

Table CE4.11 Annual household end-use expenditures by fuel in the U.S.—totals, 2015

	Number of housing units (million)		Total energy expenditures ¹ (billion dollars)																	
	Total U.S. ²	Total	Electricity						Natural gas				Propane				Fuel oil/kerosene			
			Total	Space heating ³	Water heating	Air conditioning	Refrigerators	Other ⁴	Total	Space heating ³	Water heating	Other ⁴	Total	Space heating ³	Water heating	Other ⁴	Total	Space heating ³	Water heating	Other
All homes	118.2	219.34	162.37	21.99	21.02	27.28	12.07	80.00	40.89	26.70	11.10	3.09	7.76	4.94	1.68	1.14	8.32	7.11	1.09	0.12
Census region and division																				
Northeast	21.0	47.66	28.24	3.10	3.17	3.09	2.49	16.39	10.28	7.10	2.43	0.75	2.09	1.36	0.42	0.31	7.05	6.00	0.98	Q
New England	5.6	14.31	7.73	0.65	0.96	0.53	0.69	4.89	2.10	1.38	0.56	0.15	0.91	0.59	0.20	0.13	3.57	3.11	0.42	Q
Middle Atlantic	15.4	33.36	20.51	2.45	2.21	2.56	1.80	11.50	8.18	5.71	1.87	0.60	1.17	0.76	0.23	0.18	3.49	2.89	0.57	Q
Midwest	26.4	46.42	31.50	4.38	3.54	3.60	2.60	17.37	13.00	9.90	2.62	0.47	1.78	1.37	0.31	0.10	Q	Q	N	Q
East North Central	18.1	31.88	21.29	2.94	2.43	2.33	1.81	11.77	9.38	7.17	1.82	0.39	1.13	0.84	0.21	0.07	Q	Q	N	Q
West North Central	8.3	14.54	10.21	1.45	1.11	1.27	0.79	5.60	3.62	2.73	0.80	0.09	0.65	0.52	0.10	0.03	Q	Q	N	N
South	44.4	85.19	72.42	11.31	11.19	16.52	4.08	29.32	9.19	5.59	2.61	0.99	2.63	1.64	0.48	0.52	0.95	0.85	Q	Q
South Atlantic	23.5	46.09	38.79	5.76	6.37	8.60	2.21	15.85	4.91	3.03	1.38	0.51	1.48	0.88	0.24	0.37	0.91	0.81	Q	Q
East South Central	7.2	13.72	11.81	2.35	2.14	2.05	0.60	4.65	1.39	0.87	0.35	0.18	0.48	0.36	0.08	0.04	Q	Q	N	N
West South Central	13.8	25.38	21.82	3.21	2.67	5.87	1.26	8.82	2.89	1.70	0.89	0.30	0.66	0.40	0.16	0.11	Q	Q	N	N
West	26.4	40.06	30.20	3.19	3.12	4.06	2.90	16.93	8.42	4.11	3.44	0.87	1.26	0.57	0.47	0.21	0.17	0.12	Q	Q
Mountain	8.5	13.94	9.97	0.93	0.89	1.80	0.86	5.50	3.40	2.08	1.12	0.19	0.57	0.26	0.21	0.10	N	N	N	N
Mountain North	4.2	6.74	4.32	0.46	0.36	0.32	0.43	2.74	2.18	1.46	0.65	0.07	0.24	Q	Q	Q	N	N	N	N
Mountain South	4.3	7.20	5.66	0.48	0.52	1.47	0.42	2.76	1.22	0.62	0.47	0.12	0.33	Q	0.17	0.06	N	N	N	N
Pacific	17.9	26.12	20.23	2.26	2.23	2.27	2.04	11.43	5.02	2.03	2.32	0.68	0.70	0.32	0.26	0.12	0.17	0.12	Q	Q
Census urban/rural classification⁵																				
Urban	94.7	167.97	122.91	14.22	14.36	22.24	9.63	62.45	37.26	24.09	10.33	2.84	2.05	1.13	0.49	0.43	5.76	4.92	0.77	Q
Urbanized area	82.2	146.57	107.35	11.83	12.06	20.04	8.49	54.92	32.76	20.93	9.24	2.59	1.64	0.86	0.40	0.38	4.83	4.09	0.67	Q
Urban cluster	12.5	21.40	15.56	2.39	2.30	2.20	1.14	7.52	4.50	3.16	1.09	0.25	0.41	0.27	0.08	0.05	0.93	0.83	Q	N
Rural	23.5	51.37	39.46	7.77	6.65	5.04	2.44	17.56	3.63	2.61	0.77	0.24	5.71	3.81	1.20	0.71	2.56	2.18	0.32	Q
Metropolitan or micropolitan statistical area																				
In metropolitan statistical area	98.5	181.34	133.51	16.28	15.97	23.54	10.27	67.45	36.31	23.39	10.07	2.85	5.34	3.24	1.31	0.78	6.17	5.22	0.84	0.10
In micropolitan statistical area	12.3	22.92	17.75	3.70	3.06	2.16	1.11	7.73	3.14	2.27	0.69	0.18	1.11	0.77	0.16	0.17	0.92	0.83	Q	Q
Not in metropolitan or micropolitan statistical area	7.4	15.08	11.10	2.02	1.99	1.58	0.70	4.82	1.43	1.04	0.34	0.05	1.31	0.93	0.20	0.18	Q	Q	0.18	Q
Climate region⁶																				
Very cold/Cold	42.5	79.60	50.28	6.23	5.82	4.34	4.32	29.57	20.42	14.98	4.44	1.00	3.70	2.47	0.86	0.38	5.21	4.63	0.51	Q
Mixed-humid	33.5	69.92	52.23	9.38	7.63	8.28	3.39	23.56	11.77	7.96	2.92	0.89	2.85	1.94	0.40	0.52	3.06	2.44	0.58	Q
Mixed-dry/Hot-dry	12.7	18.89	14.71	0.91	0.96	3.21	1.49	8.15	3.84	1.33	1.90	0.60	0.34	0.11	0.18	0.05	Q	Q	N	N
Hot-humid	22.8	41.06	37.47	4.19	5.37	11.25	2.15	14.50	3.09	1.55	1.10	0.45	0.50	0.22	0.15	0.14	Q	Q	N	N
Marine	6.7	9.86	7.68	1.29	1.23	0.21	0.72	4.22	1.78	0.88	0.74	0.15	Q	Q	Q	0.05	Q	Q	N	Q

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	Number of housing units (million)		Total energy expenditures ¹ (billion dollars)																	
	Total U.S. ²	Total	Electricity					Natural gas					Propane			Fuel oil/kerosene				
			Total	Space heating ³	Water heating	Air conditioning	Refrigerators	Other ⁴	Total	Space heating ³	Water heating	Other ⁴	Total	Space heating ³	Water heating	Other ⁴	Total	Space heating ³	Water heating	Other
All homes	118.2	219.34	162.37	21.99	21.02	27.28	12.07	80.00	40.89	26.70	11.10	3.09	7.76	4.94	1.68	1.14	8.32	7.11	1.09	0.12
Housing unit type																				
Single-family detached	73.9	161.65	116.66	15.29	12.56	21.46	8.50	58.84	31.36	21.42	7.73	2.20	6.68	4.42	1.28	0.98	6.96	6.16	0.68	0.11
Single-family attached	7.0	11.23	7.97	1.04	1.04	1.27	0.67	3.95	3.02	2.04	0.75	0.23	0.10	Q	Q	Q	Q	Q	Q	N
Apartments in buildings with 2-4 units	9.4	12.48	9.06	1.39	1.43	1.01	0.75	4.47	2.81	1.52	1.02	0.26	0.18	Q	Q	Q	0.44	0.33	Q	N
Apartments in buildings with 5 or more units	21.1	22.10	18.46	2.33	3.57	2.26	1.63	8.67	2.92	1.17	1.41	0.34	0.14	Q	Q	Q	0.59	0.30	0.29	N
Mobile homes	6.8	11.88	10.23	1.94	2.42	1.27	0.53	4.07	0.79	0.54	0.18	0.06	0.66	0.34	0.20	0.12	0.20	0.18	Q	Q
Ownership of housing unit																				
Owned	74.5	159.90	115.67	14.87	12.75	20.97	8.63	58.45	30.72	21.15	7.37	2.20	6.90	4.45	1.39	1.05	6.62	5.84	0.69	0.08
Single-family	66.2	146.21	104.49	13.26	10.60	19.34	7.83	53.46	28.99	20.10	6.90	1.99	6.40	4.22	1.23	0.95	6.32	5.59	0.66	0.07
Apartments	3.3	4.92	3.70	0.25	0.46	0.64	0.40	1.95	1.08	0.58	0.35	0.15	Q	Q	N	Q	Q	Q	N	
Mobile homes	5.0	8.77	7.47	1.35	1.69	0.99	0.41	3.04	0.65	0.47	0.12	0.05	0.46	0.22	0.14	0.10	0.19	0.17	Q	Q
Rented ⁷	43.7	59.43	46.70	7.12	8.27	6.31	3.44	21.56	10.17	5.55	3.73	0.89	0.86	0.49	0.29	0.08	1.70	1.26	0.40	Q
Single-family	14.7	26.67	20.13	3.07	3.00	3.39	1.34	9.33	5.38	3.37	1.58	0.43	0.38	0.26	Q	0.04	0.77	0.71	Q	Q
Apartments	27.2	29.66	23.81	3.47	4.54	2.64	1.97	11.19	4.65	2.11	2.08	0.45	0.28	Q	0.15	Q	0.92	0.54	0.38	N
Mobile homes	1.8	3.10	2.76	0.58	0.74	0.28	0.12	1.04	0.14	Q	Q	0.01	0.20	Q	Q	Q	Q	Q	N	N
Year of construction																				
Before 1950	20.8	39.48	25.20	3.22	2.74	3.72	2.00	13.52	10.22	7.26	2.38	0.57	1.33	0.97	0.25	0.11	2.72	2.36	0.36	Q
1950 to 1959	12.6	23.52	15.68	1.84	1.70	2.90	1.25	7.98	5.62	3.86	1.37	0.39	0.56	0.36	0.13	0.07	1.65	1.45	0.19	Q
1960 to 1969	12.8	22.50	15.89	1.99	1.67	3.08	1.26	7.89	4.73	3.10	1.29	0.34	0.77	0.53	0.17	Q	1.10	0.95	0.11	Q
1970 to 1979	18.3	32.36	25.08	4.36	3.52	4.08	1.80	11.31	5.28	3.36	1.53	0.39	0.91	0.64	0.16	0.10	1.10	0.96	0.12	Q
1980 to 1989	16.0	27.99	22.50	3.02	3.20	3.78	1.62	10.88	3.74	2.19	1.22	0.33	0.82	0.42	0.18	0.21	0.93	0.75	0.15	Q
1990 to 1999	16.8	32.57	25.52	3.38	3.55	4.26	1.85	12.50	5.34	3.42	1.54	0.39	1.31	0.82	0.33	0.16	0.39	0.34	Q	N
2000 to 2009	17.0	34.21	27.07	3.48	3.66	4.63	1.94	13.36	5.05	2.94	1.53	0.59	1.69	0.97	0.35	0.37	0.40	0.30	0.10	Q
2010 to 2015	3.8	6.72	5.43	0.70	0.97	0.84	0.35	2.57	0.90	0.58	0.24	0.09	0.36	0.22	0.10	0.04	Q	Q	Q	N
Total square footage⁸																				
Fewer than 1,000	26.6	29.91	24.08	3.52	4.48	2.86	2.01	11.20	4.52	2.15	1.94	0.43	0.59	0.22	0.25	0.12	0.73	0.45	0.26	Q
1,000 to 1,499	26.1	41.01	33.08	5.02	5.68	5.18	2.27	14.94	6.37	3.71	2.10	0.56	0.90	0.55	0.23	0.12	0.65	0.47	0.18	Q
1,500 to 1,999	17.5	33.54	25.39	3.67	3.41	4.90	1.85	11.56	6.03	3.89	1.63	0.51	1.05	0.79	0.16	0.10	1.07	0.97	0.07	Q
2,000 to 2,499	14.1	29.46	20.94	2.54	2.41	3.83	1.60	10.56	6.05	4.13	1.49	0.43	1.47	1.03	0.29	0.15	1.01	0.86	0.12	Q
2,500 to 2,999	10.8	24.65	16.92	2.16	1.51	3.04	1.27	8.93	5.42	3.89	1.23	0.30	0.75	0.47	0.16	0.11	1.57	1.37	0.17	Q
3,000 or greater	23.1	60.76	41.97	5.09	3.52	7.47	3.07	22.82	12.50	8.93	2.72	0.85	3.00	1.87	0.59	0.53	3.30	2.98	0.29	Q

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All homes	118.2	219.34	162.37	21.99	21.02	27.28	12.07	80.00	40.89	26.70	11.10	3.09	7.76	4.94	1.68	1.14	8.32	7.11	1.09	0.12
Number of household members																				
1 member	28.7	37.91	27.51	4.69	2.68	4.75	2.49	12.90	7.90	5.95	1.45	0.50	1.14	0.82	0.20	0.12	1.36	1.24	0.10	Q
2 members	42.7	78.96	58.53	8.32	6.74	10.35	4.52	28.61	13.89	9.55	3.26	1.08	3.52	2.28	0.68	0.56	3.02	2.60	0.39	Q
3 members	19.4	39.02	28.36	3.40	4.04	4.69	2.04	14.20	7.59	4.78	2.25	0.56	1.37	0.87	0.30	0.20	1.69	1.40	0.25	Q
4 members	15.5	35.27	26.39	3.07	3.78	4.27	1.72	13.55	6.43	3.59	2.29	0.55	1.04	0.58	0.30	0.16	1.42	1.17	0.25	Q
5 members	7.2	16.80	13.04	1.59	2.35	2.09	0.78	6.23	2.95	1.72	0.99	0.23	0.45	0.26	0.14	0.05	0.37	0.30	Q	Q
6 or more members	4.6	11.38	8.53	0.92	1.43	1.14	0.52	4.52	2.13	1.12	0.85	0.17	0.25	0.14	Q	0.04	0.47	0.39	Q	N
2015 annual household income																				
Less than \$20,000	22.9	32.47	24.62	4.40	4.08	3.64	1.74	10.76	5.58	3.33	1.75	0.50	0.95	0.56	0.27	0.13	1.32	1.12	0.16	Q
\$20,000 to \$39,999	27.3	44.49	33.16	4.89	4.95	5.31	2.49	15.52	8.58	5.79	2.27	0.52	1.34	0.88	0.29	0.17	1.40	1.21	0.16	Q
\$40,000 to \$59,999	18.4	32.73	24.64	3.38	3.42	4.41	1.78	11.66	5.82	3.86	1.58	0.38	1.02	0.66	0.27	0.09	1.24	1.07	Q	Q
\$60,000 to \$79,999	15.2	29.55	21.94	2.94	3.10	3.48	1.61	10.80	5.05	3.34	1.31	0.40	1.19	0.82	0.23	0.14	1.37	1.23	0.15	N
\$80,000 to \$99,999	9.7	19.50	14.30	1.64	1.66	2.51	1.14	7.35	3.88	2.59	1.04	0.25	0.66	0.48	0.11	0.07	0.66	0.55	0.09	Q
\$100,000 to \$119,999	8.1	17.74	13.01	1.71	1.39	2.21	0.97	6.72	3.51	2.33	0.96	0.23	0.66	0.43	0.14	0.09	0.55	0.48	0.07	N
\$120,000 to \$139,999	5.4	13.00	9.37	1.00	1.00	1.77	0.69	4.91	2.52	1.71	0.63	0.18	0.53	0.35	0.09	0.09	0.58	0.49	Q	Q
\$140,000 or more	11.2	29.87	21.34	2.03	1.41	3.97	1.64	12.28	5.94	3.75	1.57	0.62	1.39	0.75	0.28	0.36	1.19	0.95	0.22	Q
Payment method for energy bills																				
All paid by household	105.8	203.80	151.06	20.51	19.55	25.68	11.00	74.31	37.98	25.22	9.91	2.85	7.46	4.81	1.55	1.10	7.31	6.47	0.72	0.12
Some paid by household, some included in rent or condo fee	6.1	7.44	4.97	0.58	0.46	0.69	0.57	2.66	1.45	0.70	0.60	0.14	Q	Q	Q	Q	0.86	0.53	0.32	N
All included in rent or condo fee	5.5	6.92	5.46	0.75	0.90	0.78	0.44	2.59	1.26	0.67	0.51	0.08	0.08	Q	Q	Q	Q	Q	Q	N
Some other method	0.9	1.17	0.87	0.15	0.10	0.13	0.06	0.43	0.21	0.11	0.08	Q	Q	Q	Q	Q	Q	Q	Q	N
Main heating fuel																				
Natural gas	57.7	108.13	69.84	2.82	3.70	13.61	6.49	43.22	38.17	26.54	9.45	2.18	0.06	Q	Q	Q	0.06	0.03	Q	Q
Electricity	40.9	68.43	65.39	17.76	12.72	9.64	3.49	21.77	1.75	0.11	0.98	0.66	1.21	0.36	0.33	0.53	Q	0.03	Q	Q
Fuel oil/kerosene	5.8	16.94	8.37	0.48	1.33	0.96	0.64	4.95	0.28	Q	0.14	0.12	0.34	0.11	Q	0.16	7.95	6.91	0.97	Q
Propane	5.0	13.26	7.76	0.54	1.06	1.03	0.58	4.56	Q	N	Q	Q	5.45	4.33	0.90	0.22	Q	N	Q	N

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¹Consumption and expenditures for biomass (wood), coal, district steam, and solar thermal are excluded.

²Total U.S. includes all primary occupied housing units in the 50 states and the District of Columbia. Vacant housing units, seasonal units, second homes, military houses, and group quarters are excluded.

³Includes main (primary) and secondary space heating.

⁴Includes end uses not shown in this table. A more detailed breakout of end uses is shown in the Series 5 tables.

⁵Housing units are classified using criteria created by the U.S. Census Bureau based on 2010 Census data. Urbanized areas are densely settled groupings of blocks or tracts with 50,000 or more people. Urban clusters have at least 2,500 but less than 50,000 people. All other areas are rural.

⁶These 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).

⁷Rented includes households that occupy their primary housing units without paying rent.

⁸Total square footage includes all basements, finished or conditioned (heated or cooled) areas of attics, and conditioned garage space that is attached to the home. Unconditioned and unfinished areas in attics and attached garages are excluded. The square footage for some housing units was calculated based on measurements taken by the interviewer. For households responding without the presence of an interviewer, square footage was imputed based on characteristics of the housing unit. See 2015 RECS Square Footage Methodology for full details about data collection and processing.

Q = Data withheld because either the Relative Standard Error (RSE) was greater than 50% or fewer than 10 cases responded.

N = No cases responded.

Notes: Because of rounding, data may not sum to totals. See RECS Terminology for definition of terms used in these tables.

Source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Forms EIA-457A, C, D, E, F, G of the 2015 Residential Energy Consumption Survey.