

**Table 3.10. Heating Equipment in FBSS Buildings in Federal Region 3,
Number of Buildings, 1993**

Building Characteristics	All Buildings	All Heated Buildings	Heating Equipment (more than one may apply)					
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged-Heating Units
All Buildings	312	307	34	16	75	167	93	25
Building Floorspace (square feet)								
10,000 to 50,000	94	94	16	8	17	34	32	6
50,001 to 200,000	117	113	2	7	23	68	35	9
Over 200,000	101	100	16	1	35	65	26	10
Principal Building Activity								
Education	8	8	NC	NC	2	4	3	NC
Health Care	41	40	1	NC	6	31	8	3
Laboratory	37	37	1	NC	7	28	4	3
Lodging	13	13	2	NC	2	9	2	1
Mercantile and Service	46	46	6	8	14	2	28	6
Office	124	122	20	4	32	71	38	9
All Others	43	41	4	4	12	22	10	3
Year Constructed								
1959 or Before	142	139	15	6	35	90	37	12
1960 to 1969	70	69	3	3	12	47	14	5
1970 to 1979	47	47	7	3	16	11	27	3
1980 to 1989	38	37	7	3	9	11	14	4
1990 to 1993	15	15	2	1	3	8	1	1
Federal Agency								
Department of Defense	22	22	NC	NC	5	16	4	NC
General Services Administration ...	83	81	16	1	21	48	27	7
United States Postal Service	57	56	7	8	18	1	37	8
Veterans Administration	56	54	3	NC	7	39	10	3
All Others	94	94	8	7	24	63	15	7
Workers (main shift)								
Less than 50	71	67	9	4	9	34	18	4
50 to 99	39	39	6	4	8	19	12	3
100 to 499	107	106	7	8	23	53	37	8
500 or More	95	95	12	NC	35	61	26	10
Weekly Operating Hours								
48 or Fewer	51	48	9	3	12	32	11	4
49 to 60	76	76	7	3	21	44	21	4
61 to 167	60	60	9	6	14	17	23	5
Open Continuously	125	123	9	4	28	74	38	12
Multibuilding Facility								
Yes	176	173	13	4	44	115	37	10
No	136	134	21	12	31	52	56	15
Percent of Floorspace Heated								
Not Heated	5	NC	NC	NC	NC	NC	NC	NC
1 to 50	12	12	5	2	5	6	1	2
51 to 100	295	295	29	14	70	161	92	23
Energy Conservation Features (more than one may apply)								
Any Conservation Feature	309	306	34	16	75	166	93	25
Building Shell	290	287	34	15	69	152	89	25
HVAC	303	300	32	15	73	164	91	24
Lighting	210	207	28	8	56	107	69	17

See footnotes at end of table.

**Table 3.10. Heating Equipment in FBSS Buildings in Federal Region 3,
Number of Buildings, 1993 (Continued)**

Building Characteristics	All Buildings	All Heated Buildings	Heating Equipment (more than one may apply)						
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged-Heating Units	
Building Shell Conservation Features (more than one may apply)									
Roof or Ceiling									
Insulation	240	239	31	13	61	126	72	22	
Wall Insulation	117	117	20	6	31	56	36	7	
Storm or Multiple									
Glazing	173	172	23	12	37	82	56	17	
Tinted or Reflective Glass									
or Shading Film	158	157	15	8	38	76	60	16	
Exterior or Interior Shading									
or Awnings	197	195	23	8	48	106	65	20	
HVAC Conservation Features (more than one may apply)									
VAV System	84	83	11	1	22	45	25	10	
Economizer Cycle	156	154	14	4	40	83	51	18	
HVAC Maintenance	301	299	32	15	73	164	90	24	
Energy Management Practices (more than one may apply)									
Energy Management and Control									
System	132	132	19	1	39	80	40	11	
Energy Conservation									
Programs ¹	99	98	13	1	29	58	28	7	
Energy Audit	99	98	14	5	31	60	27	10	
HVAC Maintenance Staff ²	97	96	6	2	27	64	24	8	
Off-Hours Reduction in Equipment (more than one may apply)									
Heating	144	144	21	9	41	73	47	12	
Cooling	145	144	20	7	39	73	47	12	
Hot Water	77	77	13	2	20	38	30	2	
Lighting	162	159	22	11	41	78	49	11	

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 3.11. Heating Equipment in FBSS Buildings in Federal Region 6,
Number of Buildings, 1993**

Building Characteristics	All Buildings	All Heated Buildings	Heating Equipment (more than one may apply)					
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged-Heating Units
All Buildings	243	242	10	18	30	82	102	59
Building Floorspace (square feet)								
10,000 to 50,000	107	107	6	13	9	26	36	34
50,001 to 200,000	86	85	3	5	13	36	40	15
Over 200,000	50	50	1	NC	8	20	26	10
Principal Building Activity								
Education	6	6	NC	1	2	2	2	1
Health Care	35	35	1	NC	5	22	12	9
Laboratory	29	29	NC	NC	1	18	12	3
Lodging	16	16	NC	3	1	8	3	2
Mercantile and Service	49	49	3	6	7	NC	19	27
Office	76	76	4	3	11	21	42	10
All Others	32	31	2	5	3	11	12	7
Year Constructed								
1959 or Before	103	102	3	7	11	55	38	13
1960 to 1969	38	38	2	3	6	9	23	10
1970 to 1979	34	34	1	2	5	4	23	10
1980 to 1989	57	57	3	4	6	12	15	24
1990 to 1993	11	11	1	2	2	2	3	2
Federal Agency								
Department of Defense	22	22	2	2	1	4	12	7
General Services Administration ...	35	35	1	1	5	7	26	2
United States Postal Service	61	61	3	7	8	NC	27	29
Veterans Administration	36	36	1	NC	5	29	5	6
All Others	89	88	3	8	11	42	32	15
Workers (main shift)								
Less than 50	70	69	2	8	7	24	21	23
50 to 99	44	44	4	7	3	11	18	7
100 to 499	80	80	3	3	10	29	37	19
500 or More	49	49	1	NC	10	18	26	10
Weekly Operating Hours								
48 or Fewer	39	38	2	4	5	13	16	6
49 to 60	46	46	2	3	5	22	17	9
61 to 167	78	78	3	7	9	18	32	25
Open Continuously	80	80	3	4	11	29	37	19
Multibuilding Facility								
Yes	148	147	5	5	17	80	51	20
No	95	95	5	13	13	2	51	39
Percent of Floorspace Heated								
Not Heated	1	NC	NC	NC	NC	NC	NC	NC
1 to 50	11	11	NC	2	1	2	4	2
51 to 100	231	231	10	16	29	80	98	57
Energy Conservation Features (more than one may apply)								
Any Conservation Feature	242	242	10	18	30	82	102	59
Building Shell	228	228	10	18	30	73	99	57
HVAC	236	236	9	16	28	82	101	58
Lighting	136	136	7	11	20	42	57	39

See footnotes at end of table.

**Table 3.11. Heating Equipment in FBSS Buildings in Federal Region 6,
Number of Buildings, 1993 (Continued)**

Building Characteristics	All Buildings	All Heated Buildings	Heating Equipment (more than one may apply)					
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged-Heating Units
Building Shell Conservation Features (more than one may apply)								
Roof or Ceiling								
Insulation	196	196	9	15	22	61	89	47
Wall Insulation	122	122	7	7	11	34	51	34
Storm or Multiple								
Glazing	96	96	7	6	9	30	42	27
Tinted or Reflective Glass								
or Shading Film	127	127	6	10	17	32	62	35
Exterior or Interior Shading								
or Awnings	142	142	8	12	21	39	64	41
HVAC Conservation Features (more than one may apply)								
VAV System	65	65	2	1	7	26	31	13
Economizer Cycle	123	123	6	4	14	44	58	30
HVAC Maintenance	234	234	8	16	28	81	101	57
Energy Management Practices (more than one may apply)								
Energy Management and Control								
System	96	96	3	3	14	47	35	17
Energy Conservation								
Programs ¹	48	48	3	3	9	13	22	18
Energy Audit	64	64	4	4	6	12	28	21
HVAC Maintenance Staff ²	57	57	1	2	9	14	36	15
Off-Hours Reduction in Equipment (more than one may apply)								
Heating	123	123	6	14	19	34	48	39
Cooling	124	124	6	14	19	35	47	39
Hot Water	33	33	3	1	7	9	15	10
Lighting	120	120	5	12	17	34	47	35

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 3.12. Heating Equipment in FBSS Buildings in Federal Region 9,
Number of Buildings, 1993**

Building Characteristics	All Buildings	All Heated Buildings	Heating Equipment (more than one may apply)					
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged-Heating Units
All Buildings	326	304	40	25	33	71	146	67
Building Floorspace (square feet)								
10,000 to 50,000	148	137	23	21	18	26	49	38
50,001 to 200,000	123	116	14	3	9	30	67	23
Over 200,000	55	51	3	1	6	15	30	6
Principal Building Activity								
Education	12	12	2	NC	NC	3	4	3
Health Care	48	47	1	NC	1	37	9	7
Laboratory	31	31	8	1	1	3	23	5
Lodging	22	19	2	1	1	9	6	1
Mercantile and Service	63	55	10	11	12	2	24	18
Office	92	87	12	8	8	6	57	20
All Others	58	53	5	4	10	11	23	13
Year Constructed								
1959 or Before	130	118	15	10	16	33	54	24
1960 to 1969	55	55	7	3	6	10	40	9
1970 to 1979	62	59	6	4	4	17	25	15
1980 to 1989	65	59	9	5	6	11	21	14
1990 to 1993	14	13	3	3	1	NC	6	5
Federal Agency								
Department of Defense	78	66	7	7	6	20	22	11
General Services Administration ...	39	39	NC	3	3	4	32	2
United States Postal Service	63	56	9	10	9	NC	26	21
Veterans Administration	56	55	2	NC	1	43	8	7
All Others	90	88	22	5	14	4	58	26
Workers (main shift)								
Less than 50	93	84	12	11	11	16	28	15
50 to 99	49	47	6	5	4	4	25	13
100 to 499	134	127	19	8	12	39	63	33
500 or More	50	46	3	1	6	12	30	6
Weekly Operating Hours								
48 or Fewer	80	74	7	5	9	17	36	27
49 to 60	65	63	7	7	6	13	37	5
61 to 167	68	63	8	9	9	3	28	20
Open Continuously	113	104	18	4	9	38	45	15
Multibuilding Facility								
Yes	200	186	28	12	17	63	77	29
No	126	118	12	13	16	8	69	38
Percent of Floorspace Heated								
Not Heated	22	NC	NC	NC	NC	NC	NC	NC
1 to 50	28	28	3	2	4	3	8	6
51 to 100	276	276	37	23	29	68	138	61
Energy Conservation Features (more than one may apply)								
Any Conservation Feature	319	299	40	25	33	69	145	67
Building Shell	248	234	31	20	31	59	107	65
HVAC	307	290	39	22	32	69	143	65
Lighting	217	207	29	15	23	41	113	52

See footnotes at end of table.

**Table 3.12. Heating Equipment in FBSS Buildings in Federal Region 9,
Number of Buildings, 1993 (Continued)**

Building Characteristics	All Buildings	All Heated Buildings	Heating Equipment (more than one may apply)					
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged-Heating Units
Building Shell Conservation Features (more than one may apply)								
Roof or Ceiling								
Insulation	185	175	27	12	23	48	80	51
Wall Insulation	113	111	13	13	12	32	41	27
Storm or Multiple								
Glazing	57	52	11	5	10	14	19	17
Tinted or Reflective Glass								
or Shading Film	133	125	21	10	14	22	62	37
Exterior or Interior Shading								
or Awnings	164	156	22	14	22	35	79	48
HVAC Conservation Features (more than one may apply)								
VAV System	75	74	9	1	11	15	48	23
Economizer Cycle	140	138	15	7	15	28	80	40
HVAC Maintenance	306	289	39	22	32	69	143	64
Energy Management Practices (more than one may apply)								
Energy Management and Control								
System	71	67	12	2	8	15	40	13
Energy Conservation								
Programs ¹	124	122	23	9	17	24	67	34
Energy Audit	99	92	15	10	13	20	47	13
HVAC Maintenance Staff ²	52	48	3	2	3	14	25	8
Off-Hours Reduction in Equipment (more than one may apply)								
Heating	151	151	19	15	22	16	85	47
Cooling	157	147	18	11	17	20	84	45
Hot Water	68	66	2	7	5	5	48	21
Lighting	172	161	19	18	24	23	85	45

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 3.13. Heating Equipment in FBSS Buildings in Federal Region 3,
Floorspace, 1993**
(Thousand Square Feet)

Building Characteristics	All Buildings	All Heated Buildings	Heating Equipment (more than one may apply)					
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged-Heating Units
All Buildings	94,880	94,063	10,922	1,694	34,923	67,704	20,082	6,006
Building Floorspace (square feet)								
10,000 to 50,000	2,564	2,564	419	171	447	1,074	821	150
50,001 to 200,000	13,166	12,608	115	523	2,297	7,612	3,981	991
Over 200,000	79,149	78,891	10,388	1,000	32,179	59,018	15,279	4,865
Principal Building Activity								
Education	598	598	NC	NC	277	264	279	NC
Health Care	14,559	14,450	60	NC	3,453	10,624	3,725	1,583
Laboratory	5,165	5,165	20	NC	602	3,745	1,198	409
Lodging	2,558	2,558	406	NC	441	2,020	132	31
Mercantile and Service	7,966	7,966	832	480	2,762	1,391	4,995	1,080
Office	56,881	56,631	9,478	1,107	24,674	44,635	9,182	2,354
All Others	7,152	6,693	127	106	2,713	5,025	570	549
Year Constructed								
1959 or Before	43,829	43,299	3,474	1,211	21,328	35,819	5,862	2,857
1960 to 1969	19,564	19,477	2,427	155	3,759	16,687	2,512	1,311
1970 to 1979	17,737	17,737	4,196	152	5,817	9,022	6,626	741
1980 to 1989	8,975	8,775	755	163	1,895	2,571	4,975	1,067
1990 to 1993	4,774	4,774	70	14	2,124	3,605	106	30
Federal Agency								
Department of Defense	13,988	13,988	NC	NC	7,840	13,339	380	NC
General Services Administration ...	46,205	45,859	8,384	1,000	14,011	35,209	8,682	1,621
United States Postal Service	9,392	9,229	1,862	480	4,508	1,091	6,503	1,591
Veterans Administration	13,306	12,998	98	NC	3,317	8,259	3,858	1,583
All Others	11,989	11,989	578	214	5,248	9,806	657	1,210
Workers (main shift)								
Less than 50	4,102	3,448	645	108	618	2,160	605	492
50 to 99	1,903	1,903	174	234	654	1,034	540	142
100 to 499	13,632	13,469	1,729	1,352	1,940	7,233	4,105	768
500 or More	75,243	75,243	8,375	NC	31,710	57,277	14,832	4,604
Weekly Operating Hours								
48 or Fewer	9,694	9,336	2,219	1,086	3,325	6,728	1,456	546
49 to 60	25,540	25,540	3,533	51	10,806	20,047	3,961	1,051
61 to 167	11,993	11,993	2,841	314	4,072	6,816	3,842	851
Open Continuously	47,653	47,194	2,330	242	16,720	34,114	10,822	3,558
Multibuilding Facility								
Yes	43,861	43,466	7,487	1,107	17,213	30,922	9,023	2,804
No	51,018	50,597	3,435	587	17,711	36,782	11,059	3,201
Percent of Floorspace Heated								
Not Heated	817	NC	NC	NC	NC	NC	NC	NC
1 to 50	5,787	5,787	540	126	2,151	5,224	55	482
51 to 100	88,275	88,275	10,382	1,569	32,773	62,481	20,027	5,524
Energy Conservation Features (more than one may apply)								
Any Conservation Feature	94,361	94,003	10,922	1,694	34,923	67,644	20,082	6,006
Building Shell	84,557	84,198	10,922	1,636	32,183	59,221	18,726	6,006
HVAC	93,543	93,184	10,485	1,635	34,717	67,055	20,009	5,579
Lighting	80,953	80,595	10,724	1,332	31,690	57,181	18,347	4,321

See footnotes at end of table.

**Table 3.13. Heating Equipment in FBSS Buildings in Federal Region 3,
Floorspace, 1993 (Continued)**
(Thousand Square Feet)

Building Characteristics	All Buildings	All Heated Buildings	Heating Equipment (more than one may apply)					
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged-Heating Units
Building Shell Conservation Features (more than one may apply)								
Roof or Ceiling								
Insulation	69,654	69,567	9,240	512	28,784	51,320	13,283	5,321
Wall Insulation	31,876	31,876	6,084	174	11,695	20,857	8,687	1,433
Storm or Multiple								
Glazing	46,141	46,032	5,371	511	18,186	30,197	11,784	3,114
Tinted or Reflective Glass								
or Shading Film	46,829	46,666	6,339	276	15,553	29,742	15,263	3,286
Exterior or Interior Shading								
or Awnings	57,183	56,933	8,397	1,378	21,325	39,971	12,991	4,317
HVAC Conservation Features (more than one may apply)								
VAV System	37,611	37,502	4,125	21	13,828	23,372	11,640	3,308
Economizer Cycle	61,089	60,894	4,105	176	27,241	44,513	13,844	4,651
HVAC Maintenance	93,402	93,130	10,485	1,635	34,717	67,055	19,955	5,579
Energy Management Practices (more than one may apply)								
Energy Management and Control								
System	61,891	61,891	8,197	107	26,031	45,017	14,594	3,994
Energy Conservation								
Programs ¹	59,284	59,084	6,244	24	25,674	46,194	8,858	2,747
Energy Audit	37,621	37,421	7,066	1,233	20,648	27,770	7,222	1,745
HVAC Maintenance Staff ²	52,924	52,665	4,762	69	22,670	40,970	9,644	3,129
Off-Hours Reduction in Equipment (more than one may apply)								
Heating	43,828	43,828	8,477	1,292	17,564	31,731	8,745	2,396
Cooling	43,757	43,594	8,247	1,247	17,266	31,731	8,531	2,396
Hot Water	26,018	26,018	6,649	1,050	9,995	17,684	5,680	716
Lighting	44,717	44,358	8,294	1,394	17,141	31,814	8,813	2,255

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 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 3.14. Heating Equipment in FBSS Buildings in Federal Region 6,
Floorspace, 1993**
(Thousand Square Feet)

Building Characteristics	All Buildings	All Heated Buildings	Heating Equipment (more than one may apply)					
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged-Heating Units
All Buildings	35,816	35,734	964	791	5,408	15,205	16,718	7,574
Building Floorspace (square feet)								
10,000 to 50,000	2,591	2,591	140	265	195	713	922	719
50,001 to 200,000	9,548	9,466	307	526	1,694	4,114	4,359	1,448
Over 200,000	23,677	23,677	517	NC	3,519	10,378	11,437	5,407
Principal Building Activity								
Education	168	168	NC	28	53	35	79	28
Health Care	12,094	12,094	142	NC	1,467	7,733	4,388	3,148
Laboratory	3,331	3,331	NC	NC	141	2,621	807	152
Lodging	942	942	NC	56	75	512	160	88
Mercantile and Service	6,236	6,236	593	429	704	NC	3,571	2,402
Office	10,799	10,799	99	42	2,753	3,263	6,815	1,404
All Others	2,247	2,165	130	236	214	1,041	896	351
Year Constructed								
1959 or Before	13,258	13,176	199	323	1,947	7,006	6,178	2,841
1960 to 1969	6,386	6,386	529	109	2,266	1,539	3,893	1,349
1970 to 1979	6,175	6,175	102	202	391	976	4,189	2,062
1980 to 1989	6,903	6,903	109	115	644	2,926	2,382	1,254
1990 to 1993	3,095	3,095	25	42	159	2,758	75	67
Federal Agency								
Department of Defense	1,668	1,668	88	105	20	285	1,218	895
General Services Administration ...	7,888	7,888	12	12	1,978	1,643	5,738	491
United States Postal Service	7,027	7,027	563	448	854	NC	4,335	2,637
Veterans Administration	11,375	11,375	142	NC	1,467	8,140	3,242	2,400
All Others	7,858	7,776	159	225	1,088	5,137	2,184	1,151
Workers (main shift)								
Less than 50	2,548	2,466	170	143	251	1,092	951	566
50 to 99	2,026	2,026	87	274	152	680	800	259
100 to 499	9,029	9,029	190	374	1,103	4,321	3,911	1,342
500 or More	22,213	22,213	517	NC	3,901	9,112	11,057	5,407
Weekly Operating Hours								
48 or Fewer	2,740	2,658	154	65	226	1,135	1,052	233
49 to 60	6,460	6,460	57	81	467	3,330	3,174	518
61 to 167	8,051	8,051	101	488	2,206	3,041	3,859	1,312
Open Continuously	18,565	18,565	652	158	2,509	7,699	8,633	5,511
Multibuilding Facility								
Yes	24,441	24,359	364	159	3,672	15,000	8,520	2,691
No	11,375	11,375	600	632	1,736	205	8,197	4,883
Percent of Floorspace Heated								
Not Heated	82	NC	NC	NC	NC	NC	NC	NC
1 to 50	1,288	1,288	NC	66	19	278	674	325
51 to 100	34,446	34,446	964	725	5,388	14,927	16,043	7,249
Energy Conservation Features (more than one may apply)								
Any Conservation Feature	35,734	35,734	964	791	5,408	15,205	16,718	7,574
Building Shell	33,946	33,946	964	791	5,408	14,057	16,100	7,550
HVAC	35,425	35,425	939	680	5,377	15,205	16,576	7,563
Lighting	25,654	25,654	910	429	4,370	10,979	11,447	5,574

See footnotes at end of table.

**Table 3.14. Heating Equipment in FBSS Buildings in Federal Region 6,
Floorspace, 1993 (Continued)**
(Thousand Square Feet)

Building Characteristics	All Buildings	All Heated Buildings	Heating Equipment (more than one may apply)					
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged-Heating Units
Building Shell Conservation Features (more than one may apply)								
Roof or Ceiling								
Insulation	28,249	28,249	932	629	3,936	11,866	13,412	5,269
Wall Insulation	20,550	20,550	782	248	2,303	8,820	9,161	4,508
Storm or Multiple								
Glazing	17,939	17,939	422	261	1,029	8,950	8,045	3,968
Tinted or Reflective Glass								
or Shading Film	24,768	24,768	732	463	4,758	10,361	11,373	5,597
Exterior or Interior Shading								
or Awnings	26,067	26,067	434	592	4,282	9,915	13,567	6,807
HVAC Conservation Features (more than one may apply)								
VAV System	18,518	18,518	170	82	1,713	8,353	9,135	4,408
Economizer Cycle	23,542	23,542	376	189	3,509	10,756	11,332	5,842
HVAC Maintenance	35,341	35,341	876	680	5,377	15,183	16,576	7,500
Energy Management Practices (more than one may apply)								
Energy Management and Control								
System	23,099	23,099	199	87	3,592	11,254	10,580	4,982
Energy Conservation								
Programs ¹	13,513	13,513	100	45	2,576	5,546	7,178	4,016
Energy Audit	11,690	11,690	618	69	1,610	2,221	7,806	3,421
HVAC Maintenance Staff ²	15,538	15,538	12	202	1,881	5,867	8,854	4,743
Off-Hours Reduction in Equipment (more than one may apply)								
Heating	13,162	13,162	299	633	2,898	5,002	6,937	2,044
Cooling	13,864	13,864	299	633	2,898	5,405	6,913	2,044
Hot Water	4,554	4,554	117	190	1,379	1,471	2,408	1,058
Lighting	12,847	12,847	255	585	2,859	4,444	6,949	1,981

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 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 3.15. Heating Equipment in FBSS Buildings in Federal Region 9,
Floorspace, 1993**
(Thousand Square Feet)

Building Characteristics	All Buildings	All Heated Buildings	Heating Equipment (more than one may apply)					
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged- Heating Units
All Buildings	44,316	41,921	3,081	1,204	4,933	12,712	24,010	5,997
Building Floorspace (square feet)								
10,000 to 50,000	3,858	3,626	566	496	511	810	1,321	1,040
50,001 to 200,000	12,680	12,016	1,346	242	879	3,191	6,911	2,439
Over 200,000	27,778	26,279	1,169	466	3,542	8,711	15,778	2,518
Principal Building Activity								
Education	628	628	96	NC	NC	188	220	124
Health Care	9,903	9,888	431	NC	107	7,842	1,904	1,306
Laboratory	2,601	2,601	535	12	41	363	1,987	259
Lodging	1,220	1,146	79	15	15	422	593	48
Mercantile and Service	8,194	6,567	1,186	836	2,051	58	4,430	1,220
Office	16,380	16,141	581	228	2,282	1,960	13,175	1,573
All Others	5,390	4,950	174	113	437	1,878	1,702	1,468
Year Constructed								
1959 or Before	13,553	12,957	1,324	422	1,598	3,924	5,689	2,409
1960 to 1969	9,082	9,082	639	107	2,019	1,437	7,535	591
1970 to 1979	12,041	11,355	623	77	514	4,765	6,326	1,590
1980 to 1989	7,955	6,986	449	94	335	2,586	3,291	740
1990 to 1993	1,684	1,541	46	503	466	NC	1,169	667
Federal Agency								
Department of Defense	8,489	7,815	260	322	551	3,963	1,701	949
General Services Administration ...	12,505	12,505	NC	82	1,453	1,500	11,218	605
United States Postal Service	8,387	6,844	1,171	710	2,023	NC	4,675	1,502
Veterans Administration	8,824	8,681	490	NC	28	6,803	1,598	1,186
All Others	6,111	6,077	1,160	90	877	447	4,819	1,755
Workers (main shift)								
Less than 50	3,684	3,272	225	239	327	805	996	347
50 to 99	2,161	2,122	231	99	227	247	1,349	424
100 to 499	14,017	13,572	1,657	400	1,038	4,322	6,816	3,622
500 or More	24,454	22,956	967	466	3,340	7,338	14,850	1,604
Weekly Operating Hours								
48 or Fewer	4,822	4,498	659	159	732	1,045	2,513	1,304
49 to 60	13,424	13,278	482	275	1,943	2,207	10,496	779
61 to 167	5,706	5,513	331	265	525	477	2,917	1,772
Open Continuously	20,364	18,634	1,610	505	1,732	8,984	8,085	2,142
Multibuilding Facility								
Yes	26,821	25,713	1,859	896	1,606	10,888	11,611	3,000
No	17,495	16,208	1,223	308	3,327	1,824	12,399	2,997
Percent of Floorspace Heated								
Not Heated	2,394	NC	NC	NC	NC	NC	NC	NC
1 to 50	3,751	3,751	132	30	116	1,471	499	741
51 to 100	38,170	38,170	2,949	1,174	4,817	11,241	23,511	5,256
Energy Conservation Features (more than one may apply)								
Any Conservation Feature	44,023	41,775	3,081	1,204	4,933	12,659	23,976	5,997
Building Shell	34,105	32,838	2,731	1,037	4,907	10,381	17,304	5,848
HVAC	43,116	41,197	3,060	1,026	4,894	12,659	23,697	5,939
Lighting	34,825	32,968	2,684	816	3,962	8,815	20,724	4,692

See footnotes at end of table.

**Table 3.15. Heating Equipment in FBSS Buildings in Federal Region 9,
Floorspace, 1993 (Continued)**
(Thousand Square Feet)

Building Characteristics	All Buildings	All Heated Buildings	Heating Equipment (more than one may apply)					
			Heat Pumps	Furnaces	Individual Space Heaters	District Heat	Boilers	Packaged-Heating Units
Building Shell Conservation Features (more than one may apply)								
Roof or Ceiling								
Insulation	27,234	26,350	2,512	805	4,165	9,869	13,175	4,603
Wall Insulation	17,462	17,416	935	851	2,800	6,865	8,136	2,761
Storm or Multiple								
Glazing	10,260	9,556	844	527	2,810	4,366	4,204	1,963
Tinted or Reflective Glass								
or Shading Film	22,381	21,601	2,395	803	4,082	5,227	12,523	3,980
Exterior or Interior Shading								
or Awnings	24,370	24,142	2,259	894	4,405	7,330	13,447	4,161
HVAC Conservation Features (more than one may apply)								
VAV System	15,577	15,562	746	466	3,221	4,948	9,605	1,824
Economizer Cycle	26,367	26,050	2,040	654	3,750	5,461	18,047	4,160
HVAC Maintenance	43,098	41,179	3,060	1,026	4,894	12,659	23,697	5,921
Energy Management Practices (more than one may apply)								
Energy Management and Control								
System	18,231	16,963	1,477	507	1,634	6,515	9,045	1,712
Energy Conservation								
Programs ¹	24,699	24,668	2,456	722	3,373	6,866	15,566	4,294
Energy Audit	17,444	16,711	894	763	2,609	4,926	11,129	863
HVAC Maintenance Staff ²	14,570	13,679	412	510	1,923	3,981	8,573	1,504
Off-Hours Reduction in Equipment (more than one may apply)								
Heating	19,631	19,631	1,285	481	3,076	2,449	14,670	3,697
Cooling	19,219	18,834	1,086	337	2,577	2,595	13,976	3,608
Hot Water	13,614	13,574	162	218	1,664	1,641	11,615	1,887
Lighting	21,155	20,626	1,154	558	3,201	2,839	14,778	3,685

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 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.