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How Americans View Future Harms From Climate Change in Their Community and Around the U.S.

63% expect climate impacts to worsen in their lifetime

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How we did this

Pew Research Center conducted this study to understand Americans' views of climate change and its impact on the country. For this analysis, we surveyed 8,842 U.S. adults from Sept. 25 to Oct. 1, 2023.

Everyone who took part in the survey is a member of the Center's American Trends Panel (ATP), an online survey panel that is recruited through national, random sampling of residential addresses. This way, nearly all U.S. adults have a chance of selection. The survey is weighted to be representative of the U.S. adult population by gender, race, ethnicity, partisan affiliation, education and other categories. Read more about the <u>ATP's methodology</u>.

Here are the <u>questions used for this report</u>, along with responses, and its <u>methodology</u>.

How Americans View Future Harms From Climate Change in Their Community and Around the U.S.

63% expect climate impacts to worsen in their lifetime

A new Pew Research Center survey finds a majority of Americans think climate change is causing harm to people in the United States today and 63% expect things to get worse in their lifetime.

When it comes to the personal impact of climate change, most Americans think they'll have to make at least minor sacrifices over their lifetime because of climate change, but a relatively modest share think climate impacts will require them to make *major sacrifices* in their own lives.

July 2023 was <u>hotter than any other month in the global temperature record</u>, and the United Nations climate panel has <u>warned of growing impacts from climate change</u> barring major reductions in greenhouse gas emissions worldwide.

The Center survey of 8,842 U.S. adults conducted Sept. 25-Oct. 1, 2023, finds that 43% of Americans think climate change is causing a great deal or quite a bit of harm to people in the U.S. today. An additional 28% say it is causing some harm.

Looking ahead, young adults ages 18 to 29 are especially likely to foresee worsening climate impacts: 78% think harm to people in the U.S. caused by climate change will get a little or a lot worse in their lifetime.

63% of Americans say harm to people in the U.S. from climate change will get worse in their lifetime

% of U.S. adults who say climate change is causing $_$ harm to people in the U.S. today



% of U.S. adults who say in their lifetime, harm to people in the U.S. caused by climate change will get ...



Note: Respondents who did not give an answer are not shown.

Source: Survey of U.S. adults conducted Sept. 25-Oct. 1, 2023.

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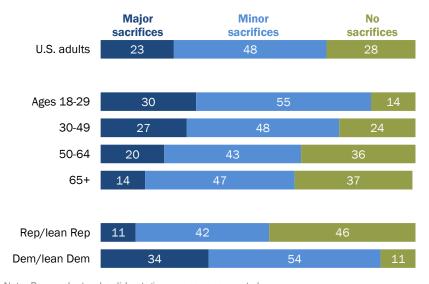
About a quarter of Americans (23%) think they'll have to make major sacrifices in their everyday lives because of climate change.

A larger share (48%) expects to make minor sacrifices because of climate impacts and 28% of Americans expect to make no sacrifices at all.

Republicans and Democrats have much different expectations for how climate change will impact their lives. Just under half of all Republicans and Republicanleaning independents expect to make *no sacrifices* in their everyday lives because of climate change. By comparison, 88% of Democrats and Democratic-

23% of Americans think they will have to make major sacrifices in their own lives because of climate change

% of U.S. adults who say, in their lifetime, they will have to make ___ in their everyday life because of global climate change



Note: Respondents who did not give an answer are not shown. Source: Survey of U.S. adults conducted Sept. 25-Oct. 1, 2023.

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leaning independents expect to have to make at least minor sacrifices.

These partisan gaps are closely tied to differing expectations about national impacts: 86% of Democrats expect harms from climate change in the U.S. to get worse during their lifetime; just 37% of Republicans say the same.

More broadly, the public believes individual Americans can make less of a difference on climate change than other major actors. For example, 55% think the energy industry can do a lot to reduce the effects of climate change and 52% say this about large businesses and corporations. By comparison, far fewer (27%) say individual Americans can do a lot to reduce climate impacts.

<u>Climate change consistently ranks lower than other national issues</u> like the economy, health care and crime on the public's list of national priorities for the president and Congress. Nonetheless, 74% say the <u>U.S. should participate in international efforts</u> to address the issue and majorities support a number of specific policies intended to reduce the effects of climate change, such as providing a <u>tax credits to businesses for developing carbon capture</u> and storage technologies.

Views on climate activism

Despite widespread concern about future climate impacts there has been a slight *decline* in participation in forms of climate activism. The survey finds **21% of of U.S. adults say they** have participated in at least one of four climate-related activities in the last year, including donating money to a climate organization or attending a climate protest. This is down slightly from two years ago when 24% of Americans said they had participated in a climate-related activity.

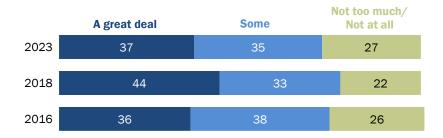
Furthermore, Americans are largely skeptical that climate activism builds public support for the issue or spurs elected officials to act. Just 28% think climate activism makes people more likely to support action on climate change and only 11% say it is extremely or very effective at getting elected officials to act on the issue. For more, read Chapter 3 of the report, "Climate activism."

Consistent with the slight decline in levels of climate activism, there has been no increase in personal concern on the issue in recent years.

Overall, 37% say they personally care a great deal about the issue of climate change. This share is down 7 percentage points from 2018 and about the same as it was in 2016, the first time the Center asked the question.

37% of Americans say they personally care 'a great deal' about the issue of climate change

% of U.S. adults who say they personally care __ about the issue of global climate change



Note: Respondents who did not give an answer are not shown. Source: Survey of U.S. adults conducted Sept. 25-Oct. 1, 2023.

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The survey findings are organized into three chapters exploring the following topics in more detail:

- Expectations for future climate change impacts
- What groups Americans think can make a difference on climate change
- <u>Climate activism and engagement</u>

How Americans view the expertise of climate scientists

A related analysis finds only about one-third of Americans think climate scientists understand "very well" whether climate change is happening. An even smaller share says climate scientists understand the *causes* of climate change very well.

For more, read <u>"Americans continue to have doubts about climate scientists" understanding of climate change"</u>.

Public expectations of future climate impacts locally and around the U.S.

Experts predict that some regions of the U.S. will face more severe climate impacts than others. Americans also make distinctions when asked to think about future climate impacts on some different places around the country.

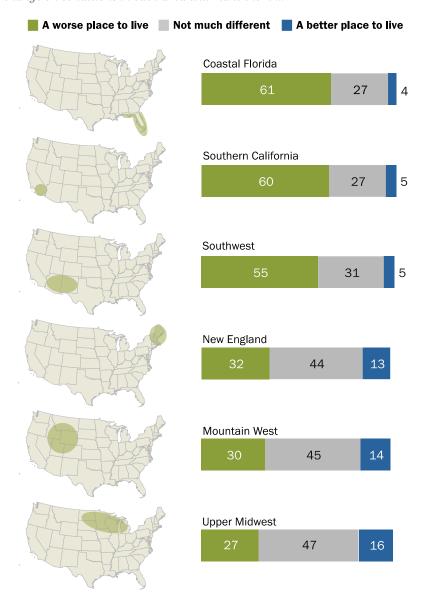
Majorities expect that coastal Florida (61%), Southern California (60%) and the Southwest (55%) will become worse places to live over the next 30 years because of the effects of climate change.

Assessments of other areas are less negative. Only around three-in-ten think New England (32%) and the Mountain West (30%) will become worse places to live over the next 30 years because of climate change; 27% say this about the Upper Midwest.

Americans' assessments of the impact of climate change on their own communities tilt more negative than positive, though a sizable share do not expect much change. **Overall**,

How Americans think climate change will impact select areas over the next 30 years

% of U.S. adults who think, over the next 30 years, the effects of climate change on conditions in each area will make them ...



Note: Respondents who gave other responses or did not give an answer are not shown. Source: Survey of U.S. adults conducted Sept. 25-Oct. 1, 2023.

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41% think their own community will become a worse place to live over the next 30 years due to the effects of climate change. Just 7% think climate impacts will make conditions in their community better, while 41% think climate impacts won't change conditions in their area much.

Democrats (59%), young adults (56%) and Americans living in the Western region of the country (51%) are among the groups most likely to believe conditions in their community will become worse in the next 30 years because of climate change. Read more about these differences in Chapter 1.

Emotional reactions to climate news and information

Seven-in-ten Americans say they've felt sad about what is happening to the

Earth, when they've seen news and information about climate change recently. Half say they've felt motivated to do more to address the issue when they saw climate news and information recently.

A sense of optimism about progress is not widely held: 38% say they've felt optimistic we can address climate change when they've seen news and information on the topic. A June 2023 Center survey found just 33% of Americans

think the U.S. and other

countries around the world

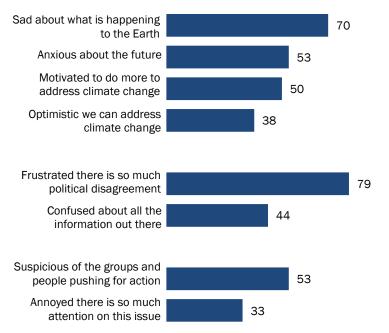
will do enough to avoid the

worst impacts of climate

change.

70% of Americans say climate news makes them feel sad about what is happening to the Earth

% of U.S. adults who say that thinking about news and information on climate change they have come across recently made them feel ...



Note: Respondents who gave other responses or did not give an answer are not shown. Source: Survey of U.S. adults conducted Sept. 25-Oct. 1, 2023. "How Americans View Future Harms From Climate Change in Their Community and Around

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the U.S."

Americans' most common emotional reaction to climate news is feeling frustrated that there is so much political disagreement on the issue; 79% say they've felt this way recently.

A sense of skepticism toward climate advocates also registers with a sizable share of the public: 53% of Americans say they've felt suspicious of the groups and people pushing for action on climate change when they've seen climate news and information recently. An August Pew Research Center study used qualitative interviews to explore the views of those who do not see urgency on climate change; the analysis found that crisis language on climate change often drove suspicion and deeper mistrust among participants who see climate change as a lower-tier priority.

Republicans and Democrats have starkly different emotional responses to news and information on climate change.

Among Democrats and Democratic leaners:

- 88% say they felt sad about what is happening to the Earth.
- 73% felt anxious about the future.
- 72% felt motivated to do more to address the issue.

Still, fewer than half of Democats (45%) say they felt optimistic about addressing the issue when they've seen climate news and information recently.

Among Republicans and Republican leaners:

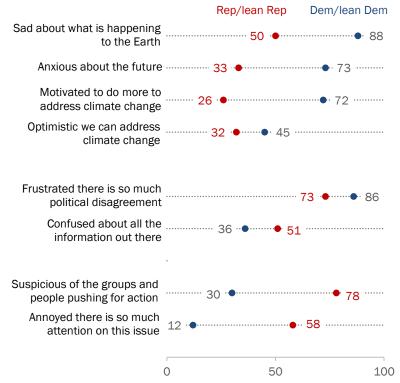
 78% felt suspicious of the groups and people pushing for action on climate change.

- 58% felt annoyed there is so much attention on the issue of climate change.
- 51% felt confused about all the information out there about climate change.

Despite broad skepticism within the GOP toward groups pushing action on climate change, half of Republicans say they felt sad about what is happening to the Earth when they recently came across climate news and information.

Majority of Democrats say climate news makes them feel anxious while majority of Republicans say they feel suspicious of the groups pushing action

% of U.S. adults who say that thinking about news and information on climate change they have come across recently made them feel ...



Note: Respondents who gave other responses or did not give an answer are not shown. Source: Survey of U.S. adults conducted Sept. 25-Oct 1, 2023.

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One sentiment that registers with large shares of Republican and Democrats alike is frustration that there is so much political disagreement over climate change: 86% of Democrats and 73% of Republicans express this feeling.

1. Views on future climate impacts, environmental harms

Americans are far more likely to say the effects of climate change will make their local community a worse rather than better place to live over the next 30 years, but many also say they don't expect much change in local conditions. These attitudes vary considerably by factors like age, partisan affiliation and region.

Differences by party

A majority of Democrats and Democratic leaners (59%) say they expect climate change to make conditions in their local community worse over the next 30 years. Far fewer (28%) say climate change won't make much difference in their area and just 10% think climate impacts will improve their local conditions.

In contrast, a majority of Republicans and Republican leaners (55%) say they expect climate change to not make

Majorities of young adults and Democrats say climate change will make their local area a worse place to live

% of U.S. adults who say over the next 30 years, the effects of climate change on local conditions in their area will make their community a $_$ place to live

		Worse	Better	Not much different	Climate change is not impacting
U.S. adults	- 1	41	7	41	10
Ages 18-29		56	9	28	7
30-49		45	9	36	10
50-64		33	7	46	13
65+		32	5	52	10
Rep/lean Rep		22	5	55	18
Dem/lean Dem		59	10	28	3
Among Rep/lean F	?ep				
Ages 18-29		37	6	45	13
30-49		28	7	47	18
50-64		16	4	57	22
65+		14	3	66	16
Among Dem/lean	Dem				
Ages 18-29		65	11	20	3
30-49		59	11	27	3
50-64		55	9	32	3
65+		55	7	36	2

Note: Respondents who did not give an answer are not shown. Source: Survey of U.S. adults conducted Sept. 25-Oct. 1, 2023.

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much difference on their community in the next 30 years. Another 22% say they expect living conditions in their local community to get worse over the next 30 years, while 5% say that living conditions will get better. Nearly two-in-ten Republicans (18%) do not believe climate change is impacting communities.

Views vary by age group

Younger adults are more likely than older adults to expect adverse impacts from climate change in their communities. Overall, 56% of young adults ages 18 to 29 say their local community will be a worse place to live because of climate change in the next 30 years, while only 9% say climate change will make their local community a better place to live. Roughly three-in-ten young adults do not think climate change will have much of an effect on conditions in their area.

By comparison, the most commonly held view among adults ages 65 and older is that climate change will not have much effect on conditions in their area (52%) over the next 30 years. About a third (32%) think climate change will make their community a worse place to live in the coming decades.

Age differences among Republicans and Democrats

Age differences are seen within both the Republican and Democratic parties when it comes to expectations about local climate impacts.

Republicans ages 18 to 29 (37%) are more likely than Republicans ages 65 and older (14%) to expect climate change to make their local communities worse. Two-thirds of older Republicans say climate change will not make much difference on conditions in their local communities, compared with 45% of younger Republicans.

The age gap is more modest within the Democratic Party. Still, the youngest Democrats are 10 points more likely than the oldest Democrats to expect their area to become a worse place to live because of climate change over the next 30 years (65% vs. 55%).

Regional differences

Across the four major U.S. regions, Westerners are most likely to expect climate change to make local conditions in their area worse, while Midwesterners are least likely to say this.

About half of adults living in the West say climate change will make their community a worse place to live. By comparison, 30% of residents in the Midwest say the same.

Americans living in the South and Northeast fall in between, with roughly four-in-ten in both regions expecting climate change to make local conditions worse over the next 30 years.

This pattern of regional differences is seen among both Republicans and Democrats, though partisans remain far apart in their expectations within each region.

Americans living in the West are most likely to say climate change will make their local areas worse

% of U.S. adults who say over the next 30 years, the effects of climate change on local conditions in their area will make their community a $_$ place to live

	Worse	Better	Not much different	Climate change is not impacting
U.S. adults	41	7	41	10
Midwest	30	9	48	12
Northeast	38	11	42	8
South	42	6	40	11
West	51	6	33	9
Among Rep/lean Rep		•		••••••
Midwest	15	6	59	20
Northeast	17	7	59	17
South	25	4	53	18
West	28	5	50	17
Among Dem/lean Dem	***			
Midwest	47	13	37	2
Northeast	53	14	30	2
South	59	8	28	4
West	71	6	20	3

Note: Respondents who did not give an answer are not shown. Source: Survey of U.S. adults conducted Sept. 25-Oct. 1, 2023.

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For example, in the West, 71%

of Democrats and 28% of Republicans expect conditions in their community to worsen over the next 30 years. By comparison, in the Midwest, relatively smaller shares of both groups expect climate change to make their community a worse place to live, though Democrats remain much more likely than Republicans to say this (47% vs. 15%).

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Expectations for future environmental problems, tech advances

Asked to think more broadly about future environmental conditions, Americans see a range of negative impacts as likely to come to pass.

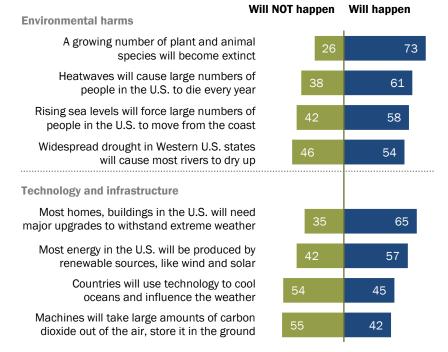
About three-quarters of Americans say a growing number of plant and animal species will definitely or probably become extinct over the next 30 years.

Majorities also see other environmental harms as likely to happen:

- 61% say heatwaves will definitely or probably cause large numbers of people in the U.S. to die every year.
- 58% think rising sea levels will force large numbers of people to move away from coastal areas over the next 30 years.

Majorities expect a range of environmental harms to worsen in the U.S. over the next 30 years

% of U.S. adults who say each of the following definitely or probably ___ over the next 30 years



Note: Respondents who did not give an answer are not shown. Source: Survey of U.S. adults conducted Sept. 25-Oct. 1, 2023.

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• 54% expect widespread drought in the Western U.S. states will cause most rivers to dry up.

These questions did not directly ask about the role of climate change on these environmental harms. However, Americans who see climate change as a serious problem are much more likely than those who see it as a less serious problem to say each of these environmental harms will probably or definitely happen. For example, 85% of Americans who describe climate change as an extremely or very serious problem say heatwaves will definitely or probably cause large numbers

of people to die over the next 30 years. Among those who see climate change as a not too serious problem or not a problem, just 16% say this. (Read the Appendix for more details on this analysis.)

The survey also asked Americans about how technology and infrastructure may change in response to environmental conditions.

About two-thirds of Americans say most homes and buildings will definitely or probably need major upgrades to withstand extreme weather events over the next 30 years. A smaller majority (57%) expects that renewable sources will produce most of the country's energy in 30 years. In 2022, renewable energy sources – such as wind, solar and hydropower – were used to generate about 22% of total electricity in the U.S.

Other forms of technology are currently less widespread, but could be further developed in future decades. Direct air capture is a technology that involves <u>machines removing carbon dioxide from the atmosphere</u>, which the U.S. Department of Energy plans to build and use in coming years. Other technologies are in development that aim <u>to cool oceans and influence weather</u> through various approaches.

Sizable shares of Americans, but not majorities, expect these emerging technologies to become commonplace in the next 30 years:

- 45% of Americans say it is definitely or probably likely that countries will use technology to cool oceans and influence the weather.
- 42% say it is definitely or probably likely that machines will take large amounts of carbon dioxide out of the air and store it in the ground.

Partisans differ in expectations for future environmental conditions

Democrats are much more likely than Republicans to expect both worsening environmental harms and changes in technology and infrastructure over the next 30 years.

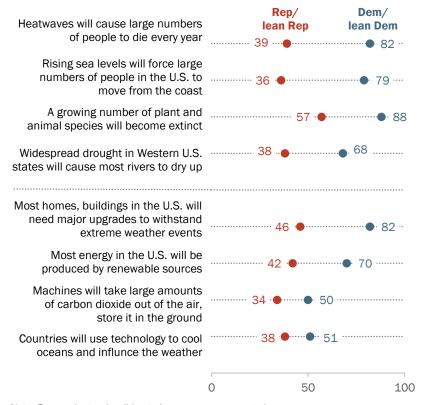
Roughly eight-in-ten
Democrats say heatwaves will
definitely or probably cause
large numbers of people to die
in the U.S. each year and that
rising sea levels will force large
number of Americans to move
away from the coast.

By contrast, fewer than half of Republicans expect these environmental harms to happen over the next three decades.

On infrastructure and technological changes, Democrats (82%) are more likely than Republicans (46%) to say homes and buildings will

Democrats are more likely than Republicans to say environmental harms will occur in coming decades

% of U.S. adults who say each of the following **definitely or probably** will happen in the next 30 years ...



Note: Respondents who did not give an answer are not shown.

Source: Survey of U.S. adults conducted Sept. 25-Oct. 1, 2023.

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need major upgrades to withstand extreme weather events. And a majority of Democrats (70%) expect most energy in the U.S. to be produced by renewable sources in 30 years, compared with fewer than half of Republicans (42%) who expect this to happen.

Partisan gaps are smaller over the emerging technologies of carbon capture and ocean cooling, with neither group confident that these technologies will be in place. Still, Democrats are somewhat more likely than Republicans to think both large-scale carbon capture (50% vs. 34%, respectively) and geoengineering to cool oceans (51% vs. 38%) are likely in 30 years.

2. What groups can make the biggest impact on climate change?

Americans think the energy industry and large businesses can help the most to reduce the effects of climate change. The public sees individual Americans as having less ability to make an impact.

A majority of U.S. adults (55%) say efforts by the energy industry can help a lot to reduce the effects of climate change. A slightly smaller share (52%) say large businesses and corporations can help a lot to address climate change.

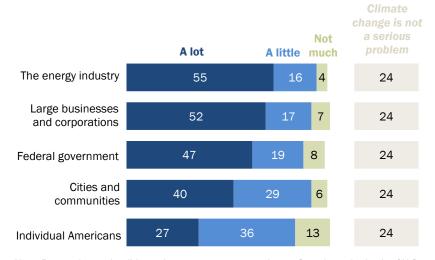
When it comes to the federal government, 47% think it can help a lot to reduce the effects of climate change; 40% say this about cities and communities.

Of the five groups asked about in the survey, the public ranks individual Americans as the least impactful on climate change. About a quarter of U.S. adults (27%) say efforts by individual Americans can help a lot to reduce the effects of climate change.

Nonetheless, majorities believe each of the groups asked about in the survey – including individual Americans – can do at least a little to reduce the effects of climate change. Few

The energy industry, large businesses top Americans' list of actors who can do 'a lot' on climate change

% of U.S. adults who say efforts by each of the following can help ___ to reduce the effects of climate change



Note: Respondents who did not give an answer are not shown. Question asked only of U.S. adults who see climate change as at least a somewhat serious problem. Source: Survey of U.S. adults conducted Sept. 25-Oct. 1, 2023.

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say there's not much difference these groups can make on climate change.

These questions were asked only of the roughly three-quarters of Americans who say climate change is an extremely, very or somewhat serious problem. Those who said climate change is not too serious or not a problem were not asked these questions; this group makes up 24% of U.S. adults.

Views on climate adaptation and mitigation

Asked to look ahead to 30 years from now, far more Americans think major changes to everyday life will be needed to address the problems from climate change than believe new technology will be able to address most problems stemming from climate impacts.

About half of Americans (52%) think major changes to everyday life will be needed to address climate problems. Fewer than half as many (23%) say new technology will be able to address most problems from climate change.

The remaining share of the public (24%) thinks climate change is not a problem. Only those who say climate change is at least a somewhat serious problem were asked this question.

On balance, Americans expect that changes to everyday life rather than new technologies will help solve future problems from climate change

% of U.S. adults who say looking ahead to 30 years from now, __ is more likely to happen in the U.S. to address problems from climate change

	Major changes everyday life wi be needed to address problem	ill New technology will be able to	Climate change is not a serious problem
U.S. adults	52	23	24
Ages 18-29	58	29	11
30-49	54	23	22
50-64	49	18	32
65+	46	24	29
Rep/lean Rep	28	24	47
Dem/lean Dem	73	22	3

Note: Respondents who did not give an answer are not shown. Question asked only of U.S. adults who see climate change as at least a somewhat serious problem. Source: Survey of U.S. adults conducted Sept. 25-Oct. 1, 2023.

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Most Democrats (73%) think major changes to everyday life will be needed to address problems from climate change, while a much smaller share (22%) think new technology will be able to address most problems.

Of the 53% of Republicans who think climate change is at least a somewhat serious problem, views are more evenly divided between saying changes to everyday life will be needed (28%) and new technology will solve most problems from climate change (24%).

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Partisan differences in shares who say climate change is a highly serious problem

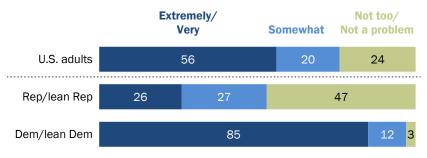
Overall, 56% of Americans say climate change is an extremely or very serious problem. Another 20% say it is a somewhat serious problem. About a quarter of Americans (24%) describe climate change as not too serious of a problem or not a problem at all.

A vast majority of Democrats (85%) say climate change is an extremely or very serious problem. By contrast, 47% of Republicans view climate change as not too serious or not a problem at all. About a quarter of Republicans say climate change is an extremely or a very serious problem; 27% say it is a somewhat serious problem.

Among the GOP, moderate and liberal Republicans are much more likely than conservative

Democrats are much more likely than Republicans to see climate change as a highly serious problem

% of U.S. adults who say climate change is a(n) ___ serious problem



Note: Respondents who did not give an answer are not shown. Source: Survey of U.S. adults conducted Sept. 25-Oct. 1, 2023.

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ones to describe climate change as an extremely or very serious problem (42% vs. 17%). A majority of conservative Republicans (58%) think climate change is not too serious or not a problem.

Views on human activity as a contributor to climate change

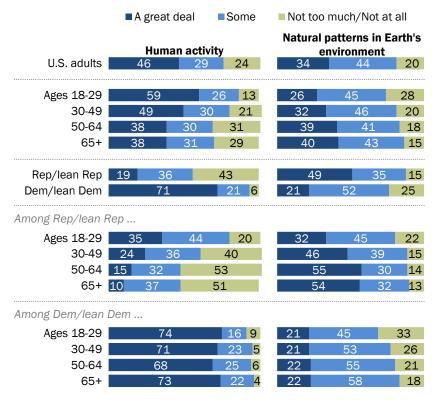
Overall, 46% of Americans think human activity contributes a great deal to climate change. About three-inten (29%) say human activity, such as the burning of fossil fuels, contributes some to climate change. Another 24% say it contributes not too much or not at all.

The share of Americans who say human activity contributes a *great deal* to climate change is unchanged since last year and slightly lower than in 2019, the first time the Center asked this question.

The survey also asked Americans how much they think natural patterns in the Earth's environment contribute to climate change. About onethird (34%) say natural patterns contribute a great deal, while 44% say they contribute some and 20% say

46% of Americans say human activity, such as burning fossil fuels, contributes a lot to climate change

% of U.S. adults who say the following contribute to climate change \dots



Note: Respondents who did not give an answer are not shown. Source: Survey of U.S. adults conducted Sept. 25-Oct. 1, 2023.

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they contribute not too much or not at all. The share of Americans who say natural patterns contribute a great deal to climate change is virtually identical to in 2019.

Partisan affiliation and climate change beliefs

Most Democrats (71%) think human activity contributes a great deal to climate change. By contrast, just 19% of Republicans hold this view. A larger share of Republicans say human activity contributes not much or not at all to climate change (43%).

Republicans are more than twice as likely as Democrats to think natural patterns in the Earth's environment contribute a great deal to climate change (49% vs. 21%).

Age and climate change beliefs

Younger Americans are more likely than their older counterparts to say human activity contributes a great deal to climate change. Among those ages 18 to 29, about six-in-ten (59%) think human activity contributes a great deal, compared with 38% those 65 and older.

Age differences are more pronounced among Republicans than Democrats. Among Republicans, those ages 18 to 29 are 25 points more likely than those ages 65 and older to say human activity contributes a great deal to climate change (35% vs. 10%). By comparison, similar majorities of both younger and older Democrats say human activity contributes a great deal to climate change.

3. Climate activism

The survey finds that the share of Americans who say they have participated in one of four forms of climate activism has declined slightly since two years ago. And there's limited belief among the public generally that climate activism changes minds or drives elected officials to act.

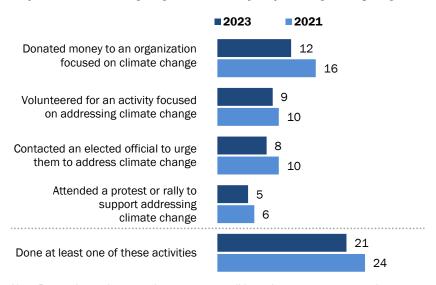
Recent months have seen a number of high-profile climate demonstrations including the <u>delay of a U.S. Open tennis match due to environmental protestors</u> and <u>marches in New York ahead of United Nations meetings</u> to urge world leaders to end the use of fossil fuels.

The survey asked Americans if they have done each of the following in the last year: attended a climate change protest or rally; volunteered for an activity focused on addressing climate change; donated money to an organization focused on climate change; or contacted an elected official to urge them to address climate change.

Overall, 21% of Americans say they have participated in at least one of these activities in the last year, down slightly from 24% in 2021. Two years ago, many places in the U.S. saw restrictions on public gatherings and activities due to policies aimed at limiting the spread of the coronavirus.

Share of Americans who have participated in a climate-related activity is down slightly from 2021

% of U.S. adults who say they've done each of the following in the past year



Note: Respondents who gave other responses or did not give an answer are not shown. Source: Survey of U.S. adults conducted Sept. 25-Oct. 1, 2023.

Rates of participation in climate activism differ by the following measures:

Partisan affiliation

Democrats and independents who lean to the Democratic Party are about three times more likely than Republicans and Republican-leaning independents to say they have participated in at least one of these activities to address climate change in the past year (32% vs. 10%).

Age

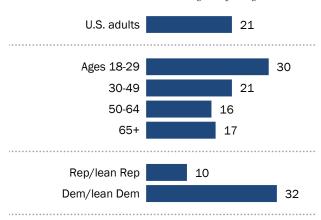
Younger adults are more likely to say they have engaged in climate activism than older adults: 30% of adults ages 18 to 29 say they have participated in at least one of four activities in the past year, compared with 17% of those ages 65 and older.

Personal concern about climate change

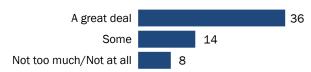
Those who say they personally care a great deal about climate change are much more likely than those who say they care some to have participated in at least one of four climaterelated activities in the last year (36% vs. 14%).

About 2 in 10 Americans say they have participated in a form of climate activism within the past year

% of U.S. adults who have done at least one of four activities to address climate change in past year



Personally care __ about the issue of climate change



Note: Respondents who gave other responses or did not give an answer are not shown. Climate-related activities include donating money, volunteering, contacting an elected official, and attending a protest or rally.

Source: Survey of U.S. adults conducted Sept. 25-Oct. 1, 2023. "How Americans View Future Harms From Climate Change in Their Community and Around the U.S."

Skepticism that climate activism changes minds or spurs political action

A relatively small share of the public (28%) believes that climate activism, such as protests and rallies, makes people more likely to support action on climate change.

About half of Americans (49%) say climate activism does not really affect people's levels of support, and 21% believe it has the *opposite* of its intended effect and makes people *less* likely to support action on climate change.

Views differ by party

Democrats (42%) are more likely than Republicans (13%) to believe climate activism makes people more likely to support climate action. Within the Democratic Party, liberals (48%) are somewhat more confident than moderates and

28% of Americans say climate activism increases others' support for action on this issue

% of U.S. adults who say climate activism, such as protests, rallies and volunteering, makes people __ likely to support action on climate change

	Less likely	More likely	s not really af eople's suppo	
U.S. adults	21	28	 49	
Rep/lean Rep	32	13	53	
Dem/lean Dem	12	42	 45	
Conservative Rep	36	11	52	
Mod/lib Rep	27	18	55	
Mod/conserv Dem	16	38	45	
Liberal Dem	7	48	44	

Note: Respondents who did not give an answer are not shown. Source: Survey of U.S. adults conducted Sept. 25-Oct. 1, 2023.

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conservatives (38%) that climate activism builds public support for the issue.

Public perceptions of climate activism's influence on elected officials

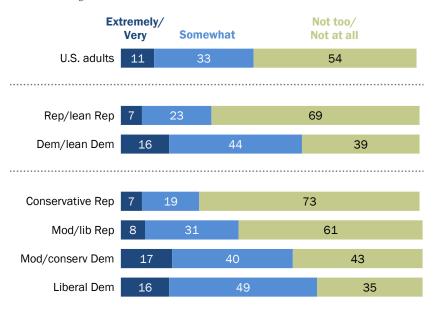
Just 11% of Americans say climate activism is extremely or very effective in getting elected officials to act on climate change; 33% say it is somewhat effective. A narrow majority of Americans (54%) say that climate activism is not too or not at all effective in getting elected official to act on climate change.

Relatively few Republicans (7%) and Democrats (16%) say climate activism is extremely or very effective at driving action among elected officials.

However, a majority of Democrats believe climate activism is at least somewhat effective at motivating action from elected officials. By contrast, 69% of Republicans believe it is not too or not at all effective.

Majority of Americans think climate activism is not too effective at getting elected officials to act

% of U.S. adults who say climate activism, such as protests, rallies and volunteering, is ___ effective in getting elected officials to act on climate change



Note: Respondents who did not give an answer are not shown. Source: Survey of U.S. adults conducted Sept. 25-Oct. 1, 2023.

[&]quot;How Americans View Future Harms From Climate Change in Their Community and Around the U.S."

How often Americans talk about climate change

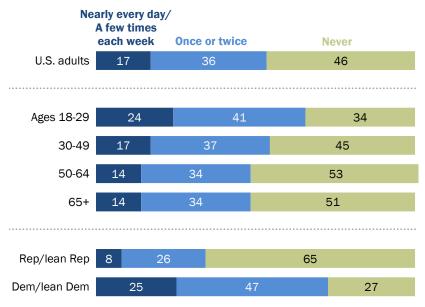
Overall, 53% of U.S. adults say they have talked about the need for action on global climate change in the past few weeks. By comparison, 46% say they have not talked about the need to address climate change recently.

Reflecting their views about the importance of the issue generally, Democrats (72%) are far more likely than Republicans (35%) to say they have talked about the need for action on climate change within the last week.

The youngest adults are more likely than those ages 30 to 49 and those 50 and older to say they've talked recently about the need for action on climate change.

Democrats and young adults are most likely to say they talk about the need for action on climate change

% of U.S. adults who say over the past few weeks, they've talked about the need for action on global climate change ...



Note: Respondents who did not give an answer are not shown. Source: Survey of U.S. adults conducted Sept. 25-Oct. 1, 2023.

[&]quot;How Americans View Future Harms From Climate Change in Their Community and Around the U.S."

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pewresearch.org/science.

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Methodology

The American Trends Panel survey methodology

Overview

The American Trends Panel (ATP), created by Pew Research Center, is a nationally representative panel of randomly selected U.S. adults. Panelists participate via self-administered web surveys. Panelists who do not have internet access at home are provided with a tablet and wireless internet connection. Interviews are conducted in both English and Spanish. The panel is being managed by Ipsos.

Data in this report is drawn from ATP Wave 135, conducted from Sept. 25 to Oct. 1, 2023, and includes an <u>oversample</u> of Hispanic men, non-Hispanic Black men, and non-Hispanic Asian adults in order to provide more precise estimates of the opinions and experiences of these smaller demographic subgroups. These oversampled groups are weighted back to reflect their correct proportions in the population.

A total of 8,842 panelists responded out of 9,577 who were sampled, for a response rate of 92%. The cumulative response rate accounting for nonresponse to the recruitment surveys and attrition is 3%. The break-off rate among panelists who logged on to the survey and completed at least one item is 1%. The margin of sampling error for the full sample of 8,842 respondents is plus or minus 1.6 percentage points.

Panel recruitment

The ATP was created in 2014, with the first cohort of panelists invited to join the panel at the end of a large, national, landline and cellphone random-digit-dial survey that was conducted in both English and Spanish. Two additional recruitments were conducted using the same method in 2015 and 2017, respectively. Across these three surveys, a total of 19,718 adults were invited to join the ATP, of whom 9,942 (50%) agreed to participate.

In August 2018, the ATP switched from telephone to address-based sampling (ABS) recruitment. A study cover

American Trends Panel recruitment surveys

			•	
Recruitment dates	Mode	Invited	Joined	Active panelists remaining
Jan. 23 to March 16, 2014	Landline/ cell RDD	9,809	5,338	1,395
Aug. 27 to Oct. 4, 2015	Landline/ cell RDD	6,004	2,976	833
April 25 to June 4, 2017	Landline/ cell RDD	3,905	1,628	405
Aug. 8 to Oct. 31, 2018	ABS	9,396	8,778	3,853
Aug. 19 to Nov. 30, 2019	ABS	5,900	4,720	1,388
June 1 to July 19, 2020; Feb. 10 to March 31, 2021	ABS	3,197	2,812	1,441
May 29 to July 7, 2021; Sept. 16 to Nov. 1, 2021	ABS	1,329	1,162	732
May 24 to Sept. 29, 2022	ABS	3,354	2,869	1,462
April 17 to May 30, 2023	ABS	686	576	435
	Total	43,580	30,859	11,944

Note: RDD is random-digit dial; ABS is address-based sampling. Approximately once per year, panelists who have not participated in multiple consecutive waves or who did not complete an annual profiling survey are removed from the panel. Panelists also become inactive if they ask to be removed from the panel.

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letter and a pre-incentive are mailed to a stratified, random sample of households selected from the U.S. Postal Service's Delivery Sequence File. This Postal Service file has been estimated to cover as much as 98% of the population, although some studies suggest that the coverage could be in the low 90% range.¹ Within each sampled household, the adult with the next birthday is asked to participate. Other details of the ABS recruitment protocol have changed over time but are available upon request.²

We have recruited a national sample of U.S. adults to the ATP approximately once per year since 2014. In some years, the recruitment has included additional effort (known as an "oversample") to boost sample size with underrepresented groups. For example, Hispanic, Black and Asian adults were oversampled in 2019, 2022 and 2023, respectively.

¹ AAPOR Task Force on Address-based Sampling. 2016. <u>"AAPOR Report: Address-based Sampling."</u>

² Email pewsurveys@pewresearch.org.

Across the six address-based recruitments, a total of 23,862 adults were invited to join the ATP, of whom 20,917 agreed to join the panel and completed an initial profile survey. Of the 30,859 individuals who have ever joined the ATP, 11,944 remained active panelists and continued to receive survey invitations at the time this survey was conducted.

The American Trends Panel never uses breakout routers or chains that direct respondents to additional surveys.

Sample design

The overall target population for this survey was noninstitutionalized persons ages 18 and older living in the U.S., including Alaska and Hawaii. It featured a stratified random sample from the ATP in which Hispanic men, non-Hispanic Black men, and non-Hispanic Asian adults were selected with certainty. The remaining panelists were sampled at rates designed to ensure that the share of respondents in each stratum is proportional to its share of the U.S. adult population to the greatest extent possible. Respondent weights are adjusted to account for differential probabilities of selection as described in the Weighting section below.

Questionnaire development and testing

The questionnaire was developed by Pew Research Center in consultation with Ipsos. The web program was rigorously tested on both PC and mobile devices by the Ipsos project management team and Pew Research Center researchers. The Ipsos project management team also populated test data that was analyzed in SPSS to ensure the logic and randomizations were working as intended before launching the survey.

Incentives

All respondents were offered a post-paid incentive for their participation. Respondents could choose to receive the post-paid incentive in the form of a check or a gift code to Amazon.com or could choose to decline the incentive. Incentive amounts ranged from \$5 to \$20 depending on whether the respondent belongs to a part of the population that is harder or easier to reach. Differential incentive amounts were designed to increase panel survey participation among groups that traditionally have low survey response propensities.

Data collection protocol

The data collection field period for this survey was Sept. 25 to Oct. 1, 2023. Postcard notifications were mailed to all ATP panelists with a known residential address on Sept. 25.

Invitations were sent out in two separate launches: soft launch and full launch. Sixty panelists were included in the soft launch, which began with an initial invitation sent on Sept. 25. The ATP panelists chosen for the initial soft launch were known

Invitation and reminder dates, ATP Wave 135

	Soft launch	Full launch
Initial invitation	Sept. 25, 2023	Sept. 26, 2023
First reminder	Sept. 28, 2023	Sept. 28, 2023
Final reminder	Sept. 30, 2023	Sept. 30, 2023

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responders who had completed previous ATP surveys within one day of receiving their invitation. All remaining English- and Spanish-speaking sampled panelists were included in the full launch and were sent an invitation on Sept. 26.

All panelists with an email address received an email invitation and up to two email reminders if they did not respond to the survey. All ATP panelists who consented to SMS messages received an SMS invitation and up to two SMS reminders.

Data quality checks

To ensure high-quality data, the Center's researchers performed data quality checks to identify any respondents showing clear patterns of satisficing. This includes checking for very high rates of leaving questions blank, as well as always selecting the first or last answer presented. As a result of this checking, four ATP respondents were removed from the survey dataset prior to weighting and analysis.

Weighting

The ATP data is weighted in a multistep process that accounts for multiple stages of sampling and nonresponse that occur at different points in the survey process. First, each panelist begins with a base weight that reflects their probability of selection for their initial recruitment survey. These weights are then rescaled and adjusted to account for changes in the design of ATP recruitment surveys from year to year.

Finally, the weights are calibrated to align with the population benchmarks in the accompanying table to correct for nonresponse to recruitment surveys and panel attrition. If only a subsample of panelists was invited to participate in the wave, this weight is adjusted to account for any differential probabilities of selection.

American Trends Panel weighting dimensions

Variable	Benchmark source
Age (detailed) Age x Gender Education x Gender Education x Age Race/Ethnicity x Education Born inside vs. outside the U.S. among Hispanics and Asian Americans Years lived in the U.S.	2021 American Community Survey (ACS)
Census region x Metro/Non-metro	2021 CPS March Supplement
Volunteerism	2021 CPS Volunteering & Civic Life Supplement
Voter registration	2018 CPS Voting and Registration Supplement
Party affiliation Frequency of internet use Religious affiliation	2022 National Public Opinion Reference Survey (NPORS)
Additional weighting dimensions applied	within Black adults
Age Gender Education Hispanic ethnicity	2021 American Community Survey (ACS)
Voter registration	2018 CPS Voting and Registration Supplement
Party affiliation Religious affiliation	2022 National Public Opinion Reference Survey (NPORS)
Note: Estimates from the ACS are based on no	_

Note: Estimates from the ACS are based on noninstitutionalized adults. Voter registration is calculated using procedures from Hur, Achen (2013) and rescaled to include the total U.S. adult population.

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Among the panelists who completed the survey, this weight is then calibrated again to align with the population benchmarks identified in the accompanying table and trimmed at the 1st and 99th percentiles to reduce the loss in precision stemming from variance in the weights. Sampling errors and tests of statistical significance take into account the effect of weighting.

The following table shows the unweighted sample sizes and the error attributable to sampling that would be expected at the 95% level of confidence for different groups in the survey.

Sample sizes and margins of error, ATP Wave 135					
Group	Unweighted sample size	Plus or minus			
Total sample	8,842	1.6 percentage points			
Form 1	4,412	2.2 percentage points			
Form 2	4,430	2.2 percentage points			
Ages 18-29	759	4.9 percentage points			
30-49	2,887	2.7 percentage points			
50-64	2,604	2.6 percentage points			
65+	2,583	2.6 percentage points			
Rep/lean Rep	4,033	2.2 percentage points			
Dem/lean Dem	4,507	2.2 percentage points			
Conserv Rep/lean Rep	2,721	2.6 percentage points			
Mod/lib Rep/lean Rep	1,271	4.0 percentage points			
Mod/conserv Dem/lean Dem	2,284	3.2 percentage points			
Liberal Dem/lean Dem	2,172	3.1 percentage points			

Note: This survey includes oversamples of Hispanic men, non-Hispanic Black men, and non-Hispanic Asian adults. Unweighted sample sizes do not account for the sample design or weighting and do not describe a group's contribution to weighted estimates. Read the Sample design and Weighting sections for details.

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Sample sizes and sampling errors for other subgroups are available upon request. In addition to sampling error, one should bear in mind that question wording and practical difficulties in conducting surveys can introduce error or bias into the findings of opinion polls.

Total 8,842 105 50 574

Dispositions and response rates

Final dispositions, ATP Wave 135

	AAPOR code
Completed interview	1.1
Logged on to survey; broke off	2.12
Logged on to survey; did not complete any items	2.1121
Never logged on (implicit refusal)	2.11

Survey completed after close of the field period	2.27	2
Completed interview but was removed for data quality		4
Screened out		0
Total panelists sampled for the survey		9,577
Completed interviews	l	8,842
Partial interviews	Р	0
Refusals	R	729
Non-contact	NC	2
Other	0	4
Unknown household	UH	0
Unknown other	UO	0
Not eligible	NE	0
Total		9,577
AAPOR RR1 = I / (I+P+R+NC+O+UH+UO)		92%

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Cumulative response rate as of ATP Wave 135

	Total
Weighted response rate to recruitment surveys	11%
% of recruitment survey respondents who agreed to join the panel, among those invited	71%
% of those agreeing to join who were active panelists at start of Wave 135	46%
Response rate to Wave 135 survey	92%
Cumulative response rate	3%

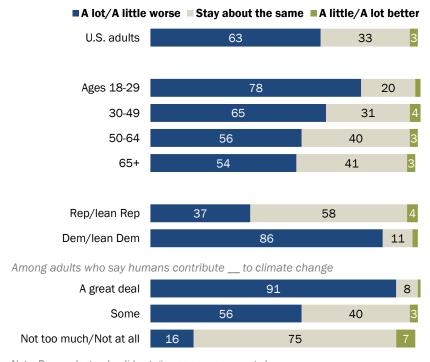
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Appendix: Detailed chart and tables

78% of young adults say harm to Americans caused by climate change will get worse in their lifetime

% of U.S. adults who say in their lifetime, harm to people in the U.S. caused by climate change will get ...

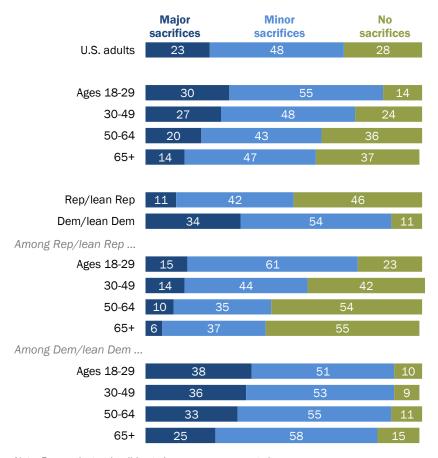


Note: Respondents who did not give an answer are not shown. Source: Survey of U.S. adults conducted Sept. 25-Oct. 1, 2023.

[&]quot;How Americans View Future Harms From Climate Change in Their Community and Around the U.S."

23% of Americans say they will have to make major sacrifices in their own lives because of climate change

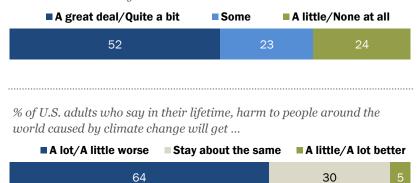
% of U.S. adults who say, in their lifetime, they will have to make __ in their everyday life because of global climate change



Note: Respondents who did not give an answer are not shown. Source: Survey of U.S. adults conducted Sept. 25-Oct. 1, 2023.

52% of Americans say climate change is causing significant harm to people around the world today

% of U.S. adults who say climate change is causing __ of harm to people around the world today



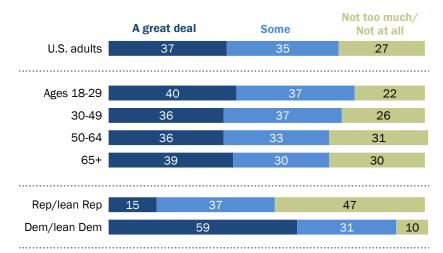
Note: Respondents who did not give an answer are not shown.

Source: Survey of U.S. adults conducted Sept. 25-Oct. 1, 2023.

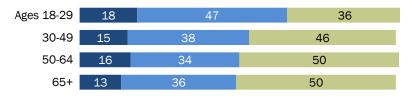
"How Americans View Future Harms From Climate Change in Their Community and Around the U.S."

37% of Americans say they personally care a great deal about the issue of climate change

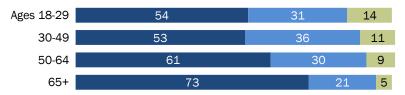
% of U.S. adults who say they personally care __ about the issue of global climate change



Among Rep/lean Rep ...



Among Dem/lean Dem ...



Note: Respondents who did not give an answer are not shown.

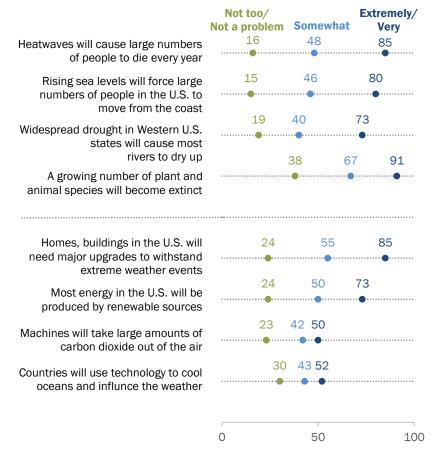
Source: Survey of U.S. adults conducted Sept. 25-Oct. 1, 2023.

"How Americans View Future Harms From Climate Change in Their Community and Around the U.S." $\,$

Americans who see climate change as a problem are more likely to expect future environmental harms

% of U.S. adults who say each of the following **definitely or probably** will happen over the next 30 years

Among those who say climate change is a __ serious problem



Note: Respondents who did not give an answer are not shown. Source: Survey of U.S. adults conducted Sept. 25-Oct. 1, 2023. "How Americans View Future Harms From Climate Change in Their Community and Around the U.S."

Survey question wording and topline

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

OTHER QUESTIONS HELD FOR FUTURE RELEASE

ASK ALL:

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

[RANDOMIZE ITEMS]

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

FUTRWRLD CONTINUED ...

	TOTAWALD CONTINOLD	Definitely will happen	Probably will happen	Probably will NOT happen	Definitely will NOT happen	No answer
g.	ASK FORM 2 ONLY [N=4,430]: Machines will take large amounts of carbon dioxide out of the air and store it in the ground Sep 25-Oct 1, 2023	6	36	49	6	3
h.	ASK FORM 2 ONLY [N=4,430]: Most homes and buildings in the U.S. will need major upgrades to withstand extreme weather events	22	42	20	c	. 1
	Sep 25-Oct 1, 2023	22	42	29	6	<1

ASK ALL:

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

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

RANDOMIZE ORDER OF EN7 and EN8

ASK ALL:

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

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

ASK ALL:

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

climate change?

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

ASK ALL:

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

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

ASK ALL:

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

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

ASK ALL:

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

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

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

LOCLIVE

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

Sep 25-Oct 1, 2023	
7	A better place to live
41	A worse place to live
41	Not much different
10	Climate change is not impacting communities
1	No answer

ASK ALL:

CLIMLIVE

Thinking about different areas in the country, over the next 30 years, do you think the effects of climate change on conditions in the following areas will make them...

[RANDOMIZE ITEMS; RANDOMIZE ORDER OF RESPONSE OPTIONS 1 AND 2; RESPONSE OPTIONS 3 AND 4 LAST]

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

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

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

Sep 25-Oct 1,	
<u>2023</u>	
15	A great deal
28	Quite a bit
28	Some
15	A little
14	None at all
1	No answer

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

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

Sep 25-Oct 1,	
<u>2023</u>	
31	A lot worse
32	A little worse
33	Stay about the same
2	A little better
1	A lot better
1	No answer

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

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

Sep 25-Oct 1,	
<u>2023</u>	
25	A great deal
27	Quite a bit
23	Some
13	A little
11	None at all
1	No answer

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

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

Sep 25-Oct 1,	
<u>2023</u>	
36	A lot worse
28	A little worse
30	Stay about the same
3	A little better
2	A lot better
1	No answer

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

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

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

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

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

Sep 25-Oct 1,	
<u>2023</u>	
	New technology will be able to address most of the problems caused by global
30	climate change
	Major changes to everyday life will be needed to address the problems caused
68	by global climate change
1	No answer

TREND FOR COMPARISON:

ASK ALL:

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

Apr 20-29, <u>2021</u>	
46	New technology will be able to address most of the problems caused by global climate change
	Major changes to everyday life will be needed to address the problems caused
51	by global climate change
3	No answer

ASK ALL:

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

Sep 25-Oct 1,	
<u>2023</u>	
23	Yes, major sacrifices
48	Yes, minor sacrifices
28	No, I won't have to make any sacrifices
1	No answer

ASK ALL:

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

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

ASK ALL:

TALKCC

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

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

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

ASK ALL:

ENGACT

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

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

ENGACT SUMMARY TABLE

BASED ON TOTAL:

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

ASK FORM 1 [N=4,412]:

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

Sep 25-Oct 1,	
<u>2023</u>	
28	Makes people <u>more</u> likely to support action on climate change
21	Makes people <u>less</u> likely to support action on climate change
49	Does not really affect people's support for action on climate change
1	No answer

ASK FORM 2 [N=4,430]:

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

Sep 25-Oct 1,	
<u>2023</u>	
4	Extremely effective
8	Very effective
33	Somewhat effective
33	Not too effective
21	Not at all effective
1	No answer

OTHER QUESTIONS HELD FOR FUTURE RELEASE