

Taking Stock

U.S. Climate Engagement

A Discussion Piece

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Prepared by the Skoll Global Threats Fund



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Taking Stock of Climate Engagement

Over the past few months, the Skoll Global Threats Fund undertook research and commissioned a number of studies to better understand the current state of public engagement around climate change in the United States. The goal was to explore how the philanthropic sector could empower a more targeted, effective, and evidence-based approach to public engagement on climate. This document is an overview of what we heard and what we learned.

Our intent here is not to assess the campaign strategies and tactics that the climate movement has pursued. There have been many assessments of strategy and reflections on why we have been unable to pass comprehensive climate policy. Rather, we sought to characterize the approaches being used to engage people on climate change, and we began to explore how social science research and tools could strengthen these engagement efforts.

We have chosen to focus on climate engagement because we see it as central to building the political will required for action. Today, most Americans believe climate change is real and at least partly human-caused. Yet few Americans are engaged around climate change—cognitively, emotionally, or behaviorally, let alone politically. Over the last few months, we began investigating what social scientists and outreach specialists understand about how we can more effectively engage the public. We found many NGOs, funders, and analysts are exploring similar questions as they rethink priorities and approaches to mobilize the masses, activate the elite, and motivate decision makers.

This discussion piece is an attempt to capture the conversation underway and facilitate further discussion about how social science can help build a stronger path forward.

This discussion piece draws on input from advocates, funders, and researchers across the climate community. We spoke with dozens of individuals, representing over 40 organizations. Thank you to everyone who spoke with us and helped us better understand the U.S. climate engagement landscape. Organizations whose representatives we consulted in this assessment include:

350.org	Greenberg Quinlan Rosner Research
Alliance for Climate Education	Greenpeace
American Lung Association	League of Conservation Voters
Analyst Institute	MacArthur Foundation
Breakthrough Institute	National Academy of Sciences
California Academy of Sciences	National Center for Science Education
Carnegie Mellon University, Department of Social & Decision Sciences	National Religious Partnership for the Environment
Catalist	Natural Resources Defense Council
Cater Communications	Princeton University, Woodrow Wilson School of Public & International Affairs
Citizen Engagement Lab	R Street
Climate Access	The Regeneration Project
Climate Central	Sea Change Foundation
Climate Communication	Sierra Club
Climate Nexus	Sojourners
The Climate Reality Project	Stanford University, Woods Institute for the Environment
Drexel University, Department of Culture & Communication	Union of Concerned Scientists
Eco-Accountability Project	University of Southern California, Annenberg School for Communication, The Norman Lear Center
ecoAmerica	U.S. Climate Action Network
Energy and Enterprise Initiative	William and Flora Hewlett Foundation
Energy Foundation	World Resources Institute
Environment America	Yale Law School, The Cultural Cognition Project
Environmental Defense Fund	
George Mason University, Center for Climate Change Communication	

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Q1

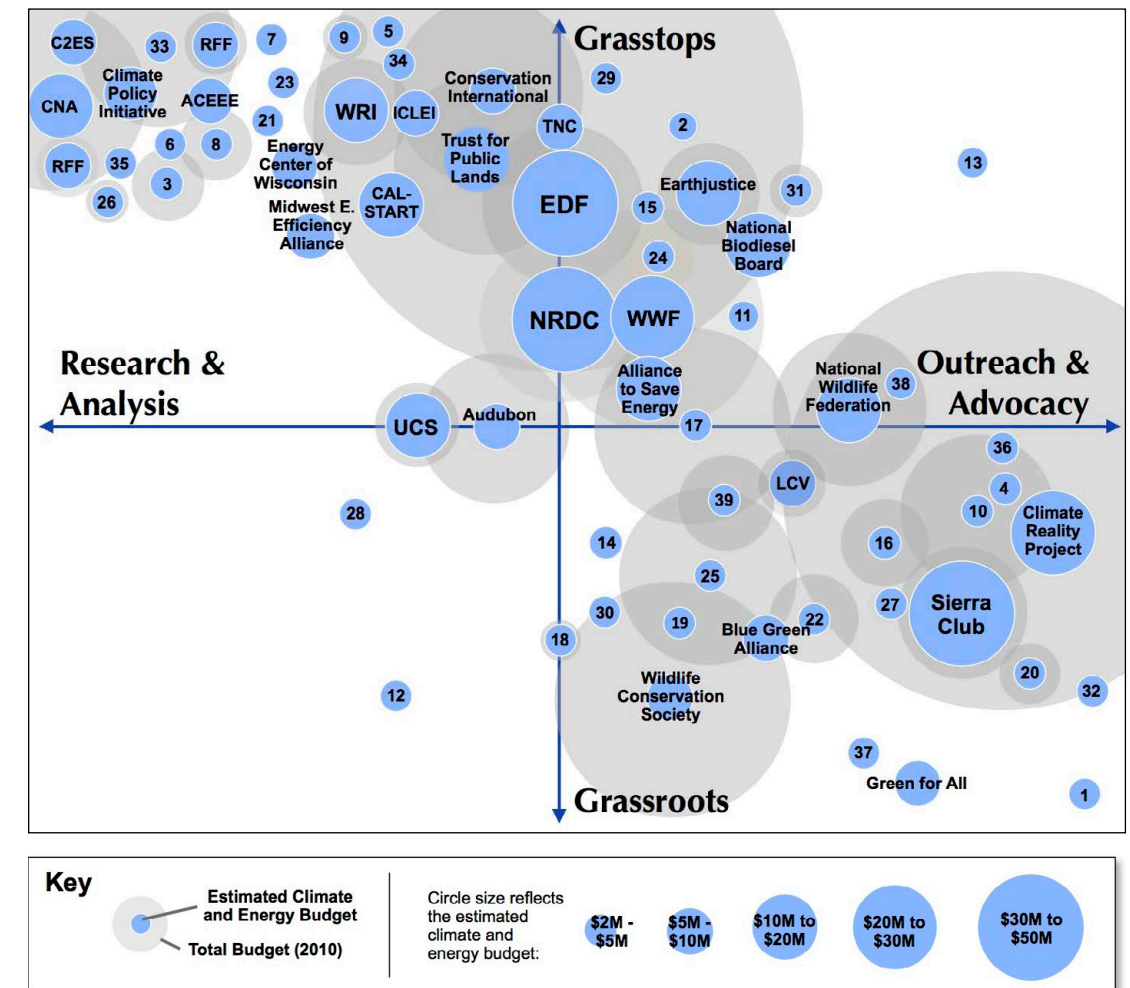
What does the climate engagement landscape look like?

We refer to the climate engagement community as the group of organizations who analyze and/or communicate the risks of or solutions to climate change, with the ultimate goal of building a more informed, concerned, or active population. In Figure 1 we mapped where organizations fit on a continuum from research and analysis to outreach and advocacy, and on a continuum depending on whether they engage the grassroots or the grasstops. The bullets below share some of the findings from our research.

Key highlights:

- More resources and organizations focus on engaging the grasstops than the grassroots.
- Most of the organizations working at the grassroots are small, while those working at the grasstops tend to be significantly larger.
- Outside of specific state and regional policy battles, most resources are directed toward influencing the climate narrative in Washington, D.C.
- Most research and analysis focuses on defining solutions or on making the case for action. Few analytic resources support investigating and tracking the social and political opportunities for action.
- Much of the research and analysis conducted is disconnected from the grassroots campaigns.
- Most outreach and advocacy is led by green-branded organizations.

Figure 1. Climate Engagement Landscape



Organizations with smaller climate and energy budgets are shown with numbers:

- | | | |
|---|--|--|
| 1. 350.org | 14. Climate Science Watch | 27. Resource Media |
| 2. American Council on Renewable Energy | 15. Climate Solutions | 28. Smart Power |
| 3. Bipartisan Research Center | 16. Defenders of Wildlife | 29. Southeast Energy Efficiency Alliance |
| 4. Care USA | 17. Ducks Unlimited | 30. Southern Alliance for Clean Energy |
| 5. Center for Clean Air Policy | 18. Environment America | 31. Southern Environmental Law Center |
| 6. Center for Climate Strategies | 19. Fresh Energy | 32. TckTckTck |
| 7. Center for Resource Solutions | 20. Greenpeace | 33. The Brookings Institute |
| 8. Center on Budget & Policy Priorities | 21. Interstate Renewable Energy Council | 34. The Climate Group |
| 9. CERES | 22. NAACP | 35. The Climate Institute |
| 10. Church World Service | 23. Northeast Energy Efficiency Partnerships | 36. The Regeneration Project |
| 11. Clean Air - Cool Planet | 24. Oceana | 37. U.S. Climate Action Network |
| 12. Climate Central | 25. Oxfam America | 38. Western Resource Advocates |
| 13. Climate Nexus | 26. Regulatory Assistance Project | 39. Wilderness Society |

This is our take on how the largest NGOs (based on climate and energy budgets) are working to motivate action on climate. The placement of each group was determined based on our own knowledge, input from others in the climate community, and from looking at each organization's website. This is intended to capture the general distribution of how the community's efforts are focused. See Sources and Methods for complete description.

Q2

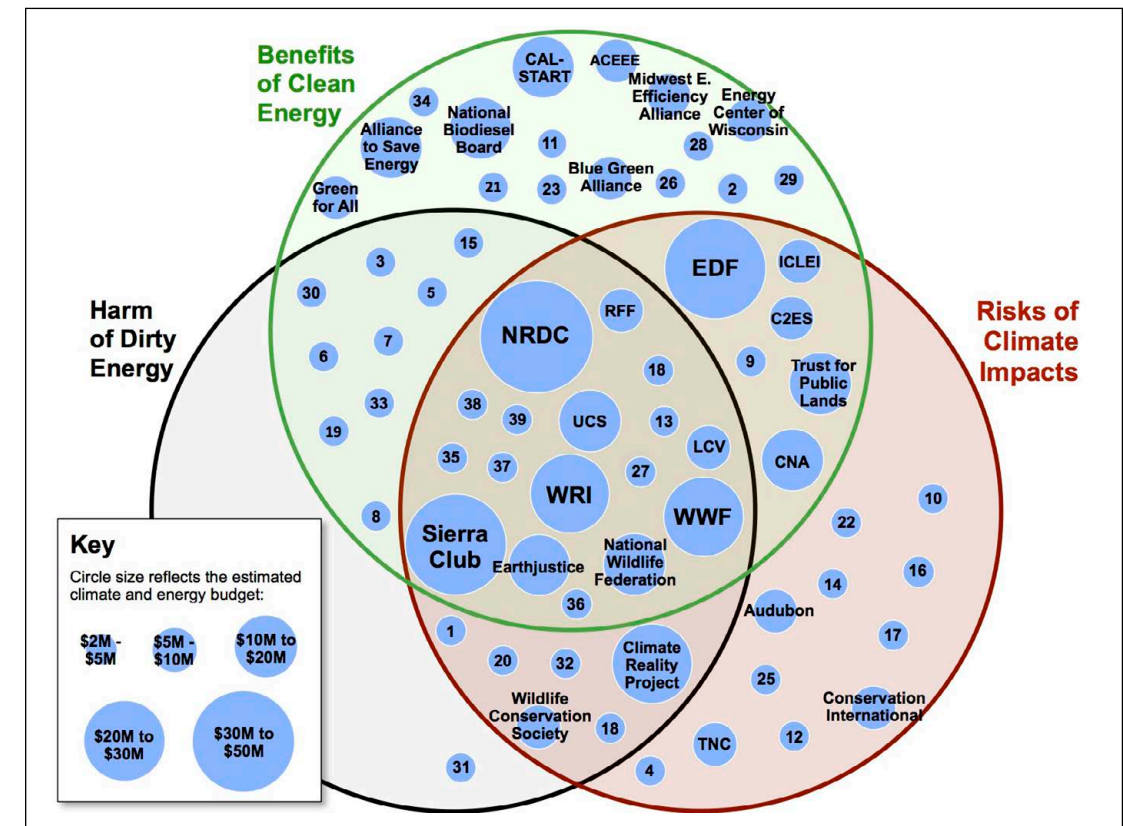
What motivators do NGOs use to engage people on climate and energy issues?

We identified three broad categories of ‘motivators,’ or communications frames, that NGOs use to engage the public to take action on climate issues: (1) Dirty energy is harmful; (2) clean energy brings benefits; and (3) the consequences of continued climate change are severe. Figure 2 characterizes the degree to which each organization uses these three motivators in their engagement and communications.

Key highlights:

- Most of the larger groups use multiple motivators in their engagement work.
- Many of the research and analysis organizations focus on clean energy benefits and avoid talking about climate change.
- Conservation groups generally emphasize the risks of climate impacts.
- Most of the grassroots-focused groups emphasize the harm of dirty energy and the risks of climate impacts.

Figure 2. Motivators for Climate and Energy Engagement



Organizations with smaller climate and energy budgets are shown with numbers:

- | | | |
|---|--|--|
| 1. 350.org | 14. Climate Science Watch | 27. Resource Media |
| 2. American Council on Renewable Energy | 15. Climate Solutions | 28. Smart Power |
| 3. Bipartisan Research Center | 16. Defenders of Wildlife | 29. Southeast Energy Efficiency Alliance |
| 4. Care USA | 17. Ducks Unlimited | 30. Southern Alliance for Clean Energy |
| 5. Center for Clean Air Policy | 18. Environment America | 31. Southern Environmental Law Center |
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| 9. CERES | 22. NAACP | 35. The Climate Institute |
| 10. Church World Service | 23. Northeast Energy Efficiency Partnerships | 36. The Regeneration Project |
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| 12. Climate Central | 25. Oxfam America | 38. Western Resource Advocates |
| 13. Climate Nexus | 26. Regulatory Assistance Project | 39. Wilderness Society |

We classified NGOs based on which motivators they predominantly used for their climate and energy work. We based this judgment on our knowledge, input from others in the community, and reading organizations’ websites. See Sources and Methods for complete description.

Q3

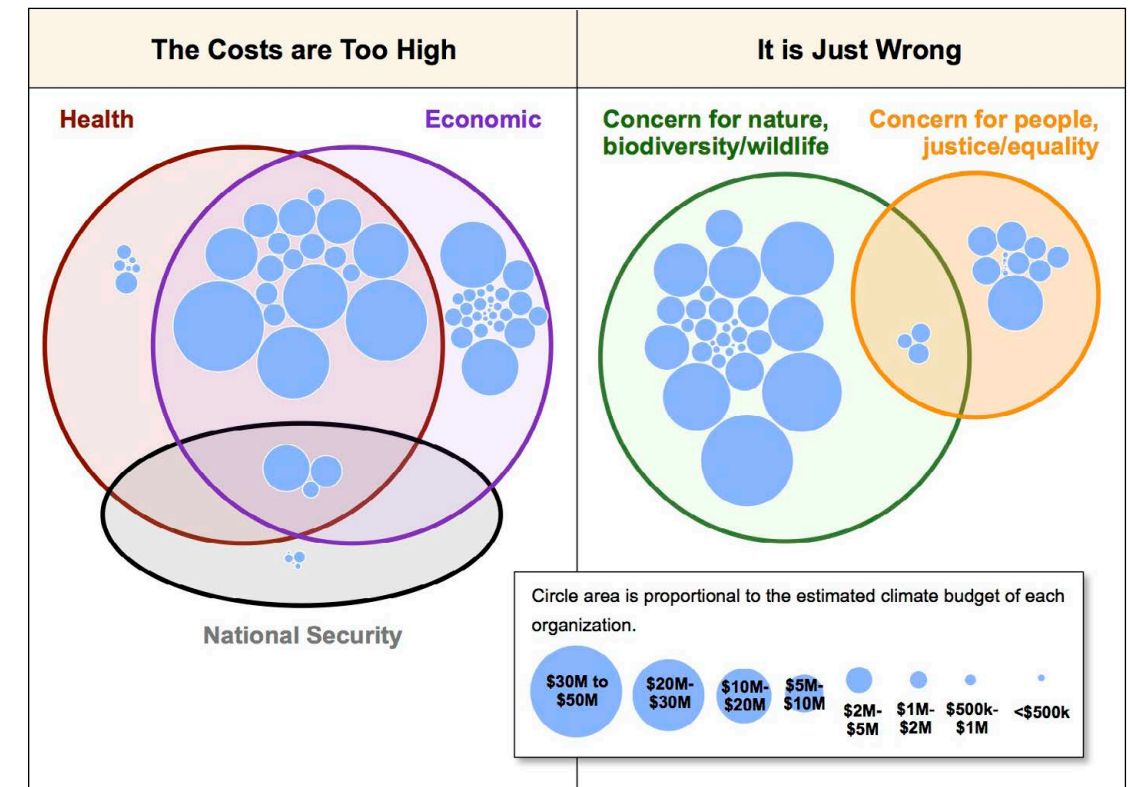
How are climate impacts framed in communication efforts?

The most commonly used frames for communicating climate impacts can be divided into two broad categories – those that target the rational mind and those that target the heart. The rational arguments highlight that the costs of inaction outweigh the costs of action. The heart-based arguments appeal to a basic sense of right and wrong. Figure 3 illustrates the climate community’s emphasis within each of these frames.

Key highlights:

- Most resources and efforts are placed towards the economic and health costs of climate change.
- In recent years, much of the climate impacts framing has been focused on the economic and health costs around extreme weather.
- Relatively few organizations emphasize national security, and those that do have relatively small budgets.
- Most organizations integrate impacts on nature in their communication.

Figure 3. How NGOs Frame Climate Impacts



We classified NGOs according to the dominant frames they use to communicate climate impacts. Names have been removed in order to highlight where the community is, as opposed to where individual groups are. Note that this figure includes more organizations than shown in Figures 1 and 2 (it includes organizations with estimated climate and energy budgets under \$2M, which were excluded from the first graphics). Also, many organizations appear in both of the above Venn diagrams. See Sources and Methods for complete description.

Q4

What should the climate engagement community do to build political will for climate action? (1 of 2)

Be open to alternative voices and solutions.

“Be open to non-left-wing public policies ... To date, nearly all proposals with serious environmental support have been heavily influenced by other portions of the political left as well as various rent-seeking interest groups ranging from unions to nuclear power companies. This, to me and many other conservatives, indicates bad faith in the discussion...”

– Eli Lehrer, President, R Street

“Change the conversation from capping, trading, regulating and growing government to a free enterprise ‘true cost’ competition between fuels that’s pro-innovation and pro-growth and that does not grow the government.”

–Bob Inglis, former U.S. Representative for South Carolina’s 4th congressional district

“PROGRESSIVES have ceded too much to the Right — we are FOR families and FOR free enterprise and FOR comfort and convenience and FOR responsibility and hard work. Each of these issues can and should be woven into climate messaging.”

– Cathy Zoi, former Assistant Secretary of Energy and former CEO of the Alliance for Climate Protection

Target communication campaigns and consider the tribes.

“There are a lot of communication efforts to ‘raise public awareness,’ etc. But what is the reason for doing this? How do the communication efforts fit into a larger political strategy? It might be better to do targeted communication efforts centering on voter decision making ... We know that the biggest impact on public concern levels are statements from elite opinion leaders ... a well-designed communications/political response would target communication efforts at [the elite opinion leaders].”

– Robert Brulle, Professor, Drexel University, Department of Culture & Communication

“When people talk and think, they often do so in terms of issues and values. But when they decide and act, they do that tribally. For most Americans we need to connect climate with tribes that they belong to and trust.”

– Robert Perkowitz, President, ecoAmerica

Tell the truth, accept unknowns, and expose lies.

“Many climate change skeptics say incorrect or misleading things. This doesn’t give people concerned about climate change the right to be equally dishonest ... Acknowledging unknowns is simply a matter of basic honesty, not a surrender.”

– Eli Lehrer, President, R Street

“Confront the disinformation campaign more directly by exposing its sources, tactics and goals, [and] develop strategies designed specifically to counter-act disinformation.”

– Riley Dunlap, Chair, American Sociological Association’s Task Force on Sociology and Global Climate Change

Activate and guide citizens who are already concerned.

“I think plenty of people are concerned, but don’t have any real sense of how to act on a scale that matters. They get that personal changes don’t add up, but they don’t see what else to do. The job of movements is to provide that ‘what else.’”

– Bill McKibben, Founder, 350.org

“Inspiring people who are already deeply personally concerned about climate change to join in sustained, coordinated activities would be very effective in creating real pressure on legislators.”

– Jon Krosnick, Professor of Communication, Political Science, & Psychology, Stanford University

“Find ways to activate the ‘alarmed’ - the issue public ... who already care deeply about this issue. All of them express their desire for change through their consumer purchases, but only about 25% express themselves as citizens by contacting their elected and appointed officials.”

– Edward Maibach, Professor, George Mason University and Director, Center for Climate Change Communication

Acknowledge that it is NOT just about the science.

“Acknowledge that science is only an input to policy making: Science, by its very nature, can illuminate areas in which public policy ought to be made but, at least in a democracy, it cannot — and should never — be able to determine public policy by itself. On a complex issue like climate change, being right about science DOES NOT by itself make somebody’s proposed public policy solutions infallible.”

– Eli Lehrer, President, R Street

“We need to win back the science, but we will – that’s the easy part. The more difficult question is whether we win back the principle that if the science is valid, public policy action is morally mandatory ...”

– Ed Markey, U.S. Representative for Massachusetts’s 5th congressional district

“We need to be open to the probability that the new conversation might not start with a scientific lecture.”

– Cathy Duvall, National Political Director, Sierra Club

Q4

What should the climate engagement community do to build political will for climate action? (2 of 2)

Move away from social marketing toward democratic engagement.

“Communication efforts should be focused on engaging citizens in a dialogue, not in manipulation. To build movement mobilization, there is a need for a face to face engagement and discussion. Just providing information might lead to short term shifts in opinion, but it also means engaging in continual spin wars.”

– Robert Brulle, Professor, Drexel University, Department of Culture & Communication

“View engagement broadly, including all ways of interacting with people who might choose to act on climate-related issues, if they saw a means for meaningful action.”

– Baruch Fischhoff, Professor, Carnegie Mellon University, Departments of Social & Decision Sciences and Engineering & Public Policy

Recognize people’s emotional and psychological reactions.

“... accepting the reality of climate change, deliberating about its relevance, and determining a course of action can be emotionally and psychologically difficult for people, yet most outreach efforts to date have not recognized this area of complexity.”

– Cara Pike, Director, Climate Access

“The primary determinants of concern and support for climate action lie in the anxieties, fears, and aspirations people hold regarding how well we can meet these challenges. Acknowledgment of potential anxieties, aspirations and ambivalence about these issues is critical for disarming defenses and fostering more openness.”

– Renee Lertzman, Strategic Communications Consultant and Adjunct Faculty, Royal Roads University

Make it personal and highlight local impacts.

“We need to make the issue local and regional, not national and global. It has to be about personally relevant realities not abstract scientific extrapolations.”

– Robert Perrowitz, President, ecoAmerica

“Americans need to understand that climate change is affecting them and their families now in order for them to be persuaded to take action now ...”

– Angela Anderson, Director, Climate and Energy Program, Union of Concerned Scientists

“Until, and unless, climate change is perceived as a ‘present threat,’ most people simply won’t care — because they believe that we will eventually figure out a solution...”

– Jeff Nesbit, Executive Director, Climate Nexus

“...we need to demonstrate costly near-term impacts to local areas (storm damage, insurance rates, agricultural impacts, municipal budget costs, etc.) ...”

– Keith Gaby, Communications Director, Climate Campaign, Environmental Defense Fund

Stop trying to convince people that climate change is threatening their personal lives.

“One big mistake organizations can make today would be to believe that the public will become more concerned about climate change if people can be convinced that climate change’s effects will alter their own personal lives or will affect the regions in which they live.”

– Jon Krosnick, Professor of Communication, Political Science, & Psychology, Stanford University

“Quite simply, climate change IS far less of an immediate concern than issues like having a job, taking care of one’s family, and participating in one’s community.”

– Eli Lehrer, President, R Street

Connect the dots between impacts and mitigation policy.

“... people are starting to experience climate impacts locally in certain parts of the country ... The challenge is that many people are not connecting the dots between those impacts and the need for them to actively engage with their national leaders.”

– Jennifer Morgan, Director, Climate and Energy Program, World Resources Institute

Q5

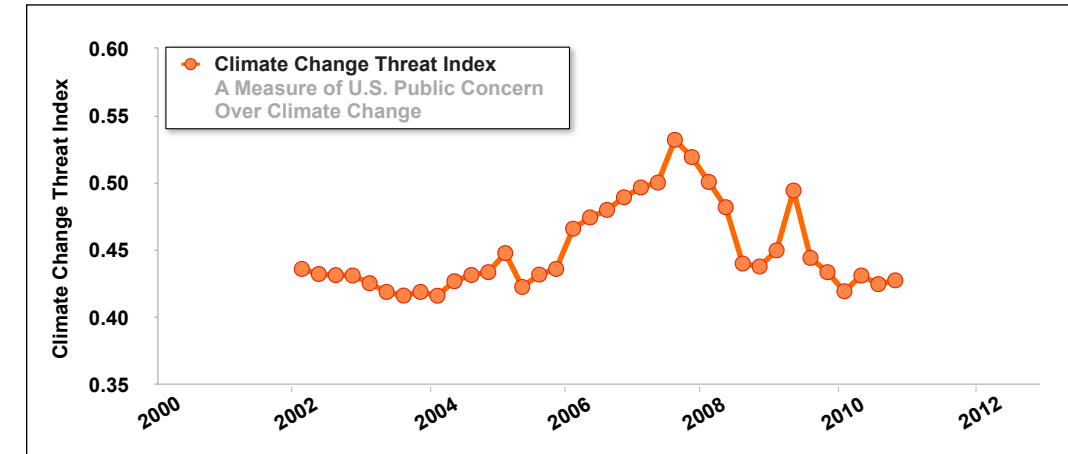
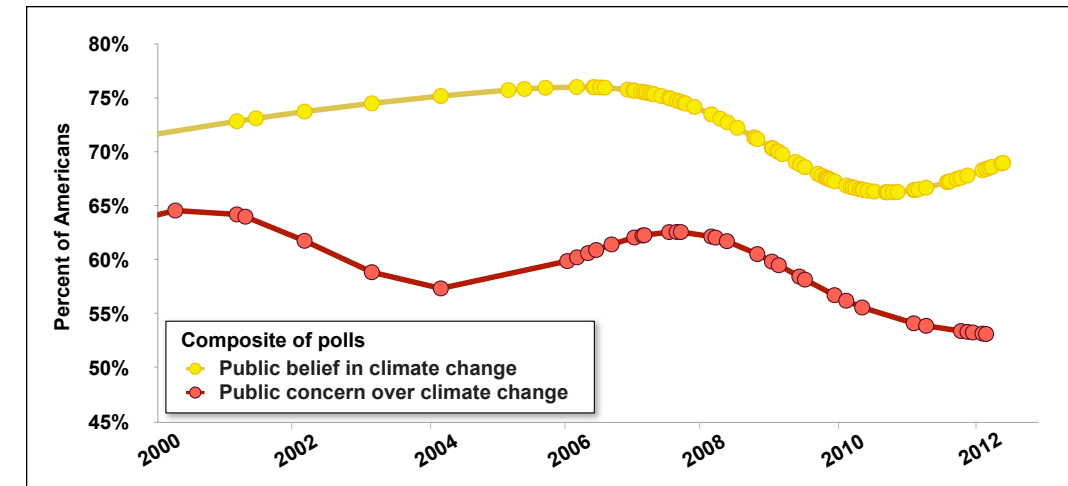
What do polls and surveys say about what Americans believe about climate change?

We contracted The Strategy Team, Ltd. to summarize the existing survey and polling data on public opinion and concerns about climate change, most of which track national studies. The complete Strategy Team report is available upon request. In addition, we conducted our own assessment of the current understanding of public opinion among climate outreach specialists and advocates. Figure 4 documents the trends in some of the national polls. Below are a few additional highlights from the literature (references available in Sources and Methods).

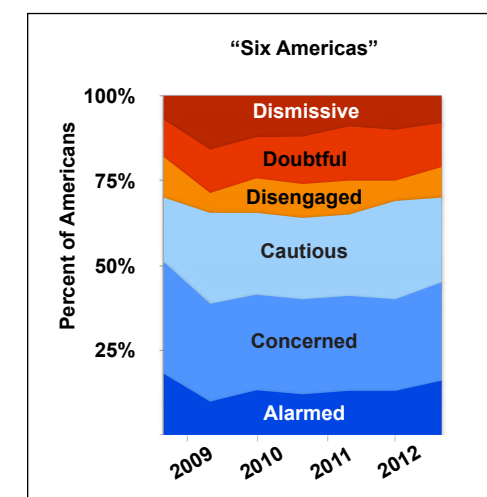
Key highlights:

- National polls indicate that the majority of Americans believe that climate change is a problem, that it is at least partially human-caused, and that we should do something about it.
- National polls fail to document any significant trend in public opinion on the reality of climate change. Concern, however, peaked in 2007, fell when the economy collapsed, and has not yet fully recovered.
- Some national polls indicate that increasing concerns about climate change are correlated with extreme weather events.
- The findings on willingness to pay for climate action were mixed depending on how the question was worded.
- National polls show a growing stark partisan divide on opinions around climate change.
- There is little data of the trends in belief or concern within narrower geographies or specific segments of populations. This is largely because most of the more targeted surveys have been undertaken more sporadically and are thus difficult to compile to track trends.

Figure 4. U.S. Public Opinion and Climate Change



The above figures show various measures of U.S. public opinion and concern over climate change. The top graph is adapted from research by The Strategy Team, Ltd., which combined numerous polls to produce these averages. The middle graph, which is adapted from Brulle et al. 2011, shows the “Climate Threat Index,” another combination of indicators of public concern. Higher values indicate more concern. The bottom graph, from the Yale Project on Climate Change Communication (Leiserowitz 2013), depicts the “Six Americas,” which divides the U.S. public into segments based on their level of concern over climate change. See Sources and Methods for complete description.



Q6

What does the social science literature say about what drives public opinion on climate change?

Based on a survey of the literature conducted by The Strategy Team, Ltd. we identified several factors that seem to contribute to differences in public opinion. The full Strategy Team report is available upon request. Figures 5a and 5b illustrate which authors and scientific journals appeared most frequently in this survey of several hundred scientific articles.

We share highlights that emerge from this literature not to provide definitive answers, but rather to spark thinking and generate discussion about how social research can inform engagement and outreach specialists, and what advocates might prioritize for future social science research.

Key highlights (See Sources and Methods for sources):

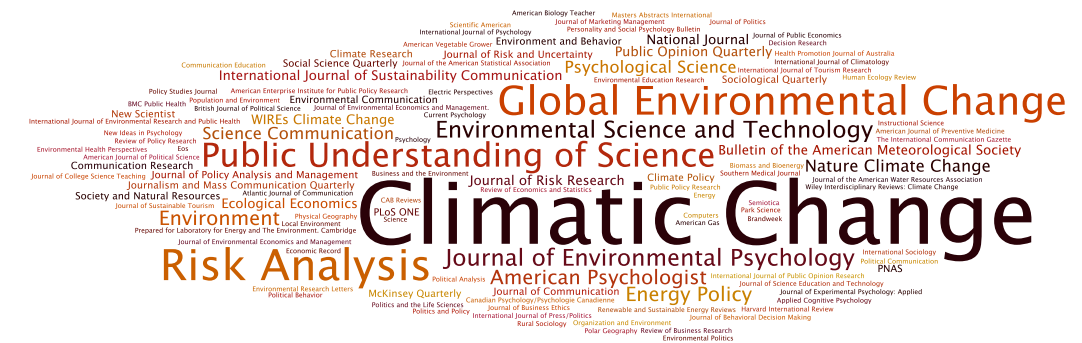
- Party identification and *political ideology* are closely associated with climate change beliefs.
- Demographics may explain some of the differences in opinion:
 - *Women* tend to be more aware of and concerned about climate change and more willing to do something about it.
 - *Younger* Americans tend to be more aware of and concerned about climate change.
 - People with higher *levels of education* tend to have greater awareness of and more concern about climate change.
 - Differences in *religious beliefs*, in some studies, are associated with differences in climate change attitudes. Some research suggests that less religious individuals are more likely to believe climate change is happening.
- Some studies suggest that experiencing *extreme weather* can strengthen people's belief in climate change and their support for climate policies.
- *Cognitive and personality traits* often influence climate change beliefs. Some studies suggest that:
 - People who think their own or others' actions can make a difference tend to be more concerned about climate change.
 - Individuals with egalitarian (instead of hierarchical) attitudes are more likely to express concern about climate change.

Figure 5. Sources from Scientific Literature Review

5a. Authors Cited



5b. Journals Cited



These two “word cloud” figures show the frequency that specific authors or journals were cited in the literature review prepared by The Strategy Team, Ltd. on the public opinion of climate change in the United States. In Figure 5a, the largest names, Leiserowitz and Krosnick, each authored or co-authored 17 articles, while the smallest names authored or co-authored one article. In Figure 5b, the largest journal, *Climatic Change*, was responsible for 25 of the science papers, while the smallest journals accounted for one paper each.

Q7

What does the public engagement community say about what drives opinion on climate change?

The extent to which people fear climate change.

"The motivating force for protective action is either a routine norm (such as the purchase of fire insurance) or the emotional arousal of fear and dread. The threat of global warming is too abstract and remote to evoke dread and fear."

– Daniel Kahneman, Professor, Princeton University, Woodrow Wilson School of Public & International Affairs

"It's not a concern to most people because it doesn't have obvious immediate consequences and the future consequences are, by definition, not knowable in great detail."

– Eli Lehrer, President, R Street

The economy.

"The major determinants are economic (GDP growth and unemployment). These issues crowd out concern regarding climate change."

– Robert Brulle, Professor, Drexel University, Department of Culture & Communication

"The Great Recession busted us to the bottom of Maslow's hierarchy of needs. In the pain of the Great Recession we've been focused on this month's mortgage payment and this month's paycheck, and climate change has been seen as an issue that can wait."

– Bob Inglis, former U.S. Representative for South Carolina's 4th congressional district

How climate messages are received.

"Americans' commitments related to climate reflect their abiding concerns (family, faith, community, livelihood), as informed by everything that they hear, see, and feel on related topics."

– Baruch Fischhoff, Professor, Carnegie Mellon University, Departments of Social & Decision Sciences and Engineering & Public Policy

"... beliefs about climate change are culturally polarized ... climate change has become so entangled in partisan meanings that people view opposing positions as badges of loyalty to antagonistic groups."

– Dan Kahan, Professor, Yale Law School, The Cultural Cognition Project

"People need to feel a personal connection to the issue that is consistent with their core moral concerns. Second, they need a framework for articulation of that concern that makes sense for them within their existing religious, social, and political contexts."

– Alycia Ashburn, Director, Creation Care Campaign, Sojourners

We don't really know.

"Just above 50% [of Americans] believe that the earth is warming, and that future warming will pose serious problems to the nation and the world. We do not have solid social scientific evidence documenting the reasons for public uncertainty and the bases for public perceptions about the severity of the threat."

– Jon Krosnick, Professor of Communication, Political Science, & Psychology, Stanford University

It depends on what people believe it means for them, here and now.

"What's it mean for me and my family and my community (physical or social)? And the 'it' in the phrase can mean both the 'problem' and the 'solution.'"

– Kevin Curtis, Chief Program & Advocacy Officer, Climate Reality Project

"Americans used to see climate change as something in the future: Out of sight, out of mind. Now it is hitting their hometowns, their loved ones, their wallets. As an abstract problem becomes real, public support for action rises."

– Eric Pooley, Senior Vice President for Strategy and Communications, Environmental Defense Fund

"Increasing concern about climate change ... is directly attributable to the local and regional impacts of climate change happening now all across America. They are changing the issue from a distant, abstract concept, decades in the future, to a personally relevant issue now."

– Robert Perkowitz, President, ecoAmerica

"With climate chaos sweeping the country, and worsening year by year, this is becoming personal for all Americans. Soon, they'll demand protection against further impacts of climate change they are seeing, feeling, and paying dearly for, and they'll expect action."

– Jake Thompson, Senior Press Secretary, Natural Resources Defense Council

Whether people understand that the problem is real and the consequences are serious.

"People don't understand the seriousness of the issue and have been led to believe that the science is still undecided."

– The Rev. Canon Sally G. Bingham, President, The Regeneration Project

"Americans' lack of concern about climate change stems not only from the well-known complexities of the phenomenon, but from a 25-year-old disinformation campaign that has effectively spread doubt about climate science."

– Riley E. Dunlap, Chair, American Sociological Association's Task Force on Sociology and Global Climate Change

"The riddle is why a significant minority of Americans diverge from the consensus ... The main reason seems to be the active campaign to dispute and discredit the science ..."

– Paul Stern, Director, Committee on the Human Dimensions of Global Change, National Academy of Sciences

"The big five' determinants are people's beliefs that: it's real; it's us (i.e., it's human caused); it's bad (i.e., it affects people and other things we care about); scientists agree; and there's hope (i.e., it's solvable)."

– Edward Maibach, Professor, George Mason University and Director, Center for Climate Change Communication

Q8

How do NGOs use polling and social science in their outreach and advocacy?

The Skoll Global Threats Fund conducted informal interviews with representatives from about three dozen NGOs and a number of social science researchers. We also contracted Climate Nexus to lead a formal assessment of how social science and polling are currently being used by advocates (full report available upon request). Highlights from both of these research efforts are provided below, and a few voices from the community on this topic are shared on the following page.

Key highlights:

- NGOs and funders are actively supporting polling, focus groups, and values surveys. Most of these efforts are associated with specific campaigns or policy battles.
- Sharing polling and survey results across the community is limited, mostly informal, and very uneven.
- There is significant concern that many groups perform similar surveys, thus unnecessarily duplicating efforts.
- Some suggested that the community relies too much on polling.
- There is a considerable appetite for improving the sharing of audience research and investing in formal learning across the field.
- Learning from polling is hampered by uneven experience with polling and the lack of well-developed theories of change in which to locate the polling results.
- Public engagement efforts that are not tied to specific policy battles appear to use national polls as a guide to shape their outreach and communication plans.
- There is some evidence that when social science research runs counter to established advocacy strategies, advocates resist taking these findings into account or acknowledging their importance.

Q9

How can social science help strengthen climate engagement efforts?

Help understand what is working and what is not.

"[Social scientists] could help with the design and evaluation of engagements, drawing on all the research, informed by knowledge of its strengths and limits."

– Baruch Fischhoff, Professor, Carnegie Mellon University
Departments of Social & Decision Sciences and
Engineering & Public Policy

"Don't guess ... about what to do; treat insights ... as hypotheses ... then observe, measure, and report the actual effect of strategies you use. "

– Dan Kahan, Professor, Yale Law School,
The Cultural Cognition Project

Move beyond polling.

"We need in-depth research. We have a lot of polling — most of it either leaning towards a conclusion or designed to sell a specific strategy. But understanding how to engage the public requires a bigger body of knowledge..."

– Frances Beinecke, President,
Natural Resources Defense Council

"The limitation of polling/surveys ... is that they take a snapshot of 'where the public is' ... And tell us less about how we move key segments from point A to point B."

– Suzanne Shaw, Director of Communications,
Union of Concerned Scientists

Target research.

"Research needs to be aimed at key groups that need persuasion, not just the national audience ..."

– Ed Markey, U.S. Representative for Massachusetts's 5th congressional district

Share, integrate, & translate.

"... We need to aggregate the stuff ... find a way to pull it together, turn it into a body of knowledge and best practices."

– Cathy Zoi, former Assistant Secretary of Energy and
former CEO of the Alliance for Climate Protection

"... there are a lot of great analytic tools that could make sophisticated research more useable for organizations and issue campaigns."

– Cathy Duvall, National Political Director, Sierra Club

Q10

What are constraints to using social science to strengthen climate engagement?

Obstacles within the climate engagement community

- **The dominant focus on short-term opportunities to reduce carbon emissions** has discouraged advocates from taking a longer-term and more evidence-based approach to building political will for large scale climate solutions.
- **Political and institutional barriers inhibit sharing and learning within the community.** These barriers result from differences in basic premises and approaches among NGOs, which most organizations tend to hold strong, and the proprietary nature of private research firms.
- **Funders are reluctant to invest in long-term social change efforts** and the related research and experimentation needed for building political will.
- **The current funding ecosystem discourages organizations from adopting collaborative and evidence-based approaches.** Organizations feel required to offer unique theories of change and approaches in a zero sum funding environment. Experimenting and failing is not allowed.

Challenges embedded in the social science community.

- **National surveys and polls are of limited value to engagement programs.** Most long-term surveys are at a national level and not segmented by target populations. These surveys provide limited value to inform or track climate outreach and advocacy efforts.
- **Targeted surveys and research are too expensive to scale** at a level commensurate with the needs of public engagement campaigns.
- **Tracking progress in public engagement is tough.** Outreach and advocacy efforts to spur social change cannot be easily understood and tracked by scientific methods.
- **There is a disconnect between social scientists and the engagement community.** Social scientists are concerned that advocates don't know what is working. Meanwhile, advocates question if social science findings are applicable, potentially contradictory, or already "conventional wisdom."
- **Incentives for researchers are not aligned with engagement priorities.** Academic social scientists are driven and rewarded to investigate questions that tend to be disconnected from the climate community's priorities. Meanwhile, private researchers are largely motivated contract to contract, rather than understanding the underlying driver and broader trends.

Q11

What are opportunities for using social science to strengthen climate engagement?

Develop and use innovative tools and methods.

The outreach and advocacy communities rely mostly on traditional polling and survey methods to track public engagement on climate. However, political campaigns and the private sector have developed new innovative tools and methods in this area that may be applicable to climate engagement work.

Move beyond polls to guide engagement programs.

Enable social scientists to work with outreach specialists in designing and evaluating engagement programs.

Experiment and test.

Integrate experiments in advocacy and communication campaigns so that we can get feedback on what is working and what is not. Feedback loops need to occur in real time so that multiple hypotheses and approaches can be undertaken rapidly.

Translate and disseminate knowledge.

Ensure that social science research is synthesized and effectively translated to inform climate engagement efforts.

Foster a culture of learning among organizations.

Create sustained dialogue among climate outreach and advocacy groups and diverse social scientists working on public engagement, cognitive processes, and social movements. Nurture a context in which measurement and admission of what didn't work is rewarded, not punished.

Create mechanisms and incentives for sharing knowledge and information.

Share among individuals and organizations. Integrating the efforts of funders, researchers, and advocates is an absolutely essential first step towards enabling learning.

Recognize that social change on climate will take time.

Invest in efforts for long-term social change as well as short-term carbon reductions.

Sources and Methods

The following studies, which we commissioned, are available upon request:

Cutting, H., Leombruni, L., Demassa, S. H. & Smithson-Stanely, L. Mapping the Landscape of Audience Research for Climate Protection. Climate Nexus (2013).

A review of how NGOs are using social science, undertaken by Climate Nexus.

Pike, C., Hyde, K. Herr, M., Minkow, D. & Doppelt, B. Climate Communication and Engagement Efforts: The Landscape of Approaches and Strategies. The Resource Innovation Group's Social Capital Project (2012).

A survey of climate organizations undertaken by the Resource Innovation Group's Social Capital Project. This survey catalogued 670 different organizations working on climate issues, and it analyzed the theories of change that define (formally or informally) these organizations' climate communication efforts.

Kristel, O. V., Scott, A. L., Szymanski, A. M., & Berent, M. Assessing Survey Evidence Regarding American Public Opinion Data About Climate Change. The Strategy Team, Ltd. (2012).

An analysis of public opinion polls, also undertaken by The Strategy Team, Ltd. This analysis took all available national polls and combined them to produce a composite evaluation of what percent of the U.S. population believes climate change is happening and is worried about its effects.

Szymanski, A. M., Scott, A. L., Anand, S. A. & Kristel, O. V. Assessing Social Science Evidence Regarding American Public Opinion About Climate Change: Annotated Bibliographies. The Strategy Team, Ltd. (2012).

An annotated bibliography of peer reviewed social science on U.S. public opinion on climate change, undertaken by The Strategy Team, Ltd.

Q1. What does the climate engagement landscape look like?

Our findings are largely based on our own research and interviews. We created Figure 1 (see description below) based on our research and review from a few leaders in the community.

Figure 1. Climate Engagement Landscape

From a list of 190 climate organizations, we selected the 66 largest based on their estimated climate and energy budget (see description below). We then placed them on this diagram after reviewing each organization's website and consulting

with a number of experts. The vertical axis charts whether the target audience is political, economic, or social elites (grasstops) or the general public (grassroots). The horizontal axis charts the relative amount of effort an organization puts into research and analysis versus outreach and advocacy. Think tanks generally appear in the top left, while pure grassroots advocacy groups are in the bottom right. In some cases – especially in the top left corner – organizations should probably be placed in the same location, but we spread them out to make the graphic easier to read. Note that the ratio of the climate and energy budget to the total organization budget might, in some cases, be skewed because we “bucketed” the climate and energy budgets (as shown in the key), while the total budgets are directly proportional to the actual total budget.

Q2. What motivators do NGOs use to engage people on climate and energy issues?

Our findings draw on analysis of Figure 2 (see description below).

Figure 2. Motivators for Climate and Energy Engagement

Drawing on the same 66 organizations, we then categorized the organizations based on how they motivate the need to act on climate change. Do they emphasize the impacts of climate change, the (non-climate) negative impacts of dirty energy, or the benefits of clean energy? This chart was generated by reviewing each organization's website and consulting with external experts. Although nearly every organization uses all three motivators to some degree, if it did not appear that a motivator was a significant part of the organization's messaging, then we did not place the organization in the corresponding circle.

Q3. How are climate impacts framed in communication efforts?

These findings draw on an analysis of Figure 3 (see description below).

Figure 3. How NGOs Frame Climate Impacts

For the organizations that focus on climate impacts, we then performed a deeper dive on how they frame these impacts. Do they focus on the costs to society or the moral implications of climate impacts? For the largest organizations, we reviewed the websites and consulted with experts. For the remaining organizations, we drew on analysis by the Social Capital Project of the Resource Innovation Group. This figure includes all the NGOs that focus on climate impacts and which were on a list of NGOs provided for us by the Social Capital Project of the Resource Innovation Group, and which we were able to find a budget for (see next section for a description of this list). For instance, the figure excludes all the organizations in Figure 2 that are not in the Risks of Climate Impacts circle, but it also includes

many smaller organizations that were not on Figures 1 and 2. Because we included all groups, and because we wanted to highlight where the community is focused as opposed to individual groups, we left the names organizations off the diagram. Note that some organizations appear on both of the two Venn diagrams.

Figures 1, 2, and 3: Estimated size of climate and energy budgets

Drawing on a list of about 280 NGOs provided by the Social Capital Project of the Resource Innovation Group, we used public sources to find the annual budgets for 190 of the groups (the majority of the remaining groups had no budget or almost no budget). Using the organizations' 990 tax forms, annual reports, and websites, we made an assessment of the percentage of each organization's efforts that were devoted to climate and energy issues. In some cases, especially with most of the larger NGOs, this judgment was very clear. In other cases, especially with large organizations with a small focus on climate change, the estimate is highly subjective. Without detailed knowledge of the inside of the organizations, it is difficult to obtain an exact figure. Nonetheless, we feel that our estimates are close enough to make a highly informed diagram such as shown in Figures 1, 2, and 3. The list of organizations and estimated climate budgets are available upon request.

Q4. What should the climate engagement community do to build political will for climate action?

We asked members of the community this question, and compiled their responses. A full compilation is available upon request. The quotes here are pulled from these responses with slight edits for clarity.

Q5. What do polls and surveys say about what Americans believe about climate change?

Some national polls indicate that extreme weather increases concern over climate change:

Leiserowitz, A., Maibach, E., Roser-Renouf, C., Feinberg, G., & Howe, P. Extreme Weather and Climate Change in the American Mind. Yale University and George Mason University. New Haven, CT: Yale Project on Climate Change Communication. (2012).

Willingness to pay for climate action is mixed depending on how the questions were worded:

Dietz, T., Dan, A. & Shwom, R. Support for Climate Change Policy: Social Psychological and Social Structural Influences. *Rural Sociology* **72**, 185–214 (2007).

Li, H. *et al.* Would developing country commitments affect US households' support for a modified Kyoto Protocol? *Ecological Economics* **48**, 329–343 (2004).

National polls show a growing stark partisan divide:

Borick, C. P., & Rabe, B. G. A reason to believe: Examining the factors that determine individual views on global warming. *Social Science Quarterly* **91**, 777-800 (2010).

McCright, A. M. & Dunlap, R. E. Cool dudes: The denial of climate change among conservative white males in the United States. *Global Environmental Change* **21**, 1163–1172 (2011).

Targeted surveys have been undertaken sporadically: based on our research and the review by Climate Nexus.

Other findings for this question draw largely on the research performed by The Strategy Team, Ltd., and Figure 4.

Figure 4. U.S. Public Opinion and Climate Change

This figure draws on research from three sources:

1. The top graph for figure 4 draws on analysis by The Strategy Team, Ltd. The Strategy Team reviewed publicly available polling results on climate change and public opinion, including searches on iPoll, general web searches, and well-known websites. They curated 2,000 questions asked in 475 different surveys, most of which were performed at the national level. They then analyzed questions that asked whether Americans believed that climate change is happening and whether they are concerned over it. The Strategy Team analyzed how responses varied depending on the wording of questions, and then produced an "average" of the polls that accounted for the fact that people answer questions differently depending on the wording. The two lines shown on this graph thus are better at showing changes in opinion than absolute opinion, as they don't correspond to a specific question.
2. The middle graph for figure 4 is adapted from Brulle et al (2011) (see full citation below), which drew on data from 74 separate surveys over a nine-year period to develop a quarterly measure of public concern over climate change. They use a statistical method (described in the paper) to compare different polls and create a single index of concern. Increases in the index reflect an increase in public concern over climate change.

Brulle, R., Carmichael, J. & Jenkins, J. Shifting public opinion on climate change: an empirical assessment of factors influencing concern over climate change in the U.S., 2002–2010. *Climatic Change* 1–20 doi:10.1007/s10584-012-0403-y
3. The bottom chart for figure 4 is adapted from a 2013 report by the Yale Project on Climate Change Communication (see below). The Yale Project, starting in 2008, has surveyed the U.S. population and divided it into six "segments" that correspond to people's level of concern and engagement in climate change, ranging from the "alarmed," who believe climate change is a serious and

imminent threat, to the “dismissive,” who believe climate change is a hoax.
Leiserowitz, A., Maibach, E., Roser-Renouf, C., Feinberg, G. & Howe, P. *Global Warming’s Six Americas*, September 2012. Yale University and George Mason University. New Haven, CT: Yale Project on Climate Change Communication (2013).

Q6. What does the social science literature say about what drives public opinion on climate change?

Party identification and political ideology are very well correlated with belief in climate change:

Hamilton, L. C. Education, politics and opinions about climate change evidence for interaction effects. *Climatic Change* **104**, 231–242 (2011).

McCright, A. M. & Dunlap, R. E. Cool dudes: The denial of climate change among conservative white males in the United States. *Global Environmental Change* **21**, 1163–1172 (2011).

Rugeley, C. R. & Gerlach, J. D. Understanding Environmental Public Opinion by Dimension: How Heuristic Processing Mitigates High Information Costs on Complex Issues. *Politics & Policy* **40**, 444–470 (2012).

Women are more concerned than men:

Brody, S., Grover, H. & Vedlitz, A. Examining the willingness of Americans to alter behaviour to mitigate climate change. *Climate Policy* **12**, 1–22 (2012).

Kahn, M. E. & Kotchen, M. J. Environmental Concern and the Business Cycle: The Chilling Effect of Recession. (National Bureau of Economic Research, 2010).at <<http://www.nber.org/papers/w16241>>

McCright, A. M. The effects of gender on climate change knowledge and concern in the American public. *Popul Environ* **32**, 66–87 (2010).

Owen, A. L., Conover, E., Videras, J. & Wu, S. Heat Waves, Droughts, and Preferences for Environmental Policy. *Journal of Policy Analysis and Management* **31**, 556–577 (2012).

Saad, Lydia. “To Americans, the risks of global warming are not imminent.” *Gallup Poll* (2007).

Younger Americans are more aware and concerned:

Hindman, D. B. Mass Media Flow and Differential Distribution of Politically Disputed Beliefs: The Belief Gap Hypothesis. *Journalism & Mass Communication Quarterly* **86**, 790–808 (2009).

Kellstedt, P. M., Zahran, S. & Vedlitz, A. Personal Efficacy, the Information Environment, and Attitudes Toward Global Warming and Climate Change in the United States. *Risk Analysis* **28**, 113–126 (2008).

Higher education levels correlate with higher concern:

Hamilton, L. C. Education, politics and opinions about climate change evidence for interaction effects. *Climatic Change* **104**, 231–242 (2011).

Hindman, D. B. Mass Media Flow and Differential Distribution of Politically Disputed Beliefs: The Belief Gap Hypothesis. *Journalism & Mass Communication Quarterly* **86**, 790–808 (2009).

Relationships between income and concern:

Dietz, T., Dan, A. & Shwom, R. Support for Climate Change Policy: Social Psychological and Social Structural Influences. *Rural Sociology* **72**, 185–214 (2007).

Li, H. *et al.* Would developing country commitments affect US households’ support for a modified Kyoto Protocol? *Ecological Economics* **48**, 329–343 (2004).

Michaud, K. E. The good steward: The impact of religion on climate change views. Conference Papers -- Western Political Science Association, 1-26 (2009).

Williams, A. E. Media evolution and public understanding of climate science. *Politics and the Life Sciences* **30**, 20–30 (2011).

Relationships between religion and concern:

Hamilton, L. C. & Keim, B. D. Regional variation in perceptions about climate change. *International Journal of Climatology* **29**, 2348–2352 (2009).

McCright, A. M. & Dunlap, R. E. Cool dudes: The denial of climate change among conservative white males in the United States. *Global Environmental Change* **21**, 1163–1172 (2011).

Michaud, K. E. The good steward: The impact of religion on climate change views. Conference Papers -- Western Political Science Association, 1-26 (2009).

Williams, A. E. Media evolution and public understanding of climate science. *Politics and the Life Sciences* **30**, 20–30 (2011).

Relationships between extreme weather and concern:

Joireman, J., Barnes Truelove, H. & Duell, B. Effect of outdoor temperature, heat primes and anchoring on belief in global warming. *Journal of Environmental*

Psychology **30**, 358–367 (2010).

Krosnick, J. A., Holbrook, A. L., Lowe, L. & Visser, P. S. The Origins and Consequences of democratic citizens' Policy Agendas: A Study of Popular Concern about Global Warming. *Climatic Change* **77**, 7–43 (2006).

Leiserowitz, A., Maibach, E., Roser-Renouf, C., Feinberg, G., & Howe, P. Extreme Weather and Climate Change in the American Mind. Yale University and George Mason University. New Haven, CT: Yale Project on Climate Change Communication. (2012).

Owen, A. L., Conover, E., Videras, J. & Wu, S. Heat Waves, Droughts, and Preferences for Environmental Policy. *Journal of Policy Analysis and Management* **31**, 556–577 (2012).

People who think their own or others' actions can make a difference tend to be more concerned about climate change:

Kellstedt, P. M., Zahran, S. & Vedlitz, A. Personal Efficacy, the Information Environment, and Attitudes Toward Global Warming and Climate Change in the United States. *Risk Analysis* **28**, 113–126 (2008).

Zahran, S., Brody, S. D., Grover, H. & Vedlitz, A. Climate Change Vulnerability and Policy Support. *Society & Natural Resources* **19**, 771–789 (2006).

Individuals with egalitarian (instead of hierarchical) attitudes are more likely to express concern for climate change:

Bord, Richard J., Ann Fisher, and Robert E. O'Connor. Public perceptions of global warming: United States and international perspectives. *Climate Research* **11**, 75-84 (1998).

Kahan, D. M., Jenkins-Smith, H. & Braman, D. Cultural cognition of scientific consensus. *Journal of Risk Research* **14**, 147–174 (2010).

Leiserowitz, A., Maibach, E. W., Roser-Renouf, C., Smith, N. & Dawson, E. *Climategate, Public Opinion, and the Loss of Trust*. (Social Science Research Network, 2010). at <http://papers.ssrn.com/abstract=1633932>

Figure 5. Sources from Scientific Literature Review

These two “word clouds” show the frequency that authors or journals were cited in the literature review performed by The Strategy Team, Ltd. The Strategy Team reviewed nearly a dozen academic databases for published social science literature on U.S. public opinion and climate change. They searched for articles that studied how U.S. public opinion has changed over time, why some people are concerned about climate change and others are not, why some people believe that climate

change is happening and others do not, and why some people want action on climate change and some don't. The result was over 200 articles, which are listed in their annotated bibliography (available upon request). The word clouds were developed using wordle.net.

Q7. What does the public engagement community say about what drives opinion on climate change?

We asked members of the community this question, and compiled their responses. A full compilation is available upon request. The quotes here are pulled from these responses with slight edits for clarity.

Q8. How do NGOs use polling and social science in their outreach and advocacy?

This question draws largely on the report by Climate Nexus, as well as interviews performed by the Skoll Global Threats Fund with representatives from NGOs, research institutions, and foundations.

Q9. How can social science help strengthen climate engagement efforts?

The quotes here are pulled from conversations we've had with scientists, advocates, and other leaders in the community working on public engagement and climate change. A full compilation is available upon request.

Q10. What are constraints to using social science to strengthen climate engagement?

These emerged from our discussions and research, including the research done by partners and contracted organizations.

Q11. What are opportunities for using social science to strengthen climate engagement?

These emerged from our discussions and research, including the research done by partners and contracted organizations.

What does the climate engagement landscape look like? What motivators do NGOs use to engage people on climate and energy issues? How are climate impacts framed in climate communications efforts? What should climate engagement efforts do to build political will for climate action? What polls and surveys say about what Americans believe about climate change? What does the social science literature say about what drives public opinion on climate change? What does the climate community say about what drives public engagement on climate change? How do NGOs use polling and social science in their outreach and advocacy? How could social science be used to help strengthen climate engagement efforts? What are constraints for enhancing the use of social science research and methods to strengthen climate engagement? What are opportunities for enhancing the use of social science research and methods to strengthen climate engagement? What does the climate engagement landscape look like? What mo



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