

CLIMATE CHANGE IN THE AMERICAN MIND

November 2019



YALE PROGRAM ON
Climate Change
Communication



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Introduction

This report is based on findings from a nationally representative survey – *Climate Change in the American Mind* – conducted by the Yale Program on Climate Change Communication (climatecommunication.yale.edu) and the George Mason University Center for Climate Change Communication (climatechangecommunication.org). Interview dates: November 8 – 20, 2019. Interviews: 1,303 adults in the U.S. (18+). Average margin of error +/- 3 percentage points at the 95% confidence level. The research was funded by the 11th Hour Project, the Energy Foundation, and the MacArthur Foundation. A special thank you goes to Parrish Bergquist, PhD and Matto Mildenerger, PhD for creating an automated version of this report.

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1 Executive Summary

- About seven in ten Americans (72%) think global warming is happening. Only about one in eight Americans (12%) think global warming is not happening. Americans who think global warming is happening outnumber those who think it isn't by a 6 to 1 ratio.
- About half of Americans are certain that global warming is happening; 52% are “extremely” or “very” sure it is happening. By contrast, far fewer (7%) are “extremely” or “very” sure global warming is not happening.
- About six in ten Americans (59%) understand that global warming is mostly human-caused. By contrast, three in ten (30%) think it is due mostly to natural changes in the environment.
- More than half of Americans (55%) understand that most scientists think global warming is happening. However, only about one in five (22%) understand how strong the level of consensus among scientists is (i.e., that more than 90% of climate scientists think human-caused global warming is happening).
- Two in three Americans (66%) say they are at least “somewhat worried” about global warming. Three in ten (30%) are “very worried” about it.
- More than six in ten Americans (64%) say they feel at least “moderately interested” in global warming. About half say they feel “helpless” (53%) or “disgusted” (50%).
- Nearly half of Americans (46%) say they have personally experienced the effects of global warming.
- More than four in ten Americans (45%) think people in the United States are being harmed by global warming “right now.”
- More than four in ten Americans (43%) think they will be harmed by global warming, while more think their family (49%) will be harmed. Half or more Americans think global warming will harm people in their community (51%), people in the U.S. (65%), the world's poor (66%), people in developing countries (68%), future generations of people (72%), and/or plant and animal species (73%).
- Two in three Americans (67%) say the issue of global warming is either “extremely,” “very,” or “somewhat” important to them personally, while one in three (33%) say it is either “not too” or “not at all” personally important.
- About six in ten Americans (59%) say they “rarely” or “never” discuss global warming with family and friends, while 41% say they do so “occasionally” or “often.”
- More than half of Americans (56%) say they hear about global warming in the media at least once a month and more than four in ten (44%) say they have seen more media coverage of global warming over the past year. Fewer (24%) say they hear people they know talking about global warming at least once a month.
- Fewer than half of Americans perceive a social norm in which their friends and family expect them to take action on global warming. Forty-three percent think it is at least moderately important to their family and friends that they take action (an injunctive norm), and four in ten (40%) say their family and friends make at least a moderate amount of effort to reduce global warming (a descriptive norm).
- Few Americans (12%) think it is too late to do anything about global warming, while two in three (66%) disagree that it is too late. About half of Americans (48%) think new technologies can solve global warming without individuals having to make big changes in their lives.
- More than six in ten Americans (64%) think global warming is affecting weather in the United States, and about three in ten think weather is being affected “a lot” (31%).
- Half or more Americans think global warming made several extreme weather-related events worse in 2019 including melting of the Greenland ice sheets (64%), European heat waves (55%), and California wildfires (50%).
- A majority of Americans are worried about harm from extreme events in their local area including extreme heat (64%), droughts (60%), flooding (58%), and/or water shortages (54%).
- A majority of Americans (56%) think extreme weather poses a risk to their community.

Please note: In consultation with independent statisticians and survey methodologists, we and Ipsos KnowledgePanel® (our survey provider) slightly modified the sampling method for our current and future surveys beginning in the Spring of 2019. In the past, KnowledgePanel® members who had participated in one of our prior surveys were not eligible to participate in any subsequent *Climate Change in the American Mind* studies. Details about our modified sampling method are described in Appendix II.

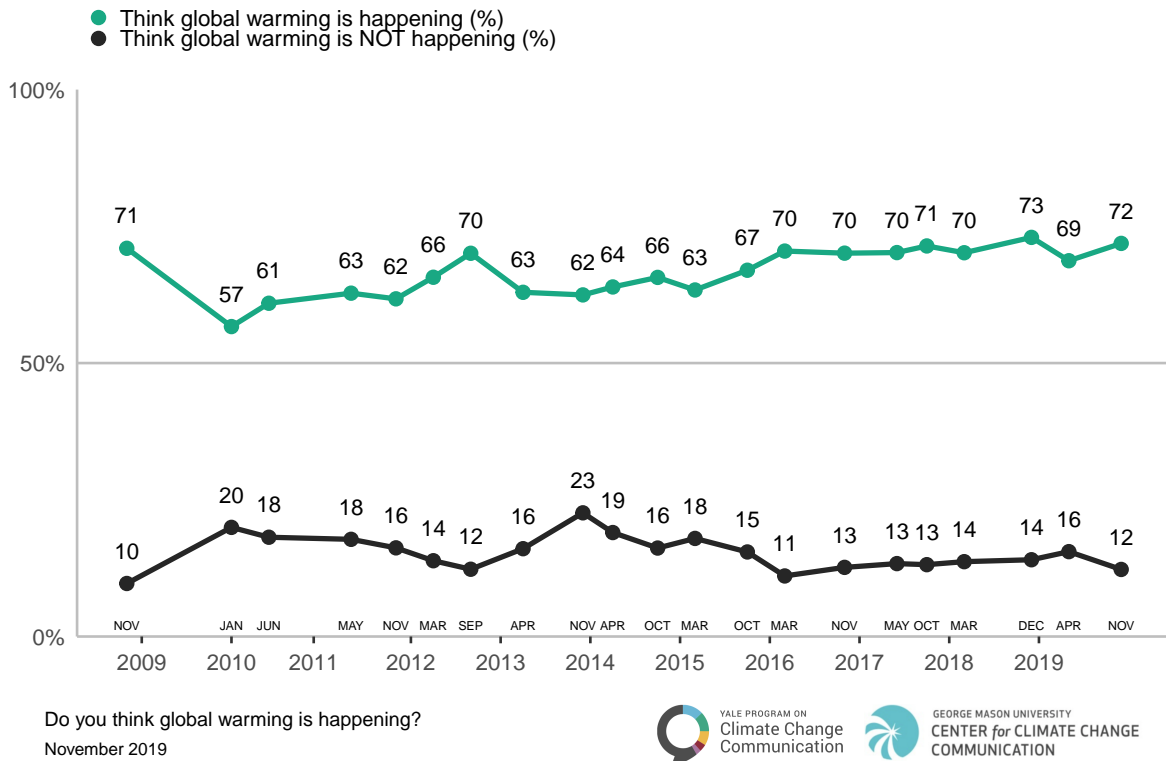
2 Global Warming Beliefs

2.1 About seven in ten Americans think global warming is happening.

Americans who think global warming is happening outnumber those who think it is not by a ratio of 6 to 1.

About seven in ten Americans (72%) think global warming is happening. By contrast, only about one in eight Americans (12%) think global warming is not happening.

About seven in ten Americans think global warming is happening



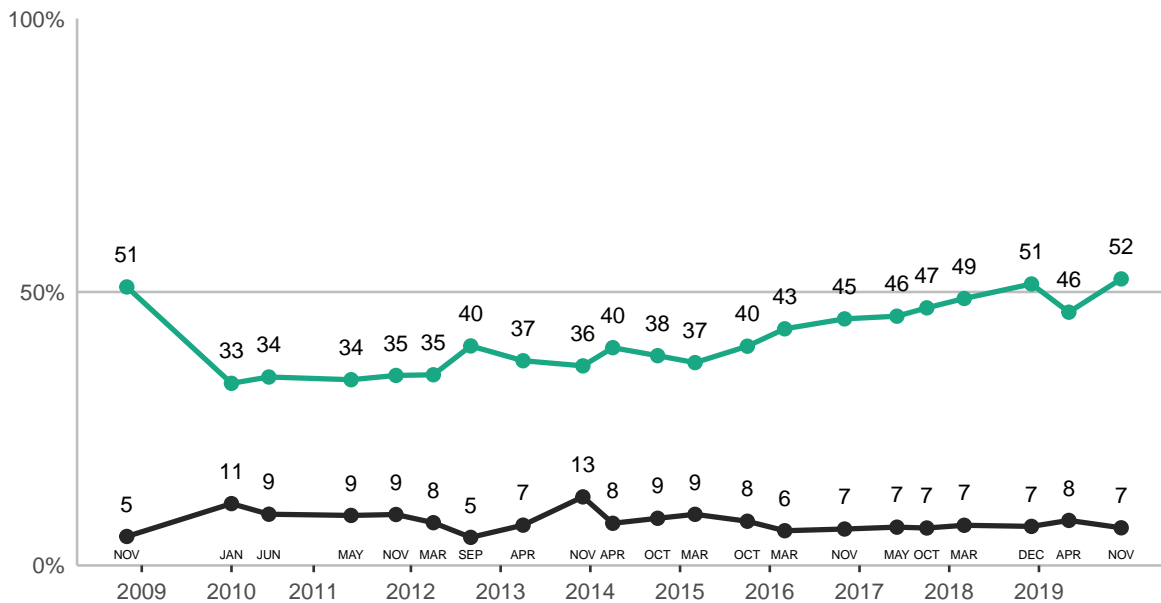
2.2 About half of Americans are “extremely” or “very” sure global warming is happening. Fewer than one in ten are as sure it isn’t happening.

Fifty-two percent of Americans are either “extremely” or “very” sure global warming is happening, the highest level since our surveys began in 2008. Far fewer (7%) are “extremely” or “very” sure global warming is not happening.

Over the last five years (since our October 2014 survey), the percentage of Americans who are sure global warming is happening has increased by 14 percentage points.

About half of Americans are sure global warming is happening

- Extremely/Very sure global warming is happening (%)
- Extremely/Very sure global warming is NOT happening (%)



How sure are you that global warming is/is not happening?

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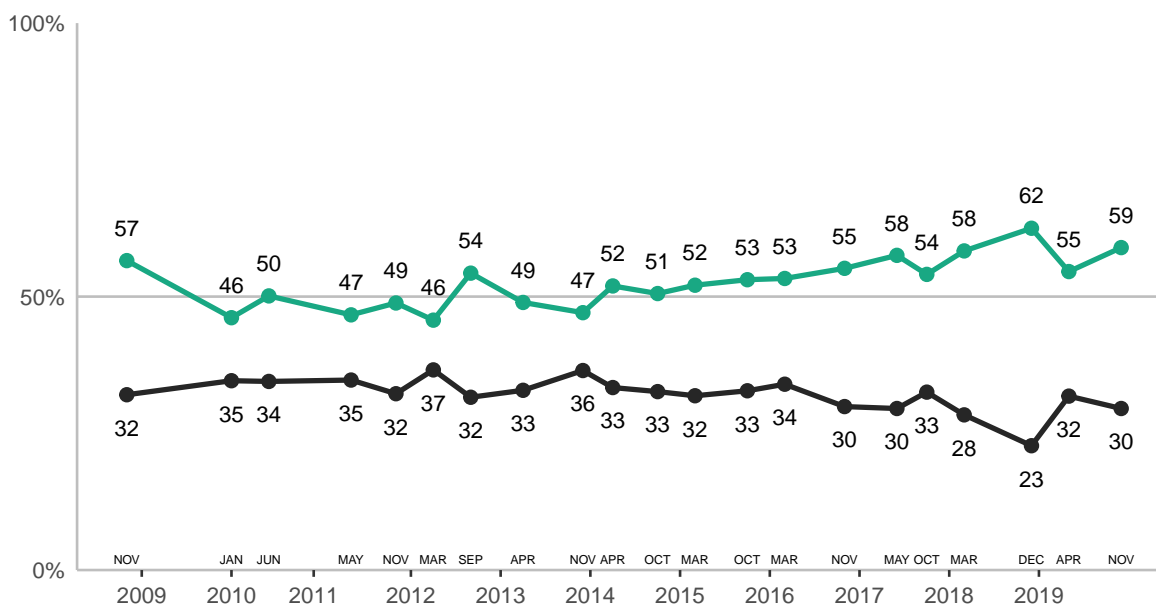
2.3 About six in ten Americans think global warming is mostly human-caused.

The 2018 U.S. National Climate Assessment (written and reviewed by hundreds of climate experts over the course of four years) states: “Greenhouse gas emissions from human activities are the only factors that can account for the observed warming over the last century; there are no credible alternative human or natural explanations supported by the observational evidence” (pp. 39-40).¹

About six in ten Americans (59%) understand that global warming is mostly human-caused, an increase of eight percentage points over the past five years (since October 2014). By contrast, three in ten (30%) think it is due mostly to natural changes in the environment.

About six in ten Americans think global warming is mostly human-caused

- Think global warming is caused mostly by human activities (%)
- Think global warming is caused mostly by natural changes in the environment (%)



Assuming global warming is happening, do you think it is...
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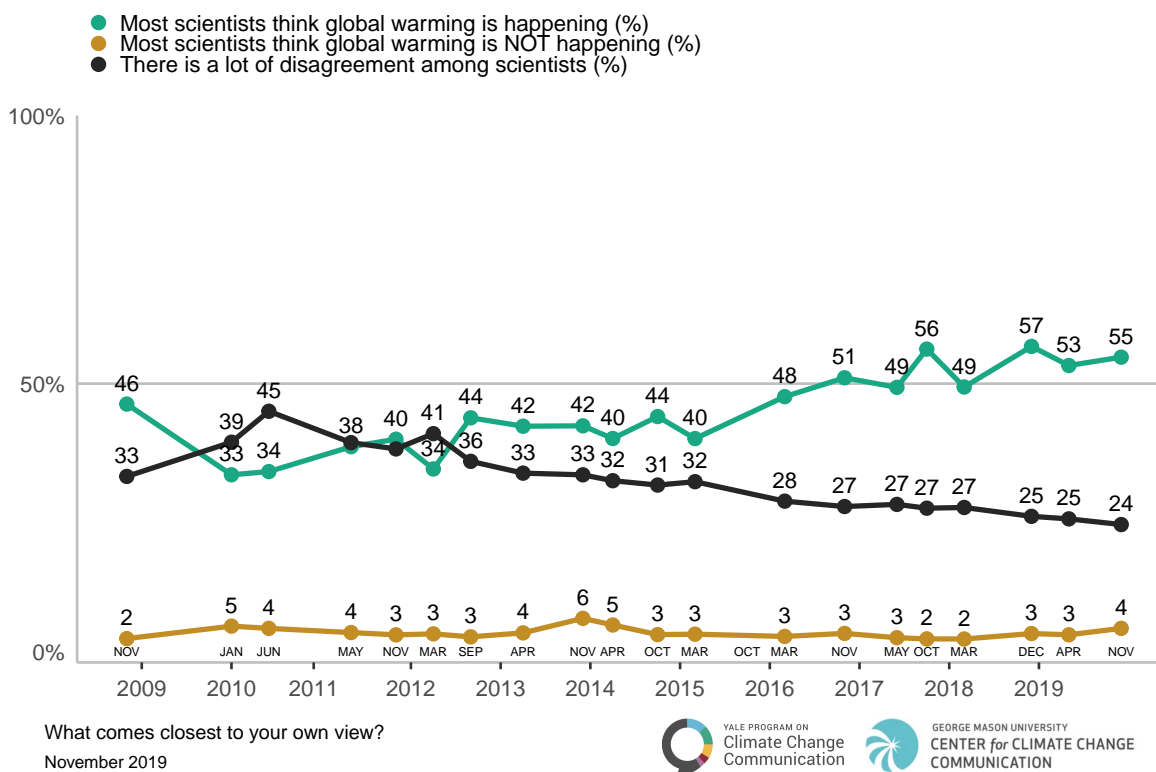
¹<http://nca2018.globalchange.gov>

2.4 More than half of Americans understand that most scientists think global warming is happening.

A review by John Cook and colleagues² found that six independent, peer-reviewed studies about the extent of the scientific consensus about global warming have reached similar conclusions: between 90% and 100% of climate scientists are convinced that human-caused climate change is happening. The most rigorous of these studies found that 97% of climate scientists are convinced that human-caused climate change is happening.

Now, more than half of Americans (55%) understand that most scientists think global warming is happening, an increase of 11 percentage points over the past five years (since October 2014). By contrast, about one in four Americans (24%) think there is a lot of disagreement among scientists about whether or not global warming is happening, the lowest level since our surveys began. Very few Americans (4%) believe that most scientists think global warming is not happening.

More than half of Americans understand that most scientists think global warming is happening



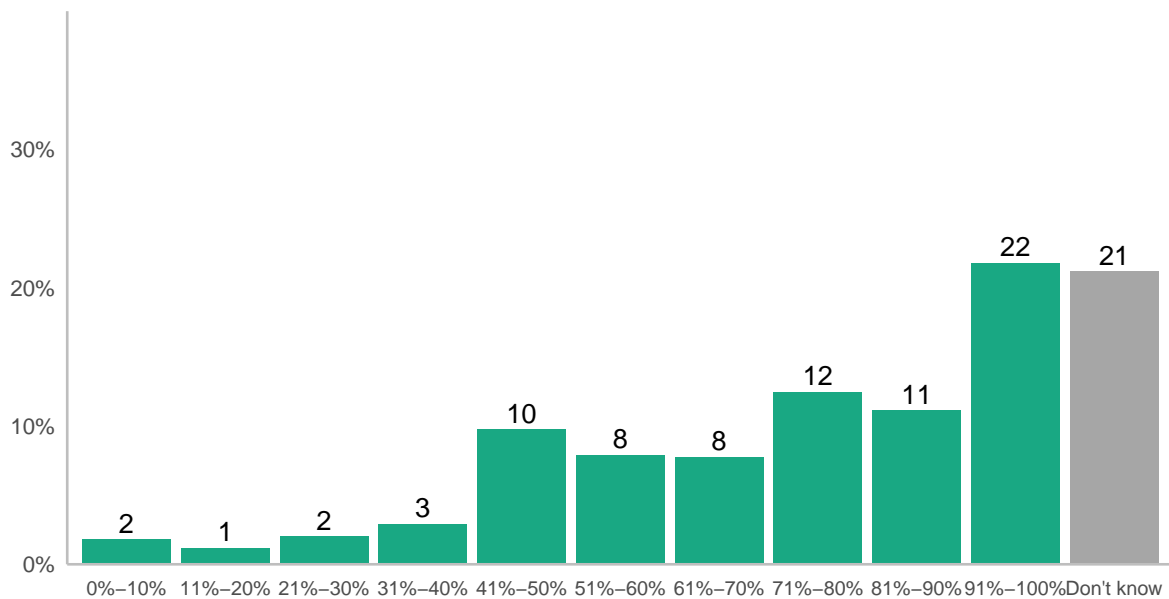
²Cook, J., Oreskes, N., Doran, P. T., Anderegg, W. R. I., Verheggen, B., Maibach, E. W., Carlton, J. S., Lewandowsky, S., Skuce, A. G., Green, S. A., Nuccitelli, D., Jacobs, P., Richardson, M., Winkler, B., Painting, R., & Rice, K. (2016). Consensus on consensus: A synthesis of consensus estimates on human-caused global warming. *Environmental Research Letters* 11(4). doi:10.1088/1748-9326/11/4/048002

2.5 About one in five Americans understand that almost all climate scientists (more than 90%) have concluded that human-caused global warming is happening.

Although the majority of Americans now understand that most scientists think global warming is happening, fewer understand just how strong the level of consensus among scientists is. Only about one in five Americans (22%) understand that nearly all climate scientists (more than 90%) are convinced that human-caused global warming is happening. However, that number has increased by 13 percentage points over the last five years (since October 2014; see Data Table, p. 32).

About one in five Americans (21%) say they “don’t know” what percentage of climate scientists think human-caused global warming is happening.³

About one in five Americans understand that almost all climate scientists (more than 90%) have concluded that human-caused global warming is happening



To the best of your knowledge, what percentage of climate scientists think that human-caused global warming is happening? Please click on the slider bar below to indicate your answer. You can slide the indicator to the position that best describes your opinion.

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Public misunderstanding of the scientific consensus – which has been found in each of our surveys since 2008 – has significant consequences. Other research has identified public understanding of the scientific consensus as an important “gateway belief” that influences other important beliefs (i.e., that global warming is happening, human-caused, and worrisome) and support for action.⁴

³ Respondents were asked to estimate the percentage of climate scientists who have concluded that human-caused global warming is happening by moving a simulated slider bar which appeared on the screen of their computer. This slider allowed respondents to move the marker from 0% on the left to 100% on the right, or to any whole number between the two. A “don’t know” response option appeared below the slider bar.

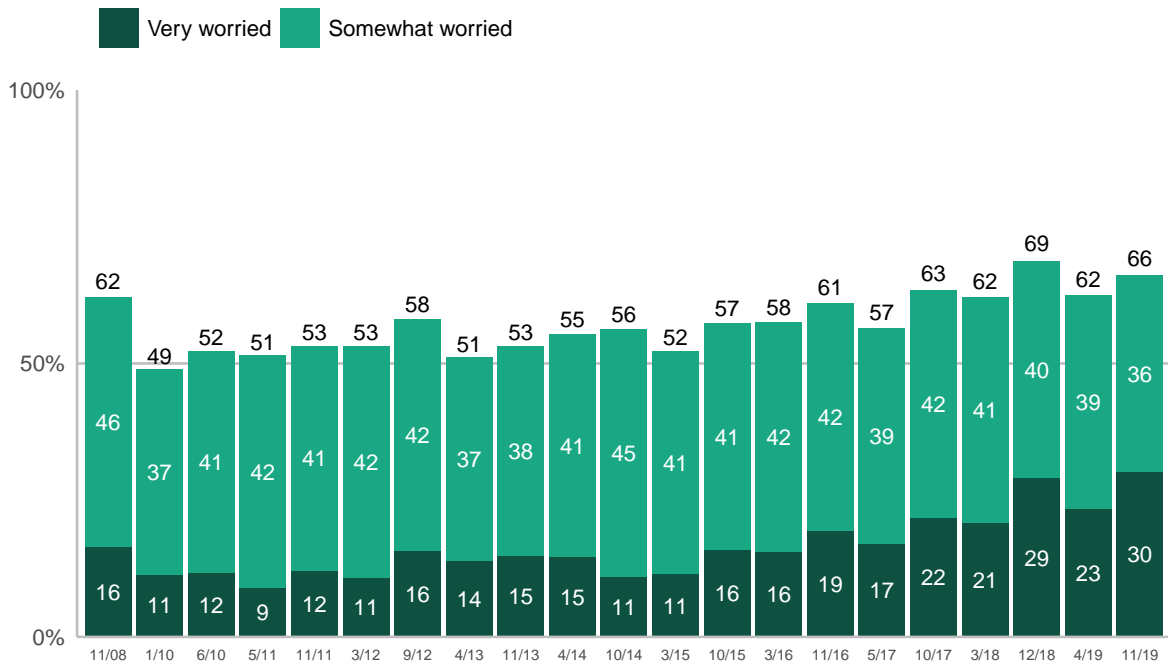
⁴ For more information, see: van der Linden, S. L., Leiserowitz, A. A., Feinberg, G. D., & Maibach, E. W. (2015). The scientific consensus on climate change as a gateway belief: Experimental evidence. *PLoS ONE*, 10(2). <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0118489>

3 Emotional Responses to Global Warming

3.1 Two in three Americans are at least “somewhat worried” about global warming.

Two in three Americans (66%) say they are at least “somewhat worried” about global warming, an increase of 10 percentage points over the past five years (since October 2014). Three in ten Americans (30%) are “very worried,” a nearly three-fold increase since October 2014.

Two in three Americans are at least "somewhat worried" about global warming



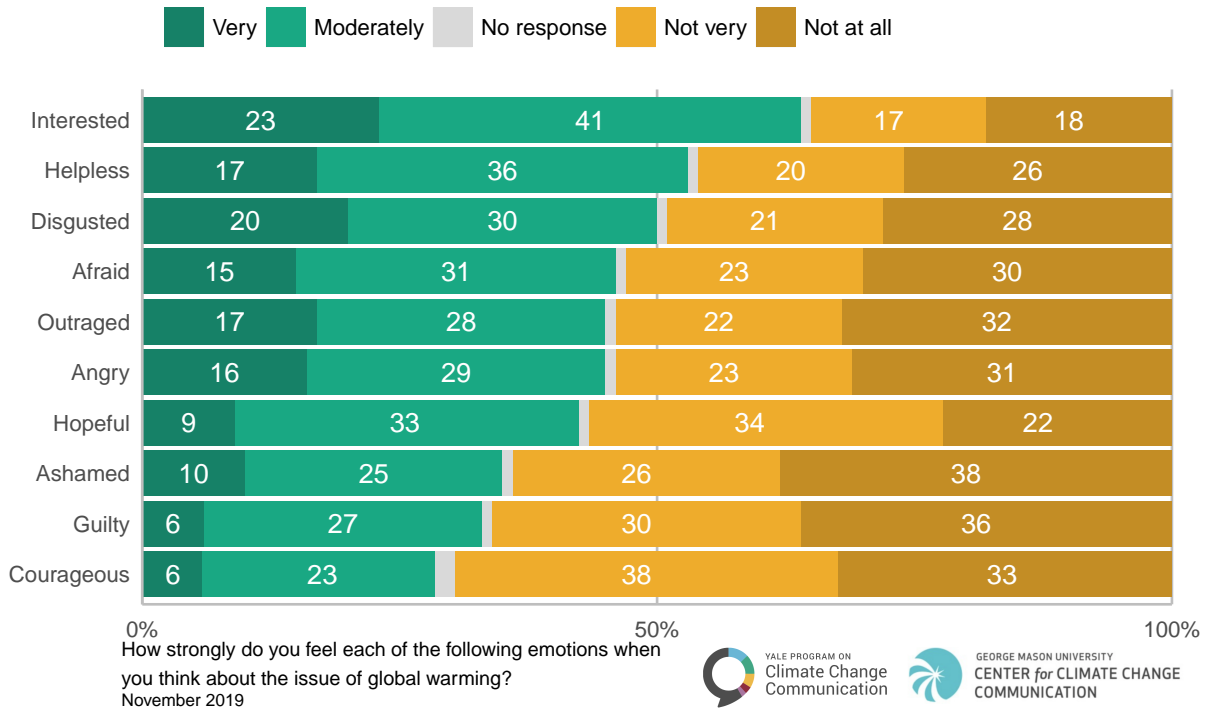
How worried are you about global warming?
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3.2 More than six in ten Americans are “interested” in global warming.

When asked how strongly they feel various emotions when thinking about global warming, more than six in ten Americans (64%) say they feel “very” or “moderately” “interested” in it. About half say they feel “helpless” (53%) or “disgusted” (50%). Fewer feel “afraid” (46%), “outraged” (46%), “angry” (45%), “hopeful” (42%), “ashamed” (35%), “guilty” (32%), or “courageous” (28%).

More than six in ten Americans are "interested" in global warming



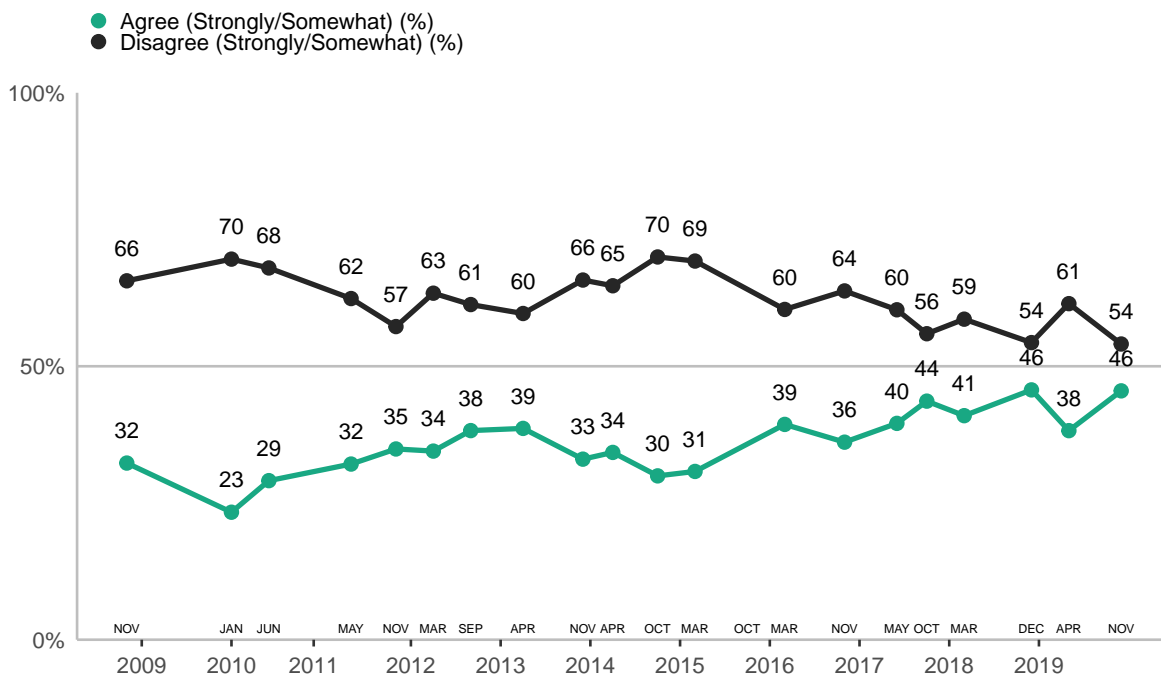
4 Perceived Risks of Global Warming

4.1 Nearly half of Americans say they have personally experienced the effects of global warming.

Nearly half of Americans (46%) say they have personally experienced the effects of global warming, while slightly more than half (54%) say they have not.

The percentage of Americans who say they have personally experienced the effects of global warming has increased by 16 percentage points over the past five years (since October 2014) and is at its highest level (along with December 2018) since our surveys began in 2008.

Nearly half of Americans say they have personally experienced the effects of global warming



How much do you agree or disagree with the following statement?
 I have personally experienced the effects of global warming.



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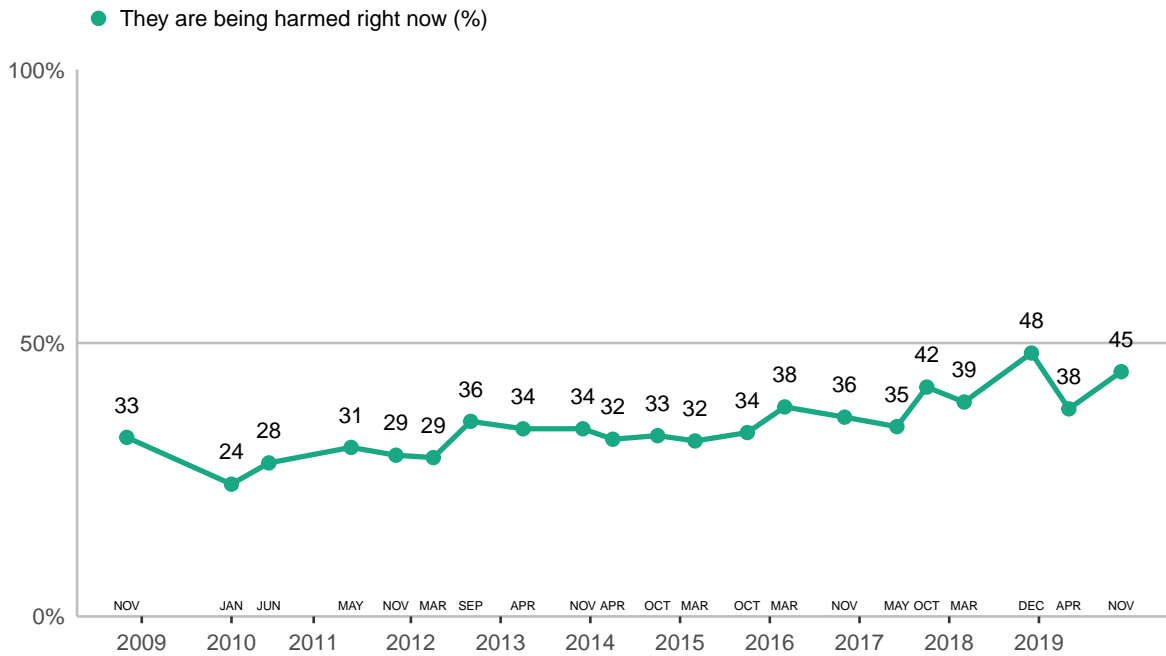
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4.2 More than four in ten Americans think people in the U.S. are being harmed “right now” by global warming.

More than four in ten Americans (45%) think people in the U.S. are being harmed by global warming “right now,” an increase of 12 percentage points over the last five years (since October 2014).

More than four in ten Americans think people in the U.S. are being harmed "right now" by global warming



When do you think global warming will start to harm people in the United States?

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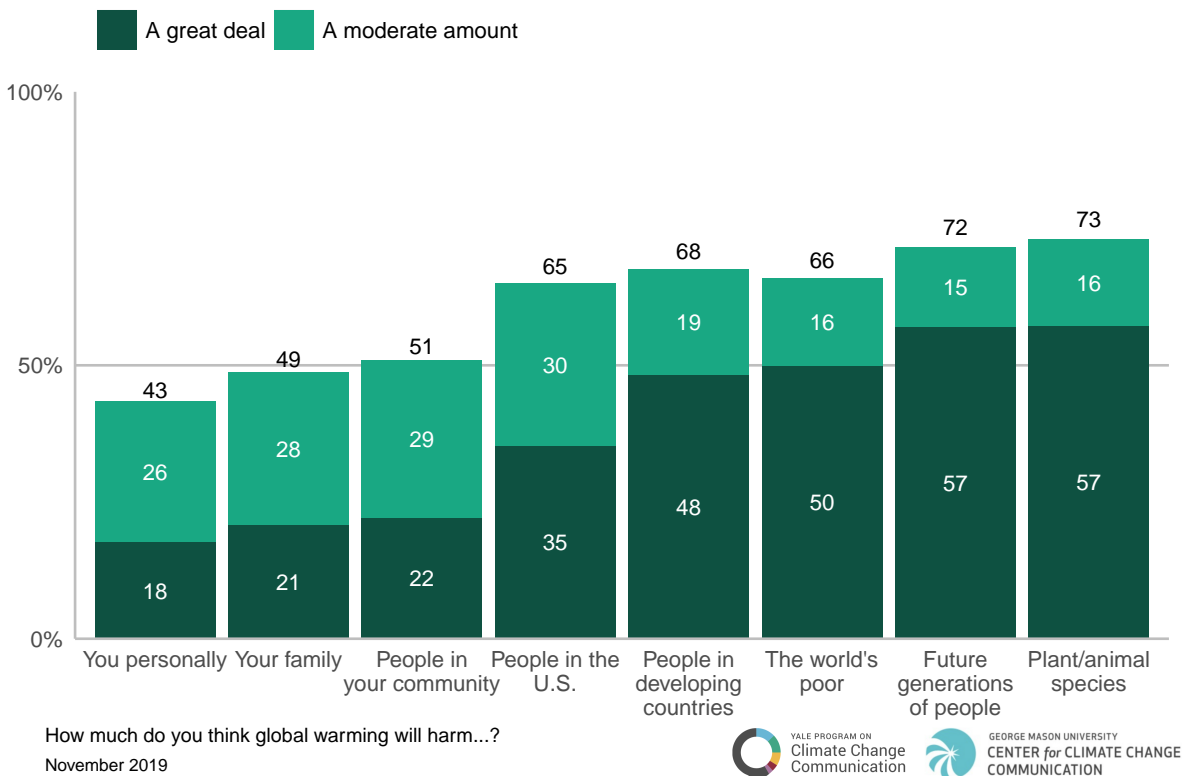


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4.3 Many Americans think they will be harmed by global warming, but they think others will be harmed more.

Many Americans understand that global warming will cause harm. Americans are most likely to think that plant and animal species (73%) and/or future generations of people (72%) will be harmed a “moderate amount” or a “great deal” by global warming. About half or more also think people in developing countries (68%), the world’s poor (66%), people in the U.S. (65%), people in their community (51%), and/or their family (49%) will be harmed. Americans are least likely to think they themselves will be harmed (43%).

Many Americans think they will be harmed by global warming – But think others will be harmed more –

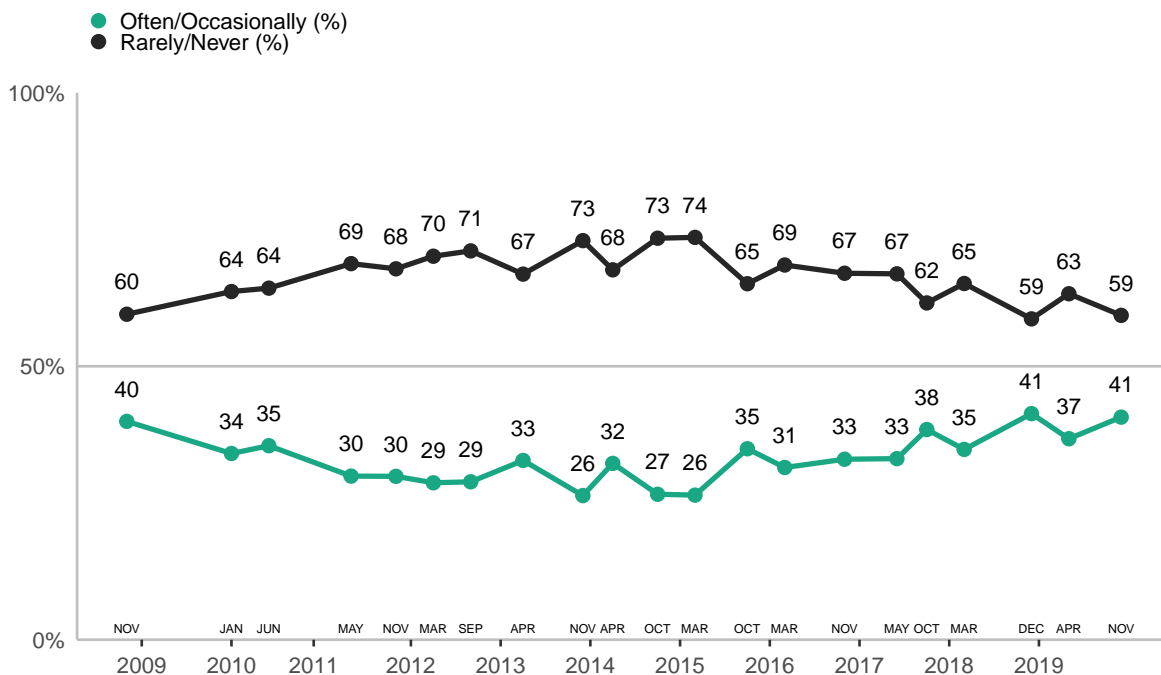


5 Personal and Social Engagement with Global Warming

5.1 Most Americans “rarely” or “never” discuss global warming with family and friends.

About six in ten Americans (59%) say they “rarely” or “never” discuss global warming with family and friends, a decrease of 14 percentage points over the past five years (since October 2014). About four in ten (41%) say they discuss global warming “occasionally” or “often,” a 14-point increase over the past five years.

Most Americans “rarely” or “never” discuss global warming with family and friends



How often do you discuss global warming with your family and friends?
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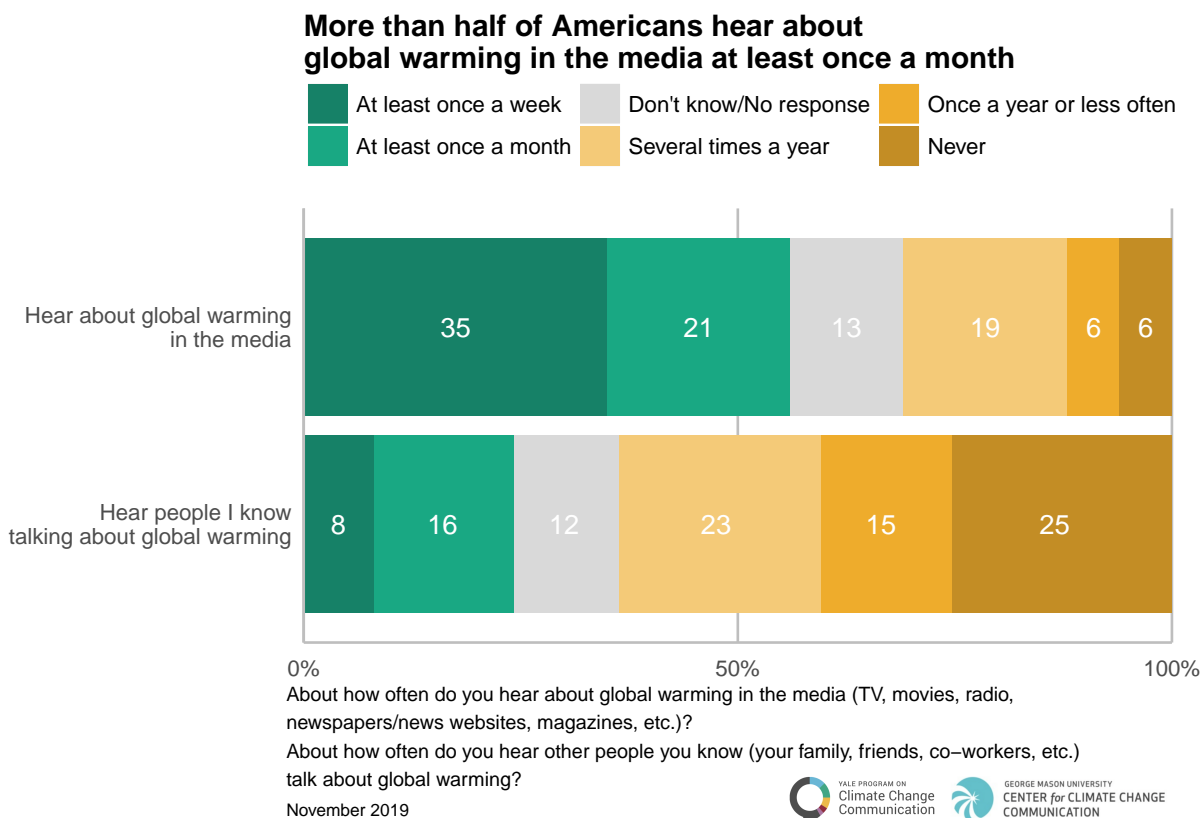


5.2 More than half of Americans hear about global warming in the media at least once a month; fewer hear people they know talking about it at least once a month.

More than half of Americans (56%) say they hear about global warming in the media once a month or more frequently, an increase of 16 percentage points since we first asked the question in March 2015. One in four Americans (25%) say they hear about it in the media only several times or once a year, and 6% say they never hear about global warming in the media.

Only about one in four Americans (24%) say they hear people they know talking about global warming once a month or more frequently. In contrast, 39% say they hear people they know talking about it only several times or once a year, and about one in four (25%) say they never hear people they know talk about global warming.

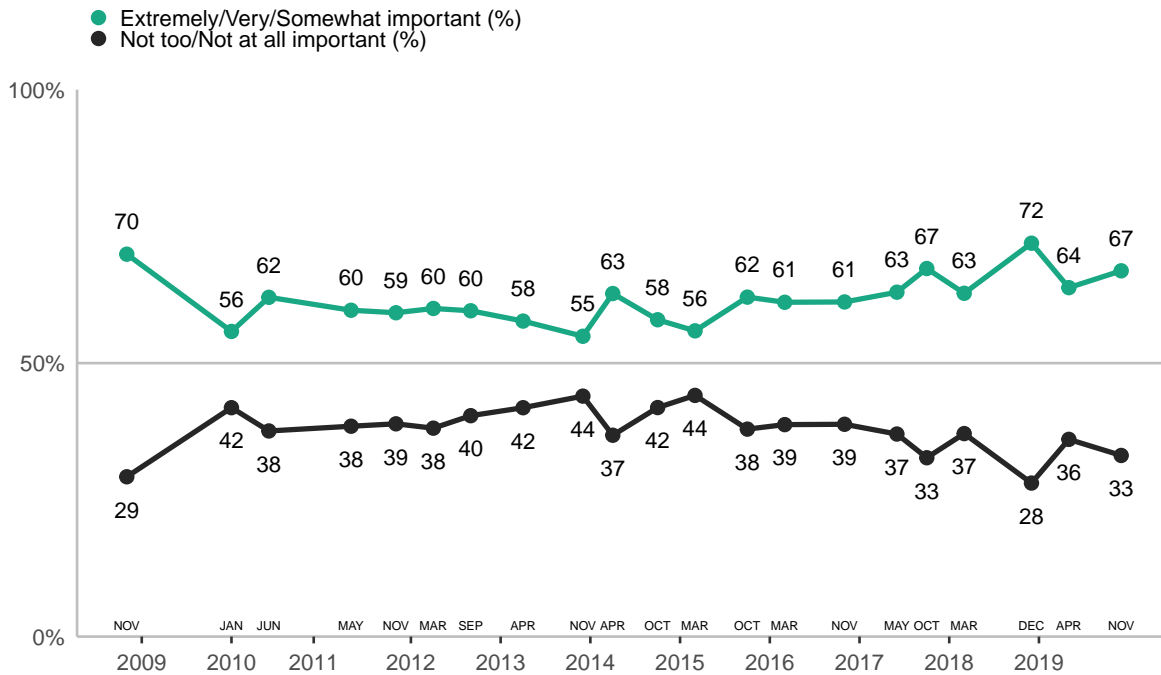
More than four in ten Americans (44%) say they have seen “much” or “somewhat” more media coverage of global warming over the past year (see Data Table, p. 57), whereas only 13% say they have seen “much” or “somewhat” less media coverage about it. About four in ten (42%) say they have seen about the same amount of media coverage of global warming in the past year.



5.3 The issue of global warming is personally important to two in three Americans.

Two in three Americans (67%) say the issue of global warming is either “extremely” (18%), “very” (24%), or “somewhat” (26%) important to them personally. One in three (33%) say global warming is either “not too” (18%) or “not at all” (16%) personally important.

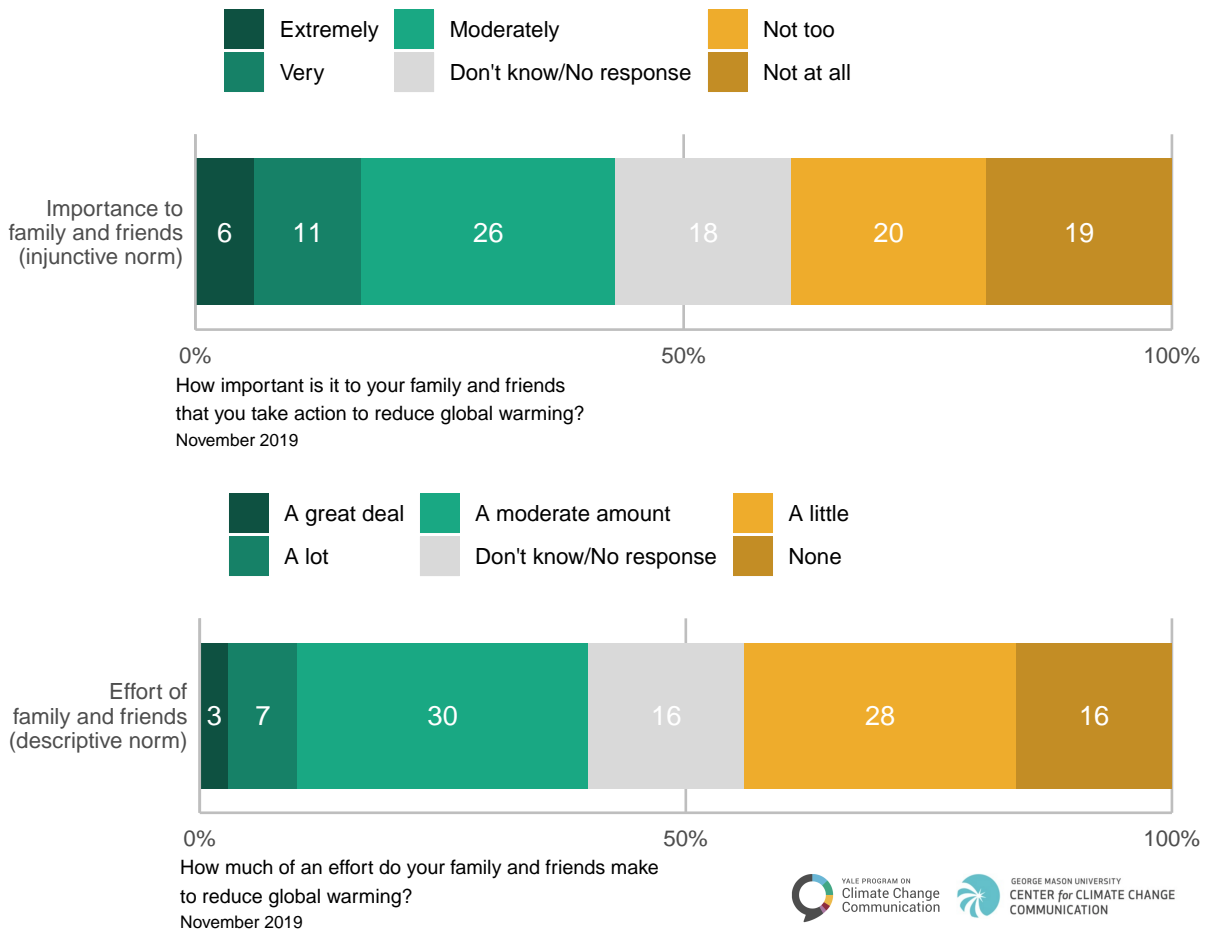
The issue of global warming is personally important to two in three Americans



How important is the issue of global warming to you personally?
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5.4 Fewer than half of Americans perceive social norms for taking action on global warming.



Social science research has shown that two types of social norms can have a powerful influence on people’s behavior: injunctive norms – the belief that friends and family expect you to behave in a given way; and descriptive norms – the belief that friends and family are themselves behaving in that way.⁵⁶⁷⁸

Fewer than half of Americans (43%) perceive an injunctive norm, saying it is either “extremely” (6%), “very” (11%), or “moderately” important (26%) to their family and friends that they take action to reduce global warming. Four in ten Americans (40%) perceive a descriptive norm, saying their family and friends make either “a great deal of effort” (3%), “a lot of effort” (7%), or “a moderate amount of effort” (30%) to reduce global warming.

⁵Ballew, M. T., Goldberg, M. H., Rosenthal, S. A., Cutler, M. J., & Leiserowitz, A. (2019). Climate change activism among Latino and White Americans. *Frontiers in Communication*, 3(58), 1-15. <https://www.frontiersin.org/articles/10.3389/fcomm.2018.00058/full>

⁶Cialdini, R. B. (2003). Crafting normative messages to protect the environment. *Current Directions in Psychological Science*, 12(4), 105-109. <https://journals.sagepub.com/doi/10.1111/1467-8721.01242>

⁷Doherty, K. L., & Webler, T. N. (2016). Social norms and efficacy beliefs drive the Alarmed segment’s public-sphere climate actions. *Nature Climate Change*, 6, 879-884. <https://www.nature.com/articles/nclimate3025>

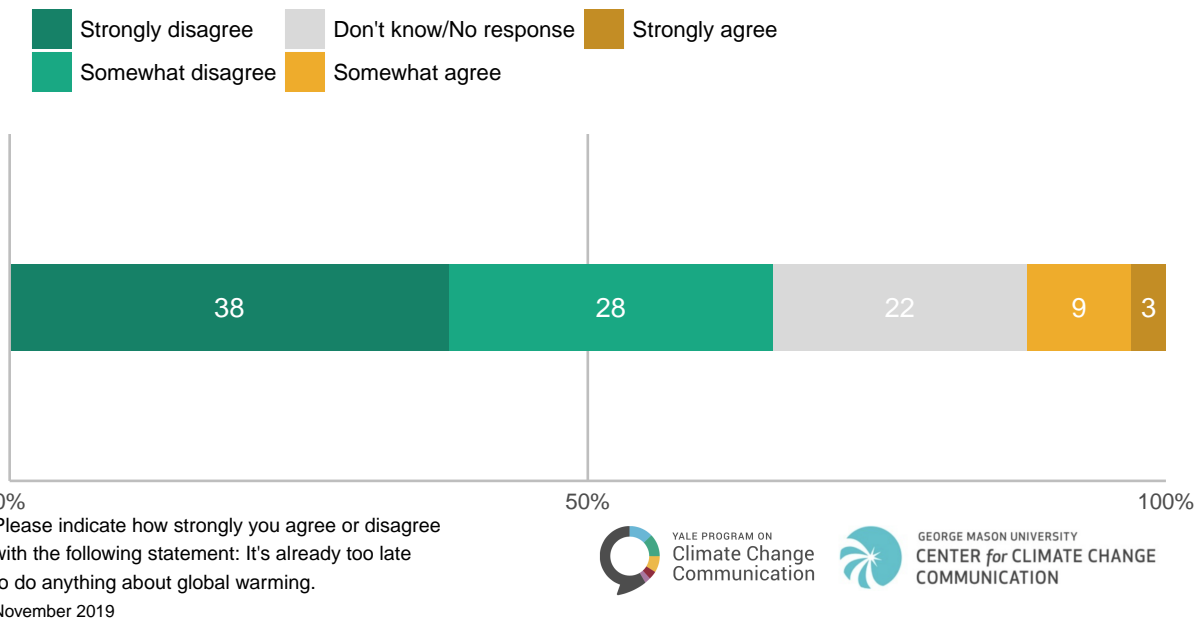
⁸Schultz, P. W., Nolan, J. M., Cialdini, R. B., Goldstein, N. J., & Griskevicius, V. (2007). The constructive, destructive, and reconstructive power of social norms. *Psychological Science*, 18(5), 429-434. <https://journals.sagepub.com/doi/10.1111/j.1467-9280.2007.01917.x>

6 Efficacy Beliefs

6.1 Few Americans think it is too late to do anything about global warming.

Only about one in eight Americans (12%) agree either “strongly” (3%) or “somewhat” (9%) that it is too late to do anything about global warming. In contrast, about two in three Americans (66%) are more optimistic – they either “strongly” (38%) or “somewhat” (28%) disagree that it is too late to do anything about global warming.

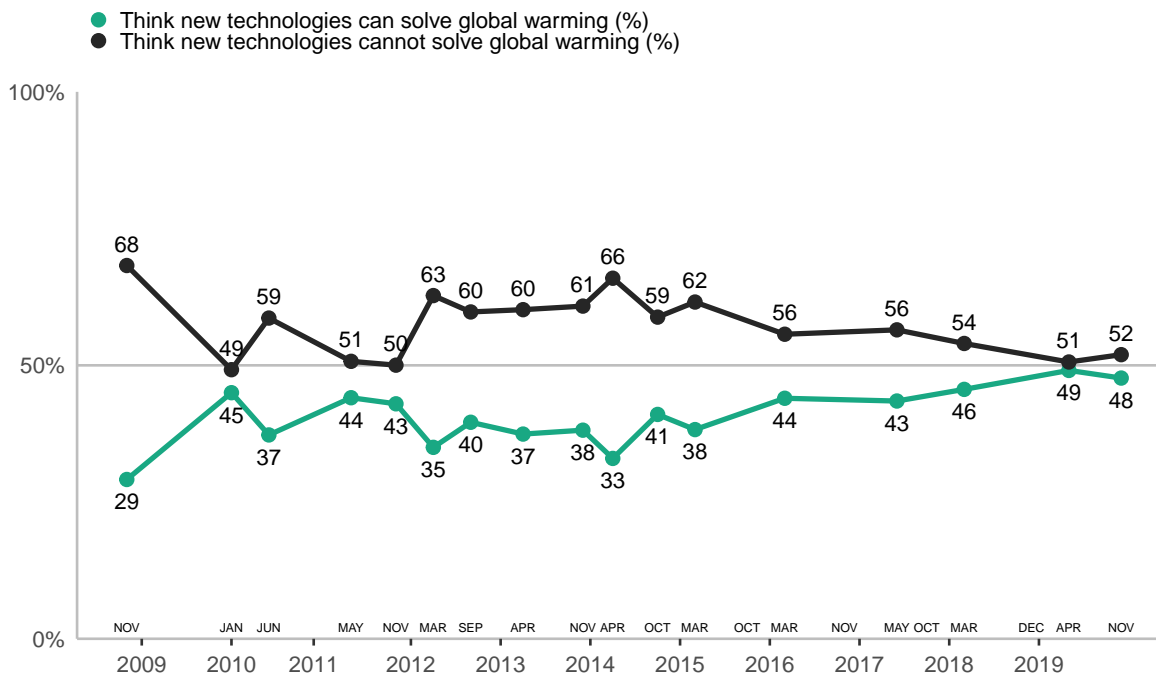
Few Americans think it is too late to do anything about global warming



6.2 Nearly half of Americans think new technologies can solve global warming.

Nearly half of Americans (48%) think new technologies can solve global warming without individuals having to make big changes in their lives. There has been an upward trend in this belief over the past five years, with the percentage increasing by seven percentage points since October 2014.

About half of Americans think new technologies can solve global warming



How much do you agree or disagree with the following statement?
New technologies can solve global warming without individuals having to make big changes in their lives.

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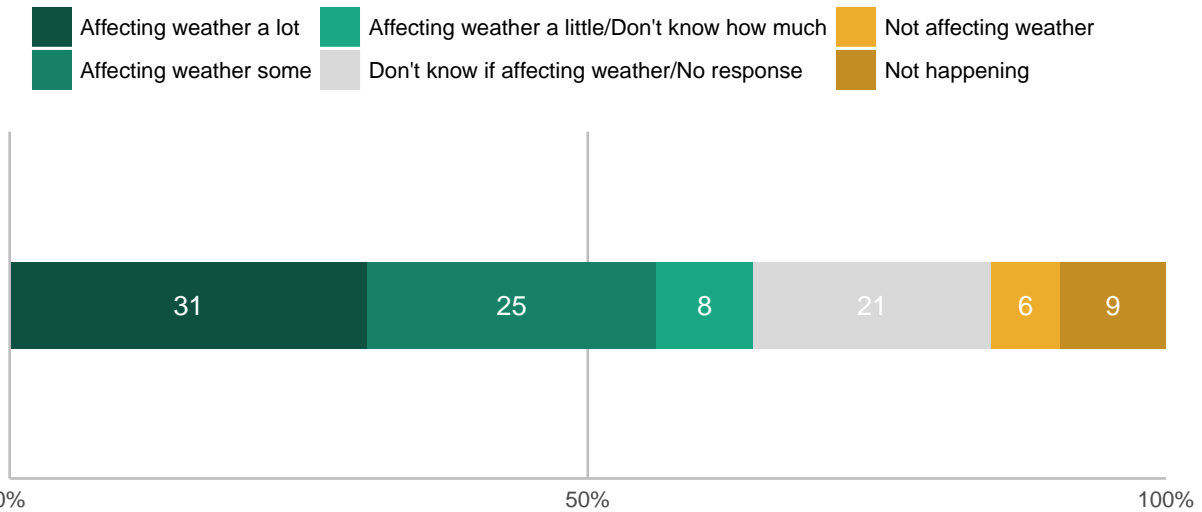


7 Global Warming and Severe Weather

7.1 More than six in ten Americans think global warming is affecting weather in the United States.

More than six in ten Americans (64%) think global warming is affecting weather in the United States, including more than half (56%) who think global warming is affecting U.S. weather either “a lot” (31%) or “some” (25%).

More than six in ten Americans think global warming is affecting weather in the United States



Which statement best reflects your view?

- (a) Global warming is affecting weather in the U.S.; (b) Global warming is not affecting weather in the U.S.;
(c) Global warming isn't happening; (d) Don't know; (e) Prefer not to answer.

[If (a) selected]: How much do you think global warming is affecting weather in the U.S.?

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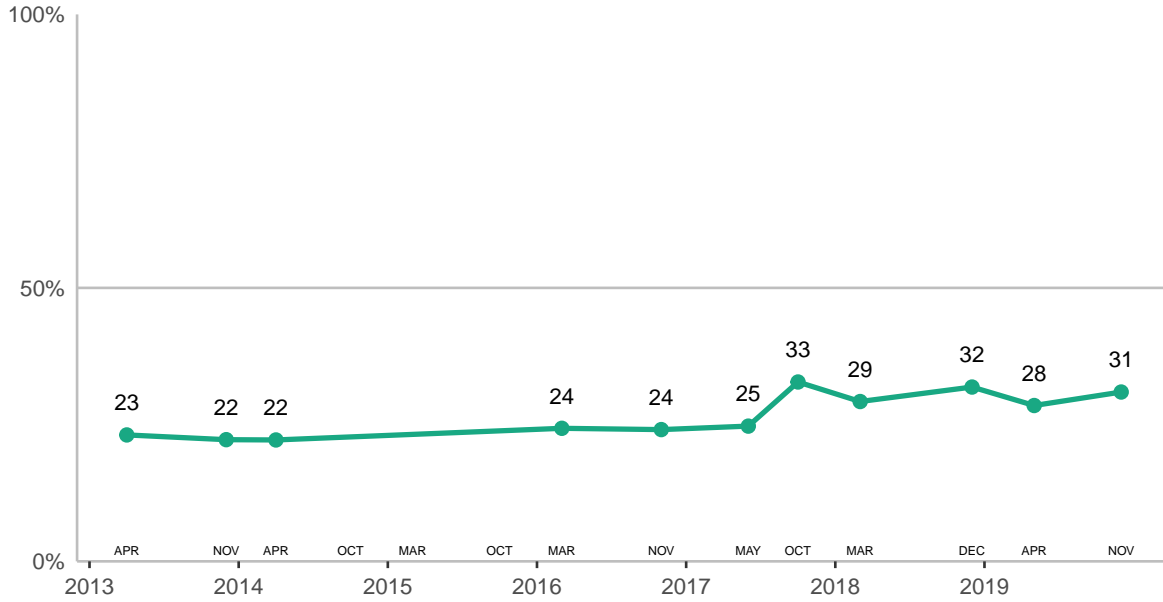


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About three in ten Americans (31%) think global warming is affecting weather “a lot.”

Three in Ten Americans Think Global Warming is Affecting Weather in the U.S. “a lot”

● Global warming is affecting weather in the U.S. 'a lot'



Which statement best reflects your view?

- (a) Global warming is affecting weather in the U.S.;
- (b) Global warming is not affecting weather in the U.S.;
- (c) Global warming isn't happening;
- (d) Don't know;
- (e) Prefer not to answer.

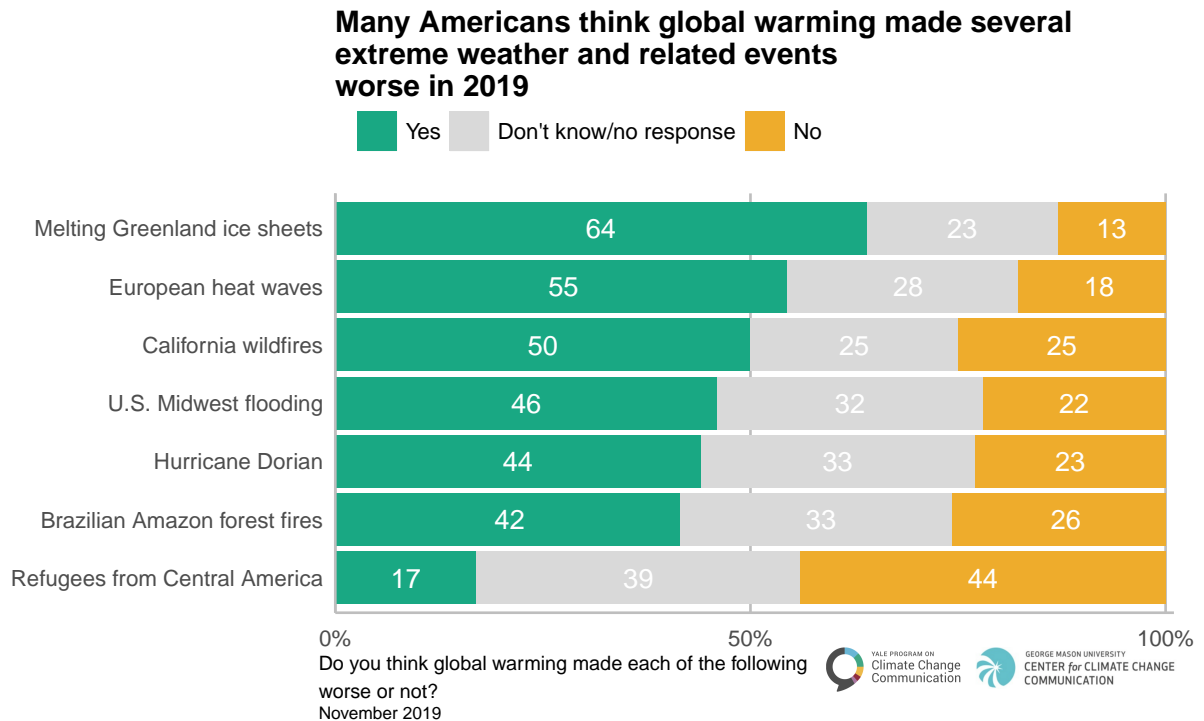
[If (a) selected]: How much do you think global warming is affecting weather in the U.S.?

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7.2 Many Americans think global warming made several extreme weather and related events worse in 2019.

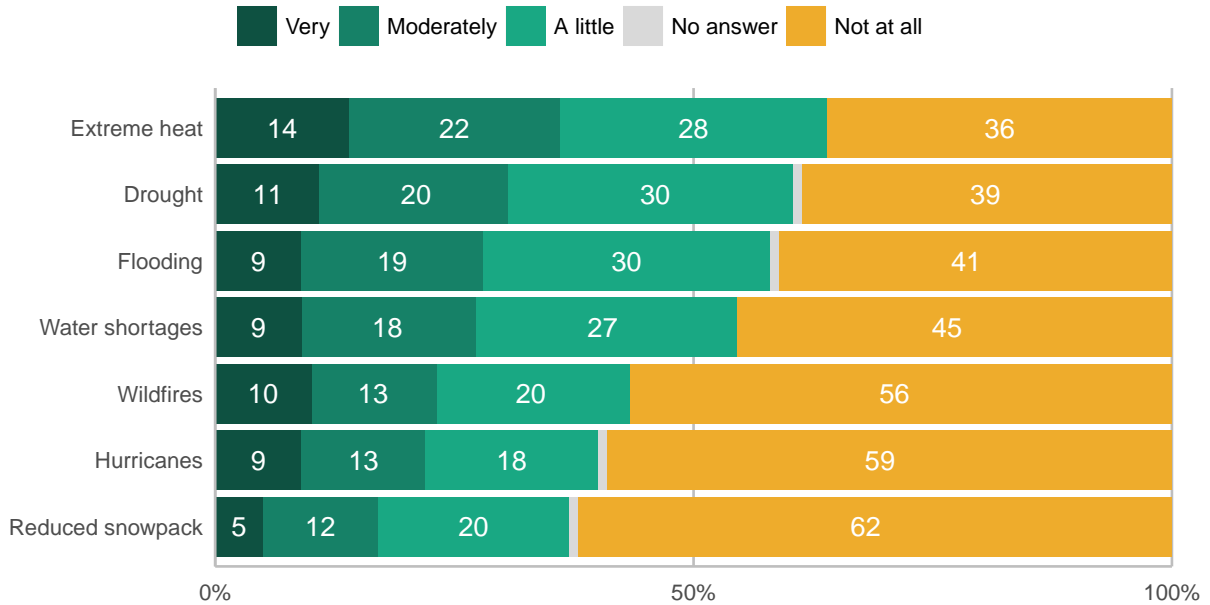
Nearly two in three Americans (64%) think global warming made melting of the Greenland ice sheets worse, and half or more think global warming made this summer's European heat waves (55%) and wildfires in California (50%) worse. Fewer think global warming made flooding in the U.S. Midwest (46%), Hurricane Dorian (44%), or forest fires in the Brazilian Amazon (42%) worse. Very few Americans (17%) think global warming made the flight of refugees from Central American countries worse.



7.3 A majority of Americans are worried about harm from extreme events in their local area.

A majority of Americans are at least “a little worried” about extreme events in their local areas, including extreme heat (64%), droughts (60%), flooding (58%), and/or water shortages (54%). Fewer are worried about wildfires (43%), hurricanes (40%), and/or reduced snow pack (37%).

A majority of Americans are worried about harm from extreme events in their local area



How worried are you that the following might harm your local area?

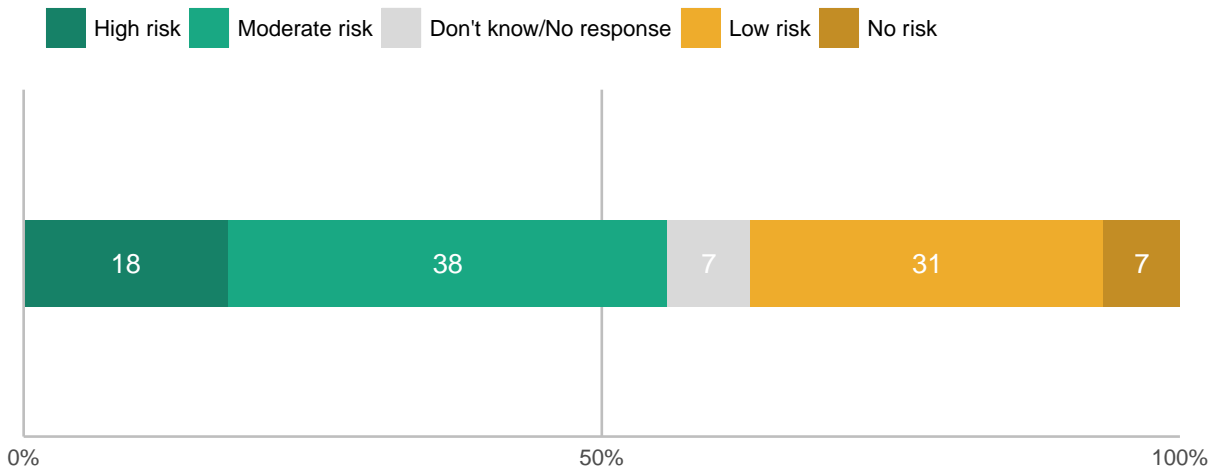
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7.4 A majority of Americans think extreme weather poses a risk to their community.

A majority of Americans (56%) think extreme weather poses either a “high” (18%) or “moderate” (38%) risk to their community over the next 10 years. Fewer (37%) think extreme weather poses either a “low” risk (31%) or “no” risk (7%).

A majority of Americans think extreme weather poses a risk to their community



In your opinion, over the next 10 years how much risk does extreme weather pose to your community?

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8 Appendix I: Data Tables

Note: NaN = “No available number” (i.e., the question was not asked in that survey wave).

(Base: Americans 18+)

Recently, you may have noticed that global warming has been getting some attention in the news. Global warming refers to the idea that the world’s average temperature has been increasing over the past 150 years, may be increasing more in the future, and that the world’s climate may change as a result.

What do you think: Do you think that global warming is happening?

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	2,164	1,001	1,024	1,010	1,000	1,008	1,061	1,045
Yes (%)	71	57	61	63	62	66	70	63
No (%)	10	20	18	18	16	14	12	16
Don't Know (%)	19	22	21	18	19	20	18	20

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	830	1,013	1,275	1,263	1,330	1,204	1,226	1,266
Yes (%)	62	64	66	63	67	70	70	70
No (%)	23	19	16	18	15	11	13	13
Don't Know (%)	14	17	18	19	18	18	17	16

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,304	1,278	1,114	1,291	1,303
Yes (%)	71	70	73	69	72
No (%)	13	14	14	16	12
Don't Know (%)	15	16	13	16	16

(Base: Americans 18+ who say global warming is happening)

How sure are you that global warming is happening?

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	1,537	567	624	634	617	662	743	658
Extremely sure (%)	35	24	20	21	22	19	27	27
Very sure (%)	37	35	36	33	34	34	30	33
Somewhat sure (%)	24	37	40	40	38	42	40	37
Not at all sure (%)	4	5	3	6	5	5	3	4

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	518	647	837	800	891	849	859	889
Extremely sure (%)	27	30	24	27	28	30	35	31
Very sure (%)	31	32	34	31	32	31	30	34
Somewhat sure (%)	39	33	38	38	37	34	32	33
Not at all sure (%)	3	4	4	3	3	4	4	2

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	931	897	813	887	937
Extremely sure (%)	34	41	42	39	43
Very sure (%)	31	29	28	28	30
Somewhat sure (%)	32	27	27	29	24
Not at all sure (%)	2	3	3	3	3

(Base: Americans 18+ who say global warming is not happening)

How sure are you that global warming is not happening?

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	210	200	186	179	162	140	131	168
Extremely sure (%)	26	27	20	21	21	15	14	18
Very sure (%)	28	30	31	30	37	41	27	28
Somewhat sure (%)	38	33	44	38	36	35	45	42
Not at all sure (%)	8	7	4	11	5	8	13	12

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	188	193	206	227	206	133	155	169
Extremely sure (%)	20	15	23	21	21	20	24	26
Very sure (%)	35	26	30	31	32	37	29	26
Somewhat sure (%)	36	47	35	37	36	34	39	41
Not at all sure (%)	9	12	11	11	12	9	8	7

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	171	175	156	200	160
Extremely sure (%)	19	15	20	22	32
Very sure (%)	33	39	30	31	24
Somewhat sure (%)	39	35	41	36	38
Not at all sure (%)	9	12	8	11	5

(Base: Americans 18+)

Assuming global warming is happening, do you think it is...

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	2,164	1,001	1,024	1,010	1,000	1,008	1,061	1,045
Caused mostly by human activities (%)	57	46	50	47	49	46	54	49
Caused mostly by natural changes (%)	32	35	34	35	32	37	32	33
Neither, because it isn't happening (%)	4	9	6	8	8	5	7	8
Other (caused by human activities and natural changes) (%)	5	6	7	7	6	9	5	7
Other (unclassified) (%)	1	1	1	1	2	2	1	2

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	830	1,013	1,275	1,263	1,330	1,204	1,226	1,266
Caused mostly by human activities (%)	47	52	51	52	53	53	55	58
Caused mostly by natural changes (%)	36	33	33	32	33	34	30	30
Neither, because it isn't happening (%)	8	7	9	10	8	7	8	6
Other (caused by human activities and natural changes) (%)	5	5	6	4	5	5	5	6
Other (unclassified) (%)	3	1	1	1	1	1	1	1

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,304	1,278	1,114	1,291	1,303
Caused mostly by human activities (%)	54	58	62	55	59
Caused mostly by natural changes (%)	33	28	23	32	30
Neither, because it isn't happening (%)	6	7	8	6	5
Other (caused by human activities and natural changes) (%)	6	5	6	6	5
Other (unclassified) (%)	1	1	0	1	1

(Base: Americans 18+)

What comes closest to your view?

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	2,164	1,001	1,024	1,010	1,000	1,008	1,061	1,045
Most scientists think global warming is happening (%)	46	33	34	38	40	34	44	42
Most scientists think global warming is not happening (%)	2	5	4	4	3	3	3	4
There is a lot of disagreement among scientists about whether or not global warming is happening (%)	33	39	45	39	38	41	36	33
Don't know enough to say (%)	18	21	17	18	17	21	18	20
Refused (%)	1	2	0	1	2	1	0	1

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	830	1,013	1,275	1,263	0	1,204	1,226	1,266
Most scientists think global warming is happening (%)	42	40	44	40	NaN	48	51	49
Most scientists think global warming is not happening (%)	6	5	3	3	NaN	3	3	3
There is a lot of disagreement among scientists about whether or not global warming is happening (%)	33	32	31	32	NaN	28	27	27
Don't know enough to say (%)	18	23	22	25	NaN	21	18	21
Refused (%)	1	0	0	0	NaN	0	0	0

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,304	1,278	1,114	1,291	1,303
Most scientists think global warming is happening (%)	56	49	57	53	55
Most scientists think global warming is not happening (%)	2	2	3	3	4
There is a lot of disagreement among scientists about whether or not global warming is happening (%)	27	27	25	25	24
Don't know enough to say (%)	14	21	14	19	17
Refused (%)	0	0	0	0	0

(Base: Americans 18+)

To the best of your knowledge, what percentage of climate scientists think that human-caused global warming is happening? Please click on the slider bar below to indicate your answer. You can slide the indicator to the position that best describes your opinion.

	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	1,013	1,275	1,263	1,330	1,204	1,226	1,266
0%-10% (%)	1	1	1	2	1	2	2
11%-20% (%)	1	1	1	2	1	1	1
21%-30% (%)	5	4	4	4	4	7	4
31%-40% (%)	3	2	2	2	2	3	3
41%-50% (%)	15	15	14	12	13	13	13
51%-60% (%)	8	7	6	5	6	6	7
61%-70% (%)	7	7	8	6	8	7	6
71%-80% (%)	14	17	15	18	15	17	14
81%-90% (%)	7	7	8	10	8	9	10
91%-100% (%)	9	9	9	12	11	15	13
Don't know enough to say	28	29	31	27	32	21	28

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,304	1,278	1,113	1,291	1,303
0%-10% (%)	1	1	1	1	2
11%-20% (%)	1	1	1	1	1
21%-30% (%)	5	4	1	2	2
31%-40% (%)	3	1	2	3	3
41%-50% (%)	13	10	15	17	10
51%-60% (%)	5	4	6	7	8
61%-70% (%)	5	5	6	7	8
71%-80% (%)	17	15	15	12	12
81%-90% (%)	10	10	11	10	11
91%-100% (%)	15	15	20	17	22
Don't know enough to say	24	34	22	21	21

(Base: Americans 18+)

How worried are you about global warming?

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	2,164	1,001	1,024	1,010	1,000	1,008	1,061	1,045
Very worried (%)	16	11	12	9	12	11	16	14
Somewhat worried (%)	46	37	41	42	41	42	42	37
Not very worried (%)	24	27	30	28	30	30	25	30
Not at all worried (%)	13	22	18	20	15	16	17	19
Refused (%)	1	2	0	1	2	1	0	0

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	830	1,013	1,275	1,263	1,330	1,204	1,226	1,266
Very worried (%)	15	15	11	11	16	16	19	17
Somewhat worried (%)	38	41	45	41	41	42	42	39
Not very worried (%)	26	27	26	29	27	25	24	27
Not at all worried (%)	20	18	18	19	16	18	15	17
Refused (%)	1	0	0	0	0	0	0	0

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,304	1,278	1,114	1,291	1,303
Very worried (%)	22	21	29	23	30
Somewhat worried (%)	42	41	40	39	36
Not very worried (%)	23	22	19	23	19
Not at all worried (%)	14	16	13	14	15
Refused (%)	0	0	0	0	0

(Base: Americans 18+)

How strongly do you feel each of the following emotions when you think about the issue of global warming?

Afraid

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	0	1,001	1,024	1,010	0	0	0	0
Refused (%)	NaN	5	3	4	NaN	NaN	NaN	NaN
Not at all (%)	NaN	34	34	33	NaN	NaN	NaN	NaN
Not very (%)	NaN	27	27	25	NaN	NaN	NaN	NaN
Moderately (%)	NaN	26	28	27	NaN	NaN	NaN	NaN
Very (%)	NaN	9	9	12	NaN	NaN	NaN	NaN

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	830	0	0	0	0	1,204	1,226	0
Refused (%)	3	NaN	NaN	NaN	NaN	1	1	NaN
Not at all (%)	34	NaN	NaN	NaN	NaN	30	29	NaN
Not very (%)	27	NaN	NaN	NaN	NaN	26	27	NaN
Moderately (%)	25	NaN	NaN	NaN	NaN	31	30	NaN
Very (%)	10	NaN	NaN	NaN	NaN	11	12	NaN

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,304	1,278	1,114	0	1,303
Refused (%)	2	3	1	NaN	1
Not at all (%)	22	28	24	NaN	30
Not very (%)	28	31	26	NaN	23
Moderately (%)	34	28	36	NaN	31
Very (%)	14	10	13	NaN	15

(Base: Americans 18+)

How strongly do you feel each of the following emotions when you think about the issue of global warming?
(Cont'd)

Helpless

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	0	1,001	1,024	1,010	0	0	0	0
Refused (%)	NaN	4	3	3	NaN	NaN	NaN	NaN
Not at all (%)	NaN	30	30	32	NaN	NaN	NaN	NaN
Not very (%)	NaN	23	23	20	NaN	NaN	NaN	NaN
Moderately (%)	NaN	29	32	33	NaN	NaN	NaN	NaN
Very (%)	NaN	13	11	12	NaN	NaN	NaN	NaN

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	830	0	0	0	1,330	1,204	1,226	0
Refused (%)	3	NaN	NaN	NaN	1	1	1	NaN
Not at all (%)	30	NaN	NaN	NaN	21	27	26	NaN
Not very (%)	24	NaN	NaN	NaN	25	23	26	NaN
Moderately (%)	27	NaN	NaN	NaN	39	36	34	NaN
Very (%)	15	NaN	NaN	NaN	14	13	12	NaN

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,304	1,278	1,114	0	1,303
Refused (%)	2	3	1	NaN	1
Not at all (%)	20	25	24	NaN	26
Not very (%)	26	27	25	NaN	20
Moderately (%)	37	35	37	NaN	36
Very (%)	15	10	14	NaN	17

(Base: Americans 18+)

How strongly do you feel each of the following emotions when you think about this issue of global warming?
(Cont'd)

Interested

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	0	1,001	1,024	1,010	0	0	0	0
Refused (%)	NaN	5	3	3	NaN	NaN	NaN	NaN
Not at all (%)	NaN	18	15	18	NaN	NaN	NaN	NaN
Not very (%)	NaN	15	15	15	NaN	NaN	NaN	NaN
Moderately (%)	NaN	42	47	42	NaN	NaN	NaN	NaN
Very (%)	NaN	20	19	22	NaN	NaN	NaN	NaN

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	830	0	0	0	1,330	1,204	1,226	0
Refused (%)	3	NaN	NaN	NaN	1	1	1	NaN
Not at all (%)	19	NaN	NaN	NaN	14	16	18	NaN
Not very (%)	19	NaN	NaN	NaN	18	16	15	NaN
Moderately (%)	38	NaN	NaN	NaN	43	45	43	NaN
Very (%)	21	NaN	NaN	NaN	23	22	23	NaN

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,304	1,278	1,114	0	1,303
Refused (%)	1	2	1	NaN	1
Not at all (%)	12	15	12	NaN	18
Not very (%)	20	20	18	NaN	17
Moderately (%)	43	42	44	NaN	41
Very (%)	24	19	25	NaN	23

(Base: Americans 18+)

How strongly do you feel each of the following emotions when you think about the issue of global warming?
(Cont'd)

Angry

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	0	1,001	1,024	1,010	0	0	0	0
Refused (%)	NaN	4	3	3	NaN	NaN	NaN	NaN
Not at all (%)	NaN	27	30	32	NaN	NaN	NaN	NaN
Not very (%)	NaN	26	28	28	NaN	NaN	NaN	NaN
Moderately (%)	NaN	28	30	25	NaN	NaN	NaN	NaN
Very (%)	NaN	15	10	12	NaN	NaN	NaN	NaN

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	830	0	0	0	0	1,204	1,226	0
Refused (%)	3	NaN	NaN	NaN	NaN	1	1	NaN
Not at all (%)	32	NaN	NaN	NaN	NaN	29	30	NaN
Not very (%)	30	NaN	NaN	NaN	NaN	29	31	NaN
Moderately (%)	22	NaN	NaN	NaN	NaN	29	26	NaN
Very (%)	13	NaN	NaN	NaN	NaN	12	12	NaN

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,304	1,278	1,114	0	1,303
Refused (%)	2	2	1	NaN	1
Not at all (%)	22	28	24	NaN	31
Not very (%)	28	31	27	NaN	23
Moderately (%)	32	28	33	NaN	29
Very (%)	16	11	15	NaN	16

(Base: Americans 18+)

How strongly do you feel each of the following emotions when you think about the issue of global warming?
(Cont'd)

Hopeful

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	0	1,001	1,024	1,010	0	0	0	0
Refused (%)	NaN	5	3	4	NaN	NaN	NaN	NaN
Not at all (%)	NaN	23	24	25	NaN	NaN	NaN	NaN
Not very (%)	NaN	29	29	27	NaN	NaN	NaN	NaN
Moderately (%)	NaN	34	35	34	NaN	NaN	NaN	NaN
Very (%)	NaN	9	10	9	NaN	NaN	NaN	NaN

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	830	0	0	0	1,330	1,204	1,226	0
Refused (%)	3	NaN	NaN	NaN	1	1	1	NaN
Not at all (%)	24	NaN	NaN	NaN	17	20	21	NaN
Not very (%)	31	NaN	NaN	NaN	32	30	30	NaN
Moderately (%)	33	NaN	NaN	NaN	39	38	38	NaN
Very (%)	9	NaN	NaN	NaN	11	10	11	NaN

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,304	1,278	1,114	0	1,303
Refused (%)	2	3	1	NaN	1
Not at all (%)	16	19	17	NaN	22
Not very (%)	39	36	34	NaN	34
Moderately (%)	37	35	38	NaN	33
Very (%)	7	7	10	NaN	9

(Base: Americans 18+)

How strongly do you feel each of the following emotions when you think about the issue of global warming?
(Cont'd)

Guilty

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	0	1,001	1,024	1,010	0	0	0	0
Refused (%)	NaN	5	3	4	NaN	NaN	NaN	NaN
Not at all (%)	NaN	40	40	41	NaN	NaN	NaN	NaN
Not very (%)	NaN	31	31	29	NaN	NaN	NaN	NaN
Moderately (%)	NaN	20	23	22	NaN	NaN	NaN	NaN
Very (%)	NaN	4	3	4	NaN	NaN	NaN	NaN

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	830	0	0	0	0	0	0	0
Refused (%)	3	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Not at all (%)	42	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Not very (%)	29	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Moderately (%)	22	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Very (%)	4	NaN	NaN	NaN	NaN	NaN	NaN	NaN

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	0	0	0	0	1,303
Refused (%)	NaN	NaN	NaN	NaN	1
Not at all (%)	NaN	NaN	NaN	NaN	36
Not very (%)	NaN	NaN	NaN	NaN	30
Moderately (%)	NaN	NaN	NaN	NaN	27
Very (%)	NaN	NaN	NaN	NaN	6

(Base: Americans 18+)

How strongly do you feel each of the following emotions when you think about the issue of global warming?
(Cont'd)

Disgusted

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	0	1,001	1,024	1,010	0	0	0	0
Refused (%)	NaN	5	4	4	NaN	NaN	NaN	NaN
Not at all (%)	NaN	24	27	28	NaN	NaN	NaN	NaN
Not very (%)	NaN	22	23	22	NaN	NaN	NaN	NaN
Moderately (%)	NaN	29	33	31	NaN	NaN	NaN	NaN
Very (%)	NaN	20	14	15	NaN	NaN	NaN	NaN

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	830	0	0	0	0	1,204	1,226	0
Refused (%)	3	NaN	NaN	NaN	NaN	1	1	NaN
Not at all (%)	29	NaN	NaN	NaN	NaN	26	28	NaN
Not very (%)	26	NaN	NaN	NaN	NaN	25	28	NaN
Moderately (%)	25	NaN	NaN	NaN	NaN	34	28	NaN
Very (%)	17	NaN	NaN	NaN	NaN	14	15	NaN

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,304	1,278	1,114	0	1,303
Refused (%)	2	3	1	NaN	1
Not at all (%)	19	25	22	NaN	28
Not very (%)	25	26	24	NaN	21
Moderately (%)	33	33	34	NaN	30
Very (%)	22	14	19	NaN	20

(Base: Americans 18+)

How strongly do you feel each of the following emotions when you think about the issue of global warming?
(Cont'd)

Outraged

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	0	0	0	0	0	0	0	0
Refused (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Not at all (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Not very (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Moderately (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Very (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	0	0	0	0	0	1,204	1,226	0
Refused (%)	NaN	NaN	NaN	NaN	NaN	1	1	NaN
Not at all (%)	NaN	NaN	NaN	NaN	NaN	30	31	NaN
Not very (%)	NaN	NaN	NaN	NaN	NaN	28	32	NaN
Moderately (%)	NaN	NaN	NaN	NaN	NaN	29	24	NaN
Very (%)	NaN	NaN	NaN	NaN	NaN	12	12	NaN

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,304	1,278	1,114	0	1,303
Refused (%)	2	3	1	NaN	1
Not at all (%)	23	29	27	NaN	32
Not very (%)	32	32	29	NaN	22
Moderately (%)	28	26	29	NaN	28
Very (%)	15	11	14	NaN	17

(Base: Americans 18+)

How strongly do you feel each of the following emotions when you think about the issue of global warming?
(Cont'd)

Ashamed

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	0	0	0	0	0	0	0	0
Refused (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Not at all (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Not very (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Moderately (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Very (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	0	0	0	0	0	0	0	0
Refused (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Not at all (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Not very (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Moderately (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Very (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	0	0	0	0	1,303
Refused (%)	NaN	NaN	NaN	NaN	1
Not at all (%)	NaN	NaN	NaN	NaN	38
Not very (%)	NaN	NaN	NaN	NaN	26
Moderately (%)	NaN	NaN	NaN	NaN	25
Very (%)	NaN	NaN	NaN	NaN	10

(Base: Americans 18+)

How strongly do you feel each of the following emotions when you think about the issue of global warming?
(Cont'd)

Courageous

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	0	0	0	0	0	0	0	0
Refused (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Not at all (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Not very (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Moderately (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Very (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	0	0	0	0	0	0	0	0
Refused (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Not at all (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Not very (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Moderately (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Very (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	0	0	0	0	1,303
Refused (%)	NaN	NaN	NaN	NaN	2
Not at all (%)	NaN	NaN	NaN	NaN	33
Not very (%)	NaN	NaN	NaN	NaN	38
Moderately (%)	NaN	NaN	NaN	NaN	23
Very (%)	NaN	NaN	NaN	NaN	6

(Base: Americans 18+)

How much do you agree with the following statements?

I have personally experienced the effects of global warming.

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	2,164	1,001	1,024	1,010	1,000	1,008	1,061	1,045
Strongly Agree (%)	4	4	5	5	7	5	4	6
Somewhat Agree (%)	28	19	24	27	28	30	34	33
Somewhat Disagree (%)	42	32	34	32	34	30	30	29
Strongly Disagree (%)	24	37	34	30	23	33	31	31
Refused (%)	2	7	3	6	8	2	0	2

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	830	1,013	1,275	1,263	0	1,204	1,226	1,266
Strongly Agree (%)	6	5	4	4	NaN	7	7	5
Somewhat Agree (%)	27	29	26	27	NaN	33	29	34
Somewhat Disagree (%)	30	29	29	29	NaN	29	29	29
Strongly Disagree (%)	36	35	41	40	NaN	31	35	31
Refused (%)	1	1	0	0	NaN	0	0	0

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,304	1,278	1,114	1,291	1,303
Strongly Agree (%)	8	5	11	6	10
Somewhat Agree (%)	36	36	35	32	35
Somewhat Disagree (%)	30	27	24	28	23
Strongly Disagree (%)	26	32	31	33	31
Refused (%)	0	0	0	0	0

(Base: Americans 18+)

When do you think global warming will start to harm people in the United States?

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	2,164	1,001	1,024	1,010	1,000	1,008	1,061	1,045
They are being harmed now (%)	33	24	28	31	29	29	36	34
In 10 years (%)	13	12	12	11	10	11	13	11
In 25 years (%)	13	13	11	13	13	13	11	12
In 50 years (%)	13	12	13	12	15	14	12	12
In 100 years (%)	12	13	14	11	15	15	13	13
Never (%)	14	23	19	19	16	15	15	17
Refused (%)	3	2	3	2	3	2	1	1

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	830	1,013	1,275	1,263	1,330	1,204	1,226	1,266
They are being harmed now (%)	34	32	33	32	34	38	36	35
In 10 years (%)	10	9	10	10	13	12	14	11
In 25 years (%)	14	14	14	13	14	13	15	13
In 50 years (%)	11	15	12	11	11	12	10	13
In 100 years (%)	12	14	13	13	10	10	9	13
Never (%)	18	16	18	20	18	14	16	15
Refused (%)	2	1	0	0	0	0	0	0

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,304	1,278	1,114	1,291	1,303
They are being harmed now (%)	42	39	48	38	45
In 10 years (%)	12	11	7	10	12
In 25 years (%)	12	12	14	13	12
In 50 years (%)	11	12	7	11	9
In 100 years (%)	11	11	9	12	9
Never (%)	12	15	14	15	14
Refused (%)	0	0	0	0	0

(Base: Americans 18+)

How much do you think global warming will harm...?

You personally

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	2,164	1,001	1,024	1,010	1,000	1,008	1,061	1,045
A great deal (%)	9	13	10	11	9	11	16	15
Moderate amount (%)	22	23	21	18	20	18	26	25
Only a little (%)	24	21	27	27	28	30	25	26
Not at all (%)	22	30	24	25	24	29	20	23
Don't know (%)	23	11	18	17	16	11	13	11
Refused (%)	1	2	0	2	3	1	0	1

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	830	1,013	1,275	1,263	1,330	1,204	1,226	1,266
A great deal (%)	13	13	12	10	14	12	14	13
Moderate amount (%)	25	25	24	26	27	28	27	29
Only a little (%)	27	26	26	26	26	24	25	26
Not at all (%)	26	25	27	25	20	23	25	22
Don't know (%)	8	10	11	13	12	12	8	9
Refused (%)	1	1	0	0	0	0	0	0

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,304	1,278	1,114	1,291	1,303
A great deal (%)	16	14	22	14	18
Moderate amount (%)	33	28	27	29	26
Only a little (%)	24	27	20	24	24
Not at all (%)	19	20	20	25	22
Don't know (%)	7	11	10	8	11
Refused (%)	0	0	0	0	0

(Base: Americans 18+)

How much do you think global warming will harm...? (Cont'd)

Your family

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	2,164	1,001	1,024	1,010	1,000	1,008	1,061	1,045
A great deal (%)	11	15	11	12	10	12	18	17
Moderate amount (%)	24	25	25	21	23	21	28	27
Only a little (%)	23	21	23	25	27	28	23	23
Not at all (%)	18	27	21	23	21	26	17	20
Don't know (%)	23	11	19	17	17	12	14	11
Refused (%)	1	2	0	2	2	1	0	1

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	830	1,013	1,275	1,263	0	1,204	1,226	1,266
A great deal (%)	17	16	15	13	NaN	15	17	16
Moderate amount (%)	25	27	28	28	NaN	30	30	31
Only a little (%)	25	24	23	23	NaN	22	24	25
Not at all (%)	24	21	23	22	NaN	21	21	19
Don't know (%)	8	11	11	13	NaN	12	8	9
Refused (%)	1	1	0	0	NaN	0	0	0

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,304	1,278	1,114	1,291	1,303
A great deal (%)	19	17	27	18	21
Moderate amount (%)	35	30	29	30	28
Only a little (%)	22	25	17	22	22
Not at all (%)	16	17	17	22	18
Don't know (%)	8	12	9	9	11
Refused (%)	0	0	0	0	0

(Base: Americans 18+)

How much do you think global warming will harm...? (Cont'd)

People in your community

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	2,164	1,001	1,024	1,010	1,000	1,008	1,061	1,045
A great deal (%)	13	15	11	12	10	12	19	17
Moderate amount (%)	26	27	25	21	23	21	29	28
Only a little (%)	20	21	23	25	26	29	23	23
Not at all (%)	17	24	21	21	20	24	15	18
Don't know (%)	23	11	19	18	17	13	13	13
Refused (%)	1	3	0	2	3	2	0	1

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	830	1,013	1,275	1,263	0	1,204	1,226	1,266
A great deal (%)	14	16	16	14	NaN	15	19	16
Moderate amount (%)	29	28	27	29	NaN	31	30	32
Only a little (%)	24	24	23	24	NaN	23	22	23
Not at all (%)	23	20	22	20	NaN	19	20	18
Don't know (%)	9	11	11	14	NaN	12	9	10
Refused (%)	1	1	0	0	NaN	0	0	0

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,304	1,278	1,114	1,291	1,303
A great deal (%)	21	17	27	19	22
Moderate amount (%)	34	32	30	30	29
Only a little (%)	22	22	16	22	20
Not at all (%)	15	16	16	21	17
Don't know (%)	8	12	10	8	11
Refused (%)	0	0	0	0	0

(Base: Americans 18+)

How much do you think global warming will harm...? (Cont'd)

People in the United States

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	2,164	1,001	1,024	1,010	1,000	1,008	1,061	1,045
A great deal (%)	21	22	16	16	15	18	26	22
Moderate amount (%)	28	28	28	26	28	28	31	30
Only a little (%)	15	15	21	22	23	23	17	18
Not at all (%)	13	21	17	17	16	17	12	16
Don't know (%)	22	12	17	18	16	12	13	12
Refused (%)	1	3	0	2	3	2	0	1

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	830	1,013	1,275	1,263	1,330	1,204	1,226	1,266
A great deal (%)	23	23	23	19	23	24	28	25
Moderate amount (%)	30	30	30	30	33	35	32	33
Only a little (%)	19	18	20	20	18	16	17	19
Not at all (%)	20	18	17	17	14	15	15	15
Don't know (%)	7	10	11	14	12	10	8	9
Refused (%)	1	1	0	0	0	0	0	0

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,304	1,278	1,114	1,291	1,303
A great deal (%)	34	28	38	30	35
Moderate amount (%)	33	30	27	28	30
Only a little (%)	14	18	12	15	12
Not at all (%)	11	12	13	17	13
Don't know (%)	7	12	10	9	10
Refused (%)	0	0	0	0	0

(Base: Americans 18+)

How much do you think global warming will harm...? (Cont'd)

People in developing countries

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	2,164	1,001	1,024	1,010	1,000	1,008	1,061	1,045
A great deal (%)	31	28	22	23	22	26	35	30
Moderate amount (%)	21	24	27	21	27	25	29	25
Only a little (%)	10	14	17	19	17	18	10	18
Not at all (%)	13	19	15	16	15	16	11	13
Don't know (%)	24	13	18	18	17	14	15	13
Refused (%)	1	2	0	2	3	2	0	1

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	830	1,013	1,275	1,263	1,330	1,204	1,226	1,266
A great deal (%)	32	31	29	27	34	36	40	37
Moderate amount (%)	24	24	26	26	27	27	25	25
Only a little (%)	17	17	16	17	13	12	12	16
Not at all (%)	19	16	17	15	13	13	13	13
Don't know (%)	8	11	12	15	13	12	11	9
Refused (%)	1	1	0	0	0	0	0	0

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,304	1,278	1,114	1,291	1,303
A great deal (%)	47	38	48	42	48
Moderate amount (%)	25	24	20	22	19
Only a little (%)	10	12	8	11	8
Not at all (%)	10	12	11	15	12
Don't know (%)	9	13	13	10	12
Refused (%)	0	0	0	0	0

(Base: Americans 18+)

How much do you think global warming will harm...? (Cont'd)

The world's poor

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	0	0	0	0	0	0	0	0
A great deal (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Moderate amount (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Only a little (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Not at all (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Don't know (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Refused (%)	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	0	0	0	1,259	1,330	1,204	1,226	1,266
A great deal (%)	NaN	NaN	NaN	30	36	40	43	39
Moderate amount (%)	NaN	NaN	NaN	23	25	22	21	23
Only a little (%)	NaN	NaN	NaN	16	12	12	11	15
Not at all (%)	NaN	NaN	NaN	16	13	13	13	13
Don't know (%)	NaN	NaN	NaN	15	13	14	12	10
Refused (%)	NaN	NaN	NaN	0	0	0	0	0

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,304	1,278	1,114	1,291	1,303
A great deal (%)	49	40	50	44	50
Moderate amount (%)	21	22	17	20	16
Only a little (%)	10	13	8	11	9
Not at all (%)	10	12	12	15	13
Don't know (%)	9	13	13	10	12
Refused (%)	0	0	0	0	0

(Base: Americans 18+)

How much do you think global warming will harm...? (Cont'd)

Future generations of people

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	2,164	1,001	1,024	1,010	1,000	1,008	1,061	1,045
A great deal (%)	43	41	39	36	40	42	47	42
Moderate amount (%)	17	21	22	22	21	22	21	21
Only a little (%)	7	9	11	10	13	12	9	12
Not at all (%)	10	15	12	11	9	11	8	12
Don't know (%)	22	12	16	18	15	13	14	12
Refused (%)	2	3	1	3	2	1	0	1

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	830	1,013	1,275	1,263	1,330	1,204	1,226	1,266
A great deal (%)	46	49	46	42	51	48	53	50
Moderate amount (%)	19	18	18	21	19	22	18	20
Only a little (%)	11	10	11	10	8	8	9	10
Not at all (%)	15	11	13	12	11	10	10	11
Don't know (%)	9	11	13	15	11	11	10	8
Refused (%)	1	1	0	0	0	0	0	0

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,304	1,278	1,114	1,291	1,303
A great deal (%)	54	52	59	52	57
Moderate amount (%)	21	18	16	17	15
Only a little (%)	8	9	6	9	7
Not at all (%)	9	9	9	13	10
Don't know (%)	8	12	10	9	11
Refused (%)	0	0	0	0	0

(Base: Americans 18+)

How much do you think global warming will harm...? (Cont'd)

Plant and animal species

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	2,164	1,001	1,024	1,010	1,000	1,008	1,061	1,045
A great deal (%)	45	41	40	38	40	43	43	39
Moderate amount (%)	17	19	20	18	18	21	25	24
Only a little (%)	8	10	12	12	15	13	11	13
Not at all (%)	9	15	13	12	9	10	8	13
Don't know (%)	20	12	15	17	14	12	13	10
Refused (%)	2	3	1	2	3	1	0	1

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	830	1,013	1,275	1,263	0	1,204	1,226	1,266
A great deal (%)	46	47	44	42	NaN	48	50	49
Moderate amount (%)	19	19	20	21	NaN	23	19	22
Only a little (%)	11	12	10	12	NaN	9	10	10
Not at all (%)	15	12	13	12	NaN	11	11	11
Don't know (%)	7	10	12	13	NaN	10	9	8
Refused (%)	1	1	0	0	NaN	0	0	0

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,304	1,278	1,114	1,291	1,303
A great deal (%)	54	53	58	52	57
Moderate amount (%)	21	18	16	19	16
Only a little (%)	9	9	8	10	7
Not at all (%)	8	9	9	11	10
Don't know (%)	7	10	9	8	10
Refused (%)	0	0	0	0	0

(Base: Americans 18+)

How often do you discuss global warming with your family and friends?

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	2,164	1,001	1,024	1,010	1,000	1,008	1,061	1,045
Often (%)	5	6	5	4	4	5	3	4
Occasionally (%)	35	29	30	26	26	24	26	28
Rarely (%)	33	34	39	41	39	40	38	39
Never (%)	26	30	25	28	29	30	34	28
Refused (%)	1	2	0	1	2	1	0	0

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	830	1,013	1,275	1,263	1,330	1,204	1,226	1,266
Often (%)	3	4	3	3	5	4	6	5
Occasionally (%)	23	28	24	23	29	27	27	28
Rarely (%)	38	39	36	38	33	36	36	36
Never (%)	34	29	37	36	32	32	31	31
Refused (%)	1	0	0	0	0	0	0	0

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,304	1,278	1,114	1,291	1,303
Often (%)	6	5	8	6	9
Occasionally (%)	32	30	34	31	32
Rarely (%)	37	34	33	33	32
Never (%)	25	31	26	30	27
Refused (%)	0	0	0	0	0

(Base: Americans 18+)

About how often do you hear people you know (your family, friends, co-workers, etc.) talk about global warming?

	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017	Oct 2017	Mar 2018
(Unweighted Base)	1,263	1,330	1,204	0	1,266	1,304	1,278
At least once a week (%)	4	6	5	NaN	6	7	5
At least once a month (%)	12	15	13	NaN	13	17	15
Several times a year (%)	23	22	25	NaN	21	24	24
Once a year or less often (%)	21	22	19	NaN	22	21	20
Never (%)	25	26	24	NaN	28	18	22
Not sure (%)	14	9	13	NaN	10	12	13
Refused (%)	0	1	1	NaN	1	1	1

	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,114	1,291	1,303
At least once a week (%)	9	8	8
At least once a month (%)	17	15	16
Several times a year (%)	24	23	23
Once a year or less often (%)	19	16	15
Never (%)	22	24	25
Not sure (%)	7	12	12
Refused (%)	1	1	1

(Base: Americans 18+)

About how often do you hear about global warming in the media (TV, movies, radio, newspapers/news websites, magazines, etc.)?

	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017	Oct 2017	Mar 2018
(Unweighted Base)	1,263	1,330	1,204	0	1,266	1,304	1,278
At least once a week (%)	19	25	22	NaN	23	24	20
At least once a month (%)	21	23	22	NaN	20	28	23
Several times a year (%)	30	26	26	NaN	26	25	28
Once a year or less often (%)	8	8	8	NaN	9	7	9
Never (%)	6	6	7	NaN	9	3	7
Not sure (%)	15	11	15	NaN	11	13	12
Refused (%)	0	1	0	NaN	1	1	1

	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,114	1,291	1,303
At least once a week (%)	34	31	35
At least once a month (%)	22	20	21
Several times a year (%)	22	21	19
Once a year or less often (%)	5	6	6
Never (%)	6	8	6
Not sure (%)	8	13	13
Refused (%)	2	1	1

(Base: Americans 18+)

Over the past year, have you seen more or less coverage of global warming in the media?

(Unweighted Base)	1,303
Much more (%)	12
Somewhat more (%)	32
About the same amount (%)	42
Somewhat less (%)	8
Much less (%)	4
Refused (%)	1

(Base: Americans 18+)

How important is the issue of global warming to you personally?

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	2,164	1,001	1,024	1,010	1,000	1,008	1,061	1,045
Extremely important (%)	10	5	6	7	6	6	6	8
Very important (%)	20	14	18	15	13	14	17	13
Somewhat important (%)	39	37	38	37	40	40	36	36
Not too important (%)	18	23	24	24	24	23	24	24
Not at all important (%)	11	19	14	14	15	16	17	18
Refused (%)	1	2	0	2	2	2	0	0

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	830	1,013	1,275	1,263	1,330	1,204	1,226	1,266
Extremely important (%)	8	8	5	6	7	9	10	10
Very important (%)	14	17	16	15	18	17	17	16
Somewhat important (%)	33	38	37	35	37	35	34	38
Not too important (%)	25	21	24	24	21	21	22	22
Not at all important (%)	18	16	18	20	17	17	16	15
Refused (%)	1	0	0	0	0	0	0	0

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,304	1,278	1,114	1,291	1,303
Extremely important (%)	12	10	16	12	18
Very important (%)	19	18	24	18	24
Somewhat important (%)	37	35	32	33	26
Not too important (%)	19	22	15	19	18
Not at all important (%)	14	15	14	17	16
Refused (%)	0	0	0	0	0

(Base: Americans 18+)

How much of an effort do your family and friends make to reduce global warming?

	May 2017	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,266	0	0	1,114	1,291	1,303
A great deal of effort (%)	3	NaN	NaN	4	3	3
A lot of effort (%)	8	NaN	NaN	7	8	7
A moderate amount of effort (%)	31	NaN	NaN	29	30	30
A little effort (%)	29	NaN	NaN	29	24	28
No effort (%)	19	NaN	NaN	16	19	16
Don't know (%)	10	NaN	NaN	14	15	15
Refused (%)	0	NaN	NaN	1	1	1

(Base: Americans 18+)

How important is it to your family and friends that you take action to reduce global warming?

	May 2017	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,266	0	0	1,114	1,291	1,303
Extremely important (%)	5	NaN	NaN	6	5	6
Very important (%)	13	NaN	NaN	13	14	11
Somewhat important (%)	27	NaN	NaN	27	26	26
Not too important (%)	23	NaN	NaN	19	17	20
Not at all important (%)	20	NaN	NaN	18	19	19
Don't know (%)	11	NaN	NaN	16	17	17
Refused (%)	0	NaN	NaN	1	2	1

(Base: Americans 18+)

Please indicate how strongly you agree or disagree with the following statement.

It's already too late to do anything about global warming

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	726	0	0	0	0	0	0	0
Strongly disagree (%)	30	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Somewhat disagree (%)	32	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Somewhat agree (%)	12	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Strongly agree (%)	2	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Don't know (%)	17	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Prefer not to answer (%)	3	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Refused (%)	3	NaN	NaN	NaN	NaN	NaN	NaN	NaN

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	0	0	1,114	1,291	1,303
Strongly disagree (%)	NaN	NaN	38	39	38
Somewhat disagree (%)	NaN	NaN	28	25	28
Somewhat agree (%)	NaN	NaN	12	9	9
Strongly agree (%)	NaN	NaN	2	3	3
Don't know (%)	NaN	NaN	15	17	16
Prefer not to answer (%)	NaN	NaN	4	5	5
Refused (%)	NaN	NaN	1	1	1

(Base: Americans 18+)

How much do you agree or disagree with the following statements?

New technologies can solve global warming without individuals having to make big changes in their lives.

	Nov 2008	Jan 2010	Jun 2010	May 2011	Nov 2011	Mar 2012	Sep 2012	Apr 2013
(Unweighted Base)	2,164	1,001	1,024	1,010	1,000	1,008	1,061	1,045
Strongly Agree (%)	4	5	6	7	6	6	5	5
Somewhat Agree (%)	25	40	31	37	37	29	34	32
Somewhat Disagree (%)	44	32	38	31	35	35	35	35
Strongly Disagree (%)	24	18	20	20	15	27	25	25
Refused (%)	3	6	4	5	7	2	1	2

	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016	May 2017
(Unweighted Base)	830	1,013	1,275	1,263	0	1,204	0	1,266
Strongly Agree (%)	6	4	6	6	NaN	8	NaN	7
Somewhat Agree (%)	32	29	35	33	NaN	36	NaN	37
Somewhat Disagree (%)	34	39	33	36	NaN	33	NaN	37
Strongly Disagree (%)	26	27	26	25	NaN	22	NaN	19
Refused (%)	1	1	0	0	NaN	0	NaN	0

	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	0	1,278	0	1,291	1,303
Strongly Agree (%)	NaN	8	NaN	10	12
Somewhat Agree (%)	NaN	38	NaN	39	36
Somewhat Disagree (%)	NaN	33	NaN	33	31
Strongly Disagree (%)	NaN	21	NaN	18	21
Refused (%)	NaN	0	NaN	0	0

@

(Base: Americans 18+)

Which statement best reflects your view?

[For those who respond "global warming is affecting weather in the United States"]

How much do you think global warming is affecting weather in the United States?

	Apr 2013	Nov 2013	Apr 2014	Oct 2014	Mar 2015	Oct 2015	Mar 2016	Nov 2016
(Unweighted Base)	510	406	1,013	0	0	0	1,204	1,226
Global warming is affecting weather in the United States (%)	58	56	57	NaN	NaN	NaN	60	59
<i>Affecting weather a lot (%)</i>	23	22	22	NaN	NaN	NaN	24	24
<i>Affecting weather some (%)</i>	27	26	25	NaN	NaN	NaN	28	26
<i>Affecting weather a little (%)</i>	6	6	8	NaN	NaN	NaN	7	8
<i>Don't know/refused (%)</i>	2	2	2	NaN	NaN	NaN	1	2
<i>Prefer not to answer (%)</i>	0	0	0	NaN	NaN	NaN	0	0
Global warming is not affecting weather in the United States (%)	7	7	8	NaN	NaN	NaN	5	7
Global warming isn't happening (%)	10	13	10	NaN	NaN	NaN	9	9
Don't know (%)	19	17	19	NaN	NaN	NaN	20	21
Prefer not to answer/refused (%)	6	7	6	NaN	NaN	NaN	6	4

	May 2017	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,266	1,304	1,278	1,114	1,291	1,303
Global warming is affecting weather in the United States (%)	59	64	61	65	60	64
<i>Affecting weather a lot (%)</i>	25	33	29	32	28	31
<i>Affecting weather some (%)</i>	27	23	25	26	22	25
<i>Affecting weather a little (%)</i>	5	6	6	5	7	6
<i>Don't know/refused (%)</i>	2	2	1	2	2	2
<i>Prefer not to answer (%)</i>	0	0	0	0	0	0
Global warming is not affecting weather in the United States (%)	5	6	5	6	7	6
Global warming isn't happening (%)	10	8	9	8	11	9
Don't know (%)	21	18	18	15	18	16
Prefer not to answer/refused (%)	5	5	7	5	5	5

(Base: Americans 18+) Do you think global warming made each of the following worse or not?

	Hurricane Dorian	Brazilian Amazon forest fires	Melting Greenland ice sheets	U.S. Midwest flooding	European heat waves	Refugees from Central America	Wildfires in California
(Unweighted Base)	1,303	1,303	1,303	1,303	1,303	1,303	1,303
Yes (%)	44	42	64	46	55	17	50
No (%)	23	26	13	22	18	44	25
Don't know (%)	33	32	22	31	27	38	24
Refused (%)	1	1	1	1	1	1	1

How worried are you that the following might harm your local area?

Extreme heat

	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,278	1,114	1,291	1,303
Very worried (%)	13	11	13	14
Moderately worried (%)	21	21	23	22
A little worried (%)	29	29	34	28
Not at all worried (%)	36	39	30	36
Refused (%)	1	0	0	0

Flooding

	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,278	1,114	1,291	1,303
Very worried (%)	7	6	9	9
Moderately worried (%)	22	17	19	19
A little worried (%)	31	38	32	30
Not at all worried (%)	39	39	40	41
Refused (%)	1	0	0	1

Wildfires

	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,278	1,114	1,291	1,303
Very worried (%)	9	9	9	10
Moderately worried (%)	12	13	14	13
A little worried (%)	21	20	25	20
Not at all worried (%)	57	59	51	56
Refused (%)	1	0	0	0

How worried are you that the following might harm your local area? (Cont'd)

Hurricanes

	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,278	1,114	1,291	1,303
Very worried (%)	9	8	9	9
Moderately worried (%)	12	12	14	13
A little worried (%)	17	20	16	18
Not at all worried (%)	62	59	60	59
Refused (%)	1	0	0	1

Drought

	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,278	1,114	1,291	1,303
Very worried (%)	11	10	10	11
Moderately worried (%)	19	17	21	20
A little worried (%)	31	31	34	30
Not at all worried (%)	39	42	35	39
Refused (%)	1	0	0	1

Water shortages

	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,278	1,114	1,291	1,303
Very worried (%)	9	8	10	9
Moderately worried (%)	17	14	17	18
A little worried (%)	25	29	31	27
Not at all worried (%)	48	49	41	45
Refused (%)	1	0	0	0

How worried are you that the following might harm your local area? (Cont'd)

Reduced snowpack

	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,278	1,114	1,291	1,303
Very worried (%)	5	5	4	5
Moderately worried (%)	10	11	10	12
A little worried (%)	16	21	19	20
Not at all worried (%)	68	63	66	62
Refused (%)	1	0	0	1

In your opinion, over the next 10 years how much risk does extreme weather pose to your community?

	Mar 2016	Nov 2016	May 2017	Oct 2017	Mar 2018	Dec 2018	Apr 2019	Nov 2019
(Unweighted Base)	1,204	0	0	1,304	0	0	0	1,303
High risk (%)	10	NaN	NaN	15	NaN	NaN	NaN	18
Moderate risk (%)	40	NaN	NaN	42	NaN	NaN	NaN	38
Low risk (%)	33	NaN	NaN	30	NaN	NaN	NaN	31
No risk (%)	5	NaN	NaN	5	NaN	NaN	NaN	7
Don't know (%)	11	NaN	NaN	8	NaN	NaN	NaN	7
Refused (%)	0	NaN	NaN	0	NaN	NaN	NaN	0

9 Appendix II: Survey Method

The data in this report are based on a nationally representative survey of 1,303 American adults, aged 18 and older. The survey was conducted November 8 – 20, 2019. All questionnaires were self-administered by respondents in a web-based environment. The survey took, on average, 25 minutes to complete. The sample was drawn from the Ipsos (formerly GfK) KnowledgePanel®, an online panel of members drawn using probability sampling methods. Prospective members are recruited using a combination of random digit dial and address-based sampling techniques that cover virtually all (non-institutional) resident phone numbers and addresses in the United States. Those contacted who would choose to join the panel but do not have access to the Internet are loaned computers and given Internet access so they may participate.

The sample therefore includes a representative cross-section of American adults – irrespective of whether they have Internet access, use only a cell phone, etc. Key demographic variables were weighted, post survey, to match U.S. Census Bureau norms.

From November 2008 to December 2018, no KnowledgePanel® member participated in more than one *Climate Change in the American Mind* (CCAM) survey. Beginning with the April 2019 survey, panel members who have participated in CCAM surveys in the past, excluding the most recent two surveys, may be randomly selected for participation. In the current survey, 352 respondents participated in a previous CCAM survey.

The survey instrument was designed by Anthony Leiserowitz, Seth Rosenthal, Matthew Ballew, Matthew Goldberg, Abel Gustafson, and Parrish Bergquist of Yale University, and Edward Maibach and John Kotcher of George Mason University.

Sample details and margins of error

All samples are subject to some degree of sampling error – that is, statistical results obtained from a sample can be expected to differ somewhat from results that would be obtained if every member of the target population were interviewed. Average margins of error for each wave, at the 95% confidence level, are plus or minus 3 percentage points except where noted.

- November 2019: Fielded November 8 – November 20 ($N = 1,303$)
 - April 2019: Fielded March 29 – April 8 ($N = 1,291$)
 - December 2018: Fielded November 28 – December 11 ($N = 1,114$)
 - March 2018: Fielded March 7 – March 24 ($N = 1,278$)
 - October 2017: Fielded October 20 – November 1 ($N = 1,304$)
 - May 2017: Fielded May 18 – June 6 ($N = 1,266$)
 - November 2016: Fielded November 18 – December 1 ($N = 1,226$)
 - March 2016: Fielded March 18 – 31 ($N = 1,204$)
 - October 2015: Fielded September 30 – October 19 ($N = 1,330$)
 - March 2015: Fielded February 27 – March 10 ($N = 1,263$)
 - October 2014: Fielded October 17 – 28 ($N = 1,275$)
 - April 2014: Fielded April 15 – 22 ($N = 1,013$)
 - November 2013: Fielded November 23 – December 9 ($N = 830$)
 - April 2013: Fielded April 10 – 15 ($N = 1,045$)
 - September 2012: Fielded August 31 – September 12 ($N = 1,061$)
 - March 2012: Fielded March 12 – March 30 ($N = 1,008$)
 - November 2011: Fielded October 20 – November 16 ($N = 1,000$)
 - May 2011: Fielded April 23 – May 12 ($N = 1,010$)
 - June 2010: Fielded May 14 – June 1 ($N = 1,024$)
 - January 2010: Fielded December 24, 2009 – January 3, 2010 ($N = 1,001$).
 - November 2008: Fielded October 7 – November 12 ($N = 2,164$).
- Data were collected over two periods: from October 7 – October 20 and from October 24 – November 12. Margin of error plus or minus 2 percentage points.

Rounding error

For tabulation purposes, percentage points are rounded to the nearest whole number. As a result, percentages in a given chart may total slightly higher or lower than 100%. Summed response categories (e.g., "strongly agree" + "somewhat agree") are rounded after sums are calculated (e.g., 25.3% + 25.3% = 50.6%, which, after rounding, would be reported as 25% + 25% = 51%).

10 Appendix III: Sample Demographics

	N (unweighted)	% (weighted)
Total	1,303	100
Male	659	48
Female	644	52
iGen (1997 -)	55	6
Millennials (1981 - 1996)	320	29
Generation X (1965 - 1980)	336	26
Baby Boomers (1946 - 1964)	474	31
Silent (1928 - 1945)	112	7
Greatest (Before 1928)	6	0
Less than high school	83	11
High school	340	28
Some college	385	28
Bachelor's degree or higher	495	33
<\$25K	157	14
\$25K-<\$50K	243	18
\$50K-<\$75K	234	17
\$75K-<\$100K	207	14
\$100K-<\$125K	152	12
\$125K+	310	25
White, Non-Hispanic	917	63
Black, Non-Hispanic	124	12
Hispanic	165	16
2+ Races, Non-Hispanic	42	1
Other, Non-Hispanic	55	7
Northeast	235	17
Midwest	289	21
South	461	38
West	318	24