

Table C18. Natural Gas Expenditures by Census Region, 1999

	Total Natural Gas Expenditures (million dollars)				Natural Gas Expenditures (dollars)							
					per Thousand Cubic Feet				per Square Foot			
	North-east	Mid-west	South	West	North-east	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)												
1,001 to 5,000	Q	643	507	416	Q	5.61	5.57	6.09	Q	0.53	0.53	0.42
5,001 to 10,000	320	461	Q	374	7.07	5.84	6.36	6.57	0.57	0.28	0.39	0.32
10,001 to 25,000	380	482	Q	232	7.13	5.03	5.92	5.96	0.41	0.22	Q	0.15
25,001 to 50,000	215	318	373	368	7.38	5.04	5.27	5.72	0.23	0.22	0.18	0.19
50,001 to 100,000	211	364	335	343	6.91	4.58	4.89	5.30	0.22	0.18	0.14	0.19
100,001 to 200,000	189	451	316	149	5.95	4.50	5.23	4.85	0.20	0.24	0.17	0.12
200,001 to 500,000	157	376	256	169	5.34	3.40	4.90	4.45	0.17	0.21	0.16	0.17
Over 500,000	187	181	133	92	4.51	3.93	3.98	3.97	0.11	0.15	0.10	0.10
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	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	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	324	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 --												
More than 7,000 HDD	Q	976	N	140	Q	5.08	N	4.91	Q	0.27	N	0.31
5,500-7,000 HDD	960	1,777	N	370	6.76	4.46	N	4.46	0.28	0.24	N	0.21
4,000-5,499 HDD	925	523	1,127	298	6.28	5.32	5.50	5.49	0.24	0.20	0.40	0.24
Fewer than 4,000 HDD	N	N	1,298	1,043	N	N	5.41	6.02	N	N	0.21	0.18
2,000 CDD or More and --												
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	145	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	381	502	1,070	433	7.21	4.90	5.53	5.84	0.43	0.24	0.37	0.23
50 to 99	296	331	317	234	6.61	4.70	5.38	5.67	0.28	0.20	0.16	0.15
100 to 249	237	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

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					per Thousand Cubic Feet				per Square 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

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					per Thousand Cubic Feet				per Square 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												
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	160	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	Q	193	200	191	Q	5.98	Q	5.46	Q	0.15	0.15	0.12
51 to 99	194	355	Q	354	6.63	5.10	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												
Not Cooled	128	294	Q	229	6.98	4.78	4.80	5.87	0.22	0.24	Q	0.19
1 to 50	653	1,168	Q	335	6.58	4.52	5.92	5.38	0.26	0.26	Q	0.14
51 to 99	603	926	924	603	6.11	4.80	5.57	5.23	0.28	0.22	0.24	0.24
100	511	888	1,318	978	6.88	5.03	5.37	5.79	0.25	0.25	0.18	0.22
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	657	1,194	1,456	985	6.52	4.49	5.48	5.77	0.22	0.25	0.20	0.19
Other	Q	Q	71	Q	Q	3.80	5.37	4.04	Q	Q	0.09	0.18
Cooling Equipment (more than one may apply)												
Residential-Type Central												
Air Conditioners	219	641	514	165	6.17	5.15	5.64	4.63	0.27	0.24	0.22	0.16
Heat Pumps	151	156	933	237	5.86	4.08	5.37	5.22	0.16	0.21	0.34	0.18
Individual Air Conditioners	599	854	716	349	5.70	4.57	6.13	5.51	0.23	0.25	0.23	0.22
District Chilled Water	Q	36	71	Q	Q	4.15	3.91	Q	Q	0.13	0.14	Q
Central Chillers	361	690	681	570	5.07	3.93	4.89	4.67	0.18	0.26	0.20	0.26
Packaged Air Conditioning												
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	Q	Q	Q	360	Q	Q	Q	5.54	Q	Q	Q	0.25
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q

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					per Thousand Cubic Feet				per 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	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.