

Table 3.43. Consumption and Expenditures for Sum of Major Fuels, Electricity, and Natural Gas in FBSS Buildings in Federal Region 3, 1993

Building Characteristics	Number of Buildings	Floorspace (thousand square feet)	Sum of Major Fuel Consumption (billion Btu)	Sum of Major Fuel Expenditures (million dollars)	Electricity Consumption (billion Btu)		Electricity Expenditures (million dollars)	Natural Gas Consumption (billion Btu)	Natural Gas Expenditures (million dollars)
					Primary	Site			
All Buildings	312	94,880	12,010	167	20,445	6,772	121	1,968	8
Building Floorspace (square feet)									
10,000 to 50,000	94	2,564	477	6	605	201	3	63	(*)
50,001 to 200,000	117	13,166	2,290	28	3,470	1,149	18	304	1
Over 200,000	101	79,149	9,243	133	16,370	5,422	99	1,602	7
Principal Building Activity									
Education	8	598	65	1	85	28	(*)	6	(*)
Health Care	41	14,559	1,829	18	2,219	735	11	599	2
Laboratory	37	5,165	1,581	21	2,248	744	12	58	(*)
Lodging	13	2,558	216	3	393	130	2	35	(*)
Mercantile and Service	46	7,966	1,166	12	1,339	444	8	635	3
Office	124	56,881	6,074	97	12,044	3,989	75	598	2
All Others	43	7,152	1,080	16	2,118	702	11	38	(*)
Year Constructed									
1959 or Before	142	43,829	5,445	80	8,749	2,898	57	949	4
1960 to 1969	70	19,564	2,695	40	4,675	1,548	27	162	1
1970 to 1979	47	17,737	1,929	28	4,516	1,496	23	104	(*)
1980 to 1989	38	8,975	1,494	14	1,732	574	9	717	3
1990 to 1993	15	4,774	446	6	773	256	4	36	(*)
Federal Agency									
Department of Defense	22	13,988	1,911	23	2,900	961	14	448	2
General Services Administration	83	46,205	4,607	82	10,082	3,340	67	184	1
United States Postal Service	57	9,392	1,312	14	1,713	568	10	649	3
Veterans Administration	56	13,306	1,758	17	2,077	688	11	592	2
All Others	94	11,989	2,423	31	3,673	1,217	19	94	1
Energy Sources (more than one may apply)									
Electricity	311	94,161	11,990	167	20,445	6,772	121	1,949	8
Natural Gas	139	58,674	7,606	103	12,413	4,112	75	1,968	8
Fuel Oil	89	39,300	5,008	63	9,111	3,018	46	986	4
District Heat	154	63,991	8,106	126	14,023	4,645	87	425	2
District Chilled Water	57	22,922	3,305	43	4,940	1,636	26	384	1
Propane	5	941	115	2	179	59	1	3	(*)
Any Other	8	4,470	355	5	770	255	4	20	(*)
Energy End Uses (more than one may apply)									
Heating	307	94,063	11,991	167	20,390	6,754	120	1,968	8
Air Conditioning	305	93,454	11,970	167	20,407	6,759	120	1,947	8
Water Heating	303	93,138	11,924	166	20,246	6,706	119	1,963	8
Cooking	108	69,947	8,780	125	15,430	5,111	93	1,635	7
Manufacturing	50	27,041	3,755	48	6,701	2,220	34	583	2
Workers (main shift)									
Less than 50	71	4,102	444	5	548	181	3	61	(*)
50 to 99	39	1,903	319	3	336	111	2	53	(*)
100 to 499	107	13,632	2,321	29	3,460	1,146	18	358	2
500 or More	95	75,243	8,926	130	16,100	5,333	97	1,496	6
Weekly Operating Hours									
48 or Fewer	51	9,694	854	21	1,310	434	16	40	(*)
49 to 60	76	25,540	2,496	41	4,935	1,635	30	76	(*)
61 to 167	60	11,993	1,308	18	2,650	878	15	131	(*)
Open Continuously	125	47,653	7,352	88	11,550	3,826	60	1,722	7

See footnotes at end of table.

Table 3.43. Consumption and Expenditures for Sum of Major Fuels, Electricity, and Natural Gas in FBSS Buildings in Federal Region 3, 1993 (Continued)

Building Characteristics	Number of Buildings	Floorspace (thousand square feet)	Sum of Major Fuel Consumption (billion Btu)	Sum of Major Fuel Expenditures (million dollars)	Electricity Consumption (billion Btu)		Electricity Expenditures (million dollars)	Natural Gas Consumption (billion Btu)	Natural Gas Expenditures (million dollars)
					Primary	Site			
Multibuilding Facility									
Yes	176	43,861	5,572	71	9,379	3,107	50	787	3
No	136	51,018	6,437	96	11,066	3,666	71	1,182	5
Percent of Floorspace Heated									
Not Heated	5	817	18	(*)	55	18	(*)	NC	NC
1 to 50	12	5,787	395	6	722	239	4	17	(*)
51 to 100	295	88,275	11,596	161	19,668	6,515	116	1,951	8
Percent of Floorspace Cooled									
Not Cooled	13	3,582	180	2	334	111	2	39	(*)
1 to 50	30	9,874	870	13	1,617	536	9	36	(*)
51 to 100	269	81,424	10,960	152	18,494	6,126	109	1,894	8
Percent Lit When Open									
1 to 50	11	663	46	1	77	26	1	9	(*)
51 to 100	300	94,070	11,939	167	20,340	6,737	120	1,944	8
No Operating Hours	1	147	26	(*)	28	9	(*)	16	(*)
Don't Know	NC	NC	NC	NC	NC	NC	NC	NC	NC
Percent Lit When Closed									
Not Lit	39	5,149	449	7	879	291	5	44	(*)
1 to 50	194	57,953	6,919	107	11,770	3,899	78	1,006	5
51 to 100	42	17,412	2,786	32	4,134	1,369	20	655	2
No Off Hours	37	14,366	1,856	22	3,662	1,213	17	263	1
Don't Know	NC	NC	NC	NC	NC	NC	NC	NC	NC
Heating Equipment (more than one may apply)									
Heat Pumps	34	10,922	935	13	2,168	718	11	34	(*)
Furnaces	16	1,694	93	1	128	42	1	34	(*)
Individual Space Heaters	75	34,923	4,433	57	6,910	2,289	39	1,164	5
District Heat	167	67,704	8,711	131	14,899	4,935	91	749	3
Boilers	93	20,082	2,640	26	3,950	1,308	20	1,111	5
Packaged-Heating Units	25	6,006	1,162	12	1,206	399	7	659	3
Cooling Equipment (more than one may apply)									
Residential-Type Central A/C	30	19,073	2,655	43	4,292	1,422	31	471	2
Heat Pumps	37	11,388	987	15	2,234	740	13	11	(*)
Individual A/C	80	28,082	3,276	44	5,084	1,684	31	914	4
District Chilled Water	72	28,194	4,102	51	6,319	2,093	32	586	2
Central Chillers	158	63,914	7,621	113	13,867	4,593	86	1,246	6
Packaged-A/C Units	127	56,664	6,677	98	11,321	3,750	72	1,481	6
Swamp Coolers	3	378	99	1	195	65	1	35	(*)
Lighting Equipment (more than one may apply)									
Incandescent	184	64,981	8,811	122	14,418	4,776	85	1,487	7
Standard Fluorescent	300	91,986	11,709	162	19,860	6,578	117	1,946	8
Compact Fluorescent	80	49,455	5,583	84	10,301	3,412	63	826	3
High-Intensity Discharge	111	52,593	6,889	88	11,695	3,874	62	1,445	6
Electronic Ballast	135	65,560	7,548	112	13,264	4,394	82	1,192	5
Water-Heating Equipment (more than one may apply)									
Centralized System	223	63,477	8,916	116	14,310	4,740	80	1,730	7
Distributed System	71	24,696	2,438	44	4,653	1,541	34	206	1
Don't Know/ Not Ascertained	9	4,965	571	6	1,283	425	5	28	(*)

See footnotes at end of table.

Table 3.43. Consumption and Expenditures for Sum of Major Fuels, Electricity, and Natural Gas in FBSS Buildings in Federal Region 3, 1993 (Continued)

Building Characteristics	Number of Buildings	Floorspace (thousand square feet)	Sum of Major Fuel Consumption (billion Btu)	Sum of Major Fuel Expenditures (million dollars)	Electricity Consumption (billion Btu)		Electricity Expenditures (million dollars)	Natural Gas Consumption (billion Btu)	Natural Gas Expenditures (million dollars)
					Primary	Site			
Commercial Refrigeration Equipment (more than one may apply)									
Any Equipment	109	61,731	8,358	116	14,116	4,676	84	1,633	7
Walk-in Units	78	54,223	7,473	105	12,314	4,079	75	1,543	7
Cases and Cabinets	87	53,454	7,508	105	12,534	4,152	76	1,519	6
None	203	33,149	3,652	51	6,329	2,096	36	336	1
Retrofit or Purchase of any Equipment Within Last Ten Years (more than one may apply)									
Retrofit and/or Purchase	229	81,286	9,984	142	16,613	5,503	102	1,843	8
Retrofit	79	43,128	4,664	67	8,449	2,799	48	718	3
Purchase	188	62,995	8,180	113	13,081	4,333	81	1,722	7
No Retrofit or Purchase	83	13,594	2,025	26	3,832	1,269	18	125	1
Energy Conservation Features (more than one may apply)									
Any Conservation Feature	309	94,361	11,986	167	20,407	6,760	120	1,968	8
Building Shell	290	84,557	11,201	147	18,863	6,248	103	1,871	8
HVAC	303	93,543	11,922	166	20,330	6,734	120	1,951	8
Lighting	210	80,953	9,866	140	17,200	5,697	103	1,652	7
HVAC Conservation Features (more than one may apply)									
VAV System	84	37,611	4,764	59	8,153	2,700	43	1,130	5
Economizer Cycle	156	61,089	8,255	110	14,240	4,717	79	1,582	7
HVAC Maintenance	301	93,402	11,917	166	20,316	6,729	120	1,951	8
Lighting Conservation Features (more than one may apply)									
Specular Reflectors	124	44,741	5,880	73	9,465	3,135	51	1,346	6
Natural Lighting Control									
Sensors	29	17,743	1,830	32	3,312	1,097	26	311	1
Occupancy Sensors	95	62,261	6,564	103	12,728	4,216	79	749	3
Time Clock	74	46,555	5,309	80	9,750	3,229	60	633	2
Manual Dimmer Switches	93	49,824	5,521	85	9,856	3,265	62	752	3
Energy Management Practices (more than one may apply)									
Energy Management and Control System	132	61,891	7,959	109	13,645	4,520	81	1,692	7
Energy Conservation Programs ¹	99	59,284	7,021	105	12,129	4,018	77	1,375	6
Energy Audit	99	37,621	4,388	60	7,990	2,647	44	585	2
HVAC Maintenance Staff ²	97	52,924	6,266	97	11,252	3,727	72	930	4
Off-Hours Reduction in Equipment (more than one may apply)									
Heating	144	43,828	4,127	73	8,085	2,678	56	199	1
Cooling	145	43,757	4,129	73	8,083	2,677	56	198	1
Hot Water	77	26,018	2,407	45	4,552	1,508	35	115	1
Lighting	162	44,717	4,316	75	8,302	2,750	58	230	1
Sponsor of Program (more than one may apply)									
FEMP	3	1,848	208	3	339	112	2	7	(*)
Electric Utility	29	20,357	2,466	33	4,103	1,359	24	687	3
Natural Gas Utility	NC	NC	NC	NC	NC	NC	NC	NC	NC
In-house	33	26,265	3,221	45	5,606	1,857	32	510	2
Third Party	5	4,322	443	6	882	292	5	110	(*)

See footnotes at end of table.

Table 3.43. Consumption and Expenditures for Sum of Major Fuels, Electricity, and Natural Gas in FBSS Buildings in Federal Region 3, 1993 (Continued)

Building Characteristics	Number of Buildings	Floorspace (thousand square feet)	Sum of Major Fuel Consumption (billion Btu)	Sum of Major Fuel Expenditures (million dollars)	Electricity Consumption (billion Btu)		Electricity Expenditures (million dollars)	Natural Gas Consumption (billion Btu)	Natural Gas Expenditures (million dollars)
					Primary	Site			
Type of Assistance (more than one may apply)									
Federal Energy Efficiency Fund	4	962	128	1	123	41	1	9	(*)
General Information	7	6,729	573	8	1,135	376	6	109	(*)
Site-Specific Information	9	16,219	2,292	30	4,028	1,334	20	486	2
Incentives	18	12,755	1,066	19	2,313	766	14	10	(*)
Alternate Rates	8	7,707	1,100	12	1,176	389	8	567	3
Fuel Switching	4	2,154	185	3	373	123	2	12	(*)
Building Generates Electricity									
Yes	55	31,984	4,282	53	7,462	2,472	37	724	3
No	257	62,896	7,728	115	12,983	4,301	83	1,244	6
Natural Gas Transported for the Account of Others									
Used in Building	11	4,270	394	4	573	190	3	142	1
Not Used in Building	124	52,636	6,973	96	11,240	3,723	70	1,805	8
Don't Know/Not Ascertained	4	1,768	239	2	601	199	2	21	(*)

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.

(*) = Value rounds to zero in the units displayed.

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. • Site electricity is the amount of electricity delivered to commercial buildings. Primary electricity is site electricity plus the conversion losses in the electric generation process at the utility plant. • FBSS = Federal Buildings Supplemental Survey. • HVAC = Heating, Ventilation, and Air Conditioning. • 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 3.44. Consumption and Expenditures for Sum of Major Fuels, Electricity, and Natural Gas in FBSS Buildings in Federal Region 6, 1993

Building Characteristics	Number of Buildings	Floorspace (thousand square feet)	Sum of Major Fuel Consumption (billion Btu)	Sum of Major Fuel Expenditures (million dollars)	Electricity Consumption (billion Btu)		Electricity Expenditures (million dollars)	Natural Gas Consumption (billion Btu)	Natural Gas Expenditures (million dollars)
					Primary	Site			
All Buildings	243	35,816	5,318	65	10,046	3,328	51	1,002	3
Building Floorspace (square feet)									
10,000 to 50,000	107	2,591	515	5	814	270	4	150	(*)
50,001 to 200,000	86	9,548	1,780	22	3,109	1,030	16	354	1
Over 200,000	50	23,677	3,023	38	6,123	2,028	31	498	2
Principal Building Activity									
Education	6	168	21	(*)	24	8	(*)	8	(*)
Health Care	35	12,094	1,659	17	2,255	747	12	636	2
Laboratory	29	3,331	1,340	19	2,471	819	13	58	(*)
Lodging	16	942	109	1	155	51	1	33	(*)
Mercantile and Service	49	6,236	486	7	1,378	456	7	29	(*)
Office	76	10,799	1,208	16	2,712	898	14	159	1
All Others	32	2,247	495	5	1,051	348	4	79	(*)
Year Constructed									
1959 or Before	103	13,258	2,360	25	4,032	1,336	18	451	1
1960 to 1969	38	6,386	849	12	1,852	613	10	130	1
1970 to 1979	34	6,175	879	10	1,941	643	9	180	1
1980 to 1989	57	6,903	1,003	15	1,848	612	13	198	1
1990 to 1993	11	3,095	227	3	373	124	2	43	(*)
Federal Agency									
Department of Defense	22	1,668	302	3	421	140	2	148	(*)
General Services Administration ..	35	7,888	556	9	1,256	416	8	94	(*)
United States Postal Service	61	7,027	528	8	1,493	495	8	33	(*)
Veterans Administration	36	11,375	1,425	15	1,919	636	10	501	2
All Others	89	7,858	2,507	31	4,956	1,642	23	226	1
Energy Sources (more than one may apply)									
Electricity	243	35,816	5,318	65	10,046	3,328	51	1,002	3
Natural Gas	168	24,827	3,212	36	5,992	1,985	31	1,002	3
Fuel Oil	18	4,740	531	7	929	308	6	155	1
District Heat	68	13,437	2,563	34	4,482	1,485	23	93	(*)
District Chilled Water	30	7,980	911	12	1,423	471	8	95	(*)
Propane	5	200	57	(*)	62	21	(*)	29	(*)
Any Other	8	2,850	449	5	792	262	4	127	(*)
Energy End Uses (more than one may apply)									
Heating	242	35,734	5,317	65	10,045	3,327	51	1,002	3
Air Conditioning	241	35,273	5,256	64	9,861	3,266	50	1,002	3
Water Heating	238	35,221	5,254	64	9,857	3,265	50	1,001	3
Cooking	63	19,213	2,207	26	3,940	1,305	22	634	2
Manufacturing	28	5,335	425	6	1,025	339	6	73	(*)
Workers (main shift)									
Less than 50	70	2,548	569	6	1,143	379	5	93	(*)
50 to 99	44	2,026	257	3	475	157	2	73	(*)
100 to 499	80	9,029	1,911	24	3,251	1,077	17	335	1
500 or More	49	22,213	2,580	33	5,177	1,715	27	501	2
Weekly Operating Hours									
48 or Fewer	39	2,740	385	5	596	197	3	81	(*)
49 to 60	46	6,460	636	8	957	317	6	88	(*)
61 to 167	78	8,051	1,770	22	4,022	1,332	18	113	(*)
Open Continuously	80	18,565	2,526	30	4,471	1,481	24	720	2

See footnotes at end of table.

Table 3.44. Consumption and Expenditures for Sum of Major Fuels, Electricity, and Natural Gas in FBSS Buildings in Federal Region 6, 1993 (Continued)

Building Characteristics	Number of Buildings	Floorspace (thousand square feet)	Sum of Major Fuel Consumption (billion Btu)	Sum of Major Fuel Expenditures (million dollars)	Electricity Consumption (billion Btu)		Electricity Expenditures (million dollars)	Natural Gas Consumption (billion Btu)	Natural Gas Expenditures (million dollars)
					Primary	Site			
Multibuilding Facility									
Yes	148	24,441	4,151	50	7,527	2,493	37	677	2
No	95	11,375	1,167	15	2,519	834	14	325	1
Percent of Floorspace Heated									
Not Heated	1	82	(*)	(*)	1	(*)	(*)	NC	NC
1 to 50	11	1,288	104	1	228	76	1	24	(*)
51 to 100	231	34,446	5,213	64	9,817	3,252	50	978	3
Percent of Floorspace Cooled									
Not Cooled	3	554	70	1	186	62	1	8	(*)
1 to 50	26	1,951	373	4	769	255	3	41	(*)
51 to 100	214	33,312	4,875	60	9,091	3,011	47	953	3
Percent Lit When Open									
1 to 50	15	1,062	83	1	190	63	1	13	(*)
51 to 100	227	34,672	5,234	64	9,855	3,264	50	989	3
No Operating Hours	1	82	(*)	(*)	1	(*)	(*)	NC	NC
Don't Know	NC	NC	NC	NC	NC	NC	NC	NC	NC
Percent Lit When Closed									
Not Lit	33	2,691	192	2	348	115	2	59	(*)
1 to 50	165	20,495	3,709	46	7,142	2,366	36	588	2
51 to 100	25	8,029	797	9	1,400	464	7	192	1
No Off Hours	20	4,601	619	7	1,156	383	6	163	1
Don't Know	NC	NC	NC	NC	NC	NC	NC	NC	NC
Heating Equipment (more than one may apply)									
Heat Pumps	10	964	149	2	330	109	2	33	(*)
Furnaces	18	791	90	1	113	37	1	53	(*)
Individual Space Heaters	30	5,408	700	12	1,274	422	10	165	1
District Heat	82	15,205	2,831	36	4,707	1,559	24	293	1
Boilers	102	16,718	2,121	24	4,329	1,434	22	644	2
Packaged-Heating Units	59	7,574	1,099	13	2,049	679	11	338	1
Cooling Equipment (more than one may apply)									
Residential-Type Central A/C	29	4,706	454	6	984	326	6	92	(*)
Heat Pumps	11	1,549	204	2	407	135	2	62	(*)
Individual A/C	50	6,950	1,246	13	2,482	822	10	226	1
District Chilled Water	44	10,856	1,404	19	1,971	653	14	268	1
Central Chillers	122	21,596	3,059	36	6,266	2,076	30	638	2
Packaged-A/C Units	97	14,104	1,852	22	3,478	1,152	19	502	2
Swamp Coolers	12	2,015	234	3	398	132	2	28	(*)
Lighting Equipment (more than one may apply)									
Incandescent	135	20,248	3,539	44	7,068	2,341	34	556	2
Standard Fluorescent	235	35,057	5,283	65	9,966	3,301	51	994	3
Compact Fluorescent	29	7,942	741	11	1,467	486	9	173	1
High-Intensity Discharge	64	16,188	2,515	27	5,332	1,766	23	480	2
Electronic Ballast	59	15,861	1,649	20	2,873	952	16	505	2
Water-Heating Equipment (more than one may apply)									
Centralized System	163	23,206	3,448	41	5,924	1,962	31	801	3
Distributed System	71	11,827	1,744	22	3,864	1,280	19	164	1
Don't Know/Not Ascertained	4	188	63	1	69	23	(*)	37	(*)

See footnotes at end of table.

Table 3.44. Consumption and Expenditures for Sum of Major Fuels, Electricity, and Natural Gas in FBSS Buildings in Federal Region 6, 1993 (Continued)

Building Characteristics	Number of Buildings	Floorspace (thousand square feet)	Sum of Major Fuel Consumption (billion Btu)	Sum of Major Fuel Expenditures (million dollars)	Electricity Consumption (billion Btu)		Electricity Expenditures (million dollars)	Natural Gas Consumption (billion Btu)	Natural Gas Expenditures (million dollars)
					Primary	Site			
Commercial Refrigeration Equipment (more than one may apply)									
Any Equipment	70	17,917	2,529	33	4,198	1,390	26	648	2
Walk-in Units	40	12,381	1,783	19	2,808	930	15	591	2
Cases and Cabinets	44	14,125	1,782	19	2,828	937	15	596	2
None	173	17,899	2,789	32	5,848	1,937	25	354	1
Retrofit or Purchase of any Equipment Within Last Ten Years (more than one may apply)									
Retrofit and/or Purchase	162	29,015	3,517	43	6,462	2,140	34	832	3
Retrofit	63	15,029	1,542	20	2,772	918	16	307	1
Purchase	126	21,409	2,732	32	5,039	1,669	27	725	2
No Retrofit or Purchase	81	6,801	1,801	22	3,584	1,187	17	170	1
Energy Conservation Features (more than one may apply)									
Any Conservation Feature	242	35,734	5,317	65	10,045	3,327	51	1,002	3
Building Shell	228	33,946	5,092	62	9,688	3,209	49	997	3
HVAC	236	35,425	5,287	65	9,973	3,303	51	996	3
Lighting	136	25,654	2,997	38	5,341	1,769	30	729	2
HVAC Conservation Features (more than one may apply)									
VAV System	65	18,518	2,319	29	4,292	1,422	23	500	2
Economizer Cycle	123	23,542	3,459	38	6,629	2,196	30	704	2
HVAC Maintenance	234	35,341	5,274	65	9,955	3,297	51	992	3
Lighting Conservation Features (more than one may apply)									
Specular Reflectors	92	18,017	2,263	29	4,064	1,346	23	533	2
Natural Lighting Control									
Sensors	27	6,740	652	8	1,075	356	6	227	1
Occupancy Sensors	58	16,435	1,639	21	3,246	1,075	18	397	1
Time Clock	36	9,037	861	11	1,559	516	9	172	1
Manual Dimmer Switches	44	13,454	1,475	19	2,532	839	15	366	1
Energy Management Practices (more than one may apply)									
Energy Management and Control System	96	23,099	2,889	35	4,727	1,566	26	708	2
Energy Conservation Programs ¹	48	13,513	1,481	18	2,670	884	15	401	1
Energy Audit	64	11,690	1,177	17	2,496	827	15	281	1
HVAC Maintenance Staff ²	57	15,538	1,542	20	3,002	994	17	351	1
Off-Hours Reduction in Equipment (more than one may apply)									
Heating	123	13,162	1,356	22	2,326	770	17	197	1
Cooling	124	13,864	1,413	23	2,436	807	18	197	1
Hot Water	33	4,554	401	6	856	284	5	40	(*)
Lighting	120	12,847	1,383	22	2,391	792	17	228	1
Sponsor of Program (more than one may apply)									
FEMP	4	1,286	77	2	148	49	1	29	(*)
Electric Utility	4	1,257	63	1	111	37	1	14	(*)
Natural Gas Utility	NC	NC	NC	NC	NC	NC	NC	NC	NC
In-house	19	6,915	741	9	1,277	423	8	181	1
Third Party	2	340	27	(*)	62	20	(*)	6	(*)

See footnotes at end of table.

Table 3.44. Consumption and Expenditures for Sum of Major Fuels, Electricity, and Natural Gas in FBSS Buildings in Federal Region 6, 1993 (Continued)

Building Characteristics	Number of Buildings	Floorspace (thousand square feet)	Sum of Major Fuel Consumption (billion Btu)	Sum of Major Fuel Expenditures (million dollars)	Electricity Consumption (billion Btu)		Electricity Expenditures (million dollars)	Natural Gas Consumption (billion Btu)	Natural Gas Expenditures (million dollars)
					Primary	Site			
Type of Assistance (more than one may apply)									
Federal Energy Efficiency Fund	4	1,564	90	2	177	59	2	32	(*)
General Information	3	100	13	(*)	27	9	(*)	4	(*)
Site-Specific Information	5	423	64	1	108	36	1	24	(*)
Incentives	4	296	35	(*)	59	19	(*)	4	(*)
Alternate Rates	NC	NC	NC	NC	NC	NC	NC	NC	NC
Fuel Switching	1	772	104	1	186	61	1	5	(*)
Building Generates Electricity									
Yes	32	10,295	1,086	12	1,668	553	9	377	1
No	211	25,521	4,232	53	8,378	2,775	42	625	2
Natural Gas Transported for the Account of Others									
Used in Building	5	631	160	1	160	53	1	69	(*)
Not Used in Building	140	22,202	2,377	28	4,230	1,401	24	853	3
Don't Know/Not Ascertained	23	1,994	675	7	1,602	530	6	80	(*)

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.

(*) = Value rounds to zero in the units displayed.

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. • Site electricity is the amount of electricity delivered to commercial buildings. Primary electricity is site electricity plus the conversion losses in the electric generation process at the utility plant. • FBSS = Federal Buildings Supplemental Survey. • HVAC = Heating, Ventilation, and Air Conditioning. • 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 3.45. Consumption and Expenditures for Sum of Major Fuels, Electricity, and Natural Gas in FBSS Buildings in Federal Region 9, 1993

Building Characteristics	Number of Buildings	Floorspace (thousand square feet)	Sum of Major Fuel Consumption (billion Btu)	Sum of Major Fuel Expenditures (million dollars)	Electricity Consumption (billion Btu)		Electricity Expenditures (million dollars)	Natural Gas Consumption (billion Btu)	Natural Gas Expenditures (million dollars)
					Primary	Site			
All Buildings	326	44,316	4,687	76	8,281	2,743	62	1,082	5
Building Floorspace (square feet)									
10,000 to 50,000	148	3,858	475	8	807	267	6	113	1
50,001 to 200,000	123	12,680	1,713	26	2,775	919	20	423	2
Over 200,000	55	27,778	2,499	42	4,700	1,557	35	546	2
Principal Building Activity									
Education	12	628	58	1	63	21	(*)	19	(*)
Health Care	48	9,903	1,500	18	1,723	571	12	412	2
Laboratory	31	2,601	518	9	971	322	7	99	(*)
Lodging	22	1,220	115	2	145	48	1	23	(*)
Mercantile and Service	63	8,194	499	10	1,316	436	10	56	(*)
Office	92	16,380	1,217	25	2,574	852	23	308	1
All Others	58	5,390	781	12	1,490	494	9	165	1
Year Constructed									
1959 or Before	130	13,553	1,586	26	2,888	957	22	395	1
1960 to 1969	55	9,082	913	14	1,471	487	11	281	1
1970 to 1979	62	12,041	1,246	22	2,069	685	17	224	1
1980 to 1989	65	7,955	834	13	1,596	529	11	160	1
1990 to 1993	14	1,684	108	2	257	85	2	22	(*)
Federal Agency									
Department of Defense	78	8,489	979	17	1,924	637	14	167	1
General Services Administration ..	39	12,505	757	15	1,485	492	13	231	1
United States Postal Service	63	8,387	533	11	1,429	473	11	60	(*)
Veterans Administration	56	8,824	1,397	18	1,547	512	11	355	1
All Others	90	6,111	1,021	16	1,896	628	13	269	1
Energy Sources (more than one may apply)									
Electricity	325	44,296	4,681	76	8,281	2,743	62	1,082	5
Natural Gas	225	34,703	3,624	56	6,117	2,026	46	1,082	5
Fuel Oil	54	11,127	1,459	21	2,283	756	17	513	2
District Heat	74	11,757	1,743	25	1,998	662	14	246	1
District Chilled Water	27	6,362	862	11	1,093	362	7	151	1
Propane	10	1,117	179	3	271	90	2	74	(*)
Any Other	5	2,606	279	4	379	125	3	75	(*)
Energy End Uses (more than one may apply)									
Heating	304	41,921	4,505	73	7,744	2,565	59	1,079	5
Air Conditioning	292	41,907	4,458	71	7,963	2,638	59	1,046	4
Water Heating	315	42,984	4,548	73	8,016	2,655	59	1,079	5
Cooking	70	20,045	2,148	32	3,581	1,186	24	481	2
Manufacturing	30	7,693	802	13	1,621	537	11	98	(*)
Workers (main shift)									
Less than 50	93	3,684	341	6	592	196	5	80	(*)
50 to 99	49	2,161	279	5	530	176	4	74	(*)
100 to 499	134	14,017	1,799	27	2,691	891	20	450	2
500 or More	50	24,454	2,268	39	4,468	1,480	34	477	2
Weekly Operating Hours									
48 or Fewer	80	4,822	491	7	764	253	5	154	1
49 to 60	65	13,424	1,058	19	1,848	612	16	268	1
61 to 167	68	5,706	542	10	1,053	349	8	154	1
Open Continuously	113	20,364	2,595	40	4,616	1,529	32	506	2

See footnotes at end of table.

Table 3.45. Consumption and Expenditures for Sum of Major Fuels, Electricity, and Natural Gas in FBSS Buildings in Federal Region 9, 1993 (Continued)

Building Characteristics	Number of Buildings	Floorspace (thousand square feet)	Sum of Major Fuel Consumption (billion Btu)	Sum of Major Fuel Expenditures (million dollars)	Electricity Consumption (billion Btu)		Electricity Expenditures (million dollars)	Natural Gas Consumption (billion Btu)	Natural Gas Expenditures (million dollars)
					Primary	Site			
Multibuilding Facility									
Yes	200	26,821	3,165	47	5,002	1,657	36	744	3
No	126	17,495	1,522	29	3,280	1,086	26	338	1
Percent of Floorspace Heated									
Not Heated	22	2,394	182	3	538	178	3	3	(*)
1 to 50	28	3,751	462	9	1,119	371	8	78	(*)
51 to 100	276	38,170	4,043	64	6,625	2,194	51	1,000	4
Percent of Floorspace Cooled									
Not Cooled	40	2,956	283	5	415	137	4	43	(*)
1 to 50	55	7,304	920	13	1,396	462	9	240	1
51 to 100	231	34,056	3,484	58	6,471	2,143	49	798	3
Percent Lit When Open									
1 to 50	20	1,847	157	2	221	73	2	56	(*)
51 to 100	304	42,375	4,523	74	8,050	2,667	60	1,023	4
No Operating Hours	1	29	(*)	(*)	(*)	(*)	(*)	NC	NC
Don't Know	1	64	7	(*)	10	3	(*)	3	(*)
Percent Lit When Closed									
Not Lit	35	1,664	189	3	337	112	3	47	(*)
1 to 50	205	25,288	2,222	37	3,854	1,276	31	643	3
51 to 100	44	8,109	929	15	1,652	547	12	168	1
No Off Hours	41	9,190	1,340	21	2,429	804	17	220	1
Don't Know	1	64	7	(*)	10	3	(*)	3	(*)
Heating Equipment (more than one may apply)									
Heat Pumps	40	3,081	364	6	703	233	5	78	(*)
Furnaces	25	1,204	76	1	161	53	1	23	(*)
Individual Space Heaters	33	4,933	418	7	843	279	7	137	1
District Heat	71	12,712	1,861	26	2,437	807	16	265	1
Boilers	146	24,010	2,203	38	4,338	1,437	34	637	3
Packaged-Heating Units	67	5,997	675	9	1,054	349	7	273	1
Cooling Equipment (more than one may apply)									
Residential-Type Central A/C	24	1,900	231	3	347	115	3	63	(*)
Heat Pumps	32	2,724	345	6	645	214	5	72	(*)
Individual A/C	52	5,723	629	10	1,035	343	8	165	1
District Chilled Water	31	7,647	1,044	14	1,751	580	10	157	1
Central Chillers	139	27,723	2,710	45	5,139	1,702	39	675	3
Packaged-A/C Units	151	23,989	2,436	39	4,287	1,420	32	629	3
Swamp Coolers	30	3,165	299	4	442	146	3	107	(*)
Lighting Equipment (more than one may apply)									
Incandescent	161	20,475	2,093	33	3,650	1,209	27	593	3
Standard Fluorescent	309	42,850	4,520	71	7,862	2,604	58	1,063	5
Compact Fluorescent	73	17,339	1,609	29	3,054	1,012	25	432	2
High-Intensity Discharge	75	18,736	1,699	28	3,392	1,123	23	319	1
Electronic Ballast	105	23,307	2,308	37	4,041	1,339	31	585	2
Water-Heating Equipment (more than one may apply)									
Centralized System	225	31,069	3,304	51	5,220	1,729	40	847	4
Distributed System	80	10,750	1,098	19	2,468	817	17	196	1
Don't Know/ Not Ascertained	10	1,165	145	2	328	109	2	37	(*)

See footnotes at end of table.

Table 3.45. Consumption and Expenditures for Sum of Major Fuels, Electricity, and Natural Gas in FBSS Buildings in Federal Region 9, 1993 (Continued)

Building Characteristics	Number of Buildings	Floorspace (thousand square feet)	Sum of Major Fuel Consumption (billion Btu)	Sum of Major Fuel Expenditures (million dollars)	Electricity Consumption (billion Btu)		Electricity Expenditures (million dollars)	Natural Gas Consumption (billion Btu)	Natural Gas Expenditures (million dollars)
					Primary	Site			
Commercial Refrigeration Equipment (more than one may apply)									
Any Equipment	63	18,781	2,016	31	3,565	1,181	24	397	2
Walk-in Units	44	12,536	1,506	22	2,397	794	16	315	1
Cases and Cabinets	50	14,928	1,589	25	2,558	847	19	345	2
None	263	25,535	2,670	45	4,716	1,562	38	685	3
Retrofit or Purchase of any Equipment Within Last Ten Years (more than one may apply)									
Retrofit and/or Purchase	213	34,547	3,592	59	6,291	2,084	49	905	4
Retrofit	103	22,610	2,298	35	3,560	1,179	28	665	3
Purchase	148	19,642	2,263	39	4,276	1,416	33	511	2
No Retrofit or Purchase	113	9,769	1,094	17	1,991	659	13	177	1
Energy Conservation Features (more than one may apply)									
Any Conservation Feature	319	44,023	4,676	76	8,262	2,737	62	1,080	5
Building Shell	248	34,105	3,858	60	6,537	2,165	48	921	4
HVAC	307	43,116	4,610	74	8,112	2,687	61	1,063	5
Lighting	217	34,825	3,665	57	6,250	2,070	47	940	4
HVAC Conservation Features (more than one may apply)									
VAV System	75	15,577	1,690	27	3,013	998	22	403	2
Economizer Cycle	140	26,367	2,642	42	4,438	1,470	34	696	3
HVAC Maintenance	306	43,098	4,607	74	8,108	2,686	61	1,062	5
Lighting Conservation Features (more than one may apply)									
Specular Reflectors	124	21,850	2,085	32	3,417	1,132	26	555	2
Natural Lighting Control Sensors	58	13,760	1,174	19	1,919	636	16	298	1
Occupancy Sensors	109	25,245	2,618	42	4,594	1,522	35	568	3
Time Clock	41	10,539	953	14	1,450	480	11	278	1
Manual Dimmer Switches	78	14,455	1,808	26	2,766	916	21	586	2
Energy Management Practices (more than one may apply)									
Energy Management and Control System	71	18,231	1,942	30	3,827	1,268	25	372	2
Energy Conservation Programs ¹	124	24,699	2,623	41	4,616	1,529	33	677	3
Energy Audit	99	17,444	1,737	29	3,377	1,118	24	356	2
HVAC Maintenance Staff ²	52	14,570	1,473	22	2,509	831	18	383	2
Off-Hours Reduction in Equipment (more than one may apply)									
Heating	151	19,631	1,547	26	2,777	920	22	468	2
Cooling	157	19,219	1,484	25	2,698	894	22	447	2
Hot Water	68	13,614	922	17	1,796	595	15	279	1
Lighting	172	21,155	1,692	28	3,022	1,001	24	528	2
Sponsor of Program (more than one may apply)									
FEMP	1	317	20	(*)	54	18	(*)	2	(*)
Electric Utility	21	6,670	657	10	1,074	356	8	247	1
Natural Gas Utility	2	482	19	(*)	44	14	(*)	5	(*)
In-house	35	6,695	841	12	1,341	444	9	194	1
Third Party	3	136	18	(*)	19	6	(*)	(*)	(*)

See footnotes at end of table.

Table 3.45. Consumption and Expenditures for Sum of Major Fuels, Electricity, and Natural Gas in FBSS Buildings in Federal Region 9, 1993 (Continued)

Building Characteristics	Number of Buildings	Floorspace (thousand square feet)	Sum of Major Fuel Consumption (billion Btu)	Sum of Major Fuel Expenditures (million dollars)	Electricity Consumption (billion Btu)		Electricity Expenditures (million dollars)	Natural Gas Consumption (billion Btu)	Natural Gas Expenditures (million dollars)
					Primary	Site			
Type of Assistance (more than one may apply)									
Federal Energy Efficiency Fund	3	1,725	236	4	695	230	4	6	(*)
General Information	3	2,013	227	4	429	142	3	32	(*)
Site-Specific Information	15	2,099	350	6	598	198	4	107	1
Incentives	14	3,131	269	5	499	165	4	103	(*)
Alternate Rates	13	3,071	273	3	408	135	2	76	(*)
Fuel Switching	1	164	6	(*)	10	3	(*)	2	(*)
Building Generates Electricity									
Yes	52	14,283	1,884	31	3,613	1,197	27	438	2
No	274	30,032	2,802	44	4,669	1,546	35	644	3
Natural Gas Transported for the Account of Others									
Used in Building	24	5,201	659	9	821	272	6	230	1
Not Used in Building	174	26,787	2,595	42	4,706	1,559	35	760	3
Don't Know/Not Ascertained	25	2,631	353	6	575	190	4	88	(*)

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.

(*) = Value rounds to zero in the units displayed.

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. • Site electricity is the amount of electricity delivered to commercial buildings. Primary electricity is site electricity plus the conversion losses in the electric generation process at the utility plant. • FBSS = Federal Buildings Supplemental Survey. • HVAC = Heating, Ventilation, and Air Conditioning. • 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.