

**Table B31. Heated, Cooled, and Lit Buildings, Floorspace, 1999**

	Total Floorspace (million square feet)						
	All Buildings	Heated Buildings		Cooled Buildings		Lit Buildings <sup>c</sup>	
		Total Floorspace <sup>a</sup>	Heated Floorspace <sup>b</sup>	Total Floorspace <sup>a</sup>	Cooled Floorspace <sup>b</sup>	Total Floorspace <sup>a</sup>	Lit Floorspace <sup>b</sup>
<b>All Buildings</b> .....	67,338	61,602	53,812	58,474	42,420	64,085	54,696
<b>Building Floorspace (Square Feet)</b>							
1,001 to 5,000 .....	6,774	5,684	5,055	4,879	3,958	5,859	4,877
5,001 to 10,000 .....	8,238	7,090	5,744	6,212	4,333	7,421	5,583
10,001 to 25,000 .....	11,153	9,865	8,196	9,530	6,195	10,358	8,251
25,001 to 50,000 .....	9,311	8,565	7,439	8,116	5,767	8,986	7,528
50,001 to 100,000 .....	10,112	9,597	8,676	9,401	6,817	9,970	8,753
100,001 to 200,000 .....	8,271	7,893	7,144	7,609	5,832	8,183	7,537
200,001 to 500,000 .....	6,851	6,445	5,757	6,345	4,421	6,706	6,068
Over 500,000 .....	6,628	6,465	5,803	6,382	5,098	6,603	6,100
<b>Principal Building Activity</b>							
Education .....	8,651	8,612	8,294	7,973	5,341	8,639	7,918
Food Sales .....	994	880	760	978	789	992	852
Food Service .....	1,851	1,721	1,520	1,760	1,431	1,848	1,450
Health Care .....	2,918	2,918	2,722	2,815	2,530	2,918	2,702
Inpatient .....	1,865	1,865	1,740	1,762	1,580	1,865	1,757
Outpatient .....	1,053	1,053	983	1,053	949	1,053	945
Lodging .....	4,521	4,424	4,028	4,051	3,520	4,476	3,610
Mercantile .....	10,398	9,848	8,629	10,174	8,247	10,341	9,038
Retail (Other Than Mall) .....	4,766	4,615	3,806	4,573	3,125	4,713	3,973
Enclosed and Strip Malls .....	5,631	5,233	4,823	5,601	5,122	5,628	5,065
Office .....	12,044	11,810	11,001	11,782	10,437	12,037	10,855
Public Assembly .....	4,393	4,015	3,667	3,859	3,183	4,290	3,518
Public Order and Safety .....	1,168	1,021	952	760	573	1,006	914
Religious Worship .....	3,405	3,383	3,154	2,765	2,127	3,405	2,543
Service .....	3,388	3,027	2,594	2,481	1,239	3,336	2,785
Warehouse and Storage .....	10,477	8,104	4,930	7,621	1,982	9,266	7,329
Other .....	1,222	1,086	981	1,087	791	1,176	1,052
Vacant .....	1,908	754	579	368	228	355	129
<b>Year Constructed</b>							
1919 or Before .....	4,034	3,593	3,045	2,911	1,762	3,548	2,571
1920 to 1945 .....	6,445	5,559	4,714	4,383	2,622	5,855	4,543
1946 to 1959 .....	9,127	8,402	7,157	7,601	4,872	8,506	6,918
1960 to 1969 .....	10,866	9,966	8,851	9,325	6,913	10,479	9,050
1970 to 1979 .....	11,840	10,916	9,441	11,050	8,364	11,556	10,057
1980 to 1989 .....	13,931	12,566	11,254	12,849	10,085	13,272	11,871
1990 to 1999 .....	11,094	10,600	9,349	10,355	7,802	10,869	9,686
<b>Floors</b>							
One .....	26,800	23,078	19,623	21,856	15,431	24,863	21,574
Two .....	16,985	15,933	13,569	15,192	10,486	16,352	13,418
Three .....	8,928	8,487	7,675	7,959	5,326	8,619	6,925
Four to Nine .....	10,180	9,753	9,001	9,208	7,416	9,866	8,671
Ten or More .....	4,445	4,351	3,943	4,259	3,761	4,386	4,108
<b>Census Region</b>							
Northeast .....	12,360	11,667	10,574	10,311	6,656	11,778	10,074
Midwest .....	16,761	15,916	14,321	14,371	9,447	15,968	13,380
South .....	23,485	20,598	17,868	21,549	17,183	22,222	19,254
West .....	14,731	13,421	11,049	12,243	9,133	14,117	11,989
<b>Climate Zone: 45-Year Average</b>							
<b>Under 2,000 CDD and --</b>							
More than 7,000 HDD .....	5,890	5,669	5,096	4,804	2,815	5,634	4,655
5,500-7,000 HDD .....	17,083	16,206	14,883	14,289	9,655	16,398	13,935
4,000-5,499 HDD .....	16,243	15,292	13,492	13,999	9,830	15,438	13,256
Fewer than 4,000 HDD .....	16,333	14,923	12,492	14,535	11,601	15,428	13,374
<b>2,000 CDD or More and --</b>							
Fewer than 4,000 HDD .....	11,788	9,512	7,850	10,847	8,519	11,187	9,476

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	All Buildings	Heated Buildings		Cooled Buildings		Lit Buildings <sup>c</sup>	
		Total Floorspace <sup>a</sup>	Heated Floorspace <sup>b</sup>	Total Floorspace <sup>a</sup>	Cooled Floorspace <sup>b</sup>	Total Floorspace <sup>a</sup>	Lit Floorspace <sup>b</sup>
<b>Workers (main shift)</b>							
Fewer than 5 .....	14,321	10,552	8,307	8,704	5,791	11,225	7,855
5 to 9 .....	6,325	6,020	4,829	5,291	3,322	6,251	4,825
10 to 19 .....	8,028	7,762	6,543	7,409	4,791	7,945	6,454
20 to 49 .....	10,814	10,347	9,297	9,930	6,988	10,814	9,549
50 to 99 .....	8,898	8,536	7,711	8,519	6,345	8,898	8,128
100 to 249 .....	8,356	8,053	7,597	8,129	6,158	8,356	7,789
250 or More .....	10,595	10,333	9,528	10,491	9,026	10,595	10,097
<b>Weekly Operating Hours</b>							
39 or Fewer .....	6,596	4,217	3,660	3,113	2,406	3,855	3,096
40 to 48 .....	13,105	12,090	9,874	11,041	7,203	13,061	10,325
49 to 60 .....	14,200	13,677	11,855	13,225	9,068	14,170	12,070
61 to 84 .....	12,458	11,787	10,474	11,701	8,870	12,312	10,831
85 to 167 .....	9,116	8,399	7,480	8,528	6,079	8,905	7,971
Open Continuously .....	11,863	11,432	10,469	10,866	8,794	11,784	10,402
<b>Vacancy Status</b>							
Completely Vacant .....	953	Q	Q	Q	Q	N	N
Mostly Vacant .....	956	522	375	212	95	355	129
Partially Vacant .....	15,520	13,856	11,851	13,797	10,745	14,616	12,297
Not At All Vacant .....	49,910	46,992	41,382	44,309	31,446	49,114	42,270
<b>Energy Sources (more than one may apply)</b>							
Electricity .....	65,716	61,565	53,800	58,474	42,420	64,085	54,696
Natural Gas .....	45,525	44,385	39,168	42,147	30,553	44,877	38,486
Fuel Oil .....	13,285	13,074	11,792	12,185	8,821	13,192	11,786
District Heat .....	5,891	5,862	5,571	5,165	4,370	5,891	5,348
District Chilled Water .....	2,750	2,739	2,646	2,750	2,522	2,750	2,523
Propane .....	6,290	6,076	5,068	5,415	3,359	6,255	5,288
Other .....	2,322	2,276	1,996	2,069	1,438	2,292	2,015
<b>Space-Heating Energy Sources (more than one may apply)</b>							
Electricity .....	32,291	32,291	27,585	30,961	23,462	31,953	27,516
Natural Gas .....	37,902	37,893	33,395	35,080	24,720	37,436	32,042
Fuel Oil .....	5,611	5,611	5,042	4,638	2,618	5,518	4,746
District Heat .....	5,534	5,534	5,330	4,844	4,119	5,534	5,074
Propane .....	2,728	2,728	2,284	2,191	1,542	2,692	2,193
Other .....	945	945	798	779	516	936	767
<b>Primary Space-Heating Energy Source</b>							
Electricity .....	17,627	17,627	14,742	17,160	13,699	17,444	14,990
Natural Gas .....	32,729	32,729	28,846	30,003	20,630	32,288	27,652
Fuel Oil .....	3,719	3,719	3,278	2,912	1,514	3,635	3,043
District Heat .....	5,077	5,077	4,887	4,392	3,733	5,077	4,661
Propane .....	2,107	2,107	1,772	1,631	1,183	2,072	1,698
Other .....	343	343	286	263	146	335	252
<b>Cooling Energy Sources (more than one may apply)</b>							
Electricity .....	55,545	53,459	46,741	55,545	39,881	55,007	47,392
Natural Gas .....	1,914	1,898	1,719	1,914	1,485	1,914	1,644
District Chilled Water .....	2,750	2,739	2,646	2,750	2,522	2,750	2,523

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		Total Floorspace <sup>a</sup>	Heated Floorspace <sup>b</sup>	Total Floorspace <sup>a</sup>	Cooled Floorspace <sup>b</sup>	Total Floorspace <sup>a</sup>	Lit Floorspace <sup>b</sup>
<b>Energy End Uses (more than one may apply)</b>							
Buildings with Space Heating .....	61,602	61,602	53,812	56,361	40,905	60,850	52,296
Buildings with Cooling .....	58,474	56,361	49,482	58,474	42,420	57,936	50,055
Buildings with Water Heating .....	56,115	54,204	48,070	52,589	38,844	55,586	48,125
Buildings with Cooking .....	24,681	23,813	22,090	23,730	19,070	24,647	21,920
Buildings with Manufacturing .....	3,126	3,031	2,250	2,861	1,338	3,069	2,750
Buildings with Electricity Generation .....	11,882	11,643	10,702	11,538	9,415	11,857	10,840
<b>Percent of Floorspace Heated</b>							
Not Heated .....	5,736	N	N	2,113	1,514	3,235	2,400
1 to 50 .....	7,593	7,593	2,009	6,619	2,220	7,361	5,091
51 to 99 .....	10,745	10,745	8,538	9,939	7,067	10,725	8,796
100 .....	43,264	43,264	43,264	39,802	31,618	42,764	38,409
<b>Percent of Floorspace Cooled</b>							
Not Cooled .....	8,864	5,242	4,330	N	N	6,149	4,641
1 to 50 .....	16,846	16,193	11,547	16,846	3,975	16,693	13,033
51 to 99 .....	16,966	16,637	14,935	16,966	13,783	16,930	14,678
100 .....	24,662	23,531	23,000	24,662	24,662	24,314	22,344
<b>Percent Lit When Open</b>							
Zero .....	173	Q	Q	Q	Q	N	N
1 to 50 .....	9,187	8,175	5,728	7,379	3,853	9,187	3,267
51 to 99 .....	20,665	19,950	17,807	19,348	14,402	20,665	17,195
100 .....	34,233	32,725	29,701	31,209	23,763	34,233	34,233
Building Never Open/ Electricity Not Used .....	3,080	679	515	472	369	N	N
<b>Percent Lit When Closed</b>							
Zero .....	20,771	18,394	15,115	16,581	10,754	19,428	15,591
1 to 50 .....	30,950	29,724	26,410	28,964	21,215	30,723	26,740
51 to 100 .....	2,160	2,015	1,806	2,064	1,657	2,151	1,963
Building Never Closed/ Electricity Not Used .....	13,457	11,469	10,481	10,866	8,794	11,784	10,402
<b>Heating Equipment (more than one may apply)</b>							
Heat Pumps .....	8,923	8,923	7,819	8,766	7,104	8,870	7,803
Furnaces .....	14,449	14,449	11,825	12,819	7,866	14,304	11,385
Individual Space Heaters .....	17,349	17,349	14,759	15,708	10,273	17,129	14,722
District Heat .....	5,534	5,534	5,330	4,844	4,119	5,534	5,074
Boilers .....	19,522	19,522	18,039	17,947	12,574	19,431	17,008
Packaged Heating Units .....	25,743	25,743	22,846	25,134	19,505	25,512	22,714
Other .....	4,073	4,073	3,469	3,592	2,702	3,951	3,453
<b>Cooling Equipment (more than one may apply)</b>							
Residential-Type Central							
Air Conditioners .....	8,329	8,010	6,610	8,329	5,473	8,265	6,712
Heat Pumps .....	9,147	9,052	7,986	9,147	7,321	9,120	8,032
Individual Air Conditioners .....	14,276	13,754	11,898	14,276	8,142	14,055	11,626
District Chilled Water .....	2,750	2,739	2,646	2,750	2,522	2,750	2,523
Central Chillers .....	12,909	12,560	11,667	12,909	11,235	12,857	11,898
Packaged Air Conditioning							
Units .....	36,527	35,247	31,221	36,527	27,481	36,161	31,889
Swamp Coolers .....	2,219	2,190	1,877	2,219	1,495	2,218	1,955
Other .....	1,312	1,257	1,086	1,312	1,061	1,308	1,191

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		Total Floorspace <sup>a</sup>	Heated Floorspace <sup>b</sup>	Total Floorspace <sup>a</sup>	Cooled Floorspace <sup>b</sup>	Total Floorspace <sup>a</sup>	Lit Floorspace <sup>b</sup>
<b>Lighting Equipment Types (more than one may apply)</b>							
Incandescent .....	38,156	36,640	32,450	34,584	26,287	38,064	32,075
Standard Fluorescent .....	60,344	57,516	50,532	55,007	39,913	60,131	51,708
Compact Fluorescent .....	20,666	20,127	18,151	19,829	15,888	20,634	18,239
High Intensity Discharge .....	19,223	18,821	16,715	18,076	11,899	19,219	17,379
Halogen .....	17,926	17,373	15,378	17,093	13,013	17,896	15,671
Other .....	1,004	973	858	953	772	989	865
<b>Building Shell Conservation Features (more than one may apply)</b>							
Multipaned Windows .....	38,193	36,962	33,278	35,476	26,242	37,480	32,817
Tinted, Reflective, or Shading Glass .....	29,915	28,777	25,703	28,721	22,459	29,583	26,485
<b>HVAC Conservation Features (more than one may apply)</b>							
Variable Air-Volume System .....	19,387	18,942	17,271	19,009	15,881	19,331	17,477
Economizer Cycle .....	21,256	21,107	19,797	21,256	17,589	21,187	19,542
HVAC Maintenance .....	53,395	51,983	46,550	50,309	37,457	53,044	46,432
Energy Management and Control System (EMCS) .....	21,613	21,252	19,858	20,817	17,232	21,556	19,942
<b>Lighting Conservation Features (more than one may apply)</b>							
Specular Reflectors .....	19,994	19,222	17,451	19,014	14,249	19,982	17,737
Electronic Ballasts .....	42,035	40,417	35,695	39,347	29,192	42,003	36,594
Skylights or Atriums .....	18,286	17,062	14,656	16,646	11,530	17,841	15,652
<b>Off-Hour Equipment Reduction (more than one may apply)</b>							
Heating .....	39,969	39,969	34,786	36,639	26,172	39,476	33,799
Cooling .....	39,161	37,743	32,819	39,161	27,834	38,743	33,060
Lighting .....	51,083	48,300	41,790	46,004	32,484	51,083	43,394
Office Equipment .....	9,063	8,802	8,247	8,748	6,215	9,052	8,424

<sup>a</sup> "Total Floorspace" refers to all floorspace in heated, cooled, or lit buildings, including the floorspace that was not heated, cooled, or lit.

<sup>b</sup> "Heated Floorspace," "Cooled Floorspace," and "Lit Floorspace" refer only to the portion of floorspace in these buildings that was heated, cooled, or lit.

<sup>c</sup> Data in "Lit Buildings" are for only floorspace lit when the building was open.

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

N=No responding cases in sample.

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

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