

CLIMATE CHANGE
IN THE AMERICAN MIND

Climate Justice

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YALE PROGRAM ON
Climate Change
Communication



GEORGE MASON UNIVERSITY
CENTER for CLIMATE CHANGE
COMMUNICATION

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Introduction

This report is based on findings from a nationally representative survey – *Climate Change in the American Mind* – conducted jointly by the [Yale Program on Climate Change Communication](#) and the [George Mason University Center for Climate Change Communication](#). Interview dates: April 18 – May 1, 2023. Interviews: 1,011 adults (18+), 861 of whom are registered to vote. Average margin of error for both all adults and registered voters: +/- 3 percentage points at the 95% confidence level. The research was funded by the 11th Hour Project, the Energy Foundation, the MacArthur Foundation, the Heising-Simons Foundation, and the Grantham Foundation.

This report focuses on public perceptions and attitudes toward the topic of climate justice. Climate justice connects goals of the decades-long environmental justice¹ and climate change movements to address the ways that climate change disproportionately harms people who are already more vulnerable to its impacts. This vulnerability can be due to personal factors (such as age, income, or disability) and/or social factors (such as racism and other forms of oppression). The goals of climate justice include reducing the unequal harms of climate change, providing equitable benefits from climate solutions, and involving affected communities in decision-making.²

Climate justice has become an important part of federal climate policy in the United States, with efforts like the [Justice40 Initiative](#) and the [White House Environmental Justice Advisory Council](#) (WHEJAC) being developed to increase federal funding to historically underserved communities and find ways to “leave no one behind”³ in the transition from fossil fuels to clean, renewable energy.

This research investigates the public’s knowledge, beliefs, and policy support related to climate justice in a nationally representative survey in the United States. The survey questions included in this report were developed in partnership with climate justice organizations and practitioners in the United States and Canada, and this work would not have been possible without their contributions. Organizations and individuals who contributed to question development are listed in alphabetical order by organization:

- Digital Climate Coalition (Andrea Aguilar, Sha Merirei Ongelungel, Karina Sahlin, and Cristian Sanchez)
- GreenLatinos (Irene Burga and Mark Magaña)
- Justice Environment (Saad Amer)
- Mississippi Communities United for Prosperity (Romona Taylor Williams)
- Neighbours United (Montana Burgess)
- Sierra Club (Grace McRae and Makeda Fekede)
- WE ACT for Environmental Justice (Manuel Salgado and Annika Larson)

¹ Schlosberg, D., & Collins, L.B. (2014). From environmental to climate justice: Climate change and the discourse of environmental justice. *WIREs Climate Change*, 5, 359–374. <https://doi.org/10.1002/wcc.275>

² IPCC. (2022). Summary for Policymakers [H.-O. Pörtner, D.C. Roberts, E.S. Poloczanska, K. Mintenbeck, M. Tignor, A. Alegría, M. Craig, S. Langsdorf, S. Lösschke, V. Möller, A. Okem (eds.)]. In: *Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Lösschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press. https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf

³ United Nations Framework Convention on Climate Change (UNFCCC) Secretariat. (2020). *Just Transition of the Workforce, and the Creation of Decent Work and Quality Jobs*. Technical Paper. <https://unfccc.int/sites/default/files/resource/Just%20transition.pdf>

- Yale Center for Environmental Justice (Kristin Barendregt-Ludwig, Michel Gelobter, and Gerald Torres)

We also acknowledge and are grateful to other individuals and organizations who provided input and guidance in the development of this project. These individuals and organizations include:

- Digital Climate Coalition (Kate McKenney)
- The Chisholm Legacy Project (Denise Abdul Rahman and Thomas Minor)
- WE ACT for Environmental Justice (Astrid DuBois and Dana Johnson)

The climate justice movement is much larger than what we have captured in this single report. Nonetheless, these results can help the climate justice community – including organizers, activists, scholars, and policymakers, among others – better understand the public’s views of climate justice in the United States and identify opportunities and challenges for future engagement on these issues.

Climate Change in the American Mind is conducted jointly by the Yale Program on Climate Change Communication and the George Mason University Center for Climate Change Communication.

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Cover photos by the [U.S. Department of Agriculture](#) (upper) and [Susan Melkisethian](#) (lower)



Reading Notes

- Sections 1 and 2 of this report focus on Americans' overall beliefs and attitudes regarding climate justice, and thus include results from all survey respondents. Sections 3 and 4 focus on Americans' policy support and political behaviors regarding climate justice, and thus include results from registered voters only.
- References to Republicans and Democrats throughout include respondents who initially identify as either a Republican or Democrat, as well as those who do not initially identify as a Republican or Democrat but who say they “are closer to” one of those parties (i.e., “leaners”) in a follow-up question. The category “Independents” does not include any of these “leaners.”
- 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 support” + “somewhat support”) are rounded after sums are calculated. For example, in some cases, the sum of 25% + 25% might be accurately reported as 51% (e.g., 25.3% + 25.3% = 50.6%, which, after rounding, is 51%).
- Weighted percentages among respondents from each of the groups discussed in this report include (weighted percentages of registered voters are in parentheses):
 - Democrats (total) including leaners: 44% of Americans (49% of registered voters)
 - Liberal Democrats: 25% of Americans (28% of registered voters)
 - Moderate/Conservative Democrats: 19% of Americans (21% of registered voters)
 - Republicans (total) including leaners: 33% of Americans (36% of registered voters)
 - Liberal/Moderate Republicans: 12% of Americans (13% of registered voters)
 - Conservative Republicans: 21% of Americans (23% of registered voters)
 - Independents excluding leaners (included the data tables only; pp. 22-29): 13% of Americans (11% of registered voters)
 - No party/Not interested in politics/No response (included the data tables only; pp. 22-29): 10% of Americans (3% of registered voters)
- The full text of all survey items can be found in the data tables.
- The terms “people of color” and “communities of color” in this report refer to non-white Black Americans, Latinos/Hispanics, Asian Americans, Pacific Islanders, Native Americans, etc., similar to the term of BIPOC (Black, Indigenous, and People of Color). We recognize that there is significant diversity among and within the racial and ethnic groups that fall under the umbrella of “people of color.” Moreover, although the report mentions low-income communities and communities of color separately, we recognize that these two groups can and do overlap.

Executive Summary

Drawing on a representative sample of the U.S. adult population ($n = 1,011$; including 861 registered voters), these findings describe Americans' beliefs and attitudes regarding climate justice, and registered voters' policy support and political engagement related to climate justice. The survey was fielded from April 18 – May 1, 2023. This report builds on two previous reports based on data from this same survey that focused on Americans' [beliefs and attitudes about global warming](#), and their support for various [climate and energy policies](#).

This executive summary presents the results for the overall population, while the main text of the report also breaks the results down by political party and ideology.

Americans' Beliefs About Who Is Harmed Most by Global Warming

- About half of Americans (49%) think global warming harms some groups in the United States more than others. When asked to name which groups faced greater harm than others, the most common response was “People with lower incomes” (22%).
- When asked directly, nearly half of Americans (48%) think global warming harms lower-income people more than it harms wealthier people. Fewer Americans think global warming harms people of color more than it harms white people (32%), or that global warming harms women more than it harms men (13%). About four in ten Americans (40%) think global warming harms everyone about equally.
- About one in three Americans (34%) agree that a history of racist policies makes people of color more likely than white people to be harmed by global warming.

Americans' Beliefs and Attitudes About Climate Justice

- About one in three Americans (34%) say they have heard or read at least “a little” about climate justice, while most Americans say they have not heard or read anything about it (65%).
- Among Americans who have heard or read at least “a little” about climate justice, many did not provide a response when asked the first thing that comes to mind when they think about the term “climate justice.”
- After reading a brief description of climate justice, about half of Americans (53%) say they support its goals.

Registered Voters' Support for Climate Justice Policies

- After reading a brief description of climate justice, about four in ten registered voters (39%) think climate justice should be a “high” or “very high” priority for the president and Congress.
- Large majorities of registered voters support a variety of policies that promote climate justice goals, including:
 - Creating more parks and green spaces in low-income communities and communities of color (81%)
 - Strengthening enforcement of industrial pollution limits in low-income communities and communities of color that are disproportionately impacted by air and water pollution (77%)

- Providing federal funding to make residential buildings in low-income communities more energy efficient (76%)
- Developing a national program to train people from low-income communities and communities of color for new jobs in the renewable energy industry (75%)
- Developing a national program to train people who work in the fossil fuel industry for new jobs in the renewable energy industry (75%)
- Increasing federal funding to low-income communities and communities of color who are disproportionately impacted by air and water pollution (70%)
- Transitioning the U.S. economy (including electric utilities, transportation, buildings, and industry) from fossil fuels to 100% clean energy by 2050 (69%)
- More than four in ten registered voters (45%) agree that the groups most harmed by global warming should have the opportunity to play a key role in government decisions about how to address it.

Registered Voters' Personal Engagement with Climate Justice

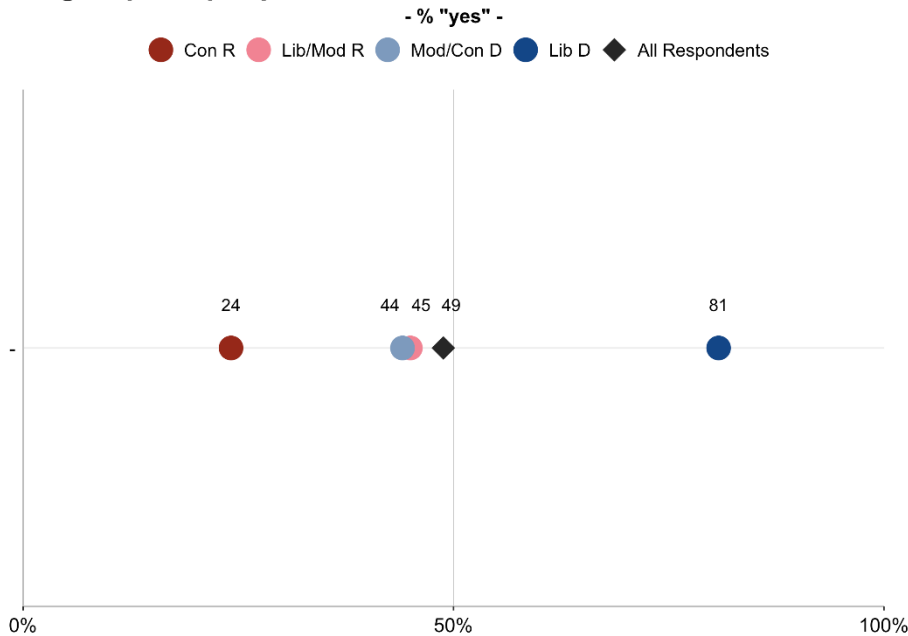
- One in four registered voters (25%) say they are either “definitely” (7%) or “probably” (18%) willing to join a campaign to convince elected officials to take action to advance climate justice or are already currently participating in such a campaign (1%).
- More than four in ten registered voters (44%) say they are more likely to vote for a candidate for public office who supports climate justice.

1. Americans’ Beliefs About Who Is Harmed Most by Global Warming

1.1. About half of Americans think global warming harms some groups of people in the United States more than others.

Global warming poses risks to everyone, but some groups – including people of color, people with less wealth, older people, and people with pre-existing health conditions – are more vulnerable than others to these risks.⁴ About half of Americans (49%) think global warming harms some groups in the United States more than others (refer to data tables, p. 22). This includes a large majority of liberal Democrats (81%), more than four in ten liberal/moderate Republicans (45%) and moderate/conservative Democrats (44%), and about one in four conservative Republicans (24%).

About half of Americans think global warming harms some groups of people in the United States more than others



Do you think that global warming harms some groups of people in the United States more than others?

Americans 18+, Spring 2023

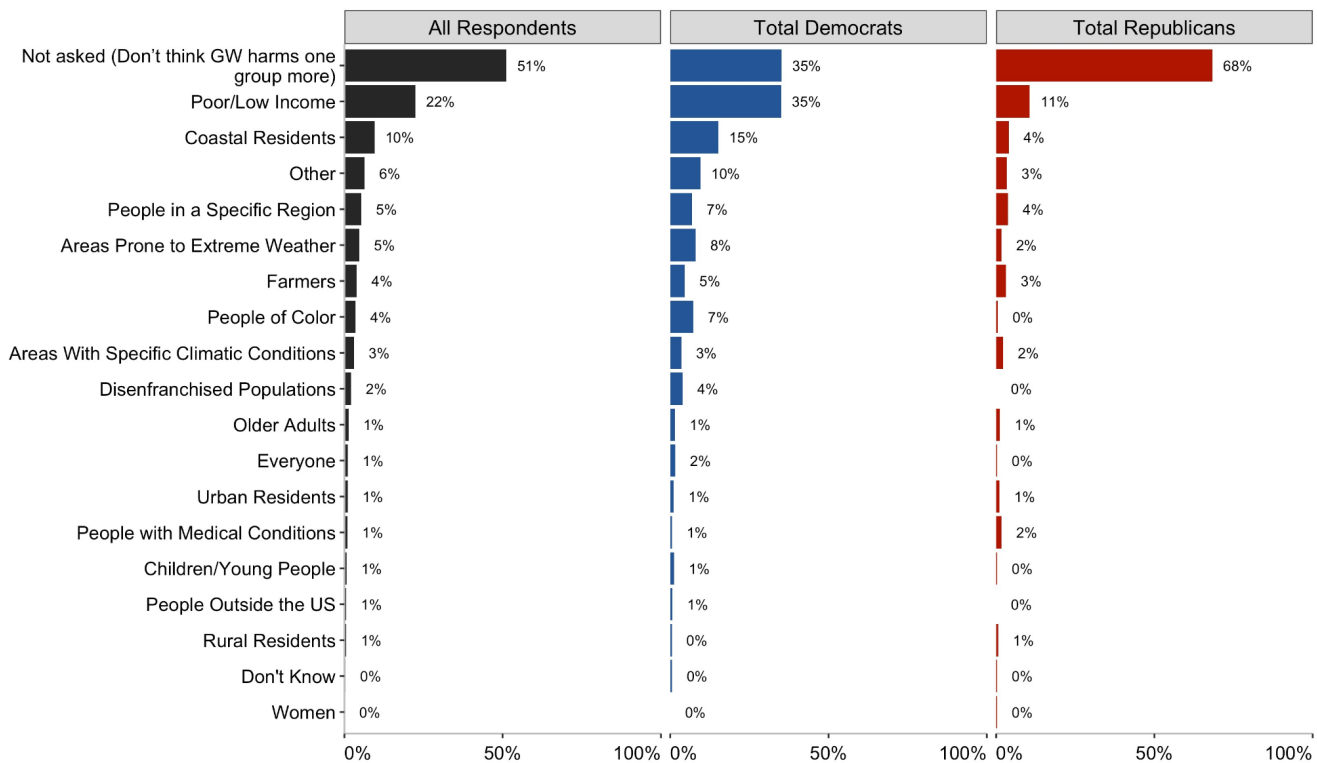
Source: Yale Program on Climate Change Communication;
George Mason University Center for Climate Change Communication

⁴ EPA. (2021). Climate Change and Social Vulnerability in the United States: A Focus on Six Impacts. U.S. Environmental Protection Agency, EPA 430-R-21-003. www.epa.gov/cira/social-vulnerability-report

All survey participants who said global warming harms some groups of people in the United States more than others were then asked the open-ended question: “Which groups of people in the United States do you think are more harmed by global warming than others?” Responses to that question were then categorized for analysis (refer to data tables, p. 22; for descriptions of all categories, see pp.31–32).

When asked to name which groups are more likely to be harmed than others by global warming, the most common response was poor or low-income people (22%), followed by coastal residents (10%). Among the political groups, both Democrats (35%) and Republicans (11%) were most likely to identify poor or low-income people as the group more harmed than others by global warming. However, most Republicans (68%) were not asked the question because they did not think any group would be harmed more than others.

Many Americans think low-income people are more likely than others to be harmed by global warming



Which groups of people in the United States do you think are more harmed by global warming than others?

Spring 2023

Source: Yale Program on Climate Change Communication; George Mason University Center for Climate Change Communication



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1.2. Nearly half of Americans think global warming harms lower-income people more than wealthier people. Fewer think it harms people of color more than white people, or women more than men.

When directly asked their level of agreement about whether global warming harms specific groups of people more than others, nearly half of Americans (48%) agreed that global warming harms lower-income people more than it harms wealthier people (refer to data tables, pp. 23-24). This includes a large majority of liberal Democrats (89%), about half of moderate/conservative Democrats (51%), about one in four liberal/moderate Republicans (26%), and two in ten conservative Republicans (19%).

About one in three Americans (32%) think global warming harms people of color⁵ more than it harms white people, including most liberal Democrats (73%) and about four in ten moderate/conservative Democrats (40%). Only about one in ten liberal/moderate Republicans (8%) or conservative Republicans (7%) think so. By contrast, fewer Americans (13%) think that global warming harms women more than it harms men, including 30% of liberal Democrats, 13% of moderate/conservative Democrats, 3% of liberal/moderate Republicans, and 2% of conservative Republicans.

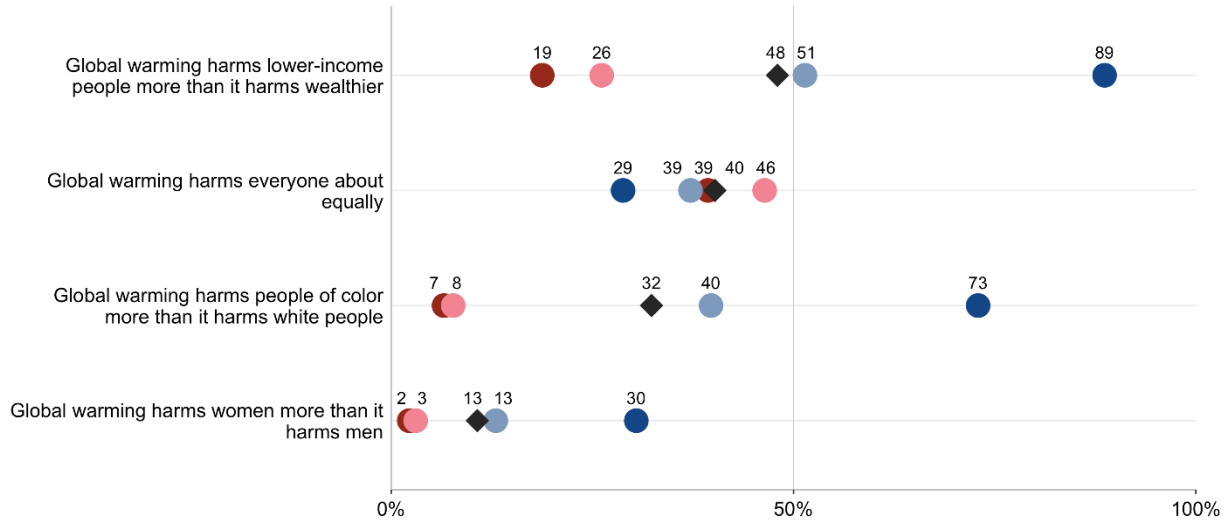
About four in ten Americans (40%) think global warming harms everyone about equally, including more than four in ten liberal/moderate Republicans (46%), about four in ten moderate/conservative Democrats (39%) and three in ten liberal Democrats (29%). About four in ten conservative Republicans think global warming harms everyone about equally (39%), but because this group is less likely to perceive risks from global warming, this group may be the most likely to think that global warming will harm everyone “about equally” because they think global warming will not harm anyone.

⁵ Respondents received the following definition for *communities of color* and *people of color* in the survey: “Some of the following questions use the phrases ‘communities of color’ or ‘people of color,’ which refer to Black Americans, Latinos/Hispanics, Asian Americans, Pacific Islanders, Native Americans, etc. in the United States.”

Nearly half of Americans think global warming harms lower-income people more than wealthier people

- % "strongly" or "somewhat" agree -

● Con R ● Lib/Mod R ● Mod/Con D ● Lib D ◆ All Respondents



How much do you agree or disagree with the following statements about the effects of global warming in the United States?

Americans 18+, Spring 2023

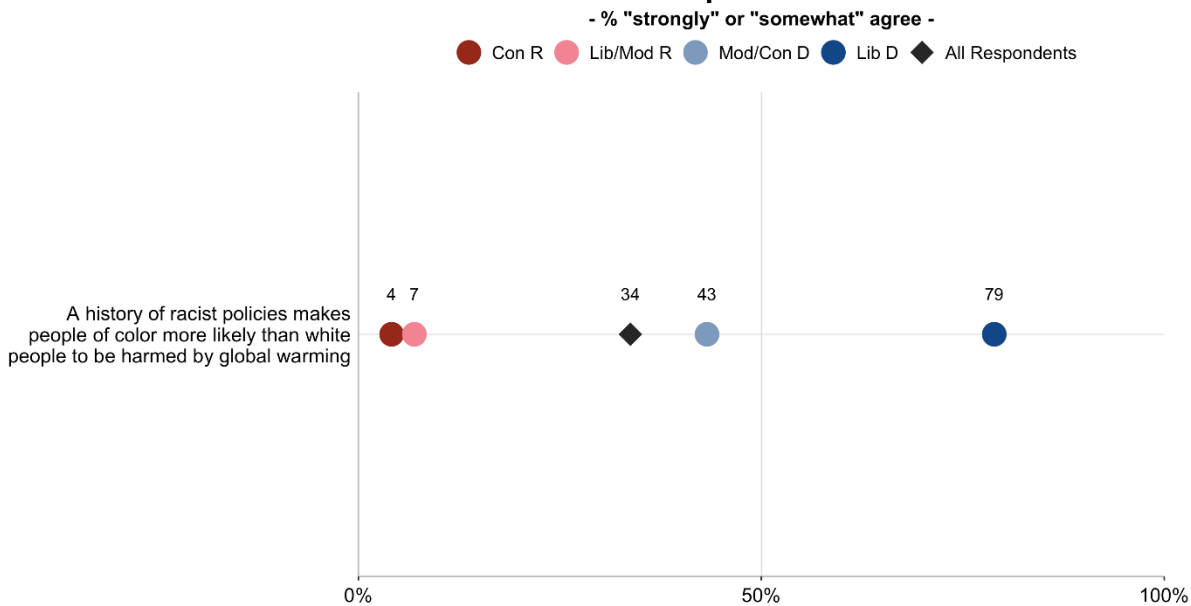
Source: Yale Program on Climate Change Communication;
George Mason University Center for Climate Change Communication

1.3. Many Americans think people of color are more likely to be harmed by global warming due to a history of racist policies.

One aspect of climate justice is understanding that historical policies have made people of color more vulnerable to climate change impacts. For example, neighborhoods in the U.S. that experienced the racially discriminatory housing practice of redlining are now often much hotter in the summer than non-redlined neighborhoods in the same cities.⁶

About one in three Americans (34%) agree that a history of racist policies makes people of color more likely than white people to be harmed by global warming. This includes a majority of liberal Democrats (79%) and about four in ten moderate/conservative Democrats (43%), but few liberal/moderate Republicans (7%) or conservative Republicans (4%). About one in three Americans (34%) say they neither agree nor disagree with this statement, and about one in three say they disagree (30%; refer to data tables, p. 24).

Many Americans think people of color are more likely to be harmed by global warming due to a history of racist policies



How much do you agree or disagree with the following statements about the effects of global warming in the United States?

Americans 18+, Spring 2023

Source: Yale Program on Climate Change Communication; George Mason University Center for Climate Change Communication

⁶ Hoffman, J. S., Shandas, V., & Pendleton, N. (2020). The Effects of Historical Housing Policies on Resident Exposure to Intra-Urban Heat: A Study of 108 US Urban Areas. *Climate*, 8(1), 12. <https://doi.org/10.3390/cli8010012>

2. Americans' Beliefs and Attitudes About Climate Justice

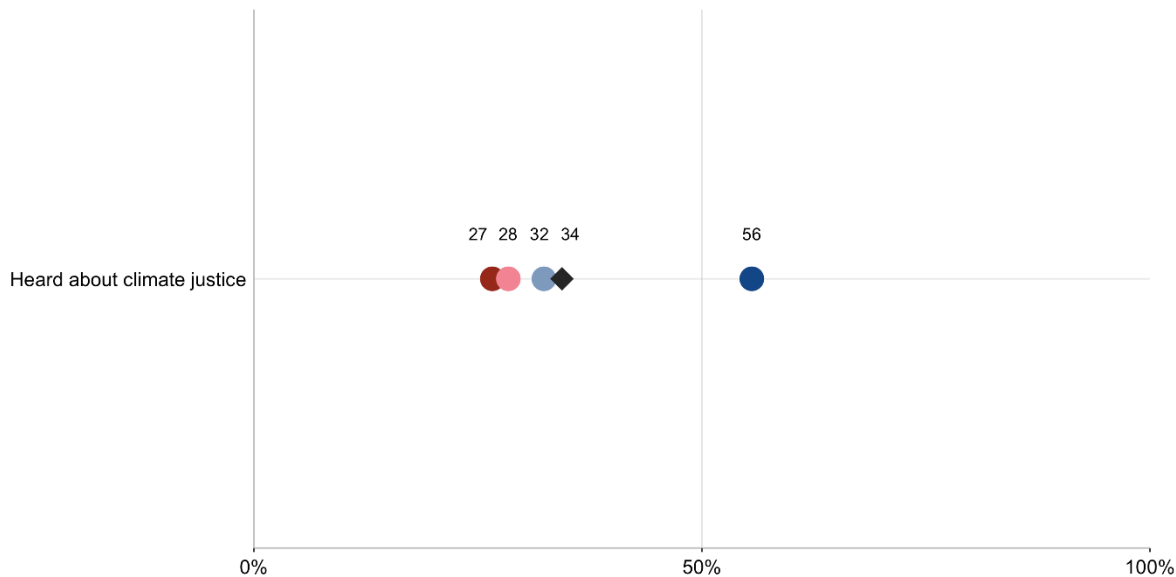
2.1. About one in three Americans say they have heard or read at least “a little” about climate justice. About two in three Americans say they have not.

About one in three Americans (34%) say they have heard or read at least “a little” about climate justice, while most Americans say they have heard “nothing at all” (65%) about it (refer to data tables, p. 24). A majority of liberal Democrats say they have heard or read at least “a little” about climate justice (56%), but only about three in ten moderate/conservative Democrats (32%), liberal/moderate Republicans (28%), and conservative Republicans (27%) say they have heard or read anything about it.

About one in three Americans say they have heard or read at least “a little” about climate justice

- % “a lot”, “some”, or “only a little” -

● Con R ● Lib/Mod R ● Mod/Con D ● Lib D ◆ All Respondents



How much, if anything, have you heard or read about climate justice? Have you heard...

Americans 18+, Spring 2023

Source: Yale Program on Climate Change Communication;
George Mason University Center for Climate Change Communication

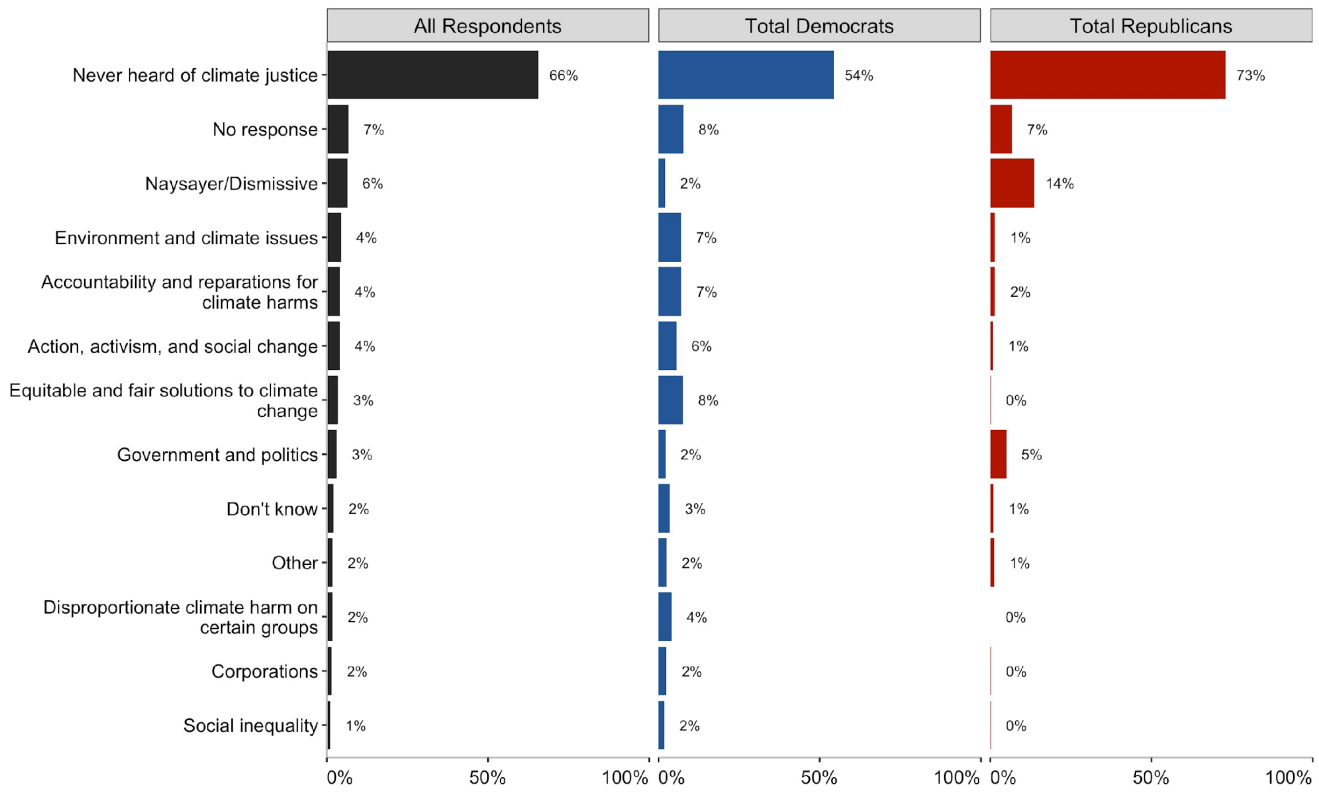
2.2. Americans' associations with the term "climate justice" are politically polarized.

As noted in Section 2.1, 34% of Americans say they have heard at least "a little" about climate justice. All survey participants who said they had heard at least "a little" were then asked the open-ended question: "What, if anything, is the first thing that comes to mind when you think about climate justice?" Responses to that question were then categorized for analysis (refer to data tables, p. 25; for descriptions of all categories, see pp. 32–33).

For Americans who have heard about climate justice and provided a response, the most common association reflected dismissive attitudes (e.g., it is a hoax, it is government waste; 6%). The next most common associations were environmental and climate issues generally (e.g., reducing pollution, renewable energy; 4%) and accountability and reparations for climate harms (e.g., forcing polluters to pay for climate damages; 4%). Additionally, some Americans said they have heard about climate justice (section 2.1), but did not provide a response to this open-ended question (i.e., did not describe any particular concept they associate with climate justice, 7%).

Among the political groups, the most common associations among Democrats were equitable and fair solutions to climate change (e.g., protecting vulnerable communities from climate impacts; 8%) and accountability and reparations for climate harms (7%). The most common associations among Republicans were naysayer/dismissive responses (14%).

Americans' associations with the term "climate justice" are politically polarized



When you think of climate justice, what is the first thing that comes to mind?

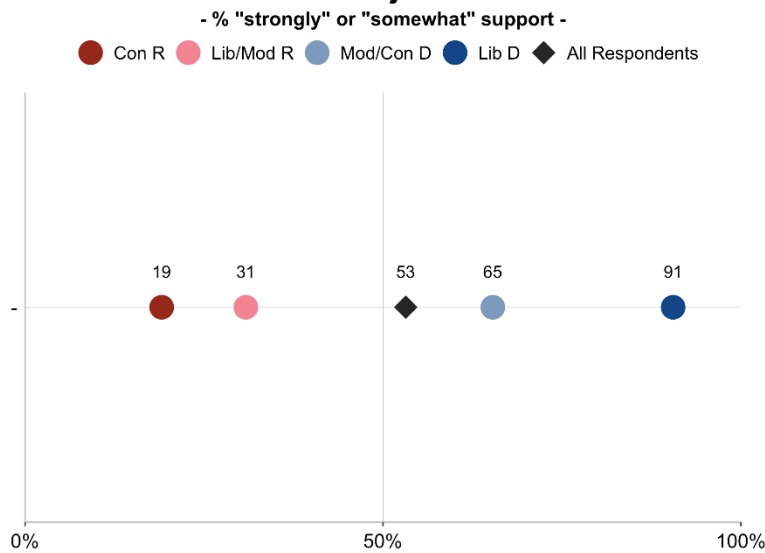
Spring 2023

Source: Yale Program on Climate Change Communication;
George Mason University Center for Climate Change Communication

2.3. About half of Americans say they support the goals of climate justice.

After reading a brief description of climate justice, about half of Americans (53%) say they support its goals (31% “strongly support” and 22% “somewhat support”; refer to data tables, p. 25). Support is divided along political lines: A large majority of liberal Democrats (91%) and about two in three moderate/conservative Democrats (65%) say they support the goals of climate justice, but only about three in ten liberal/moderate Republicans (31%) and two in ten conservative Republicans (19%) say so. About one in four Americans (26%) say they “neither support nor oppose” the goals of climate justice, and 19% say they oppose them (including 14% who “strongly oppose” them; refer to data tables).

About half of Americans say they support the goals of climate justice



Climate justice refers to the idea that global warming affects everyone, but certain communities are harmed more than others, especially low-income communities and communities of color. The goals of climate justice are to reduce these unequal harms, include these communities in decision-making, and ensure they receive a fair share of the benefits of climate action (such as good jobs, cleaner air and water, better health, etc.). How much do you support or oppose the goals of climate justice?

Americans 18+, Spring 2023

Source: Yale Program on Climate Change Communication;
George Mason University Center for Climate Change Communication

3. Registered Voters' Support for Climate Justice Policies

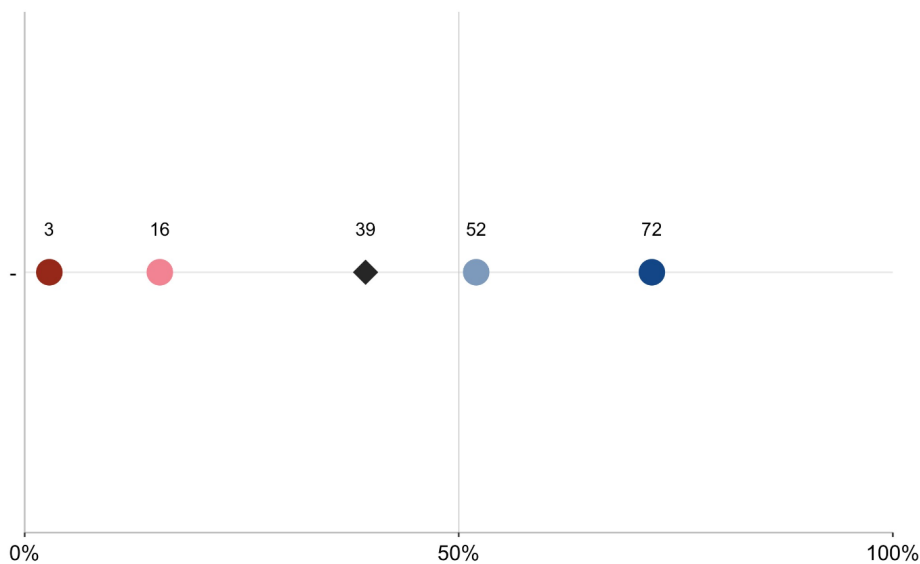
3.1. Many registered voters think climate justice should be a “high” or “very high” priority for the president and Congress.

After reading a brief description of climate justice, about four in ten registered voters (39%) think climate justice should be a “high” or “very high” priority for the president and Congress (refer to data tables, p. 25). This includes a majority of liberal Democrats (72%) and about half of moderate/conservative Democrats (52%), but fewer moderate/conservative Republicans (16%) and conservative Republicans (3%).

Many registered voters think climate justice should be a “high” or “very high” priority for the president and Congress

- % “very high” or “high” -

● Con R ● Lib/Mod R ● Mod/Con D ● Lib D ◆ All Reg Voters



Do you think climate justice should be a low, medium, high, or very high priority for the president and Congress?

Registered U.S. voters, Spring 2023

Source: Yale Program on Climate Change Communication;
George Mason University Center for Climate Change Communication

3.2. A large majority of registered voters support policies that promote climate justice goals.

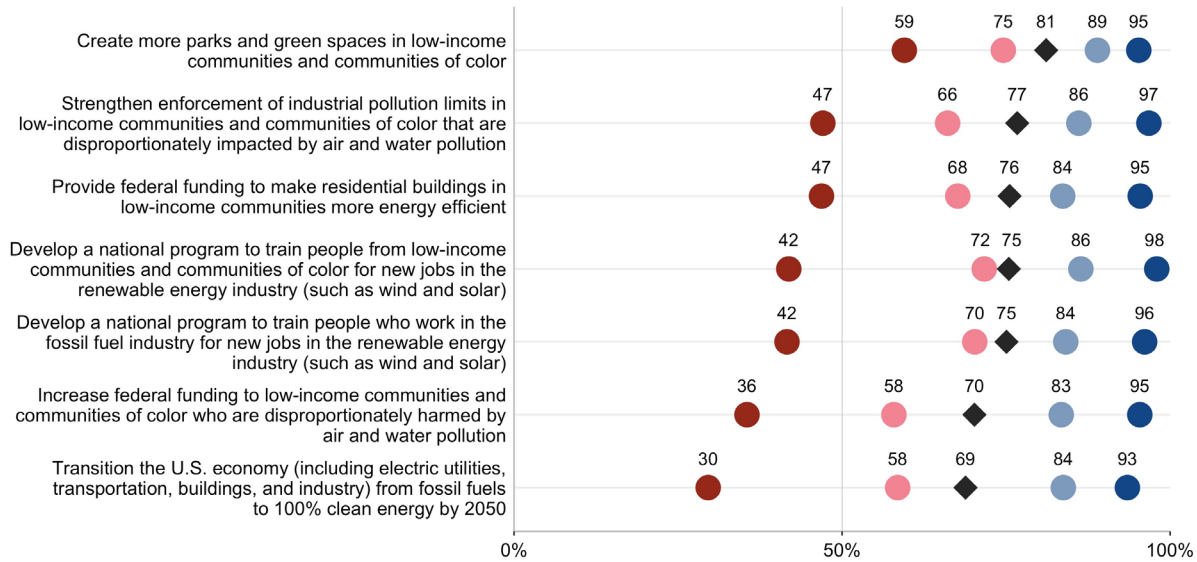
A large majority of registered voters across the political spectrum support a variety of policies that promote climate justice goals, including the following (refer to data tables, pp. 26-28):

- Creating more parks and green spaces in low-income communities and communities of color: 81% of registered voters, including 95% of liberal Democrats, 89% of moderate/conservative Democrats, 75% of liberal/moderate Republicans, and 59% of conservative Republicans.
- Strengthening enforcement of industrial pollution limits in low-income communities and communities of color that are disproportionately impacted by air and water pollution: 77% of registered voters, including 97% of liberal Democrats, 86% of moderate/conservative Democrats, 66% of liberal/moderate Republicans, and 47% of conservative Republicans.
- Providing federal funding to make residential buildings in low-income communities more energy efficient: 76% of registered voters, including 95% of liberal Democrats, 84% of moderate/conservative Democrats, 68% of liberal/moderate Republicans, and 47% of conservative Republicans.
- Developing a national program to train people from low-income communities and communities of color for new jobs in the renewable energy industry (such as wind and solar): 75% of registered voters, including 98% of liberal Democrats, 86% of moderate/conservative Democrats, 72% of liberal/moderate Republicans, and 42% of conservative Republicans.
- Developing a national program to train people who work in the fossil fuel industry for new jobs in the renewable energy industry (such as wind and solar): 75% of registered voters, including 96% of liberal Democrats, 84% of moderate/conservative Democrats, 70% of liberal/moderate Republicans, and 42% of conservative Republicans.
- Increasing federal funding to low-income communities and communities of color who are disproportionately impacted by air and water pollution: 70% of registered voters, including 95% of liberal Democrats, 83% of moderate/conservative Democrats, 58% of liberal/moderate Republicans, and 36% of conservative Republicans.
- Transitioning the U.S. economy (including electric utilities, transportation, buildings, and industry) from fossil fuels to 100% clean energy by 2050: 69% of registered voters, including 93% of liberal Democrats, 84% of moderate/conservative Democrats, 58% of liberal/moderate Republicans, and 30% of conservative Republicans.

A large majority of registered voters support policies that promote climate justice goals

- % "strongly" or "somewhat" support -

● Con R ● Lib/Mod R ● Mod/Con D ● Lib D ◆ All Reg Voters



How much do you support or oppose the following policies?

Registered U.S. voters, Spring 2023

Source: Yale Program on Climate Change Communication; George Mason University Center for Climate Change Communication

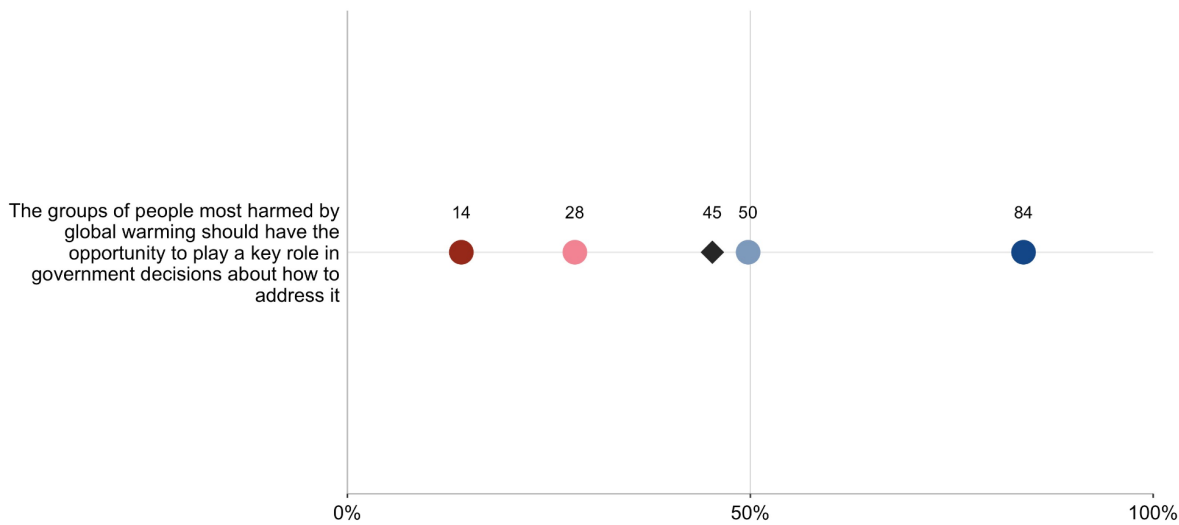
3.3. Many registered voters say the groups most harmed by global warming should have the opportunity to play a key role in government decisions about how to address it.

More than four in ten registered voters (45%) agree that the groups most harmed by global warming should have the opportunity to play a key role in government decisions about how to address it. This includes a large majority of liberal Democrats (84%), half of moderate/conservative Democrats (50%), 28% of liberal/moderate Republicans, and 14% of conservative Republicans.

Many registered voters say the groups most harmed by global warming should have the opportunity to play a key role in government decisions about how to address it

- % "strongly" or "somewhat" support -

● Con R ● Lib/Mod R ● Mod/Con D ● Lib D ◆ All Reg Voters



How much do you agree or disagree with the following statements about the effects of global warming in the United States?

Registered U.S. voters, Spring 2023

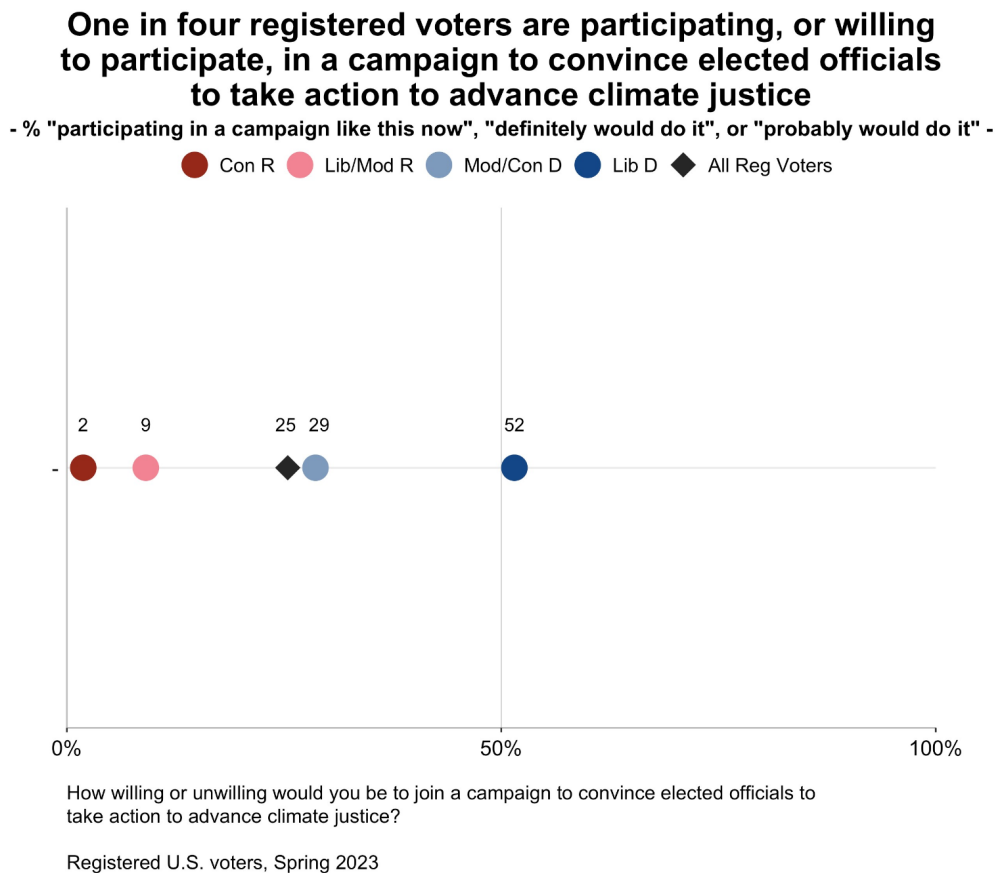
Source: Yale Program on Climate Change Communication;
George Mason University Center for Climate Change Communication

4. Registered Voters' Personal Engagement with Climate Justice

4.1. One in four registered voters are participating, or willing to participate, in a campaign to convince elected officials to take action to advance climate justice.

One in four registered voters (25%) say they are either “definitely” (7%) or “probably” (18%) willing to join a campaign to convince elected officials to take action to advance climate justice or are already currently participating in such a campaign (1%; refer to data tables, p. 28).

Among the political groups, about half (52%) of liberal Democrats say they are willing to participate or are currently participating in a campaign (1% “currently,” 16% “definitely,” 35% “probably”), followed by 29% of moderate/conservative Democrats (1% “currently,” 7% “definitely,” 21% “probably”), 9% of liberal/moderate Republicans (none “currently,” 3% “definitely,” 6% “probably”), and 2% of conservative Republicans (1% “currently,” 1% “definitely,” and less than 1% “probably”). Additionally, about 25% of Independent/Other registered voters say they would participate in such a campaign (none “currently,” 4% “definitely,” and 21% “probably”; refer to data tables).



Source: Yale Program on Climate Change Communication;
George Mason University Center for Climate Change Communication



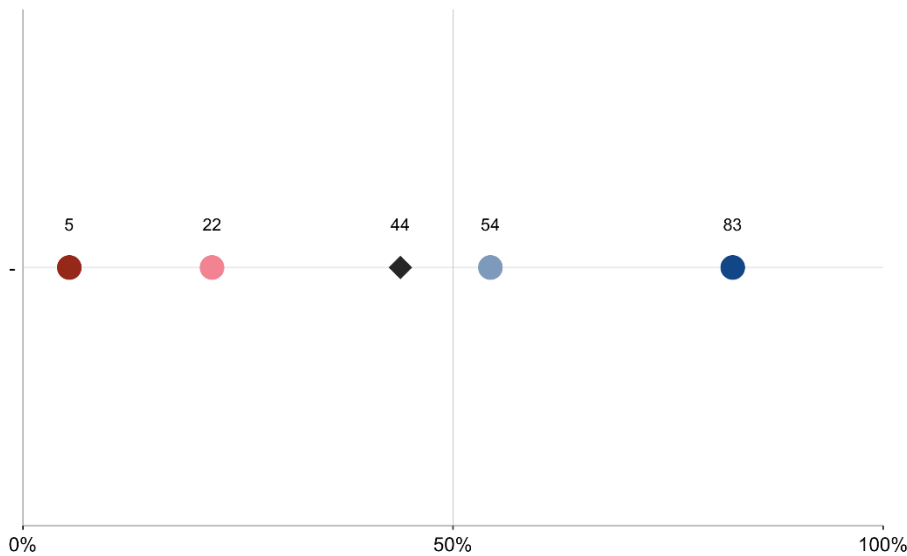
4.2. Many registered voters say they are more likely to vote for a candidate for public office who supports climate justice.

More than four in ten registered voters say they are more likely to vote for a candidate for public office who supports climate justice (44%), including 21% who say they are “much more likely” (refer to data tables, p. 29). This includes a large majority of liberal Democrats (83%), a majority of moderate/conservative Democrats (54%), and about two in ten liberal/moderate Republicans (22%), but few conservative Republicans (5%). Additionally, about one in three Independent/Other registered voters say they are more likely to vote for a candidate who supports climate justice (35%; refer to data tables).

Many registered voters say they are more likely to vote for a candidate for public office who supports climate justice

- % "somewhat more likely" or "much more likely" -

● Con R ● Lib/Mod R ● Mod/Con D ● Lib D ◆ All Reg Voters



Would you be more or less likely to vote for a candidate for public office who supports climate justice?

Registered U.S. voters, Spring 2023

Source: Yale Program on Climate Change Communication;
George Mason University Center for Climate Change Communication

Appendix I: Data Tables

Table Notes:

- In all tables from Sections 1 and 2, the base is American adults ages 18+. In all tables from Sections 3 and 4, the base is registered voters in the United States.
- In the first row of each table, “Unweighted Base” refers to the unweighted number of respondents in each column.
- Percentages reported are weighted to match U.S. Census parameters.
- A dash (“-”) denotes that there were no responses in that cell, and “0” denotes that the cell value is greater than 0 but less than 0.50.

1.1 Do you think that global warming harms some groups of people in the United States more than others?

	All Respondents	Total Democrats	Liberal Democrats	Moderate/ Conservative Democrats	Independent/ Other	Total Republicans	Liberal/ Moderate Republicans	Conservative Republicans
Unweighted Base	1,011	423	244	177	131	365	127	235
Yes (%)	49	65	81	44	49	32	45	24
No (%)	29	15	8	26	31	47	35	54
Not sure (%)	22	20	11	30	21	21	20	22

1.1b Which groups of people in the United States do you think are more harmed by global warming than others?

	All Respondents	Total Democrats	Liberal Democrats	Moderate/ Conservative Democrats	Independent/ Other	Total Republicans	Liberal/ Moderate Republicans	Conservative Republicans
Unweighted Base	1,011	423	244	177	131	365	127	235
Not asked (Do not think GW harms some more than others) (%)	51	35	19	56	51	68	55	76
Poor/Low Income (%)	22	35	48	18	21	11	12	10
Coastal Residents (%)	10	15	19	10	10	4	5	4
Other (%)	6	10	12	6	5	3	4	3
People in a Specific Region (%)	5	7	8	6	6	4	7	2
Areas Prone to Extreme Weather (%)	5	8	11	4	5	2	3	1
Farmers (%)	4	5	4	5	5	3	4	2
People of Color (%)	4	7	12	1	1	0	0	1
Areas With Specific Climatic Conditions (%)	3	3	5	2	4	2	5	0
Disenfranchised Populations (%)	2	4	6	2	2	0	0	0
Older Adults (%)	1	1	1	1	1	1	0	2
Everyone (%)	1	2	2	2	1	0	0	1
Urban Residents (%)	1	1	1	1	0	1	1	1
People with Medical Conditions (%)	1	1	0	1	0	2	0	3
Children/Young People (%)	1	1	2	0	0	0	0	0
People Outside the US (%)	1	1	1	0	2	0	0	0
Rural Residents (%)	1	0	1	0	1	1	0	1
Don't Know (%)	0	0	0	1	0	0	0	0
Women (%)	0	0	0	0	0	0	0	0

1.2 How much do you agree or disagree with the following statements about the effects of global warming in the United States?

Global warming harms people of color more than it harms white people

	All Respondents	Total Democrats	Liberal Democrats	Moderate/ Conservative Democrats	Independent/ Other	Total Republicans	Liberal/ Moderate Republicans	Conservative Republicans
Unweighted Base	1,011	423	244	177	131	365	127	235
Strongly agree (%)	15	30	41	17	10	2	2	1
Somewhat agree (%)	17	28	32	22	13	5	5	5
Neither agree nor disagree (%)	36	30	22	41	46	36	48	28
Somewhat disagree (%)	7	4	3	6	9	10	11	9
Strongly disagree (%)	22	6	2	11	21	45	31	53
No response (%)	2	1	1	2	1	3	2	4

Global warming harms lower-income people more than it harms wealthier

	All Respondents	Total Democrats	Liberal Democrats	Moderate/ Conservative Democrats	Independent/ Other	Total Republicans	Liberal/ Moderate Republicans	Conservative Republicans
Unweighted Base	1,011	423	244	177	131	365	127	235
Strongly agree (%)	24	45	61	23	19	6	9	4
Somewhat agree (%)	24	28	27	29	33	16	18	15
Neither agree nor disagree (%)	26	20	8	35	25	28	37	22
Somewhat disagree (%)	5	2	2	3	6	8	10	8
Strongly disagree (%)	19	5	1	9	15	41	25	49
No response (%)	2	1	0	2	1	2	2	2

Global warming harms women more than it harms men

	All Respondents	Total Democrats	Liberal Democrats	Moderate/ Conservative Democrats	Independent/ Other	Total Republicans	Liberal/ Moderate Republicans	Conservative Republicans
Unweighted Base	1,011	423	244	177	131	365	127	235
Strongly agree (%)	4	7	10	3	4	1	-	1
Somewhat agree (%)	9	16	21	10	5	2	3	1
Neither agree nor disagree (%)	52	57	54	60	60	39	50	32
Somewhat disagree (%)	8	8	8	9	7	10	10	10
Strongly disagree (%)	25	10	6	16	23	47	36	54
No response (%)	2	2	2	2	1	2	2	2

Global warming harms everyone about equally

	All Respondents	Total Democrats	Liberal Democrats	Moderate/ Conservative Democrats	Independent/ Other	Total Republicans	Liberal/ Moderate Republicans	Conservative Republicans
Unweighted Base	1,011	423	244	177	131	365	127	235
Strongly agree (%)	19	15	13	19	20	19	21	17
Somewhat agree (%)	21	18	16	20	32	24	26	23
Neither agree nor disagree (%)	30	24	20	30	30	36	38	35
Somewhat disagree (%)	16	27	33	20	11	7	8	6
Strongly disagree (%)	12	14	18	9	6	13	6	18
No response (%)	2	1	1	2	1	1	2	1

1.3 How much do you agree or disagree with the following statements about the effects of global warming in the United States?**A history of racist policies makes people of color more likely than white people to be harmed by global warming**

	All Respondents	Total Democrats	Liberal Democrats	Moderate/ Conservative Democrats	Independent/ Other	Total Republicans	Liberal/ Moderate Republicans	Conservative Republicans
Unweighted Base	1,011	423	244	177	131	365	127	235
Strongly agree (%)	16	33	45	18	7	2	3	2
Somewhat agree (%)	17	30	34	25	13	3	4	3
Neither agree nor disagree (%)	34	25	15	38	51	35	44	29
Somewhat disagree (%)	6	4	3	6	5	11	15	9
Strongly disagree (%)	24	6	2	12	23	47	33	55
No response (%)	2	1	1	2	2	2	2	3

2.1 How much, if anything, have you heard or read about climate justice? Have you heard...

	All Respondents	Total Democrats	Liberal Democrats	Moderate/ Conservative Democrats	Independent/ Other	Total Republicans	Liberal/ Moderate Republicans	Conservative Republicans
Unweighted Base	1,011	423	244	177	131	365	127	235
A lot (%)	4	5	8	1	6	3	4	3
Some (%)	14	20	26	12	8	10	11	10
Only a little (%)	17	21	22	20	14	14	14	14
Nothing at all (%)	65	54	43	68	71	73	72	73
No response (%)	1	1	1	-	1	-	-	-

2.2 When you think of climate justice, what is the first thing that comes to mind?

	All Respondents	Total Democrats	Liberal Democrats	Moderate/ Conservative Democrats	Independent/ Other	Total Republicans	Liberal/ Moderate Republicans	Conservative Republicans
Unweighted Base	1,011	423	244	177	131	365	127	235
Not asked (Never heard of climate justice) (%)	66	54	44	68	72	73	72	73
No response (%)	7	8	8	7	5	7	9	5
Naysayer/Dismissive (%)	6	2	0	4	5	14	12	15
Accountability and reparations for climate harms (%)	4	7	9	5	3	2	3	1
Action, activism, and social change (%)	4	6	8	2	5	1	2	0
Equitable and fair solutions to climate change (%)	3	8	11	4	1	0	0	0
Government and politics (%)	3	2	3	1	3	5	3	6
Don't know (%)	2	3	4	2	2	1	1	1
Other (%)	2	2	4	1	3	1	1	1
Corporations (%)	2	2	4	1	1	0	1	0
Social inequality (%)	1	2	3	0	1	0	0	0

2.3 Climate justice refers to the idea that global warming affects everyone, but certain communities are harmed more than others, especially low-income communities and communities of color. The goals of climate justice are to reduce these unequal harms, include these communities in decision-making, and ensure they receive a fair share of the benefits of climate action (such as good jobs, cleaner air and water, better health, etc.).

How much do you support or oppose the goals of climate justice?

	All Respondents	Total Democrats	Liberal Democrats	Moderate/ Conservative Democrats	Independent/ Other	Total Republicans	Liberal/ Moderate Republicans	Conservative Republicans
Unweighted Base	1,011	423	244	177	131	365	127	235
Strongly support (%)	31	52	65	37	30	6	11	3
Somewhat support (%)	22	27	26	29	22	18	20	16
Neither support nor oppose (%)	26	15	7	25	34	33	36	30
Somewhat oppose (%)	4	1	1	2	1	10	13	8
Strongly oppose (%)	14	4	1	8	12	31	18	40
No response (%)	2	1	1	-	2	2	2	3

3.1 Do you think climate justice should be a low, medium, high, or very high priority for the president and Congress?

	All Registered Voters	Total Democrats	Liberal Democrats	Moderate/ Conservative Democrats	Independent/ Other	Total Republicans	Liberal/ Moderate Republicans	Conservative Republicans
Unweighted Base	861	392	230	160	101	334	112	220
Very high (%)	15	25	30	19	14	2	6	1
High (%)	24	38	42	33	23	5	10	2
Medium (%)	24	24	23	26	30	22	30	18
Low (%)	35	12	4	22	32	67	51	77
No response (%)	2	1	0	1	1	3	4	2

3.2 How much do you support or oppose the following policies?

Transition the U.S. economy (including electric utilities, transportation, buildings, and industry) from fossil fuels to 100% clean energy by 2050

	All Registered Voters	Total Democrats	Liberal Democrats	Moderate/Conservative Democrats	Independent/Other	Total Republicans	Liberal/Moderate Republicans	Conservative Republicans
Unweighted Base	861	392	230	160	101	334	112	220
Strongly support (%)	32	50	60	37	32	9	13	7
Somewhat support (%)	37	39	33	47	37	31	46	23
Somewhat oppose (%)	13	9	5	12	12	19	18	20
Strongly oppose (%)	18	2	-	4	19	40	23	50
No response (%)	1	1	1	-	-	0	1	-

Provide federal funding to make residential buildings in low-income communities more energy efficient

	All Registered Voters	Total Democrats	Liberal Democrats	Moderate/Conservative Democrats	Independent/Other	Total Republicans	Liberal/Moderate Republicans	Conservative Republicans
Unweighted Base	861	392	230	160	101	334	112	220
Strongly support (%)	36	53	65	37	40	13	18	10
Somewhat support (%)	40	37	31	46	37	42	50	37
Somewhat oppose (%)	13	8	4	14	11	20	18	21
Strongly oppose (%)	11	1	-	3	12	25	14	31
No response (%)	1	0	1	-	-	1	1	1

Increase federal funding to low-income communities and communities of color who are disproportionately harmed by air and water pollution

	All Registered Voters	Total Democrats	Liberal Democrats	Moderate/Conservative Democrats	Independent/Other	Total Republicans	Liberal/Moderate Republicans	Conservative Republicans
Unweighted Base	861	392	230	160	101	334	112	220
Strongly support (%)	34	52	62	38	36	10	17	5
Somewhat support (%)	36	38	33	45	33	34	41	30
Somewhat oppose (%)	15	7	3	12	16	25	24	25
Strongly oppose (%)	14	2	1	4	15	31	16	38
No response (%)	1	0	1	-	-	1	2	1

Develop a national program to train people from low-income communities and communities of color for new jobs in the renewable energy industry (such as wind and solar)

	All Registered Voters	Total Democrats	Liberal Democrats	Moderate/Conservative Democrats	Independent/Other	Total Republicans	Liberal/Moderate Republicans	Conservative Republicans
Unweighted Base	861	392	230	160	101	334	112	220
Strongly support (%)	34	52	64	35	29	11	21	6
Somewhat support (%)	42	41	34	51	43	41	51	36
Somewhat oppose (%)	12	5	1	10	11	22	15	26
Strongly oppose (%)	12	2	1	3	16	25	13	32
No response (%)	0	0	0	-	1	0	1	-

Develop a national program to train people who work in the fossil fuel industry for new jobs in the renewable energy industry (such as wind and solar)

	All Registered Voters	Total Democrats	Liberal Democrats	Moderate/Conservative Democrats	Independent/Other	Total Republicans	Liberal/Moderate Republicans	Conservative Republicans
Unweighted Base	861	392	230	160	101	334	112	220
Strongly support (%)	35	52	63	36	38	12	19	7
Somewhat support (%)	40	39	33	48	37	40	51	34
Somewhat oppose (%)	12	8	3	14	9	20	17	22
Strongly oppose (%)	12	1	-	2	16	27	12	36
No response (%)	1	0	1	-	-	1	1	1

Strengthen enforcement of industrial pollution limits in low-income communities and communities of color that are disproportionately impacted by air and water pollution

	All Registered Voters	Total Democrats	Liberal Democrats	Moderate/Conservative Democrats	Independent/Other	Total Republicans	Liberal/Moderate Republicans	Conservative Republicans
Unweighted Base	861	392	230	160	101	334	112	220
Strongly support (%)	37	57	69	41	33	13	20	8
Somewhat support (%)	39	35	28	45	50	41	46	39
Somewhat oppose (%)	11	6	2	10	5	19	19	20
Strongly oppose (%)	12	2	-	4	12	26	14	33
No response (%)	1	1	1	-	-	0	1	-

Create more parks and green spaces in low-income communities and communities of color

	All Registered Voters	Total Democrats	Liberal Democrats	Moderate/ Conservative Democrats	Independent/ Other	Total Republicans	Liberal/ Moderate Republicans	Conservative Republicans
Unweighted Base	861	392	230	160	101	334	112	220
Strongly support (%)	40	56	65	43	43	18	22	15
Somewhat support (%)	41	37	30	46	39	47	53	45
Somewhat oppose (%)	9	5	2	8	7	16	14	18
Strongly oppose (%)	9	2	2	3	10	18	10	21
No response (%)	1	0	1	-	-	1	1	1

3.3 How much do you agree or disagree with the following statements about the effects of global warming in the United States?**The groups of people most harmed by global warming should have the opportunity to play a key role in government decisions about how to address it**

	All Registered Voters	Total Democrats	Liberal Democrats	Moderate/ Conservative Democrats	Independent/ Other	Total Republicans	Liberal/ Moderate Republicans	Conservative Republicans
Unweighted Base	861	392	230	160	101	334	112	220
Strongly agree (%)	20	32	44	15	15	5	11	2
Somewhat agree (%)	26	38	40	35	16	14	18	12
Neither agree nor disagree (%)	36	24	13	38	51	46	49	44
Somewhat disagree (%)	2	2	1	3	1	4	4	4
Strongly disagree (%)	14	3	0	6	17	28	17	35
No response (%)	2	2	2	2	-	3	2	3

4.1 How willing or unwilling would you be to join a campaign to convince elected officials to take action to advance climate justice?

	All Registered Voters	Total Democrats	Liberal Democrats	Moderate/ Conservative Democrats	Independent/ Other	Total Republicans	Liberal/ Moderate Republicans	Conservative Republicans
Unweighted Base	861	392	230	160	101	334	112	220
I am participating in a campaign like this now (%)	1	1	1	1	-	0	-	1
I definitely would do it (%)	7	12	16	7	4	2	3	1
I probably would do it (%)	18	29	35	21	21	2	6	0
I probably would not do it (%)	16	19	18	20	12	13	16	12
I definitely would not do it (%)	39	17	9	28	37	70	57	77
Not sure (%)	19	22	21	23	26	12	18	9
No response (%)	0	0	0	-	-	1	-	1

4.2 Would you be more or less likely to vote for a candidate for public office who supports climate justice?

	All Registered Voters	Total Democrats	Liberal Democrats	Moderate/ Conservative Democrats	Independent/ Other	Total Republicans	Liberal/ Moderate Republicans	Conservative Republicans
Unweighted Base	861	392	230	160	101	334	112	220
Much more likely (%)	21	38	47	24	11	3	7	1
Somewhat more likely (%)	23	33	35	30	24	8	15	5
Makes no difference either way (%)	32	24	15	36	46	36	43	31
Somewhat less likely (%)	5	2	1	4	2	11	10	11
Much less likely (%)	18	3	-	6	16	40	24	49
No response (%)	1	1	1	-	1	2	1	3

Appendix II: Methods

The data in this report are based on a nationally representative survey of 1,011 American adults, aged 18 and older. Results in Sections 3 and 4 are reported for the subset of 861 registered voters who participated in the survey. The survey was conducted April 16–May 1, 2023. All questionnaires were self-administered by respondents in a web-based environment. The median completion time for the survey was 22 minutes.

The sample was drawn from the Ipsos 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) residential 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. The sample was weighted, post survey, to match key US Census Bureau demographic norms.

From November 2008 to December 2018, no KnowledgePanel® member participated in more than one *Climate Change in the American Mind* (CCAM) survey. Beginning with the April 2019 survey, panel members who have participated in CCAM surveys in the past, excluding the most recent two surveys, may be randomly selected for participation. In the current survey, 267 respondents, 232 of whom are registered voters included in this report, participated in a previous CCAM survey.

The survey instrument was designed by Anthony Leiserowitz, Seth Rosenthal, Jennifer Carman, Matthew Ballew, Danning Lu, Marija Verner, Sanguk Lee, Matthew Goldberg, Jennifer Marlon, Joshua Low, Kristin Barendregt-Ludwig, Michel Gelobter, and Gerald Torres of Yale University; Edward Maibach, John Kotcher, Teresa Myers, and Nicholas Badullovich of George Mason University; Andrea Aguilar, Sha Merirei Ongelungel, Cristian Sanchez, and Karina Sahlin of the Digital Climate Coalition; Irene Burga and Mark Magaña of Green Latinos; Saad Amer of Justice Environment; Romona Taylor Williams of Mississippi Citizens United for Prosperity; Montana Burgess of Neighbours United; Grace McRae and Makeda Fekede of the Sierra Club; and Manuel Salgado and Annika Larson of WE ACT for Environmental Justice. The categories for the content analysis of the open-ended responses about groups vulnerable to global warming were developed by John Kotcher of George Mason University, and open-ended responses were coded by Tracy Mason, and Nicholas Badullovich of George Mason University. The categories for the content analysis of the open-ended responses about climate justice were developed by Jennifer Carman of Yale University, and the open-ended responses were coded by Matthew Ballew and Danning (Leilani) Lu of Yale University. The figures and tables were constructed by Emily Goddard of Yale University.

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 was interviewed. Average margins of error, at the 95% confidence level, are as follows:

- Americans ages 18+ ($n = 1,011$): Plus or minus 3 percentage points.
 - Democrats (total; $n = 423$): Plus or minus 5 percentage points.
 - Liberal Democrats ($n = 244$): Plus or minus 6 percentage points.
 - Moderate/conservative Democrats ($n = 177$): Plus or minus 7 percentage points.
 - Independents ($n = 131$): Plus or minus 9 percentage points.
 - Republicans (total; $n = 365$): Plus or minus 5 percentage points.
 - Liberal/moderate Republicans ($n = 127$): Plus or minus 9 percentage points.
 - Conservative Republicans ($n = 235$): Plus or minus 6 points.
- All Registered Voters ($n = 861$): Plus or minus 3 percentage points.
 - Democrats (total; $n = 392$): Plus or minus 5 percentage points.
 - Liberal Democrats ($n = 230$): Plus or minus 7 percentage points.
 - Moderate/conservative Democrats ($n = 160$): Plus or minus 8 percentage points.
 - Independents ($n = 101$): Plus or minus 10 percentage points.
 - Republicans (total; $n = 334$): Plus or minus 5 percentage points.
 - Liberal/moderate Republicans ($n = 112$): Plus or minus 9 percentage points.

- Conservative Republicans ($n = 220$): Plus or minus 7 points.

Rounding error and tabulation

In data tables, bases specified are unweighted, while percentages are weighted to match national population parameters.

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 support” + “somewhat support”) are rounded after sums are calculated. For example, in some cases, the sum of 25% + 25% might be reported as 51% (e.g., 25.3% + 25.3% = 50.6%, which, after rounding, would be reported as 25% + 25% = 51%).

Instructions for coding Section 1.1: Open-ended responses about groups perceived to be most harmed by global warming

A doctoral student and a postdoctoral fellow coded the open-ended responses using instructions and categories developed by one of the Primary Investigators. Percent agreement ranged from 93% —99% for the categories coded. Differences between the two coders were resolved via discussion between them and the Primary Investigator. “Not asked” classification was determined by a “No” or “Not sure” response to the preceding question, “Do you think that global warming harms some groups of people in the United States more than others?” Participants who provided that response were not shown this open-ended question. Definitions of the other categories used by the coders are listed below.

For the following variables, we code each survey response for the presence or absence (0=absent; present=1) of the following categories listed below. The order in which the categories are mentioned in the survey response does not matter for the purposes of coding, simply the presence or absence of a particular category.

- **Areas Prone to Extreme Weather** —This category represents any reference to people who live in areas prone to extreme weather (e.g., wildfires, tornadoes, hurricanes, drought, extreme heat). This DOES NOT INCLUDE NON-SPECIFIC references to people who live in cities or rural areas, coastal areas, certain areas with specific climatic conditions, or references to SPECIFIC regions. Examples include: “People in hurricane and tornado belts.” “people living in areas prone to wildfires” “people in areas prone to extreme weather”
- **Areas With Specific Climatic Conditions** —This category represents any reference to people who live in areas with specific climatic conditions (e.g., especially dry/wet areas, especially hot/cold areas). This DOES NOT INCLUDE NON-SPECIFIC references to people who live in cities or rural areas, coastal areas, areas prone to certain types of extreme weather, or references to SPECIFIC regions. Examples include: “Dry and desert areas” “Hotter weather states” “Those who reside in parts of the country where the climate is colder during the winter months.”
- **Children/Young People** —This category represents any reference to children or young people. Examples include: “young children” “young” “kids” “Children”
- **Coastal Residents** —This category represents any reference to people living near the coast, water, or in low-lying areas. Examples include: “Coastal residents” “people living in low lying coastal areas.” “people living near water”
- **Disenfranchised** —This category represents any general reference to people who are underprivileged, disadvantaged, marginalized, or disenfranchised. Examples include: “Underprivileged” “marginalized people”
- **Everyone** —This category represents any response that indicates everyone or all people are vulnerable to harm from climate change. Examples include: “All of us” “Everyone”
- **Farmers** —This category represents any reference to farmers or those who work in agriculture. This DOES NOT INCLUDE any NON-SPECIFIC reference to people who live or work in polluted areas. Examples include: “those involved in agriculture” “Farmers”
- **Non-US Region** —This category represents any EXPLICIT reference to people who live in a particular geographic region outside the United States. Examples include: “Other countries besides usa” “3rd world countries”
- **Older Adults** —This category represents any reference to seniors, the elderly, or older adults. Examples include: “Elderly” “older” “the very old” “senior citizens”
- **People of Color** —This category represents any general reference to racial or ethnic minorities, people of color (sometimes abbreviated as POC), or specific references to certain groups including African Americans, Asians, Hispanics/Latinos, and American Indians. Examples include: “POCs” “asian american” “African Americans” “minorities” “Native Americans/Indians”

- **People with Medical Conditions** —This category represents any general reference to people with pre-existing health conditions and the unhealthy, OR a more specific reference to people with illnesses such as lung disease, or the disabled. Examples include: "unhealthy people" "people with breathing problems" "those with medical issues"
- **Poor/Low Income** —This category represents any reference to poor people, members of low-income households, or the homeless. Examples include: "Lower class" "Less fortunate" "homeless" "Poor" "Low-income individuals"
- **Rural Residents** —This category represents any reference to people who live in rural or less populated areas. Examples include: "rural areas" "in less populated places"
- **Specific Region** —This category represents any reference to people who live in a particular geographic region. This DOES NOT INCLUDE NON-SPECIFIC references to people who live in cities or rural areas, areas prone to certain types of extreme weather, or certain areas with specific climatic conditions. Examples include: "northern people" "southern states" "Those living below the 45th parallel" "California"
- **Urban Residents** —This category represents any reference to people who live in cities, urban areas, and references to those in highly populated areas. Examples include "Those in highly populated areas" "City" "urban residents"
- **Women** —This category represents any reference to women. Examples include: "women" "pregnant women"
- **Don't Know** —This category includes any response that expresses a lack of sufficient knowledge to provide an answer. Examples include: "I don't know" "not sure"
- **Other** —This category includes any responses that are intelligible, but that don't fit any of the other categories.

Instructions for coding Section 2.2: Open-ended responses about the term "climate justice"

The three lead authors at Yale Program on Climate Change Communication first conducted independent coding of the open-ended responses. The first author developed a codebook based on all three raters' categories and the other authors coded the responses again following the final codebook. Differences in the coding were resolved via discussion between the three researchers. Percent agreement ranged from 81% —98% for the categories coded. The "haven't heard of climate justice" classification was determined by a "nothing at all" response to the preceding question, "How much, if anything, have you heard or read about the concept of climate justice?" Participants who provided that response were not shown this open-ended question. Definitions of the other categories used by the coders are listed below.

For the following variables, we code each survey response for the presence or absence (0 = absent; 1 = present) of the following categories listed below. The order in which the categories are mentioned in the survey response does not matter for the purposes of coding, simply the presence or absence of a particular category.

A survey response can be coded positive for multiple content variables. For example, the response, "Holding corporations accountable for pollution" was coded as "present" for both **accountability and reparations** (for the reference to accountability) and **corporations** (for mentioning corporations). Definitions for each content variable are provided below.

- **Accountability and Reparations (including law enforcement)** —This category includes any reference to groups who bear greater responsibility for causing global warming and should act (or be forced to act) to address its harms. Examples include: "Assuring that those who are causing climate change take responsibility for those subject to the effects of climate change" "Reparations for communities disproportionately impacted by climate change" "Take offenders to court"
- **Action, Activism, and Social Change** —This category includes any reference to social movements, protests, and other collective action to address global warming and other social problems, including specific activist organizations or activists. Examples include: "Creating a plan to combat climate change" "Grassroots organizations advocating for disadvantaged populations who are disproportionately affected by global warming" "Greta" "Greenpeace" "Activists"
- **Corporations** —This category includes any references to corporations, corporate responsibility, a specific corporation, or a type of corporation. Examples include: "Coal factories" "Holding big companies accountable for pollution" "Big corporations"
- **Disproportionate Harm** —This category includes any reference to global warming harming some groups of people more than others, and may or may not name specific groups who are harmed. Examples include: "Some being affected greatly, others not at all" "The greater impact of climate change on low income and minority communities"
- **Environmental/Climate Issues or Protection (general)** —This category includes any response that is not clearly different from climate/environmental issues more broadly. These responses refer to general causes (such as fossil fuels), impacts (such as extreme weather, harms to plants, animals, or natural spaces), or solutions (mitigation or adaptation) related to global warming or

environmental problems without any mention of social justice-related concepts. Examples include: "Being a steward for nature and future generations" "Finding ways to combat global warming" "Reduce Pollution"

- **Equitable Benefits/Solutions** —This category includes any reference to global warming solutions that promote social equity or protect people from global warming impacts, or references to social equity generally. Examples include: "Assuring that exploited communities who are most affected by climate change are supported more" "Protecting the vulnerable from the impacts of climate change" "Equity"
- **Government and Politics** —This category includes any reference to government actors, legislative action, or specific political parties/ideologies. They may also include references to government or political parties in a negative way (and are also coded as Naysayers in those cases). Examples include: "Crafting law to support climate policy" "Another SCAM perpetrated on the American public by crooked Politicians" "Politics" "Socialists / Communists"
- **Naysayers** —This category includes any response that indicates a dismissive attitude toward climate justice (or global warming). Examples include: "A bunch of nut jobs wanting justice because they believe in global warming" "A waste of time" "hoax" "Lies"
- **Social Inequalities (including inequality, racial disparity, economic disparity)** —This category includes any reference to social factors that offer certain groups advantages or disadvantages in terms of resources, power, etc. These factors are mentioned on their own or as a cause of disproportionate harms of global warming. Examples include: "Poor people and neighborhoods" "Environmental racism" "The intersectionality of race/class and climate change/global warming"
- **Don't Know** —This category includes any response that expresses a lack of sufficient knowledge to provide an answer. Examples include: "I do not know" "Not sure" "no idea" "Don't know"
- **Other** —This category includes any response that does not clearly fit into any of the other categories, or require extensive subjective interpretations to be categorized. Examples include: "how little power we have as citizens" "Charging users" "Standing on your beliefs" "Money" "Misunderstood"
- **No Response** —This category includes any response that is left blank with a value of -1.

Appendix III: Sample Demographics

Full Sample

	<i>n</i> (unweighted)	% (weighted)
Total	1,011	100
Female	516	51
Male	495	49
Generation Z (1997 -)	56	9
Millennials (1981 - 1996)	220	28
Generation X (1965 - 1980)	265	25
Baby Boomers (1946 - 1964)	381	31
Silent (1928 - 1945)	89	6
Less than high school	59	9
High school	268	29
Some college	266	26
Bachelor's degree or higher	418	35
<\$25K	97	12
\$25K-<\$50K	147	16
\$50K-<\$75K	180	16
\$75K-<\$100K	143	13
\$100K-<\$125K	112	11
\$125K+	332	32
White, Non-Hispanic	710	62
Black, Non-Hispanic	86	12
Hispanic	133	17
2+ Races, Non-Hispanic	40	1
Other, Non-Hispanic	42	7
Northeast	184	17
Midwest	219	21
South	363	38
West	245	24

Registered Voters

	<i>n</i> (unweighted)	% (weighted)
Total	861	100
Female	445	51
Male	416	49
Generation Z (1997 -)	38	7
Millennials (1981 - 1996)	173	26
Generation X (1965 - 1980)	223	26
Baby Boomers (1946 - 1964)	340	33
Silent (1928 - 1945)	87	8
Less than high school	35	6
High school	203	26
Some college	237	28
Bachelor's degree or higher	386	39
<\$25K	71	10
\$25K-<\$50K	118	15
\$50K-<\$75K	148	16
\$75K-<\$100K	120	13
\$100K-<\$125K	101	12
\$125K+	303	35
White, Non-Hispanic	623	65
Black, Non-Hispanic	72	12
Hispanic	98	15
2+ Races, Non-Hispanic	34	1
Other, Non-Hispanic	34	7
Northeast	152	17
Midwest	191	21
South	313	39
West	205	23

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