

**Table 3.16. Cooling Equipment in FBSS Buildings in Federal Region 3,
Number of Buildings, 1993**

Building Characteristics	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
All Buildings	312	305	30	37	80	72	158	127
Building Floorspace (square feet)								
10,000 to 50,000	94	92	8	20	20	10	25	37
50,001 to 200,000	117	114	6	1	23	38	61	34
Over 200,000	101	99	16	16	37	24	72	56
Principal Building Activity								
Education	8	8	NC	NC	2	NC	4	3
Health Care	41	40	3	1	10	22	15	16
Laboratory	37	37	2	1	5	14	16	7
Lodging	13	12	1	1	3	1	5	6
Mercantile and Service	46	44	4	6	9	NC	22	20
Office	124	123	16	24	39	25	82	61
All Others	43	41	4	4	12	10	14	14
Year Constructed								
1959 or Before	142	140	19	20	61	30	69	66
1960 to 1969	70	69	6	2	5	28	31	17
1970 to 1979	47	44	3	5	9	3	30	22
1980 to 1989	38	37	2	8	4	6	21	17
1990 to 1993	15	15	NC	2	1	5	7	5
Federal Agency								
Department of Defense	22	22	2	NC	6	9	5	5
General Services Administration ...	83	81	12	18	29	9	69	42
United States Postal Service	57	55	6	8	13	NC	30	28
Veterans Administration	56	54	3	3	12	24	19	20
All Others	94	93	7	8	20	30	35	32
Workers (main shift)								
Less than 50	71	66	7	11	18	12	17	21
50 to 99	39	39	2	8	9	7	10	14
100 to 499	107	106	5	5	18	30	58	38
500 or More	95	94	16	13	35	23	73	54
Weekly Operating Hours								
48 or Fewer	51	49	9	11	15	8	22	23
49 to 60	76	76	5	8	23	15	47	31
61 to 167	60	59	7	12	11	8	27	23
Open Continuously	125	121	9	6	31	41	62	50
Multibuilding Facility								
Yes	176	171	10	14	40	63	74	64
No	136	134	20	23	40	9	84	63
Percent of Floorspace Cooled								
Not Cooled	13	6	NC	NC	NC	NC	NC	NC
1 to 50	30	30	2	5	16	4	11	17
51 to 100	269	269	28	32	64	68	147	110
Energy Conservation Features (more than one may apply)								
Any Conservation Feature	309	304	30	37	80	72	158	127
Building Shell	290	285	25	34	72	71	146	117
HVAC	303	298	29	35	79	72	155	125
Lighting	210	207	19	29	60	45	120	94

See footnotes at end of table.

**Table 3.16. Cooling Equipment in FBSS Buildings in Federal Region 3,
Number of Buildings, 1993 (Continued)**

Building Characteristics	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
Building Shell Conservation Features (more than one may apply)								
Roof or Ceiling								
Insulation	240	236	21	32	61	64	117	93
Wall Insulation	117	116	9	20	29	26	58	51
Storm or Multiple Glazing	173	170	16	23	40	38	89	68
Tinted or Reflective Glass or Shading Film	158	156	12	14	32	42	84	66
Exterior or Interior Shading or Awnings	197	196	18	25	55	55	102	86
HVAC Conservation Features (more than one may apply)								
VAV System	84	82	9	8	23	23	54	40
Economizer Cycle	156	154	16	19	41	35	99	78
HVAC Maintenance	301	297	29	35	79	72	154	125
Energy Management Practices (more than one may apply)								
Energy Management and Control System	132	131	13	19	36	38	80	65
Energy Conservation Programs ¹	99	95	8	15	28	20	70	50
Energy Audit	99	97	10	14	32	17	61	43
HVAC Maintenance Staff ²	97	96	13	9	28	26	70	44
Off-Hours Reduction in Equipment (more than one may apply)								
Heating	144	143	19	24	39	22	82	66
Cooling	145	145	19	24	42	22	83	66
Hot Water	77	77	8	11	23	7	51	35
Lighting	162	159	18	28	44	23	91	69

¹ Building participates in any programs sponsored by the Federal Energy Management Program, in-house, utility, or third party.

² HVAC maintenance staff means at least one person spends at least half their working hours maintaining the heating/cooling equipment.

NC = No cases in responding sample.

Notes: • Total workers are the number of workers during the main shift. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • These data are from 881 federally owned buildings having the following criteria: (1) located in Federal Regions 3, 6, or 9; (2) larger than 10,000 square feet; and (3) used for a commercial purpose, other than warehouse and storage. In addition, 9 out of 10 selected buildings were from agencies other than the Department of Defense. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • FBSS = Federal Buildings Supplemental Survey. • HVAC = Heating, Ventilation, and Air Conditioning. • VAV = Variable-Air Volume. • Data are for Fiscal Year 1993 (October 1, 1992 through September 30, 1993). • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, 1993 Federal Buildings Supplemental Survey.

**Table 3.17. Cooling Equipment in FBSS Buildings in Federal Region 6,
Number of Buildings, 1993**

Building Characteristics	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
All Buildings	243	241	29	11	50	44	122	97
Building Floorspace (square feet)								
10,000 to 50,000	107	107	10	4	19	12	31	54
50,001 to 200,000	86	85	12	5	23	16	58	21
Over 200,000	50	49	7	2	8	16	33	22
Principal Building Activity								
Education	6	6	1	NC	NC	NC	3	3
Health Care	35	35	3	2	10	16	18	15
Laboratory	29	29	NC	NC	7	5	17	7
Lodging	16	16	2	NC	5	4	4	5
Mercantile and Service	49	48	8	4	5	NC	22	31
Office	76	76	11	3	15	13	47	24
All Others	32	31	4	2	8	6	11	12
Year Constructed								
1959 or Before	103	102	15	3	30	26	47	34
1960 to 1969	38	38	6	2	11	6	27	15
1970 to 1979	34	33	5	2	6	5	22	14
1980 to 1989	57	57	3	3	2	6	22	30
1990 to 1993	11	11	NC	1	1	1	4	4
Federal Agency								
Department of Defense	22	22	1	2	3	3	8	8
General Services Administration ...	35	35	5	1	4	8	27	10
United States Postal Service	61	60	11	3	6	NC	29	35
Veterans Administration	36	36	4	1	10	18	16	14
All Others	89	88	8	4	27	15	42	30
Workers (main shift)								
Less than 50	70	69	12	2	17	10	19	33
50 to 99	44	44	5	2	7	3	21	16
100 to 499	80	80	5	5	15	16	48	26
500 or More	49	48	7	2	11	15	34	22
Weekly Operating Hours								
48 or Fewer	39	38	6	2	9	4	20	11
49 to 60	46	46	3	2	7	14	22	19
61 to 167	78	78	10	3	16	7	30	35
Open Continuously	80	79	10	4	18	19	50	32
Multibuilding Facility								
Yes	148	147	15	7	39	44	73	47
No	95	94	14	4	11	NC	49	50
Percent of Floorspace Cooled								
Not Cooled	3	1	NC	NC	NC	NC	NC	NC
1 to 50	26	26	1	1	13	2	4	13
51 to 100	214	214	28	10	37	42	118	84
Energy Conservation Features (more than one may apply)								
Any Conservation Feature	242	241	29	11	50	44	122	97
Building Shell	228	227	28	11	46	40	116	93
HVAC	236	235	27	10	48	44	121	96
Lighting	136	135	19	9	23	24	72	59

See footnotes at end of table.

**Table 3.17. Cooling Equipment in FBSS Buildings in Federal Region 6,
Number of Buildings, 1993 (Continued)**

Building Characteristics	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
Building Shell Conservation Features (more than one may apply)								
Roof or Ceiling								
Insulation	196	195	23	11	39	29	101	77
Wall Insulation	122	121	9	8	22	13	63	51
Storm or Multiple Glazing	96	96	10	8	16	20	48	43
Tinted or Reflective Glass or Shading Film	127	126	16	8	23	22	73	59
Exterior or Interior Shading or Awnings	142	141	20	9	29	25	74	65
HVAC Conservation Features (more than one may apply)								
VAV System	65	65	6	3	8	18	41	22
Economizer Cycle	123	122	13	8	26	27	67	51
HVAC Maintenance	234	233	27	9	48	43	121	95
Energy Management Practices (more than one may apply)								
Energy Management and Control System	96	95	10	6	17	31	54	37
Energy Conservation Programs ¹	48	47	7	2	6	12	23	28
Energy Audit	64	64	8	4	10	8	32	29
HVAC Maintenance Staff ²	57	57	3	1	9	13	40	21
Off-Hours Reduction in Equipment (more than one may apply)								
Heating	123	123	18	6	17	17	53	54
Cooling	124	124	17	6	17	18	54	54
Hot Water	33	33	2	3	1	8	17	14
Lighting	120	120	13	5	20	17	56	53

¹ Building participates in any programs sponsored by the Federal Energy Management Program, in-house, utility, or third party.

² HVAC maintenance staff means at least one person spends at least half their working hours maintaining the heating/cooling equipment.

NC = No cases in responding sample.

Notes: • Total workers are the number of workers during the main shift. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • These data are from 881 federally owned buildings having the following criteria: (1) located in Federal Regions 3, 6, or 9; (2) larger than 10,000 square feet; and (3) used for a commercial purpose, other than warehouse and storage. In addition, 9 out of 10 selected buildings were from agencies other than the Department of Defense. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • FBSS = Federal Buildings Supplemental Survey. • HVAC = Heating, Ventilation, and Air Conditioning. • VAV = Variable-Air Volume. • Data are for Fiscal Year 1993 (October 1, 1992 through September 30, 1993). • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, 1993 Federal Buildings Supplemental Survey.

**Table 3.18. Cooling Equipment in FBSS Buildings in Federal Region 9,
Number of Buildings, 1993**

Building Characteristics	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
All Buildings	326	292	24	32	52	31	139	151
Building Floorspace (square feet)								
10,000 to 50,000	148	126	17	15	25	7	40	59
50,001 to 200,000	123	114	5	15	18	15	61	63
Over 200,000	55	52	2	2	9	9	38	29
Principal Building Activity								
Education	12	8	NC	1	NC	NC	2	3
Health Care	48	45	3	2	9	17	15	22
Laboratory	31	29	3	7	5	1	24	17
Lodging	22	16	1	1	4	5	3	5
Mercantile and Service	63	60	7	8	11	1	30	30
Office	92	88	8	9	16	5	45	54
All Others	58	46	2	4	7	2	20	20
Year Constructed								
1959 or Before	130	112	10	14	35	12	49	55
1960 to 1969	55	50	3	5	9	2	32	29
1970 to 1979	62	58	5	5	7	5	28	35
1980 to 1989	65	59	4	5	1	11	27	25
1990 to 1993	14	13	2	3	NC	1	3	7
Federal Agency								
Department of Defense	78	64	6	4	18	6	25	22
General Services Administration ...	39	38	2	NC	7	NC	26	25
United States Postal Service	63	62	8	7	7	2	29	32
Veterans Administration	56	51	3	3	10	18	12	26
All Others	90	77	5	18	10	5	47	46
Workers (main shift)								
Less than 50	93	70	9	7	16	5	17	24
50 to 99	49	47	6	6	4	1	21	30
100 to 499	134	128	7	17	25	17	62	69
500 or More	50	47	2	2	7	8	39	28
Weekly Operating Hours								
48 or Fewer	80	68	6	5	16	4	26	38
49 to 60	65	61	3	5	14	4	36	37
61 to 167	68	61	8	7	7	2	26	30
Open Continuously	113	102	7	15	15	21	51	46
Multibuilding Facility								
Yes	200	171	14	24	34	30	73	85
No	126	121	10	8	18	1	66	66
Percent of Floorspace Cooled								
Not Cooled	40	6	NC	NC	NC	NC	NC	NC
1 to 50	55	55	6	5	27	3	15	25
51 to 100	231	231	18	27	25	28	124	126
Energy Conservation Features (more than one may apply)								
Any Conservation Feature	319	291	24	32	52	31	139	151
Building Shell	248	228	21	26	38	27	106	120
HVAC	307	282	22	32	49	31	136	147
Lighting	217	205	15	25	32	21	114	121

See footnotes at end of table.

**Table 3.18. Cooling Equipment in FBSS Buildings in Federal Region 9,
Number of Buildings, 1993 (Continued)**

Building Characteristics	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
Building Shell Conservation Features (more than one may apply)								
Roof or Ceiling								
Insulation	185	169	16	22	23	22	84	85
Wall Insulation	113	105	9	14	13	17	50	49
Storm or Multiple Glazing	57	55	6	10	7	14	26	31
Tinted or Reflective Glass or Shading Film	133	130	10	19	19	19	63	76
Exterior or Interior Shading or Awnings	164	152	15	20	24	22	72	85
HVAC Conservation Features (more than one may apply)								
VAV System	75	74	5	6	7	12	52	43
Economizer Cycle	140	135	9	12	17	11	86	79
HVAC Maintenance	306	281	22	32	49	31	135	146
Energy Management Practices (more than one may apply)								
Energy Management and Control System	71	71	4	11	7	13	51	34
Energy Conservation Programs ¹	124	115	9	16	18	15	68	65
Energy Audit	99	92	10	11	13	12	47	44
HVAC Maintenance Staff ²	52	50	3	3	4	10	25	27
Off-Hours Reduction in Equipment (more than one may apply)								
Heating	151	141	9	13	22	4	73	86
Cooling	157	157	13	12	29	3	74	88
Hot Water	68	64	3	1	9	NC	35	50
Lighting	172	158	15	15	32	6	73	87

¹ Building participates in any programs sponsored by the Federal Energy Management Program, in-house, utility, or third party.

² HVAC maintenance staff means at least one person spends at least half their working hours maintaining the heating/cooling equipment.

NC = No cases in responding sample.

Notes: • Total workers are the number of workers during the main shift. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • These data are from 881 federally owned buildings having the following criteria: (1) located in Federal Regions 3, 6, or 9; (2) larger than 10,000 square feet; and (3) used for a commercial purpose, other than warehouse and storage. In addition, 9 out of 10 selected buildings were from agencies other than the Department of Defense. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • FBSS = Federal Buildings Supplemental Survey. • HVAC = Heating, Ventilation, and Air Conditioning. • VAV = Variable-Air Volume. • Data are for Fiscal Year 1993 (October 1, 1992 through September 30, 1993). • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, 1993 Federal Buildings Supplemental Survey.

**Table 3.19. Cooling Equipment in FBSS Buildings in Federal Region 3,
Floorspace, 1993**
(Thousand Square Feet)

Building Characteristics	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
All Buildings	94,880	93,454	19,073	11,388	28,082	28,194	63,914	56,664
Building Floorspace (square feet)								
10,000 to 50,000	2,564	2,512	222	514	561	320	750	1,005
50,001 to 200,000	13,166	12,771	691	60	2,589	4,169	7,591	4,096
Over 200,000	79,149	78,171	18,161	10,814	24,932	23,706	55,573	51,562
Principal Building Activity								
Education	598	598	NC	NC	258	NC	210	317
Health Care	14,559	14,450	1,702	60	4,115	7,721	7,471	9,246
Laboratory	5,165	5,165	569	20	501	2,081	2,873	506
Lodging	2,558	2,529	36	31	442	66	816	541
Mercantile and Service	7,966	7,224	1,311	124	2,482	NC	5,759	4,086
Office	56,881	56,794	15,310	11,053	19,255	17,649	41,892	37,522
All Others	7,152	6,693	145	101	1,029	677	4,893	4,446
Year Constructed								
1959 or Before	43,829	43,462	15,136	5,577	19,969	16,274	26,489	30,974
1960 to 1969	19,564	19,477	1,286	2,182	1,608	5,296	13,536	6,958
1970 to 1979	17,737	16,966	1,652	3,102	3,857	3,593	13,559	11,450
1980 to 1989	8,975	8,775	999	458	1,011	1,787	6,735	4,831
1990 to 1993	4,774	4,774	NC	70	1,638	1,243	3,595	2,451
Federal Agency								
Department of Defense	13,988	13,988	6,836	NC	390	11,568	454	9,681
General Services Administration ...	46,205	45,859	8,083	9,904	15,376	8,147	41,067	27,650
United States Postal Service	9,392	8,650	1,488	1,174	4,030	NC	7,635	6,126
Veterans Administration	13,306	12,998	1,702	98	4,166	4,896	8,243	7,196
All Others	11,989	11,960	965	212	4,119	3,582	6,515	6,011
Workers (main shift)								
Less than 50	4,102	3,419	198	685	918	685	1,132	1,200
50 to 99	1,903	1,903	163	229	533	421	399	755
100 to 499	13,632	13,608	552	1,299	2,527	4,132	7,825	5,116
500 or More	75,243	74,524	18,161	9,176	24,104	22,956	54,558	49,592
Weekly Operating Hours								
48 or Fewer	9,694	9,499	3,943	3,732	3,561	1,164	6,286	7,577
49 to 60	25,540	25,540	2,461	3,575	9,528	7,076	20,682	14,457
61 to 167	11,993	11,969	2,377	2,901	3,956	938	10,252	6,419
Open Continuously	47,653	46,446	10,293	1,181	11,037	19,016	26,695	28,210
Multibuilding Facility								
Yes	43,861	42,718	6,223	7,434	12,523	18,875	24,994	22,887
No	51,018	50,736	12,851	3,954	15,559	9,319	38,921	33,777
Percent of Floorspace Cooled								
Not Cooled	3,582	2,156	NC	NC	NC	NC	NC	NC
1 to 50	9,874	9,874	78	1,439	5,230	5,301	5,180	9,078
51 to 100	81,424	81,424	18,995	9,949	22,852	22,893	58,734	47,586
Energy Conservation Features (more than one may apply)								
Any Conservation Feature	94,361	93,394	19,073	11,388	28,082	28,194	63,914	56,664
Building Shell	84,557	83,590	16,160	9,517	25,938	28,046	56,118	51,507
HVAC	93,543	92,576	19,060	10,951	28,023	28,194	63,281	56,075
Lighting	80,953	80,039	16,883	11,170	23,933	23,915	57,368	51,246

See footnotes at end of table.

**Table 3.19. Cooling Equipment in FBSS Buildings in Federal Region 3,
Floorspace, 1993 (Continued)**
(Thousand Square Feet)

Building Characteristics	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
Building Shell Conservation Features (more than one may apply)								
Roof or Ceiling								
Insulation	69,654	68,795	14,632	8,197	20,569	25,244	43,797	41,467
Wall Insulation	31,876	31,847	4,645	6,557	9,348	10,104	22,676	19,876
Storm or Multiple								
Glazing	46,141	45,290	12,502	3,343	11,165	18,464	26,086	28,265
Tinted or Reflective Glass or Shading Film	46,829	46,086	6,349	5,287	14,276	12,692	34,311	27,592
Exterior or Interior Shading or Awnings	57,183	57,096	7,591	7,971	21,603	17,691	41,124	36,029
HVAC Conservation Features (more than one may apply)								
VAV System	37,611	36,783	4,320	2,670	14,118	12,225	28,104	22,157
Economizer Cycle	61,089	60,894	14,646	7,007	20,911	17,239	45,863	42,016
HVAC Maintenance	93,402	92,522	19,060	10,951	28,023	28,194	63,227	56,075
Energy Management Practices (more than one may apply)								
Energy Management and Control System	61,891	61,172	14,532	8,283	16,973	19,658	42,987	40,812
Energy Conservation Programs ¹	59,284	58,313	12,578	6,734	16,389	17,670	43,140	42,232
Energy Audit	37,621	37,392	9,461	7,113	13,066	12,419	25,333	26,167
HVAC Maintenance Staff ²	52,924	52,665	15,674	7,283	16,626	17,815	37,532	34,415
Off-Hours Reduction in Equipment (more than one may apply)								
Heating	43,828	43,805	8,494	10,009	15,847	8,444	35,648	27,091
Cooling	43,757	43,757	8,415	9,798	15,843	8,444	35,589	27,036
Hot Water	26,018	26,018	5,189	5,917	8,884	4,751	19,722	14,679
Lighting	44,717	44,498	8,568	10,126	16,674	7,915	36,596	28,068

¹ Building participates in any programs sponsored by the Federal Energy Management Program, in-house, utility, or third party.

² HVAC maintenance staff means at least one person spends at least half their working hours maintaining the heating/cooling equipment.

NC = No cases in responding sample.

Notes: • Total workers are the number of workers during the main shift. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • These data are from 881 federally owned buildings having the following criteria: (1) located in Federal Regions 3, 6, or 9; (2) larger than 10,000 square feet; and (3) used for a commercial purpose, other than warehouse and storage. In addition, 9 out of 10 selected buildings were from agencies other than the Department of Defense. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • FBSS = Federal Buildings Supplemental Survey. • HVAC = Heating, Ventilation, and Air Conditioning. • VAV = Variable-Air Volume. • Data are for Fiscal Year 1993 (October 1, 1992 through September 30, 1993). • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, 1993 Federal Buildings Supplemental Survey.

**Table 3.20. Cooling Equipment in FBSS Buildings in Federal Region 6,
Floorspace, 1993**
(Thousand Square Feet)

Building Characteristics	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
All Buildings	35,816	35,273	4,706	1,549	6,950	10,856	21,596	14,104
Building Floorspace (square feet)								
10,000 to 50,000	2,591	2,591	177	95	484	306	909	1,268
50,001 to 200,000	9,548	9,466	1,213	604	3,013	1,791	6,696	2,399
Over 200,000	23,677	23,216	3,316	850	3,453	8,760	13,990	10,437
Principal Building Activity								
Education	168	168	28	NC	NC	NC	96	63
Health Care	12,094	12,094	414	277	2,552	6,789	5,520	5,111
Laboratory	3,331	3,331	NC	NC	351	909	1,625	562
Lodging	942	942	149	NC	385	168	447	271
Mercantile and Service	6,236	5,776	2,025	926	1,281	NC	4,942	3,189
Office	10,799	10,799	1,936	216	1,652	2,586	7,897	4,325
All Others	2,247	2,165	155	130	729	404	1,069	583
Year Constructed								
1959 or Before	13,258	13,176	1,049	199	4,516	4,028	8,341	5,200
1960 to 1969	6,386	6,386	2,558	679	1,581	1,211	5,037	3,503
1970 to 1979	6,175	5,714	1,035	435	786	1,355	3,366	2,601
1980 to 1989	6,903	6,903	64	211	24	1,562	4,602	2,692
1990 to 1993	3,095	3,095	NC	25	42	2,700	250	109
Federal Agency								
Department of Defense	1,668	1,668	24	88	68	106	604	872
General Services Administration ...	7,888	7,888	1,700	162	731	1,902	6,132	3,235
United States Postal Service	7,027	6,566	2,156	863	1,382	NC	5,695	3,468
Veterans Administration	11,375	11,375	409	142	2,539	6,788	5,327	4,422
All Others	7,858	7,776	418	294	2,230	2,061	3,839	2,107
Workers (main shift)								
Less than 50	2,548	2,466	477	170	775	363	1,137	847
50 to 99	2,026	2,026	333	42	339	144	1,216	549
100 to 499	9,029	9,029	581	487	1,977	2,153	5,557	2,399
500 or More	22,213	21,752	3,316	850	3,858	8,197	13,686	10,310
Weekly Operating Hours								
48 or Fewer	2,740	2,658	386	304	628	269	1,959	379
49 to 60	6,460	6,460	330	57	732	3,048	3,169	1,720
61 to 167	8,051	8,051	1,562	101	1,646	1,320	4,724	3,406
Open Continuously	18,565	18,104	2,429	1,087	3,944	6,218	11,744	8,599
Multibuilding Facility								
Yes	24,441	24,359	2,654	832	4,997	10,856	12,575	7,066
No	11,375	10,915	2,052	717	1,952	NC	9,021	7,038
Percent of Floorspace Cooled								
Not Cooled	554	11	NC	NC	NC	NC	NC	NC
1 to 50	1,951	1,951	24	63	888	454	425	1,108
51 to 100	33,312	33,312	4,683	1,486	6,061	10,402	21,171	12,996
Energy Conservation Features (more than one may apply)								
Any Conservation Feature	35,734	35,273	4,706	1,549	6,950	10,856	21,596	14,104
Building Shell	33,946	33,485	4,579	1,549	6,405	10,258	20,632	13,783
HVAC	35,425	34,965	4,595	1,524	6,919	10,856	21,454	14,094
Lighting	25,654	25,193	4,166	1,507	3,509	9,134	14,852	10,742

See footnotes at end of table.

**Table 3.20. Cooling Equipment in FBSS Buildings in Federal Region 6,
Floorspace, 1993 (Continued)**
(Thousand Square Feet)

Building Characteristics	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
Building Shell Conservation Features (more than one may apply)								
Roof or Ceiling								
Insulation	28,249	27,789	3,715	1,549	4,623	8,150	17,119	10,265
Wall Insulation	20,550	20,089	1,922	1,046	1,632	5,793	11,673	7,286
Storm or Multiple								
Glazing	17,939	17,939	960	858	2,937	7,518	9,559	7,045
Tinted or Reflective Glass								
or Shading Film	24,768	24,307	4,010	1,350	3,972	8,554	14,981	10,341
Exterior or Interior Shading								
or Awnings	26,067	25,606	3,685	1,019	5,014	8,430	15,968	11,876
HVAC Conservation Features (more than one may apply)								
VAV System	18,518	18,518	1,443	305	2,105	6,902	10,897	7,170
Economizer Cycle	23,542	23,081	2,507	994	4,263	8,463	13,305	10,331
HVAC Maintenance	35,341	34,880	4,595	1,461	6,919	10,834	21,454	14,031
Energy Management Practices (more than one may apply)								
Energy Management and Control								
System	23,099	22,638	2,379	829	4,000	9,349	13,285	9,541
Energy Conservation								
Programs ¹	13,513	13,052	2,207	88	1,009	5,258	7,116	6,929
Energy Audit	11,690	11,690	1,630	618	1,946	2,347	8,219	6,103
HVAC Maintenance Staff ²	15,538	15,538	673	162	2,121	5,840	9,365	6,418
Off-Hours Reduction in Equipment (more than one may apply)								
Heating	13,162	13,162	2,260	449	1,868	3,760	7,813	4,832
Cooling	13,864	13,864	2,237	449	1,868	4,163	8,135	4,832
Hot Water	4,554	4,554	180	117	190	1,668	2,659	1,764
Lighting	12,847	12,847	2,115	405	1,998	3,185	8,199	4,940

¹ Building participates in any programs sponsored by the Federal Energy Management Program, in-house, utility, or third party.

² HVAC maintenance staff means at least one person spends at least half their working hours maintaining the heating/cooling equipment.

NC = No cases in responding sample.

Notes: • Total workers are the number of workers during the main shift. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • These data are from 881 federally owned buildings having the following criteria: (1) located in Federal Regions 3, 6, or 9; (2) larger than 10,000 square feet; and (3) used for a commercial purpose, other than warehouse and storage. In addition, 9 out of 10 selected buildings were from agencies other than the Department of Defense. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • FBSS = Federal Buildings Supplemental Survey. • HVAC = Heating, Ventilation, and Air Conditioning. • VAV = Variable-Air Volume. • Data are for Fiscal Year 1993 (October 1, 1992 through September 30, 1993). • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, 1993 Federal Buildings Supplemental Survey.

**Table 3.21. Cooling Equipment in FBSS Buildings in Federal Region 9,
Floorspace, 1993**
(Thousand Square Feet)

Building Characteristics	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
All Buildings	44,316	41,907	1,900	2,724	5,723	7,647	27,723	23,989
Building Floorspace (square feet)								
10,000 to 50,000	3,858	3,277	387	371	607	244	1,084	1,622
50,001 to 200,000	12,680	11,875	674	1,615	1,884	1,641	6,933	6,530
Over 200,000	27,778	26,754	839	738	3,232	5,763	19,706	15,837
Principal Building Activity								
Education	628	488	NC	38	NC	NC	128	205
Health Care	9,903	9,711	249	208	650	4,898	4,137	5,080
Laboratory	2,601	2,570	243	657	677	198	2,240	1,689
Lodging	1,220	982	15	59	79	165	310	208
Mercantile and Service	8,194	8,079	587	1,140	1,524	466	6,663	4,637
Office	16,380	15,551	417	464	2,466	448	12,001	10,923
All Others	5,390	4,526	388	159	326	1,472	2,245	1,246
Year Constructed								
1959 or Before	13,553	12,111	1,002	1,210	2,910	2,601	6,210	5,923
1960 to 1969	9,082	8,892	43	574	1,901	445	6,874	5,839
1970 to 1979	12,041	11,601	285	603	898	1,585	9,075	7,645
1980 to 1989	7,955	7,761	92	290	14	2,551	4,892	3,758
1990 to 1993	1,684	1,541	478	46	NC	466	672	823
Federal Agency								
Department of Defense	8,489	7,225	515	161	1,222	3,069	2,706	1,382
General Services Administration ...	12,505	12,146	202	NC	1,457	NC	10,369	8,924
United States Postal Service	8,387	8,375	615	1,089	1,452	626	6,693	4,763
Veterans Administration	8,824	8,469	289	266	772	3,504	3,815	5,078
All Others	6,111	5,691	280	1,207	821	448	4,140	3,843
Workers (main shift)								
Less than 50	3,684	2,830	170	112	732	165	492	1,025
50 to 99	2,161	2,032	171	409	205	76	1,050	1,396
100 to 499	14,017	13,382	720	1,667	2,633	2,026	7,527	6,942
500 or More	24,454	23,663	839	536	2,153	5,380	18,654	14,625
Weekly Operating Hours								
48 or Fewer	4,822	4,322	171	721	1,185	372	1,813	2,524
49 to 60	13,424	12,875	589	412	1,683	742	10,962	9,267
61 to 167	5,706	5,264	210	306	1,378	172	3,394	2,388
Open Continuously	20,364	19,446	930	1,285	1,477	6,361	11,554	9,810
Multibuilding Facility								
Yes	26,821	24,882	1,673	1,696	2,956	7,487	14,574	13,236
No	17,495	17,025	227	1,028	2,767	160	13,149	10,753
Percent of Floorspace Cooled								
Not Cooled	2,956	547	NC	NC	NC	NC	NC	NC
1 to 50	7,304	7,304	531	412	2,253	1,436	3,430	3,059
51 to 100	34,056	34,056	1,369	2,312	3,471	6,212	24,293	20,930
Energy Conservation Features (more than one may apply)								
Any Conservation Feature	44,023	41,894	1,900	2,724	5,723	7,647	27,723	23,989
Building Shell	34,105	32,754	1,670	2,320	4,149	7,342	20,592	18,416
HVAC	43,116	41,282	1,847	2,724	5,520	7,647	27,301	23,777
Lighting	34,825	33,846	1,693	2,439	4,449	5,559	24,098	20,584

See footnotes at end of table.

**Table 3.21. Cooling Equipment in FBSS Buildings in Federal Region 9,
Floorspace, 1993 (Continued)**
(Thousand Square Feet)

Building Characteristics	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
Building Shell Conservation Features (more than one may apply)								
Roof or Ceiling								
Insulation	27,234	26,314	1,519	1,969	2,868	6,977	17,294	13,549
Wall Insulation	17,462	16,882	789	1,122	1,795	5,613	10,215	8,362
Storm or Multiple								
Glazing	10,260	10,213	863	413	943	4,513	5,617	5,754
Tinted or Reflective Glass								
or Shading Film	22,381	22,267	1,012	2,071	3,297	5,562	14,117	12,304
Exterior or Interior Shading								
or Awnings	24,370	23,549	1,466	1,898	2,499	6,065	14,874	14,363
HVAC Conservation Features (more than one may apply)								
VAV System	15,577	15,217	778	215	1,171	3,893	11,054	9,085
Economizer Cycle	26,367	25,751	1,221	1,678	2,927	1,598	21,105	15,872
HVAC Maintenance	43,098	41,264	1,847	2,724	5,520	7,647	27,284	23,759
Energy Management Practices (more than one may apply)								
Energy Management and Control								
System	18,231	18,231	1,013	1,433	1,620	5,146	13,372	8,856
Energy Conservation								
Programs ¹	24,699	24,044	1,118	1,823	2,404	5,465	16,944	14,389
Energy Audit	17,444	17,169	886	863	1,684	3,138	12,296	10,548
HVAC Maintenance Staff ²	14,570	14,403	677	412	726	4,034	9,296	9,034
Off-Hours Reduction in Equipment (more than one may apply)								
Heating	19,631	18,976	434	1,102	3,039	478	14,609	13,018
Cooling	19,219	19,219	329	904	2,915	279	14,276	12,614
Hot Water	13,614	13,163	103	107	1,239	NC	10,607	10,594
Lighting	21,155	20,247	756	1,179	3,391	860	14,872	13,192

¹ Building participates in any programs sponsored by the Federal Energy Management Program, in-house, utility, or third party.

² HVAC maintenance staff means at least one person spends at least half their working hours maintaining the heating/cooling equipment.

NC = No cases in responding sample.

Notes: • Total workers are the number of workers during the main shift. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • These data are from 881 federally owned buildings having the following criteria: (1) located in Federal Regions 3, 6, or 9; (2) larger than 10,000 square feet; and (3) used for a commercial purpose, other than warehouse and storage. In addition, 9 out of 10 selected buildings were from agencies other than the Department of Defense. • Statistics for the "energy end uses" represent consumption in buildings that have end use, not consumption for a particular fuel for a particular end use. • FBSS = Federal Buildings Supplemental Survey. • HVAC = Heating, Ventilation, and Air Conditioning. • VAV = Variable-Air Volume. • Data are for Fiscal Year 1993 (October 1, 1992 through September 30, 1993). • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, 1993 Federal Buildings Supplemental Survey.