

CLIMATE CHANGE IN THE AMERICAN MIND

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YALE PROGRAM ON
Climate Change
Communication



GEORGE MASON UNIVERSITY
CENTER for CLIMATE CHANGE
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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 \(climatecommunication.yale.edu\)](http://climatecommunication.yale.edu) and the [George Mason University Center for Climate Change Communication \(climatechangecommunication.org\)](http://climatechangecommunication.org). Interview dates: October 20 – November 1, 2017. Interviews: 1,304 Adults (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, the Grantham Foundation, and the MacArthur Foundation.

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Executive Summary

This report documents an upward trend in Americans' concern about global warming, as reflected in several key indicators tracked since 2008, including substantial increases in Americans' certainty that global warming is happening and harming people in the United States now. The percentage of Americans that are very worried about global warming has more than doubled since its lowest point in 2011. Increasing numbers of Americans say they have personally experienced global warming and that the issue is personally important to them. Details on these and other measures of global warming beliefs and attitudes are described below:

- **Seven in ten Americans (71%) think global warming is happening, an increase of eight percentage points since March 2015.** Only about one in eight Americans (13%) think global warming is not happening. **Americans who think global warming is happening outnumber those who think it is not by more than 5 to 1.**
- Americans are also becoming certain global warming is happening – 47% are "extremely" or "very" sure it is happening, an increase of 10 percentage points since March 2015. By contrast, far fewer – 7% – are "extremely" or "very sure" global warming is not happening.
- **Over half of Americans (54%) understand that global warming is mostly human-caused.** By contrast, one in three (33%) say it is due mostly to natural changes in the environment.
- Only about one in seven Americans (15%) understand that nearly all climate scientists (more than 90%) are convinced that human-caused global warming is happening.
- More than six in ten Americans (63%) say they are at least "somewhat worried" about global warming. **About one in five (22%) are "very worried" about it** – the highest levels since our surveys began, and **twice the proportion that were "very worried" in March 2015.**
- Two in three Americans feel "interested" in global warming (67%), and more than half feel "disgusted" (55%) or "helpless" (52%). Fewer than half feel "hopeful" (44%).
- **Nearly two in three Americans (64%) think global warming is affecting weather in the United States, and one in three think weather is being affected "a lot" (33%), an increase of 8 percentage points since May 2017.**
- **A majority of Americans think global warming made several extreme events in 2017 worse, including the heat waves in California (55%) and Arizona (51%), hurricanes Harvey, Irma, and Maria (54%), and wildfires in the western U.S. (52%).**
- More than three in four Americans (78%) are interested in learning about how global warming is or is not affecting extreme weather events.
- **More than four in ten Americans (44%) say they have personally experienced the effects of global warming, an increase of 13 percentage points since March 2015.**
- **Four in ten Americans (42%) think people in the United States are being harmed by global warming "right now."** The proportion that believes people are being harmed "right now" **has increased by 10 percentage points since March 2015.**

- **Half of Americans think they (50%) or their family (54%) will be harmed by global warming.** Even more think global warming will harm people in the U.S. (67%), the world's poor or people in developing countries (both 71%), future generations of people (75%) or plant and animal species (75%).
- Most Americans think global warming will have future impacts, causing more melting glaciers (67%), severe heat waves (64%), droughts and water shortages (63%), floods (61%), and other impacts over the next 20 years.
- **Two in three Americans (67%) say the issue of global warming is either "extremely" (12%), "very" (19%), or "somewhat" (37%) important to them personally,** while one in three (33%) say it is either "not too" (19%) or "not at all" (14%) important personally. The proportion that say it is personally important **has increased by 11 percentage points since March 2015.**
- **Nearly four in ten Americans (38%) say they discuss global warming with family and friends "often" or "occasionally," an increase of 12 percentage points since March 2015.** However, more say they "rarely" or "never" discuss it (62%). Additionally, half of Americans (51%) say they hear about global warming in the media at least once a month, and one in four (25%) say they hear people they know talk about global warming at least once a month.
- More than half of Americans (54%) say they have thought "a lot" (22%) or "some" (32%) about global warming. Fewer say they have thought about global warming just "a little" (32%) or "not at all" (14%).
- Few Americans are confident that humans will reduce global warming. Nearly half (48%) say humans could reduce global warming, but it's unclear at this point whether we will do what is necessary, and one in four (25%) say we won't reduce global warming because people are unwilling to change their behavior. Only 5% say humans can and will successfully reduce global warming.
- Large majorities of Americans think of global warming as an environmental (78%), scientific (71%), agricultural (66%), severe weather (65%), health (62%), economic (60%), or political issue (60%). Fewer think it is a moral (41%), national security (29%), poverty (28%), social justice (26%), or religious issue (9%).

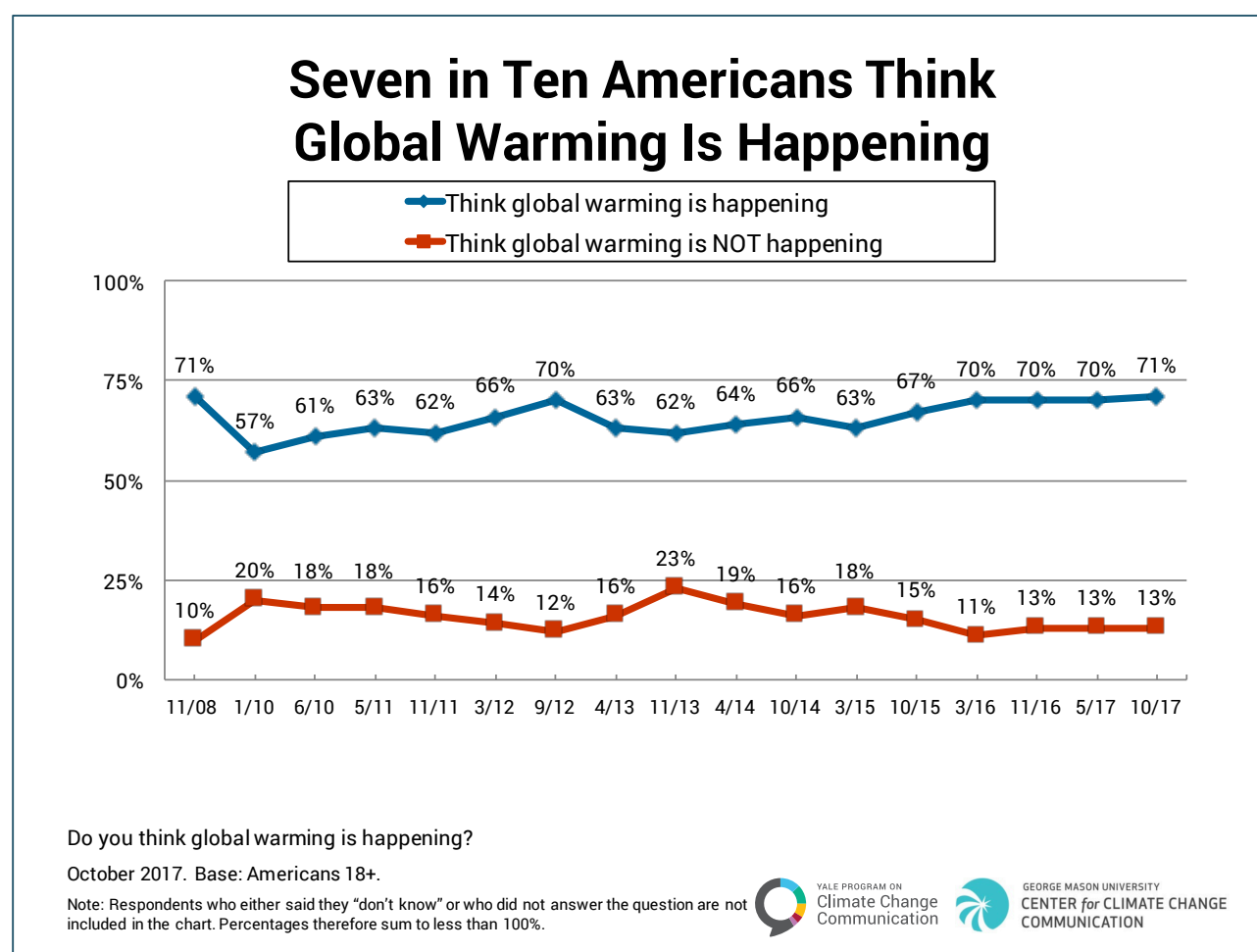
1. Global Warming Beliefs

1.1. Seven in ten Americans think global warming is happening.

Americans who think global warming is happening outnumber those who think it is not by more than 5 to 1.

Seven in ten Americans (71%) think global warming is happening. By contrast, only about one in eight Americans (13%) think global warming is not happening.

The percentage of Americans who think global warming is happening has remained steady since March 2016, and now matches its highest level since our surveys began in November 2008.



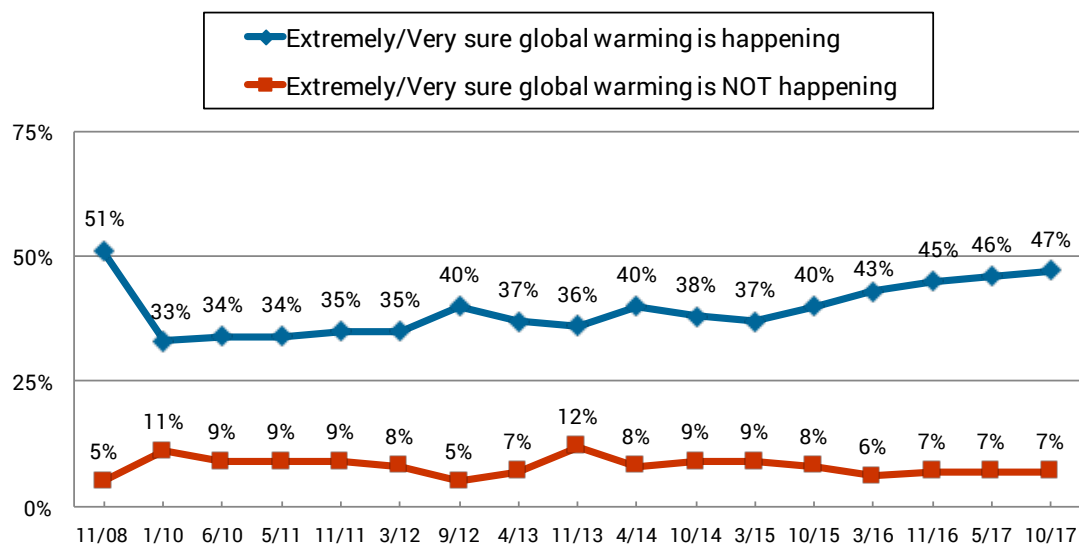
1.2. Nearly half of Americans are sure global warming is happening. Fewer than one in ten are sure it is not happening.

Forty-seven percent of Americans are either "extremely" or "very" sure global warming is happening. Far fewer – 7% – are "extremely" or "very sure" global warming is not happening.

The percentage who are sure global warming is happening has risen steadily over the past two years, and is now at its highest level since November 2008.

Nearly Half of Americans Are Sure Global Warming Is Happening

- Certainty that global warming is happening at highest level since 2008 -



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

October 2017. Base: Americans 18+.

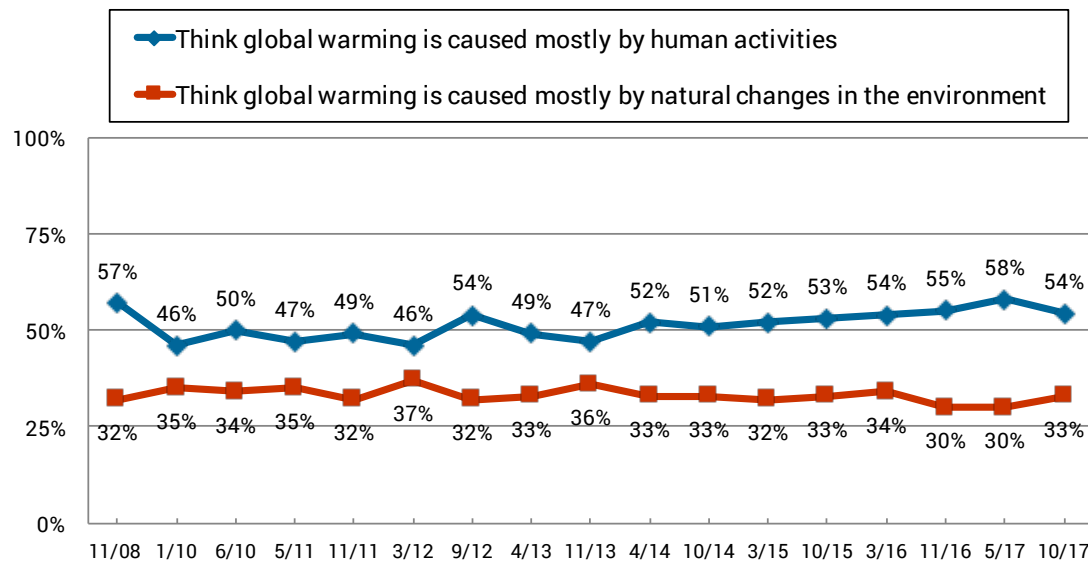


1.3. More than half of Americans think global warming is mostly human-caused.

The 2014 U.S. National Climate Assessment (written and reviewed by hundreds of climate experts over the course of four years) states: "The global warming of the past 50 years is primarily due to human activities, predominantly the burning of fossil fuels. Many independent lines of evidence confirm that human activities are affecting climate in unprecedented ways" (p. 15).¹

A majority of Americans (54%) understand that global warming is mostly human-caused, a decrease of four percentage points from our previous survey in May 2017. By contrast, one in three (33%) say it is due mostly to natural changes in the environment, an increase of three percentage points from May.

More Than Half of Americans Think Global Warming Is Mostly Human-Caused



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

October 2017. Base: Americans 18+.



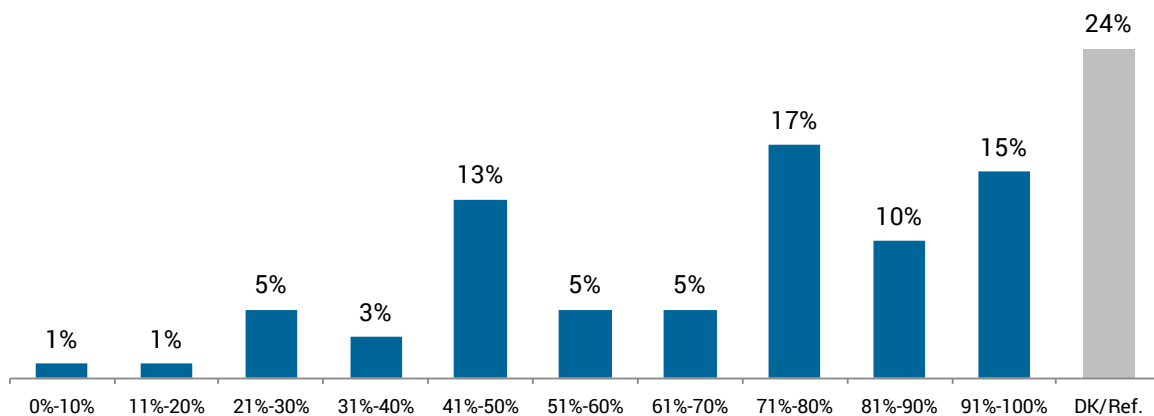
¹ <http://nca2014.globalchange.gov/report>

1.4. Only about one in seven Americans understand that almost all climate scientists (more than 90%) have concluded human-caused global warming is happening.

A recent review study 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.

Only about one in seven Americans (15%) understand that nearly all climate scientists (more than 90%) are convinced that human-caused global warming is happening. While a majority of the public (52%) believes that more than half of climate scientists think human-caused global warming is happening, the most common response – given by one in four Americans (24%) – is that they "don't know."³

Only About One in Seven Americans Understand That Almost All Climate Scientists (More Than 90%) Have Concluded 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. If the slider does not work, you can enter a number in the number box.

October 2017. Base: Americans 18+ (n=1,304).



² Cook, J., Oreskes, N., Doran, P. T., Anderegg, W. R. I., Verheggen, B., Maibach, E. W., Carlton, J. S., Lewendowski, 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](https://doi.org/10.1088/1748-9326/11/4/048002)

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.

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., global warming is happening, human-caused, a serious problem, and solvable) and support for action.

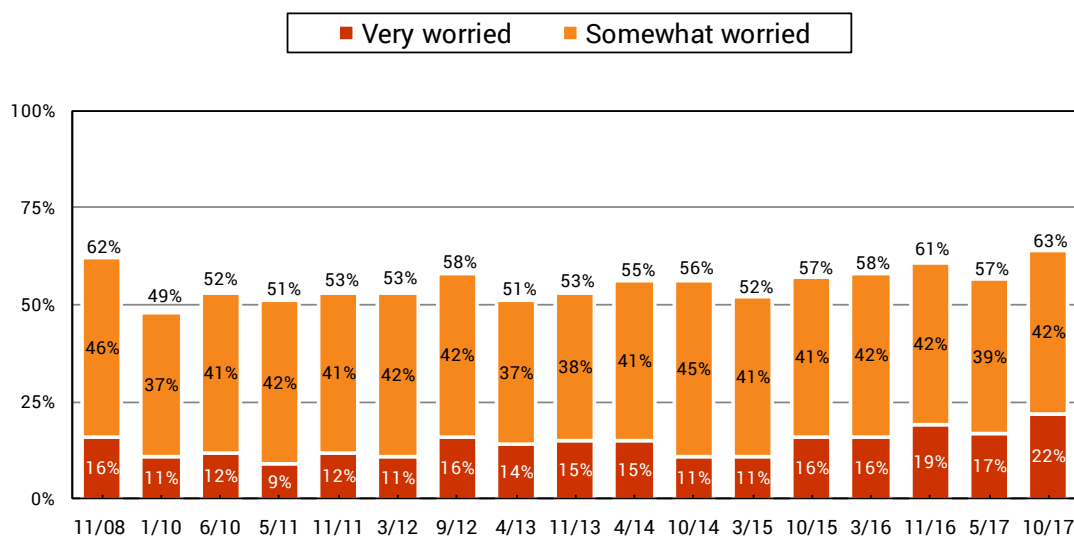
For more information, see: van der Linden, S. L., Leiserowitz, A. A., Feinberg, G. D., & Maibach, E. W. (2015). The scientific consensus on climate change as a gateway belief: Experimental evidence. *PLoS ONE*, 10(2). [doi: 10.1371/journal.pone.0118489](https://doi.org/10.1371/journal.pone.0118489)

2. Emotional Responses to Global Warming

2.1. More than six in ten Americans are worried about global warming; one in five are "very worried."

More than six in ten Americans (63%) say they are at least "somewhat worried" about global warming, an increase of 6 percentage points from our previous survey in May 2017, and the highest level since our surveys began in 2008. About one in five Americans (22%) are "very worried," a five-point increase since May, and also the highest level since our surveys began.

More Than Six in Ten Americans Are Worried About Global Warming; One in Five Are "Very Worried"



How worried are you about global warming?

October 2017. Base: Americans 18+.

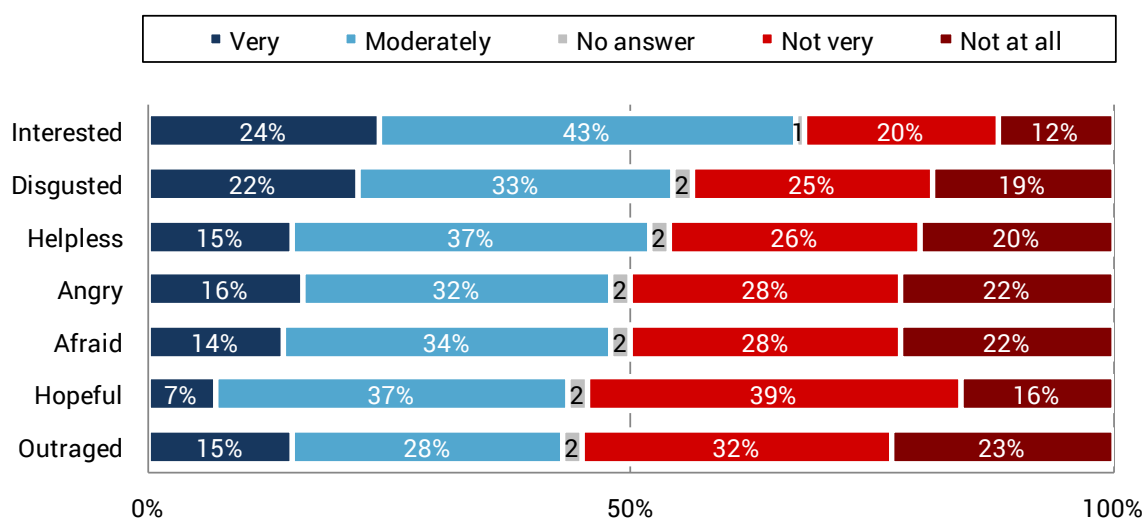


2.2. Two in three Americans feel "interested" in global warming; half or more feel "disgusted" or "helpless."

When asked how strongly they feel various emotions when they think about global warming, two in three Americans (67%) say they feel very or moderately "interested" in it, followed by half or more who say they feel "disgusted" (55%), or "helpless" (52%).

Four in ten or more Americans also feel "angry" (48%), "afraid" (47%), "hopeful" (44%), or "outraged" (43%) when they think about global warming.

Two in Three Americans Feel "Interested" In Global Warming; Half Or More Feel "Disgusted" Or "Helpless"



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

October 2017. Base: Americans 18+ (n=1,304).

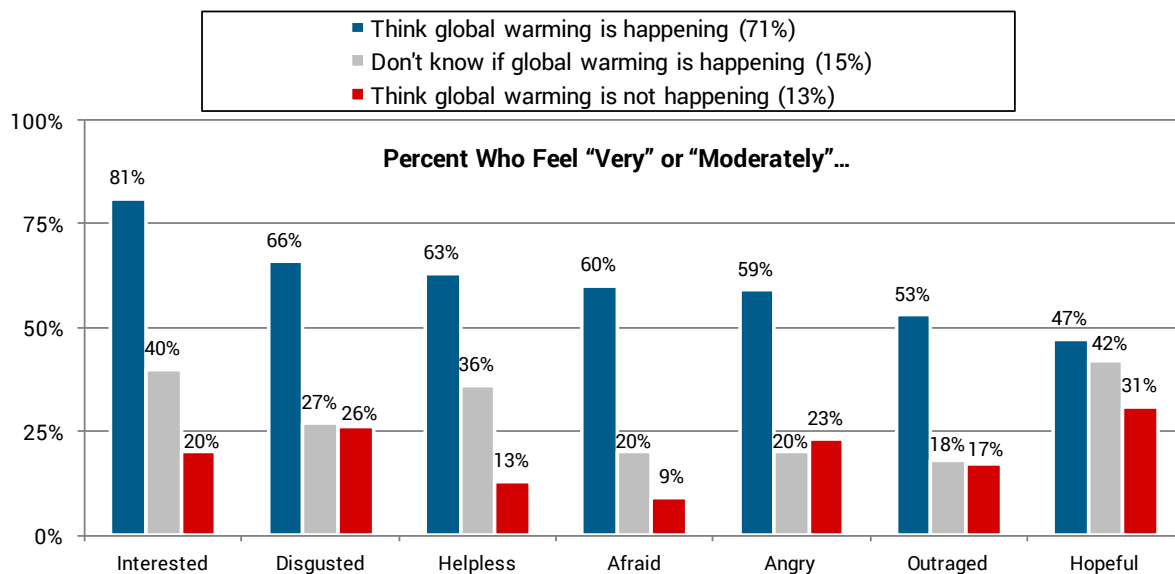


Emotional reactions to global warming may be felt for different reasons, and signify different meanings depending on an individual's beliefs about global warming. For instance, someone who thinks global warming is happening may feel "disgusted" about it for different reasons than someone who thinks global warming is *not* happening. For that reason, we looked separately at people's emotional reactions to global warming depending on whether they think it *is* happening, don't know whether or not it's happening, or think it is *not* happening.

Eight in ten (81%) Americans who think global warming is happening say they are very or moderately "interested" in it. Half or more feel negative emotions, including "disgusted" (66%), "helpless" (63%), "afraid" (60%), and/or "angry" (59%). Slightly fewer than half feel "hopeful" (47%).

A Majority of Americans Who Think Global Warming is Happening Feel "Interested," "Disgusted," "Helpless," "Afraid," "Angry," and/or "Outraged"

- Fewer than half feel "hopeful" -



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

October 2017. Base: Americans 18+ (n=1,304).



3. Perceived Risks of Global Warming

3.1. Increasing numbers of Americans say they have personally experienced the effects of global warming.

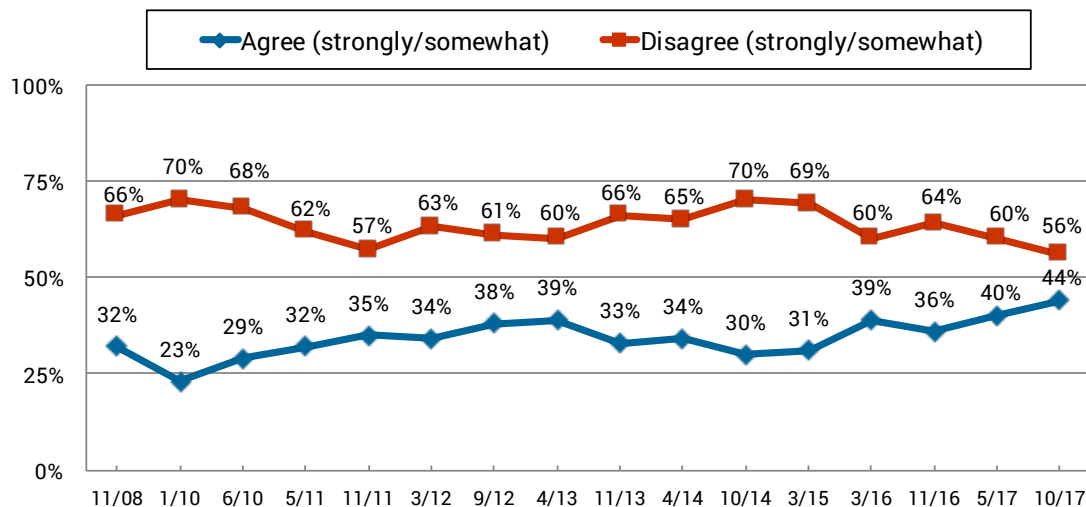
More than four in ten Americans (44%) say they have personally experienced the effects of global warming, while over half (56%) say they have not.

The number of Americans who say they have personally experienced the effects of global warming is at its highest level since our surveys began in 2008, and has increased by 14 percentage points over the past three years.

Increasing Numbers of Americans Say They Have Personally Experienced The Effects of Global Warming

- Up 14 percentage points since October 2014 -

"I have personally experienced the effects of global warming"



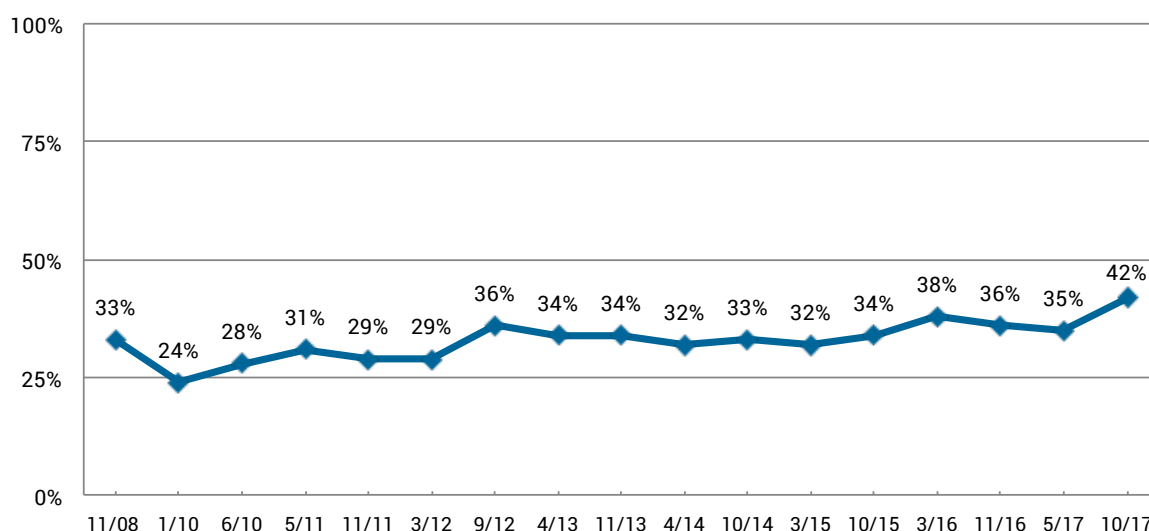
I have personally experienced the effects of global warming...
October 2017. Base: Americans 18+.



3.2. Four in ten Americans think people in the U.S. are being harmed "right now" by global warming.

About four in ten Americans (42%) think people in the U.S. are being harmed by global warming "right now," the highest level since our surveys began in 2008 and seven percentage points higher than in our May 2017 survey.

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...?

October 2017. Base: Americans 18+.



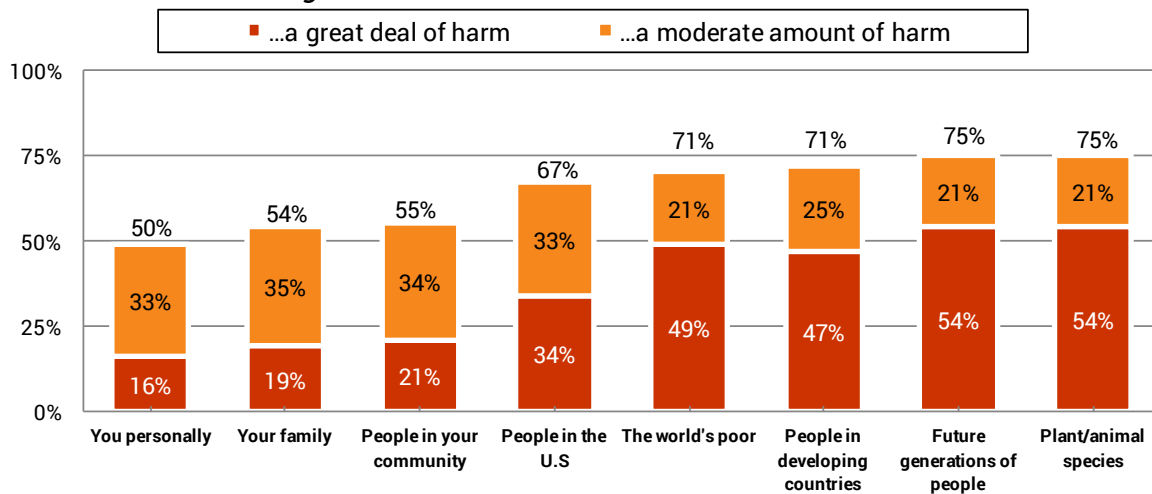
3.3. Half of Americans think they or their family will be harmed by global warming, although they think others will be harmed more.

Increasing numbers of Americans understand that global warming will cause harm. They are most likely to think that plant and animal species (75%, +4 percentage points since our last survey in May 2017), future generations of people (75%, +4 points), people in developing countries (71%, +9 points), the world's poor (71%, +9 points), and people in the U.S. (67%, +9 points) will be harmed a "great deal" or a "moderate amount" by global warming. Half or more also think people in their community (55%, +7 points), their family (54%, +7 points), and they themselves (50%, +7 points since May 2017) will be harmed. These levels of perceived risk are the highest since our survey began in 2008.

Half of Americans Think They or Their Family Will Be Harmed By Global Warming

- Think others will be harmed more -

"Global warming will cause..."



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

October 2017. Base: Americans 18+ (n=1,304).



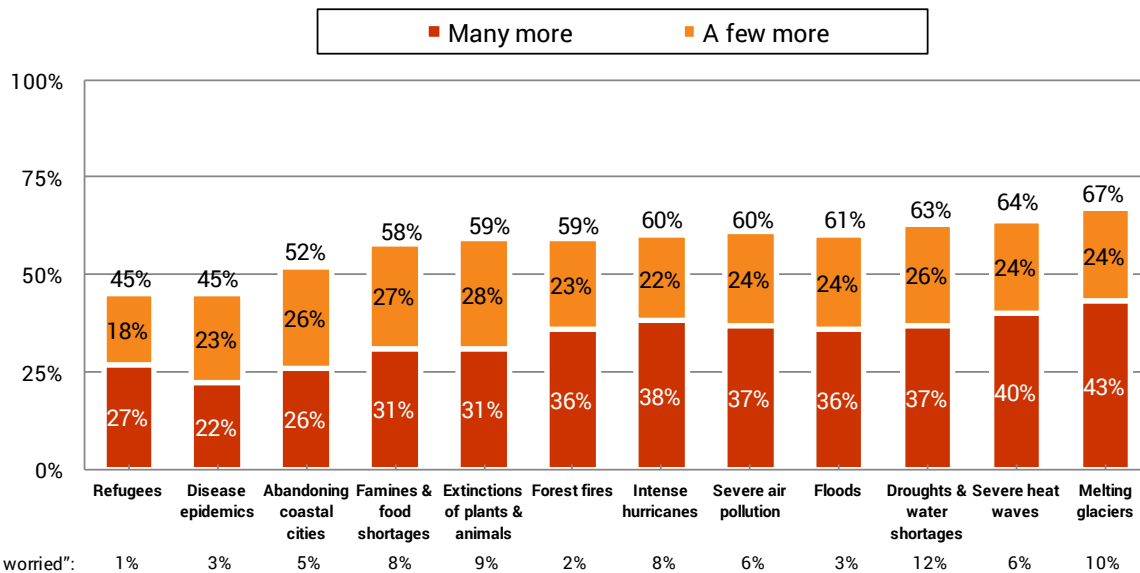
3.4. Most Americans think global warming will have future impacts.

The majority of Americans think global warming will have significant impacts over the next 20 years. Six in ten or more think global warming will cause more melting glaciers (67%), severe heat waves (64%), droughts and water shortages (63%), floods (61%), severe air pollution (60%), or intense hurricanes (60%). At least half think global warming will cause more forest fires (59%), extinction of plant and animal species (59%), famines and food shortages (58%), or abandoning of large coastal cities due to rising sea levels (52%).

When asked which one impact they are *most* worried about, Americans say droughts and water shortages (12%), melting glaciers (10%), extinctions (9%), intense hurricanes (8%), and famines and food shortages (8%).

Most Americans Think Global Warming Will Have Future Impacts

"Over the next 20 years, global warming will cause more..."



- Worldwide, over the next 20 years, do you think global warming will cause more or less of the following, if nothing is done to address it...?
- [Of those with "many more" or "a few more" selected]:
Which one of these impacts of global warming are you most worried about?

October 2017. Base: Americans 18+ (n=1,304).



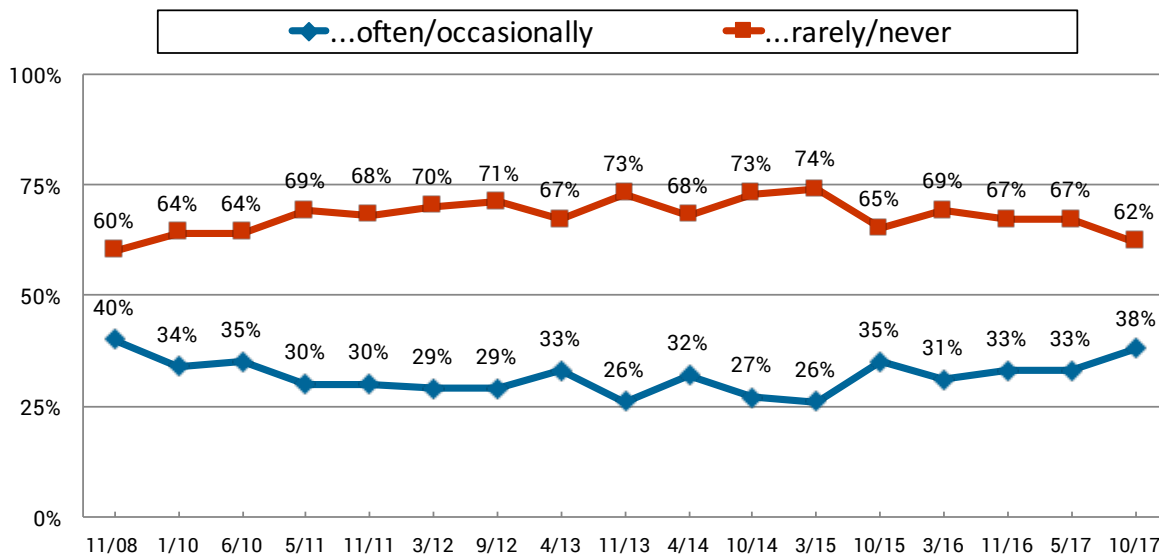
4. Personal and Social Engagement with Global Warming

4.1. Nearly four in ten Americans say they discuss global warming with family and friends "often" or "occasionally."

Thirty-eight percent of Americans say they discuss global warming with family and friends at least occasionally, an increase of 5 percentage points since our last survey in May 2017.

Nearly Four in Ten Americans Say They Discuss Global Warming With Family and Friends "Often" or "Occasionally"

"Discuss global warming with family and friends..."



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

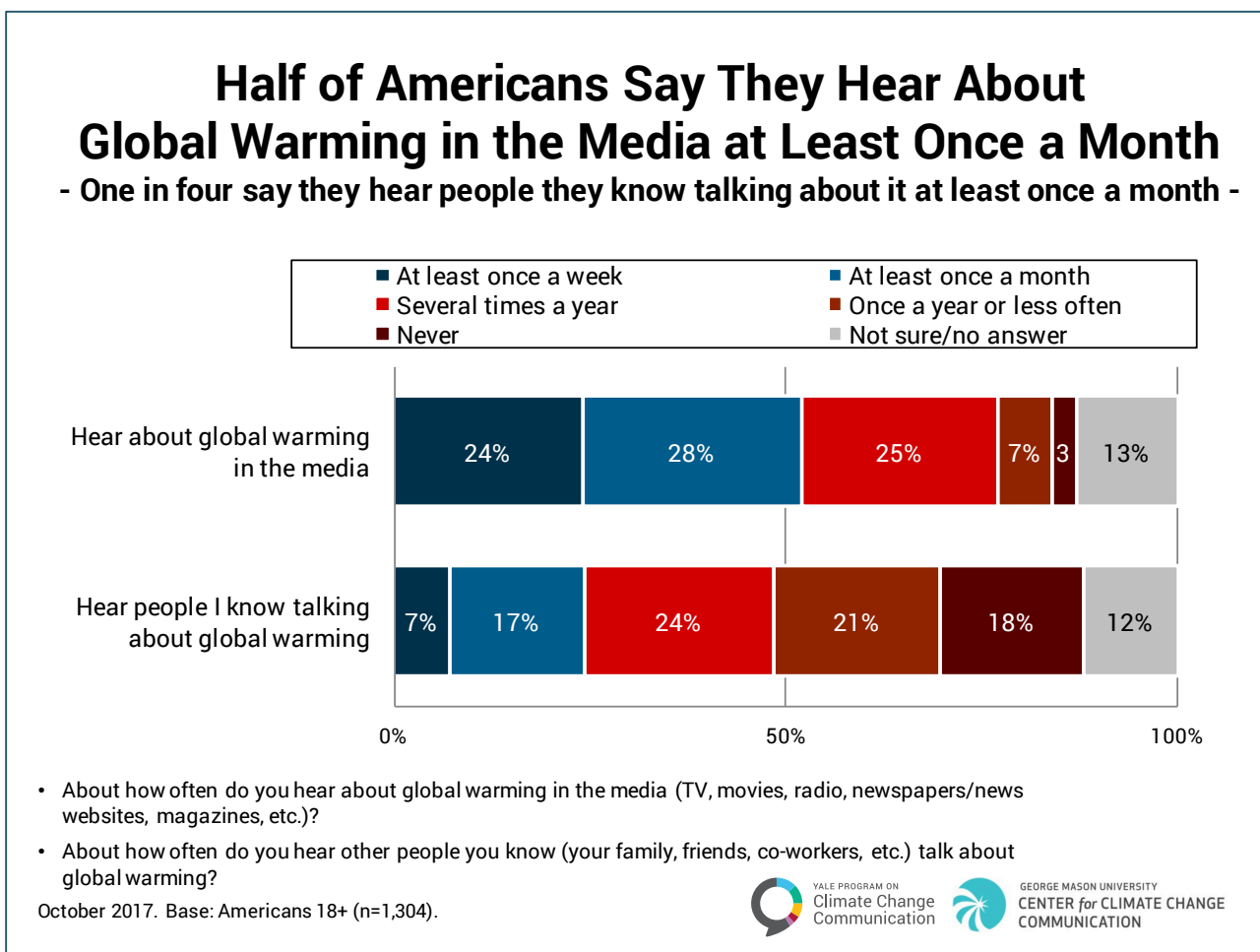
October 2017. Base: Americans 18+.



4.2. Half of Americans say they hear about global warming in the media at least once a month; one in four say they hear people they know talking about it at least once a month.

Half of Americans (51%) say they hear about global warming in the media once a month or more frequently, an increase of 8 percentage points since our last survey in May 2017. About one in three Americans (32%) say they hear about global warming in the media only several times a year or less, and an additional 3% say they never hear about it.

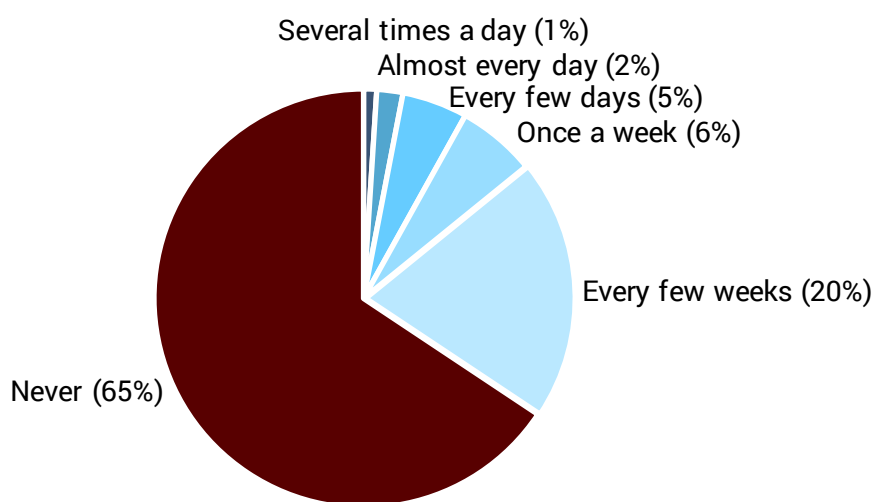
One in four Americans (25%, +6 percentage points) say they hear people they know talking about global warming once a month or more. In contrast, 45% say they hear people they know talking about it only several times a year or less, and about one in five (18%, a decrease of 10 percentage points) say they never hear people they know talk about global warming.



4.3. One in three Americans say they share news stories about global warming on social media.

One in three Americans (34%) say they share news stories about global warming on social media, including one in five (20%) who say they share stories every few weeks and 14% who say they do so once a week or more often. Two in three Americans (65%) say they never share a news story, headline, or story about global warming on social media.

Two in Three Americans Never Share News Stories About Global Warming on Social Media



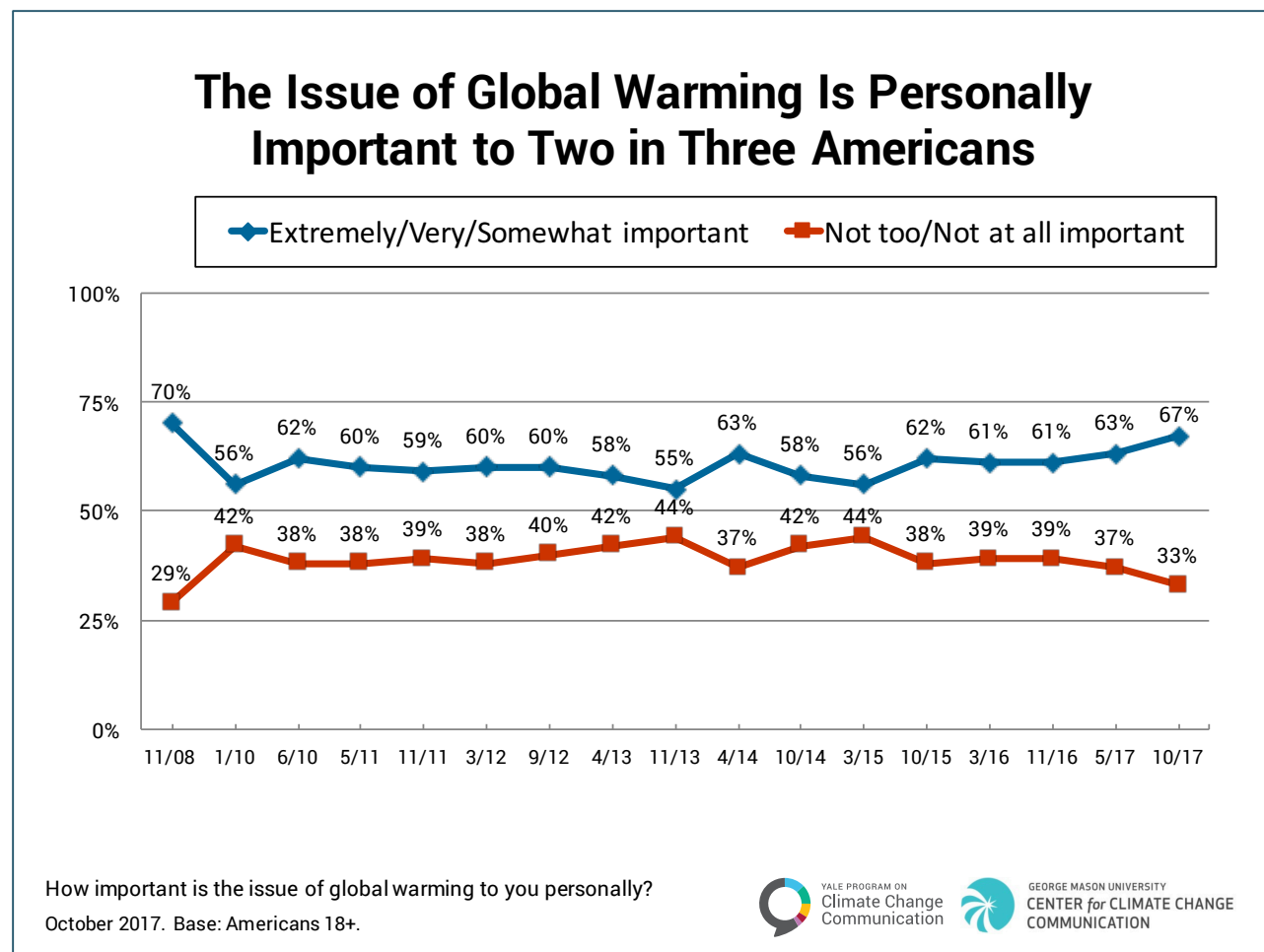
When you use social media, how often do you share a news story, headline, or story about global warming that you have read or seen on other websites?

October 2017. Base: Americans 18+ (n=1,304).



4.4. 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" (12%), "very" (19%), or "somewhat" (37%) important to them personally, the highest levels since our first survey in 2008. One in three (33%) say global warming is either "not too" (19%) or "not at all" (14%) important personally.

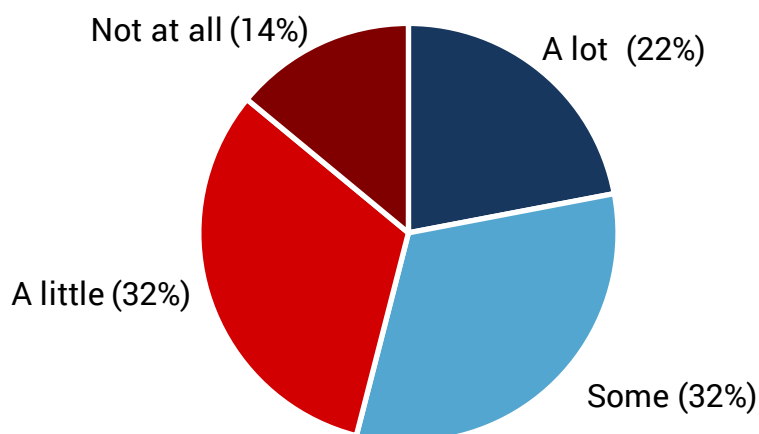


4.5. More than half of Americans have thought about global warming at least "some."

More than half of Americans say they have thought about global warming before today either "a lot" (22%, four percentage points higher than in May 2017) or "some" (32%). Fewer say they have thought about global warming just "a little" (32%) or "not at all" (14%).

More Than Half of Americans Have Thought About Global Warming At Least "Some"

How much had you thought about global warming before today?



How much had you thought about global warming before today?
October 2017. Base: Americans 18+ (n=1,304).



5. Can Humans Reduce Global Warming?

5.1. A majority of Americans think humans can reduce global warming; but few are optimistic that we will.

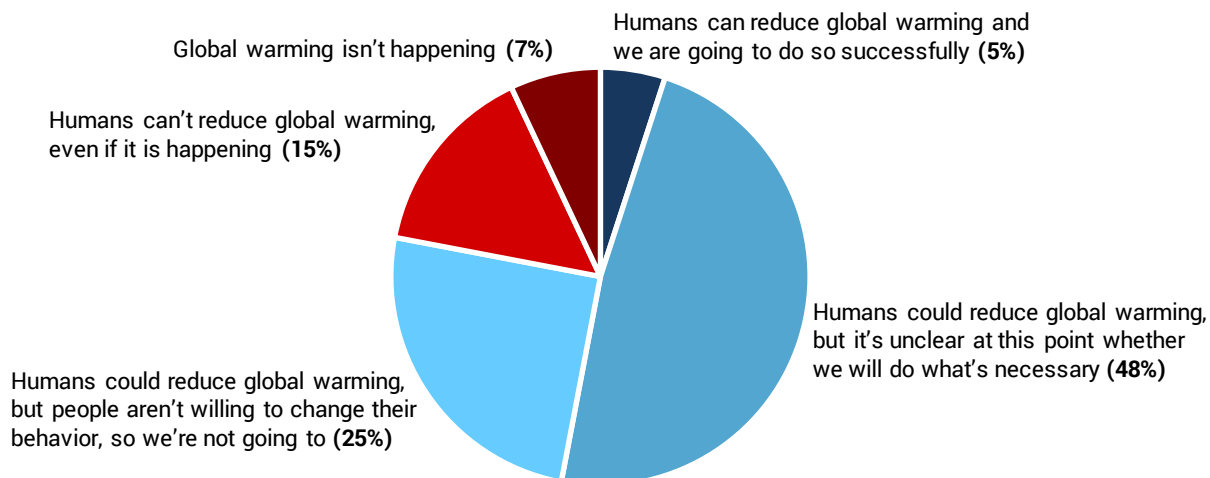
Nearly half of Americans (48%) say humans could reduce global warming, but it's unclear at this point whether we will do what is necessary.

Only 5% say humans can and will successfully reduce global warming. One in four (25%) say we won't because people are unwilling to change their behavior, and 15% say humans can't reduce global warming even if it is happening.

A Majority of Americans Think Humans Can Reduce Global Warming

- But few are optimistic that we will -

Which of the following comes closest to your view?



Which of the following comes closest to your view?

October 2017. Base: Americans 18+ (n=1,304).



6. How Americans Conceptualize Global Warming

6.1. Americans are most likely to think of global warming as an environmental and/or scientific issue.

Global warming is a complex challenge with many dimensions. Understanding how people conceptualize the issue is critical to formulating effective communication strategies.

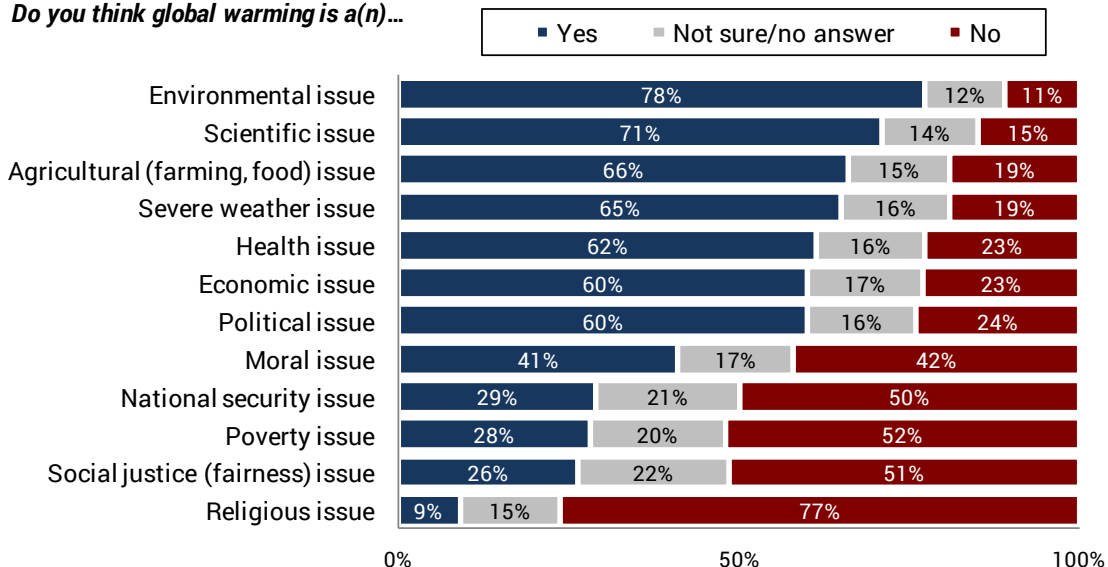
To better understand how Americans think about global warming, we asked respondents to indicate what kind of issue, if any, they consider it to be: environmental, scientific, economic, health, moral, religious, etc.

A large majority of Americans (78%) say global warming is an environmental issue, and seven in ten (71%) say it is a scientific issue. Majorities also say global warming is an agricultural (66%), severe weather (65%), health (62%), economic (60%), and/or political (60%) issue.

Fewer consider global warming a moral (41%), national security (29%), poverty (28%), social justice (26%), or religious issue (9%).

Americans Are Most Likely to Think of Global Warming as an Environmental and/or Scientific Issue

Do you think global warming is a(n)...



In your opinion, do you think global warming is a(n)...

October 2017. Base: Americans 18+ (n=1,304).



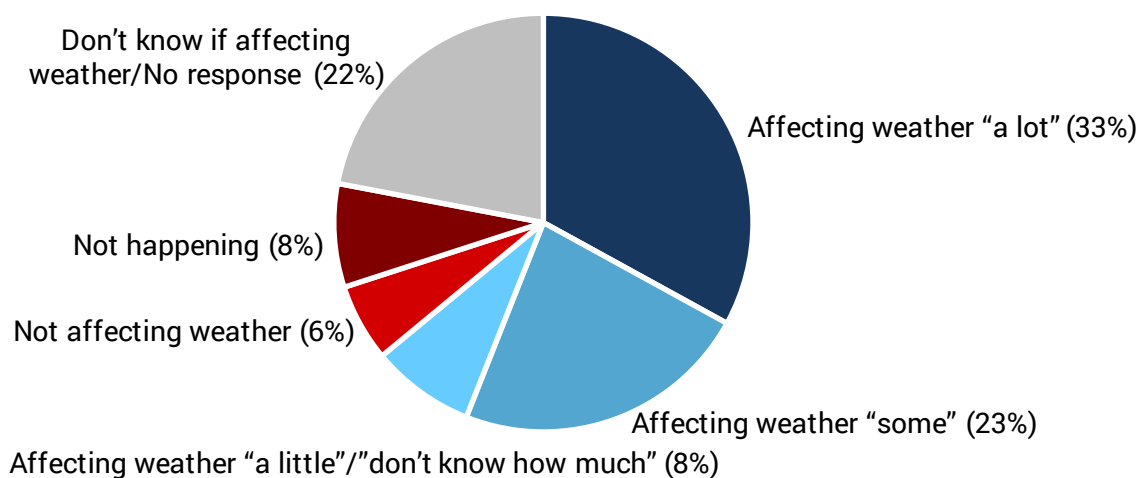
7. Global Warming and Severe Weather

7.1. Nearly two in three Americans think global warming is affecting weather in the United States.

As reported in the previous section, about two in three Americans (65%) think global warming is a severe weather issue (see p. 23). Similarly, 64% of Americans think global warming is affecting weather in the United States, including more than half (56%) who either think global warming is affecting U.S. weather "a lot" (33%) or "some" (23%).

Nearly Two in Three Americans Think Global Warming Is Affecting Weather in the United States

"Global warming is..."



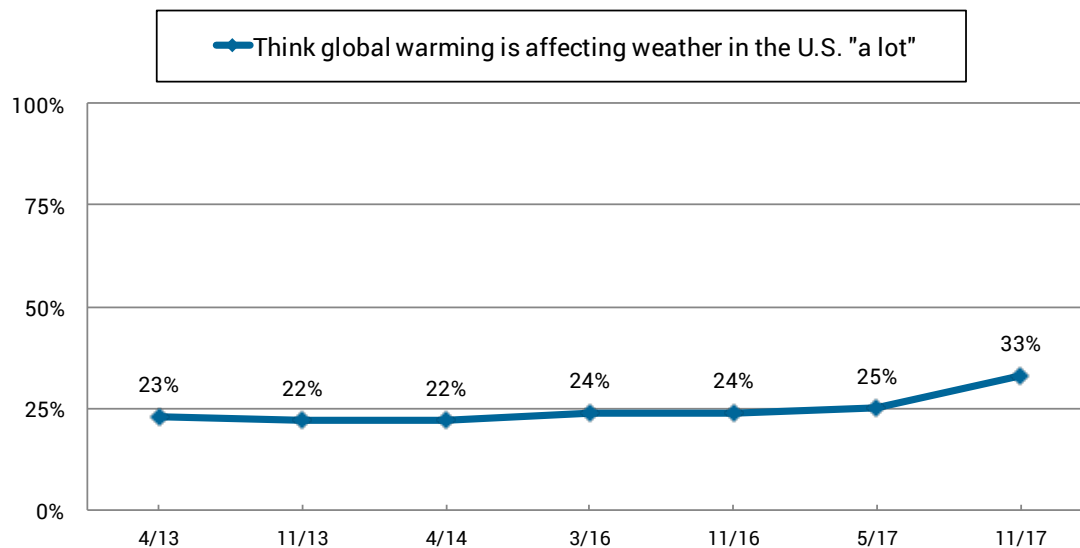
- Which statement best reflects your view...? (a) Global warming is affecting weather in the U.S.; (b) Global warming is *not* affecting weather in the U.S.; (c) Global warming isn't happening; (d) Don't know; (e) Prefer not to answer.
- [If (a) selected]: How much do you think global warming is affecting weather in the U.S.?

October 2017. Base: Americans 18+ (n=1,304).



The percentage of Americans who think global warming is affecting weather in the United States has increased since our last survey in May 2017. The percentage who say global warming is affecting the weather "a lot" increased by eight percentage points since May, and is at its highest level since we first asked the question in 2013.

One in Three Americans Think 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 United States; (b) Global warming is not affecting weather in the United States; (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 United States?

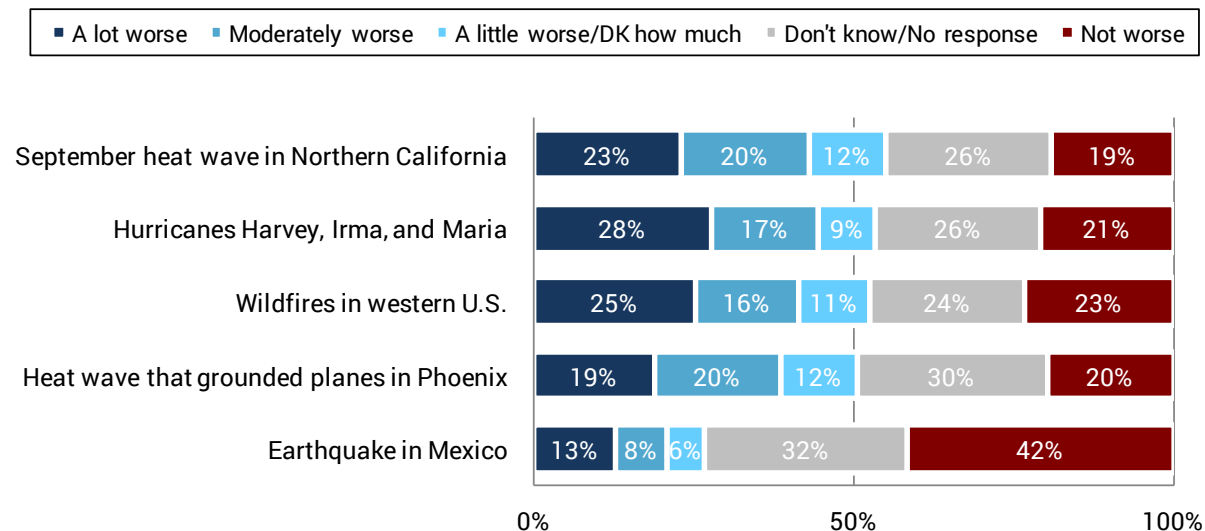
October 2017. Base: Americans 18+.



7.2. A majority of Americans think global warming made several extreme events in 2017 worse.

A majority of Americans think global warming made several extreme weather events in 2017 worse, including the heat wave in northern California in September (55%; 23% "a lot" worse), hurricanes Harvey, Irma, and Maria (54%; 28% "a lot"), the summer and fall wildfires in the western U.S. (52%; 25% "a lot"), and the heat wave that grounded planes in Phoenix, Arizona in June (51%; 19% "a lot"). About one in four (27%) think, incorrectly, that global warming made the September earthquake in Mexico City worse.

The Majority of Americans Think Global Warming Made Several Extreme Weather Events in 2017 Worse



- Do you think global warming made each of the following worse or not...?
- [If "yes" selected]: Do you think global warming made each of the following a little worse, moderately worse or a lot worse?

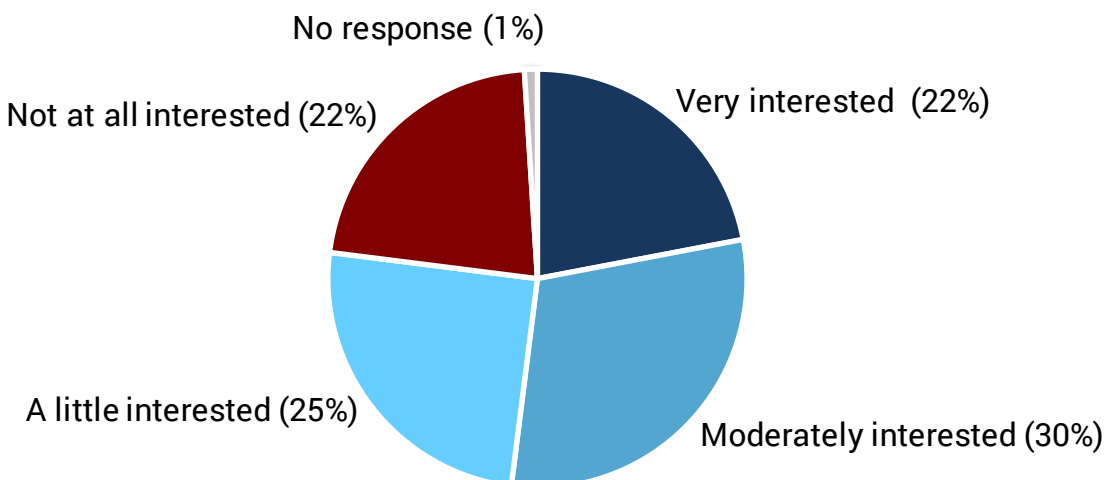
October 2017. Base: Americans 18+ (n=1,304).



7.3. Most Americans are interested in learning about how global warming is or is not affecting extreme weather events.

More than three in four Americans (78%) are either "very" interested (22%), "moderately" interested (30%), or "a little" interested (25%) in learning more about how global warming is or is not affecting extreme weather events. About one in five (22%) are not interested.

Most Americans Are Interested In Learning About How Global Warming Is Or Is Not Affecting Extreme Weather Events



How interested would you be in learning more about how global warming is or is not affecting extreme weather events?

October 2017. Base: Americans 18+ (n=1,304).



Appendix I: Data Tables

(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?

	Oct 2017	May 2017	Nov 2016	March 2016	Oct 2015	March 2015	Oct 2014	April 2014	Nov 2013	April 2013	Sept 2012	March 2012	Nov 2011	May 2011	June 2010	Jan 2010	Nov 2008
(Unweighted base)	(1,304)	(1,266)	(1,226)	(1,204)	(1,330)	(1,263)	(1,275)	(1,013)	(830)	(1,045)	(1,061)	(1,008)	(1,000)	(1,010)	(1,024)	(1,001)	(2,164)
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Yes	71	70	70	70	67	63	66	64	62	63	70	66	62	63	61	57	71
No	13	13	13	11	15	18	16	19	23	16	12	14	16	18	18	20	10
Don't know	15	16	17	18	18	19	18	17	14	20	18	20	20	18	21	23	19

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

How sure are you that global warming is happening?

	Oct 2017	May 2017	Nov 2016	March 2016	Oct 2015	March 2015	Oct 2014	April 2014	Nov 2013	April 2013	Sept 2012	March 2012	Nov 2011	May 2011	June 2010	Jan 2010	Nov 2008
(Unweighted base)	(927)	(889)	(859)	(855)	(899)	(793)	(815)	(649)	(521)	(674)	(722)	(658)	(619)	(614)	(622)	(558)	(1,745)
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Extremely sure	34	31	35	30	28	27	24	30	27	27	27	19	22	21	20	24	35
Very sure	32	34	30	31	32	32	35	32	31	33	30	34	35	33	36	35	37
Somewhat sure	32	33	32	34	37	38	38	33	39	37	40	42	39	40	40	37	24
Not at all sure	2	2	4	4	3	3	4	5	3	4	3	5	5	6	3	5	4

(Base: Americans 18+ who say global warming is not happening)**How sure are you that global warming is not happening?**

	Oct 2017	May 2017	Nov 2016	March 2016	Oct 2015	March 2015	Oct 2014	April 2014	Nov 2013	April 2013	Sept 2012	March 2012	Nov 2011	May 2011	June 2010	Jan 2010	Nov 2008
(Unweighted base)	(178)	(169)	(155)	(144)	(215)	(251)	(228)	(196)	(179)	(164)	(160)	(156)	(175)	(188)	(199)	(227)	(301)
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Extremely sure	19	26	24	20	21	21	23	15	20	18	15	15	21	21	20	28	26
Very sure	33	26	29	37	32	31	30	26	35	28	27	41	37	30	31	31	28
Somewhat sure	39	41	39	34	36	37	35	47	36	42	45	35	37	38	44	34	38
Not at all sure	9	7	8	9	12	11	11	12	9	12	13	8	5	11	4	7	8

(Base: Americans 18+)**Assuming global warming is happening, do you think it is...**

	Oct 2017	May 2017	Nov 2016	March 2016	Oct 2015	March 2015	Oct 2014	April 2014	Nov 2013	April 2013	Sept 2012	March 2012	Nov 2011	May 2011	June 2010	Jan 2010	Nov 2008
(Unweighted base)	(1,304)	(1,266)	(1,226)	(1,204)	(1,330)	(1,263)	(1,275)	(1,013)	(830)	(1,045)	(1,061)	(1,008)	(1,000)	(1,010)	(1,024)	(1,001)	(2,164)
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Caused mostly by human activities	54	58	55	54	53	52	51	52	47	49	54	46	49	47	50	46	57
Caused mostly by natural changes in the environment	33	30	30	34	33	32	33	33	36	33	32	37	32	35	34	35	32
Neither because global warming isn't happening	6	6	8	7	8	10	9	8	8	8	7	5	8	8	6	9	4
Other (please specify), caused by human activities and natural changes	6	6	5	5	5	5	6	5	9	7	5	9	6	7	7	6	5
Other (please specify), unclassified	1	1	1	1	1	2	1	1	3	2	1	2	2	1	1	1	1

(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. If the indicator does not work, you can enter a number in the number box.

	Oct 2017	May 2017	Nov 2016	March 2016	Oct 2015	March 2015	Oct 2014
(Unweighted base)	(1,304)	(1,266)	(1,226)	(1,204)	(1,330)	(1,263)	(1,275)
	%	%	%	%	%	%	%
0% - 10%	1	2	2	1	2	1	1
11% - 20%	1	1	1	1	2	1	1
21% - 30%	5	4	7	4	4	4	4
31% - 40%	3	3	3	2	2	2	2
41% - 50%	13	13	13	13	12	14	15
51% - 60%	5	7	6	6	5	6	7
61% - 70%	5	6	7	8	6	8	7
71% - 80%	17	14	17	15	18	15	17
81% - 90%	10	10	9	8	10	8	7
91% - 100%	15	13	15	11	12	9	9
Don't know enough to say	24	28	21	32	27	31	30
Of those who provided an estimate:							
Mean	68	67	66	67	67	64	65
Median	75	73	74	71	74	68	67

(Base: Americans 18+)**How worried are you about global warming?**

	Oct 2017	May 2017	Nov 2016	March 2016	Oct 2015	March 2015	Oct 2014	April 2014	Nov 2013	April 2013	Sept 2012	March 2012	Nov 2011	May 2011	June 2010	Jan 2010	Nov 2008
(Unweighted base)	(1,304)	(1,266)	(1,226)	(1,204)	(1,330)	(1,263)	(1,275)	(1,013)	(830)	(1,045)	(1,061)	(1,008)	(1,000)	(1,010)	(1,024)	(1,001)	(2,164)
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Very worried	22	17	19	16	16	11	11	15	15	14	16	11	12	9	12	11	16
Somewhat worried	42	39	42	42	41	41	45	41	38	37	42	42	41	42	41	37	46
Not very worried	23	27	24	25	27	29	25	27	25	30	25	30	30	28	30	27	24
Not at all worried	14	17	15	18	16	19	18	18	20	19	17	16	15	20	18	22	13

(Base: Americans 18+)**How strongly do you feel each of the following emotions when you think about the issue of global warming?****Interested**

	Oct 2017	Nov 2016	March 2016	Oct 2015		Global Warming is Happening, Oct 2017	Don't Know if Global Warming is Happening, Oct 2017	Global Warming is <i>Not</i> Happening, Oct 2017
(Unweighted base)	(1,304)	(1,226)	(1,204)	(1,330)		(927)	(199)	(178)
	%	%	%	%		%	%	%
Very	24	23	22	23		32	2	6
Moderately	43	43	45	43		49	39	15
Not very	20	15	16	19		14	35	33
Not at all	12	18	16	14		3	24	46

(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**

	Oct 2017	Nov 2016	March 2016		Global Warming is Happening, Oct 2017	Don't Know if Global Warming is Happening, Oct 2017	Global Warming is <i>Not</i> Happening, Oct 2017
(Unweighted base)	(1,304)	(1,226)	(1,204)		(927)	(199)	(178)
	%	%	%		%	%	%
Very	22	15	14		27	7	12
Moderately	33	28	34		39	20	14
Not very	25	28	25		24	36	18
Not at all	19	28	26		9	35	54

Helpless

	Oct 2017	Nov 2016	March 2016	Oct 2015		Global Warming is Happening, Oct 2017	Don't Know if Global Warming is Happening, Oct 2017	Global Warming is <i>Not</i> Happening, Oct 2017
(Unweighted base)	(1,304)	(1,226)	(1,204)	(1,330)		(927)	(199)	(178)
	%	%	%	%		%	%	%
Very	15	12	13	14		18	10	3
Moderately	37	34	36	39		45	26	10
Not very	26	26	23	25		26	33	20
Not at all	20	26	27	21		10	28	66

(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**

	Oct 2017	Nov 2016	March 2016		Global Warming is Happening, Oct 2017	Don't Know if Global Warming is Happening, Oct 2017	Global Warming is <i>Not</i> Happening, Oct 2017
(Unweighted base)	(1,304)	(1,226)	(1,204)		(927)	(199)	(178)
	%	%	%		%	%	%
Very	16	12	12		20	3	8
Moderately	32	26	29		39	17	15
Not very	28	31	29		28	39	17
Not at all	22	30	29		11	40	59

Afraid

	Oct 2017	Nov 2016	March 2016		Global Warming is Happening, Oct 2017	Don't Know if Global Warming is Happening, Oct 2017	Global Warming is <i>Not</i> Happening, Oct 2017
(Unweighted base)	(1,304)	(1,226)	(1,204)		(927)	(199)	(178)
	%	%	%		%	%	%
Very	14	12	11		18	1	3
Moderately	34	30	31		42	19	6
Not very	28	27	26		27	40	21
Not at all	22	29	30		11	37	67

(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**

	Oct 2017	Nov 2016	March 2016	Oct 2015		Global Warming is Happening, Oct 2017	Don't Know if Global Warming is Happening, Oct 2017	Global Warming is <i>Not</i> Happening, Oct 2017
(Unweighted base)	(1,304)	(1,226)	(1,204)	(1,330)		(927)	(199)	(178)
	%	%	%	%		%	%	%
Very	7	11	10	11		8	4	9
Moderately	37	38	38	39		39	37	22
Not very	39	30	30	32		42	34	23
Not at all	16	21	20	17		9	22	45

Outraged

	Oct 2017	Nov 2016	March 2016		Global Warming is Happening, Oct 2017	Don't Know if Global Warming is Happening, Oct 2017	Global Warming is <i>Not</i> Happening, Oct 2017
(Unweighted base)	(1,304)	(1,226)	(1,204)		(927)	(199)	(178)
	%	%	%		%	%	%
Very	15	12	12		19	3	9
Moderately	28	24	29		34	15	8
Not very	32	32	28		31	44	20
Not at all	23	31	30		13	37	61

(Base: Americans 18+)**How much do you agree with the following statements?****I have personally experienced the effects of global warming.**

	Oct 2017	May 2017	Nov 2016	March 2016	March 2015	Oct 2014	April 2014	Nov 2013	April 2013	Sept 2012	March 2012	Nov 2011	May 2011	June 2010	Jan 2010	Nov 2008
(Unweighted base)	(1,304)	(1,266)	(1,226)	(1,204)	(1,263)	(1,275)	(1,013)	(830)	(1,045)	(1,061)	(1,008)	(1,000)	(1,010)	(1,024)	(1,001)	(2,164)
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Strongly/ Somewhat Agree	44	40	36	39	31	30	34	33	39	38	34	35	32	29	23	32
Strongly Agree	8	5	7	7	4	4	5	6	6	4	5	7	5	5	4	4
Somewhat Agree	36	34	29	33	27	26	29	27	33	34	30	28	27	24	19	28
Strongly/ Somewhat Disagree	56	60	64	60	69	70	65	66	60	61	63	57	62	68	70	66
Somewhat Disagree	30	29	29	29	29	29	29	30	29	30	30	34	32	34	32	42
Strongly Disagree	26	31	35	31	40	41	35	36	31	31	33	23	30	34	37	24

(Base: Americans 18+)**When do you think global warming will start to harm people in the United States?**

	Oct 2017	May 2017	Nov 2016	March 2016	Oct 2015	March 2015	Oct 2014	April 2014	Nov 2013	April 2013	Sept 2012	March 2012	Nov 2011	May 2011	June 2010	Jan 2010	Nov 2008
(Unweighted base)	(1,304)	(1,266)	(1,226)	(1,204)	(1,330)	(1,263)	(1,275)	(1,013)	(830)	(1,045)	(1,061)	(1,008)	(1,000)	(1,010)	(1,024)	(1,001)	(2,164)
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
They are being harmed right now	42	35	36	38	34	32	33	32	34	34	36	29	29	31	28	24	33
In 10 years	12	11	14	12	13	11	10	9	10	11	13	12	10	11	12	12	13
In 25 years	12	13	15	13	14	13	14	14	14	12	11	14	13	13	12	14	13
In 50 years	11	13	10	12	11	11	12	15	11	12	12	14	15	12	13	13	13
In 100 years	11	13	9	10	11	13	13	14	12	13	13	15	15	11	15	13	12
Never	12	15	16	14	18	20	18	16	18	17	15	16	16	19	19	23	15

(Base: Americans 18+)**How much do you think global warming will harm...?****You personally**

	Oct 2017	May 2017	Nov 2016	March 2016	Oct 2015	March 2015	Oct 2014	April 2014	Nov 2013	April 2013	Sept 2012	March 2012	Nov 2011	May 2011	June 2010	Jan 2010	Nov 2008
(Unweighted base)	(1,304)	(1,266)	(1,226)	(1,204)	(1,330)	(1,263)	(1,275)	(1,013)	(830)	(1,045)	(1,061)	(1,008)	(1,000)	(1,010)	(1,024)	(1,001)	(2,164)
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
A great deal	16	13	14	12	14	10	12	13	13	15	16	11	9	11	10	14	10
A moderate amount	33	29	27	28	27	26	24	25	25	25	26	18	21	18	21	23	22
Only a little	24	26	25	24	26	26	26	26	27	26	25	30	28	27	27	22	24
Not at all	19	22	25	23	20	25	27	25	26	23	20	29	25	25	24	31	22
Don't know	7	9	8	12	12	13	11	11	8	11	13	11	17	17	18	11	23

Your family

	Oct 2017	May 2017	Nov 2016	March 2016	March 2015	Oct 2014	April 2014	Nov 2013	April 2013	Sept 2012	March 2012	Nov 2011	May 2011	June 2010	Jan 2010	Nov 2008
(Unweighted base)	(1,304)	(1,266)	(1,226)	(1,204)	(1,263)	(1,275)	(1,013)	(830)	(1,045)	(1,061)	(1,008)	(1,000)	(1,010)	(1,024)	(1,001)	(2,164)
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
A great deal	19	16	17	15	13	15	16	17	17	18	12	10	12	11	15	11
A moderate amount	35	31	30	30	28	28	27	25	27	28	21	24	21	25	25	24
Only a little	22	25	24	22	23	23	24	25	23	23	29	27	25	24	21	23
Not at all	16	19	21	21	22	23	21	24	20	17	26	21	23	21	28	19
Don't know	8	9	8	12	13	11	11	9	12	14	12	18	17	19	11	23

(Base: Americans 18+)**How much do you think global warming will harm...? (Cont'd.)****People in your community**

	Oct 2017	May 2017	Nov 2016	March 2016	March 2015	Oct 2014	April 2014	Nov 2013	April 2013	Sept 2012	March 2012	Nov 2011	May 2011	June 2010	Jan 2010	Nov 2008
(Unweighted base)	(1,304)	(1,266)	(1,226)	(1,204)	(1,263)	(1,275)	(1,013)	(830)	(1,045)	(1,061)	(1,008)	(1,000)	(1,010)	(1,024)	(1,001)	(2,164)
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
A great deal	21	16	19	15	14	16	17	14	17	19	12	11	12	11	15	13
A moderate amount	34	32	30	31	29	27	28	29	28	29	22	24	21	25	27	26
Only a little	22	23	22	23	24	23	24	24	23	23	29	27	25	24	22	20
Not at all	15	18	20	19	20	22	20	23	18	15	24	21	21	21	24	17
Don't know	8	10	9	12	14	11	11	10	13	13	13	18	18	19	12	23

People in the United States

	Oct 2017	May 2017	Nov 2016	March 2016	Oct 2015	March 2015	Oct 2014	April 2014	Nov 2013	April 2013	Sept 2012	March 2012	Nov 2011	May 2011	June 2010	Jan 2010	Nov 2008
(Unweighted base)	(1,304)	(1,266)	(1,226)	(1,204)	(1,330)	(1,263)	(1,275)	(1,013)	(830)	(1,045)	(1,061)	(1,008)	(1,000)	(1,010)	(1,024)	(1,001)	(2,164)
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
A great deal	34	25	28	24	23	19	23	23	23	22	26	18	15	16	16	22	21
A moderate amount	33	33	32	35	34	30	30	30	30	30	31	28	29	26	28	29	28
Only a little	14	19	17	16	18	20	20	18	19	19	17	24	23	22	22	16	15
Not at all	11	15	15	15	14	17	17	18	20	16	12	18	17	17	17	22	14
Don't know	7	9	8	10	12	14	11	11	8	12	13	12	16	18	18	12	22

(Base: Americans 18+)**How much do you think global warming will harm...? (Cont'd.)****The world's poor**

	Oct 2017	May 2017	Nov 2016	March 2016	Oct 2015	March 2015
(Unweighted base)	(1,304)	(1,266)	(1,226)	(1,204)	(1,330)	(1,263)
	%	%	%	%	%	%
A great deal	49	39	43	40	36	30
A moderate amount	21	23	21	22	26	23
Only a little	10	15	11	12	12	16
Not at all	10	13	13	13	13	16
Don't know	9	10	12	14	13	15

People in developing countries

	Oct 2017	May 2017	Nov 2016	March 2016	Oct 2015	March 2015	Oct 2014	April 2014	Nov 2013	April 2013	Sept 2012	March 2012	Nov 2011	May 2011	June 2010	Jan 2010	Nov 2008
(Unweighted base)	(1,304)	(1,266)	(1,226)	(1,204)	(1,330)	(1,263)	(1,275)	(1,013)	(830)	(1,045)	(1,061)	(1,008)	(1,000)	(1,010)	(1,024)	(1,001)	(2,164)
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
A great deal	47	37	40	36	34	27	29	31	32	30	35	26	22	23	22	29	31
A moderate amount	25	25	25	27	27	26	26	24	24	25	29	26	28	21	28	25	22
Only a little	10	16	12	12	13	17	16	17	17	18	10	19	17	19	17	14	11
Not at all	10	13	13	13	13	15	17	16	19	13	11	16	15	16	15	19	13
Don't know	9	9	11	12	13	15	12	12	9	13	15	14	18	18	18	13	24

(Base: Americans 18+)**How much do you think global warming will harm...? (Cont'd.)****Future generations of people**

	Oct 2017	May 2017	Nov 2016	March 2016	Oct 2015	March 2015	Oct 2014	April 2014	Nov 2013	April 2013	Sept 2012	March 2012	Nov 2011	May 2011	June 2010	Jan 2010	Nov 2008
(Unweighted base)	(1,304)	(1,266)	(1,226)	(1,204)	(1,330)	(1,263)	(1,275)	(1,013)	(830)	(1,045)	(1,061)	(1,008)	(1,000)	(1,010)	(1,024)	(1,001)	(2,164)
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
A great deal	54	50	53	48	51	42	46	49	46	42	47	43	40	36	39	42	44
A moderate amount	21	20	18	22	19	21	18	18	19	21	21	22	22	22	22	22	17
Only a little	8	10	9	8	8	10	11	10	11	12	9	12	13	10	11	9	7
Not at all	9	11	10	10	11	12	13	12	15	12	8	11	10	11	12	15	10
Don't know	8	8	10	11	11	15	13	11	9	12	14	13	16	18	16	12	22

Plant and animal species

	Oct 2017	May 2017	Nov 2016	March 2016	March 2015	Oct 2014	April 2014	Nov 2013	April 2013	Sept 2012	March 2012	Nov 2011	May 2011	June 2010	Jan 2010	Nov 2008
(Unweighted base)	(1,304)	(1,266)	(1,226)	(1,204)	(1,263)	(1,275)	(1,013)	(830)	(1,045)	(1,061)	(1,008)	(1,000)	(1,010)	(1,024)	(1,001)	(2,164)
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
A great deal	54	49	50	48	42	44	47	46	39	43	43	41	38	40	43	45
A moderate amount	21	22	19	23	21	20	19	19	24	25	21	19	18	21	19	17
Only a little	9	10	10	9	12	10	12	11	13	11	13	16	12	12	11	8
Not at all	8	11	11	11	12	13	12	15	13	8	10	10	12	13	15	9
Don't know	8	8	9	10	13	12	11	8	10	13	12	15	17	15	12	20

(Base: Americans 18+)

Worldwide, over the next 20 years, do you think global warming will cause more or less of the following, if nothing is done to address it?

Refugees

	Oct 2017
(Unweighted base)	(1,304)
	%
Many more	27
A few more	18
No difference	25
A few less	2
Many less	1
Don't know	25

Disease epidemics

	Oct 2017
(Unweighted base)	(1,304)
	%
Many more	22
A few more	23
No difference	24
A few less	2
Many less	1
Don't know	26

Worldwide, over the next 20 years, do you think global warming will cause more or less of the following, if nothing is done to address it? (Cont'd.)

Abandoning large coastal cities due to rising sea levels

	Oct 2017
(Unweighted base)	(1,304)
	%
Many more	26
A few more	26
No difference	22
A few less	2
Many less	1
Don't know	21

Famines and food shortages

	Oct 2017
(Unweighted base)	(1,304)
	%
Many more	31
A few more	27
No difference	17
A few less	1
Many less	1
Don't know	20

Worldwide, over the next 20 years, do you think global warming will cause more or less of the following, if nothing is done to address it? (Cont'd.)

Extinctions of plant and animal species

	Oct 2017
(Unweighted base)	(1,304)
	%
Many more	31
A few more	28
No difference	17
A few less	1
Many less	1
Don't know	20

Forest fires

	Oct 2017
(Unweighted base)	(1,304)
	%
Many more	36
A few more	23
No difference	18
A few less	1
Many less	1
Don't know	19

Worldwide, over the next 20 years, do you think global warming will cause more or less of the following, if nothing is done to address it? (Cont'd.)

Intense hurricanes

	Oct 2017
(Unweighted base)	(1,304)
	%
Many more	38
A few more	22
No difference	17
A few less	1
Many less	1
Don't know	19

Severe air pollution

	Oct 2017
(Unweighted base)	(1,304)
	%
Many more	37
A few more	24
No difference	17
A few less	2
Many less	1
Don't know	18

Worldwide, over the next 20 years, do you think global warming will cause more or less of the following, if nothing is done to address it? (Cont'd.)

Floods

	Oct 2017
(Unweighted base)	(1,304)
	%
Many more	36
A few more	24
No difference	16
A few less	1
Many less	1
Don't know	19

Droughts and water shortages

	Oct 2017
(Unweighted base)	(1,304)
	%
Many more	37
A few more	26
No difference	15
A few less	1
Many less	1
Don't know	17

Worldwide, over the next 20 years, do you think global warming will cause more or less of the following, if nothing is done to address it? (Cont'd.)

Severe heat waves

	Oct 2017
(Unweighted base)	(1,304)
	%
Many more	40
A few more	24
No difference	15
A few less	1
Many less	1
Don't know	17

Melting glaciers

	Oct 2017
(Unweighted base)	(1,304)
	%
Many more	43
A few more	24
No difference	13
A few less	1
Many less	1
Don't know	15

[Respondents were presented a list of impacts for which they selected "many more" or "a few more." If only one impact was endorsed, it was automatically entered as the impact most worried about. If no impacts were endorsed, this question was not asked.]

Which one of these impacts of global warming are you most worried about?

	Oct 2017
(Unweighted base)	(1,304)
	%
Not asked (no response of "many more" or "a few more" for any of the impacts)	27
Droughts and water shortages	12
Melting glaciers	9
Extinctions of plants and animal species	9
Intense hurricanes	8
Famines and food shortages	8
Severe air pollution	6
Severe heat waves	6
Abandoning large coastal cities due to rising sea levels	5
Floods	3
Disease epidemics	3
Forest fires	2
Refugees	1

(Base: Americans 18+)**How often do you discuss global warming with your family and friends?**

	Oct 2017	May 2017	Nov 2016	March 2016	Oct 2015	March 2015	Oct 2014	April 2014	Nov 2013	April 2013	Sept 2012	March 2012	Nov 2011	May 2011	June 2010	Jan 2010	Nov 2008
(Unweighted base)	(1,304)	(1,266)	(1,226)	(1,204)	(1,330)	(1,263)	(1,275)	(1,013)	(830)	(1,045)	(1,061)	(1,008)	(1,000)	(1,010)	(1,024)	(1,001)	(2,164)
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Often	6	5	6	4	5	3	3	4	3	4	3	5	4	4	5	5	5
Occasionally	32	28	27	27	30	23	24	28	23	28	26	24	26	26	30	29	35
Rarely	37	36	36	36	33	38	36	39	38	39	38	40	39	41	39	34	33
Never	25	31	31	32	32	36	37	29	34	28	34	30	29	28	25	30	26

(Base: Americans 18+)**About how often do you hear about global warming in the media (TV, movies, radio, newspapers/news websites, magazines, etc.)?**

	Oct 2017	May 2017
(Unweighted base)	(1,304)	(1,266)
	%	%
At least once a week	24	23
At least once a month	28	20
Several times a year	25	26
Once a year or less often	7	9
Never	3	9
Not sure/No answer	13	13

(Base: Americans 18+)

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

	Oct 2017	May 2017
(Unweighted base)	(1,304)	(1,266)
	%	%
At least once a week	7	6
At least once a month	17	13
Several times a year	24	21
Once a year or less often	21	22
Never	18	28
Not sure/No answer	12	11

(Base: Americans 18+)

When you use social media, how often do you share a news story, headline, or story about global warming that you have read or seen on other websites?

	Oct 2017
(Unweighted base)	(1,304)
	%
Several times a day	1
Almost every day	2
Every few days	5
Once a week	6
Every few weeks	20
Never	65

(Base: Americans 18+)**How important is the issue of global warming to you personally?**

	Oct 2017	May 2017	Nov 2016	March 2016	Oct 2015	March 2015	Oct 2014	April 2014	Nov 2013	April 2013	Sept 2012	March 2012	Nov 2011	May 2011	June 2010	Jan 2010	Nov 2008
(Unweighted base)	(1,304)	(1,266)	(1,226)	(1,204)	(1,330)	(1,263)	(1,275)	(1,013)	(830)	(1,045)	(1,061)	(1,008)	(1,000)	(1,010)	(1,024)	(1,001)	(2,164)
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Extremely important	12	10	10	9	7	6	5	8	8	8	6	6	6	7	6	5	10
Very important	19	16	17	17	18	15	16	17	14	13	17	14	13	15	18	14	20
Somewhat important	37	38	34	35	37	35	37	38	33	36	36	40	40	37	38	37	39
Not too important	19	22	22	22	21	24	24	21	25	24	24	23	24	24	24	23	18
Not at all important	14	15	16	17	17	20	18	16	18	18	17	15	15	14	14	19	11

(Base: Americans 18+)**How much had you thought about global warming before today?**

	Oct 2017	May 2017	Nov 2016	March 2016	Oct 2015	March 2015	Oct 2014	April 2014	Nov 2013	April 2013	Sept 2012	March 2012	Nov 2011	May 2011	June 2010	Jan 2010	Nov 2008
(Unweighted base)	(1,304)	(1,266)	(1,226)	(1,204)	(1,330)	(1,263)	(1,275)	(1,013)	(830)	(1,045)	(1,061)	(1,008)	(1,000)	(1,010)	(1,024)	(1,001)	(2,164)
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
A lot/Some	54	50	47	51	50	44	45	51	45	47	49	44	44	45	55	45	55
A lot	22	18	20	16	17	15	14	16	14	16	17	15	14	12	17	14	20
Some	32	31	27	35	34	29	31	35	31	30	32	30	30	33	37	30	35
A little/Not at all	46	50	53	49	50	56	55	49	54	53	51	55	54	53	45	53	45
A little	32	33	37	33	33	35	35	34	37	37	34	39	38	37	32	35	32
Not at all	14	17	16	16	17	21	20	15	17	16	17	16	16	16	13	18	12

(Base: Americans 18+)**Which of the following statements comes closest to your view?**

	Oct 2017	May 2017	Nov 2016	March 2016	Oct 2015	March 2015	Oct 2014	April 2014	Nov 2013	April 2013	Sept 2012	March 2012	Nov 2011	May 2011	June 2010	Jan 2010	Nov 2008
(Unweighted base)	(1,304)	(1,266)	(1,226)	(1,204)	(1,330)	(1,263)	(1,275)	(1,013)	(830)	(1,045)	(1,061)	(1,008)	(1,000)	(1,010)	(1,024)	(1,001)	(2,164)
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Humans can reduce global warming, and we are going to do so successfully	5	7	5	6	4	6	7	6	5	3	5	4	4	5	4	10	6
Humans could reduce global warming, but it's unclear at this point whether we will do what's needed	48	48	48	47	42	46	44	42	40	45	49	45	45	40	46	43	50
Humans could reduce global warming, but people aren't willing to change their behavior, so we're not going to	25	24	23	25	26	24	22	25	25	24	22	21	24	24	21	17	22
Humans can't reduce global warming, even if it is happening	15	12	15	13	18	12	17	16	16	16	15	19	15	18	18	15	16
Global warming isn't happening	7	8	9	8	9	13	10	10	13	11	8	9	9	10	10	13	5

(Base: Americans 18+)**In your opinion, do you think global warming is...****An environmental issue**

	Oct 2017	Nov 2016	March 2016	Oct 2015	March 2015
(Unweighted base)	(1,304)	(1,226)	(1,204)	(1,330)	(1,263)
	%	%	%	%	%
Yes	78	76	78	78	76
No	11	11	10	11	11
Not sure	10	11	12	11	12
No answer	2	1	1	1	1

A scientific issue

	Oct 2017	Nov 2016	March 2016	Oct 2015	March 2015
(Unweighted base)	(1,304)	(1,226)	(1,204)	(1,330)	(1,263)
	%	%	%	%	%
Yes	71	70	71	73	71
No	15	15	14	13	13
Not sure	13	14	14	14	15
No answer	2	1	1	1	2

An agricultural (farming, food) issue

	Oct 2017	Nov 2016	March 2016	Oct 2015	March 2015
(Unweighted base)	(1,304)	(1,226)	(1,204)	(1,330)	(1,263)
	%	%	%	%	%
Yes	66	65	62	65	64
No	19	20	22	17	19
Not sure	14	15	15	16	16
No answer	1	1	1	1	2

A severe weather issue

	Oct 2017	Nov 2016	March 2016
(Unweighted base)	(1,304)	(1,226)	(1,204)
	%	%	%
Yes	65	61	63
No	19	23	19
Not sure	15	15	17
No answer	1	1	1

(Base: Americans 18+)**In your opinion, do you think global warming is... (Cont'd.)****A health issue**

	Oct 2017	Nov 2016	March 2016	Oct 2015	March 2015
(Unweighted base)	(1,304)	(1,226)	(1,204)	(1,330)	(1,263)
	%	%	%	%	%
Yes	62	62	61	62	58
No	23	22	22	21	24
Not sure	13	15	16	16	17
No answer	2	1	1	1	2

An economic issue

	Oct 2017	Nov 2016	March 2016	Oct 2015	March 2015
(Unweighted base)	(1,304)	(1,226)	(1,204)	(1,330)	(1,263)
	%	%	%	%	%
Yes	60	60	61	63	60
No	23	23	23	19	22
Not sure	15	16	15	17	16
No answer	2	1	1	1	2

A political issue

	Oct 2017	Nov 2016	March 2016	Oct 2015	March 2015
(Unweighted base)	(1,304)	(1,226)	(1,204)	(1,330)	(1,263)
	%	%	%	%	%
Yes	60	56	56	56	54
No	24	28	27	26	27
Not sure	14	15	16	17	17
No answer	2	1	1	1	2

A moral issue

	Oct 2017	Nov 2016	March 2016	Oct 2015	March 2015
(Unweighted base)	(1,304)	(1,226)	(1,204)	(1,330)	(1,263)
	%	%	%	%	%
Yes	41	37	39	41	35
No	42	45	41	39	44
Not sure	15	17	19	19	19
No answer	2	1	1	1	2

(Base: Americans 18+)**In your opinion, do you think global warming is... (Cont'd.)****A national security issue**

	Oct 2017	Nov 2016	March 2016	Oct 2015	March 2015
(Unweighted base)	(1,304)	(1,226)	(1,204)	(1,330)	(1,263)
	%	%	%	%	%
Yes	29	27	26	23	26
No	50	53	51	50	53
Not sure	19	19	21	26	20
No answer	2	1	1	1	1

A poverty issue

	Oct 2017	Nov 2016	March 2016	Oct 2015	March 2015
(Unweighted base)	(1,304)	(1,226)	(1,204)	(1,330)	(1,263)
	%	%	%	%	%
Yes	28	25	27	26	24
No	52	54	51	50	53
Not sure	18	20	22	24	21
No answer	2	1	1	1	2

A social justice (fairness issue)

	Oct 2017	Nov 2016	March 2016	Oct 2015	March 2015
(Unweighted base)	(1,304)	(1,226)	(1,204)	(1,330)	(1,263)
	%	%	%	%	%
Yes	26	24	23	27	23
No	51	52	51	46	53
Not sure	20	22	25	25	22
No answer	2	1	1	1	2

A religious issue

	Oct 2017	Nov 2016	March 2016	Oct 2015	March 2015
(Unweighted base)	(1,304)	(1,226)	(1,204)	(1,330)	(1,263)
	%	%	%	%	%
Yes	9	8	10	12	10
No	77	73	71	67	71
Not sure	12	17	17	20	18
No answer	2	1	1	1	2

(Base: Americans 18+)**Which statement below 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?**

	Oct 2017	May 2017	Nov 2016	March 2016	April 2014	Nov 2013	April 2013
(Unweighted base)	(1,304)	(1,266)	(1,226)	(1,204)	(1,013)	(830)	(1,045)
	%	%	%	%	%	%	%
Global warming is affecting the weather in the United States (Total)	64	59	60	60	57	56	58
<i>A lot</i>	33	25	24	24	22	22	23
<i>Some</i>	23	28	26	28	25	26	27
<i>A little</i>	6	5	8	7	9	6	6
<i>Don't know/Refused</i>	2	2	2	1	2	2	2
Global warming is not affecting weather in the United States	6	5	7	5	8	7	7
Global warming isn't happening	8	10	9	9	10	13	10
Don't know	18	21	21	20	19	17	19
Prefer not to answer	5	5	4	5	5	5	5

(Base: Americans 18+)**Do you think global warming made each of the following worse or not?****[If “yes” selected] Do you think global warming made each of the following a little worse, moderately worse, or a lot worse?****The heat wave in northern California in September, 2017**

	Oct 2017
(Unweighted base)	(1,304)
	%
Yes, global warming made this worse (Total)	55
<i>A lot worse</i>	23
<i>Moderately worse</i>	20
<i>A little worse</i>	10
<i>Don't know</i>	2
No, global warming did not make this worse	19
Don't know	24

Hurricanes Harvey, Irma, and Maria (which struck the U.S. in the summer and fall, 2017)

	Oct 2017
(Unweighted base)	(1,304)
	%
Yes, global warming made this worse (Total)	54
<i>A lot worse</i>	28
<i>Moderately worse</i>	17
<i>A little worse</i>	7
<i>Don't know</i>	1
No, global warming did not make this worse	21
Don't know	24

(Base: Americans 18+)**Do you think global warming made each of the following worse or not? (Cont'd.)****[If “yes” selected] Do you think global warming made each of the following a little worse, moderately worse, or a lot worse? (Cont'd.)****Wildfires in the western U.S. in the summer and fall, 2017**

	Oct 2017
(Unweighted base)	(1,304)
	%
Yes, global warming made this worse (Total)	52
<i>A lot worse</i>	25
<i>Moderately worse</i>	16
<i>A little worse</i>	8
<i>Don't know</i>	2
No, global warming did not make this worse	23
Don't know	24

The heat wave that grounded planes in Phoenix, Arizona in June, 2017

	Oct 2017
(Unweighted base)	(1,304)
	%
Yes, global warming made this worse (Total)	51
<i>A lot worse</i>	19
<i>Moderately worse</i>	20
<i>A little worse</i>	9
<i>Don't know</i>	2
No, global warming did not make this worse	19
Don't know	28

(Base: Americans 18+)

Do you think global warming made each of the following worse or not? (Cont'd.)

[If “yes” selected] Do you think global warming made each of the following a little worse, moderately worse, or a lot worse? (Cont'd.)

The earthquake that struck Mexico in September, 2017

	Oct 2017
(Unweighted base)	(1,304)
	%
Yes, global warming made this worse (Total)	26
<i>A lot worse</i>	13
<i>Moderately worse</i>	8
<i>A little worse</i>	5
<i>Don't know</i>	1
No, global warming did not make this worse	42
Don't know	30

How interested would you be in learning more about how global warming is or is not affecting extreme weather events?

	Oct 2017
(Unweighted base)	(1,304)
	%
Very interested	22
Moderately interested	30
A little bit interested	25
Not at all interested	22

Appendix II: Survey Method

The data in this report are based on a nationally representative survey of 1,304 American adults, aged 18 and older. The survey was conducted October 20 – November 1, 2017. All questionnaires were self-administered by respondents in a web-based environment. The survey took, on average, 23 minutes to complete.

The sample was drawn from GfK's 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.

The survey instrument was designed by Anthony Leiserowitz, Seth Rosenthal, and Matthew Cutler of Yale University, and Edward Maibach, Connie Roser-Renouf, 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.

- 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., $1.3\% + 1.3\% = 2.6\%$, which, after rounding = 3%).

Appendix III: Sample Demographics

	N (unweighted)	% (weighted)
Total	1,304	100
Men	637	48
Women	667	52
Millennial (18-36)	305	33
Generation X (37-52)	309	25
Baby Boomer (53-71)	532	33
Silent Generation (72+)	158	9
Less than high school	80	11
High school graduate	340	29
Some college/Associate degree/Technical degree	386	29
College graduate	269	17
Post graduate	229	15
<\$25K	167	15
\$25K - <\$50K	267	20
\$50K - <\$75K	225	17
\$75K - <\$100K	202	14
\$100K - <\$125K	156	11
\$125K+	287	23
White, non-Hispanic	943	64
Black, African-American non-Hispanic	121	12
Hispanic	145	16
Other non-Hispanic	95	8
Northeast	227	18
Midwest	312	21
South	469	38
West	296	24

