

Table C36. Fuel Oil Expenditures by Census Region for Non-Mall Buildings, 2003

	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
All Buildings*	1,393	176	125	81	1.10	1.03	1.21	1.28	0.23	0.06	0.03	Q
Building Floorspace (Square Feet)												
1,001 to 10,000	460	Q	Q	Q	1.21	Q	Q	Q	0.61	Q	Q	Q
10,001 to 100,000	408	70	Q	Q	1.09	1.12	1.29	1.31	0.24	0.11	Q	Q
Over 100,000	524	21	47	Q	1.03	1.05	1.07	1.26	0.14	0.01	0.02	Q
Principal Building Activity												
Education	293	Q	Q	Q	1.04	Q	Q	Q	0.31	Q	Q	Q
Health Care.....	Q	Q	19	8	Q	1.06	1.08	1.16	Q	Q	0.02	0.03
Office	122	8	18	Q	1.16	1.32	1.26	1.44	0.09	0.01	0.01	0.00
All Others	936	Q	59	50	1.12	1.01	1.34	1.26	0.27	0.11	0.04	Q
Year Constructed												
1945 or Before	612	Q	Q	Q	1.10	Q	Q	Q	0.29	Q	Q	Q
1946 to 1959	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
1960 to 1969	Q	Q	Q	Q	1.06	Q	Q	Q	0.36	Q	Q	Q
1970 to 1979	133	Q	31	Q	1.10	1.19	1.23	Q	0.21	Q	0.04	Q
1980 to 1989	53	Q	Q	7	1.18	Q	1.16	1.23	0.08	Q	Q	0.01
1990 to 2003	Q	21	Q	Q	1.09	1.16	1.18	Q	0.08	0.03	Q	Q
Climate Zone: 30-Year Average												
Under 2,000 CDD and --												
More than 7,000 HDD	312	Q	N	Q	1.06	1.00	N	1.23	0.31	0.13	N	Q
5,500-7,000 HDD	459	24	N	Q	1.15	1.23	N	Q	0.21	0.02	N	Q
4,000-5,499 HDD	Q	Q	Q	Q	1.09	Q	1.19	Q	0.22	Q	Q	Q
Fewer than 4,000 HDD	N	N	36	Q	N	N	1.24	1.38	N	N	0.03	Q
2,000 CDD or More and --												
Fewer than 4,000 HDD	N	N	7	Q	N	N	1.27	Q	N	N	0.00	Q
Number of Floors												
One	267	40	Q	Q	1.16	1.11	1.28	Q	0.27	0.09	Q	Q
Two	442	Q	Q	Q	1.13	0.96	Q	Q	0.35	Q	Q	Q
Three	252	Q	Q	Q	1.08	Q	Q	Q	0.28	Q	Q	Q
Four to Nine	347	Q	47	Q	1.06	0.97	1.14	1.23	0.20	Q	0.05	Q
Ten or More	Q	Q	7	2	1.03	Q	1.16	1.33	Q	Q	0.01	0.00
Number of Workers (main shift)												
Less than 10	525	Q	46	Q	1.20	1.02	1.38	Q	0.43	Q	0.12	Q
10 to 99	635	Q	Q	Q	1.05	1.03	1.17	Q	0.25	Q	Q	Q
100 or More	233	18	43	Q	1.05	1.13	1.10	1.30	0.10	0.01	0.02	Q
Weekly Operating Hours												
48 or fewer	481	Q	34	Q	1.09	Q	1.30	Q	0.34	Q	0.06	Q
49 to 84	422	Q	Q	11	1.13	0.96	1.26	1.13	0.23	Q	Q	0.01
85 to 168	490	36	51	40	1.09	1.09	1.12	1.29	0.18	0.02	0.03	Q
Ownership and Occupancy												
Nongovernment Owned												
Owner Occupied	976	140	90	Q	1.13	1.02	1.27	1.27	0.21	Q	0.03	Q
Nonowner Occupied	583	27	52	9	1.13	1.13	1.32	1.16	0.21	0.03	0.03	0.01
Unoccupied	392	Q	38	Q	1.13	1.00	1.20	1.30	0.23	Q	0.03	Q
Government Owned												
Federal	Q	N	N	N	Q	N	N	N	Q	N	N	N
State	417	36	Q	Q	1.04	1.09	1.08	1.31	0.28	Q	Q	Q
Local	Q	Q	Q	Q	Q	Q	1.09	Q	Q	Q	0.00	Q
	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
	256	Q	Q	Q	1.04	Q	Q	Q	0.23	Q	Q	Q

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					per Gallon				per Square Foot			
	North- east	Mid- west	South	West	North- east	Mid- west	South	West	North- east	Mid- west	South	West
All Buildings*	1,393	176	125	81	1.10	1.03	1.21	1.28	0.23	0.06	0.03	Q
Vacancy Status												
Completely Vacant	Q	N	N	N	Q	N	N	N	Q	N	N	N
Mostly Vacant	Q	N	N	N	Q	N	N	N	Q	N	N	N
Partially Vacant	191	Q	19	Q	1.06	1.18	1.19	1.30	0.11	Q	0.02	Q
Not At All Vacant	1,194	159	106	Q	1.11	1.02	1.21	1.28	0.28	0.08	0.04	Q
Number of Establishments												
One	1,152	160	96	Q	1.11	1.03	1.25	1.30	0.31	0.10	0.04	Q
2 to 5	169	Q	23	Q	1.12	1.07	1.08	Q	0.15	Q	0.04	Q
6 to 10	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
11 to 20	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
More than 20	Q	Q	Q	Q	Q	Q	1.28	Q	Q	Q	Q	Q
Currently Unoccupied	Q	N	N	N	Q	N	N	N	Q	N	N	N
Predominant Exterior Wall Material												
Brick, Stone or Stucco	921	103	86	Q	1.08	1.12	1.17	1.25	0.25	0.07	0.04	Q
Concrete (Block or Poured)	Q	20	Q	Q	Q	1.13	1.30	1.33	Q	Q	Q	Q
Concrete Panels	Q	Q	4	Q	Q	Q	1.25	Q	Q	Q	Q	Q
Siding or Shingles	264	Q	Q	Q	1.14	Q	Q	Q	0.53	Q	Q	0.21
Metal Panels	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Window Glass	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
No One Major Type	N	Q	Q	Q	N	Q	Q	Q	N	Q	Q	Q
Predominant Roof Material												
Built-Up	222	19	42	Q	1.13	1.10	1.16	1.32	0.11	0.02	0.02	Q
Shingles (Not Wood)	437	Q	Q	Q	1.16	Q	Q	Q	0.49	Q	Q	Q
Metal Surfacing	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Synthetic or Rubber	253	43	Q	Q	1.05	1.12	1.16	1.32	0.14	0.04	Q	Q
Slate or Tile	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Wooden Materials	Q	Q	Q	N	Q	Q	Q	N	Q	0.00	Q	N
Concrete	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	0.00	0.00
No One Major Type	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Renovations in Buildings Constructed Before 1980 (more than one may apply)												
Any Type of Renovation												
Since 1980	638	Q	62	Q	1.07	0.90	1.18	1.26	0.24	Q	0.05	Q
Addition or Annex	Q	Q	30	Q	1.01	1.06	1.20	Q	0.30	0.04	0.04	Q
Reduction In Floorspace	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Cosmetic Improvements	468	Q	45	Q	1.08	0.87	1.14	1.22	0.22	Q	0.05	Q
Wall or Roof Replacement	358	13	25	Q	1.07	1.11	1.16	Q	0.23	0.02	0.04	Q
Interior Wall												
Re-Configuration	302	Q	Q	Q	1.09	1.12	1.16	1.03	0.23	Q	0.04	Q
HVAC Equipment Upgrade	223	13	37	Q	1.14	1.10	1.13	1.04	0.15	Q	0.04	0.01
Lighting Upgrade	372	Q	26	Q	1.07	1.11	1.17	1.06	0.21	Q	Q	0.01
Window Replacement	362	8	Q	Q	1.08	1.23	Q	Q	0.24	0.02	Q	Q
Plumbing System Upgrade	311	Q	23	Q	1.06	1.03	1.13	Q	0.21	Q	0.05	Q
Insulation Upgrade	154	Q	Q	Q	1.12	Q	Q	Q	0.20	Q	Q	Q
Other Renovation	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	0.07	Q
No Renovations Since 1980	627	Q	Q	Q	1.13	1.15	1.29	Q	0.34	Q	Q	Q
Building Newer than 1980	128	23	27	14	1.13	1.15	1.17	1.21	0.08	0.02	0.01	0.01

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					per Gallon				per Square Foot			
	North- east	Mid- west	South	West	North- east	Mid- west	South	West	North- east	Mid- west	South	West
All Buildings*	1,393	176	125	81	1.10	1.03	1.21	1.28	0.23	0.06	0.03	Q
Energy Sources (more than one may apply)												
Electricity	1,393	174	125	81	1.10	1.03	1.21	1.28	0.23	0.06	0.03	0.04
Natural Gas	681	29	53	Q	1.08	1.11	1.13	1.18	0.18	0.01	0.02	Q
Fuel Oil	1,393	176	125	81	1.10	1.03	1.21	1.28	0.23	0.06	0.03	Q
District Heat	Q	Q	2	Q	Q	Q	1.23	Q	Q	Q	0.01	Q
District Chilled Water	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Propane	313	Q	Q	Q	1.03	Q	Q	Q	0.31	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Space-Heating Energy Sources												
Fuel Oil	1,353	167	95	Q	1.09	1.03	1.20	Q	0.34	0.18	0.11	Q
Fuel Oil Main	1,304	Q	Q	Q	1.09	Q	Q	Q	0.40	Q	Q	Q
Fuel Oil Secondary	59	35	29	Q	1.19	1.15	1.16	Q	0.08	0.05	0.04	Q
Other Excluding Fuel Oil	Q	9	26	8	1.56	1.16	1.25	1.30	Q	0.00	0.01	0.00
Buildings without Heating	Q	N	Q	Q	Q	N	Q	Q	Q	N	Q	Q
Primary Space-Heating Energy Source												
Electricity	Q	Q	11	Q	Q	1.19	1.32	Q	Q	Q	0.01	Q
Natural Gas	63	24	36	Q	1.29	1.13	1.14	1.20	0.04	0.01	0.02	0.01
Fuel Oil	1,304	Q	Q	Q	1.09	Q	Q	Q	0.40	Q	Q	Q
District Heat	Q	Q	2	Q	Q	Q	1.25	Q	Q	Q	0.00	Q
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
Cooling Energy Sources												
Fuel Oil	Q	N	N	N	Q	N	N	N	Q	N	N	N
Other Excluding Fuel Oil	1,086	125	122	43	1.09	0.99	1.21	1.23	0.21	0.05	0.03	0.02
Buildings without Cooling	296	Q	Q	Q	1.14	Q	Q	Q	0.30	Q	Q	Q
Water-Heating Energy Sources												
Fuel Oil	773	Q	Q	Q	1.07	Q	Q	Q	0.50	Q	Q	Q
Other Excluding Fuel Oil	572	Q	85	36	1.13	1.01	1.20	1.18	0.14	0.05	0.02	0.02
Buildings without Water Heating	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Cooking Energy Sources												
Fuel Oil	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	0.00
Other Excluding Fuel Oil	729	70	59	Q	1.07	1.10	1.14	1.26	0.22	0.04	0.02	Q
Buildings without Cooking	639	Q	57	Q	1.14	0.99	1.31	1.30	0.23	Q	0.04	Q
Energy End Uses (more than one may apply)												
Buildings with Space Heating	1,378	176	121	Q	1.10	1.03	1.21	1.27	0.23	0.06	0.03	Q
Buildings with Cooling	1,097	125	122	43	1.09	0.99	1.21	1.23	0.21	0.05	0.03	0.02
Buildings with Water Heating	1,344	162	115	61	1.09	1.02	1.18	1.25	0.23	0.06	0.03	0.03
Buildings with Cooking	754	76	68	Q	1.07	1.10	1.14	1.26	0.23	0.04	0.02	Q
Buildings with Manufacturing	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Buildings with Electricity Generation	174	Q	45	10	1.09	1.12	1.19	1.20	0.07	0.01	0.01	0.01
Percent of Floorspace Heated												
Not Heated	Q	N	Q	Q	Q	N	Q	Q	Q	N	Q	Q
1 to 50	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
51 to 99	167	Q	25	Q	1.11	Q	1.09	1.06	0.26	Q	0.03	Q
100	1,116	160	93	Q	1.09	1.02	1.24	1.30	0.24	0.07	0.03	Q

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					per Gallon				per Square Foot			
	North- east	Mid- west	South	West	North- east	Mid- west	South	West	North- east	Mid- west	South	West
All Buildings*	1,393	176	125	81	1.10	1.03	1.21	1.28	0.23	0.06	0.03	Q
Heating Equipment (more than one may apply)												
Heat Pumps	Q	Q	11	Q	Q	Q	1.26	1.04	Q	Q	Q	Q
Packaged Heat Pumps	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Split-System Heat Pumps	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Individual Room Heat Pumps	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Furnaces	345	28	Q	Q	1.15	1.16	1.25	Q	0.26	0.04	Q	Q
Individual Space Heaters	192	Q	29	Q	1.10	1.15	1.25	Q	0.15	0.02	0.03	Q
District Heat	Q	Q	2	Q	Q	Q	1.24	Q	Q	Q	0.00	Q
Boilers	1,060	Q	86	Q	1.08	1.01	1.15	1.28	0.28	Q	0.04	Q
Packaged Heating Units	Q	10	25	Q	Q	1.00	1.23	1.20	Q	0.01	Q	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Water Heating Equipment												
Centralized System	1,014	Q	Q	Q	1.11	1.01	1.18	1.31	0.28	0.08	Q	Q
Distributed System	Q	Q	Q	Q	Q	Q	1.26	Q	Q	Q	0.02	Q
Combination of Centralized and Distributed System	106	Q	19	9	1.01	1.08	1.14	1.08	0.11	Q	0.02	0.01
Energy-Related Space Functions (more than one may apply)												
Commercial Food Preparation	754	76	68	Q	1.07	1.10	1.14	1.26	0.23	0.04	0.02	Q
Activities with Large Amounts of Hot Water	595	42	Q	Q	1.04	1.07	1.15	1.30	0.23	0.03	0.02	Q
Separate Computer Area	576	45	66	Q	1.03	1.08	1.11	1.30	0.16	0.02	0.02	Q
HVAC Conservation Features (more than one may apply)												
Variable Air-Volume System	184	30	50	9	1.05	1.11	1.12	1.25	0.08	0.02	0.02	0.01
Economizer Cycle	253	21	51	5	1.09	1.08	1.08	1.26	0.11	0.01	0.02	0.00
HVAC Maintenance	1,261	123	117	Q	1.09	1.12	1.20	1.30	0.23	0.05	0.03	Q
Energy Management and Control System (EMCS)	166	14	42	Q	1.06	1.12	1.08	1.31	0.09	0.01	0.02	Q
Equipment Usage Reduced When Building Not In Full Use (more than one may apply)^a												
Heating	1,051	103	100	Q	1.10	1.13	1.22	1.27	0.23	0.05	0.04	Q
Cooling	897	51	102	Q	1.08	1.15	1.22	1.29	0.22	0.03	0.03	Q
Lighting	969	142	88	Q	1.11	1.02	1.24	1.28	0.27	0.08	0.04	Q
Office Equipment	613	Q	Q	Q	1.09	0.90	1.23	Q	0.34	Q	Q	Q

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	North- east	Mid- west	South	West	North- east	Mid- west	South	West	North- east	Mid- west	South	West
All Buildings*	1,393	176	125	81	1.10	1.03	1.21	1.28	0.23	0.06	0.03	Q
Annual Consumption (gallons)												
1,000 or Less	73	19	23	10	1.29	1.28	1.46	1.31	0.03	0.01	0.01	0.01
1,001 to 5,000	313	Q	Q	Q	1.24	1.18	1.23	Q	0.24	Q	Q	Q
5,001 to 10,000	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
10,001 to 25,000	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Over 25,000	699	Q	Q	Q	1.01	Q	Q	Q	0.40	Q	Q	Q

See "Guide to the Tables" or "Glossary" for further explanations of the terms used in this table. Both can be accessed from the CBECS web site - <http://www.eia.doe.gov/emeu/cbeecs>.

* Figures in this table do not include enclosed malls and strip malls. Mall buildings add an estimated 213 thousand buildings comprising 6.9 billion square feet. In the 1999 CBECS, total fuel oil consumption in malls was not statistically significant.

^a The definition for one or more of these row items has changed and may not be directly comparable with past CBECS estimates. See "Guide to the Tables" for discussion of the differences.

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 that use fuel oil.

Notes: • 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. • Due to rounding, data may not sum to totals. Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A, C, and E of the 2003 Commercial Buildings Energy Consumption Survey.