

Data release date: June 2023

Revised data release date: March 2024

**Table CE4.18 Annual household end-use expenditures by fuel in the Midwest—averages, 2020**

	Number of housing units (million)	Average energy expenditures <sup>a</sup> (dollars per household using the fuel and end use)																		
		Electricity							Natural gas				Propane			Fuel oil or kerosene				
		Total Mid-west <sup>b</sup>	Total	Space heating <sup>c</sup>	Water heating	Air conditioning	Refrigerators	Other <sup>d</sup>	Total	Space heating <sup>c</sup>	Water heating	Other <sup>d</sup>	Total	Space heating <sup>c</sup>	Water heating	Other <sup>d</sup>	Total	Space heating <sup>c</sup>	Water heating	Other <sup>d</sup>
<b>All homes</b>	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
<b>Census division</b>																				
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
<b>Census urban/rural classification<sup>e</sup></b>																				
Urban	20.77	1,752	1,191	311	303	204	111	662	656	533	151	34	738	670	291	201	645	632	Q	N
Urbanized area	17.20	1,763	1,186	292	302	209	114	669	662	537	153	34	1,016	988	Q	Q	660	647	Q	N
Urban cluster	3.57	1,702	1,214	384	305	183	99	628	622	511	140	35	430	354	Q	Q	Q	Q	N	N
Rural	6.28	2,356	1,633	591	441	195	128	822	634	555	148	42	1,013	910	273	118	1,389	1,305	Q	Q
<b>Climate region<sup>f</sup></b>																				
Very cold and Cold	22.09	1,876	1,262	374	353	183	116	702	647	532	146	35	1,041	942	275	129	1,110	1,093	Q	Q
Mixed-humid	4.96	1,966	1,432	390	345	285	113	688	685	556	175	37	770	666	272	106	Q	Q	N	Q
Mixed-dry and Hot-dry	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Hot-humid	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Marine	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
<b>Housing unit type</b>																				
Single-family detached	18.58	2,186	1,467	418	416	234	129	825	723	591	148	35	1,038	939	276	125	1,259	1,205	Q	Q
Single-family attached	1.33	1,636	1,100	365	276	170	110	615	598	466	145	34	988	580	Q	Q	Q	Q	Q	N
Apartments in buildings with 2–4 units	1.95	1,308	876	340	249	145	86	391	610	489	194	41	N	N	N	N	Q	Q	Q	N
Apartments in buildings with 5 or more units	4.20	974	768	263	228	104	75	328	325	243	143	29	225	152	Q	Q	Q	Q	Q	N
Mobile homes	0.97	1,784	1,339	406	377	161	93	628	546	468	137	30	795	727	237	39	Q	Q	N	N
<b>Ownership of housing unit</b>																				
Owned	19.48	2,119	1,425	419	391	222	128	798	708	578	148	35	1,033	921	273	129	1,210	1,130	Q	Q
Single-family	17.73	2,177	1,459	423	404	230	131	828	720	587	147	36	1,057	943	276	137	1,235	1,153	Q	Q
Apartments	0.94	1,317	852	353	201	134	100	376	583	461	180	31	Q	Q	N	N	N	N	N	N
Mobile homes	0.81	1,790	1,345	418	383	162	97	626	536	452	138	34	772	699	237	40	Q	Q	N	N
Rented <sup>g</sup>	7.56	1,308	954	298	286	147	82	445	486	393	158	33	675	670	290	77	773	819	Q	N
Single-family	2.19	1,921	1,311	360	424	229	99	673	669	541	158	32	830	828	Q	63	Q	Q	Q	N
Apartments	5.22	1,038	794	275	237	113	75	343	386	296	158	35	221	138	Q	Q	Q	Q	Q	N
Mobile homes	0.16	1,751	1,305	339	353	159	73	641	587	530	Q	15	Q	Q	N	Q	N	N	N	N
<b>Year of construction</b>																				
Before 1950	6.11	1,989	1,263	353	366	230	110	674	732	635	143	33	1,016	962	229	91	1,376	1,238	Q	Q
1950 to 1959	3.18	1,930	1,241	307	364	226	114	691	692	570	141	28	1,310	1,146	271	167	Q	Q	Q	Q
1960 to 1969	2.90	1,754	1,159	328	296	199	111	628	654	530	145	31	992	972	255	254	Q	Q	Q	N
1970 to 1979	4.05	1,898	1,327	483	344	202	113	671	605	495	149	38	1,244	1,173	263	49	945	902	Q	N
1980 to 1989	2.71	1,662	1,225	428	289	178	106	610	578	472	148	33	824	694	323	143	Q	Q	Q	Q
1990 to 1999	3.56	2,028	1,423	382	392	193	130	849	645	493	156	44	982	811	290	108	Q	Q	N	Q



**Table CE4.18 Annual household end-use expenditures by fuel in the Midwest—averages, 2020**

	Number of housing units (million)	Average energy expenditures <sup>a</sup> (dollars per household using the fuel and end use)																		
		Electricity						Natural gas				Propane			Fuel oil or kerosene					
		Total Mid-west <sup>b</sup>	Total	Space heating <sup>c</sup>	Water heating	Air conditioning	Refrigerators	Other <sup>d</sup>	Total	Space heating <sup>c</sup>	Water heating	Other <sup>d</sup>	Total	Space heating <sup>c</sup>	Water heating	Other <sup>d</sup>	Total	Space heating <sup>c</sup>	Water heating	Other <sup>d</sup>
<b>All homes</b>	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

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.

<sup>a</sup> Consumption and expenditures for biomass (wood), coal, district steam, and solar thermal are excluded.

<sup>b</sup> Total Midwest includes all primary occupied housing units in the Midwest Census Region. Vacant housing units, seasonal units, second homes, military houses, and group quarters are excluded.

<sup>c</sup> Includes main (primary) and secondary space heating.

<sup>d</sup> Includes end uses not shown in this table. A more detailed breakout of end uses is shown in the CE5 tables.

<sup>e</sup> 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.

<sup>f</sup> 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.

<sup>g</sup> Rented includes households that occupy their primary housing units without paying rent.

<sup>h</sup> 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.

<sup>i</sup> 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 CE4.18 Annual household end-use expenditures by fuel in the Midwest—averages, 2020**

	RSEs for number of housing units	RSEs for average energy expenditures <sup>a</sup>																		
		Electricity							Natural gas				Propane			Fuel oil or kerosene				
		Total Mid-west <sup>b</sup>	Total	Space heating <sup>c</sup>	Water heating	Air conditioning	Refrigerators	Other <sup>d</sup>	Total	Space heating <sup>c</sup>	Water heating	Other <sup>d</sup>	Total	Space heating <sup>c</sup>	Water heating	Other <sup>d</sup>	Total	Space heating <sup>c</sup>	Water heating	Other <sup>d</sup>
<b>All homes</b>	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
<b>Census division</b>																				
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
<b>Census urban/rural classification<sup>e</sup></b>																				
Urban	0.97	0.91	0.98	4.13	3.19	1.78	1.12	1.29	1.14	1.19	1.39	4.80	29.58	33.64	15.56	38.35	15.22	17.94	36.58	0.00
Urbanized area	1.23	1.09	1.15	4.57	3.98	2.06	1.25	1.56	1.33	1.41	1.59	5.13	39.49	40.43	16.18	68.57	15.95	19.41	36.58	0.00
Urban cluster	4.97	2.12	2.77	8.37	5.20	3.12	2.22	2.98	2.71	2.90	2.74	12.75	31.49	40.51	5.06	42.92	162.59	162.59	0.00	0.00
Rural	3.21	1.48	1.97	6.53	3.71	2.41	2.13	2.17	3.64	3.62	3.53	13.61	3.72	3.82	3.38	13.69	10.86	11.81	71.07	18.91
<b>Climate region<sup>f</sup></b>																				
Very cold and Cold	0.49	0.88	1.13	4.50	2.84	1.67	1.09	1.29	1.27	1.26	1.55	5.16	4.13	4.15	3.69	14.47	11.82	11.89	30.02	30.80
Mixed-humid	2.18	1.95	2.10	5.96	4.64	2.57	2.45	2.88	2.27	2.29	3.05	13.38	12.58	13.75	7.16	22.56	0.00	0.00	0.00	0.00
Mixed-dry and Hot-dry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hot-humid	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Marine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Housing unit type</b>																				
Single-family detached	0.00	0.79	1.02	4.55	2.60	1.67	1.16	1.26	1.03	1.08	1.31	5.22	4.10	4.20	3.74	14.03	10.51	11.10	32.49	18.91
Single-family attached	0.00	2.51	2.89	11.52	10.23	4.52	3.41	4.19	1.64	1.97	3.20	14.29	36.41	26.97	27.20	54.71	135.19	131.09	0.00	0.00
Apartments in buildings with 2–4 units	0.00	2.92	3.75	8.98	11.68	7.77	4.90	4.92	5.26	6.12	6.55	20.19	0.00	0.00	0.00	0.00	66.50	58.70	0.00	0.00
Apartments in buildings with 5 or more units	0.00	2.87	3.44	9.64	5.94	4.15	2.44	4.16	5.56	5.76	4.63	17.93	17.19	16.36	19.05	2.92	14.28	37.65	75.15	0.00
Mobile homes	0.00	3.34	4.66	12.17	6.62	7.19	4.69	6.38	5.85	5.52	8.21	33.85	13.67	15.00	6.36	28.13	182.83	182.83	0.00	0.00
<b>Ownership of housing unit</b>																				
Owned	0.87	0.88	1.06	4.57	2.77	1.57	1.07	1.23	1.08	1.16	1.27	4.75	4.23	4.45	3.65	13.29	12.08	12.81	65.64	18.91
Single-family	0.60	0.90	1.11	4.89	2.86	1.65	1.19	1.27	1.07	1.14	1.33	5.08	4.40	4.62	3.81	13.49	12.02	12.80	65.64	18.91
Apartments	11.27	5.14	6.74	21.07	12.71	8.11	6.45	7.14	8.38	9.04	8.78	14.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile homes	4.59	3.68	5.40	13.04	7.85	7.92	5.22	6.99	6.25	5.20	9.33	37.26	14.85	16.19	6.36	30.94	182.83	182.83	0.00	0.00
Rented <sup>g</sup>	2.25	1.65	2.19	5.32	4.95	2.94	2.22	2.71	2.85	2.89	3.49	11.90	12.16	13.08	10.43	28.62	26.37	35.04	41.46	0.00
Single-family	4.85	2.24	2.81	9.80	6.01	4.38	3.56	3.78	2.70	3.12	3.82	13.10	12.33	13.21	15.62	33.15	41.21	32.60	43.27	0.00
Apartments	2.02	2.18	2.88	6.35	6.37	4.02	2.35	3.75	4.50	4.25	4.73	17.05	19.17	16.24	19.05	2.92	27.48	33.61	41.94	0.00
Mobile homes	23.49	11.49	10.70	40.72	21.28	15.18	11.66	17.12	14.57	16.44	10.50	29.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Year of construction</b>																				
Before 1950	0.00	1.80	2.25	7.33	5.55	3.59	2.21	2.71	2.74	2.85	2.73	7.60	8.27	8.72	5.97	25.16	13.37	18.93	0.00	13.21
1950 to 1959	0.00	2.90	2.89	10.44	10.36	4.13	2.95	3.92	2.19	2.14	3.84	11.03	15.98	17.63	11.09	38.30	24.34	22.14	0.00	0.00
1960 to 1969	0.00	2.76	3.54	10.83	6.52	4.63	3.61	3.94	2.66	2.84	3.18	8.74	11.08	9.94	7.05	44.58	33.24	36.72	11.33	0.00
1970 to 1979	0.00	2.31	2.71	8.53	6.41	3.33	2.43	2.92	2.61	2.57	3.35	15.07	6.86	7.00	5.78	17.78	41.59	45.33	111.64	0.00
1980 to 1989	0.00	2.65	3.01	10.31	6.40	4.96	3.27	3.64	4.12	4.07	3.50	12.91	13.27	14.99	12.56	44.29	34.72	34.29	0.00	0.00
1990 to 1999	0.00	2.46	3.07	11.78	6.54	3.73	3.14	4.02	2.32	2.58	3.38	14.41	10.42	10.20	6.49	32.51	58.89	277.55	0.00	0.00



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	RSEs for average energy expenditures <sup>a</sup>																			
	Total Mid-west <sup>b</sup>	Electricity							Natural gas				Propane			Fuel oil or kerosene				
Total		Total	Space heating <sup>c</sup>	Water heating	Air conditioning	Refrigerators	Other <sup>d</sup>	Total	Space heating <sup>c</sup>	Water heating	Other <sup>d</sup>	Total	Space heating <sup>c</sup>	Water heating	Other <sup>d</sup>	Total	Space heating <sup>c</sup>	Water heating	Other <sup>d</sup>	
All homes	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

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