

Survey question wording and topline

**2023 PEW RESEARCH CENTER'S AMERICAN TRENDS PANEL
WAVE 135 – SCIENCE TOPLINE
Sep 25-Oct 1, 2023
N=8,842**

OTHER QUESTIONS HELD FOR FUTURE RELEASE

ASK ALL:

FUTRWRLD How likely do you think each of the following is to happen over the next 30 years?
[RANDOMIZE ITEMS]

		<u>Definitely will happen</u>	<u>Probably will happen</u>	<u>Probably will NOT happen</u>	<u>Definitely will NOT happen</u>	<u>No answer</u>
	ASK FORM 1 ONLY [N=4,412]:					
a.	Widespread drought in Western U.S. states will cause most rivers to dry up Sep 25-Oct 1, 2023	10	44	40	5	1
	ASK FORM 1 ONLY [N=4,412]:					
b.	Rising sea levels will force large numbers of people in the U.S. to move from the coast Sep 25-Oct 1, 2023	15	43	33	9	<1
	ASK FORM 1 ONLY [N=4,412]:					
c.	Most energy in the U.S. will be produced by renewable sources, like wind and solar Sep 25-Oct 1, 2023	11	46	36	6	1
	ASK FORM 1 ONLY [N=4,412]:					
d.	Countries will use technology to cool oceans and influence the weather Sep 25-Oct 1, 2023	8	37	44	10	1
	ASK FORM 2 ONLY [N=4,430]:					
e.	Heatwaves will cause large numbers of people in the U.S. to die every year Sep 25-Oct 1, 2023	21	41	31	7	1
	ASK FORM 2 ONLY [N=4,430]:					
f.	A growing number of plant and animal species will become extinct Sep 25-Oct 1, 2023	26	47	22	4	<1

FUTRWRLD CONTINUED ...

	<u>Definitely will happen</u>	<u>Probably will happen</u>	<u>Probably will NOT happen</u>	<u>Definitely will NOT happen</u>	<u>No answer</u>
ASK FORM 2 ONLY [N=4,430]:					
g. Machines will take large amounts of carbon dioxide out of the air and store it in the ground					
Sep 25-Oct 1, 2023	6	36	49	6	3
ASK FORM 2 ONLY [N=4,430]:					
h. Most homes and buildings in the U.S. will need major upgrades to withstand extreme weather events					
Sep 25-Oct 1, 2023	22	42	29	6	<1

ASK ALL:

CLMSRS1 In your view, is global climate change a...

	<u>Extremely serious problem</u>	<u>Very serious problem</u>	<u>Somewhat serious problem</u>	<u>Not too serious problem</u>	<u>Not a problem</u>	<u>No answer</u>
Sep 25-Oct 1, 2023	34	23	20	14	10	<1
Apr 11-17, 2022	31	26	22	13	8	<1

RANDOMIZE ORDER OF EN7 and EN8**ASK ALL:**

EN7 How much do you think human activity, such as the burning of fossil fuels, contributes to global climate change?

	<u>A great deal</u>	<u>Some</u>	<u>Not too much</u>	<u>Not at all</u>	<u>No answer</u>
Sep 25-Oct 1, 2023	46	29	17	6	1
Jan 24-30, 2022	46	29	17	6	1
Apr 20-29, 2021	44	33	15	6	1
Apr 29-May 5, 2020	49	32	13	6	1
Oct 1-13, 2019	49	30	14	5	2

ASK ALL:

EN8 How much do you think natural patterns in the Earth's environment contribute to global climate change?

	<u>A great deal</u>	<u>Some</u>	<u>Not too much</u>	<u>Not at all</u>	<u>No answer</u>
Sep 25-Oct 1, 2023	34	44	17	4	1
Oct 1-13, 2019	35	44	13	4	2

ASK ALL:

ENV21 How much do you, personally, care about the issue of global climate change?

	<u>A great deal</u>	<u>Some</u>	<u>Not too much</u>	<u>Not at all</u>	<u>No answer</u>
Sep 25-Oct 1, 2023	37	35	18	10	1
Mar 27-Apr 9, 2018	44	33	15	7	1
May 10-Jun 6, 2016	36	38	18	8	1

ASK ALL:ENV26 Thinking about what you have heard or read, how well do climate scientists understand...
[RANDOMIZE ITEMS A-C WITH D ALWAYS LAST]

	<u>Very well</u>	<u>Fairly well</u>	<u>Not too well</u>	<u>Not at all well</u>	<u>No answer</u>
a. Whether or not global climate change is occurring					
Sep 25-Oct 1, 2023	32	36	23	9	1
Apr 20-29, 2021	37	35	20	8	1
May 10-Jun 6, 2016	33	39	18	9	1
b. The causes of global climate change					
Sep 25-Oct 1, 2023	24	39	26	10	1
Apr 20-29, 2021	28	39	23	9	1
May 10-Jun 6, 2016	28	40	22	9	1
c. The best ways to address global climate change					
Sep 25-Oct 1, 2023	13	39	34	13	1
Apr 20-29, 2021	18	42	28	9	1
May 10-Jun 6, 2016	19	45	26	9	1
d. How global climate change affects extreme weather events					
Sep 25-Oct 1, 2023	26	39	25	10	1

ASK ALL:

CCINFLU Thinking about public policy debates about addressing global climate change, do you think climate scientists have...

	<u>Too much influence</u>	<u>Too little influence</u>	<u>About the right amount</u>	<u>No answer</u>
Sep 25-Oct 1, 2023	26	50	22	1
Apr 20-29, 2021	22	54	22	2

RANDOMIZE ORDER OF LOCLIVE AND CLIMLIVE; KEEP RESPONSE OPTIONS IN SAME ORDER FOR LOCLIVE AND CLIMLIVE

ASK ALL:

LOCLIVE Over the next 30 years, do you think the effects of climate change on local conditions in your area will make your community... **[RANDOMIZE ORDER OF RESPONSE OPTIONS 1 AND 2; RESPONSE OPTIONS 3 AND 4 LAST]**

Sep 25-Oct 1,
2023

7	A better place to live
41	A worse place to live
41	Not much different
10	Climate change is not impacting communities
1	No answer

ASK ALL:

CLIMLIVE Thinking about different areas in the country, over the next 30 years, do you think the effects of climate change on conditions in the following areas will make them... **[RANDOMIZE ITEMS; RANDOMIZE ORDER OF RESPONSE OPTIONS 1 AND 2; RESPONSE OPTIONS 3 AND 4 LAST]**

	A better place to <u>live</u>	A worse place to <u>live</u>	Not much <u>different</u>	Climate change is not impacting <u>this area</u>	<u>No answer</u>
a. The Southwest, including states like Arizona and New Mexico Sep 25-Oct 1, 2023	5	55	31	8	1
b. New England, including states like Massachusetts and Vermont Sep 25-Oct 1, 2023	13	32	44	9	2
c. Upper Midwest, including states like Michigan and Minnesota Sep 25-Oct 1, 2023	16	27	47	9	2
d. Coastal Florida Sep 25-Oct 1, 2023	4	61	27	7	1
e. Mountain West, including states like Colorado and Utah Sep 25-Oct 1, 2023	14	30	45	9	2
f. Southern California Sep 25-Oct 1, 2023	5	60	27	7	1

ASK FORM 1 ONLY [N=4,412]:

CCHARMUS How much harm is climate change causing people in this country today?

Sep 25-Oct 1,

2023

15	A great deal
28	Quite a bit
28	Some
15	A little
14	None at all
1	No answer

ASK FORM 1 ONLY [N=4,412]:

CCHARMUSF In your lifetime do you think harm to people in this country caused by climate change will get...?

Sep 25-Oct 1,

2023

31	A lot worse
32	A little worse
33	Stay about the same
2	A little better
1	A lot better
1	No answer

ASK FORM 2 ONLY [N=4,430]:

CCHARMINTL How much harm is climate change causing people around the world today?

Sep 25-Oct 1,

2023

25	A great deal
27	Quite a bit
23	Some
13	A little
11	None at all
1	No answer

ASK FORM 2 ONLY [N=4,430]:

CCHARMINLF In your lifetime do you think harm to people around the world caused by climate change will get...?

Sep 25-Oct 1,

2023

36	A lot worse
28	A little worse
30	Stay about the same
3	A little better
2	A lot better
1	No answer

ASK IF CLIMATE CHANGE IS AT LEAST SOMEWHAT SERIOUS (CLMSRS1=1-3) [N=6,763]:

CLIMDIFF How much do you think efforts by each of the following can help to reduce the effects of climate change? **[RANDOMIZE ITEMS]**

	<u>A lot</u>	<u>A little</u>	<u>Don't make much difference</u>	<u>No answer</u>
a. Individual Americans Sep 25-Oct 1, 2023	35	48	17	1
b. Federal government Sep 25-Oct 1, 2023	62	26	11	1
c. Large businesses and corporations Sep 25-Oct 1, 2023	68	23	9	1
d. Cities and communities Sep 25-Oct 1, 2023	53	38	8	1
e. The energy industry Sep 25-Oct 1, 2023	72	21	6	1

ASK IF CLIMATE CHANGE IS AT LEAST SOMEWHAT SERIOUS (CLMSRS1=1-3) [N=6,763]:

CCFUTRMOD Looking ahead to 30 years from now, which of the following do you think is more likely to happen in the U.S.? **[RANDOMIZE ORDER OF RESPONSE 1 AND 2]**

Sep 25-Oct 1,
2023

30	New technology will be able to address most of the problems caused by global climate change
68	Major changes to everyday life will be needed to address the problems caused by global climate change
1	No answer

TREND FOR COMPARISON:**ASK ALL:**

CCFUTR Looking to the future 50 years from now, which of the following do you think is more likely to happen in the U.S.? **[RANDOMIZE ORDER OF RESPONSE 1 AND 2]**

Apr 20-29,
2021

46	New technology will be able to address most of the problems caused by global climate change
51	Major changes to everyday life will be needed to address the problems caused by global climate change
3	No answer

ASK ALL:

CCFUTRYOU2 In your lifetime, do you think you will have to make sacrifices in your everyday life because of global climate change?

Sep 25-Oct 1,

2023

23	Yes, major sacrifices
48	Yes, minor sacrifices
28	No, I won't have to make any sacrifices
1	No answer

ASK ALL:

CLIMFEEL2 Thinking about news and information on climate change you've come across recently, did it make you feel ... **[RANDOMIZE ITEMS]**

	<u>Yes</u>	<u>No</u>	<u>No answer</u>
ASK FORM 1 ONLY [N=4,412]:			
a. Motivated to do more to address climate change Sep 25-Oct 1, 2023	50	49	1
ASK FORM 1 ONLY [N=4,412]:			
b. Annoyed there is so much attention on this issue Sep 25-Oct 1, 2023	33	66	1
ASK FORM 1 ONLY [N=4,412]:			
c. Confused about all the information out there Sep 25-Oct 1, 2023	44	56	1
ASK FORM 1 ONLY [N=4,412]:			
d. Sad about what is happening to the Earth Sep 25-Oct 1, 2023	70	29	1
ASK FORM 2 ONLY [N=4,430]:			
e. Anxious about the future Sep 25-Oct 1, 2023	53	46	1
ASK FORM 2 ONLY [N=4,430]:			
f. Optimistic we can address climate change Sep 25-Oct 1, 2023	38	60	2
ASK FORM 2 ONLY [N=4,430]:			
g. Suspicious of the groups and people pushing for action on this issue Sep 25-Oct 1, 2023	53	46	1
ASK FORM 2 ONLY [N=4,430]:			
h. Frustrated that there's so much political disagreement Sep 25-Oct 1, 2023	79	20	1

ASK ALL:

TALKCC

Thinking about the people you talked with over the past few weeks, whether in person, over the phone, or online...

How often, if ever, have you discussed the need for action on global climate change?

	Nearly every <u>day</u>	A few times <u>each week</u>	<u>Once or twice</u>	<u>Never</u>	<u>No answer</u>
Sep 25-Oct 1, 2023	3	14	36	46	<1
Apr 20-29, 2021	3	15	38	43	1

ASK ALL:

ENGACT

Thinking about global climate change, here's a list of activities some people do and others do not. Please indicate if you have done each of the following activities in the past year. **[RANDOMIZE ITEMS]**

	Yes, have done this in the past <u>year</u>	No, have not done this in the <u>past year</u>	<u>No answer</u>
a. Attended a protest or rally to show support for addressing climate change			
Sep 25-Oct 1, 2023	5	94	<1
Apr 20-29, 2021	6	93	1
b. Volunteered for an activity focused on addressing climate change			
Sep 25-Oct 1, 2023	9	91	<1
Apr 20-29, 2021	10	89	1
c. Donated money to an organization focused on addressing climate change			
Sep 25-Oct 1, 2023	12	87	1
Apr 20-29, 2021	16	83	1
d. Contacted an elected official to urge them to address climate change			
Sep 25-Oct 1, 2023	8	91	1
Apr 20-29, 2021	10	89	1

ENGACT SUMMARY TABLE**BASED ON TOTAL:**

	NET I have done at least one of these four activities (Attended a protest or rally, volunteered for an activity, donated money, or contacted an elected official, to address climate change)	I have done none of these four activities	No answer to any of ENGACTa-d
Sep 25-Oct 1, 2023	21	78	1
Apr 20-29, 2021	24	74	1

ASK FORM 1 [N=4,412]:

CLIMACT1 Do you think climate activism, such as protests, rallies and volunteering... **[RANDOMIZE RESPONSE OPTIONS 1 AND 2 WITH RESPONSE OPTION 3 LAST]**

Sep 25-Oct 1,

2023

28	Makes people <u>more</u> likely to support action on climate change
21	Makes people <u>less</u> likely to support action on climate change
49	Does not really affect people's support for action on climate change
1	No answer

ASK FORM 2 [N=4,430]:

CLIMACT2 How effective is climate activism, such as protests, rallies and volunteering, in getting elected officials to act on climate change?

Sep 25-Oct 1,

2023

4	Extremely effective
8	Very effective
33	Somewhat effective
33	Not too effective
21	Not at all effective
1	No answer

OTHER QUESTIONS HELD FOR FUTURE RELEASE