

This Washington Post-University of Maryland poll was conducted online and by phone July 13-23, 2023, among a random national sample of 1,404 adults. The sample was drawn through the AmeriSpeak Panel, the probability-based panel of NORC at the University of Chicago. Overall results have a margin of sampling error of plus or minus 3.5 percentage points. Sampling, data collection and tabulation was conducted by NORC. The survey was conducted in partnership with the University of Maryland's Center for Democracy and Civic Engagement.

(Full methodological details appended at the end of this document.)

*= less than 0.5 percent

1. Do you currently own or lease any car, truck, SUV, or other licensed vehicle that is:

7/23/23 - Summary table

	Yes, own or lease this type of vehicle	No, do not own or lease this type of vehicle	Don't know /Skipped
a. Gas-powered (not a hybrid)	81	16	3
b. A hybrid, but does not plug in	11	82	7
c. A plug-in hybrid	5	87	8
d. Fully electric	9	84	7

Compare to:

Do you currently own or lease any car, truck, or other vehicle that:*

	Yes, own or lease	No do not own or lease	No opinion
a. Is powered by gasoline	80	19	1
b. Is powered by electricity	6	91	2
c. Is a hybrid	9	89	2

*8/5/19, Washington Post-KFF poll

2. Regardless of how much they might cost, which type of vehicle would you rather own:

	A gas-powered (not a hybrid) vehicle	A hybrid that does not plug in	A plug- in hybrid	A fully elec- tric vehicle	DK/Ski- pped
7/23/23	46	22	13	19	1

3. In general, do you think (gas-powered vehicles) or (electric vehicles (EVs)) are better on each of the following, or do you think they are about the same?

7/23/23 - Summary table

	Gas-powered vehicles	Fully electric vehicles (EVs)	About the same	DK/Ski- pped
a. Purchase cost	66	12	20	1
b. Driving to places you go day-to-day	33	35	31	2
c. Driving more than 250 miles	74	11	14	1
d. Cost of refueling/recharging	32	42	24	2
e. Convenience of refueling/recharging	75	10	13	2
f. Reducing climate change	12	59	28	2
g. Reducing air pollution	10	70	19	2

4. (AMONG ADULTS WHO DO NOT OWN/LEASE AN EV OR PLUG-IN HYBRID) If you owned an electric vehicle (EV), apart from your home, how difficult do you think it would be to find places to charge it regularly?

	---	More difficult	---	-----	Less difficult	-----	Don't know
	NET	Extremely	Very	NET	Somewhat	Not at all	/Skipped
7/23/23	49	19	31	50	41	9	1

5. (AMONG ADULTS WHO OWN/LEASE AN EV OR PLUG-IN HYBRID) Are each of the following a major reason, minor reason or not a reason you own or lease an electric vehicle/an electric vehicle and plug-in hybrid vehicle/a plug-in hybrid vehicle?

7/23/23 - Summary table among electric vehicle owners and plug-in hybrid vehicles owners

	Major reason	Minor reason	Not a reason	Don't know /Skipped
a. Lower fuel costs than a gas-powered vehicle	48	31	19	2
b. Reduces your effect on climate change	44	32	22	2
c. You like the way it drives	46	22	31	1
d. You don't need to drive very long distances	33	37	28	1

6. Do you think human activity is or is not causing changes to the world's climate, including an increase in average temperature?

	Yes, human activity is causing the climate to change	No, human activity <u>is not</u> causing the climate to change	Don't know /Skipped
7/23/23	74	25	1
8/5/19*	79	19	2

*Post-KFF

7. (AMONG ADULTS WHO SAY HUMAN ACTIVITY IS CAUSING THE CLIMATE TO CHANGE) How certain are you that human activity is causing changes to the world's climate?

	Very certain	Fairly certain	Not too certain	Don't know /Skipped
7/23/23	54	38	8	*
8/5/19*	55	36	8	1

*Post-KFF

Q6/Q7 Net table based on total:

	-----	Humans are causing climate change				-----	Humans are <u>not</u> causing climate change	DK/Skip.
	NET	Very certain	Fairly certain	Not too certain	DK/Skip-ped			
7/23/23	74	40	28	6	*	25	1	
8/5/19*	79	43	29	6	1	19	2	

*Post-KFF

8. Thinking about what is said in the news, in your view is the seriousness of global warming and climate change generally (exaggerated), generally (correct), or is it generally (underestimated)?

	Generally exaggerated	Generally correct	Generally underestimated	Don't know /Skipped
7/23/23	33	41	26	1

8/5/19* 24 42 33 1
 *Post-KFF

9. Would you say that climate change is best described as a crisis, a major problem but not a crisis, a minor problem, or not a problem at all?

	A crisis	A major problem but not a crisis	A minor problem	Not a problem at all	DK/Ski -pped
7/23/23	36	33	22	9	*
8/5/19*	38	38	15	8	1
10/8/14**	23	36	23	16	2

*Post-KFF
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10. How confident are you that the world will do enough to avoid the worst effects of climate change?

	-- More confident --			Less confident			Don't know/
	NET	Very	Somewhat	NET	Not too	Not at all	Skipped
7/23/23	32	7	25	66	44	22	1

11. How concerned are you about each of these possible impacts of climate change?

7/23/23 - Summary table

	--- More concerned ---			-- Less concerned --			Don't know/
	NET	Extremely	Very	NET	Somewhat	Not	Skipped
a. Extremely hot days	58	31	27	41	24	18	1
b. Severe storms, including hurricanes	53	25	27	47	29	18	*
c. Flooding	50	24	26	50	30	19	1
d. Droughts and water shortages	58	31	27	42	28	13	1
e. Wildfires	58	29	29	41	27	14	1

12. Which of the following comes closer to your view, even if neither is exactly right:

	There are things I can do personally to make a difference when it comes to reducing the effects of climate change	Climate change is such a big problem that there is very little I can do personally to help reduce its effects	Don't know/ Skipped
7/23/23	52	46	2
8/5/19*	66	33	1

*Post-KFF

13. How much do you think each of the following actions would reduce someone's impact on climate change?

7/23/23 - Summary table

	--- A lot/Some ---			--- A little/Not at all ---			DK/
	NET	A lot	Some	NET	A little	Not at all	Skp.
a. Driving an electric car	51	19	31	49	26	22	1
b. Not eating meat	24	7	17	74	23	52	2
c. Using a heat pump system for heating and AC	40	9	30	58	32	26	2

d. Installing solar panels	62	25	37	37	23	14	1
e. Installing an electric stove instead of a gas stove	34	9	24	65	31	34	1
f. Taking fewer plane trips	48	14	34	51	30	20	1
g. Living in a smaller house or apartment	31	8	23	68	32	36	1
h. Recycling	59	28	31	41	27	13	1
i. Driving slower	24	7	17	75	29	46	1
j. Not eating dairy	22	5	17	77	23	54	1

14. Do you think reducing the negative effects of global warming and climate change will require major sacrifices from ordinary Americans, minor sacrifices, or won't it require much sacrifice?

	Major sacrifices	Minor sacrifices	Won't require much sacrifice	Don't know/ Skipped
7/23/23	40	40	17	2
8/5/19*	37	48	14	1

*Post-KFF

15. Would you be (comfortable) or (uncomfortable) if each of these were built in your community? Is that very or somewhat comfortable/uncomfortable?

7/23/23 - Summary table

	NET	Comfortable	Somewhat	NET	Uncomfortable	Very	DK/ Skipped
a. A field of solar panels	75	43	32	24	14	10	1
b. Wind turbines	68	36	32	31	20	12	1
c. A nuclear power plant	33	15	18	66	28	38	1
d. More bike lanes on roads	69	36	33	30	20	10	1
e. Increased public bus service	72	37	35	27	17	10	1

16. In your opinion, do you think extreme weather events are becoming more severe, becoming less severe, or staying about the same?

	Becoming more severe	Becoming less severe	Staying about the same	Don't know	Skipped
7/23/23	62	8	30	NA	*
8/5/19*	65	6	29	NA	1
10/2/17**	68	4	28	*	1

*Post-KFF

**AP-NORC

17. (AMONG ADULTS WHO SAY EXTREME WEATHER EVENTS ARE BECOMING MORE SEVERE) Do you think the severe weather is intensified by climate change?

	Yes	No	Don't know/ Skipped
7/23/23	94	5	1

Q16/Q17 Net table based on total:

	-- Becoming more severe --				Becoming less severe	Staying about the same	Don't know /Skipped
	NET	Yes	No	DK/Skipped			
7/23/23	62	58	3	1	8	30	*

18. These days, how much do you think the area where you live is affected by climate change?

	----- More -----			----- Less -----			Don't know /Skipped
	NET	A great deal	A moderate amount	NET	Only a little	Not at all	
7/23/23	54	18	36	45	30	16	1

19. In 20 years, how much do you expect the area where you live to be affected by climate change?

	----- More -----			----- Less -----			Don't know /Skipped
	NET	A great deal	A moderate amount	NET	Only a little	Not at all	
7/23/23	64	28	36	35	22	13	2

20. In the past 5 years, has the area where you live been affected by each of the following, or not?

7/23/23 - Summary table

	Yes	No	Don't know /Skipped
a. Extremely hot days	74	25	1
b. Severe storms, including hurricanes	43	56	1
c. Flooding	40	59	2
d. Droughts and water shortages	45	55	1
e. Wildfires (half sample)	32	66	2
f. Wildfires, including smoke from wildfires (half sample)	45	54	1
g. Wildfires (combined)	39	60	1

Trend:

a. Extremely hot days

	Yes	No	Don't know /Skipped
7/23/23	74	25	1
8/5/19*	80	20	*

*Post-KFF

b. Severe storms, including hurricanes

	Yes	No	Don't know /Skipped
7/23/23	43	56	1
8/5/19*	48	51	1

*Post-KFF

c. Flooding

	Yes	No	Don't know /Skipped
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7/23/23	40	59	2
8/5/19*	53	47	*

*Post-KFF

d. Droughts and water shortages

	Yes	No	Don't know /Skipped
7/23/23	45	55	1
8/5/19*	39	61	1

*Post-KFF

e. Wildfires

	Yes	No	Don't know /Skipped
7/23/23	32	66	2
8/5/19*	29	70	1

*Post-KFF

21. (AMONG ADULTS WHO SAID YES TO EACH) Do you think climate change is a major factor, a minor factor, or not a factor contributing to each of the following in the area where you live?

7/23/23 - Summary table

	Major factor	Minor factor	Not a factor	Don't know /Skipped
a. Extremely hot days	63	25	12	*
b. Severe storms, including hurricanes	58	30	12	*
c. Flooding	50	36	14	*
d. Droughts and water shortages	63	26	10	1
e. Wildfires	58	29	13	*

Trend:

a. Extremely hot days

	Major factor	Minor factor	Not a factor	Don't know /Skipped
7/23/23	63	25	12	*
8/5/19*	63	25	11	1

*Post-KFF

b. Severe storms, including hurricanes

	Major factor	Minor factor	Not a factor	Don't know /Skipped
7/23/23	58	30	12	*
8/5/19*	63	25	11	1

*Post-KFF

c. Flooding

	Major factor	Minor factor	Not a factor	Don't know /Skipped
7/23/23	50	36	14	*
8/5/19*	56	30	14	*

*Post-KFF

d. Droughts and water shortages

	Major factor	Minor factor	Not a factor	Don't know /Skipped
7/23/23	63	26	10	1
8/5/19*	63	27	10	*

*Post-KFF

e. Wildfires

	Major factor	Minor factor	Not a factor	Don't know /Skipped
7/23/23	58	29	13	*
8/5/19*	54	32	14	1

*Post-KFF

Q20/Q21 Net table based on total:

	NET	Major factor	Minor factor	Not a factor	Ski- pped	No	Don't know /Skipped
a. Extremely hot days	74	46	19	9	*	25	1
b. Severe storms, including hurricanes	43	25	13	5	*	56	1
c. Flooding	40	20	14	5	*	59	2
d. Droughts and water shortages	45	28	12	4	*	55	1
e. Wildfires	39	22	11	5	*	60	1

Trend:

a. Extremely hot days

	NET	Major factor	Minor factor	Not a factor	Ski- pped	No	Don't know /Skipped
7/23/23	74	46	19	9	*	25	1
8/5/19*	80	50	20	9	*	20	*

*Post-KFF

b. Severe storms, including hurricanes

	NET	Major factor	Minor factor	Not a factor	Ski- pped	No	Don't know /Skipped
7/23/23	43	25	13	5	*	56	1
8/5/19*	48	30	12	5	*	51	1

*Post-KFF

c. Flooding

	NET	Major factor	Minor factor	Not a factor	Ski- pped	No	Don't know /Skipped
7/23/23	40	20	14	5	*	59	2
8/5/19*	53	30	16	7	*	47	*

*Post-KFF

d. Droughts and water shortages

	NET	Major factor	Minor factor	Not a factor	Ski- pped	No	Don't know /Skipped
7/23/23	45	28	12	4	*	55	1

8/5/19* 39 24 10 4 * 61 1
 *Post-KFF

e. Wildfires

	----- Yes -----						Don't know /Skipped
	NET	Major factor	Minor factor	Not a factor	Ski-pped	No	
7/23/23	39	22	11	5	*	60	1
8/5/19*	29	16	9	4	*	70	1

*Post-KFF

22. How much responsibility does each of the following have for reducing the effects of climate change?

7/23/23 - Summary table

	-- More responsible --			- Less responsible -			
	NET	A great deal	A good amount	NET	Just some	None at all	Don't know /Skipped
a. Individuals	50	23	28	49	37	11	1
b. Businesses and corporations	70	45	26	29	21	8	*
c. U.S. state and local governments	67	38	29	32	21	11	1
d. The U.S. federal government	72	43	28	28	17	11	*
e. Governments in other countries	70	43	27	30	17	13	*

23. Do you approve or disapprove of how President Biden is handling climate change?

	Approve	Disapprove	Don't know /Skipped
7/23/23	40	57	3

Compare to:

Do you approve or disapprove of the way President Trump is handling each of the following? Climate change

	Approve	Disapprove	Skipped
8/5/19*	30	67	3

*Post-KFF

24. How much do you trust each of the following to address climate change in the U.S.?

7/23/23 - Summary table

	----- Trust -----			---- Distrust ----			
	NET	A great deal	A good amount	NET	Not much	Not at all	Don't know /Skipped
a. The Democratic Party	39	12	28	59	29	30	2
b. The Republican Party	24	7	17	74	37	37	2

25. All else equal, would you like the next president to be someone who (favors) government action to address climate change, or someone who (opposes) such action?

Someone who	Someone who	Don't know
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	favors action	opposes action	/Skipped
7/23/23	70	27	3
8/5/19*	76	22	2

*Post-KFF

Compare to Post-ABC:

All else equal, would you like the next president to be someone who (favors) government action to address climate change, or someone who (opposes) such action?

	Favors gov't action	Opposes gov't action	No opinion
3/29/15	59	31	10

26. How much have you read or heard about each of the following?

7/23/23 - Summary table

	-- Read/heard more ---			-- Read/heard less ---			
	NET	A great deal	A good amount	NET	A little	Nothing at all	DK/ Skip
a. Expanded tax credits for buyers of electric vehicles	32	11	20	67	43	24	1
b. New tax credits for homeowners buying a heat pump system for heating and AC	22	8	14	77	27	50	1
c. Expanded tax credits to install solar panels at homes and businesses	33	11	22	66	40	27	1
d. Expanded tax credits for companies manufacturing solar panels and wind turbines in the United States	24	8	16	75	34	41	1
e. The 2022 Inflation Reduction Act passed by Congress and signed into law by Biden	27	10	17	71	35	36	2

27. Do you (support) or (oppose) each of the following?

7/23/23 - Summary table

	Support	Oppose	Not sure	Don't know /Skipped
a. Expanded tax credits for buyers of electric vehicles	50	22	26	2
b. New tax credits for homeowners buying a heat pump system for heating and AC	54	15	29	1
c. Expanded tax credits to install solar panels at homes and businesses	65	15	19	1
d. Expanded tax credits for companies manufacturing solar panels and wind turbines in the United States	54	19	25	2

e. The 2022 Inflation Reduction Act passed by Congress and signed into law by Biden	39	20	39	1
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Q26/Q27 Net table based on total:

	NET	Support	Oppose	- Heard/read a great deal/good amt - Not sure	Skip -ped	Heard/ read/ less	DK/ Skip -ped
a. Expanded tax credits for buyers of electric vehicles	32	21	6	4	*	67	1
b. New tax credits for homeowners buying a heat pump system for heating and AC	22	14	5	3	*	77	1
c. Expanded tax credits to install solar panels at homes and businesses	33	25	5	3	*	66	1
d. Expanded tax credits for companies manufacturing solar panels and wind turbines in the United States	24	15	6	3	*	75	1
e. The 2022 Inflation Reduction Act passed by Congress and signed into law by Biden	27	16	7	4	*	71	2

PARTYID. Generally speaking, do you usually think of yourself as...

	A Democrat	A Republican	An independent	Other	Skipped
7/23/23	33	32	27	6	1

*** END ***

METHODOLOGICAL DETAILS

This poll was jointly sponsored and funded by The Washington Post and the University of Maryland. The web and phone poll is a random sample of adults in the United States, with interviews in English.

This questionnaire was administered with the exact questions in the exact order as they appear in this document. Demographic questions are not shown. If a question was asked of a reduced base of the sample, a parenthetical preceding the question identifies the group asked. Phrases surrounded by parentheticals within questions indicate clauses that were randomly rotated for respondents.

Respondents were drawn from a stratified random sample of the AmeriSpeak Panel, the probability-based panel of NORC at the University of Chicago. The sample was stratified by age, race/ethnicity, gender and education; adults under 30 and Black, Hispanic and Asian adults were oversampled to increase sample size but weighted to their share of the total population. A total of 1,404 interviews were completed, including 1,365 self-administered over the internet and 39 administered by professional interviewers over landline or cellular phone.

The AmeriSpeak panel was built through a nationally representative probability sample of U.S. households using mail, telephone and face-to-face recruitment methods. Panel members are permitted to complete surveys using an internet device or by phone.

Additional technical details about AmeriSpeak survey methodology is available at www.norc.org.

This survey uses statistical weighting procedures to account for features of the AmeriSpeak panel sample design, efforts to recruit initially nonresponding households and to match population demographic benchmarks according to the Census Bureau's Current Population Survey. The Post-UMD sample was weighted to adjust for nonresponse, as well as to match population benchmarks for age, gender, education, race/ethnicity and Census Division according to the Current Population Survey as well as to an average of leaned party identification in the three most recent Washington Post-ABC News national polls.

All error margins have been adjusted to account for the survey's design effect, which is 1.9 for this survey. The design effect is a factor representing the survey's deviation from a simple random sample and takes into account decreases in precision due to sample design and weighting procedures. Surveys that do not incorporate a design effect overstate their precision.

The Washington Post is a charter member of AAPOR's Transparency Initiative, which recognizes organizations that disclose key methodological details on the research they produce.

<u>Group</u>	<u>Sample size</u>	<u>Error margin</u>
U.S. adults	1,404	+/- 3.5 points
Adults who do not own/lease an EV or plug-in hybrid	1,237	4
Among adults who own/lease An EV or plug-in hybrid	167	10.5
Among adults who say human activity is causing the climate to change	1,103	4

Contact polls@washpost.com for further information about how The Washington Post conducts polls.

