

**Table C36. Fuel oil expenditures by Census region, 2012**

	Total fuel oil expenditures (million dollars)				Fuel oil expenditures (dollars)							
					per gallon				per square foot			
	North- east	Mid- west	South	West	North- east	Mid- west	South	West	North- east	Mid- west	South	West
<b>All buildings</b>	2,146	367	553	164	3.29	3.41	3.32	3.42	0.35	0.09	0.08	0.05
<b>Building floorspace (square feet)</b>												
1,001 to 10,000	551	79	106	Q	3.45	3.43	3.34	Q	0.94	0.48	0.33	Q
10,001 to 100,000	977	182	194	29	3.29	3.40	3.19	3.44	0.45	0.17	0.12	0.05
Over 100,000	619	106	253	97	3.16	3.40	3.42	3.42	0.19	0.04	0.05	0.04
<b>Principal building activity</b>												
Education	460	42	148	Q	3.22	3.35	3.11	Q	0.48	0.08	0.30	Q
Health care	321	36	61	26	3.01	3.47	3.45	3.49	0.45	0.06	0.06	0.05
Office	316	28	68	37	3.42	3.42	3.40	3.41	0.19	0.03	0.04	0.04
All others	1,048	262	276	93	3.39	3.40	3.39	3.40	0.38	0.14	0.07	0.06
<b>Year constructed</b>												
Before 1945	662	19	51	Q	3.37	3.54	3.23	Q	0.43	0.06	0.09	Q
1946 to 1979	961	106	172	50	3.22	3.41	3.41	3.42	0.42	0.08	0.09	0.05
1980 to 1999	408	89	153	65	3.34	3.39	3.41	3.42	0.25	0.07	0.06	0.05
2000 to 2012	115	Q	176	Q	3.29	3.40	3.18	3.44	0.18	Q	0.10	0.04
<b>Climate region<sup>1</sup></b>												
Very cold/Cold	1,579	310	N	78	3.30	3.41	N	3.38	0.45	0.09	N	0.08
Mixed-humid	567	Q	418	N	3.27	3.36	3.38	N	0.22	Q	0.10	N
Mixed-dry/Hot-dry	N	N	Q	46	N	N	Q	3.46	N	N	Q	0.03
Hot-humid	N	N	120	Q	N	N	3.10	Q	N	N	0.05	Q
Marine	N	N	N	26	N	N	N	3.44	N	N	N	0.04
<b>Number of floors</b>												
One	481	207	266	55	3.29	3.40	3.22	3.39	0.47	0.27	0.14	0.12
Two	591	60	107	26	3.33	3.45	3.49	3.39	0.54	0.07	0.12	0.04
Three	503	Q	23	5	3.31	3.37	3.38	3.43	0.58	Q	0.04	0.03
Four to nine	457	50	116	56	3.22	3.41	3.37	3.46	0.26	0.04	0.05	0.05
Ten or more	114	28	42	Q	3.31	3.40	3.39	3.40	0.09	0.05	0.03	Q
<b>Number of workers (main shift)</b>												
Fewer than 10	617	209	128	Q	3.38	3.42	3.37	Q	0.63	0.40	0.21	Q
10 to 99	882	67	207	36	3.35	3.35	3.19	3.43	0.48	0.06	0.11	0.04
100 or more	647	91	218	92	3.14	3.42	3.42	3.42	0.20	0.04	0.05	0.04
<b>Weekly operating hours</b>												
Fewer than 48	643	56	166	11	3.35	3.47	3.15	3.42	0.46	0.08	0.22	0.03
49 to 84	735	102	173	70	3.30	3.40	3.41	3.42	0.33	0.08	0.07	0.06
85 to 167	139	34	24	Q	3.23	3.40	3.41	Q	0.29	0.06	0.04	Q
Open continuously	629	174	190	69	3.23	3.39	3.39	3.43	0.33	0.13	0.06	0.05



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<b>All buildings</b>	2,146	367	553	164	3.29	3.41	3.32	3.42	0.35	0.09	0.08	0.05
<b>Predominant roof material</b>												
Metal surfacing	295	126	134	Q	3.34	3.40	3.38	Q	0.56	0.20	0.18	Q
Synthetic or rubber	612	Q	114	82	3.29	3.38	3.40	3.40	0.23	Q	0.05	0.06
Built-up	518	58	128	44	3.21	3.46	3.39	3.39	0.33	0.05	0.06	0.05
Slate or tile shingles	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Wooden materials (including shingles)	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Asphalt, fiberglass, or other shingles	492	22	128	13	3.34	3.46	3.41	3.52	0.62	0.06	0.12	0.04
Concrete	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	N	Q	Q	Q	N	Q	Q	Q	N
No one major type	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Roof characteristics</b>												
Roof tilt												
Flat	1,129	135	267	112	3.27	3.41	3.39	3.42	0.26	0.05	0.05	0.05
Shallow pitch	383	Q	229	40	3.34	3.42	3.22	3.39	0.45	0.21	0.14	0.06
Steeper pitch	633	62	57	Q	3.30	3.36	3.39	Q	0.70	0.19	0.10	Q
Cool roof	480	89	154	68	3.28	3.42	3.42	3.41	0.30	0.08	0.07	0.07
<b>Renovations in buildings constructed before 2008 (more than one may apply)</b>												
Any type of renovation	1,315	210	289	120	3.28	3.39	3.37	3.41	0.33	0.09	0.07	0.06
Addition or annex	527	Q	101	42	3.12	3.38	3.41	3.39	0.40	Q	0.07	0.06
Reduction in floorspace	Q	Q	25	Q	Q	Q	3.52	Q	Q	Q	0.10	Q
Roof replacement	933	178	149	53	3.27	3.40	3.39	3.38	0.37	0.11	0.07	0.05
Exterior wall replacement	220	15	19	Q	3.17	3.41	3.60	Q	0.44	0.04	0.04	Q
Interior wall reconfiguration	606	52	192	69	3.19	3.42	3.36	3.40	0.28	0.04	0.08	0.05
Window replacement	672	32	93	Q	3.20	3.44	3.34	3.39	0.41	0.05	0.07	0.04
HVAC equipment upgrade	820	68	188	75	3.26	3.41	3.36	3.41	0.28	0.04	0.07	0.05
Lighting upgrade	884	94	194	73	3.26	3.41	3.35	3.41	0.32	0.06	0.07	0.05
Electrical upgrade	667	49	140	55	3.26	3.41	3.35	3.39	0.37	0.05	0.08	0.06
Plumbing system upgrade	579	Q	92	40	3.37	3.40	3.31	3.39	0.36	Q	0.06	0.04
Insulation upgrade	203	26	63	28	3.31	3.44	3.35	3.37	0.29	0.04	0.10	0.05
Fire, safety, or security upgrade	663	40	157	71	3.25	3.43	3.36	3.39	0.31	0.03	0.07	0.06
Structural upgrade	138	9	54	Q	3.30	3.41	3.42	3.41	0.38	0.03	0.10	0.05
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
No renovations	779	140	196	37	3.31	3.42	3.42	3.41	0.43	0.10	0.08	0.04
Buildings constructed 2008 or later	Q	Q	Q	Q	Q	Q	2.90	Q	Q	Q	0.17	Q
<b>Energy sources (more than one may apply)</b>												
Electricity	2,146	367	553	164	3.29	3.41	3.32	3.42	0.35	0.09	0.08	0.05
Natural gas	532	121	233	115	3.31	3.40	3.42	3.42	0.15	0.04	0.05	0.04
Fuel oil	2,146	367	553	164	3.29	3.41	3.32	3.42	0.35	0.09	0.08	0.05
District heat	41	29	58	31	3.51	3.36	3.36	3.40	0.04	0.07	0.05	0.06
District chilled water	16	Q	38	Q	3.48	3.38	3.40	3.37	0.06	Q	0.03	0.07
Propane	725	Q	134	37	3.16	3.39	3.35	3.39	0.72	Q	0.16	0.07
Other	137	Q	Q	12	3.41	Q	3.34	3.46	0.37	Q	Q	0.06

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<b>All buildings</b>	2,146	367	553	164	3.29	3.41	3.32	3.42	0.35	0.09	0.08	0.05
<b>Space-heating energy sources</b>												
Fuel oil	1,946	231	270	Q	3.27	3.41	3.40	Q	0.68	0.35	0.35	Q
Fuel oil main	1,863	Q	252	Q	3.27	Q	3.39	Q	0.94	Q	0.84	Q
Fuel oil secondary	82	24	18	Q	3.20	3.37	3.53	Q	0.10	0.05	0.04	Q
Other excluding fuel oil	176	136	269	111	3.41	3.41	3.23	3.42	0.06	0.04	0.04	0.04
Buildings without heating	Q	Q	14	Q	Q	Q	3.67	Q	Q	Q	0.05	Q
<b>Primary space-heating energy source</b>												
Electricity	36	22	145	22	3.34	3.43	3.09	3.42	0.06	0.03	0.05	0.04
Natural gas	132	98	100	66	3.34	3.41	3.43	3.43	0.06	0.04	0.04	0.04
Fuel oil	1,863	Q	252	Q	3.27	Q	3.39	Q	0.94	Q	0.84	Q
District heat	40	28	39	Q	3.52	3.36	3.39	3.41	0.04	0.07	0.03	0.04
Propane	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Cooling energy sources</b>												
Fuel oil	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other excluding fuel oil	1,692	263	534	146	3.30	3.41	3.31	3.42	0.31	0.07	0.08	0.05
Buildings without cooling	403	Q	Q	Q	3.33	Q	Q	Q	0.68	Q	Q	Q
<b>Water-heating energy sources</b>												
Fuel oil	1,231	Q	Q	Q	3.22	Q	Q	Q	0.88	Q	Q	Q
Other excluding fuel oil	803	295	391	143	3.42	3.40	3.43	3.42	0.18	0.08	0.06	0.05
Buildings without water heating	Q	Q	Q	Q	3.26	Q	Q	Q	Q	Q	Q	Q
<b>Cooking energy sources</b>												
Fuel oil	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other excluding fuel oil	1,203	121	339	109	3.23	3.40	3.39	3.43	0.31	0.05	0.08	0.05
Buildings without cooking	909	245	213	55	3.38	3.41	3.22	3.39	0.42	0.17	0.07	0.05
<b>Energy end uses (more than one may apply)</b>												
Buildings with space heating	2,122	367	540	148	3.28	3.41	3.31	3.42	0.35	0.09	0.08	0.05
Buildings with cooling	1,743	264	536	146	3.28	3.41	3.31	3.42	0.32	0.07	0.08	0.05
Buildings with water heating	2,034	310	530	158	3.29	3.40	3.40	3.42	0.35	0.08	0.08	0.05
Buildings with cooking	1,237	122	340	109	3.23	3.40	3.39	3.43	0.32	0.05	0.08	0.05
Buildings with manufacturing	117	Q	Q	Q	3.23	Q	Q	Q	0.34	Q	Q	Q
Buildings with electricity generation	921	142	423	127	3.23	3.40	3.30	3.42	0.23	0.04	0.06	0.04
<b>Percent of floorspace heated</b>												
Not heated	Q	Q	14	Q	Q	Q	3.67	Q	Q	Q	0.05	Q
1 to 50	113	Q	52	19	3.26	Q	2.67	3.43	0.23	Q	0.08	0.04
51 to 99	307	24	84	24	3.28	3.41	3.38	3.45	0.24	0.04	0.07	0.03
100	1,702	309	403	105	3.28	3.39	3.40	3.40	0.40	0.10	0.08	0.06

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<b>All buildings</b>	2,146	367	553	164	3.29	3.41	3.32	3.42	0.35	0.09	0.08	0.05
<b>Heating equipment (more than one may apply)</b>												
Heat pumps	153	12	109	18	3.33	3.42	3.26	3.44	0.22	0.03	0.08	0.03
Furnaces	Q	Q	Q	Q	3.46	3.24	3.41	Q	0.79	0.06	0.11	Q
Individual space heaters	604	114	148	Q	3.26	3.44	3.40	3.41	0.32	0.09	0.08	0.07
District heat	41	29	57	Q	3.51	3.36	3.36	3.41	0.04	0.07	0.05	0.04
Boilers	1,470	103	265	59	3.24	3.44	3.23	3.44	0.43	0.05	0.11	0.04
Packaged heating units	612	208	240	66	3.32	3.38	3.42	3.40	0.29	0.10	0.06	0.05
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Water-heating equipment</b>												
Centralized system	1,410	243	306	113	3.35	3.40	3.38	3.42	0.40	0.11	0.09	0.07
Distributed system	233	22	55	15	3.26	3.39	3.51	3.43	0.27	0.05	0.07	0.04
Combination of centralized and distributed system	391	46	170	30	3.12	3.38	3.41	3.41	0.27	0.04	0.07	0.03
<b>Food preparation or serving areas in non-food service buildings (more than one may apply)</b>												
Snack bar or concession stand	170	37	127	50	3.27	3.41	3.44	3.42	0.15	0.04	0.07	0.06
Fast food or small restaurant	68	30	67	Q	3.14	3.40	3.51	3.42	0.09	0.04	0.05	0.04
Cafeteria or large restaurant	664	52	223	62	3.20	3.46	3.41	3.44	0.31	0.04	0.10	0.05
Commercial kitchen/ food preparation area	482	71	171	59	3.25	3.39	3.39	3.43	0.28	0.05	0.07	0.05
Small kitchen area	499	55	154	37	3.27	3.39	3.41	3.41	0.33	0.05	0.11	0.05
<b>HVAC conservation features (more than one may apply)</b>												
Economizer cycle	572	105	260	90	3.17	3.42	3.42	3.41	0.19	0.04	0.07	0.04
Regular HVAC maintenance	1,813	256	470	142	3.30	3.40	3.30	3.42	0.32	0.07	0.07	0.05
Building automation system (BAS) <sup>2</sup>	684	204	372	111	3.15	3.40	3.30	3.42	0.20	0.07	0.07	0.05
<b>Equipment usage reduced when building not in full use (more than one may apply)</b>												
Heating	1,525	192	403	113	3.32	3.39	3.28	3.40	0.32	0.07	0.09	0.05
Cooling	1,242	135	406	97	3.32	3.39	3.29	3.40	0.30	0.05	0.08	0.05
Lighting	2,021	286	514	150	3.29	3.41	3.32	3.42	0.36	0.08	0.08	0.05
<b>Annual consumption (gallons)</b>												
1,000 or less	155	59	102	33	3.63	3.48	3.47	3.51	0.08	0.03	0.03	0.02
1,001 to 5,000	490	Q	144	43	3.40	3.39	3.35	3.40	0.30	Q	0.09	0.06
5,001 to 10,000	390	111	80	40	3.32	3.37	2.89	3.38	0.47	0.25	0.10	0.10
10,001 to 25,000	395	Q	57	Q	3.29	3.45	3.42	Q	0.44	0.11	0.07	Q
Over 25,000	716	Q	170	Q	3.15	Q	3.40	Q	0.98	Q	0.48	Q

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<b>All buildings</b>	2,146	367	553	164	3.29	3.41	3.32	3.42	0.35	0.09	0.08	0.05

<sup>1</sup>These climate regions were created by the Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE).

<sup>2</sup>In earlier CBECS publications, BAS was referred to as *Energy Management and Control System (EMCS)*.

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

N = No cases in reporting sample.

Notes: • Because of rounding, data may not sum to totals. • See the *Guide to the 2012 CBECS Detailed Tables* or *CBECS Terminology* for definitions of terms used in these tables and/or comparison of differences with prior CBECS tables. Both references can be accessed from <http://www.eia.gov/consumption/commercial/data/2012/> • Statistics for the *Energy end uses* category represent total consumption in buildings that have the end use, not consumption specifically for that particular end use. • HVAC = Heating, ventilation, and air conditioning.

Source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Forms EIA-871A and F of the 2012 Commercial Buildings Energy Consumption Survey.