Table C15. Total Natural Gas Consumption and Expenditures, 1999

		All Buildings Us Natural Gas	ing	Natura Consu	al Gas mption	Natural Gas Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (billion cubic feet)	Total (million dollars)
All Buildings	2,670	45,525	17.1	2,023	1,966	10,609
Building Floorspace						
(Square Feet)						
1,001 to 5,000	1,193	3,566	3.0	312	304	1,802
5,001 to 10,000	684	5,088	7.4	292	284	1,810
10,001 to 25,000	448	7,001	15.6	319	310	1,813
25,001 to 50,000	176	6,405	36.4	234	227	1,274
50,001 to 100,000	103	7,165	69.4	250	243	1,253
100,001 to 200,000	42	5,915	139.2	230	223	1,104
200,001 to 500,000	18	5,282	299.7	237	230	958
Over 500,000	5	5,262 5,104	952.9	149	144	59 <sup>2</sup>
Over 500,000	5	5,104	952.9	149	144	594
Principal Building Activity						
Education	225	6,570	29.3	227	220	1,111
Food Sales	88	659	7.5	31	31	195
Food Service	246	1,510	6.1	216	210	1,185
Health Care	73	2,285	31.4	217	211	881
Inpatient	9	1,677	176.6	195	190	757
Outpatient	63	609	9.6	22	21	124
Lodging	104	3,548	34.0	181	176	943
Mercantile	439	7,887	18.0	186	180	1,126
Retail (Other Than Mall)	350	3,518	10.1	110	107	670
Enclosed and Strip Malls	89	4,369	48.9	76	74	456
Office	452	7,356	16.3	219	213	1,215
Public Assembly	187	2,989	16.0	96	94	560
Public Order and Safety	31	627	20.2	33	32	176
Religious Worship	214	2,457	11.5	62	60	409
Service	277	2,093	7.6	260	253	1,371
Warehouse and Storage	226	6,211	27.5	230	223	1,124
OtherVacant	40 68	707 626	17.7 9.2	45 19	44 19	224 89
Year Constructed 1919 or Before	291	2,766	9.5	120	117	684
1920 to 1945	329	4,257	12.9	195	189	968
1946 to 1959	426	6,040	14.2	256	248	1,390
1960 to 1969	426		18.5			1,986
		7,512		372	361	
1970 to 1979	481	8,080	16.8	326	317	1,726
1990 to 1999	389 349	8,794 8,076	22.6 23.2	391 364	380 354	2,033 1,820
Census Region and Division						
Northeast	311	7,305	23.5	299	291	1,895
New England	45	1,590	35.3	59	57	403
Middle Atlantic	266	5,714	21.5	240	234	1,491
Midwest	874	13,506	15.5	709	689	3,277
East North Central	611	9,383	15.4	497	483	2,252
West North Central	263	4,123	15.7	212	206	1,024
South	820	14,199	17.3	618	601	3,294
South Atlantic	231	5,517	23.9	249	242	1,397
East South Central	224	3,508	15.7	186	180	999
West South Central	365	5,174	14.2	183	178	898
	202	5,174	14.2	103	1/0	090
			45.0	200	205	0.44
West	665 230	10,515 3,183	15.8 13.8	396 145	385 140	2,144 739

Table C15. Total Natural Gas Consumption and Expenditures, 1999

	<u>,                                    </u>	All Buildings Us Natural Gas	sing	Natura Consu		Natural Gas Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (billion cubic feet)	Total (million dollars)
Climate Zone: 45-Year Average						
Under 2,000 CDD and						
More than 7,000 HDD	329	4,064	12.4	228	222	1,125
5,500-7,000 HDD	652	12,573	19.3	642	624	3,108
4,000-5,499 HDD	551	10,455	19.0	520	505	2,874
Fewer than 4,000 HDD	727	12,149	16.7	425	413	2,341
2,000 CDD or More and						
Fewer than 4,000 HDD	410	6,285	15.3	208	202	1,160
Workers (main shift)						
Fewer than 5	1,151	7,108	6.2	280	272	1,747
5 to 9	560	4,633	8.3	194	189	1,111
10 to 19	424	5,589	13.2	281	273	1,509
20 to 49	321	7,737	24.1	435	423	2,386
50 to 99	118	6,278	53.3	222	215	1,177
100 to 249	67	6,146	91.1	252	244	1,210
250 or More	28	8,035	287.1	359	349	1,468
Weekly Operating Hours						
39 or Fewer	376	2,825	7.5	82	80	502
40 to 48	673	8,197	12.2	269	262	1,480
49 to 60	651	9,714	14.9	387	377	2,123
61 to 84	447	9,007	20.2	358	348	2,045
85 to 167	285	6,449	22.6	348	339	1,810
Open Continuously	238	9,334	39.2	577	561	2,650
Ownership and Occupancy						
Nongovernment Owned	2,366	37,026	15.6	1,659	1,613	8,913
Owner Occupied	1,605	25,597	16.0	1,202	1,168	6,383
Nonowner Occupied	719	10,968	15.3	447	435	2,474
Unoccupied	Q	Q	Q	Q	Q	Q
Government Owned	304	8,500	28.0	364	353	1,696
Federal	24	997	41.3	37	36	159
State	52	2,253	43.5	114	111	470
Local	228	5,250	23.0	212	206	1,067
Vacancy Status						
Completely Vacant	Q	Q	Q	Q	Q	Q
Mostly Vacant	Q	Q	Q	Q	Q	Q
Partially Vacant	370	10,725	29.0	306	297	1,600
Not At All Vacant	2,232	34,174	15.3	1,698	1,650	8,920
Number of Establishments						
One	2,038	29,717	14.6	1,542	1,498	7,939
2 to 5	459	7,439	16.2	273	266	1,524
6 to 10	79	2,463	31.0	86	84	511
11 to 20	23	1,786	76.7	50	48	275
More than 20	19	3,596	186.8	60	58	297
Currently Unoccupied	50	525	10.5	12	11	64
Energy Sources (more than						
one may apply)						
Electricity	2,663	45,496	17.1	2,023	1,966	10,607
Natural Gas	2,670	45,525	17.1	2,023	1,966	10,609
Fuel Oil	91	8,088	89.1	428	416	1,786
District Heat	Q	2,683	51.2	108	105	488
District Chilled Water	21	1,316	62.9	53	51	226
Propane	35	1,887	53.5	Q	Q	433
Other	59	1,572	26.6	75	72	381

Table C15. Total Natural Gas Consumption and Expenditures, 1999

		All Buildings Us Natural Gas	ing	Natura Consu		Natural Gas Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (billion cubic feet)	Total (million dollars)
Space-Heating Energy Source						
Natural Gas	2,380	37,902	15.9	1,764	1,714	9,122
Natural Gas Main	2,189	32,729	15.0	1,602	1,557	8,225
Natural Gas Secondary	191	5,173	27.1	162	157	897
Other Excluding Natural Gas	208	6,492	31.2	190	184	1,067
Buildings without Heating	82	1,141	13.9	Q	Q	Q
Primary Space-Heating						
Energy Source						
Electricity	331	8,437	25.5	282	274	1,608
Natural Gas	2,189	32,729	15.0	1,602	1,557	8,225
Fuel Oil	Q	888	Q	17	16	108
District Heat	33	2,107	64.8	48	46	220
Propane	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q
Cooling Energy Source						
Natural Gas	142	1,914	13.5	102	99	518
Other Excluding Natural Gas	2,193	40,233	18.3	1,732	1,684	9,129
Buildings without Cooling	335	3,378	10.1	189	184	962
Water-Heating Energy Source						
Natural Gas	1,520	29,196	19.2	1,451	1,410	7,556
Other Excluding Natural Gas	671	12,170	18.1	413	402	2,149
Buildings without Water Heating	479	4,160	8.7	159	154	904
Cooking Energy Source						
Natural Gas	505	16,785	33.2	823	800	4,019
Other Excluding Natural Gas	110	3,072	28.0	118	114	653
Buildings without Cooking	2,055	25,668	12.5	1,082	1,052	5,937
Energy End Uses (more than						
one may apply)						
Buildings with Space Heating	2,588	44,385	17.2	1,954	1,899	10,189
Buildings with Cooling	2,335	42,147	18.1	1,834	1,782	9,647
Buildings with Water Heating	2,191	41,366	18.9	1,864	1,811	9,705
Buildings with Cooking	615	19,857	32.3	941	914	4,672
Buildings with Manufacturing	77	2,322	30.2	114	110	634
Buildings with Electricity  Generation	118	9,119	77.5	470	457	2,080
Generation	110	9,119	77.5	470	457	2,000
Percent of Floorspace Heated						
Not Heated	82	1,141	13.9	Q	Q	Q
1 to 50	322	4,873	15.1	130	126	679
51 to 99	441 1,825	8,052 31,460	18.3 17.2	344 1,480	335 1,438	1,896 7,614
100	1,020	31,400	17.2	1,400	1,400	7,014
Percent of Floorspace Cooled						
Not Cooled	335	3,378	10.1	189	184	962
1 to 50	679	12,068	17.8	561	545	2,897
51 to 99	544	12,694	23.3	589	573	3,056
100	1,112	17,386	15.6	684	665	3,694
Heating Equipment (more						
than one may apply)	404	F 607	20.4	202	004	4 404
Heat Pumps	194	5,627	29.1	292	284	1,481
Furnaces	1,104	11,960	10.8	566 520	550 515	3,054
Individual Space Heaters	581	13,561	23.3	530	515	2,712
District Heat	41	2,431	59.7	80	77	385
Roilers						
Boilers Packaged Heating Units	416 939	16,588 20,043	39.8 21.3	841 826	817 803	3,974 4,291

Table C15. Total Natural Gas Consumption and Expenditures, 1999

		All Buildings Us Natural Gas	ing	Natura Consu		Natural Gas Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (billion cubic feet)	Total (million dollars)
Cooling Equipment (more						
than one may apply)						
Residential-Type Central						
Air Conditioners	503	6.805	13.5	295	287	1.53
Heat Pumps	195	5,771	29.6	291	283	1,47
Individual Air Conditioners	507	10,715	21.1	486	472	2,51
District Chilled Water	21	1,316	62.9	53	51	2,31
Central Chillers	103		98.8	522	508	2,30
Packaged Air Conditioning	103	10,145	90.8	522	508	2,30
Units	1,356	27.007	20.6	1,193	1.150	6,27
Swamp Coolers		27,987	20.6 16.1	*	1,159 99	518
Other	121 20	1,950 773	16.1 Q	102 40	39	17
Main Equipment Replaced Since						
1995 (more than one may apply)						
Heating	656	10,327	15.8	431	419	2,43
Cooling	689	12,862	18.7	557	542	2,949
Water Heating Equipment						
Centralized System	1,706	26,479	15.5	1,258	1,222	6,76
Distributed System	342	7,585	22.2	278	270	1,40
Combination of Centralized						
and Distributed System	143	7,302	51.2	328	319	1,53
Annual Consumption						
(hundred cubic feet)		. ===				
1,000 or Less	742	4,596	6.2	39	38	31
1,001 to 5,000	1,194	11,194	9.4	309	301	2,04
5,001 to 10,000	344	6,839	19.9	246	239	1,41
10,001 to 25,000	271	9,173	33.9	427	415	2,38
25,001 to 50,000	65	4,914	76.1	222	216	1,10
50,001 to 100,000	36	3,477	95.5	253	245	1,28
Over 100,000	17	5,333	314.3	526	511	2,064
Provider of Natural Gas						
(more than one may apply)						
Local Utility	2,508	40,765	16.3	1,730	1,681	9,25
Some Other Provider	125	4,266	34.2	287	279	1,28

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

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* Due to rounding, data may not sum to totals.

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

Table C16. Natural Gas Consumption and Expenditure Intensities, 1999

			Natural Gas C	onsumption					
				Buildin	istribution g-Level Inte feet/squar	ensities	Natura	l Gas Expen	ditures
	per Building (thousand cubic feet)	per Square Foot (cubic feet)	per Worker (thousand cubic feet)	25th Percentile	Median	75th Percentile	per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Cubic Feet (dollars)
All Buildings	736	43.2	34.9	15.7	34.1	75.4	4.0	0.23	5.40
Building Floorspace (Square Feet)									
1,001 to 5,000	254	85.1	44.2	19.8	50.2	101.5	1.5	0.51	5.94
5,001 to 10,000	415	55.9	39.7	14.4	31.7		2.6	0.36	6.37
10,001 to 25,000	691	44.2	42.1	11.6	25.8		4.0	0.26	5.85
25,001 to 50,000	1,293	35.5	34.6	12.4	25.0		7.2	0.20	5.60
50,001 to 100,000	2,356	33.9	26.3	9.5	20.7		12.1	0.17	5.15
100,001 to 200,000	5,251	37.7	38.2	7.8	22.0		26.0	0.19	4.95
200,001 to 500,000	13,068	43.6	35.3	5.2	16.7		54.4	0.18	4.16
Over 500,000	26,952	28.3	21.6	2.2	10.4		110.9	0.12	4.11
Principal Building Activity									
Education	981	33.5	31.8	11.2	25.0		4.9	0.17	5.04
Food Sales	346	46.4	45.6	9.2	71.2	92.4	2.2	0.30	6.36
Food Service	854	139.1	65.4	76.7	141.1	258.5	4.8	0.78	5.64
Health Care	2,898	92.2	49.4	14.4	22.5		12.1	0.39	4.18
Inpatient	19,993	113.2	63.2	97.7	163.0		79.8	0.45	3.99
Outpatient	Q	34.5	16.6	13.8	19.2		Q	0.20	5.88
Lodging	1,688	49.6	95.9	31.6	55.8		9.0	0.27	5.35
Mercantile	411	22.9	20.6	12.4	29.8		2.6	0.14	6.24
Retail (Other Than Mall)	305	30.3	30.9	12.4	34.1	56.7	1.9	0.19	6.28
Enclosed and Strip Malls	826	16.9	13.9	12.6	24.7		5.1	0.10	6.18
Office	472	29.0	11.7	14.4	28.5		2.7	0.17	5.70
Public Assembly	501	31.3	45.8	8.3	21.5		3.0	0.19	5.99
Public Order and Safety	1,020 280	50.5 24.4	40.8	29.2 14.1	48.8		5.7 1.9	0.28	5.57 6.82
Religious Worship Service	914	121.0	47.3 79.8	33.5	24.8 55.5		4.9	0.17 0.66	5.42
Warehouse and Storage	989	36.0	79.6 54.5	10.3	26.5		5.0	0.00	5.03
Other	1,097	62.0	56.2		32.5		5.6	0.16	5.03
Vacant	275	29.9	30.2 Q	7.1	12.1	34.3	1.3	0.14	4.75
Year Constructed									
1919 or Before	403	42.3	Q	15.8	35.4	79.1	2.4	0.25	5.84
1920 to 1945	574	44.4	38.8	23.9	44.1	81.5	2.9	0.23	5.12
1946 to 1959	584	41.1	37.3	12.9	33.6	72.0	3.3	0.23	5.60
1960 to 1969	890	48.1	39.0	19.7	41.0	83.2	4.9	0.26	5.50
1970 to 1979	659	39.2	29.7	14.4	34.1	60.0	3.6	0.21	5.45
1980 to 1989	977	43.2	30.6	13.7	25.1	55.0	5.2	0.23	5.35
1990 to 1999	1,014	43.8	36.5	14.1	32.5	81.8	5.2	0.23	5.15
Census Region and Division									
Northeast	933	39.8	32.1	20.1	48.9		6.1	0.26	6.52
New England	1,262	35.8	29.4	16.3	42.7		9.0	0.25	7.09
Middle Atlantic	878	40.9	32.8	20.8	49.4		5.6	0.26	6.38
Midwest	789	51.0	45.8	20.3	44.6		3.7	0.24	4.75
East North Central	791	51.5	48.5	20.5	47.0		3.7	0.24	4.66
West North Central	782	49.9	40.5	19.7	41.9		3.9	0.25	4.97
South Atlantic	733	42.3	32.8	13.7	26.5		4.0	0.23	5.48
South Atlantic  East South Central	1,050 806	43.9 51.4	34.9 41.2	14.2 15.1	30.3 32.4		6.1	0.25 0.28	5.76 5.54
West South Central	488	34.5	25.5	12.0	32.4 20.8		4.5 2.5	0.28	5.0 <sup>2</sup>
West	400 579	34.5 36.6	25.5 27.8	11.3	20.8		3.2	0.17	5.56
Mountain	609	44.1	42.6	18.8	34.8		3.2	0.20	5.26
Pacific	563	33.4	23.2		34.6 24.7		3.2	0.23	5.74

Table C16. Natural Gas Consumption and Expenditure Intensities, 1999

			Natural Gas C	onsumption					
				Buildin	istribution g-Level Inte feet/squar	ensities	Natura	l Gas Expen	ditures
	per Building (thousand cubic feet)	per Square Foot (cubic feet)	per Worker (thousand cubic feet)	25th Percentile	Median	75th Percentile	per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Cubic Feet (dollars)
Climate Zone: 45-Year Average									
Under 2,000 CDD and									
More than 7,000 HDD	674	54.6	52.6	30.3	54.6	89.8	3.4	0.28	5.08
5,500-7,000 HDD	957	49.6	45.0	22.3	44.6		4.8	0.25	4.98
4,000-5,499 HDD	916	48.3	36.4	19.7	37.9		5.2	0.27	5.69
Fewer than 4,000 HDD	568	34.0	25.1	10.7	24.0		3.2	0.19	5.67
	300	34.0	23.1	10.7	24.0	45.1	5.2	0.19	5.07
2,000 CDD or More and Fewer than 4,000 HDD	493	32.2	25.7	10.8	19.8	65.4	2.8	0.18	5.73
M. J (120)									
Workers (main shift) Fewer than 5	236	38.3	107.6	13.8	33.3	71.2	1.5	0.25	6.42
5 to 9	338	40.8	51.5	15.4	35.1		2.0	0.24	5.88
10 to 19	645	48.9	50.4	18.5	35.2		3.6	0.24	5.52
20 to 49	1,316	54.7	45.9	18.1	40.9		7.4	0.27	5.64
50 to 99	1,828	34.7	45.9 28.1	15.6	40.9 29.1		10.0	0.31	5.04 5.47
100 to 249	3,625 12,461	39.8 43.4	26.7 18.7	14.8 8.7	24.4 21.0		17.9 52.5	0.20 0.18	4.95 4.21
Weekly Operating Hours 39 or Fewer	212	28.3	41.1	11.2	20.1	38.2	1.3	0.18	6.28
40 to 48	389	31.9	26.9	12.8			2.2	0.18	5.65
					28.5				
49 to 60	579	38.8	27.8	18.0	33.5		3.3	0.22	5.64
61 to 84	779	38.6	30.3	16.6	35.8		4.6	0.23	5.88
85 to 167  Open Continuously	1,187 2,358	52.5 60.1	42.6 48.4	31.8 30.4	68.2 61.0		6.3 11.1	0.28 0.28	5.35 4.72
open commission, minimum	2,000	00.1		00	00	02.0		0.20	
Ownership and Occupancy	000	40.0	04.0	40.5	04.4	70.5	0.0	0.04	5.50
Nongovernment Owned	682		34.6	16.5	34.1	76.5	3.8	0.24	5.53
Owner Occupied	728	45.6	35.6	17.0	36.5		4.0	0.25	5.46
Nonowner Occupied	605	39.6	31.6	16.4	32.6		3.4	0.23	5.69
Unoccupied		Q	N	11.5	12.0		Q	Q	Q
Government Owned	1,163	41.6	36.5	11.3	32.7	71.1	5.6	0.20	4.80
Federal	Q	36.4	22.6	2.8	8.3	23.9	Q	0.16	4.37
State	2,143	49.2	46.7	16.7	35.4	89.4	9.1	0.21	4.24
Local	905	39.3	36.1	13.0	34.8	71.1	4.7	0.20	5.18
Vacancy Status									
Completely Vacant	Q	Q	N	2.0	11.5	17.2	Q	Q	Q
Mostly Vacant	Q	Q	Q	7.1	23.3	71.1	Q	Q	Q
Partially Vacant	804	27.7	20.8	9.9	21.1	46.8	4.3	0.15	5.38
Not At All Vacant	739	48.3	39.5	17.8	36.8	79.3	4.0	0.26	5.41
Number of Establishments									
One	735	50.4	43.8	16.6	36.1	77.4	3.9	0.27	5.30
2 to 5	579	35.7	32.1	13.7	31.3		3.3	0.20	5.73
6 to 10	1,057	34.0	18.0	14.2	33.6		6.4	0.21	6.09
11 to 20	2,079	27.1	15.4	10.6	20.6		11.8	0.15	5.68
More than 20	,		9.7	7.5	27.3		15.4	0.08	5.11
Currently Unoccupied	226		9.7 N	11.5	15.5		1.3	0.12	5.65
Energy Sources (mare then									
Energy Sources (more than one may apply)									
	738	43.2	34.9	15.8	34.1	75.4	4.0	0.23	5.40
Electricity									
Natural Gas		43.2	34.9	15.7	34.1		4.0	0.23	5.40
Fuel Oil	4,584	51.5	34.3	10.7	23.2		19.7	0.22	4.29
District Heat	Q	39.1	25.0	4.9	16.7		9.3	0.18	Q
District Chilled Water	2,447	38.9	26.9	8.3	15.2		10.8	0.17	4.40
Propane	Q		62.5	13.3	36.3		Q	0.23	4.13
Other	1,226	46.1	Q	34.0	57.0	64.9	6.4	0.24	5.25

Table C16. Natural Gas Consumption and Expenditure Intensities, 1999

			Natural Gas C	onsumption					
				D Buildin	istribution g-Level Inte feet/squar	ensities	Natura	l Gas Expen	ditures
	per Building (thousand cubic feet)	per Square Foot (cubic feet)	per Worker (thousand cubic feet)	25th Percentile	Median	75th Percentile	per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Cubic Feet (dollars)
Space-Heating Energy Source									
Natural Gas	720	45.2	37.3	16.5	34.0	72.0	3.8	0.24	5.32
Natural Gas Main	711	47.6	39.8	16.8	34.2		3.8	0.25	5.28
Natural Gas Secondary	823	30.4	23.0	9.4	24.7	53.2	4.7	0.17	5.70
Other Excluding Natural Gas	885	28.4	21.9	9.7	40.7	115.9	5.1	0.16	5.78
Buildings without Heating	Q	Q	Q	6.1	16.9	160.3	Q	Q	6.25
Primary Space-Heating									
Energy Source									
Electricity	827	32.5	25.5	11.7	39.0	86.2	4.9	0.19	5.86
Natural Gas		47.6	39.8	16.8	34.2	75.4	3.8	0.25	5.28
Fuel Oil	Q	18.5	13.2	4.2	17.8	17.8	Q	0.12	6.59
District Heat	1,422	21.9	14.9	1.5	8.3	56.9	6.8	0.10	4.75
Propane	Q	Q	Q	4.1	4.1	4.1	Q	Q	Q
Other	Q	Q	Q	12.9	44.1	44.1	Q	Q	Q
Cooling Energy Source									
Natural Gas	696	51.6	34.7	15.2	34.0	81.1	3.7	0.27	5.25
Other Excluding Natural Gas	768	41.8	32.7	16.0	33.6	71.5	4.2	0.23	5.42
Buildings without Cooling	548	54.4	93.3	11.5	36.8	80.9	2.9	0.28	5.24
Water-Heating Energy Source									
Natural Gas	927	48.3	39.2	16.8	38.0	81.8	5.0	0.26	5.36
Other Excluding Natural Gas	599	33.0	24.7	15.6	32.6	60.8	3.2	0.18	5.35
Buildings without Water Heating	323	37.1	38.1	13.1	26.7	69.2	1.9	0.22	5.85
Cooking Energy Source									
Natural Gas	1,584	47.7	37.5	26.2	66.5	161.8	8.0	0.24	5.02
Other Excluding Natural Gas	1,043	37.2	31.3	18.8	43.0	91.6	6.0	0.21	5.71
Buildings without Cooking	512	41.0	33.6	14.1	29.8	60.6	2.9	0.23	5.65
Energy End Uses (more than									
one may apply)									
Buildings with Space Heating	734	42.8	34.9	16.0	34.2	75.4	3.9	0.23	5.37
Buildings with Cooling	763	42.3	32.8	15.9	33.6	72.0	4.1	0.23	5.41
Buildings with Water Heating	827	43.8	34.7	16.0	35.1	76.7	4.4	0.23	5.36
Buildings with Cooking	1,488	46.0	36.6	25.5	64.2		7.6	0.24	5.11
Buildings with Manufacturing	1,434	47.5	35.5	18.0	30.1	58.3	8.2	0.27	5.74
Buildings with Electricity  Generation	3,885	50.1	33.5	25.5	57.0	95.7	17.7	0.23	4.55
	0,000	00.1	00.0	20.0	07.0	00.7		0.20	1.00
Percent of Floorspace Heated  Not Heated	Q	Q	Q	6.1	16.9	160.3	Q	Q	6.25
1 to 50	391	25.9	41.2	9.3	17.3		2.1	0.14	5.39
51 to 99	759	41.6	35.8	16.0	35.3		4.3	0.14	5.66
100	788	45.7	34.2	18.3	37.2		4.2	0.24	5.30
Percent of Floorspace Cooled									
Not Cooled	548	54.4	93.3	11.5	36.8	80.9	2.9	0.28	5.24
1 to 50	802	45.2	54.2	13.8	36.1	70.5	4.3	0.24	5.32
51 to 99	1,052	45.1	33.3	16.9	35.8	89.8	5.6	0.24	5.34
100	598	38.2	24.6	15.8	32.5	67.0	3.3	0.21	5.56
100	390	30.2	24.0	13.0	32.3	07.0	3.3	0.21	5.50

Table C16. Natural Gas Consumption and Expenditure Intensities, 1999

			Natural Gas C	onsumption					
				Buildin	istribution og-Level Inte	ensities	Natura	l Gas Expen	ditures
	per Building (thousand cubic feet)	per Square Foot (cubic feet)	per Worker (thousand cubic feet)	25th Percentile	Median	75th Percentile	per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Cubic Feet (dollars)
Heating Equipment (more									
than one may apply)									
Heat Pumps	1,467	50.5	41.1	11.5	27.7	84.4	7.6	0.26	5.21
Furnaces	499	46.0	42.1	16.8	32.4	66.5	2.8	0.26	5.55
Individual Space Heaters		38.0	37.9	14.8	30.4	63.5	4.7	0.20	5.27
District Heat	1,897	31.8	19.4	3.2	16.3	114.5	9.4	0.16	
Boilers		49.3	38.7	24.7	45.7	84.1	9.5	0.24	4.86
Packaged Heating Units	854	40.1	32.8	14.4	32.1	68.2	4.6	0.21	5.35
Other		48.4	34.5	12.9	28.5	71.1	7.8	0.21	4.31
Cooling Equipment (more									
than one may apply)									
Residential-Type Central									
Air Conditioners	570	42.1	36.8	17.4	29.8	63.1	3.1	0.23	5.37
Heat Pumps	1,451	49.1	37.7	15.1	27.7	64.2	7.6	0.26	5.22
Individual Air Conditioners	932	44.1	39.2	17.8	41.0	84.1	5.0	0.24	5.33
District Chilled Water	2,447	38.9	26.9	8.3	15.2	42.0	10.8	0.17	4.40
Central Chillers	4,942	50.0	30.7	21.5	42.9	86.2	22.4	0.23	4.53
Packaged Air Conditioning	.,								
Units	855	41.4	32.1	14.4	35.8	72.0	4.6	0.22	5.41
Swamp Coolers	817	50.8	47.8	18.5	32.9	111.3	4.3	0.27	5.23
Other		50.4	38.4	25.0	31.7	34.0	Q	0.22	
Main Equipment Replaced Since									
1995 (more than one may apply)									
Heating	639	40.6	32.7	18.3	37.6	77.5	3.7	0.24	5.80
Cooling	786	42.1	31.4	15.9	39.3	84.1	4.3	0.23	5.45
Water Heating Equipment									
Centralized System	716	46.2	37.6	16.9	36.6	81.8	4.0	0.26	5.53
Distributed System	791	35.6	29.0	10.3	22.1	49.6	4.1	0.19	5.21
Combination of Centralized									
and Distributed System	2,236	43.6	30.7	20.5	42.5	76.7	10.8	0.21	4.81
Annual Consumption									
(hundred cubic feet)									
1,000 or Less		8.3	7.9	6.5	11.5	21.8	0.4	0.07	8.11
1,001 to 5,000	252	26.8	21.7	23.2	42.2	72.0	1.7	0.18	6.81
5,001 to 10,000	696	35.0	26.5	29.3	56.4	147.8	4.1	0.21	5.93
10,001 to 25,000	1,533	45.3	37.6	37.3	85.6	247.8	8.8	0.26	5.75
25,001 to 50,000	3,347	44.0	35.5	37.9	67.1	144.0	17.1	0.22	5.09
50,001 to 100,000	6,742	70.6	61.5	56.8	115.0	577.2	35.2	0.37	5.21
Over 100,000	30,101	95.8	68.5	60.5	102.5	171.1	121.6	0.39	4.04
Provider of Natural Gas									
(more than one may apply)									
Local Utility		41.2	33.7	14.8	33.1	73.1	3.7	0.23	5.50
Some Other Provider	2,237	65.4	48.5	30.4	46.5	86.2	10.3	0.30	4.62

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled. N=No responding cases in sample.

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* Due to rounding, data may not sum to totals.

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

Table C17. Natural Gas Consumption and Conditional Energy Intensity by Census Region, 1999

		Consu	tural Gas mption ubic feet)		Build	ings Usir	rspace of g Natura juare feet	l Gas	la:	Energy	al Gas Intensity square fo	ot)
		(Dillion C	ubic feet)			million sc	uare reet	)	(CL	IDIC TEET/	square to	οτ)
	North- east	Mid- west	South	West	North- east	Mid- west	South	West	North- east	Mid- west	South	West
All Buildings	291	689	601	385	7,305	13,506	14,199	10,515	39.8	51.0	42.3	36.6
Building Floorspace												
(Square Feet)					_							
1,001 to 5,000		115	91	68	Q	1,210	951	991	Q	94.8	95.7	68.9
5,001 to 10,000		79	Q	57	564	1,676	1,674	1,175	80.3	47.1	Q	48.5
10,001 to 25,000		96	Q	39	918	2,218	2,338	1,526	58.0	43.2		25.5
25,001 to 50,000		63	71	64	927	1,480	2,054	1,944	31.4	42.7	34.4	33.1
50,001 to 100,000		80	68	65	979	2,077	2,343	1,767	31.2	38.3	29.2	36.6
100,001 to 200,000		100	60	31	938	1,866	1,902	1,209	33.8	53.7	31.8	25.5
200,001 to 500,000 Over 500,000		111 46	52 33	38 23	911 1,653	1,776 1,203	1,628 1,310	967 937	32.3 25.1	62.3 38.2	32.1 25.6	39.3 24.9
Principal Building Activity												
Education	42	83	45	50	1,223	1,863	1,757	1,726	34.7	44.5	25.3	29.2
Food Sales	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Food Service	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Health Care	44	55	67	46	352	668	760	505	124.6	82.1	87.5	90.2
Inpatient	43	47	62	Q	330	488	567	Q	131.5	95.5	108.7	Q
Outpatient	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Lodging	18	43	67	49	306	758	1,258	1,225	57.4	56.2	53.5	39.8
Mercantile	35	78	43	24	1,322	2,471	2,686	1,408	26.7	31.5	16.0	17.4
Retail (Other Than Mall)	24	51	23	Q	602	1,507	995	Q	39.9	33.9	23.5	Q
Enclosed and Strip Malls	Q	27	20	16	Q	964	1,692	993	Q	27.6	11.6	16.4
Office	28	77	57	52	1,210	2,136	2,188	1,821	22.7	35.9	26.0	28.6
Public Assembly	14	29	24	Q	504	899	991	595	27.1	32.0	23.7	46.5
Public Order and Safety	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Religious Worship	Q	22	12	16	Q	659	677	839	Q	32.8	17.5	19.7
Service	Q	64	145	Q	Q	753	738	297	Q	85.3	196.4	44.8
Warehouse and Storage	28	136	41	Q	1,166	2,001	1,948	1,096	23.6	68.0	21.3	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Year Constructed		0.4		40	07.4	4 000	440	440	40.0	<b>540</b>	40.5	44.0
1919 or Before	28	64	8	18	674	1,260	413	419	40.8	51.0	18.5	41.9
1920 to 1945		95	39	26	911	1,837	944	566	32.0	51.6	41.7	45.7
1946 to 1959		86	47	40	1,274	1,779	1,676	1,310	59.5	48.2		30.2
1960 to 1969	48	110	116	87	1,140	2,144	2,300	1,928	42.4	51.4		44.9
1980 to 1989		87	107 177	91	960	1,881	2,600	2,639	33.0	46.4	41.1	34.5
1990 to 1999		111 136	106	45 79	1,288 1,056	2,236 2,369	3,481 2,785	1,789 1,865	35.7 30.2	49.8 57.3	50.9 38.2	25.4 42.6
Climate Zone: 45-Year Average												
Under 2,000 CDD and												
More than 7,000 HDD	Q	192	N	29	Q	3,579	N	458	Q	53.7	N	62.4
5,500-7,000 HDD	142	399	N	83	3,467	7,330	N	1,776	41.0	54.4		46.7
4,000-5,499 HDD	147	98	205	54	3,812	2,597	2,804	1,242	38.7	37.9	73.1	43.8
Fewer than 4,000 HDD		N	240	173	0,012 N	2,007 N	6,222	5,927	N	N	38.5	29.2
2,000 CDD or More and							-,	-,-				
Fewer than 4,000 HDD	N	N	156	46	N	N	5,173	1,112	N	N	30.2	41.6
Workers (main shift)												
Fewer than 5		107	79	57	614	2,576	2,180	1,738	48.2	41.4		32.7
5 to 9		80	35	55	701	1,542	1,083	1,307	27.0	51.9	32.5	42.0
10 to 19		96	90	41	950	1,766	1,726	1,147	48.6	54.3	52.4	35.6
20 to 49		103	193	74	885	2,110	2,883	1,858	59.6	48.6	67.0	39.9
50 to 99	45	70	59	41	1,062	1,671	1,990	1,555	42.2	42.1	29.6	26.5
100 to 249		94	63	50	1,102	1,854	2,009	1,182	34.7	50.5	31.3	42.1
250 or More	60	140	81	67	1,990	1,988	2,328	1,728	30.1	70.5	34.9	39.0

Table C17. Natural Gas Consumption and Conditional Energy Intensity by Census Region, 1999

		Total Nat Consu (billion c			Build	ings Usir	orspace of ng Natura quare feet	l Gas	(cı	Energy	al Gas Intensity square fo	ot)
		,	ĺ		Ì			,	,			,
	North- east	Mid- west	South	West	North- east	Mid- west	South	West	North- east	Mid- west	South	West
Weekly Operating Hours												
39 or Fewer	Q	30	21	16	Q	789	971	792	Q	38.1	21.9	20.6
40 to 48		92	70	62	934	2,460	2,837	1,966	41.2	37.4	24.5	31.4
49 to 60		131	133	75	1,394	3,146	2,771	2,403	26.9	41.7	Q	31.1
61 to 84		113	Q	55	1,805	2,622	2,656	1,924	42.1	43.0	Q	28.7
85 to 167		134	111	57	1,146	2,160	1,910	1,232	31.9	61.9	58.3	46.1
Open Continuously		189	161	120	1,754	2,329	3,054	2,198	51.2	81.3	52.9	54.8
Ownership and Occupancy												
Nongovernment Owned	242	571	494	305	5,622	11,152	11,727	8,525	43.1	51.2	42.2	35.7
Owner Occupied	193	396	369	211	4,056	7,868	7,959	5,714	47.5	50.4	46.3	36.9
Nonowner Occupied		172	120	94	1,537	3,200	3,501	2,730	32.1	53.7	34.3	34.3
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government Owned	48	118	107	81	1,683	2,354	2,473	1,990	28.7	50.1	43.1	40.5
Federal	Q	Q	9	11	Q	Q	275	239	Q	Q	34.3	45.5
State	Q	34	Q	21	Q	678	693	545	Q	50.5	Q	37.8
Local	36	71	50	49	1,093	1,447	1,504	1,206	33.0	49.3	33.0	40.7
Vacancy Status												
Completely Vacant	N	Q	Q	Q	N	Q	Q	Q	N	Q	Q	Q
Mostly Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	19.7	Q
Partially Vacant	39	123	80	55	1,798	3,253	3,333	2,341	21.8	37.9	23.9	23.6
Not At All Vacant	250	554	519	327	5,407	10,007	10,754	8,006	46.3	55.3	48.2	40.8
Number of Establishments												
One	210	518	480	291	4,482	9,194	9,096	6,945	46.8	56.4	52.8	41.8
2 to 5	43	115	58	50	1,237	2,533	2,008	1,661	35.1	45.3	28.7	30.1
6 to 10	Q	14	31	19	Q	470	897	726	Q	30.8	35.1	26.7
11 to 20	Q	19	13	8	Q	444	642	363	Q	43.8	20.2	23.1
More than 20	11	19	13	15	850	743	1,283	720	Q	25.6	10.3	21.0
Currently Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Energy Sources (more than												
one may apply)												
Electricity	291	689	601	385	7,305	13,506	14,199	10,486	39.8	51.0	42.3	36.7
Natural Gas	291	689	601	385	7,305	13,506	14,199	10,515	39.8	51.0	42.3	36.6
Fuel Oil	78	165	111	61	2,569	1,945	2,269	1,306	30.5	85.1	49.0	46.8
District Heat	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
District Chilled Water	Q	9	18	Q	Q	290	518	Q	Q	30.2	34.9	Q
Propane	Q	Q	17	Q	Q	628	701	Q	Q	Q	Q	Q
Other	Q	29	Q	Q	Q	507	Q	Q	Q	56.7	Q	Q
Space-Heating Energy Source												
Natural Gas	268	663	444	339	5,703	12,467	10,904	8,828	47.0	53.2	40.7	38.4
Natural Gas Main		624	394	300	4,913	11,348	8,815	7,653	48.7	55.0	44.7	39.2
Natural Gas Secondary		39	50	39	790	1,118	2,089	1,175	36.6	35.2	23.8	33.4
Other Excluding Natural Gas		21	110	34	1,545	986	2,616	1,345	12.5	21.4	42.0	25.4
Buildings without Heating	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Primary Space-Heating												
Energy Source								65	<u> </u>			
Electricity		50	135	62	693	1,497	4,037	2,210	38.4	33.6	33.5	28.0
Natural Gas		624	394	300	4,913	11,348	8,815	7,653	48.7	55.0	44.7	39.2
E 10"								$\sim$				$\sim$
Fuel Oil		Q	Q	Q	664	Q	Q	Q	19.5	Q	Q	Q
Fuel Oil District Heat Propane	8	Q Q Q	22 N	Q Q N	664 884 Q	507 Q	468 N	Q Q N	19.5 Q Q	13.2 Q	46.2 N	Q

Table C17. Natural Gas Consumption and Conditional Energy Intensity by Census Region, 1999

Cooling Energy Source Natural Gas	North- east 31 241 18 197 81 12 132 25 134 287	Mid-west  38 590 62  444 153 92 255 40 394	South  Q 526 Q 447 121 33 242 35 324	20 326 39 321 46 18	North- east 446 6,275 583 4,074 2,827 404	Mid- west 550 11,750 1,206 8,323 3,350 1,833	South  Q 13,532 402  8,943 3,973	652 8,676 1,187 7,856 2,020	North- east 69.1 38.5 31.5	Mid- west 69.0 50.2 51.0	South  Q 38.9 Q	30.5 37.6 32.8
Cooling Energy Source Natural Gas	931 241 18 197 81 12 132 25 134	38 590 62 444 153 92 255 40	Q 526 Q 447 121 33 242 35	20 326 39 321 46 18	446 6,275 583 4,074 2,827	550 11,750 1,206 8,323 3,350	Q 13,532 402 8,943 3,973	652 8,676 1,187 7,856	69.1 38.5 31.5	69.0 50.2 51.0	Q 38.9 Q	30.5 37.6
Natural Gas	241 18 197 81 12 132 25 134	590 62 444 153 92 255 40	526 Q 447 121 33 242 35	326 39 321 46 18	6,275 583 4,074 2,827	11,750 1,206 8,323 3,350	13,532 402 8,943 3,973	8,676 1,187 7,856	38.5 31.5 48.4	50.2 51.0 53.4	38.9 Q	37.6
Natural Gas	241 18 197 81 12 132 25 134	590 62 444 153 92 255 40	526 Q 447 121 33 242 35	326 39 321 46 18	6,275 583 4,074 2,827	11,750 1,206 8,323 3,350	13,532 402 8,943 3,973	8,676 1,187 7,856	38.5 31.5 48.4	50.2 51.0 53.4	38.9 Q	37.6
Other Excluding Natural Gas Buildings without Cooling  Water-Heating Energy Source Natural Gas Other Excluding Natural Gas Buildings without Water Heating  Cooking Energy Source Natural Gas Other Excluding Natural Gas Buildings without Cooking  Energy End Uses (more than one may apply) Buildings with Space Heating Buildings with Water Heating Buildings with Water Heating Buildings with Water Heating Buildings with Cooking Buildings with Cooking Buildings with Manufacturing	241 18 197 81 12 132 25 134	590 62 444 153 92 255 40	526 Q 447 121 33 242 35	326 39 321 46 18	6,275 583 4,074 2,827	11,750 1,206 8,323 3,350	13,532 402 8,943 3,973	8,676 1,187 7,856	38.5 31.5 48.4	50.2 51.0 53.4	38.9 Q	37.6
Buildings without Cooling	18 197 81 12 132 25 134	444 153 92 255 40	Q 447 121 33 242 35	39 321 46 18	583 4,074 2,827	1,206 8,323 3,350	402 8,943 3,973	1,187 7,856	31.5 48.4	51.0 53.4	Q	
Natural Gas Other Excluding Natural Gas Buildings without Water Heating  Cooking Energy Source Natural Gas Other Excluding Natural Gas Buildings without Cooking  Energy End Uses (more than one may apply) Buildings with Space Heating Buildings with Water Heating Buildings with Cooking Buildings with Cooking Buildings with Manufacturing	81 12 132 25 134	153 92 255 40	121 33 242 35	46 18	2,827	3,350	3,973	,			50.0	
Natural Gas Other Excluding Natural Gas Buildings without Water Heating  Cooking Energy Source Natural Gas Other Excluding Natural Gas Buildings without Cooking  Energy End Uses (more than one may apply) Buildings with Space Heating Buildings with Water Heating Buildings with Cooking Buildings with Cooking Buildings with Manufacturing	81 12 132 25 134	153 92 255 40	121 33 242 35	46 18	2,827	3,350	3,973	,			50.0	
Other Excluding Natural Gas Buildings without Water Heating  Cooking Energy Source Natural Gas Other Excluding Natural Gas Buildings without Cooking  Energy End Uses (more than one may apply) Buildings with Space Heating Buildings with Cooling Buildings with Water Heating Buildings with Cooking Buildings with Manufacturing	132 25 134	92 255 40	33 242 35	18	,	3,350	3,973	2,020	28.8	45 7		40.9
Cooking Energy Source Natural Gas	132 25 134	255 40	242 35		404	1.833	,		_0.0	45.7	30.4	23.0
Natural Gas	25 134	40	35	172		,	1,283	640	29.8	50.1	25.6	27.8
Other Excluding Natural Gas Buildings without Cooking  Energy End Uses (more than one may apply) Buildings with Space Heating Buildings with Cooling Buildings with Water Heating Buildings with Cooking Buildings with Manufacturing	25 134	40	35	172								
Buildings without Cooking  Energy End Uses (more than one may apply)  Buildings with Space Heating  Buildings with Cooling  Buildings with Water Heating  Buildings with Cooking  Buildings with Manufacturing	134				3,380	4,445	5,345	3,614	39.0	57.3	45.3	47.5
Energy End Uses (more than one may apply) Buildings with Space Heating Buildings with Cooling Buildings with Water Heating Buildings with Cooking Buildings with Manufacturing		394	マンハ	14	537	913	1,213	409	46.5	44.2	28.9	33.9
one may apply)  Buildings with Space Heating  Buildings with Cooling  Buildings with Water Heating  Buildings with Cooking  Buildings with Manufacturing	287		324	200	3,388	8,148	7,641	6,492	39.5	48.4	42.4	30.8
Buildings with Space Heating  Buildings with Cooling  Buildings with Water Heating  Buildings with Cooking  Buildings with Manufacturing	287											
Buildings with Cooling  Buildings with Water Heating  Buildings with Cooking  Buildings with Manufacturing		684	554	374	7,248	13,452	13,511	10,173	39.6	50.9	41.0	36.7
Buildings with Water Heating  Buildings with Cooking  Buildings with Manufacturing	272	628	536	346	6,721	12,300	13,798	9,328	40.5	51.0	38.9	37.1
Buildings with Manufacturing	278	597	568	367	6,901	11,673	12,916	9,875	40.4	51.2	44.0	37.2
3	157	295	277	186	3,917	5,358	6,558	4,024	40.0	55.0	42.2	46.1
Buildings with Electricity	Q	Q	30	13	Q	777	675	458	Q	69.3	44.0	29.4
Generation	76	172	123	86	2,132	2,355	2,997	1,635	35.5	73.1	41.1	52.6
Percent of Floorspace Heated												
Not Heated	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	C
1 to 50	Q	32	Q	35	Q	1,305	1,373	1,638	Q	24.7	Q	21.4
51 to 99	29	70	Q	61	1,086	2,123	2,960	1,884	27.0	32.8	Q	32.6
100	245	582	333	277	5,606	10,024	9,178	6,652	43.7	58.1	36.3	41.7
Percent of Floorspace Cooled												
Not Cooled	18	62	Q	39	583	1,206	402	1,187	31.5	51.0	Q	32.8
1 to 50	99	258	Q	62	2,476	4,570	2,640	2,382	40.1	56.5	Q	26.1
51 to 99	99 74	193 176	166 245	115 169	2,161 2,084	4,147 3,583	3,889 7,269	2,496 4,449	45.6 35.6	46.5 49.2	42.6 33.7	46.2 38.0
Heating Equipment (more												
than one may apply)												
Heat Pumps	28	39	173	44	928	691	2,732	1,276	30.6	57.0	63.2	34.2
Furnaces	68	285	Q	69	1,480	5,153	3,101	2,226	46.0	55.3	41.5	31.0
Individual Space Heaters	91	200	124	99	2,550	4,207	3,847	2,956	35.6	47.6	32.3	33.6
District Heat	26	11	27	12	998	579	560	295	26.4	19.9	48.7	41.4
Boilers	137	329	171	181	3,552	5,701	3,641	3,694	38.5	57.6	47.0	49.0
Packaged Heating Units Other	101 Q	266 Q	266 13	171 Q	3,039 Q	4,717 953	7,108 786	5,179 501	33.1 Q	56.4 Q	37.4 16.9	33.0 45.4
Cooling Equipment (more	~			_	_	000	. 00		_	_		
than one may apply)												
Residential-Type Central												
Air Conditioners	35	125	91	Q	800	2,626	2,376	1,004	44.3	47.5	38.3	35.4
Heat Pumps	26	38	174	45	962	742	2,753	1,313	26.9	51.4	63.1	34.6
Individual Air Conditioners	105	187	117	63	2,608	3,352	3,152	1,603	40.3	55.8	37.1	39.6
District Chilled Water	Q	9	18	Q	Q	290	518	Q	Q	30.2	34.9	C
Central Chillers	71	175	139	122	1,967	2,621	3,338	2,220	36.1	67.0	41.7	54.9
Packaged Air Conditioning							_					
Units	198	435	316	210	4,777	7,564	9,287	6,359	41.5	57.5	34.0	33.0
Swamp Coolers Other	Q Q	Q Q	Q Q	65 Q	Q	Q	Q	1,413	Q	Q	Q	45.9

Table C17. Natural Gas Consumption and Conditional Energy Intensity by Census Region, 1999

			tural Gas mption ubic feet)		Build	ings Usin	rspace of g Natura juare feet	l Gas	Natural Gas Energy Intensity (cubic feet/square foot)			
	North- east	Mid- west	South	West	North- east	Mid- west	South	West	North- east	Mid- west	South	West
Main Equipment Replaced Since												
1995 (more than one may apply)												
Heating	60	140	125	94	1,233	3,072	3,477	2,545	48.5	45.6	35.9	37.0
Cooling	80	188	173	101	1,979	3,505	4,651	2,728	40.3	53.6	37.2	37.
Water Heating Equipment												
Centralized System	207	362	400	253	4,691	7,688	7,742	6,357	44.2	47.1	51.6	39.8
Distributed System	23	119	74	55	1,055	1,977	2,740	1,812	21.4	60.0	26.9	30.
Combination of Centralized												
and Distributed System	48	116	95	59	1,154	2,007	2,435	1,706	41.9	58.0	38.9	34.7
Annual Consumption												
(hundred cubic feet)												
1,000 or Less	2	10	16	10	392	946	1,867	1,392	4.5	10.5	8.7	7.4
1,001 to 5,000	40	108	78	74	1,413	3,280	3,635	2,865	28.5	32.9	21.5	25.8
5,001 to 10,000	33	90	69	47	1,091	1,807	2,411	1,530	30.4	49.9	28.6	30.9
10,001 to 25,000	87	132	104	92	1,694	2,799	2,510	2,169	51.1	47.2	41.5	42.0
25,001 to 50,000	26	69	77	44	834	1,569	1,510	1,001	30.8	44.2	50.9	44.2
50,001 to 100,000	26	73	Q	32	779	1,308	842	547	33.7	56.0	134.7	59.3
Over 100,000	77	206	143	85	1,101	1,796	1,425	1,011	69.7	114.9	100.4	83.0
Provider of Natural Gas												
(more than one may apply)												
Local Utility	223	593	529	337	6,102	11,915	13,151	9,597	36.5	49.7	40.2	35.
Some Other Provider	64	93	71	Q	954	1,534	917	861	67.3	60.5	77.5	59.

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled. N=No responding cases in sample.

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

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* Due to rounding, data may not sum to totals.

Table C18. Natural Gas Expenditures by Census Region, 1999

							Natural (	Gas Expe	nditures	(dollars)		
	Total N	latural Ga (million	as Expend dollars)	litures	per	Thousan	d Cubic F	eet		per Squ	are Foot	
	North- east	Mid- west	South	West	North-	Mid- west	South	West	North- east	Mid- west	South	West
All Buildings	1,895	3,277	3,294	2,144	6.52	4.75	5.48	5.56	0.26	0.24	0.23	0.20
Building Floorspace												
(Square Feet)	0	0.40	507	440	0	F 04	<i></i>	0.00	0	0.50	0.50	0.40
1,001 to 5,000 5,001 to 10,000	Q 320	643 461	507 Q	416 374	Q 7.07	5.61 5.84	5.57	6.09 6.57	Q 0.57	0.53 0.28	0.53 0.39	0.42 0.32
10,001 to 25,000		482	Q	232	7.07		6.36 5.92	5.96	0.57	0.28	0.39 Q	0.32
25,001 to 50,000		318	373	368	7.13	5.03 5.04	5.92	5.72	0.41	0.22	0.18	0.19
50,001 to 100,000		364	335	343	6.91	4.58	4.89	5.30	0.23	0.22	0.16	0.19
100,001 to 200,000		451	316	149	5.95	4.50	5.23	4.85	0.22	0.18	0.14	0.13
200,001 to 500,000		376	256	169	5.34	3.40	4.90	4.45	0.20	0.24	0.17	0.12
Over 500,000		181	133	92	4.51	3.93	3.98	3.97	0.17	0.21	0.10	0.17
Principal Building Activity												
Education	262	307	255	286	6.19	3.71	5.72	5.68	0.21	0.17	0.15	0.17
Food Sales	202 Q	307 Q	233 Q	200 Q	0.13 Q	3.71 Q	0.72 Q	0.00 Q	0.21 Q	0.17 Q	0.13 Q	0.17 Q
Food Service	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Health Care	192	211	286	192	4.39	3.84	4.29	4.23	0.55	0.32	0.38	0.38
Inpatient	188	164	257	Q	4.33	3.51	4.17	Q	0.57	0.34	0.45	Q
Outpatient	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Lodging	107	196	368	272	6.06	4.60	5.47	5.59	0.35	0.26	0.29	0.22
Mercantile	265	416	292	153	7.51	5.36	6.79	6.27	0.20	0.17	0.11	0.11
Retail (Other Than Mall)	185	272	162	Q	7.72	5.32	6.91	Q	0.31	0.18	0.16	Q
Enclosed and Strip Malls	Q	144	130	102	Q	5.42	6.64	6.27	Q	0.15	0.08	0.10
Office	215	397	312	290	7.83	5.19	5.48	5.57	0.18	0.19	0.14	0.16
Public Assembly	110	158	140	Q	8.04	5.49	5.94	5.53	0.22	0.18	0.14	0.26
Public Order and Safety	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Religious Worship	Q	124	Q	107	Q	5.72	8.59	6.50	Q	0.19	0.15	0.13
Service	Q	343	Q	72	Q	5.34	5.28	5.42	Q	0.46	1.04	0.24
Warehouse and Storage	187	594	245	Q	6.78	4.36	5.90	5.43	0.16	0.30	0.13	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Year Constructed												
1919 or Before	202	328	55	98	7.32	5.11	7.23	5.61	0.30	0.26	0.13	0.24
1920 to 1945	166	430	220	153	5.70	4.53	5.59	5.90	0.18	0.23	0.23	0.27
1946 to 1959	459	417	281	234	6.05	4.86	5.93	5.91	0.36	0.23	0.17	0.18
1960 to 1969	336	542	Q	483	6.95	4.92	5.39	5.58	0.29	0.25	Q	0.25
1970 to 1979	201	424	576	525	6.35	4.86	5.40	5.77	0.21	0.23	0.22	0.20
1980 to 1989		536	926	247	7.06	4.82	5.23	5.44	0.25	0.24	0.27	0.14
1990 to 1999	206	600	610	404	6.45	4.42	5.73	5.09	0.20	0.25	0.22	0.22
Climate Zone: 45-Year Average												
Under 2,000 CDD and	^	070	<b>.</b> .	4.40	^	F 00		4.04	^	0.07		0.01
More than 7,000 HDD	Q	976	N	140	Q 6.76	5.08	N	4.91	Q	0.27	N	0.31
5,500-7,000 HDD	960	1,777	N 1 127	370	6.76	4.46	N 5.50	4.46 5.40	0.28	0.24	N 0.40	0.21
4,000-5,499 HDD Fewer than 4,000 HDD	925 N	523 N	1,127 1,298	298	6.28 N	5.32 N	5.50 5.41	5.49 6.02	0.24 N	0.20 N	0.40 0.21	0.24
2.000 CDD or More and	IN	IN	1,290	1,043	IN	IN	5.41	0.02	IN	IN	0.21	0.18
Fewer than 4,000 HDD	N	N	868	292	N	N	5.56	6.32	N	N	0.17	0.26
Workers (main shift)												
Fewer than 5	242	612	541	351	8.19	5.74	6.84	6.18	0.39	0.24	0.25	0.20
5 to 9		433	199	334	7.67	5.41	5.67	6.07	0.21	0.28	0.18	0.26
10 to 19	303	477	477	253	6.56	4.98	5.27	6.19	0.32	0.27	0.28	0.22
20 to 49		502	1,070	433	7.21	4.90	5.53	5.84	0.43	0.24	0.20	0.22
50 to 99		331	317	234	6.61	4.70	5.38	5.67	0.28	0.20	0.16	0.15
100 to 249		419	315	240	6.18	4.47	5.02	4.81	0.21	0.23	0.16	0.20
250 or More	290	503	375	300	4.85	3.59	4.62	4.44	0.15	0.25	0.16	0.17

Table C18. Natural Gas Expenditures by Census Region, 1999

	Total &	latural C	as Expend	lituros			Natural (	Gas Expe	enditures	(dollars)		
	Iotai N		dollars)	iitures	per	Thousan	d Cubic F	eet		per Squ	are Foot	
	North- east	Mid- west	South	West	North- east	Mid- west	South	West	North- east	Mid- west	South	West
Weekly Operating Hours												
39 or Fewer	Q	168	Q	91	Q	5.57	7.89	5.59	Q	0.21	0.17	0.11
40 to 48	256	460	404	361	6.65	4.99	5.80	5.84	0.27	0.19	0.14	0.18
49 to 60	286	637	749	452	7.63	4.85	5.62	6.05	0.21	0.20	Q	0.19
61 to 84	527	602	Q	337	6.93	5.35	5.56	6.10	0.29	0.23	Q	0.18
85 to 167	257	653	581	320	7.02	4.88	5.21	5.62	0.22	0.30	0.30	0.26
Open Continuously	494	758	815	583	5.50	4.00	5.05	4.84	0.28	0.33	0.27	0.27
Ownership and Occupancy												
Nongovernment Owned	1,613	2,773	2,805	1,722	6.66	4.85	5.67	5.65	0.29	0.25	0.24	0.20
Owner Occupied	1,251	1,944	2,035	1,153	6.49	4.91	5.52	5.47	0.31	0.25	0.26	0.20
Nonowner Occupied	360	813	Q	566	7.30	4.73	6.12	6.05	0.23	0.25	0.21	0.21
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government Owned	281	504	488	422	5.83	4.27	4.59	5.24	0.17	0.21	0.20	0.21
Federal	Q	Q	38	53	Q	Q	3.98	4.90	Q	Q	0.14	0.22
State	Q	130	186	98	Q	3.80	3.91	4.75	Q	0.19	0.27	0.18
Local	204	327	265	271	5.65	4.58	5.35	5.51	0.19	0.23	0.18	0.22
Vacancy Status												
Completely Vacant	N	Q	Q	Q	N	Q	Q	Q	N	Q	Q	Q
Mostly Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	0.10	Q
Partially Vacant	243	611	443	304	6.20	4.95	5.55	5.50	0.13	0.19	0.13	0.13
Not At All Vacant	1,646	2,609	2,840	1,824	6.58	4.71	5.47	5.58	0.30	0.26	0.26	0.23
Number of Establishments												
One	1,348	2,398	2,593	1,599	6.42	4.63	5.40	5.51	0.30	0.26	0.29	0.23
2 to 5	293	607	328	296	6.76	5.29	5.69	5.91	0.24	0.24	0.16	0.18
6 to 10	Q	80	198	100	Q	5.52	6.28	5.18	Q	0.17	0.22	0.14
11 to 20	Q	104	68	52	Q	5.34	5.27	6.18	Q	0.23	0.11	0.14
More than 20	Q	70	71	Q	Q	3.67	5.40	5.87	Q	0.09	0.06	0.12
Currently Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Energy Sources (more than												
one may apply)												
Electricity	1,895	3,277	3,294	2,142	6.52	4.75	5.48	5.57	0.26	0.24	0.23	0.20
Natural Gas	1,895	3,277	3,294	2,144	6.52	4.75	5.48	5.56	0.26	0.24	0.23	0.20
Fuel Oil	404	637	481	263	5.16	3.85	4.33	4.30	0.16	0.33	0.21	0.20
District Heat	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
District Chilled Water	Q	36	71	Q	Q	4.15	3.91	Q	Q	0.13	0.14	Q
Propane	Q	Q	81	Q	Q	3.67	4.64	Q	Q	Q	0.11	Q
Other	Q	116	Q	Q	Q	4.02	Q	Q	Q	0.23	Q	Q
Space-Heating Energy Source												
Natural Gas	1,731	3,146	2,388	1,857	6.46	4.75	5.38	5.47	0.30	0.25	0.22	0.21
Natural Gas Main	1,549	2,940	2,087	1,650	6.48	4.71	5.29	5.50	0.32	0.26	0.24	0.22
Natural Gas Secondary	182	206	302	207	6.30	5.23	6.06	5.28	0.23	0.18	0.14	0.18
Other Excluding Natural Gas	138	108	616	204	7.14	5.11	5.61	5.97	0.09	0.11	0.24	0.15
Buildings without Heating	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Primary Space-Heating												
Energy Source												
Electricity	Q	270	804	354	Q	5.36	5.94	5.72	Q	0.18	0.20	0.16
Natural Gas	1,549	2,940	2,087	1,650	6.48	4.71	5.29	5.50	0.32	0.26	0.24	0.22
Fuel Oil	89	Q	Q	Q	6.91	Q	Q	Q	0.13	Q	Q	Q
District Heat	45	29	99	Q	5.72	4.27	4.57	Q	0.05	0.06	0.21	Q
Propane	Q	Q	N	N	Q	Q	N	N	Q	Q	N	N
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	0.12	Q

Table C18. Natural Gas Expenditures by Census Region, 1999

							Natural	Gas Expe	enditures	(dollars)		
	Total N		as Expend dollars)	ditures	per	Thousan	d Cubic F	eet		per Squ	are Foot	
	North- east	Mid- west	South	West	North- east	Mid- west	South	West	North- east	Mid- west	South	West
Cooling Energy Source												
Natural Gas	159	190	Q	117	5.16	5.01	Q	5.87	0.36	0.35	Q	0.18
Other Excluding Natural Gas	1,607	2,792	2,931	1,798	6.66	4.74	5.57	5.51	0.26	0.24	0.22	0.21
Buildings without Cooling	128	294	Q	229	6.98	4.78	4.80	5.87	0.22	0.24	Q	0.19
Water-Heating Energy Source												
Natural Gas	1,248	2,131	2,404	1,773	6.33	4.80	5.37	5.52	0.31	0.26	0.27	0.23
Other Excluding Natural Gas	555	658	677	259	6.82	4.30	5.60	5.58	0.20	0.20	0.17	0.13
Buildings without Water Heating	92	487	213	112	7.66	5.30	6.50	Q	0.23	0.27	0.17	0.17
Cooking Energy Source	700	4 000	4.040	005	5.00	4.04	5.00	5.00	0.00	0.05	0.00	0.00
Natural Gas	782	1,096	1,216	925	5.93	4.31	5.03	5.38	0.23	0.25	0.23	0.26
Other Excluding Natural Gas		203	223	66	6.42	5.04	6.36	4.74	0.30	0.22	0.18	0.16
Buildings without Cooking	952	1,977	1,855	1,153	7.12	5.01	5.73	5.78	0.28	0.24	0.24	0.18
Energy End Uses (more than one may apply)												
Buildings with Space Heating	1,868	3,254	3,005	2,061	6.50	4.76	5.43	5.52	0.26	0.24	0.22	0.20
Buildings with Cooling	1,766	2,982	2,983	1,915	6.49	4.75	5.56	5.53	0.26	0.24	0.22	0.21
Buildings with Water Heating	1,802	2,790	3,081	2,032	6.47	4.67	5.42	5.53	0.26	0.24	0.24	0.21
Buildings with Cooking	942	1,300	1,439	990	6.01	4.41	5.20	5.34	0.24	0.24	0.22	0.25
Buildings with Manufacturing	Q	Q	178	81	Q	5.05	5.97	5.99	Q	0.35	0.26	0.18
Buildings with Electricity												
Generation	409	663	616	392	5.42	3.85	4.99	4.56	0.19	0.28	0.21	0.24
Percent of Floorspace Heated												
Not Heated	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50		193	200	191	Q	5.98	Q	5.46	Q	0.15	0.15	0.12
51 to 99		355	Q	354	6.63		5.69	5.76	0.18	0.17	Q	0.19
100	1,579	2,706	1,812	1,516	6.44	4.65	5.44	5.47	0.28	0.27	0.20	0.23
Percent of Floorspace Cooled	400	20.4	0	220	6.00	4.70	4.00	E 07	0.00	0.24	0	0.40
Not Cooled 1 to 50	128 653	294	Q Q	229 335	6.98 6.58	4.78	4.80	5.87	0.22	0.24	Q Q	0.19 0.14
51 to 99		1,168 926	924	603	6.11	4.52 4.80	5.92 5.57	5.38 5.23	0.26 0.28	0.26 0.22	0.24	0.14
100	511	888	1,318	978	6.88	5.03	5.37	5.79	0.25	0.25	0.24	0.24
Heating Equipment (more												
than one may apply)												
Heat Pumps	161	164	931	225	5.66	4.18	5.39	5.14	0.17	0.24	0.34	0.18
Furnaces	486	1,438	Q	390	7.14	5.05	5.76	5.66	0.33	0.28	0.24	0.18
Individual Space Heaters	567	943	683	519	6.24	4.70	5.50	5.22	0.22	0.22	0.18	0.18
District Heat	160	45	121	Q	6.09	3.90	4.44	Q	0.16	0.08	0.22	Q
Boilers	809	1,427	851	887	5.92	4.34	4.97	4.90	0.23	0.25	0.23	0.24
Packaged Heating Units Other	657 Q	1,194 Q	1,456 71	985 Q		4.49 3.80	5.48 5.37	5.77 4.04	0.22 Q	0.25 Q	0.20 0.09	0.19 0.18
Cooling Equipment (more	Q	Q	71	Q	Q	3.60	5.37	4.04	Q	Q	0.09	0.18
than one may apply)												
Residential-Type Central	240	644	E 4 4	105	6 47	E 1 F	E 64	4.60	0.07	0.04	0.00	0.46
Air Conditioners	219	641 156	514	165	6.17	5.15	5.64	4.63	0.27	0.24	0.22	0.16
Heat Pumps		156	933	237	5.86 5.70	4.08	5.37	5.22	0.16	0.21	0.34	0.18
Individual Air Conditioners  District Chilled Water		854 36	716 71	349	5.70	4.57	6.13 3.91	5.51	0.23	0.25	0.23	0.22
Central Chillers				Q 570	Q 5.07	4.15		Q 4 67	Q 0.18	0.13	0.14	Q 0.26
Packaged Air Conditioning	301	690	681	570	5.07	3.93	4.89	4.67	0.18	0.26	0.20	0.26
Units	1,291	2,019	1,763	1,204	6.52	4.64	5.58	5.74	0.27	0.27	0.19	0.19
Swamp Coolers	1,291 Q	2,019 Q	1,703 Q	360	0.52 Q	4.04 Q	0.50 Q	5.54		0.27 Q	Q. 19	0.19
Other		Q	Q	Q		Q	Q	Q.54	Q	Q	Q	0.23 Q
	· ·	Q	×.	· ·	· ·	· ·	· ·	· ·	· ·	· ·	×.	· ·

Table C18. Natural Gas Expenditures by Census Region, 1999

							Natural (	Gas Expe	nditures	(dollars)		
	Total N	atural Ga (million	s Expend dollars)	itures	per	Thousan	d Cubic F	eet		per Squ	are Foot	
	North- east	Mid- west	South	West	North- east	Mid- west	South	West	North- east	Mid- west	South	West
Main Equipment Replaced Since												
1995 (more than one may apply)												
Heating	388	729	739	575	6.48	5.20	5.92	6.11	0.31	0.24	0.21	0.23
Cooling	484	868	1,007	589	6.08	4.62	5.83	5.83	0.24	0.25	0.22	0.22
Water Heating Equipment												
Centralized System	1,371	1,795	2,178	1,419	6.61	4.95	5.45	5.61	0.29	0.23	0.28	0.22
Distributed System	169	479	435	326	7.47	4.04	5.90	5.88	0.16	0.24	0.16	0.18
Combination of Centralized												
and Distributed System	262	516	468	287	5.42	4.43	4.94	4.85	0.23	0.26	0.19	0.17
Annual Consumption												
(hundred cubic feet)												
1,000 or Less	20	77	128	86	11.09	7.75	7.87	8.33	0.05	0.08	0.07	0.06
1,001 to 5,000	335	670	547	497	8.31	6.20	6.99	6.71	0.24	0.20	0.15	0.17
5,001 to 10,000	256	463	424	276	7.72	5.14	6.15	5.83	0.23	0.26	0.18	0.18
10,001 to 25,000	586	651	601	548	6.77	4.93	5.77	5.94	0.35	0.23	0.24	0.25
25,001 to 50,000	169	329	376	228	6.55	4.74	4.90	5.14	0.20	0.21	0.25	0.23
50,001 to 100,000	166	321	Q	160	6.32	4.39	5.58	4.92	0.21	0.25	0.75	0.29
Over 100,000	363	765	585	349	4.74	3.71	4.09	4.13	0.33	0.43	0.41	0.35
Provider of Natural Gas												
(more than one may apply)												
Local Utility	1,477	2,880	2,982	1,912	6.64	4.86	5.64	5.67	0.24	0.24	0.23	0.20
Some Other Provider	377	371	311	Q	5.87	4.00	4.38	4.50	0.40	0.24	0.34	0.27

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

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* Due to rounding, data may not sum to totals.

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

Table C19. Natural Gas Consumption and Conditional Energy Intensity by Building Size, 1999

	C	tal Natural G Consumption	n	Building	al Floorspac ps Using Nat lion square	ural Gas	En	Natural Gas ergy Intensi c feet/square	-
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
All Buildings	588	780	598	8,654	20,570	16,301	67.9	37.9	36.
Principal Building Activity									
Education	22	122	76	566	3,620	2,385	38.7	33.8	31.
Food Sales	Q	18	Q	Q	342	Q	Q	51.5	(
Food Service	174	Q	Q	981	Q	Q	177.2	Q	(
Health Care	Q	32	173	Q	453	1,624	Q	69.8	106.
Inpatient	N	Q	169	N	Q	1,553	N	Q	109.
Outpatient	Q	11	Q	Q	328	Q	Q	33.5	(
Lodging	Q	93	59	Q	1,748	1,542	Q	53.1	38.
Mercantile	60	88	32	1,315	3,395	3,178	45.5	26.0	10.
Retail (Other Than Mall)	48	52	Q	1,070	1,886	Q	44.9	27.3	(
Enclosed and Strip Malls	Q	37	25	Q	1,508	2,616	Q	24.4	9.
Office	50	86	78	1,467	2,772	3,116	33.9	30.9	25.
Public Assembly	31	47	16	638	1,622	728	47.9	29.1	21.
Public Order and Safety	Q	20	Q	Q	423	Q	Q	46.8	(
Religious Worship	21	38	Q	727	1,687	Q	28.8	22.8	(
Service	132	Q	Q	1,081	714	Q	122.4	154.7	(
Warehouse and Storage	Q	63	Q	643	2,810	2,758	60.4	22.4	44.
Other	Q	Q	Q	Q	302	Q	Q	80.5	(
Vacant	Q	Q	Q	Q	Q	Q	Q	Q	C
Year Constructed	50	40	0	0.40	4 450	0	50.0	00.0	
1919 or Before	56	42	Q 16	946	1,453	Q 4.437	59.6	28.9	24.
1920 to 1945	73	70	46	1,065	1,755	1,437	68.7	40.0	31.
1946 to 1959	69	113	66	1,406	2,899	1,735	49.2	39.1	38.
1960 to 1969	140	120	101	1,305	3,249	2,958	107.5 60.5	36.9 32.5	34. 35.
1980 to 1989	100 54	114 198	103 128	1,650 970	3,520 4,247	2,910 3,576	55.7	46.7	35. 35.
1990 to 1999	95	122	136	1,312	3,448	3,316	72.5	35.4	41.
Census Region and Division									
Northeast	75	113	103	978	2,824	3,503	76.5	40.0	29.
New England	Q	27	23	Q	863	674	Q	31.5	34.
Middle Atlantic	69	86	79	925	1,961	2,829	74.2	43.7	28.
Midwest	194	239	257	2,886	5,775	4,846	67.1	41.3	53.
East North Central	151	155	178	2,120	3,907	3,356	71.3	39.6	52.
West North Central	43	84	79	766	1,868	1,490	55.6	45.0	53.
South	194	261	146	2,625	6,735	4,840	73.9	38.7	30.
South Atlantic	Q	71	73	778	2,500	2,239	Q	28.3	32.
East South Central	29	126	25	604	1,885	1,019	48.3	Q	25.
West South Central	66	64	48	1,243	2,349	1,582	53.4	27.4	30.
West	125	168	92	2,165	5,237	3,113	57.8	32.1	29.
Mountain	52	62	27	739	1,703	740	69.9	36.3	36.
Pacific	74	106	65	1,426	3,533	2,373	51.5	30.0	27.
Climate Zone: 45-Year Average									
Under 2,000 CDD and									
More than 7,000 HDD	74	88	59	979	1,943	1,142	76.0	45.2	52.
5,500-7,000 HDD	147	224	253	1,956	5,609	5,008	75.3	39.9	50.
4,000-5,499 HDD	178	199	128	2,039	3,876	4,539	87.3	51.5	28.
Fewer than 4,000 HDD	99	198	115	2,240	6,061	3,849	44.4	32.7	30.
2,000 CDD or More and									
Fewer than 4,000 HDD	89	71	43	1,440	3,081	1,763	61.5	23.1	24.

Table C19. Natural Gas Consumption and Conditional Energy Intensity by Building Size, 1999

	(	tal Natural C Consumptio Ilion cubic fo	n	Building	al Floorspac Js Using Nat lion square	ural Gas	Er	Natural Gas ergy Intensi c feet/square	-
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
Workers (main shift)									
Fewer than 5	205	65	Q	3,981	2,999	Q	51.5	21.5	Q
5 to 9	122	57	Q	2,038	2,275	Q	59.6	25.2	C
10 to 19	124	142	Q	1,535	3,488	Q	81.0	40.6	C
20 to 49	131	262	30	969	5,399	1,369	135.1	48.6	21.7
50 to 99		151	61	Q	3,914	2,295	Q	38.5	26.8
100 to 249		82	160	Q	1,879	4,205	Q	43.8	38.0
250 or More	N	22	327	N	616	7,419	N	35.2	44.1
Weekly Operating Hours									
39 or Fewer	40	30	Q	1,307	1,210	Q	30.8	24.5	Q
40 to 48	111	122	28	2,469	4,426	1,302	45.1	27.7	21.7
49 to 60	102	217	57	2,046	5,296	2,372	49.8	41.1	24.1
61 to 84	139	135	74	1,501	3,705	3,802	92.3	36.5	19.6
85 to 167	153	107	78	853	2,672	2,923	179.7	40.2	26.6
Open Continuously	43	168	350	479	3,261	5,594	88.8	51.6	62.6
Ownership and Occupancy									
Nongovernment Owned	539	595	478	7,886	16,446	12,694	68.3	36.2	37.7
Owner Occupied	363	432	373	5,429	10,741	9,427	66.9	40.2	39.6
Nonowner Occupied	174	156	Q	2,296	5,434	3,238	75.8	28.7	Q
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government Owned	49	185	119	768	4,124	3,607	63.8	44.8	33.1
Federal	Q	15	20	Q	379	555	Q	40.6	35.5
State	Q 35	62 107	36 64	Q 577	1,137 2,608	986 2,065	Q 60.8	54.8 41.1	36.3 30.9
	00		0.	0	2,000	2,000	00.0		00.0
Vacancy Status	0	0	0	0	0	0	0	0	0
Completely Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q
Mostly Vacant	Q	Q	Q 400	Q 4.000	Q	Q 5.504	Q	Q	Q
Partially Vacant  Not At All Vacant	45 535	123 652	130 463	1,263 7,110	3,938 16,407	5,524 10,657	35.5 75.3	31.1 39.7	23.5 43.4
Number of Establishments									
One	480	588	430	6,630	14,200	8,887	72.4	41.4	48.4
2 to 5	92	99	74	1,651	3,436	2,352	55.9	28.9	31.6
6 to 10		55	23	Q	1,480	845	Q	37.3	26.8
11 to 20		18	30	Q	795	986	Q	22.8	30.6
More than 20	Q	Q	40	Q	Q	3,182	Q	Q	12.7
Currently Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q
Energy Sources (more than									
one may apply)									
Electricity	587	780	598	8,625	20,570	16,301	68.1	37.9	36.7
Natural Gas	588	780	598	8,654	20,570	16,301	67.9	37.9	36.7
Fuel Oil	Q	78	334	Q	1,594	6,386	Q	48.7	52.4
District Heat	Q	Q	46	Q	Q	1,758	Q	Q	Q
District Chilled Water	Q	17	33	Q	486	808	Q	35.8	41.4
Propane Other	Q Q	19 20	Q 40	Q Q	536 603	1,278 814	Q Q	35.4 33.2	Q 48.7
	Q	20	40	Q	003	014	Q	55.2	40.7
Space-Heating Energy Source Natural Gas	480	687	547	7 962	17 404	12 546	61.0	20.2	12 6
				7,863	17,494	12,546		39.3	43.6
Natural Cas Sacandary		596	499	7,373	14,997	10,360	62.6	39.7	48.2
Natural Gas Secondary	18	91	48	490	2,497	2,186	36.7	36.5	22.0
Other Excluding Natural Gas	Q	77	49	504	2,520	3,468	115.5	30.6	14.2
Buildings without Heating	Q	Q	Q	Q	Q	Q	Q	Q	Q

Table C19. Natural Gas Consumption and Conditional Energy Intensity by Building Size, 1999

	(	tal Natural G Consumption	n	Building	al Floorspac s Using Nat lion square	ural Gas	Er	Natural Gas nergy Intensi c feet/square	-
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
Primary Space-Heating									
Energy Source									
Electricity	74	138	63	862	4,030	3,545	85.6	34.2	17.7
Natural Gas	462	596	499	7,373	14,997	10,360	62.6	39.7	48.2
Fuel Oil	Q	Q	5	Q	355	500	Q	30.2	10.1
District Heat	Q	16	29	Q	502	1,520	Q	31.5	19.1
Propane	Q	Q	N	Q	Q	N	Q	Q	N
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
Cooling Energy Source	_								
Natural Gas	Q	29	33	Q	907	469	Q	31.4	71.2
Other Excluding Natural Gas	443	687	554	6,784	18,352	15,098	65.3	37.4	36.7
Buildings without Cooling	108	65	11	1,333	1,311	734	81.1	49.4	14.7
Water-Heating Energy Source			450					40.0	
Natural Gas	405	553	452	4,923	13,747	10,526	82.2	40.2	42.9
Other Excluding Natural Gas	104	163	134	2,035	5,177	4,958	51.2	31.6	27.1
Buildings without Water Heating	79	64	12	1,697	1,646	817	46.6	38.7	14.2
Cooking Energy Source									
Natural Gas	198	241	361	1,479	5,412	9,893	133.6	44.6	36.5
Other Excluding Natural Gas	Q	49	48	Q	1,461	1,375	Q	33.5	34.6
Buildings without Cooking	373	490	189	6,938	13,697	5,033	53.7	35.8	37.6
Energy End Uses (more than									
one may apply)									
Buildings with Space Heating	538	764	597	8,366	20,004	16,014	64.3	38.2	37.3
Buildings with Cooling	480	716	587	7,321	19,259	15,567	65.5	37.2	37.7
Buildings with Water Heating	509	717	586	6,957	18,924	15,484	73.1	37.9	37.9
Buildings with Cooking	215	290	409	1,716	6,873	11,268	125.4	42.3	36.3
Buildings with Manufacturing	Q	43	Q	Q	1,124	921	Q	38.6	62.5
Buildings with Electricity									
Generation	Q	104	315	Q	2,303	6,579	Q	45.2	47.9
Percent of Floorspace Heated									
Not Heated	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50	37	Q	Q	1,140	2,376	1,357	32.5	Q	22.0
51 to 99	96 405	163 542	75 491	1,417 5,809	3,705 13,923	2,929 11,727	67.7 69.7	44.1 38.9	25.7 41.9
D									
Percent of Floorspace Cooled  Not Cooled	400	er.	4.4	4 222	4 044	70.4	04.4	40.4	447
	108	65 255	11	1,333	1,311	734	81.1	49.4	14.7
1 to 50	126 135	255 192	164	2,082	6,321 5,068	3,665	60.5 80.2	40.4	44.7 41.2
100	218	268	245 178	1,687 3,553	5,068 7,870	5,939 5,963	61.5	38.0 34.1	29.9
Heating Equipment (more									
than one may apply)									
Heat Pumps	Q	Q	114	530	2,511	2,587	Q	Q	44.1
Furnaces	207	208	135	3,852	5,430	2,678	53.8	38.3	50.5
Individual Space Heaters	116	196	203	1,603	5,888	6,070	72.3	33.3	33.4
District Heat	Q	31	45	Q	657	1,690	Q	47.7	26.4
Boilers	79	321	417	903	6,918	8,767	87.4	46.4	47.6
Packaged Heating Units	198	296	309	2,911	8,851	8,281	67.8	33.5	37.3
Other	Q	32	Q	Q	1,001	1,483	Q	32.2	Q

Table C19. Natural Gas Consumption and Conditional Energy Intensity by Building Size, 1999

	(	tal Natural ( Consumptio Ilion cubic f	n	Building	al Floorspac s Using Nat lion square	ural Gas	En	Natural Gas ergy Intensi c feet/square	-
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
Cooling Equipment (more									
than one may apply)									
Residential-Type Central									
Air Conditioners	84	91	112	1,770	2,840	2,195	47.3	31.9	51.2
Heat Pumps	Q	Q	116	525	2,510	2,735	Q	Q	42.2
Individual Air Conditioners	87	195	190	1,395	4,833	4,487	62.4	40.3	42.4
District Chilled Water	Q	17	33	Q	486	808	Q	35.8	41.4
Central Chillers	Q	118	374	Q	2,366	7,611	Q	49.9	49.2
Packaged Air Conditioning									
Units	297	424	439	4,059	12,884	11,045	73.1	32.9	39.7
Swamp Coolers	Q	32	33	Q	838	708	Q	38.6	47.0
Other	Q	13	Q	Q	329	Q	Q	38.3	Q
Main Equipment Replaced Since									
1995 (more than one may apply)									
Heating	146	192	81	2,125	5,264	2,938	68.6	36.4	27.7
Cooling	144	223	174	1,877	6,176	4,810	77.0	36.1	36.2
Water Heating Equipment									
Centralized System	433	512	278	5,536	12,911	8,032	78.2	39.6	34.6
Distributed System	53	90	Q	1,221	3,114	3,251	43.2	28.9	39.3
Combination of Centralized									
and Distributed System	Q	115	181	Q	2,900	4,200	Q	39.6	43.1
Annual Consumption									
(hundred cubic feet)									
1,000 or Less	35	3	0	2,581	1,578	438	13.5	2.2	
1,001 to 5,000	223	76	2	4,485	5,573	1,135	49.7	13.6	1.4
5,001 to 10,000	117	118	4	875	4,750	1,214	133.5	24.9	3.5
10,001 to 25,000	146	247	22	574	5,732	2,867	254.3	43.1	7.7
25,001 to 50,000	Q	129	52	Q	1,900	2,930	Q	67.7	17.7
50,001 to 100,000 Over 100,000	Q N	138 Q	76 442	Q N	849 Q	2,573 5,144	Q N	162.5 Q	29.5 85.9
Provider of Natural Gas									
(more than one may apply)									
Local Utility	545	698	438	8,199	18,998	13,567	66.5	36.8	32.3
Some Other Provider	Q	70	179	Q	1,248	2,735	Q	55.9	65.3

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled. N=No responding cases in sample.

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* Due to rounding, data may not sum to totals.

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

Table C20. Natural Gas Consumption and Conditional Energy Intensity by Year Constructed, 1999

	C	tal Natural C Consumptio lion cubic fo	n	Building	al Floorspac s Using Nat ion square t	ural Gas	En	Natural Gas ergy Intensi feet/square	-
	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
All Buildings	555	1,058	354	13,063	24,386	8,076	42.5	43.4	43.8
Building Floorspace									
(Square Feet)									
1,001 to 5,000	101	147	Q	1,535	1,609	Q	65.5	91.1	Q
5,001 to 10,000	98	147	39	1,882	2,316	891	52.1	63.6	43.6
10,001 to 25,000	107	177	25	2,505	3,746	750	42.8	47.3	33.9
25,001 to 50,000	71	111	46	1,814	3,308	1,282	38.9	33.6	35.5
50,001 to 100,000	48	144	51	1,787	3,962	1,416	26.8	36.4	36.0
100,001 to 200,000	48	133	42	1,291	3,406	1,219	37.2	39.0	34.9
200,001 to 500,000	43	114	Q	1,280	2,896	1,106	33.8	39.5	Q
Over 500,000	39	84	21	970	3,143	991	40.2	26.8	21.3
Principal Building Activity									
Education	105	85	30	2,609	3,100	861	40.1	27.5	35.2
Food Sales	Q	Q	14	Q	Q	315	Q	Q	43.5
Food Service	Q	95	Q	Q	727	Q	Q	130.2	Q
Health Care	49	144	Q	479	1,460	Q	101.9	98.5	Q
Inpatient	Q	134	Q	Q	1,142	Q	Q	117.0	Q
Outpatient	Q	10	Q	Q	318	Q	Q	32.0	Q
Lodging	27	121	28	581	2,308	660	47.2	52.5	42.0
Mercantile	74	78	28	2,095	4,207	1,585	35.2	18.6	18.0
Retail (Other Than Mall)	55	37	15	1,491	1,218	809	36.7	30.6	18.3
Enclosed and Strip Malls	Q	41	14	Q	2,989	777	Q	13.7	17.7
Office	59	128	25	1,841	4,403	1,113	32.2	29.2	22.9
Public Assembly	30	45	19	980	1,380	628	30.4	32.4	30.4
Public Order and Safety	Q	Q	Q	Q	Q	Q	Q	Q	Q
Religious Worship	27	29	Q	929	1,335	Q	28.6	22.0	Q
Service	53	191	Q	743	1,156	Q	70.9	164.9	Q
Warehouse and Storage	27	100	Q	1,417	3,409	1,385	19.3	29.4	Q
Other	Q	Q	Q	,,,,,	Q, 100	1,000 Q	Q	Q	Q
Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q
Census Region and Division									
Northeast	133	126	32	2,860	3,389	1,056	46.4	37.2	30.2
New England	25	25	Q	535	818	Q	47.2	30.3	Q
Middle Atlantic	107	101	25	2,325	2,570	819	46.2	39.4	30.6
Midwest	245	309	136	4,876	6,261	2,369	50.2	49.3	57.3
East North Central	192	182	Q	3,811	3,954	1,618	50.4	46.1	67.4
West North Central	53	126	27	1,065	2,307	752	49.6	54.8	35.5
South	94	400	106	3,034	8,381	2,785	31.1	47.7	38.2
South Atlantic	39	149	Q	1,002	3,248	1,267	39.3	45.8	Q
East South Central	28	138	15	729	2,035	744	37.8	67.9	19.5
West South Central	27	113	Q	1,303	3,098	773	21.1	36.5	48.8
West	83	223	79	2,294	6,356	1,865	36.1	35.1	42.6
Mountain									
Pacific	44 39	78 145	19 61	903 1,391	1,698 4,658	582 1,283	48.4 28.2	46.0 31.1	32.1 47.3
Climate Zone: 45-Year Average									
Under 2,000 CDD and									
More than 7,000 HDD	69	108	44	1,191	2,150	723	58.3	50.3	61.2
5,500-7,000 HDD	234	274	Q	4,442	5,919	2,211	52.8	46.3	52.2
4,000-5,499 HDD	145	274 285	74	3,614		1,754	40.2		52.2 42.4
•	65				5,087			56.1	
Fewer than 4,000 HDD	00	266	82	2,250	7,377	2,522	28.8	36.0	32.7
Fewer than 4,000 HDD	40	125	Q	1,566	3,853	866	25.8	32.4	Q
	.0	0	•	.,550	5,550	550	_0.0	S	•

Table C20. Natural Gas Consumption and Conditional Energy Intensity by Year Constructed, 1999

	C	tal Natural C Consumptio lion cubic fo	n	Building	al Floorspac s Using Nat ion square t	ural Gas	En	Natural Gas ergy Intens : feet/square	•
	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
Workers (main shift)									
Fewer than 5	119	124	28	3,293	3,012	803	36.2	41.3	35.5
5 to 9	64	97	Q	1,575	2,479	579	40.6	39.3	47.9
10 to 19	103	128	Q	2,119	2,647	822	48.5	48.2	52.4
20 to 49	94	255	73	2,039	4,040	1,658	46.3	63.2	44.0
50 to 99	53	126	36	1,193	3,865	1,219	44.3	32.7	29.5
100 to 249	51	137	57	1,234	3,452	1,461	41.0	39.6	39.1
250 or More	71	190	Q	1,610	4,890	1,534	43.9	38.8	Q
Weekly Operating Hours									
39 or Fewer	33	43	Q	1,088	1,534	Q	30.8	28.0	Q
40 to 48	112	117	33	3,182	3,973	1,042	35.2	29.6	31.2
49 to 60	116	200	61	3,366	4,848	1,500	34.3	41.3	40.5
61 to 84	115	199	35	2,217	5,133	1,658	51.7	38.7	20.9
85 to 167	73	173	93	1,379	3,406	1,664	53.2	50.7	55.6
Open Continuously	106	325	130	1,832	5,493	2,009	57.7	59.2	64.5
Ownership and Occupancy									
Nongovernment Owned	435	886	292	10,227	20,216	6,582	42.5	43.8	44.3
Owner Occupied	331	658	179	7,365	13,759	4,473	44.9	47.8	40.1
Nonowner Occupied	102	221	Q	2,673	6,191	2,104	38.2	35.6	53.3
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government Owned	120	172	62	2,836	4,170	1,494	42.2	41.2	41.5
Federal	15	15	Q	462	345	Q	Q	42.9	Q
State	29	61	21	658	1,192	403	43.7	51.0	53.0
Local	76	96	34	1,716	2,634	901	44.2	36.5	37.9
Vacancy Status									
Completely Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q
Mostly Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q
Partially Vacant	102	146	49	2,948	5,749	2,029	34.5	25.5	24.4
Not At All Vacant	441	905	304	9,706	18,438	6,030	45.4	49.1	50.4
Number of Establishments									
One	399	805	295	8,812	15,253	5,652	45.2	52.8	52.2
2 to 5	95	140	31	2,476	3,698	1,265	38.5	37.8	24.2
6 to 10	31	44	Q	577	1,627	Q	54.5	27.3	Q
11 to 20	Q	27	Q	Q	1,112	Q	Q	24.6	Q
More than 20  Currently Unoccupied	18 Q	32 Q	Q Q	631 Q	2,400 Q	Q Q	27.9 Q	13.4 Q	Q Q
Energy Sources (more than									
one may apply)									
Electricity	554	1,058	354	13,034	24,386	8,076	42.5	43.4	43.8
Natural Gas	555	1,058	354	13,063	24,386	8,076	42.5	43.4	43.8
Fuel Oil	74	250	Q	1,788	4,771	1,529	41.3	52.4	43.0 Q
District Heat	Q	230 Q	Q	1,766 Q	1,163	1,329 Q	41.3 Q	32.4 Q	Q
District Chilled Water	Q	33	Q	Q	725	Q	Q	46.2	Q
Propane	Q	41	Q	Q	1,107	Q	Q	37.4	Q
Other	35	28	Q	557	768	Q	62.2	36.8	Q
Space-Heating Energy Source									
Natural Gas	500	911	303	11,297	19,947	6,658	44.3	45.7	45.5
Natural Gas Main	470	817	270	10,205	16,847	5,677	46.0	48.5	47.6
Natural Gas Secondary	31	94	32	1,092	3,100	981	28.0	30.4	33.1
Other Excluding Natural Gas	49	85	Q	1,671	3,503	1,318	29.3	24.3	Q
	Q	Q	Q	1,57 T	Q,000	1,010 Q	Q		•

Table C20. Natural Gas Consumption and Conditional Energy Intensity by Year Constructed, 1999

	C	tal Natural G Consumption	n	Building	al Floorspac s Using Nat ion square t	ural Gas	En	Natural Gas nergy Intens c feet/square	•
	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
Primary Space-Heating									
Energy Source									
Electricity	59	138	77	1,334	5,109	1,993	43.9	27.1	38.8
Natural Gas	470	817	270	10,205	16,847	5,677	46.0	48.5	47.6
Fuel Oil	9	6	Q	418	429	Q	21.2	14.7	Q
District Heat	11	31	Q	885	967	Q	12.4	32.1	Q
Propane	N	Q	N	N	Q	N	N	Q	N
Other	Q	Q	N	Q	Q	N	Q	Q	N
Cooling Energy Source									
Natural Gas	25	57	Q	470	1,028	Q	53.6	55.4	Q
Other Excluding Natural Gas	459	903	321	10,651	22,169	7,413	43.1	40.7	43.3
Buildings without Cooling	70	Q	Q	1,943	1,188	Q	36.1	82.3	Q
Water-Heating Energy Source									
Natural Gas	382	790	238	8,411	15,573	5,211	45.4	50.7	45.7
Other Excluding Natural Gas	105	206	Q	2,986	7,094	2,090	35.1	29.0	Q
Buildings without Water Heating	68	62	Q	1,666	1,719	775	41.0	36.1	31.1
Cooking Energy Source									
Natural Gas	246	419	135	4,690	9,030	3,065	52.4	46.4	44.0
Other Excluding Natural Gas	45	54	15	841	1,605	627	53.7	33.9	23.5
Buildings without Cooking	264	584	204	7,533	13,751	4,384	35.0	42.5	46.5
Energy End Uses (more than one may apply)									
Buildings with Space Heating	549	996	353	12,968	23,450	7,966	42.3	42.5	44.3
Buildings with Cooling	484	960	338	11,120	23,198	7,829	43.6	41.4	43.1
Buildings with Water Heating	486	996	329	11,398	22,667	7,301	42.7	43.9	45.1
Buildings with Cooking	291	474	150	5,530	10,635	3,692	52.6	44.5	40.6
Buildings with Manufacturing	31	Q	19	773	1,167	382	40.2	51.4	50.6
Buildings with Electricity					.,				
Generation	78	261	Q	1,412	5,390	2,317	55.5	48.4	Q
Percent of Floorspace Heated									
Not Heated	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50	39	67	21	1,889	2,230	754	20.5	30.0	27.3
51 to 99	91	185	59	2,540	4,024	1,487	35.8	45.9	39.7
100	420	745	274	8,539	17,196	5,725	49.1	43.3	47.8
Percent of Floorspace Cooled									
Not Cooled	70	Q	Q	1,943	1,188	Q	36.1	82.3	Q
1 to 50	174	260	Q	4,434	5,705	1,929	39.3	45.6	Q
51 to 99	181	295	96	3,321	6,839	2,534	54.6	43.1	38.0
100	129	405	131	3,366	10,653	3,366	38.3	38.0	38.8
Heating Equipment (more than one may apply)									
Heat Pumps	46	189	Q	1,239	3,131	1,256	37.2	60.4	Q
Furnaces	150	290	Q	4,114	5,887	1,959	36.5	49.2	Q
Individual Space Heaters	154	284	77	4,216	7,172	2,173	36.5	39.6	35.5
District Heat	29	43	Q	1,005	1,119	Q	28.7	38.6	Q
Boilers	275	430	113	5,438	8,936	2,214	50.5	48.1	51.0
Packaged Heating Units	150	460	193	3,778	11,828	4,437	39.8	38.9	43.4
Other	25	47	Q	768	1,378	534	33.1	34.2	Q

Table C20. Natural Gas Consumption and Conditional Energy Intensity by Year Constructed, 1999

	C	al Natural G consumption lion cubic fe	1	Building	I Floorspac s Using Nat ion square t	ural Gas	En	Natural Gas ergy Intensi feet/square	-
	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
Cooling Equipment (more									
than one may apply)									
Residential-Type Central									
Air Conditioners	83	161	43	2,046	3,786	973	40.7	42.4	44.
Heat Pumps	48	185	Q	1,318	3,242	1,211	36.6	57.2	
Individual Air Conditioners	216	218	38	4.707	4,873	1,136	45.9	44.8	33.
District Chilled Water	Q Q	33	Q	4,707 Q	725	1,130 Q	40.0 Q	46.2	00.
Central Chillers	96	280	132	2,025	6,209	1,911	47.4	45.0	69.
Packaged Air Conditioning	30	200	102	2,020	0,203	1,511	77.7	40.0	00.
Units	291	644	225	6,589	16,086	5,312	44.1	40.0	42
Swamp Coolers	Q	67	223 Q	0,509 Q	1,188	0,512 Q	Q	56.4	42
Other	Q	Q	Q	Q	535	Q	Q	45.3	
Water Heating Equipment Centralized System Distributed System Combination of Centralized and Distributed System	151 194 335 60 91	239 311 696 125 175	Q 36 192 Q 52	3,491 4,248 7,725 1,719 1,954	6,260 7,907 14,543 4,265 3,859	576 708 4,211 1,602 1,488	43.1 45.7 43.3 35.0 46.7	38.1 39.3 47.8 29.2 45.4	45. 35.
Annual Consumption									
(hundred cubic feet)									
1,000 or Less	16	20	2	1,748	2,404	444	9.4	8.1	5.
1,001 to 5,000	116	141	43	3,847	5,519	1,827	30.2	25.6	23
5,001 to 10,000	86	110	43	2,055	3,418	1,366	42.0	32.1	31
10,001 to 25,000	131	228	57	2,435	5,130	1,608	53.7	44.4	35
25,001 to 50,000	60	98	58	1,249	2,566	1,099	48.4	38.2	52
50,001 to 100,000	37	173	36	687	1,976	814	53.9	87.5	43
Over 100,000	107	289	Q	1,042	3,373	918	103.1	85.7	124
Provider of Natural Gas									
(more than one may apply) Local Utility	462	935	284	11,629	21,888	7,248	39.8	42.7	39
Some Other Provider	94	137	204 Q	1,233	2,357	676	76.6	58.2	70.
Come Outer i lovider	34	137	Q	1,233	2,557	070	70.0	50.2	70

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled. N=No responding cases in sample.

Notes: \* Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. \* Due to rounding, data may not sum to totals.

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