

Table B35. Cooling Equipment, Floorspace, 1999

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

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

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

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

N=No responding cases in sample.

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

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