

Data release date: June 2023

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Table CE4.16 Annual household end-use expenditures by fuel in the United States—averages, 2020

	Number of housing units (million)	Average energy expenditures ^a (dollars per household using the fuel and end use)																		
		Electricity							Natural gas				Propane				Fuel oil or kerosene			
		Total U.S. ^b	Total	Total	Space heating ^c	Water heating	Air conditioning	Refrigerators	Other ^d	Total	Space heating ^c	Water heating	Other ^d	Total	Space heating ^c	Water heating	Other ^d	Total	Space heating ^c	Water heating
All homes	123.53	1,884	1,380	300	339	299	116	683	630	474	222	69	735	698	383	180	1,224	1,023	356	670
Census region and division																				
Northeast	21.92	2,263	1,343	320	385	245	132	732	855	646	294	93	781	914	456	217	1,288	1,050	353	691
New England	5.88	2,539	1,478	349	428	234	147	857	883	717	291	64	830	909	457	274	1,370	1,125	335	638
Middle Atlantic	16.04	2,162	1,293	311	369	248	127	687	847	627	295	99	754	916	455	184	1,217	984	369	732
Midwest	27.04	1,892	1,293	377	351	202	115	699	653	536	150	35	991	893	274	124	1,107	1,069	Q	Q
East North Central	18.55	1,915	1,284	372	353	196	117	709	671	555	150	35	1,136	1,016	291	139	1,058	1,009	Q	Q
West North Central	8.50	1,844	1,314	387	348	215	111	678	610	489	151	33	775	708	242	100	1,429	1,424	Q	N
South	46.84	1,839	1,548	299	324	382	104	667	552	420	220	75	511	423	388	177	873	786	442	638
South Atlantic	24.84	1,850	1,556	285	328	367	106	670	629	503	249	86	513	432	434	188	933	844	441	Q
East South Central	7.38	1,882	1,581	391	338	323	101	662	547	435	204	73	518	413	375	221	576	395	N	Q
West South Central	14.62	1,799	1,517	271	305	436	101	664	465	318	198	64	499	411	336	134	Q	N	Q	N
West	27.72	1,653	1,211	217	340	293	125	658	526	326	243	74	797	694	441	198	1,176	1,109	463	Q
Mountain	9.22	1,653	1,238	208	304	353	104	626	503	345	178	70	850	784	378	125	Q	Q	Q	Q
Mountain North	4.62	1,474	987	254	316	153	96	574	535	397	160	47	941	909	290	Q	Q	Q	Q	Q
Mountain South	4.60	1,833	1,491	170	296	531	111	678	463	271	203	89	768	620	435	151	Q	Q	Q	N
Pacific	18.51	1,653	1,197	221	360	256	136	673	536	315	273	76	766	630	484	233	1,344	1,286	501	Q
Census urban/rural classification^e																				
Urban	100.44	1,800	1,308	252	320	303	115	662	634	472	225	68	596	562	437	227	1,178	962	363	767
Urbanized area	89.24	1,807	1,310	237	318	310	117	667	638	472	229	70	619	597	434	259	1,186	954	372	791
Urban cluster	11.20	1,743	1,295	358	329	250	101	615	599	475	187	47	531	477	449	131	1,117	1,022	270	Q
Rural	23.09	2,252	1,693	477	392	282	122	779	598	490	189	74	794	740	361	161	1,303	1,123	340	559
Climate region^f																				
Very cold and Cold	42.50	1,948	1,259	363	357	186	117	702	680	544	173	44	897	911	350	157	1,306	1,113	326	607
Mixed-humid	36.79	2,004	1,465	353	358	296	112	676	728	550	267	88	609	517	413	189	1,088	853	414	804
Mixed-dry and Hot-dry	15.06	1,732	1,311	133	299	388	138	702	476	257	242	82	826	722	460	200	Q	Q	Q	N
Hot-humid	22.31	1,774	1,602	220	300	482	108	676	422	277	223	81	430	301	363	184	Q	N	Q	N
Marine	6.87	1,540	1,102	304	379	124	111	588	610	383	307	64	783	568	452	374	Q	Q	Q	N
Housing unit type																				
Single-family detached	77.07	2,205	1,583	351	367	350	131	816	705	523	214	69	795	739	386	187	1,381	1,183	348	625
Single-family attached	7.45	1,653	1,184	286	300	248	111	589	607	448	225	46	641	464	481	256	958	853	342	Q
Apartments in buildings with 2–4 units	9.34	1,406	990	228	312	217	93	454	598	431	254	87	341	229	451	108	868	478	404	Q
Apartments in buildings with 5 or more units	22.84	1,107	883	172	265	170	85	390	388	244	250	78	271	193	314	184	635	309	365	698

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	Number of housing units (million)	Average energy expenditures ^a (dollars per household using the fuel and end use)																		
		Electricity							Natural gas				Propane			Fuel oil or kerosene				
		Total U.S. ^b	Total	Total	Space heating ^c	Water heating	Air conditioning	Refrigerators	Other ^d	Total	Space heating ^c	Water heating	Other ^d	Total	Space heating ^c	Water heating	Other ^d	Total	Space heating ^c	Water heating
All homes	123.53	1,884	1,380	300	339	299	116	683	630	474	222	69	735	698	383	180	1,224	1,023	356	670
Mobile homes	6.83	1,773	1,503	377	399	289	93	585	389	343	182	37	584	581	349	137	807	749	Q	Q
Ownership of housing unit																				
Owned	82.92	2,135	1,533	345	355	332	130	783	699	519	215	69	765	712	378	183	1,346	1,137	360	676
Single-family	73.22	2,200	1,567	348	357	342	133	816	714	528	213	68	792	731	380	190	1,402	1,195	350	627
Apartments	4.32	1,474	1,004	219	254	225	113	470	636	453	276	101	Q	Q	Q	Q	844	398	499	Q
Mobile homes	5.38	1,779	1,494	380	393	287	97	586	400	336	184	40	587	575	354	140	853	775	Q	Q
Rented ^e	40.61	1,372	1,067	228	313	226	89	479	470	340	239	69	541	579	419	157	808	607	345	648
Single-family	11.30	1,869	1,419	330	384	340	104	664	573	430	228	58	793	771	506	161	1,034	951	315	Q
Apartments	27.86	1,151	900	183	279	176	83	399	424	284	246	77	295	202	362	168	679	369	348	704
Mobile homes	1.45	1,752	1,533	364	422	296	77	582	348	376	171	23	566	617	Q	118	688	670	Q	Q
Year of construction																				
Before 1950	20.26	2,006	1,253	305	337	276	116	645	757	608	231	69	831	916	332	154	1,218	1,022	344	807
1950 to 1959	12.48	1,948	1,287	271	338	308	117	654	681	525	215	58	824	917	302	158	1,325	1,159	339	637
1960 to 1969	12.76	1,854	1,304	281	325	299	118	662	638	481	220	59	692	710	338	183	1,170	940	339	740
1970 to 1979	18.34	1,814	1,395	366	323	302	110	648	571	434	214	56	780	841	374	141	1,171	1,029	329	456
1980 to 1989	16.30	1,802	1,421	332	323	312	112	657	556	409	219	78	756	724	398	211	1,294	1,036	377	674
1990 to 1999	17.16	1,946	1,494	287	369	310	124	754	621	431	222	81	758	658	413	190	990	747	384	526
2000 to 2009	16.16	1,927	1,501	271	351	320	122	764	584	400	238	76	648	473	454	210	1,422	1,174	468	586
2010 to 2015	5.53	1,730	1,414	255	357	268	113	700	482	340	216	77	552	423	373	146	775	367	Q	Q
2016 to 2020	4.56	1,633	1,308	221	323	247	100	655	495	347	203	84	566	408	322	194	Q	Q	Q	N
Total square footage^h																				
Less than 1,000	30.01	1,231	949	198	283	186	87	431	434	297	237	68	424	425	351	126	727	435	373	934
1,000 to 1,499	28.08	1,624	1,241	274	337	267	102	571	555	406	225	59	639	602	406	152	930	774	365	644
1,500 to 1,999	22.22	1,957	1,434	317	354	325	122	707	641	479	218	53	647	584	376	165	1,158	946	347	594
2,000 to 2,499	15.62	2,172	1,571	349	371	346	128	802	685	514	206	56	771	757	373	149	1,267	1,075	320	638
2,500 to 2,999	10.31	2,349	1,652	382	383	360	139	873	764	567	215	73	844	761	386	160	1,344	1,191	335	519
3,000 or more	17.29	2,809	1,950	479	406	414	157	1,054	871	647	223	105	962	899	393	259	1,826	1,620	383	624
Number of household members																				
1 member	33.59	1,357	961	261	187	217	96	446	520	426	171	55	674	682	268	152	1,043	880	239	605
2 members	45.31	1,901	1,383	314	311	293	120	691	639	489	203	69	725	673	358	180	1,263	1,089	325	618
3 members	18.27	2,160	1,594	314	435	342	123	806	693	490	256	82	797	746	483	204	1,269	1,048	414	683
4 members	15.56	2,265	1,692	309	527	367	128	851	696	487	273	72	808	786	515	199	1,266	1,013	489	693
5 members	6.44	2,368	1,821	319	547	400	130	922	680	469	293	65	729	685	574	175	1,424	1,174	504	607
6 or more members	4.37	2,535	1,913	353	650	412	140	970	738	527	314	85	818	755	488	195	1,565	1,117	605	Q
2020 annual household income																				

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		Electricity							Natural gas				Propane			Fuel oil or kerosene				
		Total U.S. ^b	Total	Space heating ^c	Water heating	Air conditioning	Refrigerators	Other ^d	Total	Space heating ^c	Water heating	Other ^d	Total	Space heating ^c	Water heating	Other ^d	Total	Space heating ^c	Water heating	Other ^d
All homes	123.53	1,884	1,380	300	339	299	116	683	630	474	222	69	735	698	383	180	1,224	1,023	356	670
Less than \$5,000	4.48	1,512	1,188	309	352	249	88	531	479	379	228	57	636	742	349	166	966	954	Q	Q
\$5,000 to \$9,999	4.01	1,379	1,056	241	336	225	86	462	471	398	209	52	441	430	310	160	1,012	762	Q	Q
\$10,000 to \$19,999	10.25	1,462	1,089	289	275	235	92	481	513	408	209	46	611	671	337	108	867	778	291	Q
\$20,000 to \$39,999	24.07	1,614	1,209	290	322	259	100	556	545	426	198	52	656	667	338	117	1,048	905	306	620
\$40,000 to \$59,999	19.61	1,724	1,285	285	333	280	109	610	583	449	201	52	701	713	353	145	1,028	852	339	604
\$60,000 to \$99,999	27.71	1,925	1,404	297	349	298	120	703	641	470	225	63	736	666	396	160	1,330	1,118	320	621
\$100,000 to \$149,999	16.54	2,147	1,552	329	365	332	132	807	679	493	233	70	829	748	440	165	1,242	938	420	944
\$150,000 or more	16.86	2,608	1,830	339	387	408	152	1,015	817	584	259	113	934	804	418	342	1,656	1,409	429	532
Payment method for energy bills																				
All paid by household	112.70	1,938	1,425	308	342	309	118	708	652	485	219	67	750	704	383	180	1,324	1,126	350	663
Some paid by household, some included in rent or condo fee	6.32	1,380	890	203	285	189	100	445	448	327	265	96	472	528	360	151	716	401	404	711
All included in rent or condo fee	4.34	1,235	936	228	296	193	88	404	452	351	241	62	419	480	525	198	466	297	262	Q
Some other method	0.16	1,646	943	187	Q	198	102	524	721	647	187	62	Q	N	Q	Q	Q	Q	Q	Q
Main heating fuel																				
Natural gas	62.71	1,952	1,243	126	348	299	127	751	705	482	216	64	247	155	433	197	652	Q	463	Q
Electricity	42.57	1,647	1,574	386	315	303	97	551	237	130	262	89	308	140	412	209	399	151	358	458
Fuel oil or kerosene	4.93	2,941	1,497	191	449	244	139	889	283	255	385	141	340	230	469	240	1,327	1,093	346	692
Propane	5.21	2,675	1,485	170	482	230	129	830	83	Q	Q	43	1,185	952	349	139	Q	Q	N	N
Wood	2.25	1,676	1,404	182	454	194	120	740	245	213	288	62	466	225	446	209	672	429	402	527
Some other fuel ^l	Q	Q	Q	Q	Q	Q	Q	Q	Q	N	N	Q	Q	N	N	Q	Q	Q	N	Q
Does not use heating equipment	5.79	1,371	1,242	N	323	439	109	596	274	N	266	76	352	N	480	161	Q	N	Q	Q

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		Electricity							Natural gas				Propane			Fuel oil or kerosene					
		Total U.S. ^b	Total	Space heating ^c	Water heating	Air condi- tioning	Refrig- erators	Other ^d	Total	Space heating ^c	Water heating	Other ^d	Total	Space heating ^c	Water heating	Other ^d	Total	Space heating ^c	Water heating	Other ^d	
All homes	123.53	1,884	1,380	300	339	299	116	683	630	474	222	69	735	698	383	180	1,224	1,023	356	670	

Data source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Forms EIA-457A, D, E, F, G of the *2020 Residential Energy Consumption Survey*

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

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

^b *Total 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.

^c Includes main (primary) and secondary space heating.

^d Includes end uses not shown in this table. A more detailed breakout of end uses is shown in the *CE5* tables.

^e Housing 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.

^f The Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE), created these climate regions. We combined climate regions for this publication. The Subarctic region is included with data for *Very-cold and Cold*.

^g *Rented* includes households that occupy their primary housing units without paying rent.

^h *Total 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 of the home is based on respondent reports. Previous RECS cycles calculated square footage based on interviewer measurements. For households that did not report an exact square footage estimate, the square footage of the home was imputed based on a reported square footage range and/or characteristics of the home. See *2020 RECS Square Footage Methodology* for full details about data collection and processing.

ⁱ *Some other fuel* includes coal and district steam.

Q = Data withheld because either the relative standard error (RSE) was greater than 50% or fewer than 10 households in reporting sample.

N = No households in reporting sample.

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Relative standard errors (RSEs) for Table CE4.16 Annual household end-use expenditures by fuel in the United States—averages, 2020

	RSEs for average energy expenditures ^a																			
	RSEs for number of housing units																			
	Electricity					Natural gas					Propane					Fuel oil or kerosene				
Total U.S. ^b	Total	Total	Space heating ^c	Water heating	Air conditioning	Refrigerators	Other ^d	Total	Space heating ^c	Water heating	Other ^d	Total	Space heating ^c	Water heating	Other ^d	Total	Space heating ^c	Water heating	Other ^d	
All homes	0.00	0.35	0.39	1.35	0.89	0.62	0.35	0.53	0.74	0.78	0.90	2.77	2.63	2.94	2.44	5.83	2.29	2.60	2.03	6.97
Census region and division																				
Northeast	0.00	0.88	1.09	4.39	2.13	1.71	0.96	1.32	1.85	1.62	2.88	6.10	6.07	6.37	3.83	8.92	2.51	2.75	2.08	8.13
New England	0.00	1.25	1.60	5.98	3.93	2.68	1.63	1.81	2.28	2.23	2.94	9.53	6.16	6.68	4.54	12.70	2.16	2.89	2.16	8.99
Middle Atlantic	0.00	1.26	1.49	5.83	2.80	2.13	1.25	1.90	2.23	2.03	3.54	6.86	8.35	8.77	5.33	12.27	4.45	4.94	3.40	12.43
Midwest	0.00	0.75	0.90	3.57	2.55	1.47	0.96	1.17	1.10	1.12	1.34	4.75	4.08	4.18	3.48	12.78	11.36	11.91	30.02	18.91
East North Central	0.00	1.00	1.19	5.13	3.35	1.75	1.16	1.59	1.49	1.48	1.66	5.49	5.75	5.89	4.59	16.41	13.33	14.23	30.44	18.91
West North Central	0.00	0.94	1.18	4.55	3.28	2.02	1.31	1.53	1.39	1.56	1.44	8.47	4.74	5.19	3.91	17.78	16.07	16.13	0.00	0.00
South	0.00	0.59	0.66	1.57	1.37	1.05	0.67	0.86	1.40	1.62	1.18	6.72	4.51	6.01	4.75	8.59	7.52	8.15	6.62	5.12
South Atlantic	0.00	0.89	0.95	2.24	1.68	1.55	0.90	1.23	2.03	2.16	2.04	9.21	6.78	8.40	7.34	11.21	8.41	8.60	8.72	8.12
East South Central	0.00	1.11	1.25	2.97	2.24	1.95	1.67	1.83	2.62	3.23	2.80	13.42	9.03	10.20	8.15	21.04	24.29	29.34	0.00	1.34
West South Central	0.00	1.04	1.20	3.37	2.30	1.82	1.45	1.54	1.90	2.32	1.72	9.56	9.17	11.01	5.30	16.92	14.83	0.00	14.83	0.00
West	0.00	0.86	0.99	2.96	2.02	1.67	0.89	1.17	1.35	1.53	1.28	6.38	6.91	8.57	4.33	22.91	10.04	11.96	9.65	5.16
Mountain	0.00	1.12	1.38	4.75	2.83	2.08	1.25	1.67	1.32	1.74	1.44	9.75	7.60	9.53	7.51	22.34	26.38	81.91	31.49	0.00
Mountain North	0.00	1.53	1.90	5.49	4.61	3.34	1.84	2.06	1.56	1.72	2.17	16.68	10.76	11.70	7.27	54.79	43.77	45.95	25.54	0.00
Mountain South	0.00	1.65	1.85	6.36	4.04	2.35	1.54	2.44	2.14	3.15	2.13	11.13	13.14	18.77	8.79	24.26	0.00	0.00	0.00	0.00
Pacific	0.00	1.13	1.42	3.88	2.85	2.85	1.23	1.63	1.87	2.40	1.56	7.56	10.46	13.60	5.13	27.43	9.72	9.75	8.11	1.75
Census urban/rural classification^e																				
Urban	0.28	0.43	0.46	1.74	1.04	0.74	0.42	0.59	0.74	0.80	0.92	2.98	5.65	7.83	3.51	9.63	2.90	3.18	2.82	11.37
Urbanized area	0.42	0.45	0.50	1.92	1.21	0.78	0.46	0.61	0.81	0.90	1.00	3.06	6.88	9.17	3.59	10.37	3.17	3.51	2.97	11.60
Urban cluster	2.74	1.24	1.34	4.30	2.37	2.28	1.30	1.45	2.07	2.27	2.57	10.67	8.04	11.67	9.06	20.89	7.79	6.99	7.98	16.72
Rural	1.23	0.75	0.82	2.37	1.58	1.45	1.06	1.20	2.72	2.26	2.41	12.78	2.67	3.02	2.98	7.51	3.62	4.19	2.80	5.39
Climate region^f																				
Very cold and Cold	0.54	0.54	0.77	2.91	1.75	1.07	0.72	0.95	0.95	0.94	0.81	5.68	3.16	3.22	3.19	7.85	2.15	2.56	1.97	5.75
Mixed-humid	0.77	0.74	0.75	1.68	1.39	1.11	0.88	1.05	1.68	1.40	2.45	5.83	5.47	7.14	4.64	8.93	5.00	5.43	4.31	17.57
Mixed-dry and Hot-dry	1.23	1.40	1.50	6.11	3.98	1.90	1.44	1.69	2.12	2.77	1.83	7.89	11.83	18.19	6.03	28.01	0.00	0.00	0.00	0.00
Hot-humid	0.69	1.04	1.12	2.87	1.84	1.50	1.05	1.59	2.27	3.15	1.87	9.58	7.56	11.83	6.12	15.38	14.83	0.00	14.83	0.00
Marine	2.39	1.96	2.34	5.83	4.08	5.56	2.46	2.76	2.94	3.21	2.73	8.63	20.36	17.41	9.40	47.72	23.47	26.39	0.00	0.00
Housing unit type																				
Single-family detached	0.00	0.42	0.47	1.53	1.20	0.75	0.50	0.62	0.66	0.77	0.91	3.74	2.75	3.05	2.64	6.50	2.12	2.41	1.80	7.27
Single-family attached	0.00	1.35	1.52	4.71	3.58	2.73	1.67	1.87	1.67	1.96	2.10	5.86	17.17	20.28	10.80	31.54	9.03	8.36	17.51	18.47
Apartments in buildings with 2–4 units	0.00	1.72	1.87	5.63	3.11	3.51	2.02	2.51	2.95	3.25	3.19	15.04	17.59	34.65	10.03	45.09	16.22	11.84	12.47	45.89
Apartments in buildings with 5 or more units	0.00	1.24	1.41	4.01	2.38	1.82	1.00	1.60	4.08	4.31	3.73	8.32	15.77	13.10	12.10	28.10	8.10	4.20	6.54	11.83

Relative standard errors (RSEs) for Table CE4.16 Annual household end-use expenditures by fuel in the United States—averages, 2020

	RSEs for average energy expenditures ^a																			
	RSEs for number of housing units																			
	Electricity					Natural gas					Propane					Fuel oil or kerosene				
Total U.S. ^b	Total	Total	Space heating ^c	Water heating	Air conditioning	Refrigerators	Other ^d	Total	Space heating ^c	Water heating	Other ^d	Total	Space heating ^c	Water heating	Other ^d	Total	Space heating ^c	Water heating	Other ^d	
All homes	0.00	0.35	0.39	1.35	0.89	0.62	0.35	0.53	0.74	0.78	0.90	2.77	2.63	2.94	2.44	5.83	2.29	2.60	2.03	6.97
Mobile homes	0.00	1.48	1.76	4.41	2.89	2.43	2.13	2.59	3.95	3.49	4.50	11.38	6.58	8.52	6.20	13.54	7.53	9.38	10.75	5.89
Ownership of housing unit																				
Owned	0.42	0.44	0.51	1.53	1.07	0.79	0.55	0.63	0.68	0.79	0.90	3.80	2.64	3.01	2.46	6.29	2.23	2.47	2.19	8.41
Single-family	0.36	0.46	0.52	1.63	1.15	0.78	0.55	0.66	0.65	0.77	0.87	3.81	2.84	3.08	2.62	6.85	2.12	2.47	1.73	7.38
Apartments	4.13	4.10	3.19	11.70	5.45	4.45	3.10	3.81	7.18	6.21	7.25	20.98	35.56	20.50	127.77	79.39	25.17	9.28	13.24	48.58
Mobile homes	2.05	1.57	1.91	4.70	3.48	3.17	2.19	2.87	4.70	4.03	4.86	12.87	7.19	9.10	5.80	14.86	8.66	11.04	56.77	7.27
Rented ^e	0.86	0.87	0.90	2.45	1.73	1.41	0.89	1.11	2.15	2.15	2.11	6.82	7.45	9.05	6.40	16.11	5.10	6.83	5.43	10.23
Single-family	2.35	1.19	1.47	5.23	3.27	2.41	1.75	1.74	2.19	2.32	1.99	11.07	8.14	9.92	7.93	23.36	8.78	9.00	12.87	20.22
Apartments	0.64	1.07	1.21	3.16	2.07	1.66	0.96	1.47	3.17	3.26	2.78	8.28	12.37	14.80	8.45	26.78	6.41	7.27	6.02	12.05
Mobile homes	7.62	3.89	4.15	7.83	5.76	5.43	4.81	6.00	10.62	10.71	8.26	15.94	16.00	17.92	33.36	34.08	16.77	19.70	0.00	0.00
Year of construction																				
Before 1950	0.00	1.12	1.27	4.20	2.87	2.00	1.22	1.49	1.94	1.84	2.84	7.12	7.18	7.04	8.26	15.55	4.87	5.62	5.25	18.13
1950 to 1959	0.00	1.53	1.77	4.87	4.45	2.22	1.48	2.04	2.43	2.39	2.59	10.11	12.45	12.23	7.81	21.77	4.55	4.98	5.10	10.16
1960 to 1969	0.00	1.52	1.77	4.58	3.37	3.26	1.93	2.06	2.48	2.48	3.23	7.25	8.34	9.62	10.00	22.79	6.12	6.24	4.62	26.39
1970 to 1979	0.00	1.13	1.27	3.89	2.36	2.03	1.19	1.45	1.78	1.88	2.13	8.48	6.77	7.20	6.05	13.45	5.93	6.60	6.28	16.23
1980 to 1989	0.00	1.29	1.34	3.50	2.26	2.03	1.39	1.65	2.62	2.41	2.63	10.65	7.38	7.42	5.83	24.53	6.27	6.64	5.67	11.06
1990 to 1999	0.00	1.22	1.30	3.76	2.22	2.33	1.18	1.74	1.91	2.06	2.18	9.43	6.67	7.51	4.58	11.74	9.21	9.75	4.50	13.45
2000 to 2009	0.00	1.14	1.24	2.78	1.91	1.90	1.41	1.66	2.00	1.91	1.93	9.09	7.15	8.49	4.96	15.35	10.30	11.84	4.35	19.40
2010 to 2015	2.84	1.99	2.10	5.09	3.56	3.05	1.90	2.67	3.14	3.61	3.75	13.23	7.36	10.96	6.69	16.82	46.74	42.18	9.09	4.03
2016 to 2020	3.44	2.40	2.20	5.48	3.83	4.03	2.34	3.04	4.75	4.28	4.48	18.18	9.26	12.37	7.53	17.01	51.35	17.02	0.00	0.00
Total square footage^h																				
Less than 1,000	1.20	1.07	1.19	2.82	2.17	1.68	1.03	1.52	2.54	2.63	2.66	7.54	9.46	11.84	5.45	17.65	8.56	5.97	7.09	20.57
1,000 to 1,499	1.54	0.77	0.89	3.01	1.66	1.59	1.09	1.11	1.97	1.88	2.33	7.43	6.01	6.86	7.15	13.71	6.54	7.07	6.71	18.52
1,500 to 1,999	1.59	0.80	1.02	3.01	2.14	1.69	1.06	1.14	1.26	1.46	2.03	5.13	6.39	7.20	5.36	16.48	3.72	3.55	4.82	10.47
2,000 to 2,499	2.32	0.83	1.04	3.39	2.58	2.25	1.05	1.13	1.18	1.44	1.88	6.65	5.56	5.83	5.86	12.06	4.05	4.18	4.63	16.11
2,500 to 2,999	2.55	1.00	1.13	3.92	2.71	2.25	1.76	1.44	1.75	2.13	2.22	11.82	7.02	8.47	6.12	17.58	5.38	6.15	7.71	17.13
3,000 or more	1.93	0.96	1.18	3.93	2.43	1.80	1.22	1.42	1.54	1.50	1.85	7.40	5.20	5.56	3.68	9.95	4.34	4.45	2.48	9.35
Number of household members																				
1 member	1.25	0.84	0.89	2.48	1.51	1.33	0.83	1.06	1.82	1.69	2.27	8.18	5.84	6.10	5.12	17.83	5.17	6.26	5.02	9.18
2 members	1.15	0.70	0.70	2.17	1.19	1.22	0.81	0.82	1.20	1.26	1.50	5.02	3.79	4.25	3.12	9.82	3.82	4.48	2.72	11.42
3 members	1.87	0.98	0.96	3.65	1.86	1.86	1.44	1.12	2.44	2.19	2.91	9.15	7.92	9.27	4.77	12.10	5.13	6.20	3.77	18.25
4 members	2.08	1.16	1.30	3.53	1.99	2.15	1.44	1.61	1.76	2.11	1.64	7.23	6.33	7.97	5.00	12.30	5.73	7.41	2.81	14.93
5 members	4.12	1.80	1.92	5.21	3.22	3.89	2.28	2.58	2.80	3.10	2.96	8.97	11.61	13.26	7.63	32.48	8.62	9.12	6.20	15.31
6 or more members	4.58	2.16	2.45	11.10	4.69	3.32	2.64	2.48	3.28	4.49	2.90	19.29	12.74	14.23	4.86	24.09	14.77	14.62	14.91	57.75
2020 annual household income																				

Relative standard errors (RSEs) for Table CE4.16 Annual household end-use expenditures by fuel in the United States—averages, 2020

RSEs for number of housing units RSEs for average energy expenditures^a

	Electricity								Natural gas				Propane				Fuel oil or kerosene			
	Total U.S. ^b	Total	Space heating ^c	Water heating	Air conditioning	Refrigerators	Other ^d	Total	Space heating ^c	Water heating	Other ^d	Total	Space heating ^c	Water heating	Other ^d	Total	Space heating ^c	Water heating	Other ^d	
	All homes	0.00	0.35	0.39	1.35	0.89	0.62	0.35	0.53	0.74	0.78	0.90	2.77	2.63	2.94	2.44	5.83	2.29	2.60	2.03
Less than \$5,000	4.63	2.78	2.86	8.38	5.23	4.43	2.83	4.32	4.93	5.18	5.97	17.02	14.30	17.76	7.40	31.67	17.74	19.75	14.48	90.22
\$5,000 to \$9,999	5.53	2.45	2.85	7.63	5.88	5.35	3.02	3.29	6.84	7.19	8.52	15.28	14.06	18.49	13.47	34.87	13.00	18.25	27.72	20.61
\$10,000 to \$19,999	3.21	1.61	1.84	4.34	3.03	2.98	1.73	2.72	3.62	3.57	3.87	18.08	11.53	11.67	11.44	24.43	8.65	11.51	9.11	12.01
\$20,000 to \$39,999	1.98	1.04	1.04	3.14	1.98	1.78	1.25	1.39	1.90	2.30	1.84	8.17	6.26	7.33	6.64	11.52	5.16	5.73	5.71	10.17
\$40,000 to \$59,999	1.83	1.18	1.37	3.66	2.44	2.16	1.12	1.44	2.30	2.10	2.40	8.77	6.83	7.47	4.85	11.52	6.13	7.27	7.65	9.86
\$60,000 to \$99,999	1.58	0.72	0.91	2.70	1.57	1.65	0.73	1.05	1.54	1.46	2.08	8.56	4.78	4.68	4.28	11.40	4.07	4.73	3.16	12.62
\$100,000 to \$149,999	1.83	1.16	1.28	4.29	2.58	2.04	1.14	1.42	2.11	1.93	2.84	6.77	5.86	7.14	5.47	14.33	5.89	5.35	6.12	19.14
\$150,000 or more	1.93	1.04	1.13	3.95	2.65	1.80	1.17	1.45	1.61	1.58	1.71	6.68	7.24	8.39	4.89	12.18	4.50	4.81	3.15	14.67
Payment method for energy bills																				
All paid by household	0.27	0.36	0.40	1.37	0.94	0.66	0.39	0.56	0.67	0.77	0.82	3.14	2.58	2.86	2.49	5.92	2.03	2.28	2.17	8.22
Some paid by household, some included in rent or condo fee	3.90	2.66	2.72	9.15	5.60	3.54	2.09	3.72	6.66	5.47	7.15	11.21	20.18	30.25	10.39	38.51	8.07	10.49	4.99	13.92
All included in rent or condo fee	4.78	2.47	2.66	5.28	4.07	4.17	2.28	3.28	7.93	7.60	9.31	13.67	31.14	43.37	21.29	40.51	10.25	12.80	22.89	0.00
Some other method	25.04	14.65	16.95	28.18	13.16	22.64	14.99	17.42	30.23	36.71	9.13	32.40	52.37	0.00	27.02	43.07	38.79	34.85	0.00	0.00
Main heating fuel																				
Natural gas	0.77	0.56	0.60	3.68	1.72	0.93	0.61	0.71	0.76	0.79	0.98	3.57	16.55	25.21	18.75	29.16	19.48	26.96	9.11	19.89
Electricity	0.92	0.78	0.77	1.36	1.20	1.30	0.79	1.13	3.11	10.40	2.83	6.83	4.12	10.06	5.38	8.30	17.42	20.09	13.05	28.07
Fuel oil or kerosene	3.50	1.42	1.89	9.08	4.91	3.34	1.87	2.24	9.73	36.15	10.67	19.36	9.14	22.48	11.80	13.53	2.22	2.49	2.26	9.10
Propane	3.76	1.54	1.77	11.48	3.31	3.41	2.12	2.34	33.98	0.00	28.17	41.74	2.13	2.36	2.97	10.41	17.51	17.51	0.00	0.00
Wood	4.88	2.39	2.65	8.17	3.99	6.77	3.76	3.63	17.70	26.99	24.36	27.13	9.81	16.07	6.57	23.15	11.59	15.48	15.17	12.59
Some other fuel ^l	35.67	13.54	10.92	0.00	16.48	30.26	15.18	21.90	0.00	0.00	0.00	0.00	50.83	0.00	0.00	50.83	88.70	36.95	0.00	0.00
Does not use heating equipment	4.41	2.27	2.49	0.00	3.15	4.18	2.24	3.02	5.20	0.00	4.92	20.32	23.67	0.00	12.92	46.56	10.07	0.00	9.41	0.00

Relative standard errors (RSEs) for Table CE4.16 Annual household end-use expenditures by fuel in the United States—averages, 2020

RSEs for number of housing units	RSEs for average energy expenditures ^a																			
	Electricity								Natural gas				Propane				Fuel oil or kerosene			
	Total U.S. ^b	Total	Total	Space heating ^c	Water heating	Air conditioning	Refrigerators	Other ^d	Total	Space heating ^c	Water heating	Other ^d	Total	Space heating ^c	Water heating	Other ^d	Total	Space heating ^c	Water heating	Other ^d
All homes	0.00	0.35	0.39	1.35	0.89	0.62	0.35	0.53	0.74	0.78	0.90	2.77	2.63	2.94	2.44	5.83	2.29	2.60	2.03	6.97

Data source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Forms EIA-457A, D, E, F, G of the 2020 Residential Energy Consumption Survey

Notes: See RECS Terminology for definition of terms used in these tables.

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

^b Total 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.

^c Includes main (primary) and secondary space heating.

^d Includes end uses not shown in this table. A more detailed breakout of end uses is shown in the CES tables.

^e Housing 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.

^f The Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE), created these climate regions. We combined climate regions for this publication. The Subarctic region is included with data for Very-cold and Cold.

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

^h Total 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 of the home is based on respondent reports. Previous RECS cycles calculated square footage based on interviewer measurements. For households that did not report an exact square footage estimate, the square footage of the home was imputed based on a reported square footage range and/or characteristics of the home. See 2020 RECS Square Footage Methodology for full details about data collection and processing.

ⁱ Some other fuel includes coal and district steam.