

Preliminary data release date: May 2022

Final data release date: March 2023

**Table HC7.3 Air conditioning in U.S. homes, by year of construction, 2020**

	Number of housing units (million)									
	Year of construction									
	Total U.S. <sup>a</sup>	Before 1950	1950 to 1959	1960 to 1969	1970 to 1979	1980 to 1989	1990 to 1999	2000 to 2009	2010 to 2015	2016 to 2020
<b>All homes</b>	123.53	20.26	12.48	12.76	18.34	16.30	17.16	16.16	5.53	4.56
<b>Air-conditioning equipment</b>										
Uses air-conditioning equipment	109.51	16.88	11.03	11.20	16.06	14.41	15.67	14.87	5.13	4.26
Does not use air-conditioning equipment	14.02	3.37	1.45	1.55	2.28	1.89	1.49	1.29	0.40	0.29
<b>Apartment primarily air conditioned by equipment that serves multiple units in the building</b>										
Yes	6.85	0.63	0.35	0.76	1.04	1.05	0.84	1.10	0.57	0.51
No	20.27	3.71	1.32	2.14	3.66	3.23	2.17	2.22	1.04	0.78
Does not use air-conditioning equipment	5.05	1.10	0.35	0.62	0.86	0.76	0.48	0.56	0.18	0.14
Not asked (single family and mobile homes)	91.35	14.82	10.47	9.23	12.78	11.27	13.66	12.27	3.74	3.13
<b>Main type of air-conditioning equipment used</b>										
Central air-conditioning equipment (including central heat pump)	82.69	8.71	7.47	8.01	11.77	11.46	13.29	13.45	4.68	3.85
Ductless heat pump (mini-split)	1.76	0.35	0.19	0.16	0.29	0.30	0.13	0.17	0.08	0.10
Window or wall air conditioner	21.43	6.90	2.87	2.62	3.47	2.22	1.82	0.99	0.30	0.24
Portable air conditioner	2.68	0.83	0.33	0.32	0.30	0.29	0.31	0.16	0.07	Q
Evaporative or swamp cooler	0.95	0.10	0.18	0.09	0.23	0.13	0.12	0.09	Q	N
Does not use air-conditioning equipment	14.02	3.37	1.45	1.55	2.28	1.89	1.49	1.29	0.40	0.29
<b>Main air-conditioning equipment age</b>										
Less than 2 years old	15.63	2.47	1.58	1.34	2.62	1.84	2.32	1.94	0.24	1.27
2 to 4 years old	21.76	3.95	2.06	2.20	2.84	2.89	2.95	1.86	0.50	2.52
5 to 9 years old	30.08	4.71	3.36	3.20	4.50	3.87	3.91	2.64	3.44	0.44
10 to 14 years old	20.49	2.97	2.07	2.04	2.89	2.85	2.44	4.25	0.94	Q
15 to 19 years old	11.01	1.44	1.00	1.05	1.41	1.42	1.34	3.34	Q	Q
20 or more years old	10.55	1.33	0.96	1.37	1.80	1.54	2.70	0.84	N	N
Does not use air-conditioning equipment	14.02	3.37	1.45	1.55	2.28	1.89	1.49	1.29	0.40	0.29
<b>Secondary type of air-conditioning equipment used</b>										
No other equipment used	100.18	14.76	9.82	10.29	14.79	13.17	14.32	14.04	4.92	4.06
Central air-conditioning equipment (including central heat pump)	0.86	0.09	0.08	0.07	0.11	0.15	0.15	0.15	Q	Q
Ductless heat pump (mini-split)	0.81	0.16	Q	Q	0.11	0.11	0.14	0.10	Q	Q
Window or wall air conditioner	4.62	1.33	0.69	0.43	0.61	0.53	0.61	0.27	0.07	0.07
Portable air conditioner	2.64	0.51	0.35	0.31	0.40	0.32	0.36	0.26	0.07	0.06
Evaporative or swamp cooler	0.41	Q	Q	Q	Q	0.12	0.08	Q	Q	Q
Does not use air-conditioning equipment	14.02	3.37	1.45	1.55	2.28	1.89	1.49	1.29	0.40	0.29

Preliminary data release date: May 2022

Final data release date: March 2023

**Table HC7.3 Air conditioning in U.S. homes, by year of construction, 2020**

	Number of housing units (million)									
	Total U.S. <sup>a</sup>	Year of construction								
Before 1950		1950 to 1959	1960 to 1969	1970 to 1979	1980 to 1989	1990 to 1999	2000 to 2009	2010 to 2015	2016 to 2020	
<b>All homes</b>	123.53	20.26	12.48	12.76	18.34	16.30	17.16	16.16	5.53	4.56
<b>Number of ductless heat pump indoor units</b>										
One	1.21	0.18	0.10	0.11	0.21	0.18	0.18	0.14	0.05	0.06
Two	0.64	0.19	Q	Q	0.08	0.13	Q	0.06	Q	Q
Three	0.32	0.07	Q	Q	Q	Q	Q	Q	Q	Q
Four or more	0.41	0.06	Q	0.07	0.05	0.05	Q	0.04	Q	Q
Does not use a ductless heat pump	106.94	16.37	10.79	10.98	15.67	13.99	15.41	14.60	5.01	4.13
Does not use air-conditioning equipment	14.02	3.37	1.45	1.55	2.28	1.89	1.49	1.29	0.40	0.29
<b>Number of window or wall air conditioners used</b>										
One	11.90	3.28	1.54	1.39	2.10	1.47	1.21	0.57	0.19	0.15
Two	8.24	2.65	1.14	1.04	1.37	0.79	0.70	0.37	0.13	0.07
Three	3.72	1.40	0.53	0.44	0.41	0.32	0.30	0.22	Q	0.07
Four or more	2.18	0.90	0.35	0.19	0.20	0.17	0.23	0.10	Q	Q
Does not use window or wall air conditioners	83.46	8.65	7.48	8.15	11.98	11.66	13.23	13.61	4.76	3.95
Does not use air-conditioning equipment	14.02	3.37	1.45	1.55	2.28	1.89	1.49	1.29	0.40	0.29
<b>Number of portable air conditioners used</b>										
One	3.64	0.90	0.43	0.49	0.53	0.40	0.43	0.26	0.10	0.11
Two	1.28	0.32	0.20	0.10	0.11	0.17	0.19	0.14	Q	Q
Three	0.29	0.10	Q	Q	0.05	Q	Q	Q	Q	N
Four or more	0.10	Q	N	Q	Q	Q	Q	Q	N	N
Does not use portable air conditioners	104.20	15.54	10.35	10.56	15.36	13.79	15.00	14.45	4.99	4.14
Does not use air-conditioning equipment	14.02	3.37	1.45	1.55	2.28	1.89	1.49	1.29	0.40	0.29
<b>Has thermostat</b>										
Yes	109.45	16.69	10.69	10.83	16.08	14.58	15.61	15.33	5.26	4.38
Smart or internet-connected thermostat	12.78	1.47	1.00	0.86	1.37	1.49	2.25	2.51	0.81	1.02
Programmable thermostat	52.59	7.48	5.07	5.19	7.46	6.72	7.64	7.60	2.93	2.50
Non-programmable thermostat	44.08	7.74	4.62	4.77	7.25	6.37	5.72	5.22	1.52	0.86
No	12.73	3.35	1.62	1.82	1.98	1.50	1.39	0.68	0.22	0.17
Does not use heating or air-conditioning equipment	1.35	0.21	0.17	0.11	0.28	0.21	0.15	0.15	0.04	Q

Preliminary data release date: May 2022

Final data release date: March 2023

**Table HC7.3 Air conditioning in U.S. homes, by year of construction, 2020**

	Number of housing units (million)									
	Year of construction									
	Total U.S. <sup>a</sup>	Before 1950	1950 to 1959	1960 to 1969	1970 to 1979	1980 to 1989	1990 to 1999	2000 to 2009	2010 to 2015	2016 to 2020
<b>All homes</b>	123.53	20.26	12.48	12.76	18.34	16.30	17.16	16.16	5.53	4.56
<b>Air-conditioning equipment control</b>										
Sets one temperature and leaves it there most of the time	45.94	5.50	4.61	4.83	6.93	6.31	6.74	6.92	2.32	1.78
Manually adjusts the temperature	25.20	3.47	2.55	2.51	3.85	3.49	3.75	3.39	1.16	1.02
Programmable or smart thermostat automatically adjusts the temperature	16.60	1.85	1.27	1.25	1.89	2.04	3.15	3.03	1.09	1.03
Turns equipment on or off as needed	18.71	5.10	2.09	2.23	2.97	2.20	1.78	1.40	0.54	0.40
Household does not have control over the air-conditioning equipment	3.04	0.95	0.50	0.39	0.41	0.36	0.25	0.13	Q	Q
Controls air-conditioning equipment some other way	Q	Q	Q	N	N	Q	N	N	N	N
Does not use air-conditioning equipment	14.02	3.37	1.45	1.55	2.28	1.89	1.49	1.29	0.40	0.29
<b>Summer indoor daytime temperature when someone is home</b>										
69 degrees or less	22.99	4.19	2.71	2.44	3.42	2.94	2.98	2.51	1.06	0.74
70 degrees	18.42	3.28	1.96	2.06	2.54	2.27	2.51	2.19	0.90	0.71
71 to 73 degrees	24.18	3.36	2.46	2.30	3.54	3.12	3.38	3.55	1.27	1.20
74 to 76 degrees	27.17	3.61	2.41	2.76	4.02	3.71	4.18	4.24	1.16	1.07
77 to 79 degrees	11.68	1.41	0.99	1.18	1.83	1.57	1.93	1.73	0.60	0.44
80 degrees or more	5.07	1.03	0.49	0.47	0.70	0.79	0.68	0.66	0.13	0.10
Does not use air-conditioning equipment	14.02	3.37	1.45	1.55	2.28	1.89	1.49	1.29	0.40	0.29
<b>Summer indoor daytime temperature when no one is home</b>										
69 degrees or less	18.96	3.29	2.23	2.19	2.81	2.34	2.56	2.06	0.90	0.58
70 degrees	14.14	2.30	1.45	1.60	2.04	1.78	1.98	1.71	0.72	0.56
71 to 73 degrees	17.40	2.50	2.00	1.68	2.59	2.06	2.34	2.38	0.92	0.92
74 to 76 degrees	27.24	3.80	2.62	2.66	3.84	3.74	4.07	4.11	1.25	1.15
77 to 79 degrees	15.09	1.88	1.13	1.35	2.35	2.21	2.41	2.40	0.79	0.57
80 degrees or more	16.69	3.12	1.60	1.71	2.42	2.28	2.30	2.20	0.56	0.49
Does not use air-conditioning equipment	14.02	3.37	1.45	1.55	2.28	1.89	1.49	1.29	0.40	0.29
<b>Summer indoor temperature at night</b>										
69 degrees or less	30.21	5.40	3.45	3.22	4.40	3.62	3.97	3.52	1.46	1.17
70 degrees	19.84	3.20	2.08	2.17	2.87	2.46	2.87	2.48	0.96	0.75
71 to 73 degrees	23.17	3.16	2.12	2.19	3.47	3.20	3.27	3.31	1.27	1.18
74 to 76 degrees	23.08	3.22	2.09	2.33	3.35	3.33	3.43	3.64	0.94	0.75
77 to 79 degrees	9.07	1.09	0.81	0.91	1.36	1.15	1.65	1.37	0.39	0.34
80 degrees or more	4.15	0.81	0.48	0.39	0.60	0.65	0.48	0.56	0.10	0.07
Does not use air-conditioning equipment	14.02	3.37	1.45	1.55	2.28	1.89	1.49	1.29	0.40	0.29

Preliminary data release date: May 2022

Final data release date: March 2023

**Table HC7.3 Air conditioning in U.S. homes, by year of construction, 2020**

	Number of housing units (million)									
	Year of construction									
	Total U.S. <sup>a</sup>	Before 1950	1950 to 1959	1960 to 1969	1970 to 1979	1980 to 1989	1990 to 1999	2000 to 2009	2010 to 2015	2016 to 2020
<b>All homes</b>	123.53	20.26	12.48	12.76	18.34	16.30	17.16	16.16	5.53	4.56
<b>Air-conditioned basement</b>										
Yes	17.20	2.38	2.12	1.97	2.33	1.95	2.85	2.41	0.74	0.44
No	16.39	6.24	2.57	1.60	1.72	1.19	1.38	1.23	0.26	0.19
Not asked (air-conditioned homes with no basement)	42.73	3.86	4.54	4.40	6.17	5.80	6.69	7.00	2.21	2.05
Not asked (un-air-conditioned homes, apartments, and mobile homes)	47.21	7.77	3.26	4.78	8.12	7.34	6.24	5.52	2.31	1.87
<b>Air-conditioned attic</b>										
Yes	2.22	0.83	0.33	0.11	0.12	0.20	0.19	0.33	0.07	0.06
No	49.94	7.90	5.43	5.03	6.64	5.93	7.47	7.47	2.29	1.79
Not asked (air-conditioned homes with no attic)	24.15	3.75	3.46	2.84	3.47	2.83	3.25	2.85	0.85	0.84
Not asked (un-air-conditioned homes, apartments, and mobile homes)	47.21	7.77	3.26	4.78	8.12	7.34	6.24	5.52	2.31	1.87
<b>Air-conditioned attached garage</b>										
Yes	1.64	0.09	0.15	0.19	0.29	0.31	0.27	0.22	0.05	0.07
No	46.13	2.47	4.12	4.45	6.54	5.97	8.58	8.90	2.72	2.37
Not asked (air-conditioned homes with no attached garage)	28.54	9.92	4.95	3.33	3.39	2.68	2.06	1.52	0.44	0.24
Not asked (un-air-conditioned homes, apartments, and mobile homes)	47.21	7.77	3.26	4.78	8.12	7.34	6.24	5.52	2.31	1.87
<b>Dehumidifier usage</b>										
Uses a dehumidifier	20.53	4.88	2.67	2.24	2.94	2.20	2.67	1.94	0.53	0.48
Uses only occasionally	2.95	0.63	0.34	0.37	0.45	0.36	0.35	0.31	0.08	0.08
Uses only during summer months	8.30	1.90	1.15	0.95	1.32	0.90	1.06	0.68	0.20	0.15
Uses about half of the year	3.14	0.72	0.43	0.33	0.39	0.35	0.38	0.36	0.09	0.08
Uses all or almost all of the year	6.11	1.63	0.75	0.59	0.78	0.58	0.88	0.59	0.16	0.16
Does not use a dehumidifier	103.00	15.38	9.81	10.52	15.40	14.10	14.49	14.22	5.00	4.08
<b>Fan types used (more than one may apply)</b>										
Ceiling fans	89.45	13.40	8.61	8.41	12.60	11.91	14.00	13.01	4.08	3.43
Floor or window fans	54.39	10.89	6.27	5.95	8.57	7.04	6.98	5.69	1.75	1.25
Whole house fans	7.99	0.97	0.87	0.89	1.08	1.08	1.30	1.19	0.33	0.27
Attic fans	10.72	1.60	1.42	1.49	1.71	1.40	1.36	1.13	0.29	0.32
<b>Number of ceiling fans used</b>										
0	34.08	6.86	3.87	4.34	5.74	4.39	3.15	3.15	1.45	1.12
1	19.94	3.85	2.04	2.02	3.51	2.85	2.60	1.95	0.57	0.54
2	19.42	3.26	1.85	1.90	2.57	2.58	2.79	2.58	1.01	0.88
3	16.02	2.57	1.69	1.46	2.29	2.05	2.56	2.12	0.75	0.53
4 or more	34.07	3.72	3.03	3.04	4.23	4.43	6.05	6.36	1.75	1.48

Preliminary data release date: May 2022

Final data release date: March 2023

**Table HC7.3 Air conditioning in U.S. homes, by year of construction, 2020**

Number of housing units (million)

	Year of construction									
	Total U.S. <sup>a</sup>	Before 1950	1950 to 1959	1960 to 1969	1970 to 1979	1980 to 1989	1990 to 1999	2000 to 2009	2010 to 2015	2016 to 2020
<b>All homes</b>	123.53	20.26	12.48	12.76	18.34	16.30	17.16	16.16	5.53	4.56
<b>Most used ceiling fan usage</b>										
Uses a ceiling fan	89.45	13.40	8.61	8.41	12.60	11.91	14.00	13.01	4.08	3.43
Uses only occasionally	28.83	4.24	3.06	2.65	4.36	3.84	4.40	3.96	1.28	1.05
Uses only during summer months	22.13	3.94	2.43	2.37	3.14	2.82	3.22	2.75	0.74	0.73
Uses about half of the year	9.56	1.57	0.83	0.88	1.28	1.24	1.65	1.29	0.44	0.38
Uses all or almost all of the year	28.92	3.65	2.29	2.51	3.83	4.01	4.72	5.02	1.62	1.28
Does not use a ceiling fan	34.08	6.86	3.87	4.34	5.74	4.39	3.15	3.15	1.45	1.12
<b>Number of floor or window fans used</b>										
0	69.14	9.36	6.21	6.81	9.77	9.26	10.18	10.47	3.78	3.30
1	24.53	4.58	2.72	2.70	4.10	2.95	3.21	2.64	0.97	0.66
2	18.85	3.85	2.24	2.09	2.77	2.80	2.35	1.85	0.50	0.39
3	7.04	1.51	0.89	0.81	1.09	0.86	0.81	0.74	0.21	0.10
4 or more	3.96	0.95	0.41	0.35	0.61	0.42	0.60	0.45	0.08	0.10

Data source: U.S. Energy Information Administration, Office of Energy Demand and Integrated Statistics, Form EIA-457A of the 2020 Residential Energy Consumption Survey  
 Notes: Because of rounding, data may not sum to totals. See RECS Terminology for the definitions of terms used in these tables.

<sup>a</sup> 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.

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

N = No households in reporting sample.

Preliminary data release date: May 2022

Final data release date: March 2023

**Relative standard errors (RSEs) for Table HC7.3 Air conditioning in U.S. homes, by year of construction, 2020**

**RSEs for number of housing units**

	Year of construction									
	Total U.S. <sup>a</sup>	Before 1950	1950 to 1959	1960 to 1969	1970 to 1979	1980 to 1989	1990 to 1999	2000 to 2009	2010 to 2015	2016 to 2020
<b>All homes</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.84	3.44
<b>Air-conditioning equipment</b>										
Uses air-conditioning equipment	0.35	0.97	0.94	1.01	0.78	0.91	0.76	0.54	3.08	3.82
Does not use air-conditioning equipment	2.70	4.85	7.19	7.25	5.50	6.90	8.02	6.26	12.38	14.50
<b>Apartment primarily air conditioned by equipment that serves multiple units in the building</b>										
Yes	4.12	13.03	15.31	10.63	10.62	9.52	12.96	9.56	13.44	12.79
No	1.61	5.25	9.34	6.63	4.83	5.34	7.49	6.13	9.56	12.31
Does not use air-conditioning equipment	3.83	9.34	17.63	12.07	10.21	13.23	13.63	13.47	20.54	25.47
Not asked (single family and mobile homes)	0.00	1.49	1.47	1.70	1.47	1.59	1.48	1.47	3.89	3.85
<b>Main type of air-conditioning equipment used</b>										
Central air-conditioning equipment (including central heat pump)	0.55	2.64	2.08	2.07	1.53	1.50	1.15	0.89	3.29	4.09
Ductless heat pump (mini-split)	6.82	11.66	17.62	22.48	16.88	21.11	26.26	21.69	27.41	26.91
Window or wall air conditioner	2.04	3.53	5.34	5.16	4.50	6.11	6.69	9.68	14.37	18.31
Portable air conditioner	5.77	11.05	16.67	14.76	16.06	16.46	16.46	19.70	29.48	33.15
Evaporative or swamp cooler	8.39	30.23	20.41	25.28	18.94	23.72	22.67	24.78	100.30	0.00
Does not use air-conditioning equipment	2.70	4.85	7.19	7.25	5.50	6.90	8.02	6.26	12.38	14.50
<b>Main air-conditioning equipment age</b>										
Less than 2 years old	2.46	6.10	7.67	6.73	4.80	6.96	6.27	5.60	16.49	6.55
2 to 4 years old	1.90	5.03	5.38	6.47	5.27	5.38	4.83	5.47	10.64	5.47
5 to 9 years old	1.31	3.35	3.81	4.47	3.71	3.94	4.82	5.17	4.64	12.97
10 to 14 years old	1.99	5.55	6.14	5.96	5.26	5.35	6.36	3.92	8.70	51.81
15 to 19 years old	2.71	6.52	7.63	8.83	8.29	7.87	7.19	4.63	88.51	100.56
20 or more years old	3.06	9.04	9.79	7.91	6.68	6.83	5.84	10.22	0.00	0.00
Does not use air-conditioning equipment	2.70	4.85	7.19	7.25	5.50	6.90	8.02	6.26	12.38	14.50
<b>Secondary type of air-conditioning equipment used</b>										
No other equipment used	0.46	1.42	1.36	1.30	1.11	1.14	1.03	0.78	3.53	3.94
Central air-conditioning equipment (including central heat pump)	9.79	36.80	31.46	35.44	20.40	27.41	20.74	21.05	78.78	49.48
Ductless heat pump (mini-split)	10.68	21.05	39.24	36.04	28.35	23.41	23.30	25.22	35.20	38.76
Window or wall air conditioner	4.16	8.88	11.28	12.77	11.84	14.00	12.57	14.28	33.71	31.97
Portable air conditioner	5.52	14.41	15.59	17.89	16.37	14.62	14.25	18.44	30.97	39.04
Evaporative or swamp cooler	15.63	70.99	51.29	51.70	40.71	28.89	33.19	46.55	100.63	76.66
Does not use air-conditioning equipment	2.70	4.85	7.19	7.25	5.50	6.90	8.02	6.26	12.38	14.50

Preliminary data release date: May 2022

Final data release date: March 2023

**Relative standard errors (RSEs) for Table HC7.3 Air conditioning in U.S. homes, by year of construction, 2020**

**RSEs for number of housing units**

	Year of construction									
	Total U.S. <sup>a</sup>	Before 1950	1950 to 1959	1960 to 1969	1970 to 1979	1980 to 1989	1990 to 1999	2000 to 2009	2010 to 2015	2016 to 2020
<b>All homes</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.84	3.44
<b>Number of ductless heat pump indoor units</b>										
One	9.21	17.43	25.41	28.55	17.31	24.45	21.54	22.82	34.66	40.69
Two	10.49	18.07	37.10	48.76	31.10	24.05	41.17	28.33	52.36	44.17
Three	16.59	34.12	39.55	80.72	39.83	46.06	46.12	69.16	35.59	51.46
Four or more	13.67	31.94	36.48	34.60	44.66	32.62	50.73	33.13	62.40	52.35
Does not use a ductless heat pump	0.36	0.98	1.02	1.05	0.84	1.12	0.78	0.60	3.13	3.72
Does not use air-conditioning equipment	2.70	4.85	7.19	7.25	5.50	6.90	8.02	6.26	12.38	14.50
<b>Number of window or wall air conditioners used</b>										
One	2.62	4.90	6.98	8.95	5.77	8.40	8.93	11.33	19.96	21.38
Two	3.20	5.49	8.13	10.87	8.26	8.49	11.55	15.29	24.69	31.12
Three	4.52	7.59	11.76	13.16	15.23	15.18	16.42	20.57	44.23	44.58
Four or more	6.10	9.55	15.93	23.87	18.41	25.11	20.57	32.83	59.87	44.89
Does not use window or wall air conditioners	0.56	2.70	2.01	2.14	1.80	1.49	1.16	0.92	3.38	4.07
Does not use air-conditioning equipment	2.70	4.85	7.19	7.25	5.50	6.90	8.02	6.26	12.38	14.50
<b>Number of portable air conditioners used</b>										
One	4.80	9.17	13.34	12.27	12.81	13.66	16.39	16.91	25.16	26.24
Two	9.08	16.31	25.67	36.11	32.16	22.72	20.22	25.47	40.62	73.68
Three	15.80	30.04	41.85	45.45	37.91	70.82	45.32	88.37	100.30	0.00
Four or more	23.68	45.05	0.00	76.62	64.04	47.77	66.30	100.43	0.00	0.00
Does not use portable air conditioners	0.41	1.17	1.21	1.17	1.00	0.96	0.94	0.65	3.29	3.92
Does not use air-conditioning equipment	2.70	4.85	7.19	7.25	5.50	6.90	8.02	6.26	12.38	14.50
<b>Has thermostat</b>										
Yes	0.33	1.04	1.41	1.38	0.94	0.76	0.72	0.57	3.18	3.59
Smart or internet-connected thermostat	2.22	7.77	8.83	8.95	8.60	6.67	5.95	4.76	8.93	8.91
Programmable thermostat	0.88	2.56	2.99	3.28	1.99	2.86	2.55	2.25	4.64	5.15
Non-programmable thermostat	1.29	3.11	4.09	3.62	2.73	3.47	3.21	3.21	7.63	10.73
No	2.69	4.94	9.41	7.87	6.88	7.31	7.73	10.79	18.79	20.08
Does not use heating or air-conditioning equipment	8.55	27.53	27.19	31.87	16.41	22.00	26.79	25.65	39.66	72.59

Preliminary data release date: May 2022

Final data release date: March 2023

**Relative standard errors (RSEs) for Table HC7.3 Air conditioning in U.S. homes, by year of construction, 2020**

**RSEs for number of housing units**

	Year of construction									
	Total U.S. <sup>a</sup>	Before 1950	1950 to 1959	1960 to 1969	1970 to 1979	1980 to 1989	1990 to 1999	2000 to 2009	2010 to 2015	2016 to 2020
<b>All homes</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.84	3.44
<b>Air-conditioning equipment control</b>										
Sets one temperature and leaves it there most of the time	1.19	3.68	3.51	3.72	2.74	2.96	2.55	2.62	4.77	6.88
Manually adjusts the temperature	1.60	4.83	5.16	5.36	4.65	4.69	4.17	4.63	7.58	6.93
Programmable or smart thermostat automatically adjusts the temperature	1.72	7.02	8.65	6.94	5.99	5.17	3.99	4.80	6.27	8.66
Turns equipment on or off as needed	2.00	3.95	5.46	5.94	4.98	6.21	7.18	8.17	12.67	15.03
Household does not have control over the air-conditioning equipment	5.17	9.79	13.82	16.58	15.02	17.25	20.14	22.64	59.45	73.18
Controls air-conditioning equipment some other way	59.14	100.18	100.40	0.00	0.00	100.75	0.00	0.00	0.00	0.00
Does not use air-conditioning equipment	2.70	4.85	7.19	7.25	5.50	6.90	8.02	6.26	12.38	14.50
<b>Summer indoor daytime temperature when someone is home</b>										
69 degrees or less	1.59	4.23	4.51	5.58	4.57	4.90	4.52	4.55	7.35	9.70
70 degrees	2.04	4.87	6.69	6.12	5.24	5.32	4.88	5.73	9.38	8.05
71 to 73 degrees	1.50	4.55	5.18	5.59	4.40	4.93	4.30	4.29	7.90	8.21
74 to 76 degrees	1.47	4.59	5.83	4.65	4.16	4.82	3.85	3.63	8.95	7.08
77 to 79 degrees	2.57	8.40	10.94	8.01	7.13	7.00	6.81	6.19	12.85	15.54
80 degrees or more	3.78	9.75	12.96	14.62	10.98	10.57	10.50	9.75	21.77	28.52
Does not use air-conditioning equipment	2.70	4.85	7.19	7.25	5.50	6.90	8.02	6.26	12.38	14.50
<b>Summer indoor daytime temperature when no one is home</b>										
69 degrees or less	1.89	4.45	4.77	6.54	5.67	5.56	4.79	5.31	7.56	11.49
70 degrees	2.28	5.89	7.30	6.92	5.93	7.36	6.26	6.27	10.52	10.92
71 to 73 degrees	1.78	6.50	6.37	6.49	4.96	6.12	5.24	4.51	8.36	9.43
74 to 76 degrees	1.48	5.04	5.41	4.45	4.07	4.42	3.97	3.73	7.89	7.88
77 to 79 degrees	2.05	6.19	8.22	7.51	5.47	5.54	4.90	4.37	10.72	10.88
80 degrees or more	2.14	5.24	6.75	6.92	4.90	6.16	6.41	5.25	11.15	12.65
Does not use air-conditioning equipment	2.70	4.85	7.19	7.25	5.50	6.90	8.02	6.26	12.38	14.50
<b>Summer indoor temperature at night</b>										
69 degrees or less	1.28	3.24	3.92	4.65	4.04	4.38	3.67	3.86	5.91	8.96
70 degrees	2.01	4.58	6.84	5.46	4.90	5.82	5.02	4.89	9.50	9.92
71 to 73 degrees	1.68	5.35	5.60	6.56	5.16	5.07	4.82	4.85	6.79	8.62
74 to 76 degrees	1.55	5.25	6.37	5.26	5.18	5.13	4.61	3.96	9.27	9.68
77 to 79 degrees	3.09	8.78	10.98	9.67	8.13	9.64	6.13	7.87	14.18	16.29
80 degrees or more	4.89	10.29	14.50	16.05	10.89	12.44	15.27	11.74	25.78	26.68
Does not use air-conditioning equipment	2.70	4.85	7.19	7.25	5.50	6.90	8.02	6.26	12.38	14.50



Preliminary data release date: May 2022

Final data release date: March 2023

**Relative standard errors (RSEs) for Table HC7.3 Air conditioning in U.S. homes, by year of construction, 2020**

**RSEs for number of housing units**

	Year of construction									
	Total U.S. <sup>a</sup>	Before 1950	1950 to 1959	1960 to 1969	1970 to 1979	1980 to 1989	1990 to 1999	2000 to 2009	2010 to 2015	2016 to 2020
<b>All homes</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.84	3.44
<b>Air-conditioned basement</b>										
Yes	1.75	5.97	6.15	6.20	4.63	4.90	4.69	3.94	8.98	11.60
No	1.77	3.01	4.74	6.47	5.15	6.13	8.05	6.21	16.37	16.89
Not asked (air-conditioned homes with no basement)	0.60	3.37	2.81	2.85	2.52	3.02	2.79	2.44	5.47	5.47
Not asked (un-air-conditioned homes, apartments, and mobile homes)	0.55	2.70	5.24	3.57	2.09	2.49	3.87	3.21	4.90	6.88
<b>Air-conditioned attic</b>										
Yes	5.62	10.47	15.72	21.93	25.21	17.50	18.66	11.84	32.33	31.49
No	0.75	2.52	2.96	2.99	2.62	2.91	2.91	2.52	4.94	5.43
Not asked (air-conditioned homes with no attic)	1.53	3.87	3.82	5.36	4.34	5.29	4.93	5.08	8.43	8.15
Not asked (un-air-conditioned homes, apartments, and mobile homes)	0.55	2.70	5.24	3.57	2.09	2.49	3.87	3.21	4.90	6.88
<b>Air-conditioned attached garage</b>										
Yes	6.88	35.28	22.80	18.28	14.95	14.84	15.19	17.19	33.32	28.73
No	0.67	6.12	3.84	3.28	2.60	2.73	2.48	2.25	4.54	4.52
Not asked (air-conditioned homes with no attached garage)	1.32	2.05	3.19	3.58	4.60	5.09	7.20	6.27	10.09	16.14
Not asked (un-air-conditioned homes, apartments, and mobile homes)	0.55	2.70	5.24	3.57	2.09	2.49	3.87	3.21	4.90	6.88
<b>Dehumidifier usage</b>										
Uses a dehumidifier	1.57	3.65	5.27	5.39	4.35	4.26	5.17	5.49	10.82	12.07
Uses only occasionally	5.43	11.53	16.99	16.42	15.21	19.61	17.40	16.68	30.90	27.21
Uses only during summer months	2.63	6.05	7.05	8.55	7.62	6.69	7.60	9.98	18.89	21.06
Uses about half of the year	5.38	9.91	14.18	14.65	12.57	15.22	17.20	14.07	28.65	28.44
Uses all or almost all of the year	3.33	6.53	10.00	11.76	8.87	10.55	8.81	9.44	19.18	21.10
Does not use a dehumidifier	0.31	1.16	1.43	1.15	0.83	0.66	0.95	0.75	2.85	3.90
<b>Fan types used (more than one may apply)</b>										
Ceiling fans	0.49	1.46	1.87	1.82	1.50	1.53	0.98	1.22	3.47	4.26
Floor or window fans	0.71	1.98	2.83	2.61	1.95	2.22	2.65	2.92	5.87	6.64
Whole house fans	2.75	9.19	10.32	8.08	8.25	8.47	8.74	8.56	12.60	12.93
Attic fans	2.19	7.13	7.76	7.25	6.40	6.24	6.68	6.39	13.92	14.95
<b>Number of ceiling fans used</b>										
0	1.30	2.85	4.15	3.52	3.30	4.15	4.36	5.05	6.38	6.71
1	1.98	4.28	6.17	6.55	5.75	5.56	5.00	5.50	9.42	13.03
2	1.63	4.09	6.49	6.39	5.89	5.09	4.83	5.32	10.22	10.13
3	1.95	5.29	7.19	6.41	5.40	5.96	5.42	4.48	9.28	11.18
4 or more	1.16	4.21	5.25	4.78	3.00	3.79	2.92	2.69	5.65	7.46

Preliminary data release date: May 2022

Final data release date: March 2023

**Relative standard errors (RSEs) for Table HC7.3 Air conditioning in U.S. homes, by year of construction, 2020**

**RSEs for number of housing units**

	Year of construction									
	Total U.S. <sup>a</sup>	Before 1950	1950 to 1959	1960 to 1969	1970 to 1979	1980 to 1989	1990 to 1999	2000 to 2009	2010 to 2015	2016 to 2020
<b>All homes</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.84	3.44
<b>Most used ceiling fan usage</b>										
Uses a ceiling fan	0.49	1.46	1.87	1.82	1.50	1.53	0.98	1.22	3.47	4.26
Uses only occasionally	1.31	4.11	4.28	5.26	4.20	4.65	4.22	3.35	6.95	8.28
Uses only during summer months	1.76	4.44	5.26	5.07	4.68	5.75	5.04	4.69	8.42	10.90
Uses about half of the year	3.28	8.46	11.43	8.62	7.24	10.16	8.34	7.41	10.86	13.05
Uses all or almost all of the year	1.36	4.89	4.97	5.31	3.92	4.14	3.68	3.28	6.33	7.15
Does not use a ceiling fan	1.30	2.85	4.15	3.52	3.30	4.15	4.36	5.05	6.38	6.71
<b>Number of floor or window fans used</b>										
0	0.56	2.31	2.86	2.28	1.71	1.69	1.82	1.59	3.81	4.23
1	1.82	4.40	5.83	5.14	4.21	4.51	4.25	4.30	7.94	10.60
2	2.24	5.21	5.82	6.17	4.82	4.96	5.60	4.97	13.29	13.60
3	3.51	6.22	9.18	10.95	9.54	9.24	9.40	10.61	20.95	26.84
4 or more	4.98	10.43	14.69	16.83	13.52	12.57	12.84	12.57	30.46	29.94

Data source: U.S. Energy Information Administration, Office of Energy Demand and Integrated Statistics, Form EIA-457A of the 2020 Residential Energy Consumption Survey

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

<sup>a</sup> 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.