Commercial Buildings Energy Consumption Surveys

Energy Consumption & Expenditures

Consumption and Intensity by: Year Constructed (10 pages, 62 kb)

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These data are from the 1995 Commercial Buildings Energy Consumption Survey (CBECS), a national probability sample survey of commercial buildings sponsored by the Energy Information Administration, that provides information on the use of energy in commercial buildings in the United States. The 1995 CBECS was the sixth survey in a series begun in 1979. The data were collected from a sample of 6,639 buildings representing 4.6 million commercial buildings and 58.8 billion square feet of commercial floorspace in the U.S. The 1995 data are available for the four Census regions and nine Census division.	
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Contact: Martha Johnson, Survey Manager (<u>martha.johnson@eia.doe.gov)</u>	
World Wide Web: http://www.eia.doe.gov/emeu/consumption	

Table 8. Consumption and Gross Energy Intensity by Year Constructed for Sum of Major Fuels, 1995

	Sı	um of Major F Consumptior (trillion Btu)			al Floorspace Buildings Ilion square fo		for S	nergy Intens um of Major usand Btu/s	Fuels	
Building Characteristics	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	RSE
RSE Column Factor:	1.1	0.8	1.8	0.8	0.6	1.2	0.9	0.7	1.5	Row Factor
All Buildings	1,626	3,208	487	19,680	34,443	4,649	82.6	93.2	104.7	6.88
Building Floorspace (square feet)		0.4=				2.42	400.0	407.0		40 =0
1,001 to 5,000	270	347	91	2,477	3,221	640	109.2	107.8	141.4	13.78
5,001 to 10,000	234	341	Q	3,446	3,420	664	67.9	99.6	73.7	22.68
10,001 to 25,00025,001 to 50,000	296 167	494 393	34 70	4,140 2,262	7,043 4,687	434 726	71.6 74.0	70.1 83.8	77.9 95.9	14.93 10.20
	202	410	86							12.59
50,001 to 100,000 100,001 to 200,000	202 171	450	66	2,429 1,934	4,722 4,200	817 642	83.3 88.4	86.9 107.2	104.7 102.4	15.53
200,001 to 500,000	154	435	48	1,683	3,522	348	91.5	123.4	137.0	15.15
Over 500,000	131	339	45	1,309	3,628	377	100.0	93.3	118.7	19.85
Principal Building Activity	070	204	20	2 500	0.007	504	70.0	04.0	60.7	44.00
Education	276	301	36	3,522	3,687	531	78.3	81.8	68.7	11.80
Food Sales Food Service	29 93	75 404	Q	145 460	379	Q	202.4	197.0	Q	27.05
		184	Q 45		782	Q 224	201.6	235.7	Q 100.7	25.24
Health Care Lodging	109 124	407 308	45 28	508 986	1,600 2,377	224 255	215.1 126.2	254.1 129.6	199.7 110.4	19.84 16.34
Mercantile and Service	319	563	91	3,829	7,818	1,081	83.3	72.0	84.5	15.40
Office	287	665	66	3,015	6,678	785	95.3	99.6	84.5	11.06
Public Assembly	142	251	56	1,584	1,956	408	89.5	128.2	138.2	22.27
Public Order and Safety	50	60	Q	417	753	Q	119.5	79.3	Q	33.50
Religious Worship	43	56	Q	991	1,643	ã	43.8	34.2	Q	19.22
Warehouse and Storage	73	211	ã	2,504	5,250	727	29.0	40.3	55.8	18.80
Other	Q	108	ã	296	600	Q	Q	180.3	Q	35.79
Vacant	31	19	Q	1,423	919	Q	21.8	20.9	Q	33.69
Floors										
One	446	1,171	229	6,437	15,913	2,201	69.3	73.6	104.2	11.95
Two	367	658	96	4,860	8,094	1,168	75.5	81.3	82.4	11.19
Three	310	328	36	3,830	3,157	348	81.1	103.9	103.9	13.63
Four to Nine Ten or More	385 118	754 298	90 35	3,460 1,094	4,643 2,636	686 245	111.2 107.9	162.3 113.0	131.4 142.0	12.60 17.23
Census Region and Division										
Northeast	399	544	91	4,963	6,130	789	80.5	88.8	115.7	13.96
New England	94	162	Q	1,123	1,813	205	83.7	89.4	Q	23.24
Middle Atlantic	305	382	73	3,841	4,317	585	79.5	88.6	125.7	17.32
Midwest	603	796	98	6,111	7,115	1,096	98.7	111.9	89.3	12.41
East North Central	395	515	76	4,465	4,482	708	88.4	115.0	107.9	14.45
West North Central	208	281	22	1,646	2,633	389	126.4	106.5	55.4	21.18
South	339	1,143	201	5,415	13,572	1,844	62.7	84.2	109.2	10.75
South Atlantic	146	525	101	2,209	6,326	940	66.2	83.0	107.8	15.51
East South Central	70 122	313	34	961	3,515	441	72.6	89.1	77.3	23.66
West South Central	123	305 725	66 06	2,245	3,730	463	54.9	81.7	142.5	16.12
West Mountain	285 140	725 257	96 32	3,191 1,435	7,626 2,127	919 292	89.2 97.3	95.1 120.9	104.4 109.9	14.81 26.53
Pacific	145	468	64	1,756	5,499	627	82.5	85.1	101.9	15.49
Climate Zone: 45-Year Average										
Fewer than 2,000 CDD and	4.40	000	40	4 000	0.051	450	0= 0	100 =	1000	40 =0
More than 7,000 HDD	148	303	48	1,693	2,951	453	87.2	102.5	106.9	18.76
5,500-7,000 HDD	624	850	117	6,461	7,159	977	96.6	118.7	120.3	13.61
4,000-5,499 HDD	475	802	130	5,630	8,185	1,341	84.3	98.0	97.1	15.10
Fewer than 4,000 HDD	239	732	107	3,302	9,078	1,111	72.3	80.7	96.3	13.05
More than 2,000 CDD and	4.44	E22	00	2 504	7.070	766	E4.0	72.0	1000	15.00
Fewer than 4,000 HDD	141	522	83	2,594	7,070	766	54.3	73.9	108.8	15.80

Table 8. Consumption and Gross Energy Intensity by Year Constructed for Sum of Major Fuels, 1995 (Continued)

	Sı	um of Major F Consumption (trillion Btu)			tal Floorspace Buildings Ilion square fo		for S	nergy Intens um of Major usand Btu/s	Fuels	
Building Characteristics	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	RSE
RSE Column Factor:	1.1	0.8	1.8	0.8	0.6	1.2	0.9	0.7	1.5	Row Factor
Workers (main shift)										
Fewer than 5	308	418	64	6,094	6,674	1,118	50.5	62.6	56.9	16.73
5 to 9	232	254	23	2,834	3,216	240	81.9	78.8	94.4	17.32
10 to 19	163	386	65	2,437	4,179	486	66.9	92.4	133.8	15.95
20 to 49	320	445	103	3,146	5,133	853	101.9	86.6	120.9	12.09
50 to 99	167	401	62	1,812	4,486	633	91.9	89.4	98.5	12.05
100 to 249	173	402	74	1,625	3,720	644	106.4	108.1	114.7	13.68
250 or More	263	903	96	1,733	7,036	675	151.9	128.4	142.3	14.57
Weekly Operating Hours										
Weekly Operating Hours 39 or Fewer	101	71	8	2,962	2,776	397	34.0	25.7	20.1	17.58
40 to 48	388	426	65	5,893	6,389	951	65.9	66.6	68.4	13.13
49 to 60	299	550	88	3,971	7,282	989	75.2	75.5	89.4	14.37
61 to 84	218	505	74	2,595	6,762	695	83.8	74.6	106.1	11.35
85 to 167	212	533	86	1,565	4,070	567	135.4	131.0	151.2	17.86
Open Continuously	409	1,124	166	2,695	7,163	1,051	151.8	156.9	157.8	11.79
Ownership and Occupancy	4.050	0.505	005	44.704	00.004	0.770	74.0	00.0	4040	7.40
Nongovernment Owned	1,050	2,505	395	14,721	28,204	3,772	71.3	88.8	104.6	7.48
Owner Occupied Nonowner Occupied	907 136	2,030 466	349 45	11,708 2,211	20,866 6,733	2,999 753	77.5 61.3	97.3 69.2	116.4 60.4	8.18 12.57
Unoccupied	7	Q	Q	802	605	Q Q	Q Q	Q Q	Q Q	38.91
Government Owned	577	703	92	4,959	6,239	877	116.3	112.7	104.9	12.16
Federal	135	116	Q	955	695	Q	141.8	167.1	Q	38.71
State	155	254	29	1,083	1,593	174	142.9	159.4	167.7	19.52
Local	286	333	49	2,921	3,951	601	98.0	84.3	80.7	15.61
Space in Building Vacant for at Least Three Consecutive Months										
Yes	299	729	92	4,864	9,912	1,068	61.4	73.5	86.3	11.09
No	1,327	2,480	394	14,816	24,531	3,581	89.6	101.1	110.1	7.78
Energy Sources (more than one may apply)										
Electricity	1,621	3,205	486	18,824	33,802	4,449	86.1	94.8	109.2	7.05
Natural Gas	1,272	2,309	350	13,673	21,726	2,747	93.0	106.3	127.6	8.02
Fuel Oil	458	1,122	153	4,324	8,919	1,178	105.9	125.7	129.5	11.46
District Heat	362	603	86	2,359	2,881	418	153.6	209.4	205.7	21.81
District Chilled Water	142 81	357 271	43 40	661 1,195	1,602 3,523	258 626	215.4 68.0	222.6 76.8	165.4 64.2	24.42 18.76
Other	53	Q	Q	1,193	1,167	Q	52.7	70.8 Q	Q Q	26.04
Energy End Uses (more than one	00	•	•	1,007	1,107	•	02.1	•	٩	20.01
may apply)										
Buildings with Space Heating	1,614	3,149	484	18,081	31,975	4,291	89.2	98.5	112.8	7.00
Buildings with Cooling	1,417	3,037	468	15,405	30,540	3,989	92.0	99.5	117.4	7.28
Buildings with Water Heating	1,540	3,102	448	16,692	30,944	3,924	92.2	100.2	114.3	6.95
Buildings with Manufacturing	704 124	1,541	262	6,005	12,852	1,856	117.2	119.9	140.9 Q	8.97
Buildings with Manufacturing Buildings with Electricity	124	162	Q	1,406	2,172	315	88.2	74.7	Q	23.87
Generation	369	1,163	173	2,720	9,318	1,328	135.6	124.8	130.6	11.05
Space-Heating Energy Sources (more than one may apply)		,	-	, -	,	, -		-		
Electricity	394	1,289	225	5,262	14,735	2,158	74.9	87.5	104.3	9.74
Natural Gas	1,012	1,818	266	11,569	17,715	2,252	87.4	102.6	118.1	8.25
Fuel Oil	280	413	29	2,866	3,415	325	97.6	121.0	89.7	18.28
District Heat	359	595	82	2,355	2,843	409	152.4	209.4	199.9	18.75
Propane Other	17 16	102 52	10 Q	287 491	1,433 457	304 Q	59.0 31.9	71.1 113.1	33.5 Q	28.36 27.79

Table 8. Consumption and Gross Energy Intensity by Year Constructed for Sum of Major Fuels, 1995 (Continued)

	Sı	ım of Major F Consumptior (trillion Btu)	1		tal Floorspace Buildings Ilion square fo		for S	nergy Intens um of Major usand Btu/so	Fuels	_
Building Characteristics	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	RSE
RSE Column Factor:	1.1	0.8	1.8	0.8	0.6	1.2	0.9	0.7	1.5	Row
rimary Space-Heating										
nergy Source										
Electricity	126	733	146	2,257	9,892	1,351	56.0	74.1	107.9	12.8
Natural Gas	959	1,638	241	10,807	15,933	2,068	88.8	102.8	116.8	8.6
Fuel Oil	161	132	Q	2,093	1,903	Q	76.8	69.3	Q	17.1
District Heat	347	555	75	2,262	2,665	362	153.5	208.1	207.4	19.8
Propane	Q	59	Q	163	1,163	Q	Q	50.4	Q	36.2
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.9
ooling Energy Sources (more than ne may apply)										
Electricity	1,310	2,786	437	14,852	29,150	3,759	88.2	95.6	116.2	7.3
Natural Gas	Q	128	Q	438	762	Q	172.8	168.6	Q 465.4	34.2
District Chilled Water	142	357	43	661	1,602	258	215.4	222.6	165.4	24.4
/ater-Heating Energy Sources more than one may apply)	405	4.070			45.045		=0.4		24.2	40.
Electricity	405	1,076	177	5,750	15,217	2,089	70.4	70.7	84.6	10.0
Natural Gas	914	1,608	248	9,196	13,951	1,712	99.4	115.3	144.6	8.
Fuel Oil	89	108	Q	1,044	993	Q 004	84.8	108.4	Q	21.
District Heat Propane	226 Q	487 64	49 Q	1,546 Q	2,169 762	234 Q	146.3 Q	224.5 84.3	208.0 Q	18.4 30.9
Topano	•	01	Q.	•	702	Q	•	01.0	•	00.0
ooking Energy Sources (more nan one may apply)	070	055	474	0.000	0.000	4.470	400.7	440.0	445.4	44.6
Electricity	370	955	171	2,990	8,080	1,178	123.7	118.2	145.4	11.6
Natural Gas Propane	467 Q	1,046 103	186 Q	4,151 186	7,938 1,159	1,106 Q	112.5 Q	131.7 89.0	168.0 Q	10.6 34.1
горапе	Q	103	Q	100	1,139	Q	Q	09.0	Q	34.
ercent of Floorspace Heated										
Not Heated	13	59	3	1,600	2,467	358	7.9	23.9	7.2	26.7
1 to 50	85	148	15	2,430	3,463	334	34.8	42.8	44.1	18.5
51 to 99	219 1,310	508 2,494	78 391	3,048 12,602	5,126 23,387	694 3,263	71.8 104.0	99.0 106.6	112.9 119.8	15.8 7.7
100	1,310	2,494	391	12,002	23,307	3,203	104.0	100.0	119.0	/
ercent of Floorspace Cooled										
Not Cooled	210	171	18	4,275	3,902	660	49.0	43.8	27.5	16.0
1 to 50	472	520	52	6,441	7,879	707	73.2	66.0	73.2	14.6
51 to 99100	385 560	865 1.652	110 307	3,748 5.217	7,830 14,831	971 2.311	102.9 107.3	110.5 111.4	112.9 132.9	10.4 10.2
		1,00=		-,	,	_,				
ercent Lit when Open	_		_	_	_	6	_	_	_	
Zero	Q 463	Q 124	Q	Q 2.426	Q 2.542	Q	Q 51.0	Q 40.6	Q	99.9
1 to 5051 to 99	163 316	124	Q 59	3,136	2,543	329	51.9	48.6	Q 100.4	14.
100		508 2 567	59 405	3,726 11.516	5,374 25,500	592 3.498	84.8	94.6 100.7	100.4 115.7	12.9 8.0
Building Not in Use/	1,131	2,567	405	11,516	25,500	3,498	98.2	100.7	115.7	σ.(
Electricity Not Used	16	9	Q	1,238	924	206	Q	9.8	Q	35.7
•										
ercent Lit when Closed Zero	313	373	67	5,111	6,944	1,046	61.3	53.7	63.8	13.4
1 to 50	849	1,575	215	10,234	18,325	2,152	83.0	85.9	100.1	9.
51 to 100	39	130	Q	418	1,230	266	93.5	105.8	Q	30.2
Never Closed	409	1,122	165	2,680	7,019	978	152.7	159.8	168.9	13.
	100	1,144	100	2,500	,,,,,,	370	102.1	100.0	. 50.5	10.
Building Not in Use/										

Table 8. Consumption and Gross Energy Intensity by Year Constructed for Sum of Major Fuels, 1995 (Continued)

Building Characteristics RSE Column Factor:	Sum of Major Fuel Consumption (trillion Btu)			Total Floorspace of Buildings (million square feet)			Energy Intensity for Sum of Major Fuels (thousand Btu/sq. ft.)			
	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	RSE
	1.1 0.8	0.8	1.8	0.8	0.6	1.2	0.9	0.7	1.5	Row Factor
nergy Conservation Features nore than one may apply)										
Any Conservation FeaturesBuilding Shell	1,603 1,547	3,173 3,111	484 478	17,858 17,068	32,958 31.771	4,472 4,351	89.7 90.6	96.3 97.9	108.3 109.8	6.88 6.99
HVACLighting	1,317 1,143	2,856 2,452	447 418	13,354 11,507	27,489 23,449	3,814 3,581	98.7 99.3	103.9 104.6	117.2 116.6	7.37 7.31

NF = No applicable RSE row factor.

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

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • 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. • HVAC = Heating, Ventilation, and Air Conditioning. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption

Survey.

Table 14. Electricity Consumption and Conditional Energy Intensity by Year Constructed, 1995

	1	Total Electrici Consumption (billion kWh)	ı	U	al Floorspace Buildings sing Electrici Ilion square f	ty	Ele			
Building Characteristics	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	505
RSE Column Factor:	1.2	0.8	1.8	0.9	0.6	1.4	0.9	0.6	1.2	RSE Row Factor
All Buildings	175	508	81	18,824	33,802	4,449	9.3	15.0	18.2	6.80
Building Floorspace (square feet)										
1,001 to 5,000	28	67	17	2,315	3,088	550	12.0	21.6	31.0	15.36
5,001 to 10,000	22	41	7	3,176	3,302	583	7.1	12.3	11.6	16.92
10,001 to 25,000	34	73	6	4,047	6,829	428	8.3	10.7	13.9	13.12
25,001 to 50,00050,001 to 100,000	17 21	63 72	13 14	2,235 2,421	4,673 4,675	726 806	7.8 8.6	13.4 15.4	17.5 16.9	11.67 14.05
100,001 to 200,000	19	72 70	10	2,421 1,870	4,675 4,098	631	10.0	17.0	16.5	14.05
200,001 to 500,000	17	66	7	1,683	3,519	348	10.0	18.8	20.5	14.40
Over 500,000	17	58	7	1,078	3,620	377	16.2	16.0	19.6	18.67
Principal Building Activity										
Education	24	36	5	3,467	3,687	531	6.9	9.6	9.9	11.96
Food Sales	7	19	Q	145	379	Q	47.0	49.8	Q	24.77
Food Service	10 10	31 46	Q 5	460 508	782 1,600	Q 224	22.4 20.6	39.2 28.7	Q 24.4	27.59 15.43
Health Care Lodging	11	41	3	986	2,371	244	11.1	20.7 17.2	12.7	15.43
Mercantile and Service	32	100	17	3,748	7,817	1,066	8.5	12.8	15.6	14.28
Office	41	142	15	3,015	6,666	785	13.7	21.3	18.8	11.60
Public Assembly	14	27	9	1,581	1,940	408	8.7	14.1	21.4	19.52
Public Order and Safety	4	9	Q	417	753	Q	9.6	11.7	Q	39.16
Religious Worship	3	6	Q	991	1,643	Q	2.9	3.7	Q	18.03
Warehouse and Storage	11	35	6	2,419	5,026	571	4.5	6.9	10.2	19.78
OtherVacant	Q 2	15 3	Q Q	Q 791	597 542	Q Q	Q 3.0	24.6 4.8	Q Q	34.23 33.26
Census Region and Division			-							
Northeast	38	77	13	4,649	6,017	779	8.2	12.8	16.5	15.43
New England	7	20	Q [']	1,085	1,782	Q	6.2	11.5	Q	17.78
Middle Atlantic	31	57	11	3,564	4,235	574	8.8	13.4	19.4	19.19
Midwest	53	98	13	5,804	7,030	1,053	9.1	13.9	12.6	13.07
East North Central	33	62	10	4,287	4,456	679	7.7	13.8	14.3	15.48
West North Central	20	36	4	1,516	2,575	374	13.0	14.0	9.4	20.54
South	51	212	37	5,209	13,213	1,736	9.8	16.1	21.5	10.13
South Atlantic	23	101	18	2,174	6,237	890	10.5	16.3	20.8	14.07
East South Central West South Central	10	52 50	0	951	3,339	383	10.6	15.5	21.0	21.95
West South Central	18 33	59 121	11 18	2,083 3,163	3,636 7,543	463 882	8.8 10.5	16.3 16.1	23.4 20.0	17.78 14.74
Mountain	33 16	31	Q	1,423	2,121	277	10.5	14.7	23.4	25.75
Pacific	18	90	11	1,740	5,422	605	10.1	16.6	18.4	17.69
Climate Zone: 45-Year Average Fewer than 2,000 CDD and										
More than 7,000 HDD	11	35	6	1,621	2,901	412	6.9	12.1	14.5	20.14
5,500-7,000 HDD	52	98	17	6,271	7,125	960	8.4	13.7	18.1	14.04
4,000-5,499 HDD	55	129	21	5,265	7,988	1,305	10.5	16.1	15.9	14.16
Fewer than 4,000 HDD	33	136	21	3,247	8,942	1,079	10.1	15.2	19.8	13.71
More than 2,000 CDD and Fewer than 4,000 HDD	23	111	15	2,420	6,847	693	9.6	16.2	22.3	14.28
Workers (main shift)										
Fewer than 5	31	53	12	5,314	6,087	941	5.9	8.7	12.9	14.13
5 to 9	22	40	4	2,831	3,198	240	7.6	12.5	16.5	15.43
10 to 19	17	58	11	2,437	4,179	486	7.0	13.8	22.7	16.05
20 to 49	33	74	17	3,128	5,133	842	10.4	14.4	20.1	12.49
50 to 99	18	64	9	1,756	4,470	633	10.2	14.2	14.8	12.47
100 to 249	19	68 152	11	1,625	3,718	632	11.9	18.2	17.0	13.85 14.71
250 or More	35		17	1,733	7,017	675	20.5	21.7	25.1	

Table 14. Electricity Consumption and Conditional Energy Intensity by Year Constructed, 1995 (Continued)

	1	Total Electricit Consumption (billion kWh)	ı์	U	al Floorspace Buildings sing Electrici llion square f	ty	Ele	ectricity Ene Intensity (kWh/sq. ft.)			
Building Characteristics	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	505	
RSE Column Factor:	1.2	0.8	1.8	0.9	0.6	1.4	0.9	0.6	1.2	RSE Row Facto	
Veekly Operating Hours											
39 or Fewer	7	10	1	2,220	2,370	341	3.2	4.1	3.8	17.2	
40 to 48	39	68	11	5,828	6,368	946	6.7	10.7	12.0	12.4	
49 to 60	33	97	16	3,939	7,234	960	8.3	13.5	16.2	14.4	
61 to 84	24	90	13	2,592	6,745	684	9.4	13.3	19.2	11.2	
85 to 167	26	86	16	1,565	4,054	540	16.6	21.1	29.1	14.3	
Open Continuously	46	158	24	2,680	7,031	978	17.1	22.4	24.6	12.9	
wnership and Occupancy											
Nongovernment Owned	119	404	67	14,039	27,599	3,586	8.5	14.7	18.8	7.	
Owner Occupied	102	311	58	11,549	20,655	2,907	8.8	15.1	20.1	7.	
Nonowner Occupied Unoccupied	17 Q	92 Q	9 Q	2,147 Q	6,695 Q	677	8.0 Q	13.7 Q	13.6 Q	13. ²	
Government Owned	56	104	14	4,785	6,203	Q 863	11.6	16.8	15.7	13.1	
pace in Building Vacant for at east Three Consecutive Months											
Yes	29	129	16	4,231	9,433	965	6.9	13.7	16.2	9.	
No	146	379	65	14,593	24,369	3,484	10.0	15.5	18.8	7.5	
nergy Sources (more than one nay apply)											
Electricity	175	508	81	18,824	33,802	4,449	9.3	15.0	18.2	6.8	
Natural Gas	125	323	51	13,605	21,679	2,724	9.2	14.9	18.9	8.2	
Fuel Oil	46	161	21	4,277	8,890	1,178	10.6	18.1	18.1	11.9	
District Heat	39	58	Q	2,359	2,869	Q	16.5	20.3	Q	20.7	
District Chilled Water	16	34	4	661	1,598	258	24.8	21.4	17.3	22.5	
Propane Other	11 7	48 15	7 Q	1,192 914	3,523 1,167	626 Q	9.0 7.2	13.7 13.0	10.6 Q	19.4 26.4	
nergy End Uses (more than one											
nay apply)											
Buildings with Space Heating	173	492	80	17,929	31,913	4,269	9.6	15.4	18.8	6.9	
Buildings with Cooling	161	485	79 75	15,328	30,490	3,967	10.5	15.9	19.9	7.	
Buildings with Water Heating	166	489	75 44	16,580	30,882	3,901	10.0	15.8	19.3	6.8	
Buildings with Cooking Buildings with Manufacturing	75 14	246 28	Q 44	5,949 1,406	12,827 2,163	1,834 Q	12.5 10.2	19.2 13.0	24.1 Q	9.5 28.0	
Buildings with Electricity Generation	43	182	27	2,720	9,309	1,317	15.7	19.6	20.2	10.9	
pace-Heating Energy Source											
Electricity	56	257	45	5,262	14,735	2,158	10.6	17.5	20.9	9.0	
Electricity Main	26	178	34	2,257	9,892	1,351	11.4	18.0	24.8	13.	
Electricity Secondary	30	79	12	3,005	4,843	807	10.1	16.3	14.3	12.5	
Other Excluding Electricity	117	235	35	12,667	17,177	2,110	9.2	13.7	16.7	8.2	
Buildings without Space Heating	2	16	Q	895	1,890	Q	2.4	8.5	Q	30.0	
rimary Space-Heating nergy Source											
Electricity	26	178	34	2,257	9,892	1,351	11.4	18.0	24.8	13.	
Natural Gas	93	223	35	10,746	15,895	2,046	8.6	14.0	17.0	8.	
Fuel Oil	11	14	Q	2,046	1,894	Q	5.5	7.6	Q	18.	
District Heat	38	55	8	2,262	2,653	362	16.8	20.6	23.2	19.	
Propane	Q	16	Q	160	1,163	Q	Q	13.7	Q	37.	
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.	

Table 14. Electricity Consumption and Conditional Energy Intensity by Year Constructed, 1995 (Continued)

		otal Electrici Consumption (billion kWh)	ń	U	al Floorspace Buildings sing Electrici llion square f	ty	El			
Building Characteristics	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	Dec
RSE Column Factor:	1.2	0.8	1.8	0.9	0.6	1.4	0.9	0.6	1.2	RSE Row Factor
Cooling Energy Source										
Electricity	148	464	75	14,852	29,150	3,759	9.9	15.9	20.1	7.00
Other Excluding Electricity	13 14	21 23	Q 2	476 3,496	1,340 3,313	Q 483	28.2 4.0	15.7 7.0	Q 4.7	28.92 19.15
Nater-Heating Energy Source	04	005	20	5.750	45.047	0.000	40.5	45.4	40.4	40.00
Other Excluding Electricity	61 106	235 254	38 37	5,750 10,829	15,217 15,665	2,089 1,812	10.5 9.8	15.4 16.2	18.1 20.7	10.82 7.67
Buildings without Water Heating	8	19	6	2,245	2,921	548	3.8	6.5	10.4	21.50
Cooking Energy Source Electricity	43	170	30	2,990	8,080	1,178	14.3	21.0	25.9	12.44
Other Excluding Electricity	43 32	76	30 14	2,990	4,747	656	14.3	16.0	25.9 21.0	13.24
Buildings without Cooking	100	262	37	12,875	20,975	2,615	7.8	12.5	14.1	8.23
Percent of Floorspace Heated	0	40	0	005	4.000	0	0.4	0.5	0	20.04
Not Heated	2 11	16 29	Q 3	895 2,356	1,890 3,463	Q 334	2.4 4.5	8.5 8.3	Q 8.9	30.01 18.97
51 to 99	27	88	13	3,048	5,117	694	9.0	17.2	19.4	16.06
100	135	375	64	12,525	23,333	3,241	10.8	16.1	19.7	7.19
Percent of Floorspace Cooled	4.4	22	0	2.406	0.040	400	4.0	7.0	4 7	10.15
Not Cooled	14 37	23 62	2 6	3,496 6,364	3,313 7,857	483 696	4.0 5.9	7.0 7.9	4.7 8.3	19.15 11.71
51 to 99	46	148	18	3,748	7,818	971	12.4	19.0	18.9	10.73
100	77	275	55	5,217	14,815	2,300	14.8	18.5	23.8	9.48
Percent Lit when Open	0	0	0	Q	Q	Q	0	0	0	99.99
Zero	Q 15	Q 16	Q Q	3,136	2,543	329	Q 4.9	Q 6.4	Q Q	15.20
51 to 99	34	78	9	3,726	5,374	592	9.0	14.5	15.5	12.51
100	125	414	67	11,516	25,500	3,498	10.8	16.2	19.2	7.78
Building Not in Use/ Electricity Not Used	Q	Q	Q	382	Q	Q	Q	Q	Q	30.13
Percent Lit when Closed										
Zero	31	58	11	5,111	6,944	1,046	6.0	8.3	10.4	13.67
1 to 50	94	262	39	10,234	18,325	2,152	9.2	14.3	18.0	7.99
51 to 100	4	30	Q	418	1,230	Q	8.7	24.6	Q	35.68
Never Closed	46	158	24	2,680	7,019	978	17.1	22.5	24.6	12.92
Building Not in Use/ Electricity Not Used	Q	Q	Q	382	Q	Q	Q	Q	Q	30.13
Annual Consumption kilowatthours)										
10,000 or Less	2	2	Q	1,544	1,319	Q	1.2	1.4	Q	14.99
10,001 to 50,000	17	21	4	4,315	4,684	699	4.0	4.4	5.4	12.26
50,001 to 100,000	17	32	3	2,721	3,918	237	6.4	8.3	11.6	15.31
100,001 to 500,000	55	117	22	5,464	8,303	1,049	10.1	14.1	20.9	11.17
500,001 to 1,000,000	16	60	12	1,355	3,726	621	11.5	16.2	18.9	15.00
1,000,001 to 5,000,000	35	139	25	2,261	6,843	1,074	15.4	20.3	23.7	9.94
Over 5,000,000	33	137	15	1,165	5,009	574	28.1	27.4	26.2	17.38

^{(*) =} Value rounds to zero in the units displayed. NF = No applicable RSE row factor.

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

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • 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. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption

Table 25. Natural Gas Consumption and Conditional Energy Intensity by Year Constructed, 1995

		otal Natural G Consumptior illion cubic fe	1	Us	oorspace of B ing Natural G Ilion square f	as		tural Gas End Intensity ubic feet/sq.	-	
Building Characteristics	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	RSE
RSE Column Factor:	1.1	0.8	2.0	0.9	0.6	1.3	0.8	0.7	1.6	Row Factor
All Buildings	717	1,027	150	13,673	21,726	2,747	52.4	47.3	54.7	9.25
Building Floorspace (square feet)										
1,001 to 5,000	126	100	31	1,476	1,318	149	85.2	75.8	208.0	19.16
5,001 to 10,000	138	115	12	2,241	1,951	305	61.4	58.9	38.9	22.31
10,001 to 25,000	130	205	11	3,135	4,158	267	41.5	49.4	42.5	20.11
25,001 to 50,00050,001 to 100,000	72 93	131 114	22 30	1,698 1,886	3,076 3,115	467 606	42.4 49.5	42.5 36.6	46.6 48.7	13.28 16.39
100,001 to 200,000	72	144	Q	1,484	2,767	Q	48.7	52.2	Q Q	20.44
200,001 to 500,000	54	137	15	1,159	2,554	228	46.4	53.5	64.2	21.01
Over 500,000	32	81	9	593	2,787	332	54.5	29.1	25.8	23.20
Principal Building Activity	400	400	40	2.005	2.040	070	40.4	20.0	40.0	10.00
EducationFood Sales	123 Q	102 Q	13 Q	2,905 Q	2,616 222	279 Q	42.4 Q	39.2 43.6	46.2 Q	16.68 59.38
Food Service	53	73	Q	412	497	Q	128.9	146.2	Q	27.18
Health Care	55	185	ã	339	1,300	ã	162.0	142.0	ã	23.17
Lodging	64	128	15	727	1,859	242	87.8	68.9	62.0	19.58
Mercantile and Service	168	187	29	2,777	5,043	700	60.6	37.1	41.8	23.28
Office	93	126	14	2,163	3,879	480	42.9	32.6	28.8	15.11
Public Assembly Public Order and Safety	61 Q	61 18	16 Q	1,199 Q	1,200 457	263 Q	51.3 Q	50.9 38.5	59.4 Q	22.70 37.41
Religious Worship	26	28	Q	883	1,042	Q	29.1	26.7	Q	23.47
Warehouse and Storage	26	68	9	1,434	2,891	270	17.8	23.5	35.0	19.41
OtherVacant	Q Q	33 Q	Q Q	Q Q	456 Q	Q Q	Q Q	73.2 Q	Q Q	50.45 99.99
vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	33.33
Census Region and Division	400	4.40	00	0.005	0.700	400	40.4	07.7	47.0	00.04
Northeast New England	123 28	143 41	23 Q	2,825 505	3,796 854	486 Q	43.4 55.3	37.7 47.9	47.2 Q	20.04 40.99
Middle Atlantic	95	102	Q	2,320	2,943	412	40.8	34.7	49.1	22.41
Midwest	332	354	44	4,798	5,375	733	69.1	65.9	60.3	13.91
East North Central	217	239	36	3,562	3,443	548	60.8	69.5	65.9	14.23
West North Central	115	115	Q	1,236	1,932	Q	93.1	59.4	Q	28.66
SouthSouth Atlantic	133 53	328 119	54 Q	3,654 1,397	7,746 3,027	891 379	36.3 38.1	42.4 39.2	60.1 Q	14.67 20.76
East South Central	30	124	6	726	2,262	175	40.6	54.9	34.6	19.95
West South Central	50	86	28	1,531	2,457	337	32.5	34.8	81.6	13.80
West	130	202	29	2,396	4,809	636	54.3	41.9	46.3	16.73
Mountain Pacific	71 59	65 136	Q 20	1,139 1,257	1,267 3,541	Q 419	62.5 46.8	51.6 38.5	41.2 48.9	25.62 19.23
Climate Zone: 45-Year Average	00	100	20	1,207	0,011	110	10.0	00.0	10.0	10.20
Fewer than 2,000 CDD and										
More than 7,000 HDD	78	136	Q	1,127	2,015	Q	68.7	67.5	Q	21.01
5,500-7,000 HDD	323	310	41	4,752	5,287	715	67.9	58.6	57.5	15.04
4,000-5,499 HDD	165	244	31	3,561	4,838	695	46.4	50.4	44.4	20.88
Fewer than 4,000 HDD More than 2,000 CDD and	100	231	31	2,557	6,259	782	39.0	36.9	39.5	12.82
Fewer than 4,000 HDD	52	107	27	1,676	3,327	297	30.8	32.1	92.1	20.76
Workers (main shift)										
Fewer than 5	159	121	10	3,430	2,775	376	46.4	43.5	27.7	15.11
5 to 9	133	96	Q	2,231	2,123	129	59.6	45.2	64.0	23.83
10 to 19	66 140	174	22	1,644	2,760	292	40.2	63.0	77.1	21.08
20 to 49	149 58	147 134	39 20	2,416 1,399	3,641 2,899	570 464	61.5 41.2	40.3 46.3	68.0 43.8	15.51 15.64
100 to 249	69	120	28	1,361	2,483	442	50.4	48.2	62.8	20.77

Table 25. Natural Gas Consumption and Conditional Energy Intensity by Year Constructed, 1995 (Continued)

		otal Natural G Consumptior illion cubic fe	1	Us	oorspace of B sing Natural G Ilion square f	as		tural Gas End Intensity ubic feet/sq.	-	
Building Characteristics	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	RSE
RSE Column Factor:	1.1	0.8	2.0	0.9	0.6	1.3	0.8	0.7	1.6	Row Factor
Weekly Operating Hours										
39 or Fewer	56	31	Q	1,438	1,108	Q	38.9	27.9	Q	22.13
40 to 48	200	136	20	4,237	3,839	465	47.1	35.3	43.3	15.82
49 to 60	115	158	19	2,902	4,465	636	39.8	35.5	30.4	15.19
61 to 84	102	147	22	2,068	4,566	414	49.6	32.3	53.4	15.94
85 to 167	86	121	Q	1,105	2,481	380	77.4	48.7	78.9	22.06
Open Continuously	158	434	56	1,922	5,267	742	82.2	82.4	74.8	16.46
Ownership and Occupancy										
Nongovernment Owned	477	831	125	10,278	17,773	2,205	46.4	46.7	56.6	9.85
Owner Occupied	409	690	113	8,586	13,576	1,794	47.7	50.8	62.8	10.66
Nonowner Occupied	64	137	12	1,567	4,099	411	40.6	33.4	29.8	16.95
Unoccupied	Q	Q	Q [']	Q	4,055 Q	Q	Q	Q Q	Q 23.5	99.99
Government Owned	240	196	25	3,395	3,953	541	70.6	49.7	46.8	15.20
Space in Building Vacant for at Least Three Consecutive Months										
Yes	138	239	21	2,859	6,241	624	48.3	38.3	33.4	15.67
No	579	788	129	10,813	15,485	2,123	53.5	50.9	60.9	9.69
Energy Sources (more than one may apply)	740	4.004	440	40.005	04.070	0.704	50.4	47.0	540	0.50
Electricity	713	1,024	149	13,605	21,679	2,724	52.4	47.3	54.9	9.59
Natural Gas	717	1,027	150	13,673	21,726	2,747	52.4	47.3	54.7	9.25
Fuel Oil	133	362	Q	2,565	5,981	716	52.0	60.6	63.4	18.98
District Heat	Q	81	Q	Q 430	1,151	Q	Q	70.2	Q	45.06
District Chilled Water	40	53	Q	439	725	Q	91.6	73.7	Q	29.82
Propane Other	20 17	58 41	Q Q	423 583	985 804	Q Q	48.4 28.9	58.6 50.7	Q Q	27.91 34.20
	.,		•	000	001	•	20.0	00.1	ų.	01.20
Energy End Uses (more than one may apply)										
Buildings with Space Heating	712	1,024	150	13,601	21,612	2,736	52.3	47.4	54.9	9.29
Buildings with Cooling	616	973	147	11,824	20,602	2,674	52.1	47.2	55.1	9.85
Buildings with Water Heating	686	997	146	12,808	20,904	2,573	53.6	47.7	56.6	9.49
Buildings with Cooking	316	546	88	5,104	9,543	1,321	61.8	57.2	66.7	10.87
Buildings with Manufacturing	45	56	Q	973	1,388	Q	45.9	40.6	Q	23.72
Buildings with Electricity Generation	139	371	52	2,014	7,344	974	69.2	50.5	53.0	16.19
Generation	100	371	32	2,014	7,544	374	03.2	30.3	33.0	10.13
Space-Heating Energy Source										
Natural Gas	633	886	122	11,569	17,715	2,252	54.7	50.0	54.2	10.02
Natural Gas Main	618	838	116	10,807	15,933	2,068	57.2	52.6	56.0	10.37
Natural Gas Secondary	15	48	6	762	1,781	185	20.1	27.1	33.5	25.67
Other Excluding Natural Gas	79	138	28	2,033	3,898	484	38.8	35.5	58.1	19.98
Buildings without Space Heating	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
Primary Space-Heating Energy Source										
Electricity	34	110	27	911	4,022	494	37.7	27.3	54.7	22.88
Natural Gas	618	838	116	10,807	15,933	2,068	57.2	52.6	56.0	10.37
Fuel Oil	12	Q	Q	817	Q 087	Q	Q 40.4	Q 64.7	Q	33.96
District Heat	45	64	Q	919	987	Q	49.1	64.7	Q	29.51
Propane Other	Q Q	Q Q	Q Q	Q Q	Q Q	Q Q	Q Q	Q Q	Q Q	99.99 99.99
Cooling Energy Source										
Natural Gas	34	72	Q	438	762	Q	76.9	93.9	Q	32.40
Other Excluding Natural Gas	582	901	139	11,386	19,840	2,560	51.1	45.4	54.5	10.15
Buildings without Cooling	101	55	Q	1,848	1,124	Q	54.8	48.6	Q	21.30

Table 25. Natural Gas Consumption and Conditional Energy Intensity by Year Constructed, 1995 (Continued)

	Total Natural Gas Consumption (billion cubic feet)			Total Floorspace of Buildings Using Natural Gas (million square feet)			Na (c			
Building Characteristics	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	1959 or Before	1960-1989	1990-1995	RSE
RSE Column Factor:	1.1	0.8	2.0	0.9	0.6	1.3	0.8	0.7	1.6	Row Factor
Water Heating France Course										
Water-Heating Energy Source Natural Gas	561	797	115	9,196	13,951	1,712	61.0	57.2	67.1	10.96
Other Excluding Natural Gas	125	199	31	3,612	6,952	860	34.6	28.7	35.7	14.18
Buildings without Water Heating	31	31	Q	865	822	Q	35.6	37.2	Q	35.17
Cooking Energy Source										
Natural Gas	246	460	75	4,151	7,938	1,106	59.2	57.9	67.6	12.32
Other Excluding Natural Gas	70	86	Q	953	1,606	Q	73.2	53.7	Q	22.83
Buildings without Cooking	401	481	62	8,569	12,182	1,426	46.9	39.5	43.5	12.77
Percent of Floorspace Heated										
Not Heated	Q	Q	Q	Q	Q	Q	Q	Q	Q	99.99
1 to 50	35	45	Q	1,601	1,973	Q	22.0	22.6	Q	26.64
51 to 99	86	160	28	2,206	3,529	479	39.0	45.2	58.0	22.18
100	591	820	118	9,795	16,111	2,115	60.3	50.9	56.0	9.76
Annual Consumption (hundred cubic feet)										
1,000 or Less	16	18	Q	1,595	2,179	Q	9.8	8.1	Q	19.74
1,001 to 5,000	144	127	13	4,776	5,320	671	30.1	23.8	20.1	11.92
5,001 to 10,000	76	116	9	1,699	2,919	258	44.7	39.8	35.2	16.69
10,001 to 25,000	144	156	37	2,374	4,050	622	60.5	38.6	59.0	14.38
25,001 to 50,000	68	152	29	1,120	2,555	377	60.9	59.5	77.4	15.35
50,001 to 100,000	97	129	21	920	1,771	307	105.9	72.7	68.4	27.40
Over 100,000	172	330	Q	1,188	2,932	415	145.1	112.5	Q	18.67
Gas Transported for										
the Account of Others	105	150	Q	774	1 156	0	125 4	127.0	0	20.07
Used in Building Not Used in Building	105 612	159 868	Q 117	774 12,898	1,156 20,570	Q 2,554	135.4 47.5	137.9 42.2	Q 45.9	28.07 9.36

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

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding RSE column and RSE row factors. • See Glossary for explanation of abbreviations and definitions of terms used in this report. • 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. • Because of rounding, data may not sum to totals.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A through F of the 1995 Commercial Buildings Energy Consumption