754	14.9	3,241	27.6	1.85	19.95
<b>Energy End Uses (more than one may apply)</b>							
Buildings with Space Heating .....	4,016	61,602	15.3	77,862	19.4	1.26	14.08
Buildings with Cooling .....	3,560	58,474	16.4	77,278	21.7	1.32	14.46
Buildings with Water Heating .....	3,239	56,115	17.3	74,711	23.1	1.33	14.20
Buildings with Cooking .....	857	24,681	28.8	37,233	43.4	1.51	13.90
Buildings with Manufacturing .....	151	3,126	20.7	3,811	25.2	1.22	13.74
Buildings with Electricity Generation .....	172	11,882	69.3	18,991	110.7	1.60	12.72
<b>Percent of Floorspace Heated</b>							
Not Heated .....	641	5,736	8.9	3,690	5.8	0.64	18.02
1 to 50 .....	576	7,593	13.2	5,293	9.2	0.70	15.90
51 to 99 .....	627	10,745	17.1	13,939	22.2	1.30	14.23
100 .....	2,813	43,264	15.4	58,630	20.8	1.36	13.91
<b>Percent of Floorspace Cooled</b>							
Not Cooled .....	1,097	8,864	8.1	4,275	3.9	0.48	10.98
1 to 50 .....	1,012	16,846	16.6	14,072	13.9	0.84	12.55
51 to 99 .....	751	16,966	22.6	24,422	32.5	1.44	14.01
100 .....	1,796	24,662	13.7	38,784	21.6	1.57	15.64

**Table C4. Expenditures for Sum of Major Fuels, 1999**

	All Buildings			Sum of Major Fuel Expenditures			
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (million dollars)	per Building (thousand dollars)	per Square Foot (dollars)	per Million Btu (dollars)
<b>Percent Lit When Open</b>							
Zero .....	34	173	5.1	Q	Q	Q	Q
1 to 50 .....	835	9,187	11.0	6,822	8.2	0.74	15.10
51 to 99 .....	1,228	20,665	16.8	27,188	22.1	1.32	13.64
100 .....	2,096	34,233	16.3	47,058	22.5	1.37	14.46
Building Never Open/ Electricity Not Used.....	464	3,080	6.6	403	0.9	0.13	14.04
<b>Percent Lit When Closed</b>							
Zero .....	2,174	20,771	9.6	17,327	8.0	0.83	14.81
1 to 50 .....	1,688	30,950	18.3	38,650	22.9	1.25	14.84
51 to 100 .....	143	2,160	15.1	4,575	31.9	2.12	14.74
Building Never Closed/ Electricity Not Used.....	652	13,457	20.7	21,001	32.2	1.56	12.74
<b>Heating Equipment (more than one may apply)</b>							
Heat Pumps .....	492	8,923	18.1	12,150	24.7	1.36	14.10
Furnaces .....	1,460	14,449	9.9	14,052	9.6	0.97	12.99
Individual Space Heaters .....	894	17,349	19.4	18,689	20.9	1.08	13.60
District Heat .....	96	5,534	57.7	10,208	106.4	1.84	12.24
Boilers .....	581	19,522	33.6	23,671	40.7	1.21	12.39
Packaged Heating Units .....	1,347	25,743	19.1	35,951	26.7	1.40	15.18
Other .....	185	4,073	22.1	5,151	27.9	1.26	13.32
<b>Cooling Equipment (more than one may apply)</b>							
Residential-Type Central Air Conditioners .....	676	8,329	12.3	8,891	13.1	1.07	13.24
Heat Pumps .....	485	9,147	18.8	12,330	25.4	1.35	14.16
Individual Air Conditioners .....	799	14,276	17.9	15,537	19.5	1.09	12.99
District Chilled Water .....	50	2,750	55.4	4,807	96.8	1.75	11.22
Central Chillers .....	130	12,909	99.7	20,759	160.3	1.61	12.99
Packaged Air Conditioning Units .....	1,953	36,527	18.7	50,789	26.0	1.39	14.98
Swamp Coolers .....	136	2,219	16.3	2,832	20.8	1.28	13.17
Other .....	49	1,312	26.7	1,821	37.0	1.39	14.03
<b>Main Equipment Replaced Since 1995 (more than one may apply)</b>							
Heating .....	984	13,220	13.4	16,100	16.4	1.22	14.84
Cooling .....	1,085	17,390	16.0	22,162	20.4	1.27	14.43
<b>Lighting Equipment Types (more than one may apply)</b>							
Incandescent .....	2,193	38,156	17.4	48,515	22.1	1.27	14.10
Standard Fluorescent .....	3,778	60,344	16.0	76,738	20.3	1.27	14.21
Compact Fluorescent .....	607	20,666	34.1	29,689	48.9	1.44	13.73
High Intensity Discharge .....	430	19,223	44.8	24,549	57.2	1.28	12.90
Halogen .....	572	17,926	31.3	25,096	43.9	1.40	13.91
Other .....	58	1,004	17.5	1,506	26.2	1.50	12.88
<b>Water Heating Equipment</b>							
Centralized System .....	2,472	35,579	14.4	47,665	19.3	1.34	14.15
Distributed System .....	566	10,899	19.3	13,260	23.4	1.22	15.21
Combination of Centralized and Distributed System .....	200	9,637	48.1	13,786	68.9	1.43	13.48

**Table C4. Expenditures for Sum of Major Fuels, 1999**

	All Buildings			Sum of Major Fuel Expenditures			
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (million dollars)	per Building (thousand dollars)	per Square Foot (dollars)	per Million Btu (dollars)
<b>Commercial Refrigeration</b>							
<b>Equipment (more than one may apply)</b>							
Any Equipment .....	950	25,652	27.0	40,917	43.1	1.60	14.24
Walk-In Units .....	658	19,713	29.9	33,935	51.5	1.72	14.10
Cases or Cabinets .....	820	22,001	26.8	35,710	43.6	1.62	14.39
None .....	3,707	41,686	11.2	40,635	11.0	0.97	14.21
<b>Personal Computers</b>							
None .....	1,617	9,583	5.9	6,478	4.0	0.68	14.14
1 to 4 .....	1,636	13,853	8.5	16,059	9.8	1.16	14.90
5 to 9 .....	542	6,528	12.0	8,451	15.6	1.29	14.46
10 to 19 .....	403	7,514	18.7	9,636	23.9	1.28	15.40
20 to 49 .....	247	8,087	32.7	9,782	39.6	1.21	14.94
50 to 99 .....	105	5,867	55.9	6,928	66.0	1.18	13.03
100 to 249 .....	71	6,818	96.0	9,137	128.6	1.34	13.28
250 or More .....	36	9,088	252.4	15,083	418.8	1.66	13.55
<b>Photocopiers</b>							
None .....	2,825	21,631	7.7	22,207	7.9	1.03	14.60
One .....	1,114	12,928	11.6	15,654	14.1	1.21	15.09
2 to 4 .....	540	15,620	28.9	17,906	33.1	1.15	13.74
5 to 9 .....	102	5,384	52.6	6,938	67.8	1.29	13.08
10 or More .....	75	11,774	156.7	18,847	250.8	1.60	14.06
<b>Other Electronic Equipment (more than one may apply)</b>							
Laser Printers .....	1,949	46,567	23.9	61,755	31.7	1.33	14.18
FAX Machines .....	2,807	54,764	19.5	72,276	25.8	1.32	14.33
Medical Diagnostic Equipment .....	86	2,493	29.1	4,977	58.1	2.00	10.64
<b>Energy-Related Space Functions (more than one may apply)</b>							
Commercial Food Preparation .....	767	23,328	30.4	35,213	45.9	1.51	13.82
Activities with Large Amounts of Hot Water .....	698	21,793	31.2	32,545	46.6	1.49	12.82
<b>Building Shell Conservation Features (more than one may apply)</b>							
Multipaned Windows .....	2,130	38,193	17.9	49,189	23.1	1.29	13.73
Tinted, Reflective, or Shading Glass .....	1,283	29,915	23.3	41,475	32.3	1.39	14.63
<b>HVAC Conservation Features (more than one may apply)</b>							
Variable Air-Volume System .....	550	19,387	35.3	29,233	53.2	1.51	13.82
Economizer Cycle .....	567	21,256	37.5	33,194	58.5	1.56	13.91
HVAC Maintenance .....	2,786	53,395	19.2	71,785	25.8	1.34	14.17
Energy Management and Control System (EMCS) .....	460	21,613	47.0	31,814	69.1	1.47	13.30
<b>Lighting Conservation Features (more than one may apply)</b>							
Specular Reflectors .....	843	19,994	23.7	28,083	33.3	1.40	14.65
Electronic Ballasts .....	2,167	42,035	19.4	55,999	25.8	1.33	14.36
Skylights or Atriums .....	580	18,286	31.5	21,710	37.5	1.19	13.41

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

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* HVAC=Heating, Ventilation, and Air Conditioning. \* 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 C5. Consumption and Gross Energy Intensity by Census Region for Sum of Major Fuels, 1999**

	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)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>All Buildings</b> .....	1,116	1,509	1,961	1,147	12,360	16,761	23,485	14,731	90.3	90.0	83.5	77.9
<b>Building Floorspace (Square Feet)</b>												
1,001 to 5,000 .....	123	197	296	156	901	1,835	2,536	1,503	137.0	107.2	116.9	103.8
5,001 to 10,000 .....	96	142	227	143	1,302	2,045	3,058	1,834	74.0	69.3	74.1	78.2
10,001 to 25,000 .....	151	177	304	111	1,954	2,881	4,194	2,124	77.2	61.3	72.6	52.3
25,001 to 50,000 .....	117	139	255	181	1,407	1,773	3,384	2,746	83.2	78.2	75.3	66.0
50,001 to 100,000 .....	150	216	270	229	1,771	2,436	3,450	2,455	84.7	88.9	78.3	93.1
100,001 to 200,000 .....	124	255	263	131	1,461	2,279	2,864	1,666	84.6	111.7	91.9	78.3
200,001 to 500,000 .....	127	217	207	108	1,362	1,993	2,273	1,222	93.1	109.0	91.1	88.8
Over 500,000 .....	228	167	139	88	2,202	1,519	1,726	1,180	103.4	109.9	80.4	74.5
<b>Principal Building Activity</b>												
Education .....	154	178	159	157	1,714	2,250	2,348	2,338	90.0	79.1	67.8	67.3
Food Sales .....	Q	Q	80	Q	Q	Q	392	208	Q	Q	204.9	Q
Food Service .....	Q	113	Q	Q	Q	558	676	396	Q	202.7	Q	Q
Health Care .....	97	125	189	104	448	750	1,085	635	215.8	167.0	174.2	163.4
Inpatient .....	92	103	Q	Q	377	512	630	346	244.6	202.1	Q	Q
Outpatient .....	Q	Q	37	Q	Q	239	454	289	Q	Q	80.7	Q
Lodging .....	66	96	163	125	484	940	1,595	1,501	135.8	102.7	101.9	83.1
Mercantile .....	141	177	267	138	1,885	2,591	4,080	1,842	75.0	68.5	65.4	75.1
Retail (Other Than Mall) .....	82	106	111	44	974	1,600	1,566	627	84.2	66.4	71.1	70.7
Enclosed and Strip Malls .....	Q	71	155	94	912	991	2,513	1,215	Q	71.8	61.8	77.3
Office .....	217	270	378	225	2,389	2,820	4,162	2,672	90.7	95.7	90.7	84.3
Public Assembly .....	92	91	103	73	882	1,142	1,511	859	104.4	79.4	68.2	85.5
Public Order and Safety .....	Q	Q	Q	Q	530	216	286	Q	Q	Q	Q	Q
Religious Worship .....	18	31	33	27	440	923	1,146	896	41.2	34.0	28.9	30.2
Service .....	Q	99	218	33	740	818	1,387	443	Q	121.2	157.0	75.0
Warehouse and Storage .....	77	201	130	53	1,743	2,764	3,957	2,012	44.4	72.7	32.9	26.2
Other .....	Q	Q	32	Q	Q	283	305	338	Q	Q	105.3	Q
Vacant .....	Q	Q	Q	Q	367	533	554	455	Q	Q	Q	Q
<b>Year Constructed</b>												
1919 or Before .....	97	121	22	34	1,392	1,576	549	518	70.0	77.0	39.9	66.1
1920 to 1945 .....	117	190	99	54	1,619	2,423	1,704	699	72.4	78.4	58.2	77.7
1946 to 1959 .....	217	166	160	131	2,030	2,152	2,910	2,035	106.8	77.4	55.0	64.3
1960 to 1969 .....	197	243	311	224	2,050	2,602	3,318	2,896	96.1	93.4	93.8	77.2
1970 to 1979 .....	167	215	392	271	1,823	2,347	4,278	3,391	91.4	91.6	91.6	79.9
1980 to 1989 .....	172	288	556	198	2,070	2,828	6,263	2,771	83.3	101.8	88.8	71.4
1990 to 1999 .....	148	285	421	235	1,376	2,834	4,464	2,420	107.8	100.6	94.4	97.3
<b>Floors</b>												
One .....	239	482	888	394	3,131	5,800	11,826	6,044	76.5	83.1	75.1	65.2
Two .....	254	310	458	308	2,944	4,405	5,687	3,948	86.2	70.5	80.5	78.1
Three .....	191	244	160	139	2,261	2,725	2,106	1,836	84.4	89.6	75.8	75.5
Four to Nine .....	269	383	330	236	2,598	3,080	2,540	1,962	103.5	124.4	129.9	120.1
Ten or More .....	163	89	127	71	1,426	752	1,327	940	114.1	118.8	95.5	75.2
<b>Climate Zone: 45-Year Average</b>												
Under 2,000 CDD and --												
More than 7,000 HDD .....	80	379	N	51	1,184	4,185	N	522	67.5	90.5	N	98.1
5,500-7,000 HDD .....	494	843	N	198	5,806	8,932	N	2,345	85.1	94.3	N	84.3
4,000-5,499 HDD .....	542	287	518	198	5,370	3,645	4,759	2,470	100.9	78.8	108.8	80.2
Fewer than 4,000 HDD .....	N	N	760	532	N	N	8,859	7,474	N	N	85.7	71.2
2,000 CDD or More and --												
Fewer than 4,000 HDD .....	N	N	684	168	N	N	9,867	1,920	N	N	69.4	87.7



**Table C5. Consumption and Gross Energy Intensity by Census Region for Sum of Major Fuels, 1999**

	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)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>Workers (main shift)</b>												
Fewer than 5 .....	90	192	260	135	1,906	4,033	5,579	2,802	47.0	47.7	46.6	48.3
5 to 9 .....	93	141	126	105	1,372	1,689	1,730	1,533	67.7	83.6	72.9	68.2
10 to 19 .....	141	171	256	123	1,472	1,930	2,935	1,690	96.0	88.7	87.2	72.6
20 to 49 .....	168	207	444	197	1,574	2,575	4,174	2,492	106.5	80.4	106.3	79.2
50 to 99 .....	164	173	225	168	1,814	1,876	2,876	2,332	90.3	92.4	78.1	72.1
100 to 249 .....	157	263	288	157	1,702	2,228	2,856	1,570	92.4	118.1	100.8	99.8
250 or More .....	303	360	363	262	2,519	2,430	3,335	2,312	120.3	148.3	108.9	113.6
<b>Weekly Operating Hours</b>												
39 or Fewer .....	25	48	55	36	900	1,851	2,532	1,313	28.3	25.8	21.8	27.2
40 to 48 .....	125	176	269	177	1,879	2,989	5,265	2,972	66.4	59.0	51.0	59.4
49 to 60 .....	189	268	400	211	2,792	3,577	4,617	3,214	67.8	74.8	86.7	65.6
61 to 84 .....	227	286	337	200	2,482	3,088	4,198	2,689	91.5	92.5	80.3	74.4
85 to 167 .....	176	305	367	209	1,813	2,531	2,978	1,794	96.9	120.7	123.2	116.5
Open Continuously .....	374	426	533	315	2,494	2,725	3,896	2,748	149.8	156.3	136.9	114.6
<b>Ownership and Occupancy</b>												
Nongovernment Owned .....	850	1,215	1,593	907	9,542	13,896	19,745	11,810	89.1	87.4	80.7	76.8
Owner Occupied .....	677	907	1,171	585	7,143	9,990	13,228	7,424	94.7	90.8	88.5	78.8
Nonowner Occupied .....	173	303	411	320	2,286	3,427	5,881	4,001	75.6	88.5	69.9	79.9
Unoccupied .....	Q	Q	Q	Q	Q	479	636	385	Q	Q	Q	Q
Government Owned .....	266	294	369	241	2,818	2,865	3,740	2,921	94.3	102.5	98.6	82.3
Federal .....	Q	Q	68	Q	394	318	549	537	Q	Q	124.2	114.7
State .....	78	113	117	68	683	961	919	828	114.6	117.7	127.3	82.4
Local .....	148	131	184	111	1,741	1,586	2,273	1,556	85.2	82.9	80.9	71.2
<b>Vacancy Status</b>												
Completely Vacant .....	N	Q	Q	Q	Q	298	Q	287	N	Q	Q	Q
Mostly Vacant .....	Q	Q	Q	Q	Q	235	Q	Q	Q	Q	Q	Q
Partially Vacant .....	224	292	340	192	2,693	4,031	5,548	3,248	83.1	72.5	61.3	59.3
Not At All Vacant .....	889	1,201	1,615	949	9,301	12,197	17,383	11,029	95.6	98.4	92.9	86.0
<b>Number of Establishments</b>												
One .....	749	1,094	1,390	814	7,665	11,299	14,723	9,655	97.7	96.8	94.4	84.4
2 to 5 .....	150	247	220	145	2,186	2,900	3,421	2,075	68.5	85.0	64.2	69.8
6 to 10 .....	Q	39	127	88	494	571	1,440	1,068	Q	67.5	88.1	82.5
11 to 20 .....	Q	53	100	43	705	579	1,239	738	Q	91.3	80.4	58.2
More than 20 .....	111	71	115	53	1,159	864	2,000	788	95.5	82.2	57.5	67.4
Currently Unoccupied .....	Q	Q	Q	Q	Q	548	662	407	Q	Q	Q	Q
<b>Energy Sources (more than one may apply)</b>												
Electricity .....	1,116	1,509	1,961	1,147	11,964	16,389	23,076	14,287	93.2	92.1	85.0	80.3
Natural Gas .....	753	1,311	1,489	902	7,305	13,506	14,199	10,515	103.1	97.1	104.9	85.8
Fuel Oil .....	484	358	443	202	5,414	2,423	3,749	1,699	89.3	147.6	118.2	119.1
District Heat .....	289	235	210	171	1,898	1,521	1,265	1,207	152.1	154.4	166.3	141.5
District Chilled Water .....	Q	132	119	Q	326	746	939	739	Q	177.5	126.3	Q
Propane .....	124	Q	137	45	1,706	1,405	2,389	790	72.6	88.3	57.4	56.6
Other .....	Q	58	56	45	580	606	579	557	Q	95.9	97.1	81.3
<b>Space-Heating Energy Sources (more than one may apply)</b>												
Electricity .....	433	573	1,123	504	4,625	6,429	13,862	7,375	93.7	89.2	81.0	68.3
Natural Gas .....	563	1,163	1,082	747	5,703	12,467	10,904	8,828	98.7	93.3	99.2	84.6
Fuel Oil .....	283	99	114	Q	3,612	619	1,128	252	78.4	160.3	101.2	Q
District Heat .....	287	230	162	155	1,876	1,514	1,022	1,121	153.0	152.2	158.2	138.1
Propane .....	59	17	34	Q	761	733	1,013	221	77.6	22.7	33.5	Q
Other .....	Q	Q	Q	Q	Q	281	260	Q	Q	Q	Q	Q

**Table C5. Consumption and Gross Energy Intensity by Census Region for Sum of Major Fuels, 1999**

	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)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>Primary Space-Heating</b>												
<b>Energy Source</b>												
Electricity .....	142	208	713	283	1,645	2,355	9,259	4,368	86.3	88.3	77.0	64.8
Natural Gas .....	473	1,056	897	638	4,913	11,348	8,815	7,653	96.3	93.0	101.8	83.3
Fuel Oil .....	205	Q	52	Q	2,803	Q	718	Q	73.0	Q	71.7	Q
District Heat .....	250	218	143	148	1,709	1,411	904	1,053	146.2	154.5	157.9	140.5
Propane .....	Q	8	22	Q	505	626	819	157	Q	12.9	27.2	Q
Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Cooling Energy Sources (more than one may apply)</b>												
Electricity .....	966	1,260	1,798	914	9,766	13,474	20,908	11,396	98.9	93.5	86.0	80.2
Natural Gas .....	Q	70	Q	65	446	550	266	652	Q	127.7	Q	99.2
District Chilled Water .....	Q	132	119	Q	326	746	939	739	Q	177.5	126.3	Q
<b>Water-Heating Energy Sources (more than one may apply)</b>												
Electricity .....	374	419	764	278	4,485	4,633	10,480	4,574	83.4	90.5	72.9	60.7
Natural Gas .....	421	823	1,010	707	4,074	8,323	8,943	7,856	103.4	98.8	113.0	90.0
Fuel Oil .....	151	Q	63	Q	1,678	Q	328	Q	90.2	Q	190.9	Q
District Heat .....	205	188	168	Q	1,300	1,219	863	799	157.4	154.2	194.8	145.2
Propane .....	Q	Q	Q	Q	561	428	Q	Q	Q	Q	Q	Q
<b>Cooking Energy Sources (more than one may apply)</b>												
Electricity .....	287	365	616	252	2,680	3,335	5,166	2,551	107.2	109.5	119.2	98.8
Natural Gas .....	388	495	665	379	3,380	4,445	5,345	3,614	114.9	111.4	124.3	105.0
Propane .....	63	Q	Q	Q	523	Q	789	Q	119.7	Q	76.6	Q
<b>Energy End Uses (more than one may apply)</b>												
Buildings with Space Heating .....	1,109	1,499	1,831	1,090	11,667	15,916	20,598	13,421	95.1	94.2	88.9	81.2
Buildings with Cooling .....	1,035	1,406	1,873	1,030	10,311	14,371	21,549	12,243	100.3	97.8	86.9	84.1
Buildings with Water Heating .....	1,055	1,339	1,804	1,063	10,577	13,702	19,014	12,822	99.8	97.7	94.9	82.9
Buildings with Cooking .....	583	660	974	461	5,245	6,042	8,569	4,825	111.2	109.3	113.7	95.6
Buildings with Manufacturing .....	Q	109	77	41	568	818	1,035	706	Q	132.8	74.5	57.6
Buildings with Electricity Generation .....	348	407	495	244	3,108	2,782	4,062	1,930	112.1	146.1	121.8	126.3
<b>Percent of Floorspace Heated</b>												
Not Heated .....	Q	Q	131	57	693	846	2,887	1,310	Q	Q	45.3	43.8
1 to 50 .....	44	64	118	108	1,053	1,571	2,538	2,432	41.8	40.6	46.3	44.2
51 to 99 .....	148	177	465	189	1,688	2,323	4,335	2,399	87.7	76.2	107.4	78.7
100 .....	917	1,258	1,248	794	8,927	12,022	13,725	8,590	102.7	104.6	90.9	92.4
<b>Percent of Floorspace Cooled</b>												
Not Cooled .....	81	103	Q	117	2,049	2,390	1,936	2,489	39.7	43.0	Q	47.1
1 to 50 .....	282	416	272	152	3,914	5,068	4,618	3,246	72.0	82.1	58.8	46.8
51 to 99 .....	361	475	591	317	3,196	4,741	5,801	3,229	112.9	100.2	101.8	98.1
100 .....	392	515	1,011	562	3,202	4,562	11,130	5,768	122.4	112.8	90.9	97.4
<b>Percent Lit When Open</b>												
Zero .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50 .....	70	144	148	90	1,620	2,486	3,013	2,068	43.4	57.9	49.1	43.4
51 to 99 .....	440	571	635	347	4,081	5,814	6,392	4,378	107.8	98.2	99.4	79.2
100 .....	604	785	1,160	706	6,077	7,668	12,817	7,671	99.5	102.4	90.5	92.0
Building Never Open/ Electricity Not Used.....	Q	Q	Q	Q	555	780	1,162	582	Q	Q	Q	Q

**Table C5. Consumption and Gross Energy Intensity by Census Region for Sum of Major Fuels, 1999**

	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)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>Percent Lit When Closed</b>												
Zero .....	185	309	364	313	3,390	5,264	7,296	4,821	54.4	58.6	49.8	65.0
1 to 50 .....	514	740	893	457	5,766	8,047	10,912	6,226	89.1	92.0	81.8	73.4
51 to 100 .....	Q	Q	172	62	318	353	992	497	Q	Q	172.8	124.0
Building Never Closed/ Electricity Not Used.....	374	426	533	315	2,887	3,097	4,285	3,188	129.6	137.5	124.5	98.9
<b>Heating Equipment (more than one may apply)</b>												
Heat Pumps .....	124	109	477	152	1,193	1,015	4,580	2,135	104.1	107.1	104.2	71.0
Furnaces .....	170	464	300	148	2,257	5,767	3,949	2,476	75.3	80.4	76.0	59.8
Individual Space Heaters .....	295	416	406	257	3,555	4,667	5,471	3,657	82.9	89.2	74.2	70.3
District Heat .....	287	230	162	155	1,876	1,514	1,022	1,121	153.0	152.2	158.2	138.1
Boilers .....	467	584	487	372	5,469	5,961	4,209	3,883	85.4	98.0	115.8	95.8
Packaged Heating Units .....	401	568	911	488	4,033	5,081	10,455	6,175	99.4	111.8	87.1	79.1
Other .....	65	Q	111	66	769	1,113	1,391	800	84.9	129.5	79.8	82.8
<b>Cooling Equipment (more than one may apply)</b>												
Residential-Type Central												
Air Conditioners .....	87	231	274	79	950	2,951	3,272	1,156	91.8	78.3	83.7	68.8
Heat Pumps .....	111	112	481	167	1,215	1,063	4,604	2,265	91.6	105.5	104.4	73.6
Individual Air Conditioners .....	359	334	351	152	3,897	3,724	4,526	2,130	92.2	89.6	77.5	71.5
District Chilled Water .....	Q	132	119	Q	326	746	939	739	Q	177.5	126.3	Q
Central Chillers .....	342	424	523	310	2,782	3,149	4,328	2,651	122.8	134.6	120.9	116.8
Packaged Air Conditioning												
Units .....	695	877	1,173	645	6,641	8,198	13,915	7,773	104.7	106.9	84.3	83.0
Swamp Coolers .....	Q	Q	Q	139	Q	Q	339	1,624	Q	Q	Q	85.7
Other .....	Q	Q	Q	Q	Q	328	343	324	Q	Q	Q	Q
<b>Main Equipment Replaced Since 1995 (more than one may apply)</b>												
Heating .....	158	278	413	235	1,829	3,244	5,080	3,068	86.4	85.8	81.3	76.6
Cooling .....	294	376	597	268	3,080	3,808	7,088	3,414	95.4	98.8	84.2	78.5
<b>Lighting Equipment Types (more than one may apply)</b>												
Incandescent .....	691	858	1,155	736	7,047	9,903	12,970	8,236	98.1	86.7	89.1	89.3
Standard Fluorescent .....	1,058	1,422	1,828	1,092	11,348	14,840	20,850	13,305	93.3	95.8	87.7	82.1
Compact Fluorescent .....	443	623	645	451	3,939	5,518	6,427	4,781	112.6	112.9	100.3	94.3
High Intensity Discharge .....	390	617	625	271	4,382	5,513	5,874	3,454	89.1	111.8	106.4	78.4
Halogen .....	423	472	554	355	3,625	4,405	5,847	4,049	116.8	107.3	94.8	87.6
Other .....	Q	Q	Q	Q	Q	Q	441	180	Q	Q	Q	Q
<b>Water Heating Equipment</b>												
Centralized System .....	727	804	1,129	707	6,941	9,037	11,500	8,102	104.8	88.9	98.2	87.3
Distributed System .....	126	224	329	193	1,823	2,328	4,120	2,628	68.9	96.3	79.7	73.6
Combination of Centralized and Distributed System .....	203	311	346	162	1,813	2,336	3,395	2,093	111.7	133.3	102.0	77.6
<b>Commercial Refrigeration Equipment (more than one may apply)</b>												
Any Equipment .....	619	734	983	538	5,536	6,252	8,734	5,130	111.8	117.3	112.6	105.0
Walk-In Units .....	506	592	848	461	4,335	4,580	6,809	3,988	116.7	129.3	124.6	115.5
Cases or Cabinets .....	528	632	857	464	4,723	5,429	7,512	4,337	111.9	116.4	114.1	106.9
None .....	497	775	978	609	6,824	10,509	14,751	9,601	72.8	73.8	66.3	63.4

**Table C5. Consumption and Gross Energy Intensity by Census Region for Sum of Major Fuels, 1999**

	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)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>Personal Computers</b>												
None .....	52	131	158	116	1,524	2,653	3,722	1,684	34.0	49.5	42.6	69.1
1 to 4 .....	184	318	382	194	2,293	3,758	4,755	3,045	80.3	84.5	80.4	63.6
5 to 9 .....	66	105	304	109	811	1,308	2,870	1,539	81.6	80.3	105.8	71.0
10 to 19 .....	169	111	237	109	1,749	1,570	2,707	1,488	96.9	70.4	87.5	73.1
20 to 49 .....	138	177	216	124	1,395	1,935	2,588	2,168	98.6	91.3	83.5	57.3
50 to 99 .....	91	177	147	116	903	1,638	1,893	1,432	101.2	107.8	77.8	81.3
100 to 249 .....	149	216	192	131	1,599	1,829	2,174	1,216	92.9	118.3	88.5	107.5
250 or More .....	267	275	324	247	2,085	2,069	2,776	2,158	127.9	132.7	116.8	114.7
<b>Photocopiers</b>												
None .....	237	375	572	338	3,696	5,185	8,044	4,706	64.2	72.2	71.1	71.7
One .....	166	262	402	207	1,633	3,164	5,040	3,091	101.6	82.7	79.9	67.1
2 to 4 .....	256	343	458	246	2,976	4,227	5,109	3,308	86.0	81.2	89.7	74.4
5 to 9 .....	87	208	131	104	986	1,577	1,586	1,234	87.9	132.2	82.5	84.5
10 or More .....	370	321	398	252	3,069	2,607	3,705	2,393	120.6	123.1	107.3	105.3
<b>Other Electronic Equipment (more than one may apply)</b>												
Laser Printers .....	907	1,126	1,467	855	9,112	11,161	15,628	10,666	99.6	100.9	93.9	80.2
FAX Machines .....	1,015	1,332	1,707	990	10,496	13,369	18,804	12,095	96.7	99.6	90.8	81.8
Medical Diagnostic Equipment .....	82	110	179	98	365	586	953	588	223.6	187.3	187.6	165.9
<b>Energy-Related Space Functions (more than one may apply)</b>												
Commercial Food Preparation .....	543	628	933	444	4,890	5,709	8,126	4,603	111.0	110.0	114.8	96.4
Activities with Large Amounts of Hot Water .....	504	632	899	504	4,268	5,335	7,199	4,990	118.1	118.5	124.8	101.0
<b>Building Shell Conservation Features (more than one may apply)</b>												
Multipaned Windows .....	757	1,067	1,154	605	7,564	11,546	11,981	7,103	100.1	92.4	96.3	85.2
Tinted, Reflective, or Shading Glass .....	477	686	1,006	666	4,525	6,364	11,246	7,780	105.5	107.7	89.4	85.6
<b>HVAC Conservation Features (more than one may apply)</b>												
Variable Air-Volume System .....	406	578	650	482	3,643	4,858	6,121	4,765	111.5	119.0	106.1	101.0
Economizer Cycle .....	498	734	614	541	4,634	5,688	5,858	5,075	107.4	129.0	104.9	106.6
HVAC Maintenance .....	1,050	1,294	1,699	1,022	10,640	13,025	17,981	11,749	98.6	99.3	94.5	87.0
Energy Management and Control System (EMCS) .....	466	698	718	510	4,211	5,296	7,108	4,998	110.8	131.8	101.0	101.9
<b>Lighting Conservation Features (more than one may apply)</b>												
Specular Reflectors .....	516	466	570	365	4,874	4,296	6,400	4,424	105.9	108.5	89.1	82.5
Electronic Ballasts .....	822	1,091	1,211	777	8,480	10,287	13,745	9,523	96.9	106.0	88.1	81.6
Skylights or Atriums .....	337	477	533	271	3,697	4,491	6,116	3,982	91.3	106.3	87.1	68.1

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.

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* HVAC=Heating, Ventilation, and Air Conditioning. \* 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 C6. Expenditures by Census Region for Sum of Major Fuels, 1999**

	Sum of Major Fuel Expenditures (million dollars)				Sum of Major Fuel Expenditures (dollars)							
					per Million Btu				per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>All Buildings</b> .....	18,996	17,258	27,303	17,995	17.02	11.44	13.92	15.69	1.54	1.03	1.16	1.22
<b>Building Floorspace (Square Feet)</b>												
1,001 to 5,000 .....	2,753	2,312	4,637	2,654	22.31	11.75	15.64	17.01	3.06	1.26	1.83	1.77
5,001 to 10,000 .....	1,634	1,883	3,193	2,517	16.96	13.29	14.09	17.56	1.26	0.92	1.04	1.37
10,001 to 25,000 .....	2,500	2,145	4,187	2,041	16.57	12.15	13.76	18.37	1.28	0.74	1.00	0.96
25,001 to 50,000 .....	1,990	1,580	3,589	2,931	16.98	11.40	14.08	16.18	1.41	0.89	1.06	1.07
50,001 to 100,000 .....	2,430	2,594	3,755	3,277	16.20	11.98	13.90	14.33	1.37	1.06	1.09	1.33
100,001 to 200,000 .....	2,090	2,670	3,639	1,945	16.92	10.49	13.83	14.90	1.43	1.17	1.27	1.17
200,001 to 500,000 .....	1,805	2,133	2,609	1,468	14.23	9.82	12.60	13.53	1.32	1.07	1.15	1.20
Over 500,000 .....	3,793	1,943	1,694	1,161	16.66	11.64	12.21	13.21	1.72	1.28	0.98	0.98
<b>Principal Building Activity</b>												
Education .....	2,045	1,802	2,098	2,073	13.25	10.13	13.17	13.18	1.19	0.80	0.89	0.89
Food Sales .....	Q	Q	1,409	704	Q	Q	17.57	Q	Q	Q	3.60	3.39
Food Service .....	Q	1,450	2,219	1,453	Q	12.83	Q	Q	Q	2.60	3.28	3.67
Health Care .....	1,029	1,243	2,152	1,229	10.65	9.92	11.39	11.85	2.30	1.66	1.98	1.94
Inpatient .....	944	913	1,490	Q	10.23	8.83	Q	Q	2.50	1.78	2.36	Q
Outpatient .....	Q	330	662	425	Q	Q	18.04	Q	Q	1.38	1.46	1.47
Lodging .....	818	1,053	2,029	1,817	12.44	10.91	12.47	14.56	1.69	1.12	1.27	1.21
Mercantile .....	3,138	2,421	4,370	3,156	22.20	13.64	16.38	22.82	1.66	0.93	1.07	1.71
Retail (Other Than Mall) .....	1,769	1,410	1,785	957	21.59	13.27	16.03	21.58	1.82	0.88	1.14	1.53
Enclosed and Strip Malls .....	1,369	1,011	2,584	2,199	Q	14.19	16.63	23.41	1.50	1.02	1.03	1.81
Office .....	4,338	3,674	5,962	3,801	20.02	13.62	15.79	16.87	1.82	1.30	1.43	1.42
Public Assembly .....	1,565	1,195	1,532	804	17.01	13.19	14.86	10.96	1.77	1.05	1.01	0.94
Public Order and Safety .....	Q	Q	324	Q	Q	Q	Q	Q	Q	Q	1.13	Q
Religious Worship .....	224	357	569	344	12.35	11.36	17.16	Q	0.51	0.39	0.50	0.38
Service .....	1,047	996	2,141	455	Q	10.04	9.83	13.70	1.42	1.22	1.54	1.03
Warehouse and Storage .....	1,370	1,747	1,911	1,001	17.71	8.69	14.69	19.00	0.79	0.63	0.48	0.50
Other .....	Q	Q	487	Q	Q	Q	15.14	Q	Q	Q	1.59	Q
Vacant .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Year Constructed</b>												
1919 or Before .....	1,319	1,245	330	377	13.55	10.26	15.05	10.99	0.95	0.79	0.60	0.73
1920 to 1945 .....	1,680	2,109	1,318	689	14.32	11.10	13.30	12.68	1.04	0.87	0.77	0.99
1946 to 1959 .....	3,195	1,794	2,397	1,830	14.73	10.78	14.98	13.99	1.57	0.83	0.82	0.90
1960 to 1969 .....	3,418	2,658	3,883	3,278	17.34	10.94	12.48	14.65	1.67	1.02	1.17	1.13
1970 to 1979 .....	3,027	2,611	5,613	4,606	18.16	12.14	14.32	17.01	1.66	1.11	1.31	1.36
1980 to 1989 .....	3,566	3,660	7,525	3,592	20.69	12.71	13.53	18.15	1.72	1.29	1.20	1.30
1990 to 1999 .....	2,791	3,181	6,236	3,624	18.82	11.15	14.81	15.39	2.03	1.12	1.40	1.50
<b>Floors</b>												
One .....	4,791	5,784	13,093	7,295	20.01	12.00	14.75	18.52	1.53	1.00	1.11	1.21
Two .....	4,762	3,605	6,165	4,932	18.75	11.62	13.47	16.00	1.62	0.82	1.08	1.25
Three .....	2,814	2,670	2,161	1,838	14.74	10.94	13.54	13.25	1.24	0.98	1.03	1.00
Four to Nine .....	3,950	4,139	4,035	2,850	14.69	10.81	12.23	12.10	1.52	1.34	1.59	1.45
Ten or More .....	2,680	1,060	1,850	1,080	16.48	11.86	14.60	15.26	1.88	1.41	1.39	1.15
<b>Climate Zone: 45-Year Average</b>												
Under 2,000 CDD and --												
More than 7,000 HDD .....	1,510	3,967	N	531	18.91	10.47	N	10.37	1.28	0.95	N	1.02
5,500-7,000 HDD .....	8,420	9,548	N	1,841	17.03	11.33	N	9.31	1.45	1.07	N	0.78
4,000-5,499 HDD .....	9,065	3,743	6,706	2,386	16.73	13.03	12.95	12.05	1.69	1.03	1.41	0.97
Fewer than 4,000 HDD .....	N	N	10,217	10,331	N	N	13.45	19.42	N	N	1.15	1.38
2,000 CDD or More and --												
Fewer than 4,000 HDD .....	N	N	10,380	2,906	N	N	15.17	17.26	N	N	1.05	1.51

**Table C6. Expenditures by Census Region for Sum of Major Fuels, 1999**

	Sum of Major Fuel Expenditures (million dollars)				Sum of Major Fuel Expenditures (dollars)							
					per Million Btu				per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>Workers (main shift)</b>												
Fewer than 5 .....	1,528	2,335	4,182	2,199	17.06	12.14	16.08	16.23	0.80	0.58	0.75	0.78
5 to 9 .....	1,725	1,655	1,977	1,572	18.55	11.72	15.68	15.03	1.26	0.98	1.14	1.03
10 to 19 .....	2,597	1,938	3,556	2,336	18.36	11.32	13.90	19.02	1.76	1.00	1.21	1.38
20 to 49 .....	2,927	2,425	5,683	2,902	17.45	11.71	12.81	14.71	1.86	0.94	1.36	1.16
50 to 99 .....	2,685	2,008	3,235	3,010	16.39	11.58	14.40	17.91	1.48	1.07	1.13	1.29
100 to 249 .....	2,625	2,917	3,927	2,216	16.69	11.08	13.64	14.15	1.54	1.31	1.37	1.41
250 or More .....	4,909	3,980	4,742	3,761	16.20	11.04	13.06	14.33	1.95	1.64	1.42	1.63
<b>Weekly Operating Hours</b>												
39 or Fewer .....	298	577	908	532	11.71	12.08	16.46	14.92	0.33	0.31	0.36	0.41
40 to 48 .....	2,060	2,070	4,127	2,703	16.52	11.73	15.36	15.30	1.10	0.69	0.78	0.91
49 to 60 .....	3,574	2,983	5,633	3,624	18.89	11.14	14.08	17.18	1.28	0.83	1.22	1.13
61 to 84 .....	3,853	3,786	4,786	3,471	16.96	13.26	14.19	17.34	1.55	1.23	1.14	1.29
85 to 167 .....	3,272	3,676	5,198	3,422	18.64	12.03	14.17	16.38	1.81	1.45	1.75	1.91
Open Continuously .....	5,938	4,167	6,650	4,243	15.89	9.78	12.47	13.47	2.38	1.53	1.71	1.54
<b>Ownership and Occupancy</b>												
Nongovernment Owned .....	15,121	14,300	22,523	14,857	17.79	11.77	14.14	16.39	1.58	1.03	1.14	1.26
Owner Occupied .....	11,600	10,743	16,021	8,999	17.14	11.84	13.68	15.38	1.62	1.08	1.21	1.21
Nonowner Occupied .....	3,514	3,499	6,362	5,820	20.34	11.54	15.47	18.21	1.54	1.02	1.08	1.45
Unoccupied .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government Owned .....	3,875	2,958	4,780	3,138	14.58	10.08	12.96	13.05	1.38	1.03	1.28	1.07
Federal .....	Q	Q	930	606	Q	Q	13.65	9.85	Q	Q	1.70	1.13
State .....	1,169	1,126	1,202	1,019	14.95	9.96	10.28	14.94	1.71	1.17	1.31	1.23
Local .....	1,987	1,381	2,649	1,512	13.39	10.50	14.41	13.66	1.14	0.87	1.17	0.97
<b>Vacancy Status</b>												
Completely Vacant .....	N	Q	Q	Q	N	Q	Q	Q	N	Q	Q	Q
Mostly Vacant .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Partially Vacant .....	3,996	3,726	5,076	3,430	17.86	12.74	14.92	17.82	1.48	0.92	0.91	1.06
Not At All Vacant .....	14,957	13,402	22,126	14,480	16.82	11.16	13.70	15.26	1.61	1.10	1.27	1.31
<b>Number of Establishments</b>												
One .....	12,261	11,935	18,411	11,914	16.38	10.91	13.24	14.63	1.60	1.06	1.25	1.23
2 to 5 .....	2,477	3,001	3,373	2,406	16.54	12.17	15.35	16.60	1.13	1.03	0.99	1.16
6 to 10 .....	838	550	1,889	1,871	Q	14.25	14.90	21.22	1.70	0.96	1.31	1.75
11 to 20 .....	1,141	679	1,585	841	Q	12.86	15.93	19.59	1.62	1.17	1.28	1.14
More than 20 .....	2,268	1,019	1,905	911	20.50	14.34	16.58	17.15	1.96	1.18	0.95	1.16
Currently Unoccupied .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Energy Sources (more than one may apply)</b>												
Electricity .....	18,993	17,258	27,303	17,993	17.03	11.44	13.92	15.69	1.59	1.05	1.18	1.26
Natural Gas .....	12,191	14,468	18,667	13,472	16.19	11.04	12.54	14.93	1.67	1.07	1.31	1.28
Fuel Oil .....	7,225	3,461	5,609	2,559	14.94	9.68	12.66	12.65	1.33	1.43	1.50	1.51
District Heat .....	4,421	2,543	2,097	1,855	15.32	10.83	9.96	10.86	2.33	1.67	1.66	1.54
District Chilled Water .....	Q	1,326	1,272	1,283	Q	10.01	10.72	Q	Q	1.78	1.35	1.74
Propane .....	2,584	1,332	2,182	956	20.86	10.74	15.90	21.38	1.51	0.95	0.91	1.21
Other .....	Q	595	888	861	Q	10.25	15.78	19.01	Q	0.98	1.53	1.55
<b>Space-Heating Energy Sources (more than one may apply)</b>												
Electricity .....	7,893	7,392	16,989	8,404	18.22	12.89	15.12	16.68	1.71	1.15	1.23	1.14
Natural Gas .....	9,294	12,745	13,556	10,876	16.51	10.96	12.53	14.57	1.63	1.02	1.24	1.23
Fuel Oil .....	3,994	816	1,505	Q	14.10	8.23	13.18	Q	1.11	1.32	1.33	Q
District Heat .....	4,390	2,478	1,711	1,629	15.30	10.76	10.58	Q	2.34	1.64	1.67	1.45
Propane .....	1,566	272	659	193	26.51	16.39	19.39	Q	2.06	0.37	0.65	0.88
Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q

**Table C6. Expenditures by Census Region for Sum of Major Fuels, 1999**

	Sum of Major Fuel Expenditures (million dollars)				Sum of Major Fuel Expenditures (dollars)							
					per Million Btu				per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>Primary Space-Heating</b>												
<b>Energy Source</b>												
Electricity .....	3,100	3,201	11,664	5,557	21.85	15.40	16.36	19.62	1.88	1.36	1.26	1.27
Natural Gas .....	7,717	11,274	10,903	9,103	16.32	10.68	12.15	14.28	1.57	0.99	1.24	1.19
Fuel Oil .....	2,894	Q	769	Q	14.15	Q	14.93	Q	1.03	Q	1.07	Q
District Heat .....	3,924	2,349	1,490	1,524	15.70	10.77	10.44	Q	2.30	1.66	1.65	1.45
Propane .....	1,161	184	465	Q	Q	22.90	20.89	Q	2.30	0.29	0.57	Q
Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Cooling Energy Sources (more than one may apply)</b>												
Electricity .....	16,860	14,750	25,718	14,921	17.46	11.71	14.30	16.32	1.73	1.09	1.23	1.31
Natural Gas .....	Q	769	Q	1,260	Q	10.95	Q	19.49	Q	1.40	Q	1.93
District Chilled Water .....	Q	1,326	1,272	1,283	Q	10.01	10.72	Q	Q	1.78	1.35	1.74
<b>Water-Heating Energy Sources (more than one may apply)</b>												
Electricity .....	7,522	5,197	12,655	5,371	20.10	12.40	16.56	19.35	1.68	1.12	1.21	1.17
Natural Gas .....	6,468	9,152	12,280	10,498	15.35	11.13	12.15	14.86	1.59	1.10	1.37	1.34
Fuel Oil .....	2,055	Q	527	Q	13.58	Q	8.43	Q	1.22	Q	1.61	Q
District Heat .....	3,042	2,070	1,529	1,270	14.87	11.01	9.09	10.94	2.34	1.70	1.77	1.59
Propane .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	0.97	Q	Q
<b>Cooking Energy Sources (more than one may apply)</b>												
Electricity .....	4,974	4,410	8,483	3,561	17.31	12.07	13.78	14.14	1.86	1.32	1.64	1.40
Natural Gas .....	6,025	5,428	8,362	5,350	15.51	10.96	12.58	14.10	1.78	1.22	1.56	1.48
Propane .....	1,392	Q	994	Q	22.23	Q	16.44	Q	2.66	Q	1.26	Q
<b>Energy End Uses (more than one may apply)</b>												
Buildings with Space Heating .....	18,843	17,125	25,360	16,534	16.99	11.43	13.85	15.17	1.62	1.08	1.23	1.23
Buildings with Cooling .....	17,982	16,295	26,560	16,441	17.38	11.59	14.18	15.96	1.74	1.13	1.23	1.34
Buildings with Water Heating .....	17,894	15,455	24,625	16,737	16.95	11.54	13.65	15.74	1.69	1.13	1.30	1.31
Buildings with Cooking .....	9,590	7,627	13,249	6,766	16.44	11.55	13.60	14.67	1.83	1.26	1.55	1.40
Buildings with Manufacturing .....	Q	1,130	1,061	672	Q	10.40	13.77	16.51	1.67	1.38	1.03	0.95
Buildings with Electricity Generation .....	5,348	4,122	6,452	3,069	15.35	10.14	13.04	12.59	1.72	1.48	1.59	1.59
<b>Percent of Floorspace Heated</b>												
Not Heated .....	Q	Q	1,944	1,460	Q	Q	14.88	25.47	Q	Q	0.67	1.11
1 to 50 .....	803	868	1,577	2,046	18.23	13.61	13.41	19.03	0.76	0.55	0.62	0.84
51 to 99 .....	2,793	2,257	5,889	3,001	18.88	12.74	12.65	15.89	1.65	0.97	1.36	1.25
100 .....	15,248	14,000	17,894	11,488	16.63	11.13	14.34	14.48	1.71	1.16	1.30	1.34
<b>Percent of Floorspace Cooled</b>												
Not Cooled .....	1,014	964	Q	1,554	12.48	9.38	8.44	13.26	0.49	0.40	Q	0.62
1 to 50 .....	4,143	3,970	3,478	2,481	14.70	9.54	12.80	16.34	1.06	0.78	0.75	0.76
51 to 99 .....	6,119	5,654	8,031	4,618	16.96	11.90	13.60	14.58	1.91	1.19	1.38	1.43
100 .....	7,720	6,671	15,051	9,342	19.69	12.96	14.88	16.64	2.41	1.46	1.35	1.62
<b>Percent Lit When Open</b>												
Zero .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50 .....	1,294	1,693	2,148	1,687	18.42	11.76	14.51	18.82	0.80	0.68	0.71	0.82
51 to 99 .....	6,917	6,559	8,402	5,311	15.73	11.49	13.23	15.32	1.69	1.13	1.31	1.21
100 .....	10,762	8,905	16,463	10,927	17.81	11.34	14.19	15.49	1.77	1.16	1.28	1.42
Building Never Open/ Electricity Not Used.....	Q	100	Q	Q	Q	Q	Q	Q	Q	0.13	Q	Q

**Table C6. Expenditures by Census Region for Sum of Major Fuels, 1999**

	Sum of Major Fuel Expenditures (million dollars)				Sum of Major Fuel Expenditures (dollars)							
					per Million Btu				per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>Percent Lit When Closed</b>												
Zero .....	3,138	3,684	5,509	4,997	17.00	11.93	15.15	15.94	0.93	0.70	0.76	1.04
1 to 50 .....	9,116	8,965	12,891	7,678	17.74	12.11	14.44	16.80	1.58	1.11	1.18	1.23
51 to 100 .....	Q	443	2,254	1,076	Q	Q	13.14	17.47	Q	1.25	2.27	2.17
Building Never Closed/ Electricity Not Used.....												
	5,941	4,167	6,650	4,244	15.88	9.78	12.47	13.46	2.06	1.35	1.55	1.33
<b>Heating Equipment (more than one may apply)</b>												
Heat Pumps .....	1,885	1,232	6,435	2,598	15.17	11.34	13.48	17.14	1.58	1.21	1.41	1.22
Furnaces .....	2,795	5,291	3,971	1,995	16.45	11.41	13.23	13.46	1.24	0.92	1.01	0.81
Individual Space Heaters .....	4,991	4,621	5,660	3,417	16.94	11.11	13.94	13.28	1.40	0.99	1.03	0.93
District Heat .....	4,390	2,478	1,711	1,629	15.30	10.76	10.58	Q	2.34	1.64	1.67	1.45
Boilers .....	6,983	5,972	6,009	4,707	14.94	10.23	12.33	12.65	1.28	1.00	1.43	1.21
Packaged Heating Units .....	7,873	6,708	12,999	8,371	19.63	11.81	14.27	17.14	1.95	1.32	1.24	1.36
Other .....	1,029	1,505	1,706	912	15.74	10.44	15.38	13.77	1.34	1.35	1.23	1.14
<b>Cooling Equipment (more than one may apply)</b>												
Residential-Type Central												
Air Conditioners .....	1,344	2,782	3,669	1,096	15.40	12.04	13.40	13.78	1.41	0.94	1.12	0.95
Heat Pumps .....	1,665	1,302	6,453	2,910	14.95	11.60	13.43	17.47	1.37	1.22	1.40	1.29
Individual Air Conditioners .....	5,188	3,475	4,730	2,144	14.44	10.41	13.48	14.09	1.33	0.93	1.05	1.01
District Chilled Water .....	Q	1,326	1,272	1,283	Q	10.01	10.72	Q	Q	1.78	1.35	1.74
Central Chillers .....	5,207	4,606	6,813	4,134	15.24	10.87	13.02	13.35	1.87	1.46	1.57	1.56
Packaged Air Conditioning												
Units .....	12,746	10,164	16,955	10,924	18.33	11.60	14.45	16.94	1.92	1.24	1.22	1.41
Swamp Coolers .....	Q	Q	Q	1,939	Q	Q	Q	13.94	Q	Q	Q	1.19
Other .....	Q	Q	447	529	Q	Q	Q	Q	Q	Q	1.30	1.63
<b>Main Equipment Replaced Since 1995 (more than one may apply)</b>												
Heating .....	2,861	3,300	6,060	3,879	18.11	11.85	14.67	16.51	1.56	1.02	1.19	1.26
Cooling .....	4,813	4,297	8,570	4,481	16.38	11.42	14.35	16.72	1.56	1.13	1.21	1.31
<b>Lighting Equipment Types (more than one may apply)</b>												
Incandescent .....	11,356	9,913	16,245	11,000	16.43	11.55	14.06	14.95	1.61	1.00	1.25	1.34
Standard Fluorescent .....	17,853	16,321	25,482	17,081	16.87	11.48	13.94	15.65	1.57	1.10	1.22	1.28
Compact Fluorescent .....	7,248	7,208	8,764	6,470	16.34	11.56	13.59	14.35	1.84	1.31	1.36	1.35
High Intensity Discharge .....	6,331	6,378	8,004	3,836	16.22	10.34	12.81	14.17	1.44	1.16	1.36	1.11
Halogen .....	6,980	5,483	7,462	5,170	16.49	11.61	13.46	14.57	1.93	1.24	1.28	1.28
Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Water Heating Equipment</b>												
Centralized System .....	12,168	9,309	15,136	11,052	16.73	11.58	13.40	15.62	1.75	1.03	1.32	1.36
Distributed System .....	2,500	2,431	4,831	3,499	19.90	10.85	14.70	18.09	1.37	1.04	1.17	1.33
Combination of Centralized and Distributed System .....	3,226	3,716	4,658	2,187	15.93	11.93	13.45	13.47	1.78	1.59	1.37	1.04
<b>Commercial Refrigeration Equipment (more than one may apply)</b>												
Any Equipment .....	10,666	8,607	13,348	8,296	17.23	11.73	13.58	15.41	1.93	1.38	1.53	1.62
Walk-In Units .....	8,783	6,839	11,272	7,041	17.37	11.55	13.29	15.29	2.03	1.49	1.66	1.77
Cases or Cabinets .....	9,262	7,415	11,661	7,372	17.53	11.74	13.60	15.90	1.96	1.37	1.55	1.70
None .....	8,330	8,651	13,956	9,698	16.76	11.16	14.26	15.93	1.22	0.82	0.95	1.01



**Table C6. Expenditures by Census Region for Sum of Major Fuels, 1999**

	Sum of Major Fuel Expenditures (million dollars)				Sum of Major Fuel Expenditures (dollars)							
					per Million Btu				per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>Personal Computers</b>												
None .....	856	1,565	2,413	1,643	16.53	11.92	15.24	14.11	0.56	0.59	0.65	0.98
1 to 4 .....	3,535	3,733	5,502	3,289	19.20	11.76	14.39	16.97	1.54	0.99	1.16	1.08
5 to 9 .....	1,356	1,314	3,886	1,895	20.50	12.50	12.79	17.33	1.67	1.00	1.35	1.23
10 to 19 .....	2,718	1,345	3,416	2,156	16.04	12.16	14.42	19.82	1.55	0.86	1.26	1.45
20 to 49 .....	2,582	1,879	3,175	2,146	18.77	10.64	14.69	17.27	1.85	0.97	1.23	0.99
50 to 99 .....	1,320	1,814	2,004	1,789	14.43	10.28	13.60	15.36	1.46	1.11	1.06	1.25
100 to 249 .....	2,350	2,460	2,626	1,701	15.81	11.37	13.65	13.01	1.47	1.35	1.21	1.40
250 or More .....	4,278	3,147	4,280	3,376	16.04	11.46	13.20	13.64	2.05	1.52	1.54	1.56
<b>Photocopiers</b>												
None .....	4,046	4,401	8,070	5,690	17.04	11.75	14.11	16.85	1.09	0.85	1.00	1.21
One .....	3,005	3,132	6,056	3,461	18.12	11.97	15.05	16.70	1.84	0.99	1.20	1.12
2 to 4 .....	4,441	3,775	6,114	3,577	17.35	11.00	13.34	14.53	1.49	0.89	1.20	1.08
5 to 9 .....	1,341	2,230	1,773	1,594	15.46	10.70	13.54	15.29	1.36	1.41	1.12	1.29
10 or More .....	6,163	3,721	5,292	3,672	16.66	11.59	13.31	14.58	2.01	1.43	1.43	1.53
<b>Other Electronic Equipment (more than one may apply)</b>												
Laser Printers .....	15,295	12,789	20,181	13,489	16.86	11.36	13.75	15.77	1.68	1.15	1.29	1.26
FAX Machines .....	17,569	15,211	23,897	15,599	17.31	11.42	14.00	15.76	1.67	1.14	1.27	1.29
Medical Diagnostic Equipment .....	820	1,049	1,956	1,153	10.04	9.56	10.94	11.82	2.24	1.79	2.05	1.96
<b>Energy-Related Space Functions (more than one may apply)</b>												
Commercial Food Preparation .....	8,892	7,237	12,582	6,502	16.38	11.52	13.49	14.65	1.82	1.27	1.55	1.41
Activities with Large Amounts of Hot Water .....	7,911	6,853	10,845	6,937	15.69	10.84	12.07	13.76	1.85	1.28	1.51	1.39
<b>Building Shell Conservation Features (more than one may apply)</b>												
Multipaned Windows .....	12,913	12,226	15,592	8,458	17.05	11.46	13.51	13.99	1.71	1.06	1.30	1.19
Tinted, Reflective, or Shading Glass .....	8,146	8,147	14,504	10,678	17.06	11.88	14.42	16.03	1.80	1.28	1.29	1.37
<b>HVAC Conservation Features (more than one may apply)</b>												
Variable Air-Volume System .....	6,824	6,656	8,907	6,845	16.80	11.52	13.71	14.22	1.87	1.37	1.46	1.44
Economizer Cycle .....	9,135	8,151	8,203	7,705	18.35	11.11	13.35	14.24	1.97	1.43	1.40	1.52
HVAC Maintenance .....	17,995	14,748	23,580	15,463	17.14	11.40	13.88	15.13	1.69	1.13	1.31	1.32
Energy Management and Control System (EMCS) .....	7,522	7,446	9,836	7,010	16.12	10.67	13.71	13.76	1.79	1.41	1.38	1.40
<b>Lighting Conservation Features (more than one may apply)</b>												
Specular Reflectors .....	8,708	5,277	8,127	5,970	16.87	11.32	14.26	16.37	1.79	1.23	1.27	1.35
Electronic Ballasts .....	13,871	12,392	17,368	12,368	16.88	11.36	14.34	15.91	1.64	1.20	1.26	1.30
Skylights or Atriums .....	5,476	5,375	6,723	4,135	16.23	11.26	12.62	15.25	1.48	1.20	1.10	1.04

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.

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* HVAC=Heating, Ventilation, and Air Conditioning. \* 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 C7. Consumption and Gross Energy Intensity by Building Size for Sum of Major Fuels, 1999**

	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)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
<b>All Buildings</b> .....	1,381	2,300	2,053	15,013	30,575	21,750	92.0	75.2	94.4
<b>Principal Building Activity</b>									
Education .....	53	366	230	782	4,831	3,038	68.0	75.7	75.8
Food Sales .....	Q	88	Q	441	485	Q	Q	180.6	Q
Food Service .....	364	Q	Q	1,296	483	Q	281.0	Q	Q
Health Care .....	24	92	398	407	672	1,838	59.8	136.6	216.8
Inpatient .....	N	Q	379	N	Q	1,683	N	Q	225.1
Outpatient .....	24	44	Q	407	490	155	59.8	89.2	Q
Lodging .....	Q	243	145	405	2,336	1,780	152.4	104.2	81.2
Mercantile .....	171	328	225	1,971	4,630	3,797	86.5	70.9	59.3
Retail (Other Than Mall) .....	134	137	73	1,649	2,375	742	81.4	57.5	98.4
Enclosed and Strip Malls .....	Q	191	152	322	2,255	3,055	Q	84.9	49.8
Office .....	170	384	535	2,276	4,628	5,140	74.7	83.1	104.1
Public Assembly .....	65	176	118	983	2,267	1,143	66.5	77.5	103.2
Public Order and Safety .....	Q	57	Q	220	695	Q	Q	81.5	Q
Religious Worship .....	33	75	Q	1,003	2,353	Q	32.7	31.8	Q
Service .....	206	Q	Q	1,786	1,265	Q	115.4	140.7	Q
Warehouse and Storage .....	76	150	235	2,032	4,865	3,579	37.4	30.9	65.6
Other .....	Q	79	Q	386	445	390	Q	178.2	Q
Vacant .....	Q	Q	Q	1,024	619	265	Q	Q	Q
<b>Year Constructed</b>									
1919 or Before .....	104	114	Q	1,446	1,944	645	71.6	58.5	Q
1920 to 1945 .....	142	168	150	1,574	2,815	2,056	90.4	59.8	73.0
1946 to 1959 .....	153	314	207	2,802	4,175	2,150	54.7	75.3	96.1
1960 to 1969 .....	266	358	351	2,093	4,951	3,822	127.1	72.4	91.7
1970 to 1979 .....	249	398	397	2,448	5,447	3,945	101.9	73.1	100.6
1980 to 1989 .....	219	542	453	2,303	6,634	4,994	95.3	81.7	90.6
1990 to 1999 .....	247	405	439	2,347	4,610	4,137	105.2	87.8	106.1
<b>Floors</b>									
One .....	913	781	309	9,624	12,194	4,982	94.8	64.0	62.1
Two .....	329	721	281	3,791	9,410	3,785	86.7	76.6	74.1
Three .....	94	391	248	1,220	5,157	2,551	77.2	75.9	97.2
Four to Nine .....	45	384	788	378	3,661	6,141	119.1	105.0	128.3
Ten or More .....	N	Q	427	N	Q	4,291	N	Q	99.5
<b>Census Region and Division</b>									
Northeast .....	220	418	478	2,203	5,132	5,026	99.8	81.5	95.1
New England .....	41	120	118	575	1,784	1,376	70.7	67.4	85.7
Middle Atlantic .....	179	298	360	1,628	3,348	3,649	110.0	89.0	98.7
Midwest .....	338	532	639	3,880	7,090	5,792	87.2	75.0	110.3
East North Central .....	253	342	414	2,666	4,580	3,959	95.1	74.6	104.6
West North Central .....	85	190	225	1,214	2,510	1,832	70.0	75.6	122.7
South .....	523	829	609	5,594	11,028	6,864	93.5	75.2	88.7
South Atlantic .....	236	347	333	2,436	4,983	3,581	96.7	69.6	93.1
East South Central .....	106	268	98	1,159	2,872	1,190	91.7	93.4	82.2
West South Central .....	181	214	178	1,999	3,173	2,093	90.7	67.5	84.9
West .....	299	521	327	3,337	7,326	4,069	89.7	71.1	80.3
Mountain .....	104	153	100	1,105	2,314	1,160	93.7	66.2	85.9
Pacific .....	196	368	227	2,231	5,012	2,908	87.8	73.4	78.1
<b>Climate Zone: 45-Year Average</b>									
Under 2,000 CDD and --									
More than 7,000 HDD .....	147	194	168	1,643	2,819	1,428	89.5	69.0	117.9
5,500-7,000 HDD .....	291	571	673	2,955	7,433	6,695	98.3	76.8	100.5
4,000-5,499 HDD .....	392	567	585	3,826	6,365	6,053	102.5	89.1	96.7
Fewer than 4,000 HDD .....	290	599	402	3,377	8,355	4,601	85.9	71.7	87.5
2,000 CDD or More and --									
Fewer than 4,000 HDD .....	261	368	224	3,211	5,604	2,972	81.2	65.7	75.3

**Table C7. Consumption and Gross Energy Intensity by Building Size for Sum of Major Fuels, 1999**

	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)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
<b>Workers (main shift)</b>									
Fewer than 5 .....	495	174	Q	7,978	5,713	630	62.0	30.4	Q
5 to 9 .....	278	170	Q	2,833	3,099	393	98.2	54.8	Q
10 to 19 .....	302	362	Q	2,582	4,708	737	116.9	76.9	Q
20 to 49 .....	269	657	90	1,409	7,706	1,699	190.8	85.3	52.8
50 to 99 .....	Q	490	210	Q	5,681	3,074	Q	86.3	68.2
100 to 249 .....	Q	335	523	Q	2,832	5,457	Q	118.2	95.9
250 or More .....	N	112	1,177	N	837	9,759	N	133.7	120.6
<b>Weekly Operating Hours</b>									
39 or Fewer .....	81	64	Q	3,502	2,472	622	23.1	26.0	Q
40 to 48 .....	265	378	104	4,216	6,969	1,920	62.8	54.2	54.0
49 to 60 .....	253	510	305	3,017	7,423	3,759	83.8	68.8	81.0
61 to 84 .....	270	415	365	2,072	5,376	5,009	130.5	77.1	72.9
85 to 167 .....	361	393	303	1,320	3,943	3,853	273.3	99.8	78.6
Open Continuously .....	151	539	958	886	4,392	6,586	170.5	122.8	145.4
<b>Ownership and Occupancy</b>									
Nongovernment Owned .....	1,252	1,780	1,533	13,655	24,490	16,850	91.7	72.7	91.0
Owner Occupied .....	864	1,253	1,223	9,219	16,036	12,531	93.7	78.1	97.6
Nonowner Occupied .....	382	515	309	3,513	7,926	4,156	108.8	65.0	74.4
Unoccupied .....	Q	Q	Q	923	527	Q	Q	Q	Q
Government Owned .....	129	520	520	1,357	6,086	4,900	95.0	85.5	106.1
Federal .....	Q	61	139	Q	614	1,007	Q	99.7	137.7
State .....	Q	186	164	Q	1,697	1,488	Q	109.5	110.2
Local .....	84	273	217	977	3,775	2,405	86.2	72.4	90.2
<b>Vacancy Status</b>									
Completely Vacant .....	Q	Q	Q	574	290	Q	Q	Q	Q
Mostly Vacant .....	Q	Q	Q	451	329	Q	Q	Q	Q
Partially Vacant .....	108	379	563	2,214	5,983	7,323	48.6	63.3	76.8
Not At All Vacant .....	1,259	1,911	1,484	11,775	23,974	14,161	106.9	79.7	104.8
<b>Number of Establishments</b>									
One .....	1,151	1,634	1,262	11,310	20,595	11,437	101.8	79.3	110.4
2 to 5 .....	192	319	250	2,488	5,035	3,059	77.0	63.4	81.9
6 to 10 .....	Q	185	97	176	2,179	1,219	Q	84.8	79.7
11 to 20 .....	Q	108	141	Q	1,591	1,661	Q	67.9	85.1
More than 20 .....	Q	42	301	Q	590	4,163	Q	71.0	72.2
Currently Unoccupied .....	Q	Q	Q	972	586	Q	Q	Q	Q
<b>Energy Sources (more than one may apply)</b>									
Electricity .....	1,380	2,300	2,053	14,001	30,052	21,663	98.6	76.5	94.8
Natural Gas .....	1,073	1,760	1,622	8,654	20,570	16,301	124.0	85.6	99.5
Fuel Oil .....	80	362	1,045	1,203	3,579	8,503	66.4	101.1	122.9
District Heat .....	Q	347	505	Q	2,007	3,613	Q	172.9	139.9
District Chilled Water .....	Q	150	259	Q	927	1,730	Q	162.0	149.6
Propane .....	105	134	191	1,621	2,637	2,032	64.7	50.9	93.8
Other .....	Q	65	98	469	890	963	Q	73.3	101.5
<b>Space-Heating Energy Sources (more than one may apply)</b>									
Electricity .....	542	1,074	1,018	5,459	15,069	11,763	99.3	71.3	86.5
Natural Gas .....	874	1,433	1,247	7,863	17,494	12,546	111.2	81.9	99.4
Fuel Oil .....	78	148	294	1,171	2,095	2,345	67.0	70.8	125.4
District Heat .....	Q	311	498	Q	1,828	3,545	Q	170.1	140.6
Propane .....	57	45	Q	1,157	1,295	Q	49.1	35.0	Q
Other .....	Q	26	Q	285	452	Q	Q	57.4	Q

**Table C7. Consumption and Gross Energy Intensity by Building Size for Sum of Major Fuels, 1999**

	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)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
<b>Primary Space-Heating</b>									
<b>Energy Source</b>									
Electricity .....	312	627	407	3,062	8,667	5,898	101.7	72.3	69.1
Natural Gas .....	821	1,184	1,058	7,373	14,997	10,360	111.3	79.0	102.1
Fuel Oil .....	67	108	96	1,038	1,567	1,113	64.9	69.0	86.1
District Heat .....	Q	277	458	Q	1,645	3,301	Q	168.4	138.8
Propane .....	Q	20	Q	1,084	980	Q	Q	20.1	Q
Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Cooling Energy Sources (more than one may apply)</b>									
Electricity .....	1,136	1,997	1,805	10,723	25,930	18,893	106.0	77.0	95.5
Natural Gas .....	Q	61	68	537	907	469	Q	67.1	145.1
District Chilled Water .....	Q	150	259	Q	927	1,730	Q	162.0	149.6
<b>Water-Heating Energy Sources (more than one may apply)</b>									
Electricity .....	442	721	672	4,593	10,985	8,593	96.2	65.6	78.3
Natural Gas .....	729	1,180	1,052	4,923	13,747	10,526	148.1	85.9	99.9
Fuel Oil .....	Q	90	112	333	880	1,005	Q	102.6	111.1
District Heat .....	Q	239	404	Q	1,249	2,786	Q	191.3	144.9
Propane .....	Q	29	Q	436	777	Q	Q	37.6	Q
<b>Cooking Energy Sources (more than one may apply)</b>									
Electricity .....	280	434	806	1,148	4,838	7,747	244.1	89.7	104.0
Natural Gas .....	351	554	1,023	1,479	5,412	9,893	237.0	102.3	103.4
Propane .....	Q	54	50	371	735	648	Q	72.9	77.7
<b>Energy End Uses (more than one may apply)</b>									
Buildings with Space Heating .....	1,277	2,227	2,024	12,774	28,026	20,803	100.0	79.5	97.3
Buildings with Cooling .....	1,201	2,150	1,994	11,092	27,047	20,335	108.3	79.5	98.0
Buildings with Water Heating .....	1,214	2,088	1,960	10,028	25,974	20,112	121.0	80.4	97.5
Buildings with Cooking .....	499	834	1,346	2,367	8,947	13,367	210.6	93.2	100.7
Buildings with Manufacturing .....	26	100	151	553	1,509	1,064	46.8	66.5	142.1
Buildings with Electricity Generation .....	Q	401	1,021	378	3,166	8,339	Q	126.7	122.4
<b>Percent of Floorspace Heated</b>									
Not Heated .....	Q	73	28	2,239	2,550	947	Q	28.5	29.9
1 to 50 .....	82	149	102	2,210	3,567	1,816	37.1	41.8	56.2
51 to 99 .....	245	398	336	1,927	5,033	3,785	127.3	79.1	88.7
100 .....	950	1,680	1,587	8,636	19,426	15,202	109.9	86.5	104.4
<b>Percent of Floorspace Cooled</b>									
Not Cooled .....	180	150	Q	3,921	3,528	1,415	45.8	42.6	41.9
1 to 50 .....	243	522	356	3,318	8,920	4,608	73.3	58.6	77.3
51 to 99 .....	312	606	825	2,273	7,021	7,673	137.3	86.3	107.6
100 .....	646	1,022	812	5,501	11,106	8,054	117.4	92.0	100.8
<b>Percent Lit When Open</b>									
Zero .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50 .....	204	208	40	3,075	4,719	1,392	66.5	44.0	28.4
51 to 99 .....	500	765	728	4,113	9,755	6,797	121.6	78.4	107.0
100 .....	660	1,311	1,284	6,092	14,839	13,302	108.4	88.4	96.5
Building Never Open/ Electricity Not Used.....	Q	Q	Q	1,660	1,182	Q	Q	Q	Q

**Table C7. Consumption and Gross Energy Intensity by Building Size for Sum of Major Fuels, 1999**

	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)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
<b>Percent Lit When Closed</b>									
Zero .....	451	563	156	7,199	10,435	3,137	62.6	53.9	49.8
1 to 50 .....	641	1,100	863	5,406	14,482	11,062	118.6	76.0	78.0
51 to 100 .....	Q	97	76	532	750	878	Q	130.0	86.4
Building Never Closed/ Electricity Not Used.....									
	151	540	958	1,876	4,909	6,672	80.7	109.9	143.5
<b>Heating Equipment (more than one may apply)</b>									
Heat Pumps .....	145	357	360	1,424	4,158	3,341	101.8	85.8	107.9
Furnaces .....	388	423	271	5,118	6,438	2,892	75.8	65.7	93.7
Individual Space Heaters .....	218	538	618	2,533	7,732	7,084	86.1	69.6	87.2
District Heat .....	Q	311	498	Q	1,828	3,545	Q	170.1	140.6
Boilers .....	175	702	1,033	1,504	8,336	9,683	116.1	84.3	106.7
Packaged Heating Units .....	529	927	913	4,080	11,951	9,713	129.6	77.5	94.0
Other .....	Q	105	246	515	1,422	2,135	Q	73.7	115.2
<b>Cooling Equipment (more than one may apply)</b>									
Residential-Type Central									
Air Conditioners .....	186	222	263	2,496	3,501	2,333	74.7	63.4	112.8
Heat Pumps .....	Q	358	367	1,406	4,167	3,574	103.6	85.9	102.8
Individual Air Conditioners .....	208	474	515	2,358	6,679	5,239	88.0	70.9	98.2
District Chilled Water .....	Q	150	259	Q	927	1,730	Q	162.0	149.6
Central Chillers .....	Q	385	1,176	Q	3,215	9,517	Q	119.7	123.5
Packaged Air Conditioning									
Units .....	739	1,356	1,295	5,810	17,315	13,402	127.2	78.3	96.6
Swamp Coolers .....	Q	80	77	435	1,009	775	Q	79.3	99.6
Other .....	Q	41	Q	Q	452	707	Q	90.8	Q
<b>Main Equipment Replaced Since 1995 (more than one may apply)</b>									
Heating .....	326	514	245	3,082	6,831	3,307	105.8	75.2	74.1
Cooling .....	351	659	525	3,037	8,726	5,628	115.6	75.5	93.3
<b>Lighting Equipment Types (more than one may apply)</b>									
Incandescent .....	752	1,305	1,384	6,993	16,939	14,223	107.5	77.1	97.3
Standard Fluorescent .....	1,195	2,201	2,005	11,876	27,684	20,784	100.6	79.5	96.5
Compact Fluorescent .....	262	699	1,201	1,846	7,480	11,340	141.9	93.4	105.9
High Intensity Discharge .....	113	632	1,158	908	7,026	11,290	124.5	89.9	102.6
Halogen .....	250	596	959	1,590	6,536	9,800	157.3	91.2	97.8
Other .....	Q	Q	Q	Q	394	464	Q	Q	Q
<b>Water Heating Equipment</b>									
Centralized System .....	980	1,414	974	7,891	17,503	10,186	124.2	80.8	95.6
Distributed System .....	153	329	390	1,781	4,667	4,450	86.1	70.4	87.6
Combination of Centralized and Distributed System .....	Q	345	597	356	3,805	5,476	Q	90.7	109.0
<b>Commercial Refrigeration Equipment (more than one may apply)</b>									
Any Equipment .....	544	867	1,463	2,505	9,110	14,036	217.0	95.2	104.2
Walk-In Units .....	486	643	1,278	1,794	5,926	11,992	270.6	108.4	106.6
Cases or Cabinets .....	506	715	1,260	2,290	7,409	12,302	221.0	96.5	102.4
None .....	837	1,433	590	12,507	21,465	7,714	66.9	66.7	76.4

**Table C7. Consumption and Gross Energy Intensity by Building Size for Sum of Major Fuels, 1999**

	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)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
<b>Personal Computers</b>									
None .....	363	89	6	5,970	2,974	640	60.7	30.0	Q
1 to 4 .....	580	446	52	5,315	7,464	1,074	109.1	59.7	48.5
5 to 9 .....	198	345	41	1,688	4,200	641	117.5	82.1	64.3
10 to 19 .....	182	347	96	1,534	4,084	1,896	118.9	85.0	50.7
20 to 49 .....	Q	370	233	476	4,721	2,890	Q	78.3	80.6
50 to 99 .....	Q	291	238	Q	3,514	2,327	Q	82.8	102.1
100 to 249 .....	Q	309	377	Q	2,878	3,936	Q	107.2	95.8
250 or More .....	N	103	1,010	N	741	8,347	N	139.7	120.9
<b>Photocopiers</b>									
None .....	882	556	83	9,913	9,692	2,025	89.0	57.4	41.1
One .....	375	558	104	3,724	7,537	1,667	100.7	74.1	62.4
2 to 4 .....	110	760	434	1,165	8,936	5,519	94.5	85.0	78.6
5 to 9 .....	Q	206	311	Q	2,236	2,937	Q	92.0	105.9
10 or More .....	N	220	1,121	N	2,173	9,601	N	101.2	116.7
<b>Other Electronic Equipment (more than one may apply)</b>									
Laser Printers .....	595	1,797	1,964	5,396	21,598	19,573	110.2	83.2	100.3
FAX Machines .....	973	2,047	2,024	8,525	25,429	20,810	114.1	80.5	97.2
Medical Diagnostic Equipment .....	Q	70	384	265	527	1,700	Q	133.2	225.5
<b>Energy-Related Space Functions (more than one may apply)</b>									
Commercial Food Preparation .....	464	766	1,317	2,134	8,202	12,992	217.5	93.4	101.4
Activities with Large Amounts of Hot Water .....	456	898	1,185	1,823	8,834	11,136	250.3	101.6	106.4
<b>Building Shell Conservation Features (more than one may apply)</b>									
Multipaned Windows .....	741	1,364	1,479	6,858	16,743	14,593	108.0	81.5	101.3
Tinted, Reflective, or Shading Glass .....	467	1,023	1,346	3,954	12,244	13,717	118.1	83.5	98.1
<b>HVAC Conservation Features (more than one may apply)</b>									
Variable Air-Volume System .....	211	699	1,205	1,691	6,854	10,841	124.8	102.0	111.2
Economizer Cycle .....	238	746	1,403	1,438	7,290	12,528	165.4	102.4	112.0
HVAC Maintenance .....	966	2,096	2,002	8,361	24,704	20,330	115.6	84.8	98.5
Energy Management and Control System (EMCS) .....	123	791	1,477	987	7,643	12,983	124.3	103.5	113.8
<b>Lighting Conservation Features (more than one may apply)</b>									
Specular Reflectors .....	298	657	963	2,560	7,640	9,794	116.4	85.9	98.3
Electronic Ballasts .....	696	1,451	1,754	6,780	17,991	17,264	102.7	80.6	101.6
Skylights or Atriums .....	133	537	948	1,533	6,945	9,808	86.8	77.4	96.7

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.

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* HVAC=Heating, Ventilation, and Air Conditioning. \* 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 C8. Consumption and Gross Energy Intensity by Year Constructed for Sum of Major Fuels, 1999**

	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 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
<b>All Buildings</b> .....	1,410	3,234	1,090	19,606	36,638	11,094	71.9	88.3	98.3
<b>Building Floorspace (Square Feet)</b>									
1,001 to 5,000 .....	218	406	148	2,478	3,137	1,159	88.0	129.4	128.0
5,001 to 10,000 .....	181	329	98	3,344	3,706	1,188	54.1	88.7	82.8
10,001 to 25,000 .....	243	423	77	3,965	6,079	1,110	61.3	69.5	69.5
25,001 to 50,000 .....	188	372	132	2,505	5,167	1,638	75.0	72.0	80.6
50,001 to 100,000 .....	166	504	195	2,463	5,786	1,862	67.3	87.2	104.9
100,001 to 200,000 .....	126	477	169	1,782	4,827	1,662	70.4	98.8	102.0
200,001 to 500,000 .....	125	371	Q	1,751	3,756	1,344	71.6	98.8	121.5
Over 500,000 .....	163	352	106	1,318	4,179	1,131	123.8	84.3	93.8
<b>Principal Building Activity</b>									
Education .....	250	307	92	3,247	4,165	1,239	77.0	73.7	74.1
Food Sales .....	Q	87	80	196	443	355	Q	196.9	224.3
Food Service .....	Q	229	Q	608	952	Q	Q	240.3	Q
Health Care .....	101	356	58	548	1,897	473	183.7	187.7	122.7
Inpatient .....	Q	307	Q	434	1,277	Q	Q	240.4	Q
Outpatient .....	Q	49	Q	Q	620	319	Q	79.0	Q
Lodging .....	85	300	65	808	2,996	716	104.9	100.2	90.3
Mercantile .....	165	391	169	2,582	5,786	2,030	63.8	67.5	83.1
Retail (Other Than Mall) .....	113	130	101	1,901	1,726	1,139	59.5	75.2	88.7
Enclosed and Strip Malls .....	52	261	68	681	4,060	891	75.7	64.2	76.0
Office .....	254	693	143	2,907	7,307	1,830	87.2	94.8	78.0
Public Assembly .....	108	180	72	1,395	2,262	736	77.4	79.4	97.2
Public Order and Safety .....	Q	38	Q	392	550	227	Q	68.5	Q
Religious Worship .....	42	57	Q	1,301	1,748	357	32.6	32.5	Q
Service .....	109	286	Q	1,283	1,768	336	84.8	161.9	Q
Warehouse and Storage .....	63	231	Q	2,738	5,660	2,079	22.9	40.8	Q
Other .....	Q	69	Q	247	607	367	Q	112.8	Q
Vacant .....	19	Q	Q	1,354	497	Q	14.2	Q	Q
<b>Floors</b>									
One .....	311	1,130	562	5,601	15,567	5,632	55.6	72.6	99.7
Two .....	335	763	233	5,218	9,110	2,657	64.2	83.7	87.6
Three .....	288	365	81	4,143	3,810	974	69.5	95.7	82.7
Four to Nine .....	335	706	176	3,520	5,341	1,319	95.2	132.3	133.4
Ten or More .....	140	270	39	1,124	2,809	512	124.8	96.1	76.7
<b>Census Region and Division</b>									
Northeast .....	432	536	148	5,041	5,944	1,376	85.6	90.2	107.8
New England .....	93	150	Q	1,316	1,986	433	71.0	75.4	Q
Middle Atlantic .....	338	386	113	3,725	3,957	943	90.8	97.6	119.5
Midwest .....	478	746	285	6,150	7,778	2,834	77.7	95.9	100.6
East North Central .....	338	456	215	4,481	4,842	1,882	75.4	94.3	114.1
West North Central .....	140	289	71	1,669	2,936	952	83.7	98.6	74.1
South .....	281	1,259	421	5,163	13,858	4,464	54.4	90.9	94.4
South Atlantic .....	113	581	222	2,055	6,639	2,306	55.1	87.5	96.1
East South Central .....	74	313	85	1,038	3,132	1,050	71.7	99.9	81.2
West South Central .....	93	365	114	2,070	4,087	1,107	45.1	89.4	103.3
West .....	219	692	235	3,252	9,059	2,420	67.5	76.4	97.3
Mountain .....	90	209	57	1,267	2,609	704	71.1	80.1	81.3
Pacific .....	129	483	178	1,986	6,450	1,716	65.1	74.9	103.8
<b>Climate Zone: 45-Year Average</b>									
Under 2,000 CDD and --									
More than 7,000 HDD .....	135	283	93	1,936	3,007	948	69.5	94.1	97.6
5,500-7,000 HDD .....	508	736	291	6,196	8,277	2,610	82.0	88.9	111.3
4,000-5,499 HDD .....	458	839	248	5,491	8,220	2,532	83.3	102.1	97.8
Fewer than 4,000 HDD .....	180	807	304	3,303	9,822	3,209	54.5	82.2	94.8
2,000 CDD or More and --									
Fewer than 4,000 HDD .....	129	568	155	2,680	7,313	1,794	48.3	77.7	86.5

**Table C8. Consumption and Gross Energy Intensity by Year Constructed for Sum of Major Fuels, 1999**

	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 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
<b>Workers (main shift)</b>									
Fewer than 5 .....	246	331	100	6,570	6,039	1,712	37.5	54.8	58.5
5 to 9 .....	148	256	61	2,027	3,470	829	72.9	73.8	73.8
10 to 19 .....	231	343	117	2,781	4,093	1,153	83.2	83.7	101.5
20 to 49 .....	233	584	200	2,953	5,772	2,089	78.7	101.1	95.6
50 to 99 .....	141	444	145	1,638	5,660	1,601	86.2	78.5	90.3
100 to 249 .....	157	502	205	1,580	4,990	1,786	99.6	100.6	115.0
250 or More .....	253	774	262	2,057	6,614	1,925	123.1	117.0	136.1
<b>Weekly Operating Hours</b>									
39 or Fewer .....	64	91	Q	3,277	2,809	511	19.7	32.4	Q
40 to 48 .....	263	385	98	4,942	6,392	1,771	53.3	60.2	55.4
49 to 60 .....	297	582	189	4,259	7,649	2,292	69.7	76.1	82.4
61 to 84 .....	276	631	143	2,850	7,422	2,186	97.0	85.0	65.5
85 to 167 .....	197	595	265	1,819	5,315	1,981	108.3	111.9	133.9
Open Continuously .....	312	950	386	2,460	7,051	2,352	126.7	134.8	164.1
<b>Ownership and Occupancy</b>									
Nongovernment Owned .....	1,026	2,655	884	15,321	30,535	9,138	67.0	86.9	96.7
Owner Occupied .....	795	1,936	609	10,934	20,654	6,198	72.7	93.8	98.3
Nonowner Occupied .....	225	707	275	3,546	9,233	2,817	63.5	76.6	97.5
Unoccupied .....	Q	Q	Q	842	649	Q	Q	Q	Q
Government Owned .....	384	579	206	4,285	6,102	1,956	89.6	94.8	105.4
Federal .....	102	86	Q	909	644	243	112.2	133.2	Q
State .....	123	190	64	1,181	1,655	554	103.8	114.5	116.0
Local .....	159	303	112	2,196	3,803	1,158	72.6	79.8	96.5
<b>Vacancy Status</b>									
Completely Vacant .....	Q	Q	Q	665	247	Q	Q	Q	Q
Mostly Vacant .....	Q	Q	Q	689	250	Q	Q	Q	Q
Partially Vacant .....	259	597	193	3,874	8,829	2,817	66.8	67.6	68.6
Not At All Vacant .....	1,132	2,626	896	14,378	27,312	8,219	78.7	96.1	109.0
<b>Number of Establishments</b>									
One .....	1,017	2,202	828	13,375	22,346	7,622	76.0	98.5	108.6
2 to 5 .....	209	428	125	3,372	5,464	1,745	61.9	78.2	71.5
6 to 10 .....	69	199	35	679	2,410	485	102.1	82.7	72.2
11 to 20 .....	Q	166	46	506	2,256	498	Q	73.6	92.3
More than 20 .....	68	225	Q	711	3,479	621	95.8	64.8	Q
Currently Unoccupied .....	Q	Q	Q	963	683	Q	Q	Q	Q
<b>Energy Sources (more than one may apply)</b>									
Electricity .....	1,409	3,234	1,090	18,788	35,920	11,007	75.0	90.0	99.0
Natural Gas .....	1,077	2,464	914	13,063	24,386	8,076	82.5	101.0	113.2
Fuel Oil .....	332	890	265	3,588	7,590	2,108	92.4	117.2	125.8
District Heat .....	320	467	Q	2,338	2,876	677	136.9	162.3	Q
District Chilled Water .....	107	246	Q	794	1,550	407	134.5	158.6	Q
Propane .....	63	246	Q	1,410	3,586	1,295	44.5	68.7	Q
Other .....	74	95	Q	765	1,204	353	96.6	78.7	Q
<b>Space-Heating Energy Sources (more than one may apply)</b>									
Electricity .....	550	1,531	552	7,313	19,045	5,933	75.2	80.4	93.1
Natural Gas .....	877	1,968	709	11,297	19,947	6,658	77.6	98.7	106.5
Fuel Oil .....	172	311	38	2,309	2,870	432	74.6	108.3	87.4
District Heat .....	317	420	Q	2,309	2,726	499	137.4	154.2	Q
Propane .....	24	75	Q	706	1,414	608	34.0	53.0	Q
Other .....	Q	Q	Q	382	474	Q	Q	Q	Q



**Table C8. Consumption and Gross Energy Intensity by Year Constructed for Sum of Major Fuels, 1999**

	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 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
<b>Primary Space-Heating</b>									
<b>Energy Source</b>									
Electricity .....	187	809	350	2,769	11,150	3,708	67.4	72.6	94.5
Natural Gas .....	791	1,675	597	10,205	16,847	5,677	77.5	99.4	105.2
Fuel Oil .....	114	137	Q	1,753	1,707	Q	65.2	80.5	Q
District Heat .....	283	385	Q	2,151	2,497	428	131.3	154.4	Q
Propane .....	12	48	Q	519	1,074	514	23.4	44.7	Q
Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Cooling Energy Sources (more than one may apply)</b>									
Electricity .....	1,133	2,832	973	14,026	31,749	9,770	80.8	89.2	99.6
Natural Gas .....	Q	118	Q	470	1,028	416	Q	114.8	Q
District Chilled Water .....	107	246	Q	794	1,550	407	134.5	158.6	Q
<b>Water-Heating Energy Sources (more than one may apply)</b>									
Electricity .....	324	1,093	418	4,820	14,952	4,399	67.1	73.1	95.1
Natural Gas .....	713	1,657	591	8,411	15,573	5,211	84.7	106.4	113.4
Fuel Oil .....	77	135	Q	971	1,049	Q	79.3	128.3	Q
District Heat .....	229	366	Q	1,696	2,109	377	134.8	173.6	Q
Propane .....	Q	67	Q	Q	863	Q	Q	77.7	Q
<b>Cooking Energy Sources (more than one may apply)</b>									
Electricity .....	326	915	279	3,024	8,251	2,458	107.8	110.9	113.5
Natural Gas .....	499	1,035	394	4,690	9,030	3,065	106.3	114.6	128.6
Propane .....	Q	116	Q	287	1,137	330	Q	102.2	Q
<b>Energy End Uses (more than one may apply)</b>									
Buildings with Space Heating .....	1,393	3,065	1,070	17,554	33,448	10,600	79.4	91.6	101.0
Buildings with Cooling .....	1,230	3,053	1,061	14,895	33,224	10,355	82.6	91.9	102.5
Buildings with Water Heating .....	1,243	3,005	1,014	14,928	31,740	9,446	83.3	94.7	107.3
Buildings with Cooking .....	682	1,476	521	6,519	13,759	4,403	104.7	107.2	118.4
Buildings with Manufacturing .....	72	154	51	933	1,709	485	77.1	90.2	105.9
Buildings with Electricity Generation .....	254	890	349	1,992	7,149	2,741	127.7	124.4	127.5
<b>Percent of Floorspace Heated</b>									
Not Heated .....	17	168	Q	2,052	3,190	493	8.2	52.7	Q
1 to 50 .....	95	184	55	2,645	3,749	1,198	35.8	48.9	45.6
51 to 99 .....	235	547	197	3,226	5,742	1,777	72.9	95.3	110.8
100 .....	1,063	2,335	819	11,683	23,957	7,625	91.0	97.5	107.4
<b>Percent of Floorspace Cooled</b>									
Not Cooled .....	179	181	Q	4,711	3,414	739	38.1	52.9	Q
1 to 50 .....	379	528	215	6,241	8,052	2,553	60.7	65.6	84.2
51 to 99 .....	429	978	336	4,052	9,818	3,096	105.9	99.7	108.4
100 .....	423	1,547	510	4,603	15,354	4,706	91.8	100.7	108.4
<b>Percent Lit When Open</b>									
Zero .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50 .....	184	183	Q	4,301	3,928	957	42.8	46.7	Q
51 to 99 .....	564	1,162	266	6,025	11,398	3,242	93.6	101.9	82.2
100 .....	652	1,865	738	7,583	19,981	6,670	86.0	93.3	110.7
Building Never Open/ Electricity Not Used.....	9	Q	Q	1,681	1,220	Q	5.3	Q	Q

**Table C8. Consumption and Gross Energy Intensity by Year Constructed for Sum of Major Fuels, 1999**

	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 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
<b>Percent Lit When Closed</b>									
Zero .....	319	642	209	6,811	10,503	3,458	46.8	61.1	60.6
1 to 50 .....	727	1,512	365	9,247	17,259	4,444	78.6	87.6	82.2
51 to 100 .....	Q	129	129	272	1,134	753	Q	114.0	171.7
Building Never Closed/ Electricity Not Used.....	312	950	386	3,277	7,742	2,438	95.3	122.8	158.3
<b>Heating Equipment (more than one may apply)</b>									
Heat Pumps .....	148	527	187	1,764	5,363	1,796	83.8	98.3	104.2
Furnaces .....	294	569	218	4,847	7,215	2,387	60.7	78.9	91.5
Individual Space Heaters .....	375	766	233	5,366	9,268	2,715	70.0	82.6	85.8
District Heat .....	317	420	Q	2,309	2,726	499	137.4	154.2	Q
Boilers .....	533	1,083	295	6,424	10,620	2,479	83.0	102.0	118.9
Packaged Heating Units .....	358	1,404	606	4,820	15,239	5,684	74.4	92.1	106.6
Other .....	88	189	Q	1,030	2,257	786	85.3	83.6	Q
<b>Cooling Equipment (more than one may apply)</b>									
Residential-Type Central Air Conditioners .....	188	381	103	2,573	4,483	1,274	72.9	85.1	80.5
Heat Pumps .....	153	544	174	1,818	5,624	1,705	84.3	96.7	101.8
Individual Air Conditioners .....	489	572	135	6,113	6,687	1,476	80.1	85.5	91.5
District Chilled Water .....	107	246	Q	794	1,550	407	134.5	158.6	Q
Central Chillers .....	326	951	322	2,567	8,114	2,229	127.0	117.2	144.3
Packaged Air Conditioning Units .....	679	2,009	702	8,037	21,665	6,825	84.5	92.7	102.9
Swamp Coolers .....	Q	141	Q	509	1,371	339	Q	102.5	Q
Other .....	Q	89	Q	254	951	Q	Q	93.4	Q
<b>Main Equipment Replaced Since 1995 (more than one may apply)</b>									
Heating .....	306	702	76	4,160	8,266	794	73.7	85.0	95.5
Cooling .....	464	970	101	5,340	11,107	943	86.9	87.4	106.9
<b>Lighting Equipment Types (more than one may apply)</b>									
Incandescent .....	938	1,975	528	11,393	21,385	5,377	82.3	92.3	98.2
Standard Fluorescent .....	1,319	3,094	988	16,693	33,658	9,993	79.0	91.9	98.9
Compact Fluorescent .....	449	1,292	421	4,483	12,023	4,160	100.2	107.5	101.2
High Intensity Discharge .....	405	1,025	473	4,193	10,566	4,464	96.6	97.0	105.9
Halogen .....	378	1,058	368	3,653	10,699	3,574	103.6	98.9	103.0
Other .....	Q	Q	Q	Q	460	392	Q	Q	Q
<b>Water Heating Equipment</b>									
Centralized System .....	831	1,930	606	10,284	19,732	5,564	80.8	97.8	108.9
Distributed System .....	160	492	Q	2,269	6,505	2,125	70.4	75.6	103.7
Combination of Centralized and Distributed System .....	252	583	187	2,376	5,503	1,758	106.2	105.9	106.6
<b>Commercial Refrigeration Equipment (more than one may apply)</b>									
Any Equipment .....	643	1,645	586	6,180	14,877	4,595	104.1	110.6	127.5
Walk-In Units .....	496	1,407	503	4,071	11,957	3,685	121.9	117.7	136.5
Cases or Cabinets .....	573	1,415	493	5,580	12,458	3,963	102.7	113.6	124.4
None .....	766	1,589	504	13,427	21,761	6,498	57.1	73.0	77.6

**Table C8. Consumption and Gross Energy Intensity by Year Constructed for Sum of Major Fuels, 1999**

	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 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
<b>Personal Computers</b>									
None .....	166	233	Q	4,415	4,071	1,098	37.6	57.4	Q
1 to 4 .....	353	571	154	5,294	6,989	1,569	66.6	81.7	98.3
5 to 9 .....	101	335	148	1,534	3,803	1,191	65.9	88.1	124.4
10 to 19 .....	134	359	134	1,615	4,251	1,647	82.7	84.4	81.0
20 to 49 .....	156	353	145	2,103	4,183	1,801	74.4	84.5	80.4
50 to 99 .....	116	257	Q	1,349	3,243	1,276	86.0	79.2	124.7
100 to 249 .....	121	430	138	1,216	4,356	1,245	99.3	98.7	110.5
250 or More .....	263	695	154	2,079	5,741	1,267	126.7	121.1	121.6
<b>Photocopiers</b>									
None .....	420	834	268	8,278	10,663	2,690	50.8	78.2	99.5
One .....	308	512	217	3,928	6,643	2,358	78.5	77.1	92.1
2 to 4 .....	279	780	245	4,033	8,666	2,921	69.2	90.0	83.7
5 to 9 .....	59	315	157	620	3,390	1,373	95.2	92.8	114.1
10 or More .....	343	793	204	2,747	7,275	1,752	124.9	109.1	116.5
<b>Other Electronic Equipment (more than one may apply)</b>									
Laser Printers .....	983	2,472	901	11,145	26,657	8,765	88.2	92.8	102.8
FAX Machines .....	1,169	2,850	1,024	14,063	30,817	9,883	83.1	92.5	103.7
Medical Diagnostic Equipment .....	76	340	Q	374	1,731	388	202.7	196.4	Q
<b>Energy-Related Space Functions (more than one may apply)</b>									
Commercial Food Preparation .....	642	1,413	492	6,145	13,063	4,120	104.5	108.2	119.5
Activities with Large Amounts of Hot Water .....	578	1,510	452	5,274	12,776	3,743	109.6	118.1	120.8
<b>Building Shell Conservation Features (more than one may apply)</b>									
Multipaned Windows .....	787	2,030	765	9,567	20,611	8,016	82.3	98.5	95.5
Tinted, Reflective, or Shading Glass .....	456	1,772	608	5,252	18,328	6,335	86.7	96.7	95.9
<b>HVAC Conservation Features (more than one may apply)</b>									
Variable Air-Volume System .....	344	1,234	538	3,092	11,623	4,672	111.1	106.1	115.2
Economizer Cycle .....	392	1,439	556	3,541	13,151	4,563	110.6	109.5	121.9
HVAC Maintenance .....	1,167	2,889	1,008	13,569	30,161	9,665	86.0	95.8	104.3
Energy Management and Control System (EMCS) .....	479	1,332	580	4,318	12,221	5,074	111.0	109.0	114.4
<b>Lighting Conservation Features (more than one may apply)</b>									
Specular Reflectors .....	412	1,120	385	4,447	11,436	4,111	92.7	98.0	93.6
Electronic Ballasts .....	904	2,190	807	10,536	23,685	7,815	85.8	92.4	103.3
Skylights or Atriums .....	294	956	369	3,758	10,865	3,664	78.1	88.0	100.8

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

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* HVAC=Heating, Ventilation, and Air Conditioning. \* 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 C9. Total Electricity Consumption and Expenditures, 1999**

	All Buildings Using Electricity			Electricity Consumption			Electricity Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Primary	Site		Total (million dollars)
				Total (trillion Btu)	Total (trillion Btu)	Total (billion kWh)	
<b>All Buildings</b> .....	4,395	65,716	15.0	9,352	3,098	908	66,424
<b>Building Floorspace (Square Feet)</b>							
1,001 to 5,000 .....	2,186	6,280	2.9	1,254	415	122	10,262
5,001 to 10,000 .....	1,036	7,721	7.5	853	283	83	7,146
10,001 to 25,000 .....	688	10,843	15.8	1,118	370	109	8,663
25,001 to 50,000 .....	253	9,175	36.3	1,121	371	109	8,188
50,001 to 100,000 .....	143	10,034	70.0	1,491	494	145	10,023
100,001 to 200,000 .....	59	8,246	139.5	1,361	451	132	8,555
200,001 to 500,000 .....	23	6,790	296.0	1,028	340	100	6,432
Over 500,000 .....	7	6,628	929.0	1,127	373	109	7,155
<b>Principal Building Activity</b>							
Education .....	327	8,651	26.4	777	257	75	5,820
Food Sales .....	173	993	5.7	498	165	48	3,359
Food Service .....	349	1,851	5.3	653	216	63	5,082
Health Care .....	127	2,918	22.9	701	232	68	4,268
Inpatient .....	11	1,865	168.2	520	172	51	2,948
Outpatient .....	116	1,053	9.1	181	60	18	1,320
Lodging .....	153	4,521	29.5	591	196	57	4,266
Mercantile .....	667	10,398	15.6	1,573	521	153	11,851
Retail (Other Than Mall) .....	534	4,766	8.9	666	221	65	5,166
Enclosed and Strip Malls .....	133	5,631	42.2	907	301	88	6,685
Office .....	738	12,043	16.3	2,314	767	225	15,683
Public Assembly .....	299	4,340	14.5	577	191	56	3,983
Public Order and Safety .....	64	1,030	16.0	122	40	12	805
Religious Worship .....	307	3,405	11.1	126	42	12	1,041
Service .....	472	3,358	7.1	417	138	41	3,108
Warehouse and Storage .....	496	9,879	19.9	664	220	64	4,829
Other .....	98	1,217	12.4	306	101	30	2,063
Vacant .....	123	1,112	9.0	31	10	3	265
<b>Year Constructed</b>							
1919 or Before .....	363	3,714	10.2	275	91	27	2,170
1920 to 1945 .....	480	6,281	13.1	556	184	54	4,174
1946 to 1959 .....	716	8,794	12.3	934	310	91	6,989
1960 to 1969 .....	628	10,686	17.0	1,413	468	137	10,250
1970 to 1979 .....	758	11,750	15.5	1,875	621	182	13,461
1980 to 1989 .....	781	13,485	17.3	2,280	755	221	15,777
1990 to 1999 .....	669	11,007	16.5	2,020	669	196	13,604
<b>Census Region and Division</b>							
Northeast .....	639	11,964	18.7	1,638	543	159	15,133
New England .....	190	3,615	19.0	399	132	39	3,783
Middle Atlantic .....	449	8,349	18.6	1,239	411	120	11,351
Midwest .....	1,113	16,389	14.7	2,000	662	194	12,933
East North Central .....	730	10,940	15.0	1,296	429	126	8,798
West North Central .....	383	5,449	14.2	704	233	68	4,135
South .....	1,689	23,076	13.7	3,766	1,247	366	23,275
South Atlantic .....	711	10,817	15.2	1,851	613	180	11,968
East South Central .....	383	5,149	13.4	817	271	79	4,830
West South Central .....	595	7,110	11.9	1,098	364	107	6,476
West .....	954	14,287	15.0	1,948	645	189	15,083
Mountain .....	275	4,292	15.6	530	175	51	3,365
Pacific .....	679	9,995	14.7	1,418	470	138	11,718

**Table C9. Total Electricity Consumption and Expenditures, 1999**

	All Buildings Using Electricity			Electricity Consumption			Electricity Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Primary	Site		Total (million dollars)
				Total (trillion Btu)	Total (trillion Btu)	Total (billion kWh)	
<b>Climate Zone: 45-Year Average</b>							
Under 2,000 CDD and --							
More than 7,000 HDD .....	491	5,750	11.7	665	220	65	4,505
5,500-7,000 HDD .....	924	16,706	18.1	2,027	671	197	15,163
4,000-5,499 HDD .....	1,029	15,792	15.4	2,385	790	232	17,164
Fewer than 4,000 HDD .....	1,070	15,922	14.9	2,496	827	242	17,847
2,000 CDD or More and --							
Fewer than 4,000 HDD .....	882	11,546	13.1	1,779	589	173	11,745
<b>Workers (main shift)</b>							
Fewer than 5 .....	2,121	12,750	6.0	1,009	334	98	8,046
5 to 9 .....	800	6,274	7.8	654	217	64	5,462
10 to 19 .....	683	8,028	11.8	1,055	350	102	8,439
20 to 49 .....	487	10,814	22.2	1,530	507	149	11,068
50 to 99 .....	174	8,898	51.1	1,260	418	122	9,122
100 to 249 .....	90	8,356	92.4	1,534	508	149	9,683
250 or More .....	39	10,595	270.0	2,309	765	224	14,604
<b>Weekly Operating Hours</b>							
39 or Fewer .....	770	5,314	6.9	205	68	20	1,717
40 to 48 .....	1,147	13,070	11.4	1,169	387	114	8,799
49 to 60 .....	980	14,186	14.5	1,754	581	170	12,980
61 to 84 .....	649	12,381	19.1	1,776	588	172	13,082
85 to 167 .....	459	8,930	19.5	1,833	607	178	13,107
Open Continuously .....	390	11,835	30.3	2,614	866	254	16,739
<b>Ownership and Occupancy</b>							
Nongovernment Owned .....	3,898	53,640	13.8	7,651	2,534	743	55,086
Owner Occupied .....	2,747	37,506	13.7	5,455	1,807	530	38,540
Nonowner Occupied .....	1,069	15,441	14.4	2,173	720	211	16,358
Unoccupied .....	Q	693	Q	Q	Q	Q	Q
Government Owned .....	498	12,076	24.3	1,701	563	165	11,338
Federal .....	54	1,711	31.9	370	123	36	2,195
State .....	83	3,382	40.8	484	160	47	3,189
Local .....	361	6,983	19.3	846	280	82	5,955
<b>Vacancy Status</b>							
Completely Vacant .....	Q	Q	Q	Q	Q	Q	Q
Mostly Vacant .....	79	756	9.5	13	4	1	121
Partially Vacant .....	636	15,093	23.7	1,955	648	190	13,761
Not At All Vacant .....	3,636	49,511	13.6	7,366	2,440	715	52,397
<b>Number of Establishments</b>							
One .....	3,437	42,839	12.5	6,102	2,021	592	43,175
2 to 5 .....	680	10,442	15.3	1,294	429	126	9,297
6 to 10 .....	113	3,568	31.5	611	202	59	4,492
11 to 20 .....	48	3,260	68.0	555	184	54	3,846
More than 20 .....	27	4,809	178.1	764	253	74	5,402
Currently Unoccupied .....	90	797	8.9	26	9	3	211
<b>Energy Sources (more than one may apply)</b>							
Electricity .....	4,395	65,716	15.0	9,352	3,098	908	66,424
Natural Gas .....	2,663	45,496	17.1	6,616	2,191	642	46,431
Fuel Oil .....	434	13,277	30.6	2,331	772	226	15,165
District Heat .....	117	5,891	50.2	1,083	359	105	6,841
District Chilled Water .....	50	2,750	55.4	571	189	55	3,224
Propane .....	451	6,290	14.0	791	262	77	6,286
Other .....	153	2,322	15.2	341	113	33	2,512

**Table C9. Total Electricity Consumption and Expenditures, 1999**

	All Buildings Using Electricity			Electricity Consumption			Electricity Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Primary	Site		Total (million dollars)
				Total (trillion Btu)	Total (trillion Btu)	Total (billion kWh)	
<b>Space-Heating Energy Source</b>							
Electricity .....	1,880	32,291	17.2	5,135	1,701	499	35,332
Electricity Main .....	1,128	17,627	15.6	3,114	1,031	302	21,622
Electricity Secondary .....	752	14,664	19.5	2,021	670	196	13,710
Other Excluding Electricity .....	2,128	29,274	13.8	3,815	1,264	370	27,832
Buildings without Heating .....	387	4,151	10.7	402	133	39	3,261
<b>Primary Space-Heating Energy Source</b>							
Electricity .....	1,128	17,627	15.6	3,114	1,031	302	21,622
Natural Gas .....	2,182	32,701	15.0	4,353	1,442	423	30,654
Fuel Oil .....	302	3,711	12.3	305	101	30	2,923
District Heat .....	77	5,077	66.0	928	308	90	5,784
Propane .....	282	2,107	7.5	216	72	21	1,960
Other .....	Q	Q	Q	Q	Q	Q	Q
<b>Cooling Energy Source</b>							
Electricity .....	3,450	55,545	16.1	8,503	2,816	825	60,281
Other Excluding Electricity .....	109	2,929	26.8	543	180	53	3,564
Buildings without Cooling .....	836	7,242	8.7	306	101	30	2,579
<b>Water-Heating Energy Source</b>							
Electricity .....	1,546	24,171	15.6	3,896	1,290	378	27,581
Other Excluding Electricity .....	1,693	31,943	18.9	4,689	1,553	455	33,293
Buildings without Water Heating .....	1,157	9,601	8.3	767	254	74	5,550
<b>Cooking Energy Source</b>							
Electricity .....	437	13,733	31.4	2,811	931	273	18,252
Other Excluding Electricity .....	420	10,948	26.1	1,729	573	168	12,621
Buildings without Cooking .....	3,538	41,035	11.6	4,812	1,594	467	35,551
<b>Energy End Uses (more than one may apply)</b>							
Buildings with Space Heating .....	4,008	61,565	15.4	8,950	2,965	869	63,164
Buildings with Cooling .....	3,560	58,474	16.4	9,046	2,996	878	63,845
Buildings with Water Heating .....	3,239	56,115	17.3	8,585	2,844	833	60,875
Buildings with Cooking .....	857	24,681	28.8	4,540	1,504	441	30,873
Buildings with Manufacturing .....	151	3,126	20.7	449	149	44	3,060
Buildings with Electricity Generation .....	172	11,882	69.3	2,525	836	245	15,509
<b>Percent of Floorspace Heated</b>							
Not Heated .....	387	4,151	10.7	402	133	39	3,261
1 to 50 .....	569	7,564	13.3	576	191	56	4,533
51 to 99 .....	626	10,737	17.1	1,683	557	163	11,384
100 .....	2,813	43,264	15.4	6,691	2,216	650	47,247
<b>Percent of Floorspace Cooled</b>							
Not Cooled .....	836	7,242	8.7	306	101	30	2,579
1 to 50 .....	1,012	16,846	16.6	1,315	436	128	10,363
51 to 99 .....	751	16,966	22.6	3,026	1,002	294	20,141
100 .....	1,796	24,662	13.7	4,705	1,559	457	33,342
<b>Percent Lit When Open</b>							
Zero .....	Q	Q	Q	Q	Q	Q	Q
1 to 50 .....	835	9,187	11.0	672	223	65	5,396
51 to 99 .....	1,228	20,665	16.8	3,034	1,005	295	21,574
100 .....	2,096	34,233	16.3	5,594	1,853	543	39,065
Building Never Open/ Electricity Not Used .....	202	1,458	7.2	41	14	4	319

**Table C9. Total Electricity Consumption and Expenditures, 1999**

	All Buildings Using Electricity			Electricity Consumption			Electricity Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Primary	Site		Total (million dollars)
				Total (trillion Btu)	Total (trillion Btu)	Total (billion kWh)	
<b>Percent Lit When Closed</b>							
Zero .....	2,174	20,771	9.6	1,772	587	172	14,034
1 to 50 .....	1,688	30,950	18.3	4,413	1,462	428	31,794
51 to 100 .....	143	2,160	15.1	553	183	54	3,857
Building Never Closed/ Electricity Not Used .....	390	11,835	30.3	2,614	866	254	16,739
<b>Heating Equipment (more than one may apply)</b>							
Heat Pumps .....	492	8,923	18.1	1,557	516	151	10,243
Furnaces .....	1,460	14,449	9.9	1,435	475	139	10,722
Individual Space Heaters .....	886	17,321	19.5	2,215	734	215	15,110
District Heat .....	96	5,534	57.7	1,022	339	99	6,432
Boilers .....	581	19,514	33.6	2,755	912	267	18,848
Packaged Heating Units .....	1,347	25,743	19.1	4,435	1,469	431	31,069
Other .....	185	4,073	22.1	691	229	67	4,400
<b>Cooling Equipment (more than one may apply)</b>							
Residential-Type Central							
Air Conditioners .....	676	8,329	12.3	1,037	343	101	7,113
Heat Pumps .....	485	9,147	18.8	1,574	521	153	10,416
Individual Air Conditioners .....	799	14,276	17.9	1,642	544	159	11,793
District Chilled Water .....	50	2,750	55.4	571	189	55	3,224
Central Chillers .....	130	12,909	99.7	2,723	902	264	17,041
Packaged Air Conditioning							
Units .....	1,953	36,527	18.7	6,024	1,995	585	43,059
Swamp Coolers .....	136	2,219	16.3	308	102	30	2,238
Other .....	49	1,312	26.7	247	82	24	1,580
<b>Main Equipment Replaced Since 1995 (more than one may apply)</b>							
Heating .....	984	13,220	13.4	1,880	623	182	13,421
Cooling .....	1,085	17,390	16.0	2,609	864	253	18,381
<b>Lighting Equipment Types (more than one may apply)</b>							
Incandescent .....	2,193	38,156	17.4	5,591	1,852	543	39,345
Standard Fluorescent .....	3,778	60,344	16.0	8,872	2,939	861	62,616
Compact Fluorescent .....	607	20,666	34.1	3,613	1,197	351	24,269
High Intensity Discharge .....	430	19,223	44.8	3,088	1,023	300	19,743
Halogen .....	572	17,926	31.3	3,014	998	293	20,656
Other .....	58	1,004	17.5	179	59	17	1,235
<b>Water Heating Equipment</b>							
Centralized System .....	2,472	35,579	14.4	5,164	1,710	501	38,010
Distributed System .....	566	10,899	19.3	1,610	533	156	11,383
Combination of Centralized and Distributed System .....	200	9,637	48.1	1,811	600	176	11,481
<b>Commercial Refrigeration Equipment (more than one may apply)</b>							
Any Equipment .....	950	25,652	27.0	4,997	1,655	485	34,282
Walk-In Units .....	658	19,713	29.9	4,186	1,386	406	28,489
Cases or Cabinets .....	820	22,001	26.8	4,370	1,448	424	30,056
None .....	3,445	40,064	11.6	4,355	1,442	423	32,142

**Table C9. Total Electricity Consumption and Expenditures, 1999**

	All Buildings Using Electricity			Electricity Consumption			Electricity Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Primary	Site		Total (million dollars)
				Total (trillion Btu)	Total (trillion Btu)	Total (billion kWh)	
<b>Personal Computers</b>							
None .....	1,355	7,961	5.9	584	193	57	4,762
1 to 4 .....	1,636	13,853	8.5	1,678	556	163	13,009
5 to 9 .....	542	6,528	12.0	927	307	90	6,947
10 to 19 .....	403	7,514	18.7	992	329	96	7,747
20 to 49 .....	247	8,087	32.7	1,153	382	112	8,162
50 to 99 .....	105	5,867	55.9	803	266	78	5,601
100 to 249 .....	71	6,818	96.0	1,240	411	120	7,675
250 or More .....	36	9,088	252.4	1,974	654	192	12,521
<b>Photocopiers</b>							
None .....	2,564	20,009	7.8	2,242	743	218	17,615
One .....	1,114	12,928	11.6	1,741	577	169	12,840
2 to 4 .....	540	15,620	28.9	2,059	682	200	14,526
5 to 9 .....	102	5,384	52.6	857	284	83	5,626
10 or More .....	75	11,774	156.7	2,453	813	238	15,816
<b>Other Electronic Equipment (more than one may apply)</b>							
Laser Printers .....	1,949	46,567	23.9	7,396	2,450	718	51,039
FAX Machines .....	2,807	54,764	19.5	8,505	2,817	826	59,661
Medical Diagnostic Equipment .....	86	2,493	29.1	637	211	62	3,775
<b>Annual Consumption (kilowatthours)</b>							
10,000 or Less .....	747	3,216	4.3	38	13	4	426
10,001 to 50,000 .....	1,578	9,239	5.9	418	138	41	3,856
50,001 to 100,000 .....	743	7,001	9.4	560	185	54	4,920
100,001 to 500,000 .....	1,042	16,811	16.1	2,408	798	234	18,923
500,001 to 1,000,000 .....	141	6,966	49.4	1,024	339	99	7,526
1,000,001 to 5,000,000 .....	125	13,661	109.2	2,650	878	257	17,233
Over 5,000,000 .....	19	8,823	475.8	2,254	747	219	13,542
<b>Provider of Purchased Electricity (more than one may apply)</b>							
Local Utility .....	4,224	62,043	14.7	8,687	2,877	843	61,536
Some Other Provider .....	140	3,101	22.1	525	174	51	4,024

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

Notes: \* 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 electric generation process at the utility plant. \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* 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 C10. Electricity Consumption and Expenditure Intensities, 1999**

	Electricity Consumption						Electricity Expenditures		
	per Building (thousand kWh)	per Square Foot (kWh)	per Worker (thousand kWh)	Distribution of Building-Level Intensities (kWh/square foot)			per Building (thousand dollars)	per Square Foot (dollars)	per kWh (dollars)
				25th Percentile	Median	75th Percentile			
<b>All Buildings</b> .....	207	13.8	11.1	3.5	7.8	16.9	15.1	1.01	0.073
<b>Building Floorspace (Square Feet)</b>									
1,001 to 5,000 .....	56	19.4	11.0	4.1	8.6	22.0	4.7	1.63	0.084
5,001 to 10,000 .....	80	10.7	7.6	2.3	6.5	13.2	6.9	0.93	0.086
10,001 to 25,000 .....	158	10.0	9.5	3.1	6.3	13.3	12.6	0.80	0.080
25,001 to 50,000 .....	430	11.9	11.8	3.6	8.3	16.1	32.4	0.89	0.075
50,001 to 100,000 .....	1,009	14.4	11.3	4.9	9.9	18.9	69.9	1.00	0.069
100,001 to 200,000 .....	2,234	16.0	14.9	6.0	12.6	22.2	144.7	1.04	0.065
200,001 to 500,000 .....	4,349	14.7	11.3	5.1	10.0	20.4	280.4	0.95	0.064
Over 500,000 .....	15,332	16.5	12.6	8.9	13.6	20.6	1,003.0	1.08	0.065
<b>Principal Building Activity</b>									
Education .....	230	8.7	8.5	4.1	6.6	9.3	17.8	0.67	0.077
Food Sales .....	279	48.7	49.5	39.2	58.9	122.1	19.4	3.38	0.069
Food Service .....	182	34.2	15.7	13.9	28.7	57.3	14.6	2.75	0.080
Health Care .....	535	23.3	10.9	5.8	11.3	15.5	33.6	1.46	0.063
Inpatient .....	4,556	27.1	15.1	15.5	21.5	29.3	265.8	1.58	0.058
Outpatient .....	151	16.7	6.1	5.4	9.7	15.0	11.4	1.25	0.075
Lodging .....	375	12.7	24.4	7.5	12.6	17.3	27.9	0.94	0.074
Mercantile .....	229	14.7	13.4	4.3	8.9	16.8	17.8	1.14	0.078
Retail (Other Than Mall) .....	121	13.6	13.9	4.1	8.0	15.3	9.7	1.08	0.080
Enclosed and Strip Malls .....	660	15.6	13.1	5.9	14.5	26.7	50.1	1.19	0.076
Office .....	304	18.7	7.8	6.0	11.7	17.9	21.2	1.30	0.070
Public Assembly .....	187	12.9	17.8	3.2	6.8	11.6	13.3	0.92	0.071
Public Order and Safety .....	184	11.5	7.0	1.8	4.1	9.6	12.5	0.78	0.068
Religious Worship .....	40	3.6	7.4	1.1	2.5	4.2	3.4	0.31	0.085
Service .....	86	12.1	8.9	3.3	6.1	11.9	6.6	0.93	0.077
Warehouse and Storage .....	130	6.5	10.5	1.3	3.0	7.0	9.7	0.49	0.075
Other .....	302	24.4	20.4	3.3	13.8	22.0	21.0	1.69	0.069
Vacant .....	25	2.7	Q	0.3	0.9	4.7	2.2	0.24	0.087
<b>Year Constructed</b>									
1919 or Before .....	73	7.2	6.8	2.1	4.2	9.6	6.0	0.58	0.081
1920 to 1945 .....	112	8.6	9.1	2.0	5.0	11.3	8.7	0.66	0.077
1946 to 1959 .....	127	10.3	9.2	2.3	5.8	12.6	9.8	0.79	0.077
1960 to 1969 .....	218	12.8	10.6	3.9	9.3	20.9	16.3	0.96	0.075
1970 to 1979 .....	240	15.5	11.5	4.3	9.1	19.9	17.7	1.15	0.074
1980 to 1989 .....	283	16.4	11.2	4.9	11.2	21.0	20.2	1.17	0.071
1990 to 1999 .....	293	17.8	14.4	3.7	8.6	21.8	20.3	1.24	0.069
<b>Census Region and Division</b>									
Northeast .....	249	13.3	11.1	2.5	6.5	14.8	23.7	1.26	0.095
New England .....	203	10.7	10.0	2.6	6.9	11.6	19.9	1.05	0.098
Middle Atlantic .....	268	14.4	11.5	2.5	6.5	16.6	25.3	1.36	0.094
Midwest .....	174	11.8	10.6	2.5	5.6	12.1	11.6	0.79	0.067
East North Central .....	172	11.5	10.8	2.6	5.9	11.6	12.1	0.80	0.070
West North Central .....	178	12.5	10.3	2.1	4.8	13.0	10.8	0.76	0.061
South .....	216	15.8	12.5	4.1	9.7	22.1	13.8	1.01	0.064
South Atlantic .....	253	16.6	12.8	3.7	9.1	19.6	16.8	1.11	0.067
East South Central .....	207	15.4	13.4	5.0	11.9	24.1	12.6	0.94	0.061
West South Central .....	179	15.0	11.6	3.3	8.7	24.1	10.9	0.91	0.061
West .....	198	13.2	9.5	3.9	7.7	16.4	15.8	1.06	0.080
Mountain .....	187	12.0	9.9	2.8	6.9	16.1	12.2	0.78	0.065
Pacific .....	203	13.8	9.4	4.1	8.1	16.4	17.3	1.17	0.085

**Table C10. Electricity Consumption and Expenditure Intensities, 1999**

	Electricity Consumption						Electricity Expenditures		
	per Building (thousand kWh)	per Square Foot (kWh)	per Worker (thousand kWh)	Distribution of Building-Level Intensities (kWh/square foot)			per Building (thousand dollars)	per Square Foot (dollars)	per kWh (dollars)
				25th Percentile	Median	75th Percentile			
<b>Climate Zone: 45-Year Average</b>									
Under 2,000 CDD and --									
More than 7,000 HDD .....	132	11.2	11.0	3.0	6.2	13.4	9.2	0.78	0.070
5,500-7,000 HDD .....	213	11.8	10.7	2.5	5.7	13.0	16.4	0.91	0.077
4,000-5,499 HDD .....	225	14.7	10.5	3.2	7.2	15.8	16.7	1.09	0.074
Fewer than 4,000 HDD .....	226	15.2	11.5	4.6	9.3	20.4	16.7	1.12	0.074
2,000 CDD or More and --									
Fewer than 4,000 HDD .....	196	15.0	12.0	3.3	9.8	22.1	13.3	1.02	0.068
<b>Workers (main shift)</b>									
Fewer than 5 .....	46	7.7	23.2	2.0	4.8	12.3	3.8	0.63	0.082
5 to 9 .....	79	10.1	12.1	4.2	8.5	14.7	6.8	0.87	0.086
10 to 19 .....	150	12.8	11.9	5.7	9.9	20.9	12.4	1.05	0.082
20 to 49 .....	305	13.7	10.5	6.4	13.1	24.5	22.7	1.02	0.075
50 to 99 .....	703	13.8	10.7	7.0	13.6	22.9	52.4	1.03	0.075
100 to 249 .....	1,646	17.8	11.8	10.4	14.5	25.0	107.0	1.16	0.065
250 or More .....	5,712	21.2	8.8	13.8	20.7	29.4	372.1	1.38	0.065
<b>Weekly Operating Hours</b>									
39 or Fewer .....	26	3.8	5.7	0.8	2.4	5.1	2.2	0.32	0.086
40 to 48 .....	99	8.7	7.3	2.7	6.4	13.0	7.7	0.67	0.078
49 to 60 .....	174	12.0	8.2	4.0	7.7	14.7	13.2	0.91	0.076
61 to 84 .....	266	13.9	10.7	6.2	11.6	23.7	20.1	1.06	0.076
85 to 167 .....	388	19.9	16.5	11.6	29.6	56.7	28.6	1.47	0.074
Open Continuously .....	651	21.4	16.9	6.2	13.7	33.6	42.9	1.41	0.066
<b>Ownership and Occupancy</b>									
Nongovernment Owned .....									
Owner Occupied .....	191	13.8	11.0	3.3	7.6	16.9	14.1	1.03	0.074
Nonowner Occupied .....	193	14.1	11.4	3.3	7.6	16.2	14.0	1.03	0.073
Unoccupied .....	197	13.7	9.9	3.9	8.7	19.4	15.3	1.06	0.078
Unoccupied .....	Q	3.2	N	0.2	0.3	3.0	Q	0.27	0.085
Government Owned .....									
Federal .....	332	13.7	11.7	4.8	8.4	16.7	22.8	0.94	0.069
State .....	669	21.0	12.5	8.3	18.1	42.8	40.9	1.28	0.061
Local .....	568	13.9	13.2	6.4	12.9	17.9	38.5	0.94	0.068
Local .....	228	11.8	10.8	4.3	8.0	13.4	16.5	0.85	0.072
<b>Vacancy Status</b>									
Completely Vacant .....	Q	Q	N	0.2	0.9	4.7	Q	Q	Q
Mostly Vacant .....	16	1.7	Q	0.3	0.8	2.8	1.5	0.16	0.094
Partially Vacant .....	298	12.6	9.3	1.9	5.3	13.5	21.6	0.91	0.072
Not At All Vacant .....	197	14.4	11.7	3.9	8.4	18.3	14.4	1.06	0.073
<b>Number of Establishments</b>									
One .....	172	13.8	12.2	3.5	7.8	17.3	12.6	1.01	0.073
2 to 5 .....	185	12.0	10.1	3.7	8.2	13.7	13.7	0.89	0.074
6 to 10 .....	524	16.6	9.0	5.3	13.6	24.6	39.6	1.26	0.076
11 to 20 .....	1,124	16.5	9.0	4.0	13.9	21.0	80.2	1.18	0.071
More than 20 .....	2,746	15.4	9.0	3.2	10.5	18.9	200.1	1.12	0.073
Currently Unoccupied .....	Q	3.2	N	0.2	0.3	4.7	Q	0.26	0.083
<b>Energy Sources (more than one may apply)</b>									
Electricity .....	207	13.8	11.1	3.5	7.8	16.9	15.1	1.01	0.073
Natural Gas .....	241	14.1	11.4	3.8	8.2	16.6	17.4	1.02	0.072
Fuel Oil .....	522	17.0	11.6	2.7	5.7	12.6	35.0	1.14	0.067
District Heat .....	895	17.8	12.1	6.6	10.3	16.8	58.3	1.16	0.065
District Chilled Water .....	1,118	20.2	12.0	6.6	8.3	16.4	65.0	1.17	0.058
Propane .....	170	12.2	12.1	2.3	7.1	17.4	13.9	1.00	0.082
Other .....	217	14.3	9.7	4.2	8.0	24.5	16.5	1.08	0.076

**Table C10. Electricity Consumption and Expenditure Intensities, 1999**

	Electricity Consumption						Electricity Expenditures		
	per Building (thousand kWh)	per Square Foot (kWh)	per Worker (thousand kWh)	Distribution of Building-Level Intensities (kWh/square foot)			per Building (thousand dollars)	per Square Foot (dollars)	per kWh (dollars)
				25th Percentile	Median	75th Percentile			
<b>Space-Heating Energy Source</b>									
Electricity .....	265	15.4	11.5	4.9	9.7	19.9	18.8	1.09	0.071
Electricity Main .....	268	17.1	11.9	6.2	13.6	25.2	19.2	1.23	0.072
Electricity Secondary .....	261	13.4	11.0	3.4	6.8	12.6	18.2	0.93	0.070
Other Excluding Electricity .....	174	12.7	10.6	3.1	6.5	14.2	13.1	0.95	0.075
Buildings without Heating .....	101	9.4	10.6	0.8	3.6	13.8	8.4	0.79	0.084
<b>Primary Space-Heating Energy Source</b>									
Electricity .....	268	17.1	11.9	6.2	13.6	25.2	19.2	1.23	0.072
Natural Gas .....	194	12.9	10.8	3.6	7.1	14.2	14.1	0.94	0.073
Fuel Oil .....	98	8.0	7.0	2.0	4.8	9.6	9.7	0.79	0.099
District Heat .....	1,173	17.8	12.9	6.1	9.5	16.3	75.2	1.14	0.064
Propane .....	75	10.0	11.0	1.5	5.7	16.7	7.0	0.93	0.093
Other .....	Q	Q	Q	0.8	1.6	4.8	Q	Q	Q
<b>Cooling Energy Source</b>									
Electricity .....	239	14.9	11.3	4.3	9.3	19.0	17.5	1.09	0.073
Other Excluding Electricity .....	483	18.0	11.5	8.9	14.1	35.5	32.6	1.22	0.068
Buildings without Cooling .....	36	4.1	6.7	0.8	2.5	5.0	3.1	0.36	0.087
<b>Water-Heating Energy Source</b>									
Electricity .....	245	15.6	11.3	5.0	11.1	22.4	17.8	1.14	0.073
Other Excluding Electricity .....	269	14.3	11.4	3.8	9.3	20.1	19.7	1.04	0.073
Buildings without Water Heating .....	64	7.8	8.9	1.4	3.9	8.3	4.8	0.58	0.075
<b>Cooking Energy Source</b>									
Electricity .....	624	19.9	14.9	8.5	19.9	57.3	41.7	1.33	0.067
Other Excluding Electricity .....	400	15.3	12.7	5.3	13.8	26.8	30.0	1.15	0.075
Buildings without Cooking .....	132	11.4	9.3	3.0	6.5	14.1	10.0	0.87	0.076
<b>Energy End Uses (more than one may apply)</b>									
Buildings with Space Heating .....	217	14.1	11.1	3.7	8.2	17.2	15.8	1.03	0.073
Buildings with Cooling .....	247	15.0	11.4	4.4	9.6	19.5	17.9	1.09	0.073
Buildings with Water Heating .....	257	14.9	11.4	4.5	9.9	21.0	18.8	1.08	0.073
Buildings with Cooking .....	514	17.9	13.9	7.2	15.8	39.2	36.0	1.25	0.070
Buildings with Manufacturing .....	288	13.9	10.0	3.2	7.2	13.4	20.2	0.98	0.070
Buildings with Electricity Generation .....	1,429	20.6	13.0	7.3	12.6	29.3	90.4	1.31	0.063
<b>Percent of Floorspace Heated</b>									
Not Heated .....	101	9.4	10.6	0.8	3.6	13.8	8.4	0.79	0.084
1 to 50 .....	98	7.4	10.7	1.9	4.1	8.5	8.0	0.60	0.081
51 to 99 .....	261	15.2	12.5	3.5	8.8	23.8	18.2	1.06	0.070
100 .....	231	15.0	10.9	4.3	8.9	18.4	16.8	1.09	0.073
<b>Percent of Floorspace Cooled</b>									
Not Cooled .....	36	4.1	6.7	0.8	2.5	5.0	3.1	0.36	0.087
1 to 50 .....	126	7.6	9.0	2.4	5.3	10.0	10.2	0.62	0.081
51 to 99 .....	391	17.3	12.3	5.0	12.5	25.2	26.8	1.19	0.069
100 .....	254	18.5	11.6	5.9	12.8	24.1	18.6	1.35	0.073
<b>Percent Lit When Open</b>									
Zero .....	Q	Q	Q	0.8	3.5	8.4	Q	Q	Q
1 to 50 .....	78	7.1	13.3	1.9	4.0	10.8	6.5	0.59	0.083
51 to 99 .....	240	14.3	10.3	4.2	8.7	17.7	17.6	1.04	0.073
100 .....	259	15.9	11.3	4.8	9.4	20.9	18.6	1.14	0.072
Building Never Open/ Electricity Not Used .....	20	2.8	Q	0.2	0.6	2.4	1.6	0.22	0.079

**Table C10. Electricity Consumption and Expenditure Intensities, 1999**

	Electricity Consumption						Electricity Expenditures		
	per Building (thousand kWh)	per Square Foot (kWh)	per Worker (thousand kWh)	Distribution of Building-Level Intensities (kWh/square foot)			per Building (thousand dollars)	per Square Foot (dollars)	per kWh (dollars)
				25th Percentile	Median	75th Percentile			
<b>Percent Lit When Closed</b>									
Zero .....	79	8.3	7.9	2.0	4.9	10.4	6.5	0.68	0.082
1 to 50 .....	254	13.8	10.2	5.1	10.9	22.1	18.8	1.03	0.074
51 to 100 .....	374	24.9	17.3	10.6	22.5	44.0	26.9	1.79	0.072
Building Never Closed/ Electricity Not Used .....	651	21.4	16.9	6.2	13.7	33.6	42.9	1.41	0.066
<b>Heating Equipment (more than one may apply)</b>									
Heat Pumps .....	307	16.9	12.0	7.3	13.7	24.7	20.8	1.15	0.068
Furnaces .....	95	9.6	8.8	2.7	5.6	12.8	7.3	0.74	0.077
Individual Space Heaters .....	243	12.4	11.2	2.6	5.7	12.9	17.0	0.87	0.070
District Heat .....	1,034	17.9	12.2	6.4	9.3	17.5	67.0	1.16	0.065
Boilers .....	461	13.7	11.0	3.5	7.2	12.6	32.5	0.97	0.070
Packaged Heating Units .....	320	16.7	13.4	5.7	11.7	24.1	23.1	1.21	0.072
Other .....	364	16.5	9.6	3.2	7.2	17.4	23.8	1.08	0.066
<b>Cooling Equipment (more than one may apply)</b>									
Residential-Type Central									
Air Conditioners .....	149	12.1	9.9	3.7	7.2	15.4	10.5	0.85	0.071
Heat Pumps .....	315	16.7	11.3	7.8	13.6	24.7	21.5	1.14	0.068
Individual Air Conditioners .....	200	11.2	9.6	3.5	6.9	13.0	14.8	0.83	0.074
District Chilled Water .....	1,118	20.2	12.0	6.6	8.3	16.4	65.0	1.17	0.058
Central Chillers .....	2,041	20.5	12.2	8.6	16.0	29.8	131.6	1.32	0.064
Packaged Air Conditioning									
Units .....	300	16.0	12.1	5.3	11.2	23.6	22.1	1.18	0.074
Swamp Coolers .....	220	13.5	12.3	2.6	7.7	22.5	16.5	1.01	0.075
Other .....	487	18.2	13.0	3.9	8.1	16.7	32.1	1.20	0.066
<b>Main Equipment Replaced Since 1995 (more than one may apply)</b>									
Heating .....	185	13.8	10.8	4.2	8.5	18.6	13.6	1.02	0.074
Cooling .....	233	14.6	10.9	4.7	9.9	21.2	16.9	1.06	0.073
<b>Lighting Equipment Types (more than one may apply)</b>									
Incandescent .....	248	14.2	10.9	3.5	8.4	16.9	17.9	1.03	0.072
Standard Fluorescent .....	228	14.3	11.1	3.9	8.4	18.0	16.6	1.04	0.073
Compact Fluorescent .....	578	17.0	11.7	5.7	11.4	20.7	40.0	1.17	0.069
High Intensity Discharge .....	698	15.6	13.8	3.9	8.6	18.8	46.0	1.03	0.066
Halogen .....	511	16.3	11.4	5.0	10.8	21.6	36.1	1.15	0.071
Other .....	303	17.4	12.5	7.1	11.2	32.2	21.5	1.23	0.071
<b>Water Heating Equipment</b>									
Centralized System .....	203	14.1	11.1	4.2	9.7	20.9	15.4	1.07	0.076
Distributed System .....	276	14.3	10.9	4.6	9.7	18.4	20.1	1.04	0.073
Combination of Centralized and Distributed System .....	878	18.2	12.6	6.3	16.1	34.9	57.3	1.19	0.065
<b>Commercial Refrigeration Equipment (more than one may apply)</b>									
Any Equipment .....	511	18.9	14.5	10.0	21.2	46.3	36.1	1.34	0.071
Walk-In Units .....	617	20.6	15.6	13.8	32.1	61.3	43.3	1.45	0.070
Cases or Cabinets .....	517	19.3	14.4	9.7	21.2	47.6	36.7	1.37	0.071
None .....	123	10.6	8.8	2.7	5.9	12.9	9.3	0.80	0.076

**Table C10. Electricity Consumption and Expenditure Intensities, 1999**

	Electricity Consumption						Electricity Expenditures		
	per Building (thousand kWh)	per Square Foot (kWh)	per Worker (thousand kWh)	Distribution of Building-Level Intensities (kWh/square foot)			per Building (thousand dollars)	per Square Foot (dollars)	per kWh (dollars)
				25th Percentile	Median	75th Percentile			
<b>Personal Computers</b>									
None .....	42	7.1	12.1	1.3	4.1	11.6	3.5	0.60	0.084
1 to 4 .....	100	11.8	12.8	3.8	7.0	15.5	8.0	0.94	0.080
5 to 9 .....	166	13.8	12.0	5.6	12.0	23.6	12.8	1.06	0.077
10 to 19 .....	239	12.8	10.5	6.9	12.6	20.9	19.2	1.03	0.080
20 to 49 .....	453	13.8	11.6	6.6	11.9	22.1	33.0	1.01	0.073
50 to 99 .....	742	13.3	10.7	6.2	11.0	16.1	53.3	0.95	0.072
100 to 249 .....	1,694	17.7	12.6	8.7	15.5	25.0	108.0	1.13	0.064
250 or More .....	5,321	21.1	9.1	12.2	19.8	29.2	347.7	1.38	0.065
<b>Photocopiers</b>									
None .....	85	10.9	11.6	2.3	5.9	15.6	6.9	0.88	0.081
One .....	152	13.1	13.0	4.8	8.9	17.9	11.5	0.99	0.076
2 to 4 .....	370	12.8	11.9	5.0	9.9	16.7	26.9	0.93	0.073
5 to 9 .....	813	15.5	10.1	7.6	10.6	17.6	54.9	1.05	0.068
10 or More .....	3,169	20.2	9.5	11.6	18.5	24.6	210.4	1.34	0.066
<b>Other Electronic Equipment (more than one may apply)</b>									
Laser Printers .....	368	15.4	10.7	5.0	10.0	18.4	26.2	1.10	0.071
FAX Machines .....	294	15.1	11.1	4.8	9.9	19.2	21.3	1.09	0.072
Medical Diagnostic Equipment .....	721	24.8	11.0	5.4	9.7	15.0	44.1	1.51	0.061
<b>Annual Consumption (kilowatthours)</b>									
10,000 or Less .....	5	1.1	2.1	0.6	1.4	3.1	0.6	0.13	0.115
10,001 to 50,000 .....	26	4.4	4.3	3.4	5.7	9.7	2.4	0.42	0.095
50,001 to 100,000 .....	73	7.8	7.3	6.5	10.6	18.8	6.6	0.70	0.091
100,001 to 500,000 .....	224	13.9	10.9	10.3	19.9	42.8	18.2	1.13	0.081
500,001 to 1,000,000 .....	705	14.3	12.3	11.8	18.6	31.7	53.4	1.08	0.076
1,000,001 to 5,000,000 .....	2,057	18.8	13.9	14.9	22.4	33.2	137.8	1.26	0.067
Over 5,000,000 .....	11,802	24.8	14.6	17.6	28.2	43.0	730.3	1.53	0.062
<b>Provider of Purchased Electricity (more than one may apply)</b>									
Local Utility .....	200	13.6	10.9	3.4	7.8	16.7	14.6	0.99	0.073
Some Other Provider .....	363	16.4	13.4	2.4	7.8	15.0	28.7	1.30	0.079

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.

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use.

\* 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 C11. Electricity Consumption and Conditional Energy Intensity by Census Region, 1999**

	Total Electricity Consumption (billion kWh)				Total Floorspace of Buildings Using Electricity (million square feet)				Electricity Energy Intensity (kWh/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>All Buildings</b> .....	159	194	366	189	11,964	16,389	23,076	14,287	13.3	11.8	15.8	13.2
<b>Building Floorspace (Square Feet)</b>												
1,001 to 5,000 .....	Q	21	55	24	820	1,664	2,411	1,385	25.7	12.5	23.0	17.6
5,001 to 10,000 .....	10	17	33	22	1,246	1,951	2,862	1,661	8.3	8.9	11.6	13.2
10,001 to 25,000 .....	18	22	50	19	1,732	2,830	4,187	2,094	10.2	7.6	11.9	9.2
25,001 to 50,000 .....	15	17	48	29	1,407	1,754	3,345	2,668	10.5	9.5	14.5	10.8
50,001 to 100,000 .....	20	31	55	38	1,748	2,403	3,450	2,434	11.3	13.1	16.1	15.6
100,001 to 200,000 .....	19	35	54	24	1,461	2,279	2,858	1,648	13.1	15.2	18.9	14.7
200,001 to 500,000 .....	18	25	40	17	1,348	1,988	2,238	1,216	13.4	12.5	18.0	13.7
Over 500,000 .....	38	27	29	16	2,202	1,519	1,726	1,180	17.4	17.7	16.6	13.2
<b>Principal Building Activity</b>												
Education .....	14	17	25	19	1,714	2,250	2,348	2,338	8.2	7.6	10.7	8.2
Food Sales .....	Q	Q	22	Q	Q	Q	391	Q	Q	Q	55.4	Q
Food Service .....	Q	14	27	Q	Q	558	676	Q	Q	25.3	39.7	Q
Health Care .....	9	15	31	13	448	750	1,085	635	20.2	19.6	28.5	21.2
Inpatient .....	8	11	22	9	377	512	630	346	22.5	22.0	34.8	25.6
Outpatient .....	Q	Q	9	5	Q	Q	454	289	Q	Q	19.7	15.9
Lodging .....	6	10	25	16	484	940	1,595	1,501	12.3	11.1	15.5	10.9
Mercantile .....	27	28	65	33	1,885	2,591	4,080	1,842	14.2	11.0	15.8	17.9
Retail (Other Than Mall) .....	14	16	25	10	974	1,600	1,566	627	14.0	9.8	16.0	16.5
Enclosed and Strip Malls .....	13	13	40	23	912	991	2,513	1,215	14.3	13.0	15.8	18.6
Office .....	40	50	88	47	2,389	2,820	4,162	2,672	16.7	17.8	21.1	17.6
Public Assembly .....	14	13	21	8	882	1,132	1,471	856	15.5	11.5	14.3	9.7
Public Order and Safety .....	Q	2	4	Q	Q	216	286	Q	Q	10.0	14.9	Q
Religious Worship .....	1	2	6	3	440	923	1,146	896	2.2	2.6	5.3	3.2
Service .....	Q	10	19	5	Q	818	1,387	443	Q	11.7	13.8	11.5
Warehouse and Storage .....	13	17	25	10	1,666	2,587	3,774	1,852	7.7	6.5	6.6	5.4
Other .....	Q	Q	8	Q	Q	Q	301	Q	Q	Q	25.6	Q
Vacant .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Year Constructed</b>												
1919 or Before .....	7	Q	3	4	1,216	1,477	536	485	6.1	8.2	6.2	7.9
1920 to 1945 .....	12	19	16	7	1,552	2,371	1,665	693	7.9	8.1	9.6	9.4
1946 to 1959 .....	26	18	29	17	2,030	2,152	2,770	1,842	12.9	8.3	10.5	9.5
1960 to 1969 .....	26	30	48	33	2,050	2,481	3,301	2,854	12.7	12.1	14.6	11.5
1970 to 1979 .....	28	30	77	46	1,823	2,320	4,268	3,338	15.6	13.0	18.0	13.9
1980 to 1989 .....	31	46	105	40	1,917	2,800	6,098	2,671	16.2	16.6	17.1	14.8
1990 to 1999 .....	28	38	87	42	1,376	2,788	4,439	2,404	20.2	13.7	19.7	17.7
<b>Climate Zone: 45-Year Average</b>												
Under 2,000 CDD and --												
More than 7,000 HDD .....	11	47	N	6	1,150	4,110	N	491	9.5	11.5	N	13.0
5,500-7,000 HDD .....	71	101	N	25	5,698	8,716	N	2,293	12.5	11.5	N	10.9
4,000-5,499 HDD .....	77	46	78	30	5,117	3,563	4,694	2,418	15.0	13.0	16.6	12.5
Fewer than 4,000 HDD .....	N	N	142	100	N	N	8,687	7,235	N	N	16.4	13.8
2,000 CDD or More and --												
Fewer than 4,000 HDD .....	N	N	145	27	N	N	9,696	1,850	N	N	15.0	14.9
<b>Workers (main shift)</b>												
Fewer than 5 .....	10	21	47	20	1,510	3,661	5,171	2,409	6.5	5.6	9.1	8.4
5 to 9 .....	12	15	23	13	1,372	1,689	1,730	1,482	8.6	9.0	13.6	8.8
10 to 19 .....	21	17	45	20	1,472	1,930	2,935	1,690	14.1	8.8	15.2	11.9
20 to 49 .....	21	27	69	32	1,574	2,575	4,174	2,492	13.6	10.3	16.5	12.7
50 to 99 .....	22	24	46	31	1,814	1,876	2,876	2,332	11.9	12.9	16.0	13.1
100 to 249 .....	23	37	61	28	1,702	2,228	2,856	1,570	13.3	16.8	21.4	17.6
250 or More .....	51	53	74	46	2,519	2,430	3,335	2,312	20.1	21.8	22.3	20.0

**Table C11. Electricity Consumption and Conditional Energy Intensity by Census Region, 1999**

	Total Electricity Consumption (billion kWh)				Total Floorspace of Buildings Using Electricity (million square feet)				Electricity Energy Intensity (kWh/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>Weekly Operating Hours</b>												
39 or Fewer .....	1	5	9	5	661	1,512	2,186	955	2.2	3.0	4.0	5.3
40 to 48 .....	14	22	50	27	1,864	2,970	5,265	2,971	7.7	7.4	9.6	9.0
49 to 60 .....	31	31	72	37	2,792	3,566	4,617	3,211	11.0	8.7	15.5	11.5
61 to 84 .....	29	42	63	38	2,482	3,084	4,198	2,616	11.6	13.8	15.0	14.5
85 to 167 .....	28	41	72	36	1,674	2,531	2,936	1,789	17.0	16.3	24.5	20.2
Open Continuously .....	55	53	100	46	2,491	2,725	3,876	2,743	22.1	19.3	25.7	16.9
<b>Ownership and Occupancy</b>												
Nongovernment Owned .....	126	160	301	155	9,398	13,529	19,340	11,372	13.4	11.9	15.6	13.6
Owner Occupied .....	95	125	217	93	7,124	9,931	13,151	7,300	13.4	12.5	16.5	12.7
Nonowner Occupied .....	30	35	83	62	2,235	3,398	5,818	3,990	13.6	10.4	14.3	15.5
Unoccupied .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government Owned .....	33	34	64	34	2,566	2,860	3,736	2,914	12.9	11.8	17.2	11.7
Federal .....	Q	Q	14	9	Q	318	549	534	Q	20.9	25.6	16.8
State .....	10	12	16	10	683	956	915	828	14.0	12.6	17.1	11.8
Local .....	17	15	34	15	1,572	1,586	2,273	1,552	11.0	9.4	15.2	10.0
<b>Vacancy Status</b>												
Completely Vacant .....	N	Q	Q	Q	N	Q	Q	Q	N	Q	Q	Q
Mostly Vacant .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Partially Vacant .....	38	42	73	37	2,662	3,892	5,428	3,111	14.1	10.8	13.4	12.0
Not At All Vacant .....	121	151	292	151	9,086	12,149	17,274	11,002	13.3	12.5	16.9	13.7
<b>Number of Establishments</b>												
One .....	100	130	239	123	7,520	11,211	14,584	9,524	13.3	11.6	16.4	12.9
2 to 5 .....	21	35	45	25	2,047	2,900	3,420	2,075	10.1	12.1	13.0	12.2
6 to 10 .....	6	6	27	20	494	571	1,440	1,063	12.9	11.3	18.7	18.4
11 to 20 .....	11	9	24	10	Q	579	1,239	738	16.1	14.9	19.3	13.5
More than 20 .....	21	13	29	10	1,159	864	2,000	786	18.0	15.5	14.7	13.3
Currently Unoccupied .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Energy Sources (more than one may apply)</b>												
Electricity .....	159	194	366	189	11,964	16,389	23,076	14,287	13.3	11.8	15.8	13.2
Natural Gas .....	103	159	241	140	7,305	13,506	14,199	10,486	14.1	11.7	17.0	13.3
Fuel Oil .....	63	48	83	32	5,406	2,423	3,749	1,699	11.7	19.8	22.2	18.7
District Heat .....	36	26	26	17	1,898	1,521	1,265	1,207	18.8	17.4	20.2	14.4
District Chilled Water .....	9	16	18	12	326	746	939	739	29.0	21.9	18.9	16.1
Propane .....	22	15	31	9	1,706	1,405	2,389	790	12.9	10.6	12.9	11.5
Other .....	6	8	12	8	580	606	579	557	10.0	12.4	20.5	14.2
<b>Space-Heating Energy Source</b>												
Electricity .....	74	94	238	93	4,625	6,429	13,862	7,375	16.0	14.7	17.1	12.6
Electricity Main .....	30	45	165	62	1,645	2,355	9,259	4,368	18.5	19.1	17.8	14.1
Electricity Secondary .....	44	49	72	31	2,980	4,074	4,603	3,007	14.6	12.1	15.7	10.3
Other Excluding Electricity .....	84	98	104	84	7,034	9,486	6,736	6,017	11.9	10.4	15.4	13.9
Buildings without Heating .....	Q	Q	24	13	Q	Q	2,478	894	Q	Q	9.6	14.2
<b>Primary Space-Heating Energy Source</b>												
Electricity .....	30	45	165	62	1,645	2,355	9,259	4,368	18.5	19.1	17.8	14.1
Natural Gas .....	64	120	142	96	4,913	11,348	8,815	7,624	13.1	10.6	16.1	12.5
Fuel Oil .....	20	Q	8	Q	2,795	Q	718	Q	7.2	Q	10.5	Q
District Heat .....	32	24	19	15	1,709	1,411	904	1,053	18.8	16.9	20.9	14.5
Propane .....	Q	2	7	Q	Q	626	819	Q	Q	3.7	8.0	Q
Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q

**Table C11. Electricity Consumption and Conditional Energy Intensity by Census Region, 1999**

	Total Electricity Consumption (billion kWh)				Total Floorspace of Buildings Using Electricity (million square feet)				Electricity Energy Intensity (kWh/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>Cooling Energy Source</b>												
Electricity .....	145	170	350	160	9,766	13,474	20,908	11,396	14.9	12.6	16.7	14.1
Other Excluding Electricity .....	8	17	11	16	545	897	640	846	15.5	19.1	17.1	19.2
Buildings without Cooling .....	5	7	5	13	1,653	2,018	1,527	2,044	3.1	3.6	3.1	6.2
<b>Water-Heating Energy Source</b>												
Electricity .....	68	66	181	63	4,485	4,633	10,480	4,574	15.2	14.2	17.3	13.7
Other Excluding Electricity .....	83	109	149	114	6,092	9,069	8,534	8,248	13.7	12.0	17.5	13.8
Buildings without Water Heating .....	7	20	35	13	1,387	2,687	4,062	1,465	5.3	7.4	8.5	8.6
<b>Cooking Energy Source</b>												
Electricity .....	48	56	126	44	2,680	3,335	5,166	2,551	17.9	16.7	24.3	17.1
Other Excluding Electricity .....	39	36	62	31	2,565	2,706	3,403	2,274	15.2	13.2	18.3	13.5
Buildings without Cooking .....	72	103	178	115	6,719	10,347	14,507	9,462	10.7	9.9	12.2	12.1
<b>Energy End Uses (more than one may apply)</b>												
Buildings with Space Heating .....	158	193	342	176	11,659	15,916	20,598	13,392	13.6	12.1	16.6	13.2
Buildings with Cooling .....	154	187	361	176	10,311	14,371	21,549	12,243	14.9	13.0	16.7	14.4
Buildings with Water Heating .....	152	174	331	176	10,577	13,702	19,014	12,822	14.3	12.7	17.4	13.8
Buildings with Cooking .....	87	91	188	74	5,245	6,042	8,569	4,825	16.6	15.1	21.9	15.4
Buildings with Manufacturing .....	8	15	13	8	568	818	1,035	706	14.2	18.0	12.6	11.1
Buildings with Electricity Generation .....	51	57	99	37	3,108	2,782	4,062	1,930	16.6	20.5	24.5	19.3
<b>Percent of Floorspace Heated</b>												
Not Heated .....	Q	Q	24	13	Q	Q	2,478	894	Q	Q	9.6	14.2
1 to 50 .....	7	9	20	21	1,053	1,571	2,538	2,403	6.4	5.7	7.7	8.6
51 to 99 .....	24	27	77	35	1,679	2,323	4,335	2,399	14.6	11.8	17.7	14.4
100 .....	127	156	245	121	8,927	12,022	13,725	8,590	14.2	13.0	17.9	14.1
<b>Percent of Floorspace Cooled</b>												
Not Cooled .....	5	7	5	13	1,653	2,018	1,527	2,044	3.1	3.6	3.1	6.2
1 to 50 .....	29	35	40	24	3,914	5,068	4,618	3,246	7.4	6.9	8.6	7.4
51 to 99 .....	55	71	113	54	3,196	4,741	5,801	3,229	17.3	15.0	19.4	16.9
100 .....	70	81	209	98	3,202	4,562	11,130	5,768	21.7	17.7	18.7	17.0
<b>Percent Lit When Open</b>												
Zero .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50 .....	9	15	27	15	1,620	2,486	3,013	2,068	5.4	6.0	8.9	7.2
51 to 99 .....	55	77	110	53	4,081	5,814	6,392	4,378	13.4	13.2	17.2	12.2
100 .....	96	101	226	120	6,077	7,668	12,817	7,671	15.7	13.2	17.6	15.7
Building Never Open/ Electricity Not Used .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Percent Lit When Closed</b>												
Zero .....	21	35	68	48	3,390	5,264	7,296	4,821	6.2	6.6	9.3	10.1
1 to 50 .....	75	101	170	82	5,766	8,047	10,912	6,226	13.1	12.6	15.5	13.2
51 to 100 .....	Q	5	29	12	Q	353	992	497	Q	15.4	28.8	24.1
Building Never Closed/ Electricity Not Used .....	55	53	100	46	2,491	2,725	3,876	2,743	22.1	19.3	25.7	16.9
<b>Heating Equipment (more than one may apply)</b>												
Heat Pumps .....	20	19	83	29	1,193	1,015	4,580	2,135	17.0	18.7	18.2	13.4
Furnaces .....	22	49	47	21	2,257	5,767	3,949	2,476	9.8	8.5	11.8	8.7
Individual Space Heaters .....	46	56	76	37	3,555	4,667	5,471	3,628	13.0	12.0	13.8	10.3
District Heat .....	35	25	22	16	1,876	1,514	1,022	1,121	18.8	16.8	21.7	14.6
Boilers .....	60	71	84	53	5,461	5,961	4,209	3,883	10.9	11.8	19.9	13.7
Packaged Heating Units .....	77	82	182	89	4,033	5,081	10,455	6,175	19.1	16.2	17.4	14.4
Other .....	11	16	27	12	769	1,113	1,391	800	14.6	14.8	19.5	15.3



**Table C11. Electricity Consumption and Conditional Energy Intensity by Census Region, 1999**

	Total Electricity Consumption (billion kWh)				Total Floorspace of Buildings Using Electricity (million square feet)				Electricity Energy Intensity (kWh/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>Cooling Equipment (more than one may apply)</b>												
Residential-Type Central												
Air Conditioners .....	11	28	49	12	950	2,951	3,272	1,156	11.7	9.5	15.1	10.5
Heat Pumps .....	17	20	83	32	1,215	1,063	4,604	2,265	14.1	18.9	18.1	14.2
Individual Air Conditioners .....	43	35	60	21	3,897	3,724	4,526	2,130	11.0	9.5	13.3	9.8
District Chilled Water .....	9	16	18	12	326	746	939	739	29.0	21.9	18.9	16.1
Central Chillers .....	50	61	103	51	2,782	3,149	4,328	2,651	17.9	19.3	23.9	19.1
Packaged Air Conditioning												
Units .....	113	118	237	117	6,641	8,198	13,915	7,773	17.0	14.3	17.0	15.0
Swamp Coolers .....	Q	Q	6	21	Q	Q	339	1,624	Q	Q	16.3	12.9
Other .....	Q	Q	7	Q	Q	Q	343	Q	Q	Q	21.2	Q
<b>Main Equipment Replaced Since 1995 (more than one may apply)</b>												
Heating .....	24	39	82	38	1,829	3,244	5,080	3,068	13.0	12.0	16.1	12.3
Cooling .....	40	50	118	45	3,080	3,808	7,088	3,414	13.0	13.2	16.6	13.2
<b>Lighting Equipment Types (more than one may apply)</b>												
Incandescent .....	95	111	223	113	7,047	9,903	12,970	8,236	13.5	11.2	17.2	13.8
Standard Fluorescent .....	150	185	346	180	11,348	14,840	20,850	13,305	13.2	12.5	16.6	13.6
Compact Fluorescent .....	64	89	126	72	3,939	5,518	6,427	4,781	16.2	16.0	19.7	15.0
High Intensity Discharge .....	58	80	119	43	4,382	5,513	5,874	3,454	13.3	14.5	20.3	12.3
Halogen .....	62	69	103	59	3,625	4,405	5,847	4,049	17.0	15.6	17.7	14.6
Other .....	Q	Q	11	Q	Q	Q	441	Q	Q	Q	25.1	Q
<b>Water Heating Equipment</b>												
Centralized System .....	98	98	192	113	6,941	9,037	11,500	8,102	14.1	10.9	16.7	13.9
Distributed System .....	23	26	69	38	1,823	2,328	4,120	2,628	12.4	11.3	16.8	14.6
Combination of Centralized and Distributed System .....	31	50	69	26	1,813	2,336	3,395	2,093	17.1	21.3	20.4	12.2
<b>Commercial Refrigeration Equipment (more than one may apply)</b>												
Any Equipment .....	98	104	192	90	5,536	6,252	8,734	5,130	17.8	16.7	22.0	17.6
Walk-In Units .....	83	83	163	77	4,335	4,580	6,809	3,988	19.1	18.1	24.0	19.4
Cases or Cabinets .....	86	90	169	79	4,723	5,429	7,512	4,337	18.2	16.6	22.5	18.2
None .....	61	90	173	99	6,428	10,137	14,342	9,156	9.5	8.9	12.1	10.8
<b>Personal Computers</b>												
None .....	5	13	26	13	1,128	2,281	3,313	1,239	4.3	5.7	7.9	10.3
1 to 4 .....	28	36	68	31	2,293	3,758	4,755	3,045	12.1	9.6	14.4	10.1
5 to 9 .....	10	14	47	19	811	1,308	2,870	1,539	12.8	10.5	16.4	12.2
10 to 19 .....	19	14	42	22	1,749	1,570	2,707	1,488	10.7	8.8	15.5	14.6
20 to 49 .....	21	22	45	23	1,395	1,935	2,588	2,168	15.0	11.5	17.6	10.7
50 to 99 .....	10	19	30	19	903	1,638	1,893	1,432	11.4	11.7	15.8	13.0
100 to 249 .....	23	34	41	23	1,599	1,829	2,174	1,216	14.6	18.4	18.7	18.8
250 or More .....	43	42	66	40	2,085	2,069	2,776	2,158	20.5	20.4	23.9	18.7
<b>Photocopiers</b>												
None .....	27	43	96	52	3,300	4,813	7,635	4,261	8.3	8.8	12.6	12.1
One .....	24	31	79	35	1,633	3,164	5,040	3,091	14.7	9.8	15.7	11.2
2 to 4 .....	35	43	82	39	2,976	4,227	5,109	3,308	11.7	10.3	16.1	11.8
5 to 9 .....	13	27	26	18	986	1,577	1,586	1,234	13.2	17.1	16.2	14.3
10 or More .....	60	50	82	46	3,069	2,607	3,705	2,393	19.5	19.2	22.2	19.3

**Table C11. Electricity Consumption and Conditional Energy Intensity by Census Region, 1999**

	Total Electricity Consumption (billion kWh)				Total Floorspace of Buildings Using Electricity (million square feet)				Electricity Energy Intensity (kWh/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>Other Electronic Equipment (more than one may apply)</b>												
Laser Printers .....	133	154	281	149	9,112	11,161	15,628	10,666	14.6	13.8	18.0	14.0
FAX Machines .....	151	177	327	170	10,496	13,369	18,804	12,095	14.4	13.3	17.4	14.1
Medical Diagnostic Equipment .....	8	13	28	13	365	586	953	588	21.1	22.8	29.5	21.4
<b>Annual Consumption (kilowatthours)</b>												
10,000 or Less .....	1	1	1	1	519	974	1,260	463	1.2	1.1	1.0	1.6
10,001 to 50,000 .....	5	11	14	10	1,425	2,838	2,908	2,068	3.5	3.8	5.0	5.1
50,001 to 100,000 .....	8	12	23	12	1,243	1,659	2,480	1,619	6.4	7.2	9.1	7.3
100,001 to 500,000 .....	39	41	104	49	2,688	3,831	6,394	3,897	14.5	10.7	16.3	12.7
500,001 to 1,000,000 .....	16	21	36	26	1,272	1,831	2,158	1,705	12.9	11.5	16.8	15.1
1,000,001 to 5,000,000 .....	36	53	112	56	2,395	3,211	5,091	2,964	15.2	16.5	21.9	19.0
Over 5,000,000 .....	54	55	75	34	2,421	2,045	2,785	1,571	22.2	27.0	27.1	21.9
<b>Provider of Purchased Electricity (more than one may apply)</b>												
Local Utility .....	136	184	352	172	10,535	15,611	22,263	13,634	12.9	11.8	15.8	12.6
Some Other Provider .....	24	6	5	Q	1,388	445	597	672	17.0	13.9	7.8	24.6

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.

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* 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 C12. Electricity Expenditures by Census Region, 1999**

	Total Electricity Expenditures (million dollars)				Electricity Expenditures (dollars)							
					per kWh				per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>All Buildings</b> .....	15,133	12,933	23,275	15,083	0.10	0.07	0.06	0.08	1.26	0.79	1.01	1.06
<b>Building Floorspace (Square Feet)</b>												
1,001 to 5,000 .....	Q	1,654	4,021	2,222	0.11	0.08	0.07	0.09	2.88	0.99	1.67	1.60
5,001 to 10,000 .....	1,220	1,408	2,478	2,039	0.12	0.08	0.07	0.09	0.98	0.72	0.87	1.23
10,001 to 25,000 .....	1,863	1,626	3,396	1,778	0.11	0.08	0.07	0.09	1.08	0.57	0.81	0.85
25,001 to 50,000 .....	1,526	1,137	3,106	2,419	0.10	0.07	0.06	0.08	1.08	0.65	0.93	0.91
50,001 to 100,000 .....	1,897	2,051	3,348	2,728	0.10	0.07	0.06	0.07	1.09	0.85	0.97	1.12
100,001 to 200,000 .....	1,744	1,934	3,215	1,662	0.09	0.06	0.06	0.07	1.19	0.85	1.13	1.01
200,001 to 500,000 .....	1,404	1,592	2,212	1,223	0.08	0.06	0.05	0.07	1.04	0.80	0.99	1.01
Over 500,000 .....	3,116	1,530	1,498	1,011	0.08	0.06	0.05	0.06	1.41	1.01	0.87	0.86
<b>Principal Building Activity</b>												
Education .....	1,414	1,209	1,678	1,520	0.10	0.07	0.07	0.08	0.82	0.54	0.71	0.65
Food Sales .....	Q	Q	1,369	Q	Q	Q	0.06	Q	Q	Q	3.50	Q
Food Service .....	Q	1,102	1,768	Q	Q	0.08	0.07	Q	Q	1.98	2.62	Q
Health Care .....	716	870	1,735	946	0.08	0.06	0.06	0.07	1.60	1.16	1.60	1.49
Inpatient .....	648	612	1,111	577	0.08	0.05	0.05	0.07	1.72	1.20	1.76	1.67
Outpatient .....	Q	Q	624	369	Q	Q	0.07	0.08	Q	Q	1.37	1.28
Lodging .....	539	742	1,579	1,406	0.09	0.07	0.06	0.09	1.11	0.79	0.99	0.94
Mercantile .....	2,787	2,002	4,063	2,999	0.10	0.07	0.06	0.09	1.48	0.77	1.00	1.63
Retail (Other Than Mall) .....	1,519	1,136	1,610	902	0.11	0.07	0.06	0.09	1.56	0.71	1.03	1.44
Enclosed and Strip Malls .....	1,268	867	2,453	2,097	0.10	0.07	0.06	0.09	1.39	0.87	0.98	1.73
Office .....	3,681	3,091	5,493	3,418	0.09	0.06	0.06	0.07	1.54	1.10	1.32	1.28
Public Assembly .....	1,181	935	1,333	534	0.09	0.07	0.06	0.06	1.34	0.83	0.91	0.62
Public Order and Safety .....	Q	124	252	Q	Q	0.06	0.06	Q	Q	0.57	0.88	Q
Religious Worship .....	120	222	464	236	0.12	0.09	0.08	0.08	0.27	0.24	0.40	0.26
Service .....	Q	648	1,351	369	Q	0.07	0.07	0.07	Q	0.79	0.97	0.83
Warehouse and Storage .....	1,155	1,130	1,641	903	0.09	0.07	0.07	0.09	0.69	0.44	0.43	0.49
Other .....	Q	Q	458	Q	Q	Q	0.06	Q	Q	Q	1.52	Q
Vacant .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Year Constructed</b>												
1919 or Before .....	801	870	252	247	0.11	0.07	0.08	0.06	0.66	0.59	0.47	0.51
1920 to 1945 .....	1,194	1,422	1,063	495	0.10	0.07	0.07	0.08	0.77	0.60	0.64	0.71
1946 to 1959 .....	2,362	1,225	2,028	1,374	0.09	0.07	0.07	0.08	1.16	0.57	0.73	0.75
1960 to 1969 .....	2,646	1,887	3,087	2,630	0.10	0.06	0.06	0.08	1.29	0.76	0.94	0.92
1970 to 1979 .....	2,575	2,032	4,873	3,980	0.09	0.07	0.06	0.09	1.41	0.88	1.14	1.19
1980 to 1989 .....	3,121	2,988	6,469	3,200	0.10	0.06	0.06	0.08	1.63	1.07	1.06	1.20
1990 to 1999 .....	2,434	2,509	5,504	3,157	0.09	0.07	0.06	0.07	1.77	0.90	1.24	1.31
<b>Climate Zone: 45-Year Average</b>												
Under 2,000 CDD and --												
More than 7,000 HDD .....	1,279	2,835	N	390	0.12	0.06	N	0.06	1.11	0.69	N	0.80
5,500-7,000 HDD .....	6,756	7,063	N	1,343	0.09	0.07	N	0.05	1.19	0.81	N	0.59
4,000-5,499 HDD .....	7,098	3,035	5,294	1,738	0.09	0.07	0.07	0.06	1.39	0.85	1.13	0.72
Fewer than 4,000 HDD .....	N	N	8,666	9,180	N	N	0.06	0.09	N	N	1.00	1.27
2,000 CDD or More and --												
Fewer than 4,000 HDD .....	N	N	9,314	2,431	N	N	0.06	0.09	N	N	0.96	1.31
<b>Workers (main shift)</b>												
Fewer than 5 .....	1,087	1,669	3,490	1,799	0.11	0.08	0.07	0.09	0.72	0.46	0.68	0.75
5 to 9 .....	1,392	1,166	1,692	1,211	0.12	0.08	0.07	0.09	1.01	0.69	0.98	0.82
10 to 19 .....	2,131	1,343	2,998	1,967	0.10	0.08	0.07	0.10	1.45	0.70	1.02	1.16
20 to 49 .....	2,275	1,827	4,571	2,395	0.11	0.07	0.07	0.08	1.45	0.71	1.10	0.96
50 to 99 .....	2,112	1,571	2,873	2,566	0.10	0.06	0.06	0.08	1.16	0.84	1.00	1.10
100 to 249 .....	2,122	2,157	3,511	1,893	0.09	0.06	0.06	0.07	1.25	0.97	1.23	1.21
250 or More .....	4,014	3,199	4,138	3,252	0.08	0.06	0.06	0.07	1.59	1.32	1.24	1.41

**Table C12. Electricity Expenditures by Census Region, 1999**

	Total Electricity Expenditures (million dollars)				Electricity Expenditures (dollars)							
					per kWh				per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>Weekly Operating Hours</b>												
39 or Fewer .....	168	399	722	429	0.12	0.09	0.08	0.08	0.25	0.26	0.33	0.45
40 to 48 .....	1,552	1,550	3,550	2,147	0.11	0.07	0.07	0.08	0.83	0.52	0.67	0.72
49 to 60 .....	2,967	2,163	4,728	3,122	0.10	0.07	0.07	0.08	1.06	0.61	1.02	0.97
61 to 84 .....	2,963	2,960	4,120	3,039	0.10	0.07	0.07	0.08	1.19	0.96	0.98	1.16
85 to 167 .....	2,776	2,805	4,560	2,967	0.10	0.07	0.06	0.08	1.66	1.11	1.55	1.66
Open Continuously .....	4,707	3,058	5,595	3,379	0.09	0.06	0.06	0.07	1.89	1.12	1.44	1.23
<b>Ownership and Occupancy</b>												
Nongovernment Owned .....	12,285	10,867	19,314	12,619	0.10	0.07	0.06	0.08	1.31	0.80	1.00	1.11
Owner Occupied .....	9,271	8,196	13,615	7,458	0.10	0.07	0.06	0.08	1.30	0.83	1.04	1.02
Nonowner Occupied .....	3,010	2,628	5,594	5,126	0.10	0.07	0.07	0.08	1.35	0.77	0.96	1.28
Unoccupied .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government Owned .....	2,848	2,066	3,960	2,463	0.09	0.06	0.06	0.07	1.11	0.72	1.06	0.85
Federal .....	Q	Q	807	468	Q	0.05	0.06	0.05	Q	1.12	1.47	0.88
State .....	804	696	887	801	0.08	0.06	0.06	0.08	1.18	0.73	0.97	0.97
Local .....	1,481	1,014	2,266	1,194	0.09	0.07	0.07	0.08	0.94	0.64	1.00	0.77
<b>Vacancy Status</b>												
Completely Vacant .....	N	Q	Q	Q	N	Q	Q	Q	N	Q	Q	Q
Mostly Vacant .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Partially Vacant .....	3,279	2,880	4,544	3,058	0.09	0.07	0.06	0.08	1.23	0.74	0.84	0.98
Not At All Vacant .....	11,821	9,979	18,640	11,957	0.10	0.07	0.06	0.08	1.30	0.82	1.08	1.09
<b>Number of Establishments</b>												
One .....	9,633	8,687	15,227	9,628	0.10	0.07	0.06	0.08	1.28	0.77	1.04	1.01
2 to 5 .....	1,940	2,316	2,980	2,062	0.09	0.07	0.07	0.08	0.95	0.80	0.87	0.99
6 to 10 .....	623	448	1,662	1,759	0.10	0.07	0.06	0.09	1.26	0.78	1.15	1.66
11 to 20 .....	1,041	544	1,474	787	0.09	0.06	0.06	0.08	1.48	0.94	1.19	1.07
More than 20 .....	1,892	881	1,827	803	0.09	0.07	0.06	0.08	1.63	1.02	0.91	1.02
Currently Unoccupied .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Energy Sources (more than one may apply)</b>												
Electricity .....	15,133	12,933	23,275	15,083	0.10	0.07	0.06	0.08	1.26	0.79	1.01	1.06
Natural Gas .....	9,545	10,785	14,956	11,146	0.09	0.07	0.06	0.08	1.31	0.80	1.05	1.06
Fuel Oil .....	5,610	2,650	4,796	2,108	0.09	0.06	0.06	0.07	1.04	1.09	1.28	1.24
District Heat .....	2,980	1,476	1,319	1,066	0.08	0.06	0.05	0.06	1.57	0.97	1.04	0.88
District Chilled Water .....	653	856	894	821	0.07	0.05	0.05	0.07	2.00	1.15	0.95	1.11
Propane .....	2,334	1,063	2,004	885	0.11	0.07	0.06	0.10	1.37	0.76	0.84	1.12
Other .....	522	465	776	750	0.09	0.06	0.07	0.09	0.90	0.77	1.34	1.35
<b>Space-Heating Energy Source</b>												
Electricity .....	6,678	6,128	15,182	7,343	0.09	0.06	0.06	0.08	1.44	0.95	1.10	1.00
Electricity Main .....	2,841	2,905	10,772	5,104	0.09	0.06	0.07	0.08	1.73	1.23	1.16	1.17
Electricity Secondary .....	3,838	3,223	4,410	2,240	0.09	0.07	0.06	0.07	1.29	0.79	0.96	0.74
Other Excluding Electricity .....	8,329	6,694	6,443	6,366	0.10	0.07	0.06	0.08	1.18	0.71	0.96	1.06
Buildings without Heating .....	Q	Q	1,650	1,373	Q	Q	0.07	0.11	Q	Q	0.67	1.54
<b>Primary Space-Heating Energy Source</b>												
Electricity .....	2,841	2,905	10,772	5,104	0.09	0.06	0.07	0.08	1.73	1.23	1.16	1.17
Natural Gas .....	6,134	8,312	8,769	7,439	0.10	0.07	0.06	0.08	1.25	0.73	0.99	0.98
Fuel Oil .....	2,178	Q	613	Q	0.11	Q	0.08	Q	0.78	Q	0.85	Q
District Heat .....	2,655	1,329	940	860	0.08	0.06	0.05	0.06	1.55	0.94	1.04	0.82
Propane .....	Q	183	465	Q	Q	0.08	0.07	Q	Q	0.29	0.57	Q
Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q

**Table C12. Electricity Expenditures by Census Region, 1999**

	Total Electricity Expenditures (million dollars)				Electricity Expenditures (dollars)							
					per kWh				per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>Cooling Energy Source</b>												
Electricity .....	13,789	11,372	22,316	12,804	0.09	0.07	0.06	0.08	1.41	0.84	1.07	1.12
Other Excluding Electricity .....	782	1,021	570	1,191	0.09	0.06	0.05	0.07	1.43	1.14	0.89	1.41
Buildings without Cooling .....	562	540	Q	1,087	0.11	0.08	0.08	0.09	0.34	0.27	0.25	0.53
<b>Water-Heating Energy Source</b>												
Electricity .....	6,548	4,334	11,684	5,015	0.10	0.07	0.06	0.08	1.46	0.94	1.11	1.10
Other Excluding Electricity .....	7,755	7,323	9,164	9,051	0.09	0.07	0.06	0.08	1.27	0.81	1.07	1.10
Buildings without Water Heating .....	830	1,276	2,427	1,017	0.11	0.06	0.07	0.08	0.60	0.47	0.60	0.69
<b>Cooking Energy Source</b>												
Electricity .....	4,202	3,539	7,441	3,070	0.09	0.06	0.06	0.07	1.57	1.06	1.44	1.20
Other Excluding Electricity .....	3,581	2,415	4,011	2,614	0.09	0.07	0.06	0.09	1.40	0.89	1.18	1.15
Buildings without Cooking .....	7,350	6,978	11,823	9,399	0.10	0.07	0.07	0.08	1.09	0.67	0.82	0.99
<b>Energy End Uses (more than one may apply)</b>												
Buildings with Space Heating .....	15,007	12,822	21,625	13,709	0.09	0.07	0.06	0.08	1.29	0.81	1.05	1.02
Buildings with Cooling .....	14,572	12,393	22,886	13,995	0.09	0.07	0.06	0.08	1.41	0.86	1.06	1.14
Buildings with Water Heating .....	14,304	11,657	20,848	14,066	0.09	0.07	0.06	0.08	1.35	0.85	1.10	1.10
Buildings with Cooking .....	7,783	5,955	11,451	5,683	0.09	0.07	0.06	0.08	1.48	0.99	1.34	1.18
Buildings with Manufacturing .....	768	830	872	589	0.10	0.06	0.07	0.08	1.35	1.01	0.84	0.83
Buildings with Electricity Generation .....	4,238	3,195	5,583	2,494	0.08	0.06	0.06	0.07	1.36	1.15	1.37	1.29
<b>Percent of Floorspace Heated</b>												
Not Heated .....	Q	Q	1,650	1,373	Q	Q	0.07	0.11	Q	Q	0.67	1.54
1 to 50 .....	662	673	1,349	1,848	0.10	0.08	0.07	0.09	0.63	0.43	0.53	0.77
51 to 99 .....	2,291	1,821	4,695	2,577	0.09	0.07	0.06	0.07	1.36	0.78	1.08	1.07
100 .....	12,054	10,327	15,581	9,284	0.10	0.07	0.06	0.08	1.35	0.86	1.14	1.08
<b>Percent of Floorspace Cooled</b>												
Not Cooled .....	562	540	Q	1,087	0.11	0.08	0.08	0.09	0.34	0.27	0.25	0.53
1 to 50 .....	3,024	2,551	2,682	2,106	0.10	0.07	0.07	0.09	0.77	0.50	0.58	0.65
51 to 99 .....	4,962	4,452	6,828	3,898	0.09	0.06	0.06	0.07	1.55	0.94	1.18	1.21
100 .....	6,586	5,390	13,375	7,991	0.09	0.07	0.06	0.08	2.06	1.18	1.20	1.39
<b>Percent Lit When Open</b>												
Zero .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50 .....	997	1,163	1,784	1,451	0.11	0.08	0.07	0.10	0.62	0.47	0.59	0.70
51 to 99 .....	5,314	4,988	6,914	4,358	0.10	0.06	0.06	0.08	1.30	0.86	1.08	1.00
100 .....	8,806	6,712	14,331	9,215	0.09	0.07	0.06	0.08	1.45	0.88	1.12	1.20
Building Never Open/ Electricity Not Used .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Percent Lit When Closed</b>												
Zero .....	2,372	2,714	4,756	4,192	0.11	0.08	0.07	0.09	0.70	0.52	0.65	0.87
1 to 50 .....	7,373	6,813	11,058	6,551	0.10	0.07	0.07	0.08	1.28	0.85	1.01	1.05
51 to 100 .....	Q	348	1,866	961	Q	0.06	0.07	0.08	Q	0.99	1.88	1.94
Building Never Closed/ Electricity Not Used .....	4,707	3,058	5,595	3,379	0.09	0.06	0.06	0.07	1.89	1.12	1.44	1.23
<b>Heating Equipment (more than one may apply)</b>												
Heat Pumps .....	1,558	1,034	5,363	2,288	0.08	0.05	0.06	0.08	1.31	1.02	1.17	1.07
Furnaces .....	2,158	3,822	3,159	1,583	0.10	0.08	0.07	0.07	0.96	0.66	0.80	0.64
Individual Space Heaters .....	4,085	3,528	4,802	2,695	0.09	0.06	0.06	0.07	1.15	0.76	0.88	0.74
District Heat .....	2,950	1,420	1,117	944	0.08	0.06	0.05	0.06	1.57	0.94	1.09	0.84
Boilers .....	5,532	4,520	5,001	3,795	0.09	0.06	0.06	0.07	1.01	0.76	1.19	0.98
Packaged Heating Units .....	6,980	5,377	11,406	7,307	0.09	0.07	0.06	0.08	1.73	1.06	1.09	1.18
Other .....	855	1,131	1,604	811	0.08	0.07	0.06	0.07	1.11	1.02	1.15	1.01

**Table C12. Electricity Expenditures by Census Region, 1999**

	Total Electricity Expenditures (million dollars)				Electricity Expenditures (dollars)							
					per kWh				per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>Cooling Equipment (more than one may apply)</b>												
Residential-Type Central												
Air Conditioners .....	1,040	2,091	3,055	927	0.09	0.07	0.06	0.08	1.09	0.71	0.93	0.80
Heat Pumps .....	1,370	1,104	5,364	2,578	0.08	0.05	0.06	0.08	1.13	1.04	1.17	1.14
Individual Air Conditioners .....	3,902	2,439	3,821	1,632	0.09	0.07	0.06	0.08	1.00	0.66	0.84	0.77
District Chilled Water .....	653	856	894	821	0.07	0.05	0.05	0.07	2.00	1.15	0.95	1.11
Central Chillers .....	4,057	3,607	5,909	3,469	0.08	0.06	0.06	0.07	1.46	1.15	1.37	1.31
Packaged Air Conditioning												
Units .....	10,699	7,922	14,911	9,527	0.09	0.07	0.06	0.08	1.61	0.97	1.07	1.23
Swamp Coolers .....	Q	Q	351	1,567	Q	Q	0.06	0.08	Q	Q	1.04	0.97
Other .....	Q	Q	408	Q	Q	Q	0.06	Q	Q	Q	1.19	Q
<b>Main Equipment Replaced Since 1995 (more than one may apply)</b>												
Heating .....	2,384	2,561	5,280	3,197	0.10	0.07	0.06	0.08	1.30	0.79	1.04	1.04
Cooling .....	3,849	3,322	7,427	3,783	0.10	0.07	0.06	0.08	1.25	0.87	1.05	1.11
<b>Lighting Equipment Types (more than one may apply)</b>												
Incandescent .....	8,951	7,438	14,012	8,944	0.09	0.07	0.06	0.08	1.27	0.75	1.08	1.09
Standard Fluorescent .....	14,183	12,290	21,826	14,317	0.09	0.07	0.06	0.08	1.25	0.83	1.05	1.08
Compact Fluorescent .....	5,795	5,621	7,541	5,313	0.09	0.06	0.06	0.07	1.47	1.02	1.17	1.11
High Intensity Discharge .....	5,051	4,796	6,844	3,052	0.09	0.06	0.06	0.07	1.15	0.87	1.17	0.88
Halogen .....	5,585	4,336	6,375	4,360	0.09	0.06	0.06	0.07	1.54	0.98	1.09	1.08
Other .....	Q	Q	733	Q	Q	Q	0.07	Q	Q	Q	1.66	Q
<b>Water Heating Equipment</b>												
Centralized System .....	9,545	6,801	12,508	9,157	0.10	0.07	0.06	0.08	1.38	0.75	1.09	1.13
Distributed System .....	2,153	1,839	4,269	3,121	0.10	0.07	0.06	0.08	1.18	0.79	1.04	1.19
Combination of Centralized and Distributed System .....	2,606	3,017	4,071	1,788	0.08	0.06	0.06	0.07	1.44	1.29	1.20	0.85
<b>Commercial Refrigeration Equipment (more than one may apply)</b>												
Any Equipment .....	8,851	6,722	11,620	7,089	0.09	0.06	0.06	0.08	1.60	1.08	1.33	1.38
Walk-In Units .....	7,395	5,300	9,768	6,026	0.09	0.06	0.06	0.08	1.71	1.16	1.43	1.51
Cases or Cabinets .....	7,748	5,784	10,188	6,336	0.09	0.06	0.06	0.08	1.64	1.07	1.36	1.46
None .....	6,282	6,211	11,655	7,994	0.10	0.07	0.07	0.08	0.98	0.61	0.81	0.87
<b>Personal Computers</b>												
None .....	584	1,076	1,925	1,178	0.12	0.08	0.07	0.09	0.52	0.47	0.58	0.95
1 to 4 .....	2,920	2,729	4,670	2,690	0.10	0.08	0.07	0.09	1.27	0.73	0.98	0.88
5 to 9 .....	1,144	1,016	3,163	1,625	0.11	0.07	0.07	0.09	1.41	0.78	1.10	1.06
10 to 19 .....	1,985	986	2,839	1,938	0.11	0.07	0.07	0.09	1.13	0.63	1.05	1.30
20 to 49 .....	2,129	1,324	2,826	1,884	0.10	0.06	0.06	0.08	1.53	0.68	1.09	0.87
50 to 99 .....	987	1,348	1,765	1,501	0.10	0.07	0.06	0.08	1.09	0.82	0.93	1.05
100 to 249 .....	1,928	1,972	2,338	1,438	0.08	0.06	0.06	0.06	1.21	1.08	1.08	1.18
250 or More .....	3,458	2,484	3,750	2,829	0.08	0.06	0.06	0.07	1.66	1.20	1.35	1.31
<b>Photocopiers</b>												
None .....	3,042	3,208	6,676	4,689	0.11	0.08	0.07	0.09	0.92	0.67	0.87	1.10
One .....	2,444	2,280	5,250	2,867	0.10	0.07	0.07	0.08	1.50	0.72	1.04	0.93
2 to 4 .....	3,525	2,843	5,158	3,000	0.10	0.07	0.06	0.08	1.18	0.67	1.01	0.91
5 to 9 .....	1,097	1,646	1,532	1,351	0.08	0.06	0.06	0.08	1.11	1.04	0.97	1.09
10 or More .....	5,026	2,957	4,659	3,175	0.08	0.06	0.06	0.07	1.64	1.13	1.26	1.33

**Table C12. Electricity Expenditures by Census Region, 1999**

	Total Electricity Expenditures (million dollars)				Electricity Expenditures (dollars)							
					per kWh				per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>Other Electronic Equipment (more than one may apply)</b>												
Laser Printers .....	12,301	9,809	17,415	11,514	0.09	0.06	0.06	0.08	1.35	0.88	1.11	1.08
FAX Machines .....	14,227	11,562	20,602	13,270	0.09	0.07	0.06	0.08	1.36	0.86	1.10	1.10
Medical Diagnostic Equipment .....	577	768	1,544	885	0.07	0.06	0.05	0.07	1.58	1.31	1.62	1.51
<b>Annual Consumption (kilowatthours)</b>												
10,000 or Less .....	92	124	124	85	0.15	0.12	0.10	0.12	0.18	0.13	0.10	0.18
10,001 to 50,000 .....	640	932	1,271	1,013	0.13	0.09	0.09	0.10	0.45	0.33	0.44	0.49
50,001 to 100,000 .....	960	1,082	1,762	1,116	0.12	0.09	0.08	0.09	0.77	0.65	0.71	0.69
100,001 to 500,000 .....	4,285	3,014	7,103	4,521	0.11	0.07	0.07	0.09	1.59	0.79	1.11	1.16
500,001 to 1,000,000 .....	1,564	1,472	2,395	2,094	0.10	0.07	0.07	0.08	1.23	0.80	1.11	1.23
1,000,001 to 5,000,000 .....	3,396	3,270	6,639	3,927	0.09	0.06	0.06	0.07	1.42	1.02	1.30	1.33
Over 5,000,000 .....	4,196	3,039	3,981	2,325	0.08	0.06	0.05	0.07	1.73	1.49	1.43	1.48
<b>Provider of Purchased Electricity (more than one may apply)</b>												
Local Utility .....	13,028	12,305	22,365	13,838	0.10	0.07	0.06	0.08	1.24	0.79	1.00	1.01
Some Other Provider .....	2,053	406	324	Q	0.09	0.07	0.07	0.08	1.48	0.91	0.54	1.85

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.

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* 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 C13. Electricity Consumption and Conditional Energy Intensity, 1999**

	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/square foot)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
<b>All Buildings</b> .....	205	362	341	14,001	30,052	21,663	14.6	12.0	15.8
<b>Principal Building Activity</b>									
Education .....	6	44	25	782	4,831	3,038	8.1	9.1	8.3
Food Sales .....	27	19	Q	439	485	Q	60.4	39.8	Q
Food Service .....	52	Q	Q	1,296	Q	Q	40.5	Q	Q
Health Care .....	5	14	49	407	672	1,838	11.6	20.6	26.9
Inpatient .....	N	Q	46	N	Q	1,683	N	Q	27.3
Outpatient .....	5	9	Q	407	490	Q	11.6	18.7	Q
Lodging .....	7	31	20	405	2,336	1,780	17.5	13.1	11.1
Mercantile .....	29	68	56	1,971	4,630	3,797	14.8	14.6	14.7
Retail (Other Than Mall) .....	22	23	19	1,649	2,375	742	13.6	9.7	25.8
Enclosed and Strip Malls .....	Q	45	37	Q	2,255	3,055	Q	19.8	12.1
Office .....	31	79	114	2,275	4,628	5,140	13.8	17.1	22.2
Public Assembly .....	8	28	20	943	2,254	1,143	8.2	12.5	17.6
Public Order and Safety .....	Q	7	Q	Q	557	Q	Q	12.8	Q
Religious Worship .....	3	9	Q	1,003	2,353	Q	2.5	4.0	Q
Service .....	17	16	Q	1,756	1,265	Q	9.9	12.8	Q
Warehouse and Storage .....	Q	24	30	1,613	4,695	3,570	6.5	5.0	8.5
Other .....	Q	12	11	Q	445	390	Q	28.0	29.1
Vacant .....	Q	Q	Q	Q	416	Q	Q	2.3	Q
<b>Year Constructed</b>									
1919 or Before .....	8	10	Q	1,253	1,816	645	6.5	5.6	12.9
1920 to 1945 .....	16	20	18	1,496	2,784	2,001	10.6	7.1	9.2
1946 to 1959 .....	20	41	29	2,555	4,092	2,147	7.8	10.1	13.7
1960 to 1969 .....	33	53	51	1,975	4,888	3,822	16.8	10.9	13.2
1970 to 1979 .....	42	71	69	2,395	5,421	3,934	17.7	13.0	17.5
1980 to 1989 .....	43	92	86	2,031	6,459	4,994	21.1	14.3	17.3
1990 to 1999 .....	42	75	79	2,296	4,591	4,120	18.4	16.2	19.2
<b>Census Region and Division</b>									
Northeast .....	31	52	76	2,066	4,887	5,011	15.2	10.7	15.1
New England .....	7	14	18	489	1,750	1,376	13.6	8.1	13.0
Middle Atlantic .....	25	38	58	1,577	3,137	3,635	15.7	12.1	15.8
Midwest .....	38	70	86	3,615	6,987	5,786	10.6	10.0	14.9
East North Central .....	28	45	53	2,476	4,511	3,954	11.3	9.9	13.5
West North Central .....	10	25	33	1,140	2,477	1,832	8.9	10.1	18.0
South .....	89	154	123	5,273	10,981	6,822	16.8	14.0	18.0
South Atlantic .....	36	76	68	2,272	4,967	3,578	15.7	15.3	19.1
East South Central .....	22	38	20	1,094	2,865	1,190	20.0	13.2	16.6
West South Central .....	31	40	35	1,907	3,149	2,054	16.4	12.8	17.0
West .....	46	86	56	3,046	7,196	4,044	15.2	12.0	14.0
Mountain .....	12	24	16	916	2,216	1,160	13.0	10.8	13.5
Pacific .....	34	63	41	2,130	4,981	2,884	16.1	12.5	14.1
<b>Climate Zone: 45-Year Average</b>									
Under 2,000 CDD and --									
More than 7,000 HDD .....	19	22	24	1,535	2,787	1,428	12.1	7.9	16.9
5,500-7,000 HDD .....	34	74	89	2,724	7,292	6,690	12.6	10.1	13.2
4,000-5,499 HDD .....	53	78	100	3,643	6,119	6,031	14.5	12.8	16.7
Fewer than 4,000 HDD .....	55	110	77	3,099	8,273	4,549	17.6	13.4	17.0
2,000 CDD or More and --									
Fewer than 4,000 HDD .....	44	78	51	3,000	5,580	2,966	14.8	13.9	17.1



**Table C13. Electricity Consumption and Conditional Energy Intensity, 1999**

	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/square foot)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
<b>Workers (main shift)</b>									
Fewer than 5 .....	73	24	1	7,017	5,189	544	10.4	4.5	2.0
5 to 9 .....	40	22	2	2,782	3,099	393	14.2	7.2	4.4
10 to 19 .....	48	51	4	2,582	4,708	737	18.5	10.8	5.5
20 to 49 .....	37	98	13	1,409	7,706	1,699	26.6	12.7	7.6
50 to 99 .....	Q	82	35	Q	5,681	3,074	Q	14.5	11.3
100 to 249 .....	Q	64	84	Q	2,832	5,457	Q	22.5	15.4
250 or More .....	N	21	203	N	837	9,759	N	25.7	20.8
<b>Weekly Operating Hours</b>									
39 or Fewer .....	10	8	Q	2,658	2,120	Q	3.7	3.8	Q
40 to 48 .....	38	58	18	4,191	6,959	1,920	9.0	8.4	9.1
49 to 60 .....	39	71	60	3,004	7,423	3,759	12.9	9.6	16.1
61 to 84 .....	34	68	70	2,003	5,368	5,009	17.1	12.7	14.0
85 to 167 .....	58	71	49	1,280	3,797	3,853	45.0	18.7	12.8
Open Continuously .....	27	85	142	864	4,385	6,586	30.7	19.4	21.6
<b>Ownership and Occupancy</b>									
Nongovernment Owned .....	188	292	263	12,693	24,179	16,767	14.8	12.1	15.7
Owner Occupied .....	131	190	208	9,010	15,971	12,525	14.6	11.9	16.6
Nonowner Occupied .....	55	100	55	3,402	7,886	4,153	16.2	12.7	13.4
Unoccupied .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government Owned .....	17	70	78	1,307	5,872	4,897	12.8	12.0	15.9
Federal .....	Q	10	23	Q	548	1,007	Q	18.7	22.5
State .....	Q	21	23	Q	1,692	1,484	Q	12.3	15.8
Local .....	11	39	32	946	3,632	2,405	11.7	10.8	13.2
<b>Vacancy Status</b>									
Completely Vacant .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
Mostly Vacant .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
Partially Vacant .....	17	67	106	1,917	5,861	7,315	8.7	11.4	14.5
Not At All Vacant .....	186	294	234	11,575	23,775	14,161	16.1	12.4	16.6
<b>Number of Establishments</b>									
One .....	171	238	183	10,973	20,437	11,428	15.6	11.6	16.0
2 to 5 .....	27	55	44	2,487	4,896	3,059	10.8	11.2	14.3
6 to 10 .....	Q	36	19	Q	2,173	1,219	Q	16.5	15.6
11 to 20 .....	Q	24	29	Q	1,591	1,661	Q	15.4	17.4
More than 20 .....	Q	8	66	Q	590	4,163	Q	13.7	15.8
Currently Unoccupied .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Energy Sources (more than one may apply)</b>									
Electricity .....	205	362	341	14,001	30,052	21,663	14.6	12.0	15.8
Natural Gas .....	132	253	258	8,625	20,570	16,301	15.3	12.3	15.8
Fuel Oil .....	9	53	165	1,203	3,570	8,503	7.4	14.7	19.4
District Heat .....	Q	30	71	Q	2,007	3,613	Q	15.1	19.7
District Chilled Water .....	Q	16	38	Q	927	1,730	Q	17.4	22.1
Propane .....	26	26	24	1,621	2,637	2,032	16.3	9.8	12.0
Other .....	Q	12	14	Q	890	963	Q	13.5	14.4
<b>Space-Heating Energy Source</b>									
Electricity .....	92	207	199	5,459	15,069	11,763	16.9	13.8	16.9
Electricity Main .....	64	139	100	3,062	8,667	5,898	20.9	16.0	16.9
Electricity Secondary .....	28	69	99	2,397	6,402	5,866	11.8	10.7	16.9
Other Excluding Electricity .....	97	139	135	7,286	12,949	9,040	13.3	10.7	14.9
Buildings without Heating .....	15	16	8	1,256	2,034	861	12.2	7.7	9.2

**Table C13. Electricity Consumption and Conditional Energy Intensity, 1999**

	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/square foot)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
<b>Primary Space-Heating</b>									
<b>Energy Source</b>									
Electricity .....	64	139	100	3,062	8,667	5,898	20.9	16.0	16.9
Natural Gas .....	101	165	156	7,344	14,997	10,360	13.8	11.0	15.1
Fuel Oil .....	7	10	12	1,038	1,559	1,113	7.2	6.4	10.9
District Heat .....	Q	25	64	Q	1,645	3,301	Q	15.2	19.4
Propane .....	Q	6	Q	1,084	980	Q	14.1	5.6	Q
Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Cooling Energy Source</b>									
Electricity .....	183	334	309	10,723	25,930	18,893	17.1	12.9	16.3
Other Excluding Electricity .....	Q	17	27	Q	1,117	1,443	Q	15.0	18.9
Buildings without Cooling .....	13	11	5	2,909	3,004	1,328	4.4	3.8	4.1
<b>Water-Heating Energy Source</b>									
Electricity .....	85	151	142	4,593	10,985	8,593	18.6	13.7	16.5
Other Excluding Electricity .....	96	179	180	5,434	14,990	11,519	17.7	11.9	15.7
Buildings without Water Heating .....	23	33	19	3,973	4,077	1,551	5.8	8.0	12.3
<b>Cooking Energy Source</b>									
Electricity .....	51	78	144	1,148	4,838	7,747	44.7	16.1	18.5
Other Excluding Electricity .....	26	58	84	1,220	4,109	5,620	21.7	14.1	14.9
Buildings without Cooking .....	127	226	114	11,633	21,105	8,297	10.9	10.7	13.7
<b>Energy End Uses (more than one may apply)</b>									
Buildings with Space Heating .....	189	346	333	12,745	28,018	20,803	14.8	12.4	16.0
Buildings with Cooling .....	192	351	336	11,092	27,047	20,335	17.3	13.0	16.5
Buildings with Water Heating .....	182	330	322	10,028	25,974	20,112	18.1	12.7	16.0
Buildings with Cooking .....	78	136	227	2,367	8,947	13,367	32.8	15.2	17.0
Buildings with Manufacturing .....	4	15	24	553	1,509	1,064	7.9	10.1	22.5
Buildings with Electricity Generation .....	Q	69	169	Q	3,166	8,339	Q	21.7	20.3
<b>Percent of Floorspace Heated</b>									
Not Heated .....	15	16	8	1,256	2,034	861	12.2	7.7	9.2
1 to 50 .....	12	24	20	2,182	3,567	1,816	5.6	6.7	11.0
51 to 99 .....	39	61	64	1,927	5,025	3,785	20.0	12.1	16.9
100 .....	138	262	249	8,636	19,426	15,202	16.0	13.5	16.4
<b>Percent of Floorspace Cooled</b>									
Not Cooled .....	13	11	5	2,909	3,004	1,328	4.4	3.8	4.1
1 to 50 .....	29	58	41	3,318	8,920	4,608	8.8	6.5	8.8
51 to 99 .....	46	107	141	2,273	7,021	7,673	20.4	15.2	18.3
100 .....	116	186	154	5,501	11,106	8,054	21.2	16.8	19.2
<b>Percent Lit When Open</b>									
Zero .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50 .....	29	30	7	3,075	4,719	1,392	9.4	6.3	4.7
51 to 99 .....	65	114	115	4,113	9,755	6,797	15.9	11.7	16.9
100 .....	108	216	219	6,092	14,839	13,302	17.7	14.6	16.5
Building Never Open/ Electricity Not Used .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Percent Lit When Closed</b>									
Zero .....	62	84	26	7,199	10,435	3,137	8.6	8.1	8.4
1 to 50 .....	99	173	156	5,406	14,482	11,062	18.4	11.9	14.1
51 to 100 .....	Q	20	17	Q	750	878	Q	27.0	18.8
Building Never Closed/ Electricity Not Used .....	27	85	142	864	4,385	6,586	30.7	19.4	21.6

**Table C13. Electricity Consumption and Conditional Energy Intensity, 1999**

	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/square foot)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
<b>Heating Equipment (more than one may apply)</b>									
Heat Pumps .....	28	62	61	1,424	4,158	3,341	19.5	15.0	18.3
Furnaces .....	46	57	36	5,118	6,438	2,892	8.9	8.9	12.6
Individual Space Heaters .....	24	87	103	2,505	7,732	7,084	9.8	11.3	14.6
District Heat .....	Q	28	70	Q	1,828	3,545	Q	15.4	19.7
Boilers .....	18	91	158	1,504	8,327	9,683	12.1	11.0	16.3
Packaged Heating Units .....	95	177	159	4,080	11,951	9,713	23.2	14.8	16.4
Other .....	7	19	41	515	1,422	2,135	14.0	13.4	19.1
<b>Cooling Equipment (more than one may apply)</b>									
Residential-Type Central									
Air Conditioners .....	28	35	37	2,496	3,501	2,333	11.3	10.0	15.9
Heat Pumps .....	28	62	62	1,406	4,167	3,574	20.1	15.0	17.4
Individual Air Conditioners .....	25	62	72	2,358	6,679	5,239	10.7	9.3	13.8
District Chilled Water .....	Q	16	38	Q	927	1,730	Q	17.4	22.1
Central Chillers .....	Q	63	196	Q	3,215	9,517	Q	19.7	20.5
Packaged Air Conditioning									
Units .....	124	244	217	5,810	17,315	13,402	21.3	14.1	16.2
Swamp Coolers .....	Q	13	10	435	1,009	775	Q	12.6	13.3
Other .....	Q	7	15	Q	452	707	Q	16.4	20.5
<b>Main Equipment Replaced Since 1995 (more than one may apply)</b>									
Heating .....	47	89	47	3,082	6,831	3,307	15.4	13.0	14.1
Cooling .....	54	111	88	3,037	8,726	5,628	17.9	12.7	15.6
<b>Lighting Equipment Types (more than one may apply)</b>									
Incandescent .....	111	207	225	6,993	16,939	14,223	15.8	12.2	15.8
Standard Fluorescent .....	182	348	332	11,876	27,684	20,784	15.3	12.6	16.0
Compact Fluorescent .....	38	110	203	1,846	7,480	11,340	20.6	14.6	17.9
High Intensity Discharge .....	14	95	191	908	7,026	11,290	15.1	13.6	16.9
Halogen .....	34	89	170	1,590	6,536	9,800	21.6	13.5	17.3
Other .....	Q	4	7	Q	394	464	Q	10.4	15.3
<b>Water Heating Equipment</b>									
Centralized System .....	139	207	155	7,891	17,503	10,186	17.6	11.8	15.3
Distributed System .....	27	63	66	1,781	4,667	4,450	15.4	13.5	14.8
Combination of Centralized and Distributed System .....	15	59	101	356	3,805	5,476	43.3	15.6	18.4
<b>Commercial Refrigeration Equipment (more than one may apply)</b>									
Any Equipment .....	93	145	247	2,505	9,110	14,036	37.1	15.9	17.6
Walk-In Units .....	85	113	208	1,794	5,926	11,992	47.4	19.1	17.4
Cases or Cabinets .....	86	124	215	2,290	7,409	12,302	37.3	16.8	17.4
None .....	112	217	94	11,496	20,941	7,627	9.7	10.4	12.4
<b>Personal Computers</b>									
None .....	45	11	1	4,958	2,450	553	9.1	4.4	Q
1 to 4 .....	86	69	8	5,315	7,464	1,074	16.2	9.2	7.5
5 to 9 .....	36	48	7	1,688	4,200	641	21.2	11.3	10.3
10 to 19 .....	26	52	18	1,534	4,084	1,896	17.2	12.7	9.4
20 to 49 .....	10	62	40	476	4,721	2,890	21.5	13.1	13.8
50 to 99 .....	Q	46	32	Q	3,514	2,327	Q	13.0	13.7
100 to 249 .....	Q	56	63	Q	2,878	3,936	Q	19.6	16.1
250 or More .....	N	19	172	N	741	8,347	N	25.9	20.7

**Table C13. Electricity Consumption and Conditional Energy Intensity, 1999**

	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/square foot)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
<b>Photocopiers</b>									
None .....	120	82	15	8,902	9,168	1,939	13.5	9.0	7.8
One .....	64	87	18	3,724	7,537	1,667	17.1	11.6	10.9
2 to 4 .....	18	113	69	1,165	8,936	5,519	15.6	12.6	12.5
5 to 9 .....	Q	39	42	Q	2,236	2,937	Q	17.2	14.4
10 or More .....	N	42	197	N	2,173	9,601	N	19.1	20.5
<b>Other Electronic Equipment (more than one may apply)</b>									
Laser Printers .....	94	296	328	5,396	21,598	19,573	17.4	13.7	16.8
FAX Machines .....	155	333	338	8,525	25,429	20,810	18.1	13.1	16.3
Medical Diagnostic Equipment .....	Q	11	48	Q	527	1,700	Q	21.0	28.2
<b>Annual Consumption (kilowatthours)</b>									
10,000 or Less .....	4	Q	Q	2,504	669	Q	1.4	0.3	Q
10,001 to 50,000 .....	35	6	Q	5,798	3,247	Q	6.0	1.8	Q
50,001 to 100,000 .....	40	15	Q	2,706	4,052	Q	14.6	3.6	Q
100,001 to 500,000 .....	115	116	3	2,873	12,539	1,398	40.2	9.2	2.0
500,001 to 1,000,000 .....	Q	79	9	Q	4,782	2,066	Q	16.6	4.4
1,000,001 to 5,000,000 .....	Q	140	116	Q	4,707	8,951	Q	29.8	13.0
Over 5,000,000 .....	N	Q	213	N	Q	8,767	N	Q	24.3
<b>Provider of Purchased Electricity (more than one may apply)</b>									
Local Utility .....	192	342	310	13,378	28,799	19,866	14.3	11.9	15.6
Some Other Provider .....	Q	15	28	Q	1,110	1,510	Q	13.8	18.9

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.

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* 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 C14. Electricity Consumption and Conditional Energy Intensity by Year Constructed, 1999**

	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/square foot)		
	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
<b>All Buildings</b> .....	171	540	196	18,788	35,920	11,007	9.1	15.0	17.8
<b>Building Floorspace (Square Feet)</b>									
1,001 to 5,000 .....	24	71	26	2,222	2,944	1,114	10.9	24.1	23.7
5,001 to 10,000 .....	20	47	16	3,081	3,457	1,182	6.4	13.7	13.4
10,001 to 25,000 .....	30	65	14	3,835	5,916	1,091	7.7	11.1	12.4
25,001 to 50,000 .....	21	64	24	2,427	5,109	1,638	8.5	12.6	14.4
50,001 to 100,000 .....	21	86	37	2,430	5,743	1,862	8.6	15.1	20.1
100,001 to 200,000 .....	16	82	34	1,779	4,816	1,651	8.8	17.1	20.6
200,001 to 500,000 .....	17	59	24	1,695	3,756	1,338	10.2	15.7	17.6
Over 500,000 .....	23	65	22	1,318	4,179	1,131	17.5	15.5	19.2
<b>Principal Building Activity</b>									
Education .....	23	40	13	3,247	4,165	1,239	7.1	9.5	10.3
Food Sales .....	Q	22	19	Q	443	355	Q	50.6	53.9
Food Service .....	12	37	Q	608	952	Q	19.4	39.1	Q
Health Care .....	9	49	10	548	1,897	473	16.0	26.0	21.3
Inpatient .....	8	39	Q	434	1,277	Q	17.7	30.3	Q
Outpatient .....	Q	11	6	Q	620	319	Q	17.0	18.6
Lodging .....	8	40	10	808	2,996	716	10.1	13.3	13.3
Mercantile .....	23	89	41	2,582	5,786	2,030	8.9	15.4	20.1
Retail (Other Than Mall) .....	14	26	25	1,901	1,726	1,139	7.4	14.8	22.0
Enclosed and Strip Malls .....	9	63	16	681	4,060	891	13.3	15.6	17.6
Office .....	43	148	33	2,907	7,306	1,830	14.9	20.3	18.2
Public Assembly .....	13	30	13	1,395	2,209	736	9.7	13.4	17.5
Public Order and Safety .....	3	5	Q	392	411	Q	8.0	12.2	Q
Religious Worship .....	3	7	Q	1,301	1,748	Q	2.4	4.2	Q
Service .....	11	24	Q	1,253	1,768	Q	9.1	13.8	Q
Warehouse and Storage .....	9	36	19	2,509	5,342	2,028	3.7	6.7	9.6
Other .....	Q	12	Q	Q	603	Q	Q	19.9	Q
Vacant .....	Q	Q	Q	797	Q	Q	Q	Q	Q
<b>Census Region and Division</b>									
Northeast .....	46	85	28	4,798	5,790	1,376	9.6	14.7	20.2
New England .....	9	23	6	1,211	1,971	433	7.8	11.7	14.3
Middle Atlantic .....	36	62	22	3,587	3,819	943	10.2	16.3	22.9
Midwest .....	49	107	38	5,999	7,601	2,788	8.2	14.0	13.7
East North Central .....	32	68	26	4,377	4,697	1,866	7.3	14.4	14.1
West North Central .....	17	39	12	1,622	2,904	922	10.7	13.4	13.0
South .....	48	230	87	4,971	13,667	4,439	9.7	16.8	19.7
South Atlantic .....	18	115	46	1,989	6,525	2,303	9.3	17.7	19.9
East South Central .....	12	47	Q	1,038	3,067	1,044	11.8	15.4	19.1
West South Central .....	18	67	22	1,944	4,074	1,092	9.1	16.5	19.8
West .....	28	119	42	3,020	8,862	2,404	9.2	13.4	17.7
Mountain .....	10	31	11	1,074	2,519	698	8.9	12.3	15.5
Pacific .....	18	88	32	1,946	6,343	1,706	9.4	13.8	18.6
<b>Climate Zone: 45-Year Average</b>									
Under 2,000 CDD and --									
More than 7,000 HDD .....	12	40	13	1,886	2,947	918	6.2	13.5	14.1
5,500-7,000 HDD .....	49	104	43	6,010	8,107	2,589	8.2	12.9	16.7
4,000-5,499 HDD .....	55	131	46	5,304	7,973	2,516	10.3	16.4	18.3
Fewer than 4,000 HDD .....	31	150	61	3,070	9,643	3,209	10.1	15.6	19.1
2,000 CDD or More and --									
Fewer than 4,000 HDD .....	25	115	33	2,519	7,251	1,776	9.8	15.9	18.3

**Table C14. Electricity Consumption and Conditional Energy Intensity by Year Constructed, 1999**

	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/square foot)		
	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
<b>Workers (main shift)</b>									
Fewer than 5 .....	26	53	19	5,752	5,372	1,626	4.5	9.8	11.9
5 to 9 .....	15	40	9	2,026	3,419	829	7.4	11.7	10.4
10 to 19 .....	25	57	21	2,781	4,093	1,153	9.0	13.9	17.9
20 to 49 .....	29	86	34	2,953	5,772	2,089	9.8	14.8	16.4
50 to 99 .....	16	77	29	1,638	5,660	1,601	10.0	13.7	17.9
100 to 249 .....	19	90	40	1,580	4,990	1,786	12.3	17.9	22.4
250 or More .....	41	139	45	2,057	6,614	1,925	19.9	21.0	23.2
<b>Weekly Operating Hours</b>									
39 or Fewer .....	6	12	Q	2,499	2,384	Q	2.5	5.1	Q
40 to 48 .....	30	66	17	4,927	6,373	1,771	6.2	10.4	9.5
49 to 60 .....	40	97	34	4,248	7,646	2,292	9.3	12.6	14.8
61 to 84 .....	32	110	30	2,837	7,363	2,180	11.3	14.9	13.9
85 to 167 .....	27	104	48	1,819	5,129	1,981	14.6	20.2	24.0
Open Continuously .....	36	152	66	2,458	7,025	2,352	14.7	21.6	28.1
<b>Ownership and Occupancy</b>									
Nongovernment Owned .....	125	454	163	14,624	29,964	9,052	8.6	15.2	18.0
Owner Occupied .....	94	318	117	10,865	20,448	6,193	8.7	15.6	18.9
Nonowner Occupied .....	30	135	46	3,440	9,199	2,802	8.8	14.7	16.3
Unoccupied .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government Owned .....	46	86	33	4,164	5,956	1,956	11.0	14.5	16.9
Federal .....	15	14	7	826	642	243	18.7	21.8	26.7
State .....	13	25	9	1,177	1,650	554	11.3	15.1	16.1
Local .....	17	47	18	2,161	3,664	1,158	7.9	12.9	15.3
<b>Vacancy Status</b>									
Completely Vacant .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
Mostly Vacant .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
Partially Vacant .....	33	119	38	3,749	8,571	2,773	8.7	13.9	13.8
Not At All Vacant .....	137	420	158	14,242	27,055	8,213	9.6	15.5	19.2
<b>Number of Establishments</b>									
One .....	118	334	141	13,129	22,103	7,607	9.0	15.1	18.5
2 to 5 .....	25	75	26	3,372	5,326	1,745	7.3	14.1	14.7
6 to 10 .....	9	43	8	679	2,410	479	12.9	17.8	16.0
11 to 20 .....	Q	37	9	Q	2,256	498	Q	16.5	18.9
More than 20 .....	11	50	13	709	3,479	621	16.1	14.4	20.4
Currently Unoccupied .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Energy Sources (more than one may apply)</b>									
Electricity .....	171	540	196	18,788	35,920	11,007	9.1	15.0	17.8
Natural Gas .....	123	369	151	13,034	24,386	8,076	9.4	15.1	18.7
Fuel Oil .....	42	142	43	3,579	7,590	2,108	11.7	18.7	20.2
District Heat .....	34	54	Q	2,338	2,876	677	14.3	18.7	26.3
District Chilled Water .....	14	29	13	794	1,550	407	17.1	18.4	32.8
Propane .....	10	49	17	1,410	3,586	1,295	7.4	13.8	13.1
Other .....	9	18	6	765	1,204	353	12.1	14.6	18.0
<b>Space-Heating Energy Source</b>									
Electricity .....	83	304	111	7,313	19,045	5,933	11.4	16.0	18.7
Electricity Main .....	35	190	77	2,769	11,150	3,708	12.6	17.0	20.9
Electricity Secondary .....	49	114	34	4,544	7,896	2,225	10.7	14.4	15.2
Other Excluding Electricity .....	85	206	79	10,205	14,403	4,667	8.3	14.3	17.0
Buildings without Heating .....	3	30	Q	1,271	2,473	Q	2.6	12.1	Q

**Table C14. Electricity Consumption and Conditional Energy Intensity by Year Constructed, 1999**

	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/square foot)		
	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
<b>Primary Space-Heating</b>									
<b>Energy Source</b>									
Electricity .....	35	190	77	2,769	11,150	3,708	12.6	17.0	20.9
Natural Gas .....	89	241	93	10,176	16,847	5,677	8.7	14.3	16.3
Fuel Oil .....	10	18	Q	1,745	1,707	Q	5.6	10.3	Q
District Heat .....	30	45	15	2,151	2,497	428	14.0	18.2	34.1
Propane .....	4	14	Q	519	1,074	Q	6.8	13.0	Q
Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Cooling Energy Source</b>									
Electricity .....	148	501	177	14,026	31,749	9,770	10.5	15.8	18.1
Other Excluding Electricity .....	12	25	16	869	1,474	585	13.3	17.2	27.1
Buildings without Cooling .....	12	14	Q	3,893	2,697	Q	3.1	5.3	Q
<b>Water-Heating Energy Source</b>									
Electricity .....	49	242	87	4,820	14,952	4,399	10.2	16.2	19.7
Other Excluding Electricity .....	101	259	95	10,108	16,788	5,047	10.0	15.4	18.8
Buildings without Water Heating .....	21	39	15	3,859	4,180	1,561	5.4	9.3	9.4
<b>Cooking Energy Source</b>									
Electricity .....	47	171	56	3,024	8,251	2,458	15.4	20.7	22.6
Other Excluding Electricity .....	38	86	44	3,495	5,509	1,945	10.8	15.6	22.6
Buildings without Cooking .....	87	284	97	12,269	22,161	6,605	7.1	12.8	14.6
<b>Energy End Uses (more than one may apply)</b>									
Buildings with Space Heating .....	168	510	190	17,517	33,448	10,600	9.6	15.3	18.0
Buildings with Cooling .....	159	526	193	14,895	33,224	10,355	10.7	15.8	18.6
Buildings with Water Heating .....	150	501	181	14,928	31,740	9,446	10.1	15.8	19.2
Buildings with Cooking .....	84	257	100	6,519	13,759	4,403	13.0	18.7	22.6
Buildings with Manufacturing .....	10	25	9	933	1,709	485	10.5	14.6	18.3
Buildings with Electricity Generation .....	35	151	59	1,992	7,149	2,741	17.8	21.1	21.6
<b>Percent of Floorspace Heated</b>									
Not Heated .....	3	30	Q	1,271	2,473	Q	2.6	12.1	Q
1 to 50 .....	14	32	9	2,617	3,749	1,198	5.5	8.6	7.7
51 to 99 .....	33	94	37	3,218	5,742	1,777	10.3	16.3	20.6
100 .....	121	384	145	11,683	23,957	7,625	10.3	16.0	19.0
<b>Percent of Floorspace Cooled</b>									
Not Cooled .....	12	14	Q	3,893	2,697	Q	3.1	5.3	Q
1 to 50 .....	37	64	27	6,241	8,052	2,553	6.0	7.9	10.4
51 to 99 .....	57	175	62	4,052	9,818	3,096	14.1	17.8	20.0
100 .....	65	288	104	4,603	15,354	4,706	14.0	18.8	22.1
<b>Percent Lit When Open</b>									
Zero .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50 .....	19	31	15	4,301	3,928	957	4.5	7.8	15.7
51 to 99 .....	66	183	46	6,025	11,398	3,242	10.9	16.1	14.0
100 .....	85	323	135	7,583	19,981	6,670	11.2	16.2	20.3
Building Never Open/ Electricity Not Used .....	Q	Q	Q	863	Q	Q	Q	Q	Q
<b>Percent Lit When Closed</b>									
Zero .....	36	101	35	6,811	10,503	3,458	5.3	9.6	10.1
1 to 50 .....	92	264	72	9,247	17,259	4,444	10.0	15.3	16.2
51 to 100 .....	Q	23	23	Q	1,134	753	Q	20.6	31.1
Building Never Closed/ Electricity Not Used .....	36	152	66	2,458	7,025	2,352	14.7	21.6	28.1

**Table C14. Electricity Consumption and Conditional Energy Intensity by Year Constructed, 1999**

	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/square foot)		
	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
<b>Heating Equipment (more than one may apply)</b>									
Heat Pumps .....	25	90	36	1,764	5,363	1,796	14.2	16.8	20.1
Furnaces .....	35	76	28	4,847	7,215	2,387	7.2	10.5	11.9
Individual Space Heaters .....	53	120	43	5,337	9,268	2,715	9.9	12.9	15.7
District Heat .....	33	51	16	2,309	2,726	499	14.2	18.5	31.9
Boilers .....	55	165	47	6,415	10,620	2,479	8.6	15.5	19.1
Packaged Heating Units .....	54	262	114	4,820	15,239	5,684	11.3	17.2	20.1
Other .....	14	38	14	1,030	2,257	786	14.0	17.0	18.2
<b>Cooling Equipment (more than one may apply)</b>									
Residential-Type Central									
Air Conditioners .....	27	58	16	2,573	4,483	1,274	10.3	13.0	12.2
Heat Pumps .....	25	95	33	1,818	5,624	1,705	14.0	16.8	19.1
Individual Air Conditioners .....	54	81	25	6,113	6,687	1,476	8.8	12.1	16.8
District Chilled Water .....	14	29	13	794	1,550	407	17.1	18.4	32.8
Central Chillers .....	48	167	49	2,567	8,114	2,229	18.8	20.6	21.9
Packaged Air Conditioning									
Units .....	92	362	131	8,037	21,665	6,825	11.5	16.7	19.2
Swamp Coolers .....	5	19	Q	509	1,371	339	10.4	13.9	16.3
Other .....	Q	17	Q	Q	951	Q	Q	17.9	Q
<b>Main Equipment Replaced Since 1995 (more than one may apply)</b>									
Heating .....	41	129	13	4,160	8,266	794	9.9	15.6	15.8
Cooling .....	59	177	18	5,340	11,107	943	11.0	15.9	18.8
<b>Lighting Equipment Types (more than one may apply)</b>									
Incandescent .....	112	333	97	11,393	21,385	5,377	9.9	15.6	18.1
Standard Fluorescent .....	162	517	182	16,693	33,658	9,993	9.7	15.4	18.2
Compact Fluorescent .....	55	220	76	4,483	12,023	4,160	12.3	18.3	18.3
High Intensity Discharge .....	51	167	81	4,193	10,566	4,464	12.3	15.8	18.2
Halogen .....	48	179	66	3,653	10,699	3,574	13.2	16.7	18.4
Other .....	Q	7	9	Q	460	392	Q	15.7	22.6
<b>Water Heating Equipment</b>									
Centralized System .....	93	302	107	10,284	19,732	5,564	9.0	15.3	19.3
Distributed System .....	22	97	38	2,269	6,505	2,125	9.5	14.9	17.8
Combination of Centralized and Distributed System .....	36	103	37	2,376	5,503	1,758	15.3	18.7	20.8
<b>Commercial Refrigeration Equipment (more than one may apply)</b>									
Any Equipment .....	84	290	111	6,180	14,877	4,595	13.6	19.5	24.2
Walk-In Units .....	65	248	94	4,071	11,957	3,685	15.9	20.7	25.4
Cases or Cabinets .....	77	251	97	5,580	12,458	3,963	13.7	20.1	24.4
None .....	88	250	85	12,608	21,043	6,412	6.9	11.9	13.2
<b>Personal Computers</b>									
None .....	17	30	10	3,596	3,353	1,012	4.7	8.9	9.9
1 to 4 .....	38	98	28	5,294	6,989	1,569	7.1	14.0	17.5
5 to 9 .....	14	50	26	1,534	3,803	1,191	8.9	13.1	22.2
10 to 19 .....	14	57	25	1,615	4,251	1,647	8.9	13.3	15.4
20 to 49 .....	21	61	31	2,103	4,183	1,801	9.8	14.5	17.1
50 to 99 .....	13	45	21	1,349	3,243	1,276	9.5	13.7	16.1
100 to 249 .....	17	79	24	1,216	4,356	1,245	14.2	18.2	19.1
250 or More .....	38	122	32	2,079	5,741	1,267	18.3	21.2	25.0



**Table C14. Electricity Consumption and Conditional Energy Intensity by Year Constructed, 1999**

	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/square foot)		
	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
<b>Photocopiers</b>									
None .....	47	125	45	7,460	9,945	2,604	6.3	12.6	17.3
One .....	32	93	44	3,928	6,643	2,358	8.2	14.0	18.6
2 to 4 .....	34	119	47	4,033	8,666	2,921	8.4	13.7	16.0
5 to 9 .....	8	55	21	620	3,390	1,373	13.0	16.1	14.9
10 or More .....	50	148	40	2,747	7,275	1,752	18.2	20.4	22.7
<b>Other Electronic Equipment (more than one may apply)</b>									
Laser Printers .....	125	426	167	11,145	26,657	8,765	11.2	16.0	19.1
FAX Machines .....	148	490	188	14,063	30,817	9,883	10.5	15.9	19.0
Medical Diagnostic Equipment .....	7	46	9	374	1,731	388	19.2	26.6	22.0
<b>Annual Consumption (kilowatthours)</b>									
10,000 or Less .....	2	1	Q	1,936	983	Q	1.0	1.4	Q
10,001 to 50,000 .....	16	20	5	4,095	3,913	1,231	3.8	5.1	4.1
50,001 to 100,000 .....	17	29	8	2,397	3,737	867	7.2	7.9	8.8
100,001 to 500,000 .....	49	142	43	4,969	9,301	2,540	9.9	15.3	16.8
500,001 to 1,000,000 .....	18	60	22	1,574	4,138	1,255	11.3	14.4	17.6
1,000,001 to 5,000,000 .....	35	158	64	2,323	8,379	2,958	15.2	18.9	21.7
Over 5,000,000 .....	34	130	54	1,494	5,469	1,860	22.9	23.8	29.2
<b>Provider of Purchased Electricity (more than one may apply)</b>									
Local Utility .....	157	510	176	17,640	34,242	10,161	8.9	14.9	17.3
Some Other Provider .....	12	27	12	880	1,620	601	13.8	16.7	19.6

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

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* 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 C15. Total Natural Gas Consumption and Expenditures, 1999**

	All Buildings Using Natural Gas			Natural Gas Consumption		Natural Gas Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (billion cubic feet)	Total (million dollars)
<b>All Buildings</b> .....	2,670	45,525	17.1	2,023	1,966	10,609
<b>Building Floorspace (Square Feet)</b>						
1,001 to 5,000 .....	1,193	3,566	3.0	312	304	1,802
5,001 to 10,000 .....	684	5,088	7.4	292	284	1,810
10,001 to 25,000 .....	448	7,001	15.6	319	310	1,813
25,001 to 50,000 .....	176	6,405	36.4	234	227	1,274
50,001 to 100,000 .....	103	7,165	69.4	250	243	1,253
100,001 to 200,000 .....	42	5,915	139.2	230	223	1,104
200,001 to 500,000 .....	18	5,282	299.7	237	230	958
Over 500,000 .....	5	5,104	952.9	149	144	594
<b>Principal Building Activity</b>						
Education .....	225	6,570	29.3	227	220	1,111
Food Sales .....	88	659	7.5	31	31	195
Food Service .....	246	1,510	6.1	216	210	1,185
Health Care .....	73	2,285	31.4	217	211	881
Inpatient .....	9	1,677	176.6	195	190	757
Outpatient .....	63	609	9.6	22	21	124
Lodging .....	104	3,548	34.0	181	176	943
Mercantile .....	439	7,887	18.0	186	180	1,126
Retail (Other Than Mall) .....	350	3,518	10.1	110	107	670
Enclosed and Strip Malls .....	89	4,369	48.9	76	74	456
Office .....	452	7,356	16.3	219	213	1,215
Public Assembly .....	187	2,989	16.0	96	94	560
Public Order and Safety .....	31	627	20.2	33	32	176
Religious Worship .....	214	2,457	11.5	62	60	409
Service .....	277	2,093	7.6	260	253	1,371
Warehouse and Storage .....	226	6,211	27.5	230	223	1,124
Other .....	40	707	17.7	45	44	224
Vacant .....	68	626	9.2	19	19	89
<b>Year Constructed</b>						
1919 or Before .....	291	2,766	9.5	120	117	684
1920 to 1945 .....	329	4,257	12.9	195	189	968
1946 to 1959 .....	426	6,040	14.2	256	248	1,390
1960 to 1969 .....	406	7,512	18.5	372	361	1,986
1970 to 1979 .....	481	8,080	16.8	326	317	1,726
1980 to 1989 .....	389	8,794	22.6	391	380	2,033
1990 to 1999 .....	349	8,076	23.2	364	354	1,820
<b>Census Region and Division</b>						
Northeast .....	311	7,305	23.5	299	291	1,895
New England .....	45	1,590	35.3	59	57	403
Middle Atlantic .....	266	5,714	21.5	240	234	1,491
Midwest .....	874	13,506	15.5	709	689	3,277
East North Central .....	611	9,383	15.4	497	483	2,252
West North Central .....	263	4,123	15.7	212	206	1,024
South .....	820	14,199	17.3	618	601	3,294
South Atlantic .....	231	5,517	23.9	249	242	1,397
East South Central .....	224	3,508	15.7	186	180	999
West South Central .....	365	5,174	14.2	183	178	898
West .....	665	10,515	15.8	396	385	2,144
Mountain .....	230	3,183	13.8	145	140	739
Pacific .....	435	7,332	16.9	252	245	1,405

**Table C15. Total Natural Gas Consumption and Expenditures, 1999**

	All Buildings Using Natural Gas			Natural Gas Consumption		Natural Gas Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (billion cubic feet)	Total (million dollars)
<b>Climate Zone: 45-Year Average</b>						
Under 2,000 CDD and --						
More than 7,000 HDD .....	329	4,064	12.4	228	222	1,125
5,500-7,000 HDD .....	652	12,573	19.3	642	624	3,108
4,000-5,499 HDD .....	551	10,455	19.0	520	505	2,874
Fewer than 4,000 HDD .....	727	12,149	16.7	425	413	2,341
2,000 CDD or More and --						
Fewer than 4,000 HDD .....	410	6,285	15.3	208	202	1,160
<b>Workers (main shift)</b>						
Fewer than 5 .....	1,151	7,108	6.2	280	272	1,747
5 to 9 .....	560	4,633	8.3	194	189	1,111
10 to 19 .....	424	5,589	13.2	281	273	1,509
20 to 49 .....	321	7,737	24.1	435	423	2,386
50 to 99 .....	118	6,278	53.3	222	215	1,177
100 to 249 .....	67	6,146	91.1	252	244	1,210
250 or More .....	28	8,035	287.1	359	349	1,468
<b>Weekly Operating Hours</b>						
39 or Fewer .....	376	2,825	7.5	82	80	502
40 to 48 .....	673	8,197	12.2	269	262	1,480
49 to 60 .....	651	9,714	14.9	387	377	2,123
61 to 84 .....	447	9,007	20.2	358	348	2,045
85 to 167 .....	285	6,449	22.6	348	339	1,810
Open Continuously .....	238	9,334	39.2	577	561	2,650
<b>Ownership and Occupancy</b>						
Nongovernment Owned .....	2,366	37,026	15.6	1,659	1,613	8,913
Owner Occupied .....	1,605	25,597	16.0	1,202	1,168	6,383
Nonowner Occupied .....	719	10,968	15.3	447	435	2,474
Unoccupied .....	Q	Q	Q	Q	Q	Q
Government Owned .....	304	8,500	28.0	364	353	1,696
Federal .....	24	997	41.3	37	36	159
State .....	52	2,253	43.5	114	111	470
Local .....	228	5,250	23.0	212	206	1,067
<b>Vacancy Status</b>						
Completely Vacant .....	Q	Q	Q	Q	Q	Q
Mostly Vacant .....	Q	Q	Q	Q	Q	Q
Partially Vacant .....	370	10,725	29.0	306	297	1,600
Not At All Vacant .....	2,232	34,174	15.3	1,698	1,650	8,920
<b>Number of Establishments</b>						
One .....	2,038	29,717	14.6	1,542	1,498	7,939
2 to 5 .....	459	7,439	16.2	273	266	1,524
6 to 10 .....	79	2,463	31.0	86	84	511
11 to 20 .....	23	1,786	76.7	50	48	275
More than 20 .....	19	3,596	186.8	60	58	297
Currently Unoccupied .....	50	525	10.5	12	11	64
<b>Energy Sources (more than one may apply)</b>						
Electricity .....	2,663	45,496	17.1	2,023	1,966	10,607
Natural Gas .....	2,670	45,525	17.1	2,023	1,966	10,609
Fuel Oil .....	91	8,088	89.1	428	416	1,786
District Heat .....	Q	2,683	51.2	108	105	488
District Chilled Water .....	21	1,316	62.9	53	51	226
Propane .....	35	1,887	53.5	Q	Q	433
Other .....	59	1,572	26.6	75	72	381

**Table C15. Total Natural Gas Consumption and Expenditures, 1999**

	All Buildings Using Natural Gas			Natural Gas Consumption		Natural Gas Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (billion cubic feet)	Total (million dollars)
<b>Space-Heating Energy Source</b>						
Natural Gas .....	2,380	37,902	15.9	1,764	1,714	9,122
Natural Gas Main .....	2,189	32,729	15.0	1,602	1,557	8,225
Natural Gas Secondary .....	191	5,173	27.1	162	157	897
Other Excluding Natural Gas .....	208	6,492	31.2	190	184	1,067
Buildings without Heating .....	82	1,141	13.9	Q	Q	Q
<b>Primary Space-Heating Energy Source</b>						
Electricity .....	331	8,437	25.5	282	274	1,608
Natural Gas .....	2,189	32,729	15.0	1,602	1,557	8,225
Fuel Oil .....	Q	888	Q	17	16	108
District Heat .....	33	2,107	64.8	48	46	220
Propane .....	Q	Q	Q	Q	Q	Q
Other .....	Q	Q	Q	Q	Q	Q
<b>Cooling Energy Source</b>						
Natural Gas .....	142	1,914	13.5	102	99	518
Other Excluding Natural Gas .....	2,193	40,233	18.3	1,732	1,684	9,129
Buildings without Cooling .....	335	3,378	10.1	189	184	962
<b>Water-Heating Energy Source</b>						
Natural Gas .....	1,520	29,196	19.2	1,451	1,410	7,556
Other Excluding Natural Gas .....	671	12,170	18.1	413	402	2,149
Buildings without Water Heating .....	479	4,160	8.7	159	154	904
<b>Cooking Energy Source</b>						
Natural Gas .....	505	16,785	33.2	823	800	4,019
Other Excluding Natural Gas .....	110	3,072	28.0	118	114	653
Buildings without Cooking .....	2,055	25,668	12.5	1,082	1,052	5,937
<b>Energy End Uses (more than one may apply)</b>						
Buildings with Space Heating .....	2,588	44,385	17.2	1,954	1,899	10,189
Buildings with Cooling .....	2,335	42,147	18.1	1,834	1,782	9,647
Buildings with Water Heating .....	2,191	41,366	18.9	1,864	1,811	9,705
Buildings with Cooking .....	615	19,857	32.3	941	914	4,672
Buildings with Manufacturing .....	77	2,322	30.2	114	110	634
Buildings with Electricity Generation .....	118	9,119	77.5	470	457	2,080
<b>Percent of Floorspace Heated</b>						
Not Heated .....	82	1,141	13.9	Q	Q	Q
1 to 50 .....	322	4,873	15.1	130	126	679
51 to 99 .....	441	8,052	18.3	344	335	1,896
100 .....	1,825	31,460	17.2	1,480	1,438	7,614
<b>Percent of Floorspace Cooled</b>						
Not Cooled .....	335	3,378	10.1	189	184	962
1 to 50 .....	679	12,068	17.8	561	545	2,897
51 to 99 .....	544	12,694	23.3	589	573	3,056
100 .....	1,112	17,386	15.6	684	665	3,694
<b>Heating Equipment (more than one may apply)</b>						
Heat Pumps .....	194	5,627	29.1	292	284	1,481
Furnaces .....	1,104	11,960	10.8	566	550	3,054
Individual Space Heaters .....	581	13,561	23.3	530	515	2,712
District Heat .....	41	2,431	59.7	80	77	385
Boilers .....	416	16,588	39.8	841	817	3,974
Packaged Heating Units .....	939	20,043	21.3	826	803	4,291
Other .....	71	2,680	37.5	134	130	559

**Table C15. Total Natural Gas Consumption and Expenditures, 1999**

	All Buildings Using Natural Gas			Natural Gas Consumption		Natural Gas Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (billion cubic feet)	Total (million dollars)
<b>Cooling Equipment (more than one may apply)</b>						
Residential-Type Central						
Air Conditioners .....	503	6,805	13.5	295	287	1,538
Heat Pumps .....	195	5,771	29.6	291	283	1,477
Individual Air Conditioners .....	507	10,715	21.1	486	472	2,519
District Chilled Water .....	21	1,316	62.9	53	51	226
Central Chillers .....	103	10,145	98.8	522	508	2,301
Packaged Air Conditioning						
Units .....	1,356	27,987	20.6	1,193	1,159	6,277
Swamp Coolers .....	121	1,950	16.1	102	99	518
Other .....	20	773	Q	40	39	172
<b>Main Equipment Replaced Since 1995 (more than one may apply)</b>						
Heating .....	656	10,327	15.8	431	419	2,431
Cooling .....	689	12,862	18.7	557	542	2,949
<b>Water Heating Equipment</b>						
Centralized System .....	1,706	26,479	15.5	1,258	1,222	6,762
Distributed System .....	342	7,585	22.2	278	270	1,409
Combination of Centralized and Distributed System .....	143	7,302	51.2	328	319	1,533
<b>Annual Consumption (hundred cubic feet)</b>						
1,000 or Less .....	742	4,596	6.2	39	38	310
1,001 to 5,000 .....	1,194	11,194	9.4	309	301	2,048
5,001 to 10,000 .....	344	6,839	19.9	246	239	1,419
10,001 to 25,000 .....	271	9,173	33.9	427	415	2,387
25,001 to 50,000 .....	65	4,914	76.1	222	216	1,101
50,001 to 100,000 .....	36	3,477	95.5	253	245	1,280
Over 100,000 .....	17	5,333	314.3	526	511	2,064
<b>Provider of Natural Gas (more than one may apply)</b>						
Local Utility .....	2,508	40,765	16.3	1,730	1,681	9,251
Some Other Provider .....	125	4,266	34.2	287	279	1,288

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

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* 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 C16. Natural Gas Consumption and Expenditure Intensities, 1999**

	Natural Gas Consumption						Natural Gas Expenditures		
	per Building (thousand cubic feet)	per Square Foot (cubic feet)	per Worker (thousand cubic feet)	Distribution of Building-Level Intensities (cubic feet/square foot)			per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Cubic Feet (dollars)
				25th Percentile	Median	75th Percentile			
<b>All Buildings</b> .....	736	43.2	34.9	15.7	34.1	75.4	4.0	0.23	5.40
<b>Building Floorspace (Square Feet)</b>									
1,001 to 5,000 .....	254	85.1	44.2	19.8	50.2	101.5	1.5	0.51	5.94
5,001 to 10,000 .....	415	55.9	39.7	14.4	31.7	57.1	2.6	0.36	6.37
10,001 to 25,000 .....	691	44.2	42.1	11.6	25.8	44.4	4.0	0.26	5.85
25,001 to 50,000 .....	1,293	35.5	34.6	12.4	25.0	43.8	7.2	0.20	5.60
50,001 to 100,000 .....	2,356	33.9	26.3	9.5	20.7	41.1	12.1	0.17	5.15
100,001 to 200,000 .....	5,251	37.7	38.2	7.8	22.0	43.5	26.0	0.19	4.95
200,001 to 500,000 .....	13,068	43.6	35.3	5.2	16.7	45.5	54.4	0.18	4.16
Over 500,000 .....	26,952	28.3	21.6	2.2	10.4	28.7	110.9	0.12	4.11
<b>Principal Building Activity</b>									
Education .....	981	33.5	31.8	11.2	25.0	49.0	4.9	0.17	5.04
Food Sales .....	346	46.4	45.6	9.2	71.2	92.4	2.2	0.30	6.36
Food Service .....	854	139.1	65.4	76.7	141.1	258.5	4.8	0.78	5.64
Health Care .....	2,898	92.2	49.4	14.4	22.5	57.2	12.1	0.39	4.18
Inpatient .....	19,993	113.2	63.2	97.7	163.0	163.0	79.8	0.45	3.99
Outpatient .....	Q	34.5	16.6	13.8	19.2	47.0	Q	0.20	5.88
Lodging .....	1,688	49.6	95.9	31.6	55.8	94.9	9.0	0.27	5.35
Mercantile .....	411	22.9	20.6	12.4	29.8	55.6	2.6	0.14	6.24
Retail (Other Than Mall) .....	305	30.3	30.9	12.4	34.1	56.7	1.9	0.19	6.28
Enclosed and Strip Malls .....	826	16.9	13.9	12.6	24.7	45.6	5.1	0.10	6.18
Office .....	472	29.0	11.7	14.4	28.5	50.2	2.7	0.17	5.70
Public Assembly .....	501	31.3	45.8	8.3	21.5	48.9	3.0	0.19	5.99
Public Order and Safety .....	1,020	50.5	40.8	29.2	48.8	77.4	5.7	0.28	5.57
Religious Worship .....	280	24.4	47.3	14.1	24.8	34.0	1.9	0.17	6.82
Service .....	914	121.0	79.8	33.5	55.5	130.8	4.9	0.66	5.42
Warehouse and Storage .....	989	36.0	54.5	10.3	26.5	62.6	5.0	0.18	5.03
Other .....	1,097	62.0	56.2	29.5	32.5	37.4	5.6	0.32	5.12
Vacant .....	275	29.9	Q	7.1	12.1	34.3	1.3	0.14	4.75
<b>Year Constructed</b>									
1919 or Before .....	403	42.3	Q	15.8	35.4	79.1	2.4	0.25	5.84
1920 to 1945 .....	574	44.4	38.8	23.9	44.1	81.5	2.9	0.23	5.12
1946 to 1959 .....	584	41.1	37.3	12.9	33.6	72.0	3.3	0.23	5.60
1960 to 1969 .....	890	48.1	39.0	19.7	41.0	83.2	4.9	0.26	5.50
1970 to 1979 .....	659	39.2	29.7	14.4	34.1	60.0	3.6	0.21	5.45
1980 to 1989 .....	977	43.2	30.6	13.7	25.1	55.0	5.2	0.23	5.35
1990 to 1999 .....	1,014	43.8	36.5	14.1	32.5	81.8	5.2	0.23	5.15
<b>Census Region and Division</b>									
Northeast .....	933	39.8	32.1	20.1	48.9	91.4	6.1	0.26	6.52
New England .....	1,262	35.8	29.4	16.3	42.7	60.8	9.0	0.25	7.09
Middle Atlantic .....	878	40.9	32.8	20.8	49.4	92.4	5.6	0.26	6.38
Midwest .....	789	51.0	45.8	20.3	44.6	81.1	3.7	0.24	4.75
East North Central .....	791	51.5	48.5	20.5	47.0	81.5	3.7	0.24	4.66
West North Central .....	782	49.9	40.5	19.7	41.9	80.9	3.9	0.25	4.97
South .....	733	42.3	32.8	13.7	26.5	64.6	4.0	0.23	5.48
South Atlantic .....	1,050	43.9	34.9	14.2	30.3	86.2	6.1	0.25	5.76
East South Central .....	806	51.4	41.2	15.1	32.4	65.4	4.5	0.28	5.54
West South Central .....	488	34.5	25.5	12.0	20.8	45.9	2.5	0.17	5.04
West .....	579	36.6	27.8	11.3	28.6	60.6	3.2	0.20	5.56
Mountain .....	609	44.1	42.6	18.8	34.8	71.1	3.2	0.23	5.26
Pacific .....	563	33.4	23.2	9.9	24.7	56.0	3.2	0.19	5.74

**Table C16. Natural Gas Consumption and Expenditure Intensities, 1999**

	Natural Gas Consumption						Natural Gas Expenditures		
	per Building (thousand cubic feet)	per Square Foot (cubic feet)	per Worker (thousand cubic feet)	Distribution of Building-Level Intensities (cubic feet/square foot)			per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Cubic Feet (dollars)
				25th Percentile	Median	75th Percentile			
<b>Climate Zone: 45-Year Average</b>									
Under 2,000 CDD and --									
More than 7,000 HDD .....	674	54.6	52.6	30.3	54.6	89.8	3.4	0.28	5.08
5,500-7,000 HDD .....	957	49.6	45.0	22.3	44.6	78.3	4.8	0.25	4.98
4,000-5,499 HDD .....	916	48.3	36.4	19.7	37.9	89.4	5.2	0.27	5.69
Fewer than 4,000 HDD .....	568	34.0	25.1	10.7	24.0	45.1	3.2	0.19	5.67
2,000 CDD or More and --									
Fewer than 4,000 HDD .....	493	32.2	25.7	10.8	19.8	65.4	2.8	0.18	5.73
<b>Workers (main shift)</b>									
Fewer than 5 .....	236	38.3	107.6	13.8	33.3	71.2	1.5	0.25	6.42
5 to 9 .....	338	40.8	51.5	15.4	35.1	76.5	2.0	0.24	5.88
10 to 19 .....	645	48.9	50.4	18.5	35.2	77.4	3.6	0.27	5.52
20 to 49 .....	1,316	54.7	45.9	18.1	40.9	88.4	7.4	0.31	5.64
50 to 99 .....	1,828	34.3	28.1	15.6	29.1	48.8	10.0	0.19	5.47
100 to 249 .....	3,625	39.8	26.7	14.8	24.4	64.5	17.9	0.20	4.95
250 or More .....	12,461	43.4	18.7	8.7	21.0	51.9	52.5	0.18	4.21
<b>Weekly Operating Hours</b>									
39 or Fewer .....	212	28.3	41.1	11.2	20.1	38.2	1.3	0.18	6.28
40 to 48 .....	389	31.9	26.9	12.8	28.5	55.7	2.2	0.18	5.65
49 to 60 .....	579	38.8	27.8	18.0	33.5	62.6	3.3	0.22	5.64
61 to 84 .....	779	38.6	30.3	16.6	35.8	86.2	4.6	0.23	5.88
85 to 167 .....	1,187	52.5	42.6	31.8	68.2	243.9	6.3	0.28	5.35
Open Continuously .....	2,358	60.1	48.4	30.4	61.0	92.9	11.1	0.28	4.72
<b>Ownership and Occupancy</b>									
Nongovernment Owned .....	682	43.6	34.6	16.5	34.1	76.5	3.8	0.24	5.53
Owner Occupied .....	728	45.6	35.6	17.0	36.5	77.5	4.0	0.25	5.46
Nonowner Occupied .....	605	39.6	31.6	16.4	32.6	68.2	3.4	0.23	5.69
Unoccupied .....	Q	Q	N	11.5	12.0	17.2	Q	Q	Q
Government Owned .....	1,163	41.6	36.5	11.3	32.7	71.1	5.6	0.20	4.80
Federal .....	Q	36.4	22.6	2.8	8.3	23.9	Q	0.16	4.37
State .....	2,143	49.2	46.7	16.7	35.4	89.4	9.1	0.21	4.24
Local .....	905	39.3	36.1	13.0	34.8	71.1	4.7	0.20	5.18
<b>Vacancy Status</b>									
Completely Vacant .....	Q	Q	N	2.0	11.5	17.2	Q	Q	Q
Mostly Vacant .....	Q	Q	Q	7.1	23.3	71.1	Q	Q	Q
Partially Vacant .....	804	27.7	20.8	9.9	21.1	46.8	4.3	0.15	5.38
Not At All Vacant .....	739	48.3	39.5	17.8	36.8	79.3	4.0	0.26	5.41
<b>Number of Establishments</b>									
One .....	735	50.4	43.8	16.6	36.1	77.4	3.9	0.27	5.30
2 to 5 .....	579	35.7	32.1	13.7	31.3	67.3	3.3	0.20	5.73
6 to 10 .....	1,057	34.0	18.0	14.2	33.6	86.2	6.4	0.21	6.09
11 to 20 .....	2,079	27.1	15.4	10.6	20.6	32.3	11.8	0.15	5.68
More than 20 .....	3,015	16.1	9.7	7.5	27.3	123.9	15.4	0.08	5.11
Currently Unoccupied .....	226	21.6	N	11.5	15.5	25.8	1.3	0.12	5.65
<b>Energy Sources (more than one may apply)</b>									
Electricity .....	738	43.2	34.9	15.8	34.1	75.4	4.0	0.23	5.40
Natural Gas .....	736	43.2	34.9	15.7	34.1	75.4	4.0	0.23	5.40
Fuel Oil .....	4,584	51.5	34.3	10.7	23.2	61.3	19.7	0.22	4.29
District Heat .....	Q	39.1	25.0	4.9	16.7	89.4	9.3	0.18	Q
District Chilled Water .....	2,447	38.9	26.9	8.3	15.2	42.0	10.8	0.17	4.40
Propane .....	Q	Q	62.5	13.3	36.3	78.3	Q	0.23	4.13
Other .....	1,226	46.1	Q	34.0	57.0	64.9	6.4	0.24	5.25

**Table C16. Natural Gas Consumption and Expenditure Intensities, 1999**

	Natural Gas Consumption						Natural Gas Expenditures		
	per Building (thousand cubic feet)	per Square Foot (cubic feet)	per Worker (thousand cubic feet)	Distribution of Building-Level Intensities (cubic feet/square foot)			per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Cubic Feet (dollars)
				25th Percentile	Median	75th Percentile			
<b>Space-Heating Energy Source</b>									
Natural Gas .....	720	45.2	37.3	16.5	34.0	72.0	3.8	0.24	5.32
Natural Gas Main .....	711	47.6	39.8	16.8	34.2	75.4	3.8	0.25	5.28
Natural Gas Secondary .....	823	30.4	23.0	9.4	24.7	53.2	4.7	0.17	5.70
Other Excluding Natural Gas .....	885	28.4	21.9	9.7	40.7	115.9	5.1	0.16	5.78
Buildings without Heating .....	Q	Q	Q	6.1	16.9	160.3	Q	Q	6.25
<b>Primary Space-Heating Energy Source</b>									
Electricity .....	827	32.5	25.5	11.7	39.0	86.2	4.9	0.19	5.86
Natural Gas .....	711	47.6	39.8	16.8	34.2	75.4	3.8	0.25	5.28
Fuel Oil .....	Q	18.5	13.2	4.2	17.8	17.8	Q	0.12	6.59
District Heat .....	1,422	21.9	14.9	1.5	8.3	56.9	6.8	0.10	4.75
Propane .....	Q	Q	Q	4.1	4.1	4.1	Q	Q	Q
Other .....	Q	Q	Q	12.9	44.1	44.1	Q	Q	Q
<b>Cooling Energy Source</b>									
Natural Gas .....	696	51.6	34.7	15.2	34.0	81.1	3.7	0.27	5.25
Other Excluding Natural Gas .....	768	41.8	32.7	16.0	33.6	71.5	4.2	0.23	5.42
Buildings without Cooling .....	548	54.4	93.3	11.5	36.8	80.9	2.9	0.28	5.24
<b>Water-Heating Energy Source</b>									
Natural Gas .....	927	48.3	39.2	16.8	38.0	81.8	5.0	0.26	5.36
Other Excluding Natural Gas .....	599	33.0	24.7	15.6	32.6	60.8	3.2	0.18	5.35
Buildings without Water Heating .....	323	37.1	38.1	13.1	26.7	69.2	1.9	0.22	5.85
<b>Cooking Energy Source</b>									
Natural Gas .....	1,584	47.7	37.5	26.2	66.5	161.8	8.0	0.24	5.02
Other Excluding Natural Gas .....	1,043	37.2	31.3	18.8	43.0	91.6	6.0	0.21	5.71
Buildings without Cooking .....	512	41.0	33.6	14.1	29.8	60.6	2.9	0.23	5.65
<b>Energy End Uses (more than one may apply)</b>									
Buildings with Space Heating .....	734	42.8	34.9	16.0	34.2	75.4	3.9	0.23	5.37
Buildings with Cooling .....	763	42.3	32.8	15.9	33.6	72.0	4.1	0.23	5.41
Buildings with Water Heating .....	827	43.8	34.7	16.0	35.1	76.7	4.4	0.23	5.36
Buildings with Cooking .....	1,488	46.0	36.6	25.5	64.2	128.1	7.6	0.24	5.11
Buildings with Manufacturing .....	1,434	47.5	35.5	18.0	30.1	58.3	8.2	0.27	5.74
Buildings with Electricity .....	3,885	50.1	33.5	25.5	57.0	95.7	17.7	0.23	4.55
<b>Percent of Floorspace Heated</b>									
Not Heated .....	Q	Q	Q	6.1	16.9	160.3	Q	Q	6.25
1 to 50 .....	391	25.9	41.2	9.3	17.3	47.0	2.1	0.14	5.39
51 to 99 .....	759	41.6	35.8	16.0	35.3	81.8	4.3	0.24	5.66
100 .....	788	45.7	34.2	18.3	37.2	77.5	4.2	0.24	5.30
<b>Percent of Floorspace Cooled</b>									
Not Cooled .....	548	54.4	93.3	11.5	36.8	80.9	2.9	0.28	5.24
1 to 50 .....	802	45.2	54.2	13.8	36.1	70.5	4.3	0.24	5.32
51 to 99 .....	1,052	45.1	33.3	16.9	35.8	89.8	5.6	0.24	5.34
100 .....	598	38.2	24.6	15.8	32.5	67.0	3.3	0.21	5.56



**Table C16. Natural Gas Consumption and Expenditure Intensities, 1999**

	Natural Gas Consumption						Natural Gas Expenditures		
	per Building (thousand cubic feet)	per Square Foot (cubic feet)	per Worker (thousand cubic feet)	Distribution of Building-Level Intensities (cubic feet/square foot)			per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Cubic Feet (dollars)
				25th Percentile	Median	75th Percentile			
<b>Heating Equipment (more than one may apply)</b>									
Heat Pumps .....	1,467	50.5	41.1	11.5	27.7	84.4	7.6	0.26	5.21
Furnaces .....	499	46.0	42.1	16.8	32.4	66.5	2.8	0.26	5.55
Individual Space Heaters .....	886	38.0	37.9	14.8	30.4	63.5	4.7	0.20	5.27
District Heat .....	1,897	31.8	19.4	3.2	16.3	114.5	9.4	0.16	4.98
Boilers .....	1,963	49.3	38.7	24.7	45.7	84.1	9.5	0.24	4.86
Packaged Heating Units .....	854	40.1	32.8	14.4	32.1	68.2	4.6	0.21	5.35
Other .....	Q	48.4	34.5	12.9	28.5	71.1	7.8	0.21	4.31
<b>Cooling Equipment (more than one may apply)</b>									
Residential-Type Central									
Air Conditioners .....	570	42.1	36.8	17.4	29.8	63.1	3.1	0.23	5.37
Heat Pumps .....	1,451	49.1	37.7	15.1	27.7	64.2	7.6	0.26	5.22
Individual Air Conditioners .....	932	44.1	39.2	17.8	41.0	84.1	5.0	0.24	5.33
District Chilled Water .....	2,447	38.9	26.9	8.3	15.2	42.0	10.8	0.17	4.40
Central Chillers .....	4,942	50.0	30.7	21.5	42.9	86.2	22.4	0.23	4.53
Packaged Air Conditioning									
Units .....	855	41.4	32.1	14.4	35.8	72.0	4.6	0.22	5.41
Swamp Coolers .....	817	50.8	47.8	18.5	32.9	111.3	4.3	0.27	5.23
Other .....	Q	50.4	38.4	25.0	31.7	34.0	Q	0.22	4.42
<b>Main Equipment Replaced Since 1995 (more than one may apply)</b>									
Heating .....	639	40.6	32.7	18.3	37.6	77.5	3.7	0.24	5.80
Cooling .....	786	42.1	31.4	15.9	39.3	84.1	4.3	0.23	5.45
<b>Water Heating Equipment</b>									
Centralized System .....	716	46.2	37.6	16.9	36.6	81.8	4.0	0.26	5.53
Distributed System .....	791	35.6	29.0	10.3	22.1	49.6	4.1	0.19	5.21
Combination of Centralized and Distributed System .....	2,236	43.6	30.7	20.5	42.5	76.7	10.8	0.21	4.81
<b>Annual Consumption (hundred cubic feet)</b>									
1,000 or Less .....	52	8.3	7.9	6.5	11.5	21.8	0.4	0.07	8.11
1,001 to 5,000 .....	252	26.8	21.7	23.2	42.2	72.0	1.7	0.18	6.81
5,001 to 10,000 .....	696	35.0	26.5	29.3	56.4	147.8	4.1	0.21	5.93
10,001 to 25,000 .....	1,533	45.3	37.6	37.3	85.6	247.8	8.8	0.26	5.75
25,001 to 50,000 .....	3,347	44.0	35.5	37.9	67.1	144.0	17.1	0.22	5.09
50,001 to 100,000 .....	6,742	70.6	61.5	56.8	115.0	577.2	35.2	0.37	5.21
Over 100,000 .....	30,101	95.8	68.5	60.5	102.5	171.1	121.6	0.39	4.04
<b>Provider of Natural Gas (more than one may apply)</b>									
Local Utility .....	670	41.2	33.7	14.8	33.1	73.1	3.7	0.23	5.50
Some Other Provider .....	2,237	65.4	48.5	30.4	46.5	86.2	10.3	0.30	4.62

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.

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* 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.

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

**Table C17. Natural Gas Consumption and Conditional Energy Intensity by Census Region, 1999**

	Total Natural Gas Consumption (billion cubic feet)				Total Floorspace of Buildings Using Natural Gas (million square feet)				Natural Gas Energy Intensity (cubic feet/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>All Buildings</b> .....	291	689	601	385	7,305	13,506	14,199	10,515	39.8	51.0	42.3	36.6
<b>Building Floorspace (Square Feet)</b>												
1,001 to 5,000 .....	Q	115	91	68	Q	1,210	951	991	Q	94.8	95.7	68.9
5,001 to 10,000 .....	Q	79	Q	57	564	1,676	1,674	1,175	80.3	47.1	Q	48.5
10,001 to 25,000 .....	53	96	Q	39	918	2,218	2,338	1,526	58.0	43.2	Q	25.5
25,001 to 50,000 .....	29	63	71	64	927	1,480	2,054	1,944	31.4	42.7	34.4	33.1
50,001 to 100,000 .....	31	80	68	65	979	2,077	2,343	1,767	31.2	38.3	29.2	36.6
100,001 to 200,000 .....	32	100	60	31	938	1,866	1,902	1,209	33.8	53.7	31.8	25.5
200,001 to 500,000 .....	29	111	52	38	911	1,776	1,628	967	32.3	62.3	32.1	39.3
Over 500,000 .....	42	46	33	23	1,653	1,203	1,310	937	25.1	38.2	25.6	24.9
<b>Principal Building Activity</b>												
Education .....	42	83	45	50	1,223	1,863	1,757	1,726	34.7	44.5	25.3	29.2
Food Sales .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Food Service .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Health Care .....	44	55	67	46	352	668	760	505	124.6	82.1	87.5	90.2
Inpatient .....	43	47	62	Q	330	488	567	Q	131.5	95.5	108.7	Q
Outpatient .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Lodging .....	18	43	67	49	306	758	1,258	1,225	57.4	56.2	53.5	39.8
Mercantile .....	35	78	43	24	1,322	2,471	2,686	1,408	26.7	31.5	16.0	17.4
Retail (Other Than Mall) .....	24	51	23	Q	602	1,507	995	Q	39.9	33.9	23.5	Q
Enclosed and Strip Malls .....	Q	27	20	16	Q	964	1,692	993	Q	27.6	11.6	16.4
Office .....	28	77	57	52	1,210	2,136	2,188	1,821	22.7	35.9	26.0	28.6
Public Assembly .....	14	29	24	Q	504	899	991	595	27.1	32.0	23.7	46.5
Public Order and Safety .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Religious Worship .....	Q	22	12	16	Q	659	677	839	Q	32.8	17.5	19.7
Service .....	Q	64	145	Q	Q	753	738	297	Q	85.3	196.4	44.8
Warehouse and Storage .....	28	136	41	Q	1,166	2,001	1,948	1,096	23.6	68.0	21.3	Q
Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Vacant .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Year Constructed</b>												
1919 or Before .....	28	64	8	18	674	1,260	413	419	40.8	51.0	18.5	41.9
1920 to 1945 .....	29	95	39	26	911	1,837	944	566	32.0	51.6	41.7	45.7
1946 to 1959 .....	76	86	47	40	1,274	1,779	1,676	1,310	59.5	48.2	28.3	30.2
1960 to 1969 .....	48	110	116	87	1,140	2,144	2,300	1,928	42.4	51.4	50.5	44.9
1970 to 1979 .....	32	87	107	91	960	1,881	2,600	2,639	33.0	46.4	41.1	34.5
1980 to 1989 .....	46	111	177	45	1,288	2,236	3,481	1,789	35.7	49.8	50.9	25.4
1990 to 1999 .....	32	136	106	79	1,056	2,369	2,785	1,865	30.2	57.3	38.2	42.6
<b>Climate Zone: 45-Year Average</b>												
Under 2,000 CDD and --												
More than 7,000 HDD .....	Q	192	N	29	Q	3,579	N	458	Q	53.7	N	62.4
5,500-7,000 HDD .....	142	399	N	83	3,467	7,330	N	1,776	41.0	54.4	N	46.7
4,000-5,499 HDD .....	147	98	205	54	3,812	2,597	2,804	1,242	38.7	37.9	73.1	43.8
Fewer than 4,000 HDD .....	N	N	240	173	N	N	6,222	5,927	N	N	38.5	29.2
2,000 CDD or More and --												
Fewer than 4,000 HDD .....	N	N	156	46	N	N	5,173	1,112	N	N	30.2	41.6
<b>Workers (main shift)</b>												
Fewer than 5 .....	30	107	79	57	614	2,576	2,180	1,738	48.2	41.4	36.3	32.7
5 to 9 .....	19	80	35	55	701	1,542	1,083	1,307	27.0	51.9	32.5	42.0
10 to 19 .....	46	96	90	41	950	1,766	1,726	1,147	48.6	54.3	52.4	35.6
20 to 49 .....	53	103	193	74	885	2,110	2,883	1,858	59.6	48.6	67.0	39.9
50 to 99 .....	45	70	59	41	1,062	1,671	1,990	1,555	42.2	42.1	29.6	26.5
100 to 249 .....	38	94	63	50	1,102	1,854	2,009	1,182	34.7	50.5	31.3	42.1
250 or More .....	60	140	81	67	1,990	1,988	2,328	1,728	30.1	70.5	34.9	39.0

**Table C17. Natural Gas Consumption and Conditional Energy Intensity by Census Region, 1999**

	Total Natural Gas Consumption (billion cubic feet)				Total Floorspace of Buildings Using Natural Gas (million square feet)				Natural Gas Energy Intensity (cubic feet/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>Weekly Operating Hours</b>												
39 or Fewer .....	Q	30	21	16	Q	789	971	792	Q	38.1	21.9	20.6
40 to 48 .....	38	92	70	62	934	2,460	2,837	1,966	41.2	37.4	24.5	31.4
49 to 60 .....	37	131	133	75	1,394	3,146	2,771	2,403	26.9	41.7	Q	31.1
61 to 84 .....	76	113	Q	55	1,805	2,622	2,656	1,924	42.1	43.0	Q	28.7
85 to 167 .....	37	134	111	57	1,146	2,160	1,910	1,232	31.9	61.9	58.3	46.1
Open Continuously .....	90	189	161	120	1,754	2,329	3,054	2,198	51.2	81.3	52.9	54.8
<b>Ownership and Occupancy</b>												
Nongovernment Owned .....	242	571	494	305	5,622	11,152	11,727	8,525	43.1	51.2	42.2	35.7
Owner Occupied .....	193	396	369	211	4,056	7,868	7,959	5,714	47.5	50.4	46.3	36.9
Nonowner Occupied .....	49	172	120	94	1,537	3,200	3,501	2,730	32.1	53.7	34.3	34.3
Unoccupied .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government Owned .....	48	118	107	81	1,683	2,354	2,473	1,990	28.7	50.1	43.1	40.5
Federal .....	Q	Q	9	11	Q	Q	275	239	Q	Q	34.3	45.5
State .....	Q	34	Q	21	Q	678	693	545	Q	50.5	Q	37.8
Local .....	36	71	50	49	1,093	1,447	1,504	1,206	33.0	49.3	33.0	40.7
<b>Vacancy Status</b>												
Completely Vacant .....	N	Q	Q	Q	N	Q	Q	Q	N	Q	Q	Q
Mostly Vacant .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	19.7	Q
Partially Vacant .....	39	123	80	55	1,798	3,253	3,333	2,341	21.8	37.9	23.9	23.6
Not At All Vacant .....	250	554	519	327	5,407	10,007	10,754	8,006	46.3	55.3	48.2	40.8
<b>Number of Establishments</b>												
One .....	210	518	480	291	4,482	9,194	9,096	6,945	46.8	56.4	52.8	41.8
2 to 5 .....	43	115	58	50	1,237	2,533	2,008	1,661	35.1	45.3	28.7	30.1
6 to 10 .....	Q	14	31	19	Q	470	897	726	Q	30.8	35.1	26.7
11 to 20 .....	Q	19	13	8	Q	444	642	363	Q	43.8	20.2	23.1
More than 20 .....	11	19	13	15	850	743	1,283	720	Q	25.6	10.3	21.0
Currently Unoccupied .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Energy Sources (more than one may apply)</b>												
Electricity .....	291	689	601	385	7,305	13,506	14,199	10,486	39.8	51.0	42.3	36.7
Natural Gas .....	291	689	601	385	7,305	13,506	14,199	10,515	39.8	51.0	42.3	36.6
Fuel Oil .....	78	165	111	61	2,569	1,945	2,269	1,306	30.5	85.1	49.0	46.8
District Heat .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
District Chilled Water .....	Q	9	18	Q	Q	290	518	Q	Q	30.2	34.9	Q
Propane .....	Q	Q	17	Q	Q	628	701	Q	Q	Q	Q	Q
Other .....	Q	29	Q	Q	Q	507	Q	Q	Q	56.7	Q	Q
<b>Space-Heating Energy Source</b>												
Natural Gas .....	268	663	444	339	5,703	12,467	10,904	8,828	47.0	53.2	40.7	38.4
Natural Gas Main .....	239	624	394	300	4,913	11,348	8,815	7,653	48.7	55.0	44.7	39.2
Natural Gas Secondary .....	29	39	50	39	790	1,118	2,089	1,175	36.6	35.2	23.8	33.4
Other Excluding Natural Gas .....	19	21	110	34	1,545	986	2,616	1,345	12.5	21.4	42.0	25.4
Buildings without Heating .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Primary Space-Heating Energy Source</b>												
Electricity .....	27	50	135	62	693	1,497	4,037	2,210	38.4	33.6	33.5	28.0
Natural Gas .....	239	624	394	300	4,913	11,348	8,815	7,653	48.7	55.0	44.7	39.2
Fuel Oil .....	13	Q	Q	Q	664	Q	Q	Q	19.5	Q	Q	Q
District Heat .....	8	Q	22	Q	884	507	468	Q	Q	13.2	46.2	Q
Propane .....	Q	Q	N	N	Q	Q	N	N	Q	Q	N	N
Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	12.9	Q

**Table C17. Natural Gas Consumption and Conditional Energy Intensity by Census Region, 1999**

	Total Natural Gas Consumption (billion cubic feet)				Total Floorspace of Buildings Using Natural Gas (million square feet)				Natural Gas Energy Intensity (cubic feet/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>Cooling Energy Source</b>												
Natural Gas .....	31	38	Q	20	446	550	Q	652	69.1	69.0	Q	30.5
Other Excluding Natural Gas .....	241	590	526	326	6,275	11,750	13,532	8,676	38.5	50.2	38.9	37.6
Buildings without Cooling .....	18	62	Q	39	583	1,206	402	1,187	31.5	51.0	Q	32.8
<b>Water-Heating Energy Source</b>												
Natural Gas .....	197	444	447	321	4,074	8,323	8,943	7,856	48.4	53.4	50.0	40.9
Other Excluding Natural Gas .....	81	153	121	46	2,827	3,350	3,973	2,020	28.8	45.7	30.4	23.0
Buildings without Water Heating .....	12	92	33	18	404	1,833	1,283	640	29.8	50.1	25.6	27.8
<b>Cooking Energy Source</b>												
Natural Gas .....	132	255	242	172	3,380	4,445	5,345	3,614	39.0	57.3	45.3	47.5
Other Excluding Natural Gas .....	25	40	35	14	537	913	1,213	409	46.5	44.2	28.9	33.9
Buildings without Cooking .....	134	394	324	200	3,388	8,148	7,641	6,492	39.5	48.4	42.4	30.8
<b>Energy End Uses (more than one may apply)</b>												
Buildings with Space Heating .....	287	684	554	374	7,248	13,452	13,511	10,173	39.6	50.9	41.0	36.7
Buildings with Cooling .....	272	628	536	346	6,721	12,300	13,798	9,328	40.5	51.0	38.9	37.1
Buildings with Water Heating .....	278	597	568	367	6,901	11,673	12,916	9,875	40.4	51.2	44.0	37.2
Buildings with Cooking .....	157	295	277	186	3,917	5,358	6,558	4,024	40.0	55.0	42.2	46.1
Buildings with Manufacturing .....	Q	Q	30	13	Q	777	675	458	Q	69.3	44.0	29.4
Buildings with Electricity .....	76	172	123	86	2,132	2,355	2,997	1,635	35.5	73.1	41.1	52.6
<b>Percent of Floorspace Heated</b>												
Not Heated .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50 .....	Q	32	Q	35	Q	1,305	1,373	1,638	Q	24.7	Q	21.4
51 to 99 .....	29	70	Q	61	1,086	2,123	2,960	1,884	27.0	32.8	Q	32.6
100 .....	245	582	333	277	5,606	10,024	9,178	6,652	43.7	58.1	36.3	41.7
<b>Percent of Floorspace Cooled</b>												
Not Cooled .....	18	62	Q	39	583	1,206	402	1,187	31.5	51.0	Q	32.8
1 to 50 .....	99	258	Q	62	2,476	4,570	2,640	2,382	40.1	56.5	Q	26.1
51 to 99 .....	99	193	166	115	2,161	4,147	3,889	2,496	45.6	46.5	42.6	46.2
100 .....	74	176	245	169	2,084	3,583	7,269	4,449	35.6	49.2	33.7	38.0
<b>Heating Equipment (more than one may apply)</b>												
Heat Pumps .....	28	39	173	44	928	691	2,732	1,276	30.6	57.0	63.2	34.2
Furnaces .....	68	285	Q	69	1,480	5,153	3,101	2,226	46.0	55.3	41.5	31.0
Individual Space Heaters .....	91	200	124	99	2,550	4,207	3,847	2,956	35.6	47.6	32.3	33.6
District Heat .....	26	11	27	12	998	579	560	295	26.4	19.9	48.7	41.4
Boilers .....	137	329	171	181	3,552	5,701	3,641	3,694	38.5	57.6	47.0	49.0
Packaged Heating Units .....	101	266	266	171	3,039	4,717	7,108	5,179	33.1	56.4	37.4	33.0
Other .....	Q	Q	13	Q	Q	953	786	501	Q	Q	16.9	45.4
<b>Cooling Equipment (more than one may apply)</b>												
Residential-Type Central												
Air Conditioners .....	35	125	91	Q	800	2,626	2,376	1,004	44.3	47.5	38.3	35.4
Heat Pumps .....	26	38	174	45	962	742	2,753	1,313	26.9	51.4	63.1	34.6
Individual Air Conditioners .....	105	187	117	63	2,608	3,352	3,152	1,603	40.3	55.8	37.1	39.6
District Chilled Water .....	Q	9	18	Q	Q	290	518	Q	Q	30.2	34.9	Q
Central Chillers .....	71	175	139	122	1,967	2,621	3,338	2,220	36.1	67.0	41.7	54.9
Packaged Air Conditioning												
Units .....	198	435	316	210	4,777	7,564	9,287	6,359	41.5	57.5	34.0	33.0
Swamp Coolers .....	Q	Q	Q	65	Q	Q	Q	1,413	Q	Q	Q	45.9
Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q

**Table C17. Natural Gas Consumption and Conditional Energy Intensity by Census Region, 1999**

	Total Natural Gas Consumption (billion cubic feet)				Total Floorspace of Buildings Using Natural Gas (million square feet)				Natural Gas Energy Intensity (cubic feet/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>Main Equipment Replaced Since 1995 (more than one may apply)</b>												
Heating .....	60	140	125	94	1,233	3,072	3,477	2,545	48.5	45.6	35.9	37.0
Cooling .....	80	188	173	101	1,979	3,505	4,651	2,728	40.3	53.6	37.2	37.1
<b>Water Heating Equipment</b>												
Centralized System .....	207	362	400	253	4,691	7,688	7,742	6,357	44.2	47.1	51.6	39.8
Distributed System .....	23	119	74	55	1,055	1,977	2,740	1,812	21.4	60.0	26.9	30.6
Combination of Centralized and Distributed System .....	48	116	95	59	1,154	2,007	2,435	1,706	41.9	58.0	38.9	34.7
<b>Annual Consumption (hundred cubic feet)</b>												
1,000 or Less .....	2	10	16	10	392	946	1,867	1,392	4.5	10.5	8.7	7.4
1,001 to 5,000 .....	40	108	78	74	1,413	3,280	3,635	2,865	28.5	32.9	21.5	25.8
5,001 to 10,000 .....	33	90	69	47	1,091	1,807	2,411	1,530	30.4	49.9	28.6	30.9
10,001 to 25,000 .....	87	132	104	92	1,694	2,799	2,510	2,169	51.1	47.2	41.5	42.6
25,001 to 50,000 .....	26	69	77	44	834	1,569	1,510	1,001	30.8	44.2	50.9	44.2
50,001 to 100,000 .....	26	73	Q	32	779	1,308	842	547	33.7	56.0	134.7	59.3
Over 100,000 .....	77	206	143	85	1,101	1,796	1,425	1,011	69.7	114.9	100.4	83.6
<b>Provider of Natural Gas (more than one may apply)</b>												
Local Utility .....	223	593	529	337	6,102	11,915	13,151	9,597	36.5	49.7	40.2	35.1
Some Other Provider .....	64	93	71	Q	954	1,534	917	861	67.3	60.5	77.5	59.1

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.

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* 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 C18. Natural Gas Expenditures by Census Region, 1999**

	Total Natural Gas Expenditures (million dollars)				Natural Gas Expenditures (dollars)							
					per Thousand Cubic Feet				per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>All Buildings</b> .....	1,895	3,277	3,294	2,144	6.52	4.75	5.48	5.56	0.26	0.24	0.23	0.20
<b>Building Floorspace (Square Feet)</b>												
1,001 to 5,000 .....	Q	643	507	416	Q	5.61	5.57	6.09	Q	0.53	0.53	0.42
5,001 to 10,000 .....	320	461	Q	374	7.07	5.84	6.36	6.57	0.57	0.28	0.39	0.32
10,001 to 25,000 .....	380	482	Q	232	7.13	5.03	5.92	5.96	0.41	0.22	Q	0.15
25,001 to 50,000 .....	215	318	373	368	7.38	5.04	5.27	5.72	0.23	0.22	0.18	0.19
50,001 to 100,000 .....	211	364	335	343	6.91	4.58	4.89	5.30	0.22	0.18	0.14	0.19
100,001 to 200,000 .....	189	451	316	149	5.95	4.50	5.23	4.85	0.20	0.24	0.17	0.12
200,001 to 500,000 .....	157	376	256	169	5.34	3.40	4.90	4.45	0.17	0.21	0.16	0.17
Over 500,000 .....	187	181	133	92	4.51	3.93	3.98	3.97	0.11	0.15	0.10	0.10
<b>Principal Building Activity</b>												
Education .....	262	307	255	286	6.19	3.71	5.72	5.68	0.21	0.17	0.15	0.17
Food Sales .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Food Service .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Health Care .....	192	211	286	192	4.39	3.84	4.29	4.23	0.55	0.32	0.38	0.38
Inpatient .....	188	164	257	Q	4.33	3.51	4.17	Q	0.57	0.34	0.45	Q
Outpatient .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Lodging .....	107	196	368	272	6.06	4.60	5.47	5.59	0.35	0.26	0.29	0.22
Mercantile .....	265	416	292	153	7.51	5.36	6.79	6.27	0.20	0.17	0.11	0.11
Retail (Other Than Mall) .....	185	272	162	Q	7.72	5.32	6.91	Q	0.31	0.18	0.16	Q
Enclosed and Strip Malls .....	Q	144	130	102	Q	5.42	6.64	6.27	Q	0.15	0.08	0.10
Office .....	215	397	312	290	7.83	5.19	5.48	5.57	0.18	0.19	0.14	0.16
Public Assembly .....	110	158	140	Q	8.04	5.49	5.94	5.53	0.22	0.18	0.14	0.26
Public Order and Safety .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Religious Worship .....	Q	124	Q	107	Q	5.72	8.59	6.50	Q	0.19	0.15	0.13
Service .....	Q	343	Q	72	Q	5.34	5.28	5.42	Q	0.46	1.04	0.24
Warehouse and Storage .....	187	594	245	Q	6.78	4.36	5.90	5.43	0.16	0.30	0.13	Q
Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Vacant .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Year Constructed</b>												
1919 or Before .....	202	328	55	98	7.32	5.11	7.23	5.61	0.30	0.26	0.13	0.24
1920 to 1945 .....	166	430	220	153	5.70	4.53	5.59	5.90	0.18	0.23	0.23	0.27
1946 to 1959 .....	459	417	281	234	6.05	4.86	5.93	5.91	0.36	0.23	0.17	0.18
1960 to 1969 .....	336	542	Q	483	6.95	4.92	5.39	5.58	0.29	0.25	Q	0.25
1970 to 1979 .....	201	424	576	525	6.35	4.86	5.40	5.77	0.21	0.23	0.22	0.20
1980 to 1989 .....	324	536	926	247	7.06	4.82	5.23	5.44	0.25	0.24	0.27	0.14
1990 to 1999 .....	206	600	610	404	6.45	4.42	5.73	5.09	0.20	0.25	0.22	0.22
<b>Climate Zone: 45-Year Average</b>												
Under 2,000 CDD and --												
More than 7,000 HDD .....	Q	976	N	140	Q	5.08	N	4.91	Q	0.27	N	0.31
5,500-7,000 HDD .....	960	1,777	N	370	6.76	4.46	N	4.46	0.28	0.24	N	0.21
4,000-5,499 HDD .....	925	523	1,127	298	6.28	5.32	5.50	5.49	0.24	0.20	0.40	0.24
Fewer than 4,000 HDD .....	N	N	1,298	1,043	N	N	5.41	6.02	N	N	0.21	0.18
2,000 CDD or More and --												
Fewer than 4,000 HDD .....	N	N	868	292	N	N	5.56	6.32	N	N	0.17	0.26
<b>Workers (main shift)</b>												
Fewer than 5 .....	242	612	541	351	8.19	5.74	6.84	6.18	0.39	0.24	0.25	0.20
5 to 9 .....	145	433	199	334	7.67	5.41	5.67	6.07	0.21	0.28	0.18	0.26
10 to 19 .....	303	477	477	253	6.56	4.98	5.27	6.19	0.32	0.27	0.28	0.22
20 to 49 .....	381	502	1,070	433	7.21	4.90	5.53	5.84	0.43	0.24	0.37	0.23
50 to 99 .....	296	331	317	234	6.61	4.70	5.38	5.67	0.28	0.20	0.16	0.15
100 to 249 .....	237	419	315	240	6.18	4.47	5.02	4.81	0.21	0.23	0.16	0.20
250 or More .....	290	503	375	300	4.85	3.59	4.62	4.44	0.15	0.25	0.16	0.17

**Table C18. Natural Gas Expenditures by Census Region, 1999**

	Total Natural Gas Expenditures (million dollars)				Natural Gas Expenditures (dollars)							
					per Thousand Cubic Feet				per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>Weekly Operating Hours</b>												
39 or Fewer .....	Q	168	Q	91	Q	5.57	7.89	5.59	Q	0.21	0.17	0.11
40 to 48 .....	256	460	404	361	6.65	4.99	5.80	5.84	0.27	0.19	0.14	0.18
49 to 60 .....	286	637	749	452	7.63	4.85	5.62	6.05	0.21	0.20	Q	0.19
61 to 84 .....	527	602	Q	337	6.93	5.35	5.56	6.10	0.29	0.23	Q	0.18
85 to 167 .....	257	653	581	320	7.02	4.88	5.21	5.62	0.22	0.30	0.30	0.26
Open Continuously .....	494	758	815	583	5.50	4.00	5.05	4.84	0.28	0.33	0.27	0.27
<b>Ownership and Occupancy</b>												
Nongovernment Owned .....	1,613	2,773	2,805	1,722	6.66	4.85	5.67	5.65	0.29	0.25	0.24	0.20
Owner Occupied .....	1,251	1,944	2,035	1,153	6.49	4.91	5.52	5.47	0.31	0.25	0.26	0.20
Nonowner Occupied .....	360	813	Q	566	7.30	4.73	6.12	6.05	0.23	0.25	0.21	0.21
Unoccupied .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government Owned .....	281	504	488	422	5.83	4.27	4.59	5.24	0.17	0.21	0.20	0.21
Federal .....	Q	Q	38	53	Q	Q	3.98	4.90	Q	Q	0.14	0.22
State .....	Q	130	186	98	Q	3.80	3.91	4.75	Q	0.19	0.27	0.18
Local .....	204	327	265	271	5.65	4.58	5.35	5.51	0.19	0.23	0.18	0.22
<b>Vacancy Status</b>												
Completely Vacant .....	N	Q	Q	Q	N	Q	Q	Q	N	Q	Q	Q
Mostly Vacant .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	0.10	Q
Partially Vacant .....	243	611	443	304	6.20	4.95	5.55	5.50	0.13	0.19	0.13	0.13
Not At All Vacant .....	1,646	2,609	2,840	1,824	6.58	4.71	5.47	5.58	0.30	0.26	0.26	0.23
<b>Number of Establishments</b>												
One .....	1,348	2,398	2,593	1,599	6.42	4.63	5.40	5.51	0.30	0.26	0.29	0.23
2 to 5 .....	293	607	328	296	6.76	5.29	5.69	5.91	0.24	0.24	0.16	0.18
6 to 10 .....	Q	80	198	100	Q	5.52	6.28	5.18	Q	0.17	0.22	0.14
11 to 20 .....	Q	104	68	52	Q	5.34	5.27	6.18	Q	0.23	0.11	0.14
More than 20 .....	Q	70	71	Q	Q	3.67	5.40	5.87	Q	0.09	0.06	0.12
Currently Unoccupied .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Energy Sources (more than one may apply)</b>												
Electricity .....	1,895	3,277	3,294	2,142	6.52	4.75	5.48	5.57	0.26	0.24	0.23	0.20
Natural Gas .....	1,895	3,277	3,294	2,144	6.52	4.75	5.48	5.56	0.26	0.24	0.23	0.20
Fuel Oil .....	404	637	481	263	5.16	3.85	4.33	4.30	0.16	0.33	0.21	0.20
District Heat .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
District Chilled Water .....	Q	36	71	Q	Q	4.15	3.91	Q	Q	0.13	0.14	Q
Propane .....	Q	Q	81	Q	Q	3.67	4.64	Q	Q	Q	0.11	Q
Other .....	Q	116	Q	Q	Q	4.02	Q	Q	Q	0.23	Q	Q
<b>Space-Heating Energy Source</b>												
Natural Gas .....	1,731	3,146	2,388	1,857	6.46	4.75	5.38	5.47	0.30	0.25	0.22	0.21
Natural Gas Main .....	1,549	2,940	2,087	1,650	6.48	4.71	5.29	5.50	0.32	0.26	0.24	0.22
Natural Gas Secondary .....	182	206	302	207	6.30	5.23	6.06	5.28	0.23	0.18	0.14	0.18
Other Excluding Natural Gas .....	138	108	616	204	7.14	5.11	5.61	5.97	0.09	0.11	0.24	0.15
Buildings without Heating .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Primary Space-Heating Energy Source</b>												
Electricity .....	Q	270	804	354	Q	5.36	5.94	5.72	Q	0.18	0.20	0.16
Natural Gas .....	1,549	2,940	2,087	1,650	6.48	4.71	5.29	5.50	0.32	0.26	0.24	0.22
Fuel Oil .....	89	Q	Q	Q	6.91	Q	Q	Q	0.13	Q	Q	Q
District Heat .....	45	29	99	Q	5.72	4.27	4.57	Q	0.05	0.06	0.21	Q
Propane .....	Q	Q	N	N	Q	Q	N	N	Q	Q	N	N
Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	0.12	Q

**Table C18. Natural Gas Expenditures by Census Region, 1999**

	Total Natural Gas Expenditures (million dollars)				Natural Gas Expenditures (dollars)							
					per Thousand Cubic Feet				per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>Cooling Energy Source</b>												
Natural Gas .....	159	190	Q	117	5.16	5.01	Q	5.87	0.36	0.35	Q	0.18
Other Excluding Natural Gas .....	1,607	2,792	2,931	1,798	6.66	4.74	5.57	5.51	0.26	0.24	0.22	0.21
Buildings without Cooling .....	128	294	Q	229	6.98	4.78	4.80	5.87	0.22	0.24	Q	0.19
<b>Water-Heating Energy Source</b>												
Natural Gas .....	1,248	2,131	2,404	1,773	6.33	4.80	5.37	5.52	0.31	0.26	0.27	0.23
Other Excluding Natural Gas .....	555	658	677	259	6.82	4.30	5.60	5.58	0.20	0.20	0.17	0.13
Buildings without Water Heating .....	92	487	213	112	7.66	5.30	6.50	Q	0.23	0.27	0.17	0.17
<b>Cooking Energy Source</b>												
Natural Gas .....	782	1,096	1,216	925	5.93	4.31	5.03	5.38	0.23	0.25	0.23	0.26
Other Excluding Natural Gas .....	160	203	223	66	6.42	5.04	6.36	4.74	0.30	0.22	0.18	0.16
Buildings without Cooking .....	952	1,977	1,855	1,153	7.12	5.01	5.73	5.78	0.28	0.24	0.24	0.18
<b>Energy End Uses (more than one may apply)</b>												
Buildings with Space Heating .....	1,868	3,254	3,005	2,061	6.50	4.76	5.43	5.52	0.26	0.24	0.22	0.20
Buildings with Cooling .....	1,766	2,982	2,983	1,915	6.49	4.75	5.56	5.53	0.26	0.24	0.22	0.21
Buildings with Water Heating .....	1,802	2,790	3,081	2,032	6.47	4.67	5.42	5.53	0.26	0.24	0.24	0.21
Buildings with Cooking .....	942	1,300	1,439	990	6.01	4.41	5.20	5.34	0.24	0.24	0.22	0.25
Buildings with Manufacturing .....	Q	Q	178	81	Q	5.05	5.97	5.99	Q	0.35	0.26	0.18
Buildings with Electricity Generation .....	409	663	616	392	5.42	3.85	4.99	4.56	0.19	0.28	0.21	0.24
<b>Percent of Floorspace Heated</b>												
Not Heated .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50 .....	Q	193	200	191	Q	5.98	Q	5.46	Q	0.15	0.15	0.12
51 to 99 .....	194	355	Q	354	6.63	5.10	5.69	5.76	0.18	0.17	Q	0.19
100 .....	1,579	2,706	1,812	1,516	6.44	4.65	5.44	5.47	0.28	0.27	0.20	0.23
<b>Percent of Floorspace Cooled</b>												
Not Cooled .....	128	294	Q	229	6.98	4.78	4.80	5.87	0.22	0.24	Q	0.19
1 to 50 .....	653	1,168	Q	335	6.58	4.52	5.92	5.38	0.26	0.26	Q	0.14
51 to 99 .....	603	926	924	603	6.11	4.80	5.57	5.23	0.28	0.22	0.24	0.24
100 .....	511	888	1,318	978	6.88	5.03	5.37	5.79	0.25	0.25	0.18	0.22
<b>Heating Equipment (more than one may apply)</b>												
Heat Pumps .....	161	164	931	225	5.66	4.18	5.39	5.14	0.17	0.24	0.34	0.18
Furnaces .....	486	1,438	Q	390	7.14	5.05	5.76	5.66	0.33	0.28	0.24	0.18
Individual Space Heaters .....	567	943	683	519	6.24	4.70	5.50	5.22	0.22	0.22	0.18	0.18
District Heat .....	160	45	121	Q	6.09	3.90	4.44	Q	0.16	0.08	0.22	Q
Boilers .....	809	1,427	851	887	5.92	4.34	4.97	4.90	0.23	0.25	0.23	0.24
Packaged Heating Units .....	657	1,194	1,456	985	6.52	4.49	5.48	5.77	0.22	0.25	0.20	0.19
Other .....	Q	Q	71	Q	Q	3.80	5.37	4.04	Q	Q	0.09	0.18
<b>Cooling Equipment (more than one may apply)</b>												
Residential-Type Central												
Air Conditioners .....	219	641	514	165	6.17	5.15	5.64	4.63	0.27	0.24	0.22	0.16
Heat Pumps .....	151	156	933	237	5.86	4.08	5.37	5.22	0.16	0.21	0.34	0.18
Individual Air Conditioners .....	599	854	716	349	5.70	4.57	6.13	5.51	0.23	0.25	0.23	0.22
District Chilled Water .....	Q	36	71	Q	Q	4.15	3.91	Q	Q	0.13	0.14	Q
Central Chillers .....	361	690	681	570	5.07	3.93	4.89	4.67	0.18	0.26	0.20	0.26
Packaged Air Conditioning												
Units .....	1,291	2,019	1,763	1,204	6.52	4.64	5.58	5.74	0.27	0.27	0.19	0.19
Swamp Coolers .....	Q	Q	Q	360	Q	Q	Q	5.54	Q	Q	Q	0.25
Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q



**Table C18. Natural Gas Expenditures by Census Region, 1999**

	Total Natural Gas Expenditures (million dollars)				Natural Gas Expenditures (dollars)							
					per Thousand Cubic Feet				per Square Foot			
	North- east	Mid- west	South	West	North- east	Mid- west	South	West	North- east	Mid- west	South	West
<b>Main Equipment Replaced Since 1995 (more than one may apply)</b>												
Heating .....	388	729	739	575	6.48	5.20	5.92	6.11	0.31	0.24	0.21	0.23
Cooling .....	484	868	1,007	589	6.08	4.62	5.83	5.83	0.24	0.25	0.22	0.22
<b>Water Heating Equipment</b>												
Centralized System .....	1,371	1,795	2,178	1,419	6.61	4.95	5.45	5.61	0.29	0.23	0.28	0.22
Distributed System .....	169	479	435	326	7.47	4.04	5.90	5.88	0.16	0.24	0.16	0.18
Combination of Centralized and Distributed System .....	262	516	468	287	5.42	4.43	4.94	4.85	0.23	0.26	0.19	0.17
<b>Annual Consumption (hundred cubic feet)</b>												
1,000 or Less .....	20	77	128	86	11.09	7.75	7.87	8.33	0.05	0.08	0.07	0.06
1,001 to 5,000 .....	335	670	547	497	8.31	6.20	6.99	6.71	0.24	0.20	0.15	0.17
5,001 to 10,000 .....	256	463	424	276	7.72	5.14	6.15	5.83	0.23	0.26	0.18	0.18
10,001 to 25,000 .....	586	651	601	548	6.77	4.93	5.77	5.94	0.35	0.23	0.24	0.25
25,001 to 50,000 .....	169	329	376	228	6.55	4.74	4.90	5.14	0.20	0.21	0.25	0.23
50,001 to 100,000 .....	166	321	Q	160	6.32	4.39	5.58	4.92	0.21	0.25	0.75	0.29
Over 100,000 .....	363	765	585	349	4.74	3.71	4.09	4.13	0.33	0.43	0.41	0.35
<b>Provider of Natural Gas (more than one may apply)</b>												
Local Utility .....	1,477	2,880	2,982	1,912	6.64	4.86	5.64	5.67	0.24	0.24	0.23	0.20
Some Other Provider .....	377	371	311	Q	5.87	4.00	4.38	4.50	0.40	0.24	0.34	0.27

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

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* 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 C19. Natural Gas Consumption and Conditional Energy Intensity by Building Size, 1999**

	Total Natural Gas Consumption (billion cubic feet)			Total Floorspace of Buildings Using Natural Gas (million square feet)			Natural Gas Energy Intensity (cubic feet/square foot)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
<b>All Buildings</b> .....	588	780	598	8,654	20,570	16,301	67.9	37.9	36.7
<b>Principal Building Activity</b>									
Education .....	22	122	76	566	3,620	2,385	38.7	33.8	31.9
Food Sales .....	Q	18	Q	Q	342	Q	Q	51.5	Q
Food Service .....	174	Q	Q	981	Q	Q	177.2	Q	Q
Health Care .....	Q	32	173	Q	453	1,624	Q	69.8	106.2
Inpatient .....	N	Q	169	N	Q	1,553	N	Q	109.0
Outpatient .....	Q	11	Q	Q	328	Q	Q	33.5	Q
Lodging .....	Q	93	59	Q	1,748	1,542	Q	53.1	38.5
Mercantile .....	60	88	32	1,315	3,395	3,178	45.5	26.0	10.1
Retail (Other Than Mall) .....	48	52	Q	1,070	1,886	Q	44.9	27.3	Q
Enclosed and Strip Malls .....	Q	37	25	Q	1,508	2,616	Q	24.4	9.6
Office .....	50	86	78	1,467	2,772	3,116	33.9	30.9	25.0
Public Assembly .....	31	47	16	638	1,622	728	47.9	29.1	21.7
Public Order and Safety .....	Q	20	Q	Q	423	Q	Q	46.8	Q
Religious Worship .....	21	38	Q	727	1,687	Q	28.8	22.8	Q
Service .....	132	Q	Q	1,081	714	Q	122.4	154.7	Q
Warehouse and Storage .....	Q	63	Q	643	2,810	2,758	60.4	22.4	44.1
Other .....	Q	Q	Q	Q	302	Q	Q	80.5	Q
Vacant .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Year Constructed</b>									
1919 or Before .....	56	42	Q	946	1,453	Q	59.6	28.9	Q
1920 to 1945 .....	73	70	46	1,065	1,755	1,437	68.7	40.0	31.8
1946 to 1959 .....	69	113	66	1,406	2,899	1,735	49.2	39.1	38.0
1960 to 1969 .....	140	120	101	1,305	3,249	2,958	107.5	36.9	34.1
1970 to 1979 .....	100	114	103	1,650	3,520	2,910	60.5	32.5	35.3
1980 to 1989 .....	54	198	128	970	4,247	3,576	55.7	46.7	35.7
1990 to 1999 .....	95	122	136	1,312	3,448	3,316	72.5	35.4	41.1
<b>Census Region and Division</b>									
Northeast .....	75	113	103	978	2,824	3,503	76.5	40.0	29.3
New England .....	Q	27	23	Q	863	674	Q	31.5	34.8
Middle Atlantic .....	69	86	79	925	1,961	2,829	74.2	43.7	28.0
Midwest .....	194	239	257	2,886	5,775	4,846	67.1	41.3	53.0
East North Central .....	151	155	178	2,120	3,907	3,356	71.3	39.6	52.9
West North Central .....	43	84	79	766	1,868	1,490	55.6	45.0	53.3
South .....	194	261	146	2,625	6,735	4,840	73.9	38.7	30.2
South Atlantic .....	Q	71	73	778	2,500	2,239	Q	28.3	32.7
East South Central .....	29	126	25	604	1,885	1,019	48.3	Q	25.0
West South Central .....	66	64	48	1,243	2,349	1,582	53.4	27.4	30.1
West .....	125	168	92	2,165	5,237	3,113	57.8	32.1	29.6
Mountain .....	52	62	27	739	1,703	740	69.9	36.3	36.3
Pacific .....	74	106	65	1,426	3,533	2,373	51.5	30.0	27.5
<b>Climate Zone: 45-Year Average</b>									
Under 2,000 CDD and --									
More than 7,000 HDD .....	74	88	59	979	1,943	1,142	76.0	45.2	52.1
5,500-7,000 HDD .....	147	224	253	1,956	5,609	5,008	75.3	39.9	50.5
4,000-5,499 HDD .....	178	199	128	2,039	3,876	4,539	87.3	51.5	28.1
Fewer than 4,000 HDD .....	99	198	115	2,240	6,061	3,849	44.4	32.7	30.0
2,000 CDD or More and --									
Fewer than 4,000 HDD .....	89	71	43	1,440	3,081	1,763	61.5	23.1	24.2

**Table C19. Natural Gas Consumption and Conditional Energy Intensity by Building Size, 1999**

	Total Natural Gas Consumption (billion cubic feet)			Total Floorspace of Buildings Using Natural Gas (million square feet)			Natural Gas Energy Intensity (cubic feet/square foot)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
<b>Workers (main shift)</b>									
Fewer than 5 .....	205	65	Q	3,981	2,999	Q	51.5	21.5	Q
5 to 9 .....	122	57	Q	2,038	2,275	Q	59.6	25.2	Q
10 to 19 .....	124	142	Q	1,535	3,488	Q	81.0	40.6	Q
20 to 49 .....	131	262	30	969	5,399	1,369	135.1	48.6	21.7
50 to 99 .....	Q	151	61	Q	3,914	2,295	Q	38.5	26.8
100 to 249 .....	Q	82	160	Q	1,879	4,205	Q	43.8	38.0
250 or More .....	N	22	327	N	616	7,419	N	35.2	44.1
<b>Weekly Operating Hours</b>									
39 or Fewer .....	40	30	Q	1,307	1,210	Q	30.8	24.5	Q
40 to 48 .....	111	122	28	2,469	4,426	1,302	45.1	27.7	21.7
49 to 60 .....	102	217	57	2,046	5,296	2,372	49.8	41.1	24.1
61 to 84 .....	139	135	74	1,501	3,705	3,802	92.3	36.5	19.6
85 to 167 .....	153	107	78	853	2,672	2,923	179.7	40.2	26.6
Open Continuously .....	43	168	350	479	3,261	5,594	88.8	51.6	62.6
<b>Ownership and Occupancy</b>									
Nongovernment Owned .....	539	595	478	7,886	16,446	12,694	68.3	36.2	37.7
Owner Occupied .....	363	432	373	5,429	10,741	9,427	66.9	40.2	39.6
Nonowner Occupied .....	174	156	Q	2,296	5,434	3,238	75.8	28.7	Q
Unoccupied .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government Owned .....	49	185	119	768	4,124	3,607	63.8	44.8	33.1
Federal .....	Q	15	20	Q	379	555	Q	40.6	35.5
State .....	Q	62	36	Q	1,137	986	Q	54.8	36.3
Local .....	35	107	64	577	2,608	2,065	60.8	41.1	30.9
<b>Vacancy Status</b>									
Completely Vacant .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
Mostly Vacant .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
Partially Vacant .....	45	123	130	1,263	3,938	5,524	35.5	31.1	23.5
Not At All Vacant .....	535	652	463	7,110	16,407	10,657	75.3	39.7	43.4
<b>Number of Establishments</b>									
One .....	480	588	430	6,630	14,200	8,887	72.4	41.4	48.4
2 to 5 .....	92	99	74	1,651	3,436	2,352	55.9	28.9	31.6
6 to 10 .....	Q	55	23	Q	1,480	845	Q	37.3	26.8
11 to 20 .....	Q	18	30	Q	795	986	Q	22.8	30.6
More than 20 .....	Q	Q	40	Q	Q	3,182	Q	Q	12.7
Currently Unoccupied .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Energy Sources (more than one may apply)</b>									
Electricity .....	587	780	598	8,625	20,570	16,301	68.1	37.9	36.7
Natural Gas .....	588	780	598	8,654	20,570	16,301	67.9	37.9	36.7
Fuel Oil .....	Q	78	334	Q	1,594	6,386	Q	48.7	52.4
District Heat .....	Q	Q	46	Q	Q	1,758	Q	Q	Q
District Chilled Water .....	Q	17	33	Q	486	808	Q	35.8	41.4
Propane .....	Q	19	Q	Q	536	1,278	Q	35.4	Q
Other .....	Q	20	40	Q	603	814	Q	33.2	48.7
<b>Space-Heating Energy Source</b>									
Natural Gas .....	480	687	547	7,863	17,494	12,546	61.0	39.3	43.6
Natural Gas Main .....	462	596	499	7,373	14,997	10,360	62.6	39.7	48.2
Natural Gas Secondary .....	18	91	48	490	2,497	2,186	36.7	36.5	22.0
Other Excluding Natural Gas .....	Q	77	49	504	2,520	3,468	115.5	30.6	14.2
Buildings without Heating .....	Q	Q	Q	Q	Q	Q	Q	Q	Q

**Table C19. Natural Gas Consumption and Conditional Energy Intensity by Building Size, 1999**

	Total Natural Gas Consumption (billion cubic feet)			Total Floorspace of Buildings Using Natural Gas (million square feet)			Natural Gas Energy Intensity (cubic feet/square foot)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
<b>Primary Space-Heating</b>									
<b>Energy Source</b>									
Electricity .....	74	138	63	862	4,030	3,545	85.6	34.2	17.7
Natural Gas .....	462	596	499	7,373	14,997	10,360	62.6	39.7	48.2
Fuel Oil .....	Q	Q	5	Q	355	500	Q	30.2	10.1
District Heat .....	Q	16	29	Q	502	1,520	Q	31.5	19.1
Propane .....	Q	Q	N	Q	Q	N	Q	Q	N
Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Cooling Energy Source</b>									
Natural Gas .....	Q	29	33	Q	907	469	Q	31.4	71.2
Other Excluding Natural Gas .....	443	687	554	6,784	18,352	15,098	65.3	37.4	36.7
Buildings without Cooling .....	108	65	11	1,333	1,311	734	81.1	49.4	14.7
<b>Water-Heating Energy Source</b>									
Natural Gas .....	405	553	452	4,923	13,747	10,526	82.2	40.2	42.9
Other Excluding Natural Gas .....	104	163	134	2,035	5,177	4,958	51.2	31.6	27.1
Buildings without Water Heating .....	79	64	12	1,697	1,646	817	46.6	38.7	14.2
<b>Cooking Energy Source</b>									
Natural Gas .....	198	241	361	1,479	5,412	9,893	133.6	44.6	36.5
Other Excluding Natural Gas .....	Q	49	48	Q	1,461	1,375	Q	33.5	34.6
Buildings without Cooking .....	373	490	189	6,938	13,697	5,033	53.7	35.8	37.6
<b>Energy End Uses (more than one may apply)</b>									
Buildings with Space Heating .....	538	764	597	8,366	20,004	16,014	64.3	38.2	37.3
Buildings with Cooling .....	480	716	587	7,321	19,259	15,567	65.5	37.2	37.7
Buildings with Water Heating .....	509	717	586	6,957	18,924	15,484	73.1	37.9	37.9
Buildings with Cooking .....	215	290	409	1,716	6,873	11,268	125.4	42.3	36.3
Buildings with Manufacturing .....	Q	43	Q	Q	1,124	921	Q	38.6	62.5
Buildings with Electricity Generation .....	Q	104	315	Q	2,303	6,579	Q	45.2	47.9
<b>Percent of Floorspace Heated</b>									
Not Heated .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50 .....	37	Q	Q	1,140	2,376	1,357	32.5	Q	22.0
51 to 99 .....	96	163	75	1,417	3,705	2,929	67.7	44.1	25.7
100 .....	405	542	491	5,809	13,923	11,727	69.7	38.9	41.9
<b>Percent of Floorspace Cooled</b>									
Not Cooled .....	108	65	11	1,333	1,311	734	81.1	49.4	14.7
1 to 50 .....	126	255	164	2,082	6,321	3,665	60.5	40.4	44.7
51 to 99 .....	135	192	245	1,687	5,068	5,939	80.2	38.0	41.2
100 .....	218	268	178	3,553	7,870	5,963	61.5	34.1	29.9
<b>Heating Equipment (more than one may apply)</b>									
Heat Pumps .....	Q	Q	114	530	2,511	2,587	Q	Q	44.1
Furnaces .....	207	208	135	3,852	5,430	2,678	53.8	38.3	50.5
Individual Space Heaters .....	116	196	203	1,603	5,888	6,070	72.3	33.3	33.4
District Heat .....	Q	31	45	Q	657	1,690	Q	47.7	26.4
Boilers .....	79	321	417	903	6,918	8,767	87.4	46.4	47.6
Packaged Heating Units .....	198	296	309	2,911	8,851	8,281	67.8	33.5	37.3
Other .....	Q	32	Q	Q	1,001	1,483	Q	32.2	Q

**Table C19. Natural Gas Consumption and Conditional Energy Intensity by Building Size, 1999**

	Total Natural Gas Consumption (billion cubic feet)			Total Floorspace of Buildings Using Natural Gas (million square feet)			Natural Gas Energy Intensity (cubic feet/square foot)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
<b>Cooling Equipment (more than one may apply)</b>									
Residential-Type Central									
Air Conditioners .....	84	91	112	1,770	2,840	2,195	47.3	31.9	51.2
Heat Pumps .....	Q	Q	116	525	2,510	2,735	Q	Q	42.2
Individual Air Conditioners .....	87	195	190	1,395	4,833	4,487	62.4	40.3	42.4
District Chilled Water .....	Q	17	33	Q	486	808	Q	35.8	41.4
Central Chillers .....	Q	118	374	Q	2,366	7,611	Q	49.9	49.2
Packaged Air Conditioning									
Units .....	297	424	439	4,059	12,884	11,045	73.1	32.9	39.7
Swamp Coolers .....	Q	32	33	Q	838	708	Q	38.6	47.0
Other .....	Q	13	Q	Q	329	Q	Q	38.3	Q
<b>Main Equipment Replaced Since 1995 (more than one may apply)</b>									
Heating .....	146	192	81	2,125	5,264	2,938	68.6	36.4	27.7
Cooling .....	144	223	174	1,877	6,176	4,810	77.0	36.1	36.2
<b>Water Heating Equipment</b>									
Centralized System .....	433	512	278	5,536	12,911	8,032	78.2	39.6	34.6
Distributed System .....	53	90	Q	1,221	3,114	3,251	43.2	28.9	39.3
Combination of Centralized and Distributed System .....	Q	115	181	Q	2,900	4,200	Q	39.6	43.1
<b>Annual Consumption (hundred cubic feet)</b>									
1,000 or Less .....	35	3	0	2,581	1,578	438	13.5	2.2	0.2
1,001 to 5,000 .....	223	76	2	4,485	5,573	1,135	49.7	13.6	1.4
5,001 to 10,000 .....	117	118	4	875	4,750	1,214	133.5	24.9	3.5
10,001 to 25,000 .....	146	247	22	574	5,732	2,867	254.3	43.1	7.7
25,001 to 50,000 .....	Q	129	52	Q	1,900	2,930	Q	67.7	17.7
50,001 to 100,000 .....	Q	138	76	Q	849	2,573	Q	162.5	29.5
Over 100,000 .....	N	Q	442	N	Q	5,144	N	Q	85.9
<b>Provider of Natural Gas (more than one may apply)</b>									
Local Utility .....	545	698	438	8,199	18,998	13,567	66.5	36.8	32.3
Some Other Provider .....	Q	70	179	Q	1,248	2,735	Q	55.9	65.3

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.

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* 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 C20. Natural Gas Consumption and Conditional Energy Intensity by Year Constructed, 1999**

	Total Natural Gas Consumption (billion cubic feet)			Total Floorspace of Buildings Using Natural Gas (million square feet)			Natural Gas Energy Intensity (cubic feet/square foot)		
	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
<b>All Buildings</b> .....	555	1,058	354	13,063	24,386	8,076	42.5	43.4	43.8
<b>Building Floorspace (Square Feet)</b>									
1,001 to 5,000 .....	101	147	Q	1,535	1,609	Q	65.5	91.1	Q
5,001 to 10,000 .....	98	147	39	1,882	2,316	891	52.1	63.6	43.6
10,001 to 25,000 .....	107	177	25	2,505	3,746	750	42.8	47.3	33.9
25,001 to 50,000 .....	71	111	46	1,814	3,308	1,282	38.9	33.6	35.5
50,001 to 100,000 .....	48	144	51	1,787	3,962	1,416	26.8	36.4	36.0
100,001 to 200,000 .....	48	133	42	1,291	3,406	1,219	37.2	39.0	34.9
200,001 to 500,000 .....	43	114	Q	1,280	2,896	1,106	33.8	39.5	Q
Over 500,000 .....	39	84	21	970	3,143	991	40.2	26.8	21.3
<b>Principal Building Activity</b>									
Education .....	105	85	30	2,609	3,100	861	40.1	27.5	35.2
Food Sales .....	Q	Q	14	Q	Q	315	Q	Q	43.5
Food Service .....	Q	95	Q	Q	727	Q	Q	130.2	Q
Health Care .....	49	144	Q	479	1,460	Q	101.9	98.5	Q
Inpatient .....	Q	134	Q	Q	1,142	Q	Q	117.0	Q
Outpatient .....	Q	10	Q	Q	318	Q	Q	32.0	Q
Lodging .....	27	121	28	581	2,308	660	47.2	52.5	42.0
Mercantile .....	74	78	28	2,095	4,207	1,585	35.2	18.6	18.0
Retail (Other Than Mall) .....	55	37	15	1,491	1,218	809	36.7	30.6	18.3
Enclosed and Strip Malls .....	Q	41	14	Q	2,989	777	Q	13.7	17.7
Office .....	59	128	25	1,841	4,403	1,113	32.2	29.2	22.9
Public Assembly .....	30	45	19	980	1,380	628	30.4	32.4	30.4
Public Order and Safety .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
Religious Worship .....	27	29	Q	929	1,335	Q	28.6	22.0	Q
Service .....	53	191	Q	743	1,156	Q	70.9	164.9	Q
Warehouse and Storage .....	27	100	Q	1,417	3,409	1,385	19.3	29.4	Q
Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
Vacant .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Census Region and Division</b>									
Northeast .....	133	126	32	2,860	3,389	1,056	46.4	37.2	30.2
New England .....	25	25	Q	535	818	Q	47.2	30.3	Q
Middle Atlantic .....	107	101	25	2,325	2,570	819	46.2	39.4	30.6
Midwest .....	245	309	136	4,876	6,261	2,369	50.2	49.3	57.3
East North Central .....	192	182	Q	3,811	3,954	1,618	50.4	46.1	67.4
West North Central .....	53	126	27	1,065	2,307	752	49.6	54.8	35.5
South .....	94	400	106	3,034	8,381	2,785	31.1	47.7	38.2
South Atlantic .....	39	149	Q	1,002	3,248	1,267	39.3	45.8	Q
East South Central .....	28	138	15	729	2,035	744	37.8	67.9	19.5
West South Central .....	27	113	Q	1,303	3,098	773	21.1	36.5	48.8
West .....	83	223	79	2,294	6,356	1,865	36.1	35.1	42.6
Mountain .....	44	78	19	903	1,698	582	48.4	46.0	32.1
Pacific .....	39	145	61	1,391	4,658	1,283	28.2	31.1	47.3
<b>Climate Zone: 45-Year Average</b>									
Under 2,000 CDD and --									
More than 7,000 HDD .....	69	108	44	1,191	2,150	723	58.3	50.3	61.2
5,500-7,000 HDD .....	234	274	Q	4,442	5,919	2,211	52.8	46.3	52.2
4,000-5,499 HDD .....	145	285	74	3,614	5,087	1,754	40.2	56.1	42.4
Fewer than 4,000 HDD .....	65	266	82	2,250	7,377	2,522	28.8	36.0	32.7
2,000 CDD or More and --									
Fewer than 4,000 HDD .....	40	125	Q	1,566	3,853	866	25.8	32.4	Q

**Table C20. Natural Gas Consumption and Conditional Energy Intensity by Year Constructed, 1999**

	Total Natural Gas Consumption (billion cubic feet)			Total Floorspace of Buildings Using Natural Gas (million square feet)			Natural Gas Energy Intensity (cubic feet/square foot)		
	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
<b>Workers (main shift)</b>									
Fewer than 5 .....	119	124	28	3,293	3,012	803	36.2	41.3	35.5
5 to 9 .....	64	97	Q	1,575	2,479	579	40.6	39.3	47.9
10 to 19 .....	103	128	Q	2,119	2,647	822	48.5	48.2	52.4
20 to 49 .....	94	255	73	2,039	4,040	1,658	46.3	63.2	44.0
50 to 99 .....	53	126	36	1,193	3,865	1,219	44.3	32.7	29.5
100 to 249 .....	51	137	57	1,234	3,452	1,461	41.0	39.6	39.1
250 or More .....	71	190	Q	1,610	4,890	1,534	43.9	38.8	Q
<b>Weekly Operating Hours</b>									
39 or Fewer .....	33	43	Q	1,088	1,534	Q	30.8	28.0	Q
40 to 48 .....	112	117	33	3,182	3,973	1,042	35.2	29.6	31.2
49 to 60 .....	116	200	61	3,366	4,848	1,500	34.3	41.3	40.5
61 to 84 .....	115	199	35	2,217	5,133	1,658	51.7	38.7	20.9
85 to 167 .....	73	173	93	1,379	3,406	1,664	53.2	50.7	55.6
Open Continuously .....	106	325	130	1,832	5,493	2,009	57.7	59.2	64.5
<b>Ownership and Occupancy</b>									
Nongovernment Owned .....	435	886	292	10,227	20,216	6,582	42.5	43.8	44.3
Owner Occupied .....	331	658	179	7,365	13,759	4,473	44.9	47.8	40.1
Nonowner Occupied .....	102	221	Q	2,673	6,191	2,104	38.2	35.6	53.3
Unoccupied .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government Owned .....	120	172	62	2,836	4,170	1,494	42.2	41.2	41.5
Federal .....	15	15	Q	462	345	Q	Q	42.9	Q
State .....	29	61	21	658	1,192	403	43.7	51.0	53.0
Local .....	76	96	34	1,716	2,634	901	44.2	36.5	37.9
<b>Vacancy Status</b>									
Completely Vacant .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
Mostly Vacant .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
Partially Vacant .....	102	146	49	2,948	5,749	2,029	34.5	25.5	24.4
Not At All Vacant .....	441	905	304	9,706	18,438	6,030	45.4	49.1	50.4
<b>Number of Establishments</b>									
One .....	399	805	295	8,812	15,253	5,652	45.2	52.8	52.2
2 to 5 .....	95	140	31	2,476	3,698	1,265	38.5	37.8	24.2
6 to 10 .....	31	44	Q	577	1,627	Q	54.5	27.3	Q
11 to 20 .....	Q	27	Q	Q	1,112	Q	Q	24.6	Q
More than 20 .....	18	32	Q	631	2,400	Q	27.9	13.4	Q
Currently Unoccupied .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Energy Sources (more than one may apply)</b>									
Electricity .....	554	1,058	354	13,034	24,386	8,076	42.5	43.4	43.8
Natural Gas .....	555	1,058	354	13,063	24,386	8,076	42.5	43.4	43.8
Fuel Oil .....	74	250	Q	1,788	4,771	1,529	41.3	52.4	Q
District Heat .....	Q	Q	Q	Q	1,163	Q	Q	Q	Q
District Chilled Water .....	Q	33	Q	Q	725	Q	Q	46.2	Q
Propane .....	Q	41	Q	Q	1,107	Q	Q	37.4	Q
Other .....	35	28	Q	557	768	Q	62.2	36.8	Q
<b>Space-Heating Energy Source</b>									
Natural Gas .....	500	911	303	11,297	19,947	6,658	44.3	45.7	45.5
Natural Gas Main .....	470	817	270	10,205	16,847	5,677	46.0	48.5	47.6
Natural Gas Secondary .....	31	94	32	1,092	3,100	981	28.0	30.4	33.1
Other Excluding Natural Gas .....	49	85	Q	1,671	3,503	1,318	29.3	24.3	Q
Buildings without Heating .....	Q	Q	Q	Q	Q	Q	Q	Q	Q

**Table C20. Natural Gas Consumption and Conditional Energy Intensity by Year Constructed, 1999**

	Total Natural Gas Consumption (billion cubic feet)			Total Floorspace of Buildings Using Natural Gas (million square feet)			Natural Gas Energy Intensity (cubic feet/square foot)		
	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
<b>Primary Space-Heating</b>									
<b>Energy Source</b>									
Electricity .....	59	138	77	1,334	5,109	1,993	43.9	27.1	38.8
Natural Gas .....	470	817	270	10,205	16,847	5,677	46.0	48.5	47.6
Fuel Oil .....	9	6	Q	418	429	Q	21.2	14.7	Q
District Heat .....	11	31	Q	885	967	Q	12.4	32.1	Q
Propane .....	N	Q	N	N	Q	N	N	Q	N
Other .....	Q	Q	N	Q	Q	N	Q	Q	N
<b>Cooling Energy Source</b>									
Natural Gas .....	25	57	Q	470	1,028	Q	53.6	55.4	Q
Other Excluding Natural Gas .....	459	903	321	10,651	22,169	7,413	43.1	40.7	43.3
Buildings without Cooling .....	70	Q	Q	1,943	1,188	Q	36.1	82.3	Q
<b>Water-Heating Energy Source</b>									
Natural Gas .....	382	790	238	8,411	15,573	5,211	45.4	50.7	45.7
Other Excluding Natural Gas .....	105	206	Q	2,986	7,094	2,090	35.1	29.0	Q
Buildings without Water Heating .....	68	62	Q	1,666	1,719	775	41.0	36.1	31.1
<b>Cooking Energy Source</b>									
Natural Gas .....	246	419	135	4,690	9,030	3,065	52.4	46.4	44.0
Other Excluding Natural Gas .....	45	54	15	841	1,605	627	53.7	33.9	23.5
Buildings without Cooking .....	264	584	204	7,533	13,751	4,384	35.0	42.5	46.5
<b>Energy End Uses (more than one may apply)</b>									
Buildings with Space Heating .....	549	996	353	12,968	23,450	7,966	42.3	42.5	44.3
Buildings with Cooling .....	484	960	338	11,120	23,198	7,829	43.6	41.4	43.1
Buildings with Water Heating .....	486	996	329	11,398	22,667	7,301	42.7	43.9	45.1
Buildings with Cooking .....	291	474	150	5,530	10,635	3,692	52.6	44.5	40.6
Buildings with Manufacturing .....	31	Q	19	773	1,167	382	40.2	51.4	50.6
Buildings with Electricity Generation .....	78	261	Q	1,412	5,390	2,317	55.5	48.4	Q
<b>Percent of Floorspace Heated</b>									
Not Heated .....	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50 .....	39	67	21	1,889	2,230	754	20.5	30.0	27.3
51 to 99 .....	91	185	59	2,540	4,024	1,487	35.8	45.9	39.7
100 .....	420	745	274	8,539	17,196	5,725	49.1	43.3	47.8
<b>Percent of Floorspace Cooled</b>									
Not Cooled .....	70	Q	Q	1,943	1,188	Q	36.1	82.3	Q
1 to 50 .....	174	260	Q	4,434	5,705	1,929	39.3	45.6	Q
51 to 99 .....	181	295	96	3,321	6,839	2,534	54.6	43.1	38.0
100 .....	129	405	131	3,366	10,653	3,366	38.3	38.0	38.8
<b>Heating Equipment (more than one may apply)</b>									
Heat Pumps .....	46	189	Q	1,239	3,131	1,256	37.2	60.4	Q
Furnaces .....	150	290	Q	4,114	5,887	1,959	36.5	49.2	Q
Individual Space Heaters .....	154	284	77	4,216	7,172	2,173	36.5	39.6	35.5
District Heat .....	29	43	Q	1,005	1,119	Q	28.7	38.6	Q
Boilers .....	275	430	113	5,438	8,936	2,214	50.5	48.1	51.0
Packaged Heating Units .....	150	460	193	3,778	11,828	4,437	39.8	38.9	43.4
Other .....	25	47	Q	768	1,378	534	33.1	34.2	Q



**Table C20. Natural Gas Consumption and Conditional Energy Intensity by Year Constructed, 1999**

	Total Natural Gas Consumption (billion cubic feet)			Total Floorspace of Buildings Using Natural Gas (million square feet)			Natural Gas Energy Intensity (cubic feet/square foot)		
	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
<b>Cooling Equipment (more than one may apply)</b>									
Residential-Type Central									
Air Conditioners .....	83	161	43	2,046	3,786	973	40.7	42.4	44.0
Heat Pumps .....	48	185	Q	1,318	3,242	1,211	36.6	57.2	Q
Individual Air Conditioners .....	216	218	38	4,707	4,873	1,136	45.9	44.8	33.4
District Chilled Water .....	Q	33	Q	Q	725	Q	Q	46.2	Q
Central Chillers .....	96	280	132	2,025	6,209	1,911	47.4	45.0	69.1
Packaged Air Conditioning									
Units .....	291	644	225	6,589	16,086	5,312	44.1	40.0	42.3
Swamp Coolers .....	Q	67	Q	Q	1,188	Q	Q	56.4	Q
Other .....	Q	Q	Q	Q	535	Q	Q	45.3	Q
<b>Main Equipment Replaced Since 1995 (more than one may apply)</b>									
Heating .....	151	239	Q	3,491	6,260	576	43.1	38.1	Q
Cooling .....	194	311	36	4,248	7,907	708	45.7	39.3	51.4
<b>Water Heating Equipment</b>									
Centralized System .....	335	696	192	7,725	14,543	4,211	43.3	47.8	45.5
Distributed System .....	60	125	Q	1,719	4,265	1,602	35.0	29.2	Q
Combination of Centralized and Distributed System .....	91	175	52	1,954	3,859	1,488	46.7	45.4	35.0
<b>Annual Consumption (hundred cubic feet)</b>									
1,000 or Less .....	16	20	2	1,748	2,404	444	9.4	8.1	5.1
1,001 to 5,000 .....	116	141	43	3,847	5,519	1,827	30.2	25.6	23.7
5,001 to 10,000 .....	86	110	43	2,055	3,418	1,366	42.0	32.1	31.7
10,001 to 25,000 .....	131	228	57	2,435	5,130	1,608	53.7	44.4	35.4
25,001 to 50,000 .....	60	98	58	1,249	2,566	1,099	48.4	38.2	52.6
50,001 to 100,000 .....	37	173	36	687	1,976	814	53.9	87.5	43.8
Over 100,000 .....	107	289	Q	1,042	3,373	918	103.1	85.7	124.6
<b>Provider of Natural Gas (more than one may apply)</b>									
Local Utility .....	462	935	284	11,629	21,888	7,248	39.8	42.7	39.2
Some Other Provider .....	94	137	Q	1,233	2,357	676	76.6	58.2	70.0

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.

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* 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 C21. Total Fuel Oil Consumption and Expenditures, 1999**

	All Buildings Using Fuel Oil			Fuel Oil Consumption		Fuel Oil Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million gallons)	Total (million dollars)
<b>All Buildings</b> .....	434	13,285	31	179	1,294	956
<b>Building Floorspace (Square Feet)</b>						
1,001 to 5,000 .....	220	620	3	29	210	197
5,001 to 10,000 .....	74	583	8	Q	Q	95
10,001 to 25,000 .....	65	983	15	24	177	145
25,001 to 50,000 .....	28	983	35	25	183	131
50,001 to 100,000 .....	22	1,612	75	24	175	114
100,001 to 200,000 .....	13	1,875	144	19	140	87
200,001 to 500,000 .....	9	2,984	315	25	180	120
Over 500,000 .....	4	3,645	961	16	113	68
<b>Principal Building Activity</b>						
Education .....	19	1,635	86	48	347	208
Food Sales .....	Q	Q	Q	Q	Q	Q
Food Service .....	Q	Q	Q	Q	Q	Q
Health Care .....	14	1,754	128	19	139	87
Inpatient .....	9	1,605	Q	18	128	79
Outpatient .....	Q	Q	Q	Q	Q	Q
Lodging .....	7	789	109	Q	Q	26
Mercantile .....	87	1,411	16	Q	Q	Q
Retail (Other Than Mall) .....	76	553	7	Q	Q	Q
Enclosed and Strip Malls .....	11	858	79	Q	Q	Q
Office .....	88	3,913	44	29	213	168
Public Assembly .....	Q	850	36	Q	Q	Q
Public Order and Safety .....	Q	398	20	7	47	Q
Religious Worship .....	Q	Q	Q	Q	Q	Q
Service .....	80	641	8	18	128	102
Warehouse and Storage .....	18	1,102	Q	8	61	55
Other .....	Q	Q	Q	Q	Q	Q
Vacant .....	Q	Q	Q	Q	Q	Q
<b>Year Constructed</b>						
1919 or Before .....	53	745	14	26	190	149
1920 to 1945 .....	55	1,060	19	22	159	119
1946 to 1959 .....	109	1,782	16	33	236	184
1960 to 1969 .....	65	2,349	36	36	258	185
1970 to 1979 .....	37	2,446	66	29	207	132
1980 to 1989 .....	70	2,795	40	21	151	113
1990 to 1999 .....	Q	2,108	Q	13	93	73
<b>Census Region and Division</b>						
Northeast .....	218	5,414	25	138	994	704
New England .....	90	2,254	25	73	525	362
Middle Atlantic .....	128	3,160	25	65	469	342
Midwest .....	48	2,423	50	5	34	27
East North Central .....	28	1,299	46	Q	Q	13
West North Central .....	20	1,123	Q	2	18	14
South .....	138	3,749	27	29	210	180
South Atlantic .....	98	2,457	25	26	186	157
East South Central .....	Q	546	47	Q	Q	Q
West South Central .....	Q	747	Q	1	4	5
West .....	30	1,699	Q	8	56	45
Mountain .....	9	379	40	1	10	8
Pacific .....	Q	1,321	Q	Q	Q	Q

**Table C21. Total Fuel Oil Consumption and Expenditures, 1999**

	All Buildings Using Fuel Oil			Fuel Oil Consumption		Fuel Oil Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million gallons)	Total (million dollars)
<b>Climate Zone: 45-Year Average</b>						
Under 2,000 CDD and --						
More than 7,000 HDD .....	73	1,612	22	41	293	206
5,500-7,000 HDD .....	123	3,773	31	62	444	319
4,000-5,499 HDD .....	185	4,531	24	69	499	369
Fewer than 4,000 HDD .....	19	1,903	103	Q	Q	Q
2,000 CDD or More and --						
Fewer than 4,000 HDD .....	34	1,466	Q	2	14	15
<b>Workers (main shift)</b>						
Fewer than 5 .....	182	964	5	20	146	132
5 to 9 .....	95	796	8	23	167	147
10 to 19 .....	54	676	13	Q	Q	Q
20 to 49 .....	54	1,294	24	29	206	153
50 to 99 .....	17	1,593	94	33	241	153
100 to 249 .....	18	2,482	137	27	194	120
250 or More .....	15	5,480	373	28	200	136
<b>Weekly Operating Hours</b>						
39 or Fewer .....	65	504	8	11	79	68
40 to 48 .....	102	1,540	15	35	250	183
49 to 60 .....	110	2,638	24	43	308	245
61 to 84 .....	63	2,500	40	31	224	164
85 to 167 .....	29	1,532	53	28	202	136
Open Continuously .....	65	4,571	70	32	230	160
<b>Ownership and Occupancy</b>						
Nongovernment Owned .....	386	9,893	26	121	875	693
Owner Occupied .....	311	8,284	27	105	757	591
Nonowner Occupied .....	75	1,605	21	16	118	101
Unoccupied .....	Q	Q	Q	Q	Q	Q
Government Owned .....	48	3,392	71	58	420	263
Federal .....	4	748	194	3	22	17
State .....	6	822	130	6	46	29
Local .....	38	1,823	48	49	352	217
<b>Vacancy Status</b>						
Completely Vacant .....	N	N	N	N	N	N
Mostly Vacant .....	Q	Q	Q	Q	Q	Q
Partially Vacant .....	51	3,528	69	24	175	128
Not At All Vacant .....	376	9,639	26	154	1,114	823
<b>Number of Establishments</b>						
One .....	346	8,327	24	136	984	727
2 to 5 .....	71	1,795	25	26	185	137
6 to 10 .....	5	481	91	Q	Q	18
11 to 20 .....	5	810	156	10	71	47
More than 20 .....	6	1,861	318	4	30	25
Currently Unoccupied .....	Q	Q	Q	Q	Q	Q
<b>Energy Sources (more than one may apply)</b>						
Electricity .....	434	13,277	31	179	1,292	953
Natural Gas .....	91	8,088	89	59	424	297
Fuel Oil .....	434	13,285	31	179	1,294	956
District Heat .....	8	1,839	Q	Q	Q	23
District Chilled Water .....	3	749	241	Q	Q	Q
Propane .....	80	2,296	29	51	365	272
Other .....	26	554	21	9	64	55

**Table C21. Total Fuel Oil Consumption and Expenditures, 1999**

	All Buildings Using Fuel Oil			Fuel Oil Consumption		Fuel Oil Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million gallons)	Total (million dollars)
<b>Space-Heating Energy Source</b>						
Fuel Oil .....	377	5,611	15	172	1,242	909
Fuel Oil Main .....	302	3,719	12	153	1,103	802
Fuel Oil Secondary .....	74	1,892	25	19	139	108
Other Excluding Fuel Oil .....	55	7,463	135	7	50	44
Buildings without Heating .....	Q	Q	Q	Q	Q	Q
<b>Primary Space-Heating Energy Source</b>						
Electricity .....	64	2,710	43	10	74	Q
Natural Gas .....	54	4,852	89	13	96	71
Fuel Oil .....	302	3,719	12	153	1,103	802
District Heat .....	6	1,578	249	1	8	7
Propane .....	Q	Q	Q	Q	Q	Q
Other .....	Q	Q	Q	Q	Q	Q
<b>Cooling Energy Source</b>						
Fuel Oil .....	Q	Q	Q	Q	Q	Q
Other Excluding Fuel Oil .....	302	12,058	40	140	1,007	733
Buildings without Cooling .....	132	1,100	8	34	248	198
<b>Water-Heating Energy Source</b>						
Fuel Oil .....	110	2,218	20	92	666	454
Other Excluding Fuel Oil .....	178	9,634	54	70	507	395
Buildings without Water Heating .....	146	1,433	10	17	122	107
<b>Cooking Energy Source</b>						
Fuel Oil .....	Q	Q	Q	Q	Q	Q
Other Excluding Fuel Oil .....	92	7,756	84	84	605	402
Buildings without Cooking .....	342	5,445	16	94	677	547
<b>Energy End Uses (more than one may apply)</b>						
Buildings with Space Heating .....	432	13,074	30	179	1,292	954
Buildings with Cooling .....	302	12,185	40	145	1,046	758
Buildings with Water Heating .....	288	11,852	41	163	1,173	849
Buildings with Cooking .....	92	7,840	85	86	618	409
Buildings with Manufacturing .....	35	555	16	7	50	39
Buildings with Electricity Generation .....	75	8,749	117	48	344	243
<b>Percent of Floorspace Heated</b>						
Not Heated .....	Q	Q	Q	Q	Q	Q
1 to 50 .....	62	1,113	18	9	65	49
51 to 99 .....	59	2,584	44	20	148	125
100 .....	311	9,377	30	150	1,079	779
<b>Heating Equipment (more than one may apply)</b>						
Heat Pumps .....	Q	2,263	59	9	66	51
Furnaces .....	172	2,090	12	33	238	212
Individual Space Heaters .....	115	4,351	38	32	228	170
District Heat .....	7	1,787	245	Q	Q	Q
Boilers .....	170	7,485	44	142	1,021	705
Packaged Heating Units .....	40	4,237	106	25	180	132
Other .....	39	1,463	37	9	64	48

**Table C21. Total Fuel Oil Consumption and Expenditures, 1999**

	All Buildings Using Fuel Oil			Fuel Oil Consumption		Fuel Oil Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million gallons)	Total (million dollars)
<b>Water Heating Equipment</b>						
Centralized System .....	228	6,533	29	120	866	631
Distributed System .....	37	1,870	51	20	144	111
Combination of Centralized and Distributed System .....	23	3,448	148	23	164	108
<b>Annual Consumption (gallons)</b>						
1,000 or Less .....	233	7,380	32	10	76	80
1,001 to 5,000 .....	152	2,419	16	44	321	281
5,001 to 10,000 .....	29	907	32	26	188	148
10,001 to 25,000 .....	12	944	77	27	195	131
Over 25,000 .....	8	1,636	205	71	514	317

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.

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* 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 C22. Fuel Oil Consumption and Expenditure Intensities, 1999**

	Fuel Oil Consumption			Fuel Oil Expenditures		
	per Building (gallons)	per Square Foot (gallons)	per Worker (gallons)	per Building (thousand dollars)	per Square Foot (dollars)	per Gallon (dollars)
<b>All Buildings</b> .....	2,983	0.10	66.1	2.2	0.07	0.74
<b>Building Floorspace</b>						
<b>(Square Feet)</b>						
1,001 to 5,000 .....	956	0.34	190.7	0.9	0.32	0.94
5,001 to 10,000 .....	1,584	0.20	131.7	1.3	0.16	0.81
10,001 to 25,000 .....	2,736	0.18	210.2	2.2	0.15	0.82
25,001 to 50,000 .....	6,559	0.19	159.7	4.7	0.13	0.72
50,001 to 100,000 .....	8,095	0.11	66.7	5.3	0.07	0.65
100,001 to 200,000 .....	10,782	0.07	55.9	6.7	0.05	0.62
200,001 to 500,000 .....	19,069	0.06	35.1	12.7	0.04	0.67
Over 500,000 .....	29,742	0.03	21.1	17.8	0.02	0.60
<b>Principal Building Activity</b>						
Education .....	18,341	0.21	245.5	11.0	0.13	0.60
Food Sales .....	Q	Q	Q	Q	Q	Q
Food Service .....	Q	Q	Q	Q	Q	Q
Health Care .....	10,153	0.08	41.7	6.4	0.05	0.63
Inpatient .....	14,566	0.08	42.3	Q	0.05	0.62
Outpatient .....	Q	Q	Q	Q	Q	Q
Lodging .....	4,820	Q	73.5	3.6	0.03	0.75
Mercantile .....	1,398	0.09	Q	1.2	0.08	0.89
Retail (Other Than Mall) .....	1,258	0.17	184.5	1.1	0.15	0.88
Enclosed and Strip Malls .....	Q	Q	Q	2.1	Q	Q
Office .....	2,418	0.05	21.6	1.9	0.04	0.79
Public Assembly .....	3,730	0.10	Q	2.8	0.08	0.75
Public Order and Safety .....	2,335	Q	65.9	Q	Q	Q
Religious Worship .....	Q	Q	Q	Q	Q	Q
Service .....	1,610	0.20	Q	1.3	0.16	0.80
Warehouse and Storage .....	Q	0.06	Q	Q	0.05	0.91
Other .....	Q	Q	Q	Q	Q	Q
Vacant .....	Q	Q	Q	Q	Q	Q
<b>Year Constructed</b>						
1919 or Before .....	3,585	0.26	185.7	2.8	0.20	0.78
1920 to 1945 .....	2,915	0.15	160.0	2.2	0.11	0.75
1946 to 1959 .....	2,170	0.13	88.5	1.7	0.10	0.78
1960 to 1969 .....	3,965	0.11	74.9	2.8	0.08	0.72
1970 to 1979 .....	5,623	0.08	64.3	3.6	0.05	0.64
1980 to 1989 .....	2,137	0.05	30.2	1.6	0.04	0.75
1990 to 1999 .....	Q	0.04	28.7	Q	0.03	0.79
<b>Census Region and Division</b>						
Northeast .....	4,555	0.18	143.9	3.2	0.13	0.71
New England .....	5,823	0.23	236.5	4.0	0.16	0.69
Middle Atlantic .....	3,663	0.15	100.1	2.7	0.11	0.73
Midwest .....	713	0.01	8.9	0.6	0.01	0.79
East North Central .....	586	Q	Q	0.5	Q	0.79
West North Central .....	Q	0.02	Q	Q	0.01	0.79
South .....	1,525	0.06	34.4	1.3	0.05	0.86
South Atlantic .....	1,889	0.08	43.2	1.6	0.06	0.85
East South Central .....	1,719	Q	Q	1.5	Q	0.87
West South Central .....	Q	0.01	4.0	Q	0.01	1.17
West .....	1,897	0.03	Q	1.5	0.03	0.80
Mountain .....	Q	0.03	15.4	Q	0.02	0.82
Pacific .....	Q	Q	Q	1.8	Q	0.79

**Table C22. Fuel Oil Consumption and Expenditure Intensities, 1999**

	Fuel Oil Consumption			Fuel Oil Expenditures		
	per Building (gallons)	per Square Foot (gallons)	per Worker (gallons)	per Building (thousand dollars)	per Square Foot (dollars)	per Gallon (dollars)
<b>Climate Zone: 45-Year Average</b>						
Under 2,000 CDD and --						
More than 7,000 HDD .....	3,998	0.18	179.4	2.8	0.13	0.71
5,500-7,000 HDD .....	3,624	0.12	82.5	2.6	0.08	0.72
4,000-5,499 HDD .....	2,694	0.11	66.9	2.0	0.08	0.74
Fewer than 4,000 HDD .....	Q	Q	Q	Q	Q	1.04
2,000 CDD or More and --						
Fewer than 4,000 HDD .....	Q	0.01	6.5	Q	0.01	1.05
<b>Workers (main shift)</b>						
Fewer than 5 .....	804	0.15	370.4	0.7	0.14	0.90
5 to 9 .....	1,759	0.21	273.7	1.6	0.19	0.88
10 to 19 .....	2,602	0.21	212.3	2.1	0.17	0.82
20 to 49 .....	3,838	0.16	130.5	2.9	0.12	0.74
50 to 99 .....	14,300	0.15	220.7	9.1	0.10	0.63
100 to 249 .....	10,675	0.08	73.1	6.6	0.05	0.62
250 or More .....	13,580	0.04	15.9	9.2	0.02	0.68
<b>Weekly Operating Hours</b>						
39 or Fewer .....	Q	Q	118.3	Q	0.14	0.86
40 to 48 .....	2,457	0.16	123.0	1.8	0.12	0.73
49 to 60 .....	2,799	0.12	81.7	2.2	0.09	0.80
61 to 84 .....	3,568	0.09	65.7	2.6	0.07	0.73
85 to 167 .....	6,912	0.13	111.1	4.6	0.09	0.67
Open Continuously .....	3,537	0.05	29.3	2.5	0.03	0.69
<b>Ownership and Occupancy</b>						
Nongovernment Owned .....	2,267	0.09	57.1	1.8	0.07	0.79
Owner Occupied .....	2,435	0.09	59.5	1.9	0.07	0.78
Nonowner Occupied .....	1,573	0.07	45.0	1.3	0.06	0.86
Unoccupied .....	Q	Q	N	Q	Q	Q
Government Owned .....	8,739	0.12	98.7	5.5	0.08	0.63
Federal .....	5,740	0.03	14.2	4.4	0.02	0.76
State .....	7,232	0.06	60.2	4.6	0.04	0.63
Local .....	9,296	0.19	182.2	5.7	0.12	0.62
<b>Vacancy Status</b>						
Completely Vacant .....	N	N	N	N	N	N
Mostly Vacant .....	Q	Q	Q	Q	Q	Q
Partially Vacant .....	3,438	0.05	34.1	2.5	0.04	0.73
Not At All Vacant .....	2,963	0.12	77.3	2.2	0.09	0.74
<b>Number of Establishments</b>						
One .....	2,844	0.12	82.9	2.1	0.09	0.74
2 to 5 .....	2,612	0.10	93.9	1.9	0.08	0.74
6 to 10 .....	4,116	0.04	Q	3.3	0.04	0.81
11 to 20 .....	13,591	0.09	47.7	9.0	0.06	0.66
More than 20 .....	5,139	0.02	8.9	4.3	0.01	0.83
Currently Unoccupied .....	Q	Q	N	Q	Q	Q
<b>Energy Sources (more than one may apply)</b>						
Electricity .....	2,980	0.10	66.0	2.2	0.07	0.74
Natural Gas .....	4,675	0.05	35.0	3.3	0.04	0.70
Fuel Oil .....	2,983	0.10	66.1	2.2	0.07	0.74
District Heat .....	Q	Q	Q	3.0	0.01	0.68
District Chilled Water .....	Q	Q	Q	Q	Q	0.67
Propane .....	4,538	0.16	149.5	3.4	0.12	0.74
Other .....	Q	0.12	133.0	Q	0.10	0.86

**Table C22. Fuel Oil Consumption and Expenditure Intensities, 1999**

	Fuel Oil Consumption			Fuel Oil Expenditures		
	per Building (gallons)	per Square Foot (gallons)	per Worker (gallons)	per Building (thousand dollars)	per Square Foot (dollars)	per Gallon (dollars)
<b>Space-Heating Energy Source</b>						
Fuel Oil .....	3,299	0.22	189.9	2.4	0.16	0.73
Fuel Oil Main .....	3,649	0.30	259.6	2.7	0.22	0.73
Fuel Oil Secondary .....	1,875	0.07	60.7	1.4	0.06	0.77
Other Excluding Fuel Oil .....	899	0.01	3.9	0.8	0.01	0.89
Buildings without Heating .....	Q	Q	Q	Q	Q	Q
<b>Primary Space-Heating Energy Source</b>						
Electricity .....	1,163	0.03	14.9	1.0	0.02	0.90
Natural Gas .....	1,772	0.02	13.9	1.3	0.01	0.74
Fuel Oil .....	3,649	0.30	259.6	2.7	0.22	0.73
District Heat .....	1,250	0.01	2.5	1.1	0.00	0.85
Propane .....	Q	Q	Q	Q	Q	Q
Other .....	Q	Q	Q	Q	Q	Q
<b>Cooling Energy Source</b>						
Fuel Oil .....	Q	Q	Q	Q	Q	Q
Other Excluding Fuel Oil .....	3,338	0.08	55.3	2.4	0.06	0.73
Buildings without Cooling .....	1,880	0.23	210.4	1.5	0.18	0.80
<b>Water-Heating Energy Source</b>						
Fuel Oil .....	6,080	0.30	229.3	4.1	0.20	0.68
Other Excluding Fuel Oil .....	2,846	0.05	33.7	2.2	0.04	0.78
Buildings without Water Heating .....	831	0.08	73.3	0.7	0.07	0.88
<b>Cooking Energy Source</b>						
Fuel Oil .....	Q	Q	Q	Q	Q	Q
Other Excluding Fuel Oil .....	6,578	0.08	53.8	4.4	0.05	0.66
Buildings without Cooking .....	1,981	0.12	82.3	1.6	0.10	0.81
<b>Energy End Uses (more than one may apply)</b>						
Buildings with Space Heating .....	2,991	0.10	66.7	2.2	0.07	0.74
Buildings with Cooling .....	3,465	0.09	56.9	2.5	0.06	0.72
Buildings with Water Heating .....	4,078	0.10	65.4	3.0	0.07	0.72
Buildings with Cooking .....	6,695	0.08	54.4	4.4	0.05	0.66
Buildings with Manufacturing .....	1,423	0.09	63.8	1.1	0.07	0.78
Buildings with Electricity Generation .....	4,584	0.04	23.0	3.2	0.03	0.71
<b>Percent of Floorspace Heated</b>						
Not Heated .....	Q	Q	Q	Q	Q	Q
1 to 50 .....	1,054	0.06	79.0	0.8	0.04	0.76
51 to 99 .....	2,504	0.06	35.1	2.1	0.05	0.84
100 .....	3,469	0.12	75.2	2.5	0.08	0.72
<b>Heating Equipment (more than one may apply)</b>						
Heat Pumps .....	1,702	0.03	18.2	1.3	0.02	0.77
Furnaces .....	1,382	0.11	105.2	1.2	0.10	0.89
Individual Space Heaters .....	1,987	0.05	37.0	1.5	0.04	0.74
District Heat .....	Q	Q	Q	Q	Q	0.68
Boilers .....	5,997	0.14	98.5	4.1	0.09	0.69
Packaged Heating Units .....	4,520	0.04	33.3	3.3	0.03	0.73
Other .....	1,634	0.04	20.2	1.2	0.03	0.74
<b>Water Heating Equipment</b>						
Centralized System .....	3,805	0.13	89.2	2.8	0.10	0.73
Distributed System .....	3,905	0.08	53.3	3.0	0.06	0.77
Combination of Centralized and Distributed System .....	7,014	0.05	29.6	4.6	0.03	0.66



**Table C22. Fuel Oil Consumption and Expenditure Intensities, 1999**

	Fuel Oil Consumption			Fuel Oil Expenditures		
	per Building (gallons)	per Square Foot (gallons)	per Worker (gallons)	per Building (thousand dollars)	per Square Foot (dollars)	per Gallon (dollars)
<b>Annual Consumption (gallons)</b>						
1,000 or Less .....	326	0.01	6.8	0.3	0.01	1.05
1,001 to 5,000 .....	2,106	0.13	85.9	1.8	0.12	0.87
5,001 to 10,000 .....	6,574	0.21	152.8	5.2	0.16	0.79
10,001 to 25,000 .....	15,897	0.21	130.1	10.7	0.14	0.67
Over 25,000 .....	64,440	0.31	260.5	39.7	0.19	0.62

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.

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* 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 C23. Fuel Oil Consumption and Conditional Energy Intensity by Census Region, 1999**

	Total Fuel Oil Consumption (million gallons)				Total Floorspace of Buildings Using Fuel Oil (million square feet)				Fuel Oil Energy Intensity (gallons/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>All Buildings</b> .....	994	34	210	56	5,414	2,423	3,749	1,699	0.18	0.01	0.06	0.03
<b>Building Floorspace (Square Feet)</b>												
1,001 to 10,000 .....	229	Q	77	Q	693	Q	366	Q	0.33	Q	0.21	Q
10,001 to 100,000 .....	430	Q	Q	Q	1,758	526	930	363	0.24	Q	0.07	Q
Over 100,000 .....	335	15	68	Q	2,963	1,815	2,452	1,273	0.11	0.01	0.03	Q
<b>Principal Building Activity</b>												
Education .....	273	Q	Q	Q	923	Q	301	Q	0.30	Q	0.16	Q
Mercantile and Service .....	Q	Q	Q	Q	1,065	Q	556	Q	0.18	Q	Q	Q
Office .....	154	4	51	Q	1,271	749	1,310	584	0.12	0.00	0.04	0.01
Public Assembly .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Warehouse and Storage .....	38	Q	Q	Q	489	Q	Q	Q	0.08	Q	Q	Q
All Others .....	255	11	Q	Q	1,229	622	1,227	654	0.21	0.02	0.04	Q
<b>Year Constructed</b>												
1945 or Before .....	306	Q	Q	Q	1,404	Q	Q	Q	0.22	Q	Q	Q
1946 to 1959 .....	173	Q	Q	Q	969	Q	Q	Q	0.18	Q	Q	Q
1960 to 1969 .....	199	Q	47	Q	877	Q	723	343	0.23	Q	0.06	Q
1970 to 1979 .....	155	Q	Q	4	835	393	795	422	0.19	Q	0.04	0.01
1980 to 1989 .....	104	Q	Q	Q	790	619	1,068	318	0.13	Q	Q	Q
1990 to 1999 .....	57	Q	Q	Q	538	427	763	380	0.11	Q	Q	Q
<b>Climate Zone: 45-Year Average</b>												
Under 2,000 CDD and --												
More than 7,000 HDD .....	280	Q	N	Q	843	714	N	Q	0.33	0.02	N	Q
5,500-7,000 HDD .....	418	Q	N	Q	2,289	1,228	N	256	0.18	Q	N	Q
4,000-5,499 HDD .....	296	Q	158	Q	2,282	480	1,357	412	0.13	Q	0.12	0.10
Fewer than 4,000 HDD .....	N	N	Q	5	N	N	1,139	764	N	N	Q	0.01
2,000 CDD or More and --												
Fewer than 4,000 HDD .....	N	N	12	Q	N	N	1,253	Q	N	N	0.01	Q
<b>Workers (main shift)</b>												
Less than 10.....	228	Q	59	Q	1,085	Q	387	Q	0.21	Q	0.15	Q
10 to 99.....	480	Q	Q	Q	1,736	567	935	326	0.28	Q	0.08	0.06
100 or More.....	286	17	75	16	2,593	1,663	2,428	1,278	0.11	0.01	0.03	0.01
<b>Weekly Operating Hours</b>												
48 or fewer.....	222	Q	Q	Q	988	Q	549	Q	0.22	Q	0.14	Q
49 to 84.....	421	Q	88	Q	2,379	825	1,385	550	0.18	Q	0.06	Q
85 to 168.....	350	16	48	Q	2,047	1,250	1,816	991	0.17	0.01	0.03	Q
<b>Ownership and Occupancy</b>												
Nongovernment Owned .....	672	20	158	25	3,789	1,842	2,926	1,336	0.18	0.01	0.05	0.02
Owner Occupied .....	581	19	134	22	3,284	1,499	2,350	1,152	0.18	0.01	0.06	0.02
Nonowner Occupied .....	91	Q	Q	Q	503	Q	576	Q	0.18	Q	Q	Q
Unoccupied .....	Q	N	Q	N	Q	N	Q	N	Q	N	Q	N
Government Owned .....	322	Q	Q	Q	1,625	581	823	363	0.20	Q	0.06	Q
Federal .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
State .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Local .....	278	Q	Q	Q	954	Q	480	Q	0.29	Q	0.09	Q
<b>Vacancy Status</b>												
Completely Vacant.....	N	N	N	N	N	N	N	N	N	N	N	N
Mostly Vacant .....	Q	N	N	Q	Q	N	N	Q	Q	N	N	Q
Partially Vacant .....	150	3	15	Q	1,273	541	1,159	555	0.12	0.00	0.01	Q
Not At All Vacant .....	838	32	195	49	4,029	1,881	2,590	1,138	0.21	0.02	0.08	0.04

**Table C23. Fuel Oil Consumption and Conditional Energy Intensity by Census Region, 1999**

	Total Fuel Oil Consumption (million gallons)				Total Floorspace of Buildings Using Fuel Oil (million square feet)				Fuel Oil Energy Intensity (gallons/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>Number of Establishments</b>												
One .....	737	29	169	49	3,512	1,621	2,211	982	0.21	0.02	0.08	0.05
2 to 5 .....	148	Q	Q	Q	715	Q	545	224	0.21	Q	Q	Q
6 to 10 .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
11 to 20 .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
More than 20 .....	Q	Q	Q	1	691	Q	578	317	0.04	Q	Q	0.00
Currently Unoccupied .....	Q	N	Q	N	Q	N	Q	N	Q	N	Q	N
<b>Energy Sources (more than one may apply)</b>												
Electricity .....	991	34	210	56	5,406	2,423	3,749	1,699	0.18	0.01	0.06	0.03
Natural Gas .....	303	20	79	Q	2,569	1,945	2,269	1,306	0.12	0.01	0.03	Q
Fuel Oil .....	994	34	210	56	5,414	2,423	3,749	1,699	0.18	0.01	0.06	0.03
District Heat .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
District Chilled Water .....	Q	Q	1	Q	Q	Q	276	Q	Q	Q	0.00	Q
Propane .....	276	Q	Q	Q	1,076	Q	604	Q	0.26	Q	0.12	Q
Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Space-Heating Energy Source</b>												
Fuel Oil .....	980	26	191	Q	3,612	619	1,128	252	0.27	0.04	0.17	0.18
Fuel Oil Main .....	882	Q	167	Q	2,803	Q	718	Q	0.31	Q	0.23	Q
Fuel Oil Secondary .....	98	15	23	Q	809	579	410	Q	0.12	0.03	0.06	Q
Other Excluding Fuel Oil .....	13	8	17	11	1,802	1,804	2,444	1,414	0.01	0.00	0.01	0.01
Buildings without Heating .....	N	N	Q	Q	N	N	Q	Q	N	N	Q	Q
<b>Primary Space-Heating Energy Source</b>												
Electricity .....	Q	Q	Q	Q	556	Q	1,368	335	Q	Q	0.01	Q
Natural Gas .....	50	19	20	7	1,111	1,611	1,180	949	0.04	0.01	0.02	0.01
Fuel Oil .....	882	Q	167	Q	2,803	Q	718	Q	0.31	Q	0.23	Q
District Heat .....	4	Q	2	Q	791	Q	278	Q	0.00	Q	0.01	Q
Propane .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	0.32
Other .....	Q	Q	N	N	Q	Q	N	N	Q	Q	N	N
<b>Cooling Energy Source</b>												
Fuel Oil .....	Q	Q	Q	N	Q	Q	Q	N	Q	Q	Q	N
Other Excluding Fuel Oil .....	766	30	187	Q	4,507	2,362	3,604	1,585	0.17	0.01	0.05	Q
Buildings without Cooling .....	188	Q	Q	Q	806	Q	Q	Q	0.23	Q	Q	Q
<b>Water-Heating Energy Source</b>												
Fuel Oil .....	569	Q	Q	Q	1,678	Q	Q	Q	0.34	Q	0.19	Q
Other Excluding Fuel Oil .....	336	20	117	33	3,065	2,061	3,060	1,448	0.11	0.01	0.04	0.02
Buildings without Water Heating .....	88	Q	Q	Q	671	Q	362	Q	0.13	Q	0.08	Q
<b>Cooking Energy Source</b>												
Fuel Oil .....	Q	Q	Q	N	Q	Q	Q	N	Q	Q	Q	N
Other Excluding Fuel Oil .....	453	20	Q	Q	2,974	1,330	2,353	1,100	0.15	0.02	0.04	0.02
Buildings without Cooking .....	529	14	104	30	2,412	1,076	1,357	600	0.22	0.01	0.08	0.05
<b>Energy End Uses (more than one may apply)</b>												
Buildings with Space Heating .....	994	34	208	56	5,414	2,423	3,572	1,665	0.18	0.01	0.06	0.03
Buildings with Cooling .....	805	30	188	Q	4,608	2,364	3,628	1,585	0.17	0.01	0.05	Q
Buildings with Water Heating .....	906	33	181	53	4,743	2,173	3,388	1,548	0.19	0.02	0.05	0.03
Buildings with Cooking .....	464	21	Q	Q	3,002	1,346	2,392	1,100	0.15	0.02	0.04	0.02
Buildings with Manufacturing .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Buildings with Electricity Generation .....	252	14	Q	Q	2,547	1,874	2,871	1,457	0.10	0.01	0.02	Q

**Table C23. Fuel Oil Consumption and Conditional Energy Intensity by Census Region, 1999**

	Total Fuel Oil Consumption (million gallons)				Total Floorspace of Buildings Using Fuel Oil (million square feet)				Fuel Oil Energy Intensity (gallons/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>Percent of Floorspace Heated</b>												
Not Heated .....	N	N	Q	Q	N	N	Q	Q	N	N	Q	Q
1 to 50 .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
51 to 99 .....	90	Q	53	Q	776	Q	1,083	460	0.12	Q	0.05	Q
100 .....	850	32	148	Q	4,194	2,055	2,292	835	0.20	0.02	0.06	Q
<b>Heating Equipment (more than one may apply)</b>												
Heat Pumps .....	37	Q	Q	Q	636	Q	893	359	0.06	Q	Q	0.01
Furnaces .....	165	Q	Q	Q	913	Q	578	Q	0.18	Q	Q	Q
Individual Space Heaters .....	166	Q	48	Q	1,630	1,019	1,234	468	0.10	0.01	0.04	Q
District Heat .....	Q	Q	2	Q	852	Q	341	253	Q	Q	0.01	Q
Boilers .....	818	28	142	Q	3,485	1,419	1,594	987	0.23	0.02	0.09	0.03
Packaged Heating Units .....	132	5	37	Q	1,351	869	1,405	612	0.10	0.01	0.03	Q
Other .....	34	Q	Q	Q	398	Q	535	Q	0.09	Q	Q	Q
<b>Water Heating Equipment</b>												
Centralized System .....	645	22	158	Q	2,609	1,131	2,013	780	0.25	0.02	0.08	Q
Distributed System .....	125	Q	Q	Q	874	Q	474	Q	0.14	Q	0.03	Q
Combination of Centralized and Distributed System .....	136	9	9	Q	1,259	723	900	565	0.11	0.01	0.01	0.02
<b>Annual Consumption (gallons)</b>												
1,000 or Less .....	43	6	21	Q	2,009	1,701	2,457	1,213	0.02	0.00	0.01	0.00
1,001 to 5,000 .....	219	6	76	20	1,087	365	700	266	0.20	0.02	0.11	0.07
5,001 to 10,000 .....	155	Q	Q	Q	481	Q	Q	Q	0.32	Q	Q	Q
10,001 to 25,000 .....	138	Q	46	Q	502	Q	289	Q	0.27	Q	0.16	Q
Over 25,000 .....	439	Q	Q	Q	1,334	Q	Q	Q	0.33	Q	Q	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.

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* 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 C24. Fuel Oil Expenditures by Census Region, 1999**

	Total Fuel Oil Expenditures (million dollars)				Fuel Oil Expenditures (dollars)							
					per Gallon				per Square Foot			
	North- east	Mid- west	South	West	North- east	Mid- west	South	West	North- east	Mid- west	South	West
<b>All Buildings</b> .....	704	27	180	45	0.71	0.79	0.86	0.80	0.13	0.01	0.05	0.03
<b>Building Floorspace (Square Feet)</b>												
1,001 to 10,000 .....	196	Q	75	Q	0.86	Q	0.98	Q	0.28	Q	0.20	Q
10,001 to 100,000 .....	313	Q	Q	Q	0.73	0.76	0.74	0.75	0.18	Q	0.05	Q
Over 100,000 .....	196	12	56	Q	0.59	0.75	0.82	0.72	0.07	0.01	0.02	0.01
<b>Principal Building Activity</b>												
Education .....	164	Q	Q	Q	0.60	Q	0.59	Q	0.18	Q	0.09	Q
Mercantile and Service .....	Q	Q	Q	Q	0.81	Q	0.93	Q	0.15	Q	Q	Q
Office .....	113	3	47	Q	0.74	0.94	0.93	0.88	0.09	0.00	0.04	0.01
Public Assembly .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Warehouse and Storage .....	28	Q	Q	Q	0.74	Q	Q	Q	0.06	Q	Q	Q
All Others .....	182	9	Q	Q	0.72	0.76	0.83	0.87	0.15	0.01	0.04	Q
<b>Year Constructed</b>												
1945 or Before .....	228	Q	Q	Q	0.74	Q	Q	Q	0.16	Q	Q	Q
1946 to 1959 .....	130	Q	Q	Q	0.75	Q	Q	Q	0.13	Q	Q	Q
1960 to 1969 .....	143	Q	34	Q	0.72	Q	0.73	Q	0.16	Q	0.05	Q
1970 to 1979 .....	95	Q	Q	4	Q	0.66	0.71	0.93	0.11	Q	0.03	0.01
1980 to 1989 .....	Q	Q	Q	Q	0.73	0.80	0.79	0.82	0.10	Q	Q	Q
1990 to 1999 .....	34	Q	Q	Q	0.60	0.99	1.21	0.80	0.06	Q	Q	Q
<b>Climate Zone: 45-Year Average</b>												
Under 2,000 CDD and --												
More than 7,000 HDD .....	196	Q	N	Q	0.70	0.83	N	Q	0.23	Q	N	Q
5,500-7,000 HDD .....	299	13	N	Q	0.72	0.73	N	0.80	0.13	0.01	N	Q
4,000-5,499 HDD .....	209	Q	125	Q	0.71	Q	0.79	0.75	0.09	Q	0.09	Q
Fewer than 4,000 HDD .....	N	N	Q	5	N	N	1.05	0.99	N	N	Q	0.01
2,000 CDD or More and --												
Fewer than 4,000 HDD .....	N	N	13	Q	N	N	1.03	Q	N	N	0.01	Q
<b>Workers (main shift)</b>												
Less than 10.....	197	Q	58	Q	0.86	Q	0.99	Q	0.18	Q	0.15	Q
10 to 99.....	339	Q	Q	Q	0.71	0.73	0.81	0.61	0.20	0.02	0.07	0.03
100 or More.....	169	13	60	14	0.59	0.76	0.80	0.87	0.07	0.01	0.02	0.01
<b>Weekly Operating Hours</b>												
48 or fewer.....	164	Q	Q	Q	0.74	Q	0.81	Q	0.17	Q	0.11	Q
49 to 84.....	312	Q	80	Q	0.74	0.79	0.91	0.65	0.13	Q	0.06	Q
85 to 168.....	228	12	40	Q	0.65	0.77	0.83	0.88	0.11	0.01	0.02	Q
<b>Ownership and Occupancy</b>												
Nongovernment Owned .....												
Owner Occupied .....	507	17	148	21	0.75	0.86	0.94	0.84	0.13	0.01	0.05	0.02
Nonowner Occupied .....	432	16	125	19	0.74	0.85	0.93	0.83	0.13	0.01	0.05	0.02
Unoccupied .....	75	Q	Q	Q	Q	Q	0.98	Q	0.15	Q	Q	Q
Government Owned .....	Q	N	Q	N	Q	N	Q	N	Q	N	Q	N
Federal .....												
State .....	198	Q	Q	Q	0.61	0.69	0.61	0.77	0.12	Q	0.04	0.07
Local .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Local .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Local .....	169	Q	Q	Q	0.61	Q	0.58	Q	0.18	Q	0.05	Q
<b>Vacancy Status</b>												
Completely Vacant.....	N	N	N	N	N	N	N	N	N	N	N	N
Mostly Vacant .....	Q	N	N	Q	Q	N	N	Q	Q	N	N	Q
Partially Vacant .....	106	2	15	Q	0.71	0.88	0.96	0.66	0.08	0.00	0.01	Q
Not At All Vacant .....	594	25	165	Q	0.71	0.78	0.85	0.82	0.15	0.01	0.06	0.03

**Table C24. Fuel Oil Expenditures by Census Region, 1999**

	Total Fuel Oil Expenditures (million dollars)				Fuel Oil Expenditures (dollars)							
					per Gallon				per Square Foot			
	North- east	Mid- west	South	West	North- east	Mid- west	South	West	North- east	Mid- west	South	West
<b>Number of Establishments</b>												
One .....	522	23	143	39	0.71	0.78	0.85	0.80	0.15	0.01	0.06	0.04
2 to 5 .....	103	Q	Q	Q	0.70	Q	0.93	Q	0.14	Q	Q	Q
6 to 10 .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
11 to 20 .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
More than 20 .....	Q	Q	Q	1	0.83	Q	0.84	0.96	0.03	Q	Q	0.00
Currently Unoccupied .....	Q	N	Q	N	Q	N	Q	N	Q	N	Q	N
<b>Energy Sources (more than one may apply)</b>												
Electricity .....	702	27	180	45	0.71	0.79	0.86	0.80	0.13	0.01	0.05	0.03
Natural Gas .....	194	17	70	Q	0.64	0.85	0.88	0.70	0.08	0.01	0.03	0.01
Fuel Oil .....	704	27	180	45	0.71	0.79	0.86	0.80	0.13	0.01	0.05	0.03
District Heat .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
District Chilled Water .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Propane .....	195	Q	Q	Q	0.71	Q	0.90	Q	0.18	Q	0.10	Q
Other .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Space-Heating Energy Source</b>												
Fuel Oil .....	694	19	163	Q	0.71	0.73	0.85	0.75	0.19	0.03	0.14	0.13
Fuel Oil Main .....	621	Q	143	Q	0.70	Q	0.85	Q	0.22	Q	0.20	Q
Fuel Oil Secondary .....	73	12	20	Q	0.75	0.80	0.85	Q	0.09	0.02	0.05	Q
Other Excluding Fuel Oil .....	10	8	15	11	0.78	0.97	0.89	0.97	0.01	0.00	0.01	0.01
Buildings without Heating .....	N	N	Q	Q	N	N	Q	Q	N	N	Q	Q
<b>Primary Space-Heating Energy Source</b>												
Electricity .....	Q	Q	Q	Q	0.88	Q	0.95	0.90	Q	Q	0.01	Q
Natural Gas .....	31	16	16	7	0.63	0.85	0.81	1.02	0.03	0.01	0.01	0.01
Fuel Oil .....	621	Q	143	Q	0.70	Q	0.85	Q	0.22	Q	0.20	Q
District Heat .....	3	Q	Q	Q	0.89	Q	Q	Q	0.00	Q	Q	Q
Propane .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	0.26
Other .....	Q	Q	N	N	Q	Q	N	N	Q	Q	N	N
<b>Cooling Energy Source</b>												
Fuel Oil .....	Q	Q	Q	N	Q	Q	Q	N	Q	Q	Q	N
Other Excluding Fuel Oil .....	530	23	159	Q	0.69	0.78	0.85	0.88	0.12	0.01	0.04	Q
Buildings without Cooling .....	150	Q	Q	Q	0.80	Q	Q	Q	0.19	Q	Q	Q
<b>Water-Heating Energy Source</b>												
Fuel Oil .....	386	Q	Q	Q	0.68	Q	0.73	Q	0.23	Q	0.14	Q
Other Excluding Fuel Oil .....	244	17	105	28	0.73	0.86	0.90	0.86	0.08	0.01	0.03	0.02
Buildings without Water Heating .....	74	Q	Q	Q	0.84	Q	0.95	Q	0.11	Q	0.08	Q
<b>Cooking Energy Source</b>												
Fuel Oil .....	Q	Q	Q	N	Q	Q	Q	N	Q	Q	Q	N
Other Excluding Fuel Oil .....	294	14	Q	Q	0.65	0.72	0.71	0.70	0.10	0.01	0.03	0.02
Buildings without Cooking .....	405	12	104	26	0.76	0.89	1.00	0.88	0.17	0.01	0.08	0.04
<b>Energy End Uses (more than one may apply)</b>												
Buildings with Space Heating .....	704	27	178	44	0.71	0.79	0.86	0.80	0.13	0.01	0.05	0.03
Buildings with Cooling .....	555	23	159	Q	0.69	0.78	0.85	0.88	0.12	0.01	0.04	Q
Buildings with Water Heating .....	630	26	152	42	0.70	0.77	0.84	0.78	0.13	0.01	0.04	0.03
Buildings with Cooking .....	299	15	Q	Q	0.65	0.72	0.71	0.70	0.10	0.01	0.03	0.02
Buildings with Manufacturing .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Buildings with Electricity Generation .....	159	12	Q	Q	0.63	0.83	0.93	0.88	0.06	0.01	Q	Q

**Table C24. Fuel Oil Expenditures by Census Region, 1999**

	Total Fuel Oil Expenditures (million dollars)				Fuel Oil Expenditures (dollars)							
					per Gallon				per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
<b>Percent of Floorspace Heated</b>												
Not Heated .....	N	N	Q	Q	N	N	Q	Q	N	N	Q	Q
1 to 50 .....	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
51 to 99 .....	69	Q	Q	Q	0.77	Q	0.96	0.89	0.09	Q	Q	Q
100 .....	597	24	122	Q	0.70	0.75	0.82	0.77	0.14	0.01	0.05	0.04
<b>Heating Equipment (more than one may apply)</b>												
Heat Pumps .....	23	Q	Q	Q	0.63	Q	0.94	1.21	0.04	Q	Q	Q
Furnaces .....	136	Q	Q	Q	0.82	Q	1.14	Q	0.15	Q	Q	Q
Individual Space Heaters .....	Q	7	Q	Q	0.70	0.86	0.86	0.79	0.07	0.01	0.03	Q
District Heat .....	Q	Q	2	Q	0.66	Q	0.74	Q	Q	Q	0.00	Q
Boilers .....	554	20	107	23	0.68	0.72	0.76	0.71	0.16	0.01	0.07	0.02
Packaged Heating Units .....	84	4	Q	6	0.64	0.88	1.02	0.97	0.06	0.00	Q	0.01
Other .....	23	Q	Q	Q	0.68	Q	0.75	Q	0.06	Q	Q	Q
<b>Water Heating Equipment</b>												
Centralized System .....	450	17	132	Q	0.70	0.77	0.84	0.78	0.17	0.02	0.07	Q
Distributed System .....	Q	Q	Q	Q	0.75	Q	0.90	Q	0.11	Q	Q	Q
Combination of Centralized and Distributed System .....	86	7	7	7	0.64	0.76	0.81	0.73	0.07	0.01	0.01	0.01
<b>Annual Consumption (gallons)</b>												
1,000 or Less .....	43	7	23	7	0.99	1.24	1.11	1.13	0.02	0.00	0.01	0.01
1,001 to 5,000 .....	186	6	71	18	0.85	0.87	0.94	0.90	0.17	0.02	0.10	0.07
5,001 to 10,000 .....	121	Q	Q	Q	0.78	Q	Q	Q	0.25	Q	Q	Q
10,001 to 25,000 .....	95	Q	Q	Q	0.69	Q	Q	Q	0.19	Q	Q	Q
Over 25,000 .....	260	Q	Q	Q	0.59	Q	Q	Q	0.19	Q	Q	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.

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* 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 C25. Total District Heat Consumption and Expenditures, 1999**

	All Buildings Using District Heat			District Heat Consumption	District Heat Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million dollars)
<b>All Buildings</b> .....	117	5,891	50	433	3,564
<b>Building Floorspace (Square Feet)</b>					
1,001 to 5,000 .....	Q	Q	Q	Q	Q
5,001 to 10,000 .....	Q	Q	Q	Q	Q
10,001 to 25,000 .....	Q	Q	Q	Q	Q
25,001 to 50,000 .....	19	660	35	61	496
50,001 to 100,000 .....	13	933	72	97	667
100,001 to 200,000 .....	7	903	133	72	598
200,001 to 500,000 .....	3	1,003	314	57	504
Over 500,000 .....	2	1,707	964	84	775
<b>Principal Building Activity</b>					
Education .....	37	1,159	31	117	879
Food Sales .....	Q	Q	Q	Q	Q
Food Service .....	Q	Q	Q	Q	Q
Health Care .....	3	744	217	46	Q
Inpatient .....	Q	Q	Q	Q	Q
Outpatient .....	Q	Q	Q	Q	Q
Lodging .....	18	629	34	68	482
Mercantile .....	Q	Q	Q	Q	Q
Retail (Other Than Mall) .....	Q	Q	Q	Q	Q
Office .....	Q	1,536	76	74	709
Public Assembly .....	Q	848	55	59	487
Public Order and Safety .....	Q	Q	Q	Q	Q
Religious Worship .....	Q	Q	Q	Q	Q
Service .....	Q	Q	Q	Q	Q
Warehouse and Storage .....	Q	Q	Q	Q	Q
Other .....	Q	Q	Q	Q	Q
Vacant .....	Q	Q	Q	Q	Q
<b>Year Constructed</b>					
1919 or Before .....	Q	486	25	Q	268
1920 to 1945 .....	9	764	82	60	535
1946 to 1959 .....	21	1,088	52	76	652
1960 to 1969 .....	18	1,406	78	100	815
1970 to 1979 .....	19	788	41	69	538
1980 to 1989 .....	Q	682	Q	47	Q
1990 to 1999 .....	15	677	46	Q	Q
<b>Census Region and Division</b>					
Northeast .....	Q	1,898	61	136	1,264
New England .....	Q	Q	Q	Q	Q
Middle Atlantic .....	Q	1,718	59	121	1,154
Midwest .....	Q	1,521	61	132	1,021
East North Central .....	Q	799	71	80	618
West North Central .....	Q	722	53	52	Q
South .....	39	1,265	32	67	554
South Atlantic .....	Q	Q	Q	Q	Q
East South Central .....	Q	Q	Q	Q	Q
West South Central .....	Q	Q	Q	Q	Q
West .....	22	1,207	Q	98	724
Mountain .....	9	Q	Q	Q	Q
Pacific .....	Q	Q	Q	Q	Q



**Table C25. Total District Heat Consumption and Expenditures, 1999**

	All Buildings Using District Heat			District Heat Consumption	District Heat Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million dollars)
<b>Climate Zone: 45-Year Average</b>					
Under 2,000 CDD and --					
More than 7,000 HDD .....	Q	Q	Q	Q	Q
5,500-7,000 HDD .....	22	1,743	78	160	1,219
4,000-5,499 HDD .....	Q	2,443	54	166	1,492
Fewer than 4,000 HDD .....	14	875	63	34	314
2,000 CDD or More and --					
Fewer than 4,000 HDD .....	Q	Q	Q	Q	Q
<b>Workers (main shift)</b>					
Fewer than 5 .....	Q	Q	Q	Q	Q
5 to 9 .....	Q	Q	Q	Q	Q
10 to 19 .....	Q	Q	Q	Q	Q
20 to 49 .....	12	544	Q	45	Q
50 to 99 .....	19	696	37	57	485
100 to 249 .....	9	1,052	123	79	671
250 or More .....	7	2,431	346	138	1,185
<b>Weekly Operating Hours</b>					
39 or Fewer .....	Q	Q	Q	Q	Q
40 to 48 .....	Q	796	20	55	Q
49 to 60 .....	Q	945	52	57	466
61 to 84 .....	17	943	54	73	605
85 to 167 .....	14	915	66	73	516
Open Continuously .....	26	2,254	87	173	1,449
<b>Ownership and Occupancy</b>					
Nongovernment Owned .....	67	3,333	50	250	2,110
Owner Occupied .....	53	2,907	55	226	1,848
Nonowner Occupied .....	Q	Q	Q	Q	Q
Unoccupied.....	N	N	N	N	N
Government Owned .....	50	2,559	51	184	1,454
Federal .....	Q	827	73	55	336
State .....	20	1,187	60	96	828
Local .....	Q	Q	Q	Q	Q
<b>Vacancy Status</b>					
Completely Vacant.....	N	N	N	N	N
Mostly Vacant .....	Q	Q	Q	Q	Q
Partially Vacant .....	Q	1,311	57	71	737
Not At All Vacant .....	94	4,570	48	362	2,824
<b>Number of Establishments</b>					
One .....	101	4,149	41	347	2,680
2 to 5 .....	7	559	83	33	Q
6 to 10 .....	Q	Q	Q	Q	Q
11 to 20 .....	Q	Q	Q	Q	Q
More than 20 .....	1	681	517	33	379
<b>Energy Sources (more than one may apply)</b>					
Electricity .....	117	5,891	50	433	3,564
Natural Gas .....	Q	2,683	51	182	1,461
Fuel Oil .....	8	1,839	Q	107	948
District Heat .....	117	5,891	50	433	3,564
District Chilled Water .....	43	2,354	54	185	1,349
Propane .....	Q	Q	Q	Q	Q
Other .....	Q	Q	Q	Q	Q

**Table C25. Total District Heat Consumption and Expenditures, 1999**

	All Buildings Using District Heat			District Heat Consumption	District Heat Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million dollars)
<b>Space-Heating Energy Source</b>					
District Heat .....	96	5,534	58	412	3,371
District Heat Main .....	77	5,077	66	402	3,277
District Heat Secondary .....	Q	Q	Q	Q	Q
Other Excluding District Heat.....	Q	Q	Q	Q	Q
Buildings without Heating .....	Q	Q	Q	Q	Q
<b>Primary Space-Heating Energy Source</b>					
Electricity .....	Q	Q	Q	Q	Q
Natural Gas .....	Q	Q	Q	Q	Q
Fuel Oil .....	Q	Q	Q	Q	Q
District Heat .....	77	5,077	66	402	3,277
Propane.....	N	N	N	N	N
Other.....	N	N	N	N	N
<b>Cooling Energy Source</b>					
District Heat .....	Q	Q	Q	Q	Q
Other Excluding District Heat.....	96	4,691	49	337	2,703
Buildings without Cooling .....	Q	726	36	Q	Q
<b>Water-Heating Energy Source</b>					
District Heat .....	62	4,182	67	341	2,868
Other Excluding District Heat .....	Q	1,119	28	50	Q
Buildings without Water Heating .....	Q	Q	Q	Q	Q
<b>Cooking Energy Source</b>					
District Heat .....	9	815	88	53	Q
Other Excluding District Heat.....	19	1,672	89	96	814
Buildings without Cooking .....	89	3,404	38	285	2,284
<b>Energy End Uses (more than one may apply)</b>					
Buildings with Space Heating .....	116	5,862	51	431	3,556
Buildings with Cooling .....	97	5,165	53	369	3,028
Buildings with Water Heating .....	101	5,301	52	392	3,283
Buildings with Cooking .....	28	2,487	88	149	1,279
Buildings with Manufacturing .....	Q	Q	Q	Q	Q
Buildings with Electricity .....	15	2,083	137	139	1,159
<b>Percent of Floorspace Heated</b>					
Not Heated .....	Q	Q	Q	Q	Q
1 to 50 .....	Q	Q	Q	Q	Q
51 to 99 .....	Q	986	46	57	534
100 .....	90	4,708	52	371	2,990
<b>Heating Equipment (more than one may apply)</b>					
Heat Pumps .....	Q	Q	Q	Q	Q
Furnaces .....	Q	Q	Q	Q	Q
Individual Space Heaters .....	12	1,314	112	79	697
District Heat .....	96	5,534	58	412	3,371
Boilers .....	Q	Q	Q	Q	Q
Packaged Heating Units .....	20	847	42	49	459
Other .....	Q	Q	Q	Q	Q

**Table C25. Total District Heat Consumption and Expenditures, 1999**

	All Buildings Using District Heat			District Heat Consumption	District Heat Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million dollars)
<b>Water Heating Equipment</b>					
Centralized System .....	84	3,464	41	279	2,261
Distributed System .....	Q	Q	Q	Q	Q
Combination of Centralized and Distributed System .....	11	1,142	102	72	665

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.

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* 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 C26. District Heat Consumption and Expenditure Intensities, 1999**

	District Heat Consumption			District Heat Expenditures		
	per Building (million Btu)	per Square Foot (thousand Btu)	per Worker (million Btu)	per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Pounds (dollars)
<b>All Buildings</b> .....	3,692	73.55	50.1	30.4	0.60	8.22
<b>Building Floorspace (Square Feet)</b>						
1,001 to 5,000 .....	Q	Q	Q	Q	Q	Q
5,001 to 10,000 .....	Q	Q	Q	Q	Q	Q
10,001 to 25,000 .....	Q	Q	Q	Q	Q	Q
25,001 to 50,000 .....	3,272	92.85	129.6	26.5	0.75	8.10
50,001 to 100,000 .....	7,466	104.03	84.9	51.3	0.72	6.87
100,001 to 200,000 .....	10,653	79.80	52.2	88.3	0.66	8.29
200,001 to 500,000 .....	17,898	57.03	33.8	157.7	0.50	8.81
Over 500,000 .....	47,449	49.20	30.8	437.9	0.45	9.23
<b>Principal Building Activity</b>						
Education .....	3,151	100.60	87.3	23.8	0.76	7.54
Food Sales .....	Q	Q	Q	Q	Q	Q
Food Service .....	Q	Q	Q	Q	Q	Q
Health Care .....	13,465	62.10	35.4	Q	Q	Q
Inpatient .....	Q	Q	Q	Q	Q	Q
Outpatient .....	Q	Q	Q	Q	Q	Q
Lodging .....	3,658	107.51	Q	26.0	0.77	7.12
Mercantile .....	Q	Q	Q	Q	Q	Q
Retail (Other Than Mall) .....	Q	Q	Q	Q	Q	Q
Office .....	3,655	48.15	18.6	35.1	0.46	9.59
Public Assembly .....	3,853	69.86	147.9	Q	0.57	8.21
Public Order and Safety .....	Q	Q	Q	Q	Q	Q
Religious Worship .....	Q	Q	Q	Q	Q	Q
Service .....	Q	Q	Q	Q	Q	Q
Warehouse and Storage .....	Q	Q	Q	Q	Q	Q
Other .....	Q	Q	Q	Q	Q	Q
Vacant .....	Q	Q	Q	Q	Q	Q
<b>Year Constructed</b>						
1919 or Before .....	1,899	76.33	51.1	13.7	0.55	7.22
1920 to 1945 .....	6,475	Q	Q	57.8	0.70	8.92
1946 to 1959 .....	3,653	70.06	45.0	31.3	0.60	8.55
1960 to 1969 .....	5,547	70.90	49.3	45.4	0.58	8.18
1970 to 1979 .....	3,619	87.44	49.1	28.3	0.68	7.81
1980 to 1989 .....	Q	68.93	36.3	Q	Q	Q
1990 to 1999 .....	Q	Q	Q	Q	Q	Q
<b>Census Region and Division</b>						
Northeast .....	4,371	71.91	44.8	40.5	0.67	9.26
New England .....	Q	Q	Q	Q	Q	Q
Middle Atlantic .....	4,127	70.49	43.0	39.3	0.67	9.53
Midwest .....	5,291	87.08	71.2	40.8	0.67	7.71
East North Central .....	Q	100.48	90.3	Q	0.77	7.70
West North Central .....	3,806	72.25	53.8	Q	0.56	7.74
South .....	1,708	52.66	38.4	14.2	0.44	8.32
South Atlantic .....	Q	Q	Q	Q	Q	Q
East South Central .....	Q	Q	Q	Q	Q	Q
West South Central .....	Q	Q	Q	Q	Q	Q
West .....	Q	80.99	48.6	Q	0.60	7.40
Mountain .....	Q	85.64	Q	Q	0.55	6.43
Pacific .....	Q	Q	Q	Q	Q	Q

**Table C26. District Heat Consumption and Expenditure Intensities, 1999**

	District Heat Consumption			District Heat Expenditures		
	per Building (million Btu)	per Square Foot (thousand Btu)	per Worker (million Btu)	per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Pounds (dollars)
<b>Climate Zone: 45-Year Average</b>						
Under 2,000 CDD and --						
More than 7,000 HDD .....	Q	Q	Q	Q	Q	Q
5,500-7,000 HDD .....	7,163	91.65	85.0	54.7	0.70	7.63
4,000-5,499 HDD .....	3,641	67.90	40.0	32.8	0.61	9.00
Fewer than 4,000 HDD .....	2,412	38.49	26.6	22.5	0.36	9.33
2,000 CDD or More and --						
Fewer than 4,000 HDD .....	Q	Q	Q	Q	Q	Q
<b>Workers (main shift)</b>						
Fewer than 5 .....	Q	Q	Q	Q	Q	Q
5 to 9 .....	Q	Q	Q	Q	Q	Q
10 to 19 .....	Q	Q	Q	Q	Q	Q
20 to 49 .....	Q	83.09	Q	Q	Q	Q
50 to 99 .....	3,023	82.51	49.9	25.5	0.70	8.44
100 to 249 .....	9,155	74.70	64.3	78.2	0.64	8.54
250 or More .....	19,617	56.62	24.7	168.9	0.49	8.61
<b>Weekly Operating Hours</b>						
39 or Fewer .....	Q	Q	Q	Q	Q	Q
40 to 48 .....	1,356	69.11	55.6	Q	Q	Q
49 to 60 .....	3,114	59.93	25.6	25.6	0.49	8.23
61 to 84 .....	4,179	77.06	44.8	34.8	0.64	8.33
85 to 167 .....	5,264	80.08	67.6	37.0	0.56	7.04
Open Continuously .....	6,666	76.70	63.0	55.9	0.64	8.38
<b>Ownership and Occupancy</b>						
Nongovernment Owned .....	3,709	74.91	47.0	31.3	0.63	8.45
Owner Occupied .....	4,266	77.84	51.1	34.8	0.64	8.17
Nonowner Occupied .....	Q	Q	Q	Q	Q	Q
Unoccupied.....	N	N	N	N	N	N
Government Owned .....	3,668	71.78	54.9	29.0	0.57	7.92
Federal .....	4,826	66.48	35.1	29.5	0.41	6.12
State .....	4,813	80.51	90.4	41.7	0.70	8.67
Local .....	Q	Q	Q	Q	Q	Q
<b>Vacancy Status</b>						
Completely Vacant.....	N	N	N	N	N	N
Mostly Vacant .....	Q	Q	Q	Q	Q	Q
Partially Vacant .....	3,104	54.03	34.0	32.3	0.56	10.41
Not At All Vacant .....	3,837	79.27	55.1	29.9	0.62	7.80
<b>Number of Establishments</b>						
One .....	3,448	83.73	65.5	26.6	0.65	7.71
2 to 5 .....	4,928	59.66	42.8	Q	Q	Q
6 to 10 .....	Q	Q	Q	Q	Q	Q
11 to 20 .....	Q	Q	Q	Q	Q	Q
More than 20 .....	24,895	48.20	24.5	287.4	0.56	11.54
<b>Energy Sources (more than one may apply)</b>						
Electricity .....	3,692	73.55	50.1	30.4	0.60	8.22
Natural Gas .....	3,479	67.90	43.3	27.9	0.54	8.02
Fuel Oil .....	13,995	58.04	29.9	124.3	0.52	8.88
District Heat .....	3,692	73.55	50.1	30.4	0.60	8.22
District Chilled Water .....	4,272	78.43	47.3	31.2	0.57	7.30
Propane .....	Q	Q	Q	Q	Q	Q
Other .....	Q	Q	Q	Q	Q	Q

**Table C26. District Heat Consumption and Expenditure Intensities, 1999**

	District Heat Consumption			District Heat Expenditures		
	per Building (million Btu)	per Square Foot (thousand Btu)	per Worker (million Btu)	per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Pounds (dollars)
<b>Space-Heating Energy Source</b>						
District Heat .....	4,294	74.45	50.8	35.1	0.61	8.18
District Heat Main .....	5,233	79.25	57.4	42.6	0.65	8.14
District Heat Secondary .....	Q	Q	Q	Q	Q	Q
Other Excluding District Heat.....	Q	Q	Q	Q	Q	Q
Buildings without Heating .....	Q	Q	Q	Q	Q	Q
<b>Primary Space-Heating Energy Source</b>						
Electricity .....	Q	Q	Q	Q	Q	Q
Natural Gas .....	Q	Q	Q	Q	Q	Q
Fuel Oil .....	Q	Q	Q	Q	Q	Q
District Heat .....	5,233	79.25	57.4	42.6	0.65	8.14
Propane.....	N	N	N	N	N	N
Other.....	N	N	N	N	N	N
<b>Cooling Energy Source</b>						
District Heat .....	Q	Q	Q	Q	Q	Q
Other Excluding District Heat.....	3,510	71.86	46.0	28.2	0.58	8.02
Buildings without Cooling .....	Q	88.92	258.7	Q	Q	Q
<b>Water-Heating Energy Source</b>						
District Heat .....	5,505	81.60	58.1	46.3	0.69	8.40
Other Excluding District Heat .....	1,279	44.98	27.0	10.6	0.37	8.25
Buildings without Water Heating .....	Q	Q	Q	Q	Q	Q
<b>Cooking Energy Source</b>						
District Heat .....	5,736	65.34	41.4	Q	Q	Q
Other Excluding District Heat.....	5,068	57.12	33.4	43.2	0.49	8.52
Buildings without Cooking .....	3,188	83.59	63.2	25.6	0.67	8.03
<b>Energy End Uses (more than one may apply)</b>						
Buildings with Space Heating .....	3,718	73.53	50.2	30.7	0.61	8.25
Buildings with Cooling .....	3,789	71.39	43.9	31.1	0.59	8.21
Buildings with Water Heating .....	3,865	73.87	50.6	32.4	0.62	8.38
Buildings with Cooking .....	5,288	59.81	35.9	45.5	0.51	8.60
Buildings with Manufacturing .....	Q	Q	Q	Q	Q	Q
Buildings with Electricity .....	Q	Q	Q	Q	Q	Q
Generation .....	9,187	66.82	36.6	76.5	0.56	8.33
<b>Percent of Floorspace Heated</b>						
Not Heated .....	Q	Q	Q	Q	Q	Q
1 to 50 .....	Q	Q	Q	Q	Q	Q
51 to 99 .....	2,639	57.77	38.4	24.8	0.54	9.38
100 .....	4,130	78.77	53.1	33.3	0.64	8.06
<b>Heating Equipment (more than one may apply)</b>						
Heat Pumps .....	Q	Q	Q	Q	Q	Q
Furnaces .....	Q	Q	Q	Q	Q	Q
Individual Space Heaters .....	6,747	60.15	32.3	59.5	0.53	8.81
District Heat .....	4,294	74.45	50.8	35.1	0.61	8.18
Boilers .....	Q	Q	Q	Q	Q	Q
Packaged Heating Units .....	2,407	57.50	45.1	22.7	0.54	9.42
Other .....	Q	Q	Q	Q	Q	Q

**Table C26. District Heat Consumption and Expenditure Intensities, 1999**

	District Heat Consumption			District Heat Expenditures		
	per Building (million Btu)	per Square Foot (thousand Btu)	per Worker (million Btu)	per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Pounds (dollars)
<b>Water Heating Equipment</b>						
Centralized System .....	3,343	80.61	58.3	27.1	0.65	8.10
Distributed System .....	Q	Q	Q	Q	Q	Q
Combination of Centralized and Distributed System .....	6,437	63.28	34.4	59.2	0.58	9.20

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.

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* 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.