

CLIMATESHIFT

AMERICAN UNIVERSITY SCHOOL OF COMMUNICATION

CLEAR VISION FOR THE NEXT DECADE OF PUBLIC DEBATE



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INTRODUCTION AND OVERVIEW

For more than 20 years, environmentalists, scientists and philanthropists have worked together to mobilize action in the United States on climate change and to implement policies that address the undeniable, human causes of the problem. The many successes of this coalition, however, have been obscured over the past year by the failure of cap and trade legislation and the inability to achieve a binding international agreement on emissions.

With Republicans controlling the U.S. House of Representatives, environmental groups have given up hope for comprehensive climate legislation until at least 2013. Instead, more modest ambitions focus on passing a federal clean energy standard, increasing fuel efficiency for cars, and defending the ability of the Environmental Protection Agency (EPA) to regulate greenhouse emissions. At the state and local level, national groups are taking legal action against coal-fired power plants and promoting state regulation of greenhouse gas emissions.¹

Environmental leaders have also called for new approaches to communication, asserting that with national policy stalled, now is the time to invest in building networks and partnerships in the Midwest and other regions. “We will have to reach out to new partners, make new allies and engage new constituencies,” wrote Fred Krupp at *The Huffington Post*. “We have done so with a large part of the business community, and we will learn to do so with others.” A report by EcoAmerica concluded that communication needs to be less about national policy and more about American values and the localized benefits to action. “Engage in a journey of listening, dialoging and expression,” recommended EcoAmerica. “Have a national dialogue on what American happiness means.” In mobilizing against conservative and industry opponents, climate advocates were urged to “lead the narrative, play hard ball, [and] street fight.”²

On this front, many environmental leaders have blamed the failure of cap and trade on the financial advantages of the conservative movement and their industry allies, led by the U.S. Chamber of Commerce and billionaires David and Charles Koch. “Those of us who work on climate change have spent years trying to figure out why Congress pays no attention

to what’s clearly the most dangerous issue the earth faces,” argues Bill McKibben of 350.org. “Hidden in the shadows are the guys with money who pull the strings. We need to illuminate those shadows, with the Kochs and even more with the U.S. Chamber.”³ Acting on this premise, McKibben’s group has launched a campaign against the U.S. Chamber⁴ and Greenpeace has intensified its campaign against Koch Industries.⁵

Many scientists similarly view themselves in a battle with conservatives and their industry patrons. Groups of climate scientists have formed “rapid response” teams to confront false information and provide a question-answering service for journalists.⁶ Dozens of others have volunteered for blog and media training,⁷ while some climate scientists prepare for subpoenas and investigations by Republicans in Congress. In an op-ed published before the 2010 midterm elections, climate scientist Michael Mann asserted that all scientists had a stake in the outcome of the election: “My fellow scientists and I must be ready to stand up to blatant abuse from politicians who seek to mislead and distract the public.”⁸

ARGUMENTS FOR A DEEPER RECONSIDERATION

As these various plans move forward, a diversity of scholars and policy experts are calling for deeper self-examination and for shifts in strategy. Environmental sociologists argue that climate change is the leading risk posed by modern industrialization, a global transformation made possible through the burning of fossil fuels. Yet as Aaron McCright and Riley Dunlap explain, meaningfully dealing with climate change—even accepting the issue as a major threat—generates great resistance, since doing so requires us to fundamentally question basic principles of societal organization, cultural meaning and identity. This process is made all the more difficult by institutions and corporations that benefit from maintaining the status quo.⁹

From this view, sociologists also argue that the policies pursued by environmental groups do little to alter the industrial processes and patterns of consumption that drive climate change.¹⁰ As

Drexel University's Robert Brulle adds, communication efforts like those proposed by EcoAmerica are designed to sell the public on these limited strategies, rather than to mobilize Americans on behalf of meaningful social change.¹¹ Accordingly, it is only through true grassroots public involvement and deliberation that a new movement in support of system-challenging policy proposals can be built.¹²

Other scholars offer a different set of critiques and solutions. According to climate scientist Mike Hulme and policy expert Roger Pielke Jr., climate change remains misdiagnosed as a conventional pollution problem akin to ozone depletion or acid rain—environmental threats that were limited in scope and therefore solvable. In these cases technological alternatives were already available and the economic benefits of action more certain—both conditions that allowed policymakers to move forward even in the absence of strong scientific consensus.¹³

Hulme and others argue that climate change is representative of a “wicked” problem rather than a conventional environmental threat. Like public health or poverty, climate change is a perpetual challenge that can only be managed and coped with, rather than solved. Climate change is so complex in scale, they explain, that a single omnibus solution such as cap and trade or an international emissions treaty is unlikely to be either politically viable or effective. Instead, argue the London School of Economics' Gwyn Prins and Oxford University's Steve Rayner, climate change requires a portfolio of incremental actions, implemented at the state, regional and national levels and through the private and nonprofit sectors.¹⁴

Geographer Max Boykoff and colleagues additionally critique the definition of policy action in terms of the “stabilization” of atmospheric concentration levels, a metaphor linked to the assumption that activities pose the risk of “dangerous interference.”¹⁵ Yet, the actual threshold where we reach dangerous interference is inherently uncertain and political, they argue, premised on a mix of complex scientific projections and value judgments as to the nature of acceptable risks, impacts, costs and trade-offs.¹⁶ Additionally, the uncertainty surrounding this threshold makes discussion of achieving hard targets—such as a 2-degree limit to temperature rise or a 450-parts-per-million (ppm) concentration of greenhouse gases—arbitrary and difficult to translate for the public.¹⁷

Boykoff and others also argue that a focus on century-distant, global targets reinforces the notion that climate change is predominantly a physical manifestation that requires science and economics to understand and technocratic approaches to solve. This emphasis tends to lend primacy to climate modelers and economists as the main authorities on the problem, excluding other relevant experts from advisory processes such as the International Panel on Climate Change (IPCC).¹⁸

In terms of new policy approaches, Roger Pielke Jr. and Daniel Sarewitz of Arizona State University urge greater investment in regionally tailored adaptation initiatives that protect people from current and future impacts.¹⁹ Gwyn Prins and colleagues additionally have argued for prioritizing limits on such lesser gases as black soot or ozone that involve fewer industry sectors.²⁰ These actions, recently endorsed by a United Nations report, offer immediate health benefits to the public and could serve to delay the onset of major climate impacts, giving society more time to tackle the challenge of curbing carbon emissions.²¹

Notably, in a series of books, white papers and reports, several scholars and policy thinkers argue for flipping the frame of reference, defining climate change not in terms of pollution that requires regulation and sacrifice to end, but in terms of developing new energy sources and technologies that make the United States more competitive, prosperous and secure.²² They argue that there needs to be more intensive investment in understanding how innovation happens and the role of government as catalyst. As they assert, increasing the price of dirty fuels is only a first step, and they warn that too much faith has been placed in market responses to spur adoption of new technology.²³ They point to President Obama's 2011 “Winning the Future” State of the Union speech as representative of an emerging strategy that shifts the conversation to energy insecurity and the need for innovation.

RESEARCH AND ANALYSIS **TO INFORM DECISION MAKING**

As a range of environmentalists, scientists, philanthropists and scholars consider next steps in the debate over climate change, in this report I examine several longstanding questions that remain at the center of discussion. Effective strategy requires clear

vision. The goal of this report is to provide analysis and insight that informs decision making.

Funded by the Nathan Cummings Foundation, the analysis is based on five months of intensive research that involved the collection and analysis of data across five dimensions of the climate change debate. Assisted in my research by a team of American University graduate students, I examined:

- the financial resources and spending of environmental groups and their opponents;
- the planning efforts and investment strategies of major foundations;
- the patterns in news attention and media portrayals of climate change;
- the factors shaping the recent decline in public concern and belief in climate change;
- the factors influencing how scientists and environmentalists interpret and make sense of climate change politics.

To ensure the report's accuracy, quality and rigor, I assembled an expert review panel comprised of four internationally-recognized scholars from the respective fields of political science, policy studies, communication and environmental studies. The reviewers were chosen based on their research in one or more of the dimensions examined. They included Christopher J. Bosso, Ph.D. (Northeastern University), Max Boykoff, Ph.D. (University of Colorado-Boulder), Edward W. Maibach, Ph.D. (George Mason University), and Roger Pielke, Jr. (University of Colorado-Boulder).

I consulted several of the reviewers early on to elicit feedback on research design and data sources. Each reviewed a draft version of the report, providing written critiques, suggestions, feedback and requested revisions. I then conferred with each reviewer over the phone or in person, and several provided additional feedback on revised versions of chapters. Finally, I also recruited additional experts to informally review key sections of the report. Although the expert review panel and these other experts provided many constructive comments and suggestions, they were not asked to endorse the report's conclusions or recommendations. Responsibility for the final content of this report rests entirely with the author.

I wrote the report to be broadly accessible and engaging to an audience of non-specialists, including

policy professionals, journalists and interested members of the public. The report appears in PDF and HTML versions available at www.ClimateShiftProject.org.²⁴ In the rest of this Introduction, I summarize key findings and conclusions from the four chapters and the conclusion.

CLIMATE CHANGE ADVOCACY: REVENUES, SPENDING AND ACTIVITIES

In Chapter 1, to better understand the influence of money and spending in the debate over cap and trade legislation, I reviewed the nature, composition and funding sources of the major national environmental groups working on climate change and compared these factors with the opposing coalition of conservative think tanks, advocacy groups and industry associations. Then, analyzing data compiled from tax returns, annual reports and other sources, I systematically compared the revenue and forms of spending by both sides in the climate change debate.

Overall, in 2009, the most recent year for which data is available, the major conservative think tanks, advocacy groups and industry associations took in a total of \$907 million in revenue, spent \$787 million on all program-related activities, and spent an estimated \$259 million specific to climate change and energy policy. In comparison, the national environmental groups took in \$1.7 billion in revenue, spent \$1.4 billion on program activities, and spent an estimated \$394 million on climate change and energy-specific activities.

Yet despite these sizable advantages in spending for environmental groups, only 19 percent of the spending by environmental groups specific to climate change and energy policy was unrestricted as part of a 501(c)(4) organization. In comparison, because of the 501(c)(6) tax status of the industry associations, approximately two-thirds of spending by the coalition of advocacy groups opposed to climate action was free to be applied in unlimited amounts to lobbying and direct grassroots mobilization.

To maximize the impact of their spending, however, environmental groups coordinated their activities in support of climate action through such formal partnerships as Clean Energy Works. This initiative included 50 allied religious, labor, national security, clean energy and minority rights groups, employed more than 200 field organizers across congressional

districts, and was guided by the lead pollster and field director for the 2008 Obama campaign. Efforts at communication were also boosted by the activities of such allied groups as the Center for American Progress, the Bipartisan Policy Center, and Media Matters for America, research by message experts such as Frank Luntz and, most notably, through the efforts of Al Gore's Alliance for Climate Protection.

When launched in 2008, Gore announced that the Alliance would spend \$300 million over the next three years on a "mass persuasion" campaign to rival oil companies. Yet in 2009, despite great expectations, the Alliance spent \$34 million on advertising, short of the widely publicized \$100 million-a-year goal. In total, for 2008 and 2009, the Alliance generated \$115 million in revenue and spent \$115 million on all activities. (Figures for 2010 are not available.)

The lower-than-expected spending by the Alliance is significant when compared with the advertising expenditures of opponents. Groups such as the Coalition for Clean Coal used the presumed \$100 million spending by Gore to rally additional financial support from its members and to boost the Coalition's advertising budget to \$31 million in 2009.

Finally, several leading environmental groups also invested significant resources in building coalitions with the two dozen major corporations that formed the U.S. Climate Action Partnership (USCAP), a coalition that lobbied in support of cap and trade legislation. These partners, such as General Electric and Duke Energy, could spend unlimited amounts on legislative campaigns. Other major companies also supported cap and trade legislation. In all, six of the world's 15 largest publicly-traded corporations in 2009 supported cap and trade legislation: JP Morgan Chase (#1), Bank of America (#2), General Electric (#3), Shell (#8), British Petroleum (#10), and Walmart (#14). Three of the 6 were members of USCAP.

Through their work building coalitions and alliances, the environmental groups were able to forge a network of organizations that spent a combined \$229 million on lobbying across all issues in 2009. In comparison, the network of prominent opponents of cap and trade legislation led by the U.S. Chamber of Commerce, Exxon Mobil, and Koch Industries spent \$272 million lobbying across all issues. These figures represent a dramatically reduced power difference compared with past legislative debates over climate change.

In sum, propelled by an ultra wealthy donor base and key alliances with corporations and other organizations, the environmental movement appears to have closed the financial gap with its opponents among conservative groups and industry associations. Indeed, the effort to pass cap and trade legislation may have been the best-financed political cause in American history. The effort also demonstrates not only the vast revenue base and organizational capacity of the environmental movement, but also the movement's enhanced ability to coordinate activities among its constituent members and to build partnerships.

DESIGNS TO WIN: ENGINEERING SOCIAL CHANGE

In Chapter 2, I examine the conventional belief that conservative philanthropists like the Koch brothers are more effective than their centrist counterparts because they funnel their funding into a coordinated set of causes, think tanks and groups aimed at achieving specific policy ends. Yet as I review, far from being passive supporters, over the past decade, foundations supporting action on climate change have strongly shaped—if not defined—the environmental movement's agenda, engaging in many of the same policy-focused strategies as conservatives.

In 2006, several of the country's wealthiest foundations hired a consulting firm to comprehensively survey the available scientific literature and to consult more than 150 leading climate change and energy experts. The result of this intensive undertaking was the 2007 report *Design to Win: Philanthropy's Role in the Fight Against Global Warming*.

Leading the report was the recommendation that "tempering climate change" required a strong cap and trade policy in the United States and the European Union, and a binding international agreement on greenhouse gas emissions. The report predicted that passage of cap and trade legislation would "prompt a sea change that washes over the entire global economy." The report included little to no discussion of the role of government and philanthropy in directly sponsoring the creation of new energy technologies. The report is additionally notable for the absence of any meaningful discussion of social, political or cultural dimensions of the challenge.

To understand how this planning document shaped the investment strategies of major foundations, I analyzed available records as of January 2011 for 1,246 climate change and energy-related grants distributed by nine aligned foundations between 2008 and 2010. These aligned foundations are among the wealthiest in the country, include several of the top funders of environment-related programs, and were either sponsors of the *Design to Win* report or describe themselves as following its recommendations. The foundations analyzed were the David and Lucile Packard Foundation (#1 in environmental funding for 2009), the Sea Change Foundation (#4), the William and Flora Hewlett Foundation (#5), the Kresge Foundation (#13), the Doris Duke Charitable Foundation (#24), the McKnight Foundation (#39), the Oak Foundation (#41), the Energy Foundation and ClimateWorks.

Approximately \$368 million was distributed across the 1,246 individual grants. However, given that not all foundation records are publicly available for this period, the total of \$368 million likely underestimates the actual amount distributed between 2008 and 2010. If an average based on a foundation's previous year giving is used as a stand-in for missing years, these nine foundations would have distributed more than \$560 million between 2008 and 2010.

Much like their conservative counterparts, the funding provided by these nine foundations reflects a pattern of support focused on achieving a clear set of policy objectives. Funding included \$39 million associated with activities in support of cap and trade policies; \$32 million associated with efforts at reaching an international agreement or influencing the policies of a specific country; and \$18.7 million associated with efforts at limiting or opposing coal-fired power plants.

Funding patterns also reflect the *Design to Win* report's framing of climate change as a physical threat that requires primarily scientific and economic expertise to solve. More than \$48 million in grants were associated with policy analysis or economic impact analysis; \$17 million with environmental impact analysis; and \$13 million given directly to support university-based programs.

In addition, funding was concentrated on just a few national organizations. Though 1,246 grants were allocated, 25 organizations combined to receive \$182 million, nearly half the \$368 million total distributed.

Of the 25 organizations, 14 were leaders in the push for cap and trade legislation. Recipients included the Environmental Defense Fund, the Natural Resources Defense Council, the Union of Concerned Scientists, the Sierra Club, the League of Conservation Voters and the Alliance for Climate Protection.

As the top recipient of funding, nearly one out of every 10 dollars (\$34.6 million) went to the Bipartisan Policy Center, exceeding the \$31.3 million distributed by Koch-affiliated foundations to all conservative organizations between 2005 and 2009.

The analysis of the *Design to Win* alliance shows that contrary to conventional wisdom, these nine foundations have been as strategic in targeting specific policy outcomes as even the Koch brothers, applying more than 10 times the amount of money in pursuit of their goals. Yet focus and strategy are only as effective as the premises upon which they are based. As described in the chapter, the *Design to Win* report appeared to define climate change in conventional terms, as an environmental problem that required only the mobilization of market incentives and public will. With this definition, comparatively limited funding focused on the role of government in promoting new technology and innovation. Nor was there equivalent investment in important human dimensions of the issue, such as adaptation, health, equity, justice or economic development.

THE DEATH OF A NORM: EVALUATING FALSE BALANCE IN NEWS COVERAGE

In Chapter 3, I examine the still dominant assumption among scientists and environmentalists that the mainstream news media continue to inaccurately portray the reality and causes of climate change. To assess coverage in 2009 and 2010, I analyzed patterns in media attention as well as portrayals.

Three graduate students were trained to reliably rate a representative sample of coverage taken from *The New York Times*, *The Washington Post*, *CNN.com*, *Politico* and *The Wall Street Journal*. Using a measure developed in past studies, they were asked to judge whether the reality and causes of climate change were portrayed according to the “**consensus view**” (climate change is real and human-caused), “**falsely balanced view**” (we don't know if climate change is real, or if humans are a cause), and the “**dismissive view**” (climate change is not happening, or there is no role for humans).

PROJECTIONS OF INFLUENCE: HOW IDEOLOGY COLORS PERCEPTIONS

In 2009 and 2010, consistent with patterns historically, attention across the five news outlets peaked in relation to major political events, particularly in the buildup to the international meetings in Copenhagen, and to a lesser degree in reaction to severe weather. In 2009, the five organizations published 1,190 news and opinion articles focused on climate change, with 498 articles—or 42 percent of this coverage—appearing in October, November and December. In 2010, news attention declined by 43 percent from 2009 levels to 672 total articles published for the year.

I also examined news attention to the controversy over the e-mails surreptitiously released from servers at the Climate Research Unit at East Anglia University, an event now commonly called “Climategate.” In December 2009 as the Copenhagen meetings took place, the five media organizations combined to publish 263 news and opinion articles focused on climate change. Approximately 21 percent—or 54 of the articles—mentioned the leaked/stolen e-mails (the story first was reported on Nov. 20).

The Wall Street Journal published 14 articles mentioning the incident, and the other outlets mentioned the incident in a total of 40 articles. In the months following, however, *The Wall Street Journal* continued to focus on the story while the other news organizations did not. Between January 2010 and August 2010, when the Senate bill was declared dead, 449 news and opinion articles across the five media organizations had focused on climate change. During this period, 81—or 1 out of every 5—referenced the debate over the e-mails. More than half of these articles appeared in *The Wall Street Journal*.

Specific to the portrayal of the reality and causes of climate change, across the two years at *The New York Times*, *The Washington Post* and *CNN.com*, approximately nine out of 10 news and opinion articles reflected the consensus view on climate change. At *Politico* during this period, at least seven out of 10 articles portrayed the consensus view. Only at *The Wall Street Journal* did this trend not hold up, yet even in this case, the difference in portrayal was confined largely to the opinion pages. Across the two-year period, at least eight out of 10 news articles at the paper reflected the consensus view, but at the opinion pages, less than half of articles asserted that climate change was real and that humans were a cause.

In Chapter 4, reviewing relevant studies and polling trends, I examine the causes of a downward shift in public concern and belief in climate change since 2007 and the reasons for strong differences in views between Republicans and Democrats on the issue. Apart from the public’s judgments, I also examine the factors that shape how scientists and environmentalists perceive the complex dynamics of climate politics.

Studies and polling evidence point to a clear if not central role for the economy and unemployment in contributing to a decline in public concern and belief. The peak in public concern over climate change that occurred in 2006 and 2007 came at the time of a decade low in unemployment. In recent years, as unemployment has risen sharply, the perceived priority of the issue has correspondingly dropped. Beyond this trend data, studies by economists demonstrate the strong linkages between individual perceptions of climate change and unemployment levels at the state and county level. Experts project that unemployment rates will not approach 2006 and 2007 levels until at least 2015, suggesting that a rise in concern with climate change may be unlikely over the next half-decade.

Not only did 2006 and 2007 mark decade lows for unemployment, those same years were also unique politically. Elevated concern with climate change came not only as economic conditions improved, but also during a period of intense dissatisfaction with George W. Bush and at a time when 58 percent of the public offered a favorable opinion of Al Gore. Justifiable blame has been attributed to the Bush administration and conservatives for reinforcing the gap in perceptions between Republicans and Democrats on climate change. Largely overlooked, however, is the role that Democratic leaders—most notably Gore—have played in contributing to the polarization that exists today.

As I review, Gore has worked tirelessly to translate climate science for the public, but he also has consistently sought to mobilize progressives politically, pairing his message about climate change with attacks on Republicans, campaigning for Democratic candidates and partnering with groups such as MoveOn.org. Today, with the country’s political mood shifting right of center, Gore remains the public figure most closely associated with both climate

science and policy action. Yet as of 2010, only 44 percent of Americans had a favorable impression of Gore, a level equivalent to that of George W. Bush (45 percent) and Sarah Palin (44 percent).

Just as public opinion needs to be considered in the context of the economy and the message strategy of prominent political figures, belief in the reality and risks of climate change are also linked to the proposed policy solutions. Polling experts assert it is wrong to assume that questions asking about the causes and impacts of climate change are in fact measuring knowledge. Instead, answers to these questions are much more likely to be indirect opinions about cap and trade policy and an international agreement, explaining why even highly educated Republicans appear in polling to doubt human caused climate change. Academic studies reach a similar conclusion. In these studies, perceptions of scientific consensus vary by an individual's underlying ideological values and in relation to the inferred course of policy action.

Research is less clear about the wider impact on public opinion of conservative outlets such as Fox News or for Climategate. These studies show that conservative-leaning individuals who already hold stronger doubts about climate change are more likely to view Fox News, and this viewing reinforces these doubts. Research shows that the same factors related to selective attention and interpretation apply to understanding the impact of Climategate on public opinion.

Just as ideology shapes the public's judgments about climate change, ideology also guides the political interpretations of scientists and environmentalists. To understand this process, I analyzed a recent survey of members of the American Association for the Advancement of Science (AAAS). To be clear, the survey of AAAS members is by no means representative of scientists who are actively engaged in climate change research. On the reality and causes of climate change, there is no debate among specialists. Respondents to the AAAS survey are instead representative of the organization's interdisciplinary and professional composition, with 44 percent of members working in the biological, medical or agricultural sciences

As the data show, AAAS members are strongly ideological, partisan and like-minded in outlook. With "moderate" and "independent" the mid-points in a continuum of political identity, more than a majority

of AAAS members declare themselves to the left of these outlooks. To add context to this finding, I compared the political composition of AAAS members with 10 other politically-active groups and commonly-referenced media audiences. AAAS members are as ideologically like-minded as evangelical church members and substantially more partisan. Only black church members exhibit a stronger partisan lean than AAAS members and only Fox News viewers, Mormon Church members and Tea Party members exhibit a stronger ideological lean.

Among AAAS members, given that very few specialize in earth science, perceptions of climate change also vary considerably by ideology, just as they do among the public. Less than a majority of conservative AAAS members think the Earth is warming and that humans are a cause, compared with more than 80 percent of moderates and more than 95 percent of liberals. There are even stronger differences in the perceived seriousness of the issue.

Ideology also strongly influences the political events that AAAS members follow and their interpretation. Among strong liberals, 74 percent reported hearing a lot about claims the Bush administration had interfered with the work of government scientists, compared with 27 percent of conservative AAAS members. In comparison, just 10 percent of the public had heard a lot about the debate. Ideology additionally shaped how the claims were interpreted. On this matter, of those hearing about the debate, 57 percent of conservative AAAS members said the claims were true, compared with 87 percent of moderates and 97 percent of liberals.

To the extent that AAAS membership is consistent with the political identity of the environmental movement and scientific community at large, the findings suggest several important themes to consider. First, given their political identity and outlook, it is likely very difficult for many scientists and environmentalists to understand why so many Americans have reservations about complex policies such as cap and trade that impose costs on consumers without offering clearly defined benefits.

Second, as a natural human tendency, the political preferences of scientists and environmentalists likely lead them to seek out congenial sources in the media and to overlook the polarizing qualities of admired leaders such as Gore. These same factors also likely shape a view of the world that is inherently hostile even when objective indicators of financial

resources, media coverage and public opinion suggest otherwise.

As a result, in discussion of communication initiatives and political strategy, scientists and environmentalists tend to overlook how economic trends and their own actions might diminish public concern, and instead focus on presumed flaws in media coverage or the activities of conservatives. Moreover, as organizations such as the AAAS train and encourage their members to engage in public outreach, most participants are likely to view politics very differently from the audiences with which they are trying to engage, a challenge that merits greater focus as part of these trainings.

OVERVIEW: CONCLUSION

In the conclusion, I discuss the future of the environmental movement as one of two major coalitions that exist in American politics today—one motivated primarily by climate change and the other by energy insecurity. The “Green” network, as examined in this report, is composed of national environmental groups; allies among the Democratic Party and progressive groups; politically active scientists and affiliated organizations; and the philanthropists who have traditionally invested in their efforts. These groups continue to focus primarily on the urgent threat of climate change, the need for policies that regulate greenhouse gas emissions and conservatives and industry as the major obstacles to progress.

The “Innovation” network includes a coalition of left-leaning, centrist and right-leaning organizations joined by universities, groups such as the National Academies, energy scientists, technology entrepreneurs, business leaders and supporting foundations. The Innovation network’s portfolio of policies focuses on increasing research spending; improving science education; creating regional hubs for technology development; reforming subsidies for fossil fuel industries; using defense spending and the military to catalyze wider changes in energy technology and use; and promoting such specific technologies as small-scale nuclear reactors, batteries, geothermal power, wind and solar power, carbon sequestration and biofuels. Instead of viewing conservatives and industry as obstacles to these goals, the innovation network tends to view them as potential partners.

To be clear, these two networks are not mutually exclusive in their membership, strategies or

goals. Indeed, many environmental leaders advocate for a similar set of initiatives. However, what tends to demarcate their boundaries is the differential impetus placed on either climate change or energy insecurity as the motivating problem; the ideological, professional and social composition of the groups; the attributions they make regarding who or what is to blame for societal inaction; and the strategies they pursue as a result.

Over the next decade, as these two networks move forward with their efforts at the national level, many debates and key decisions will additionally take place across regions, states and communities. Examples include controversies over natural gas extraction and carbon capture; the siting of wind and solar power installations; the building of nuclear power plants; funding for adaptation efforts; and support for science education. Important, yet frequently overlooked questions will also revolve around social justice, opportunity and equity. Some communities already have a head start on measures making them more resilient to the impacts of climate change and to competing economically; others are already far behind. There will be similar questions related to the information needs of these communities and the capacity of local media organizations and other institutions to facilitate public participation, enable economic opportunity and hold decision makers accountable.

Both at the national and local level, the challenge will be to ensure the Green network and Innovation network work in tandem rather than in opposition. Research and initiatives will be needed that support these networks as they formulate their strategies and collaborate to achieve closely linked goals.

ENDNOTES

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²⁴ The report’s release also marks the launch of the Climate Shift Project at American University. Housed in the School of Communication, the initiative is an intellectual collaborative producing independent research, analysis and media. Climate Shift’s network of academics and professionals work with a diversity of organizations and agencies; train students, scholars and leaders; and convene forums and events that engage the Washington, D.C. community on the social dimensions of climate change, energy insecurity and related challenges. For more information, go to www.climateshiftproject.org.



CLIMATE CHANGE ADVOCACY: REVENUES, SPENDING AND ACTIVITIES

After the failure of the Senate cap and trade bill in August 2010, many commentators blamed the bill's demise on the massive spending by fossil fuel companies, industry associations and their conservative allies. Others, however, noted that environmental groups—joined by dozens of leading companies and organizations—had devoted record amounts of financial resources in an effort to pass the bill. As an unnamed Obama administration official said about environmental groups, “They spent like \$100 million and they weren’t able to get a single Republican convert on the bill.”¹

To better understand the influence of spending in the cap and trade debate, in this chapter I review the nature, composition and funding sources of the U.S. environmental movement and compare these factors to the opposing coalition of conservative think

tanks and industry associations. Then, analyzing data compiled from tax returns, annual reports, and other sources, I systematically compare the revenue and forms of spending by both sides in the debate.

Though most environmental groups are limited in how much money they can devote to direct lobbying, in the debate over cap and trade, they were able to spend heavily on efforts to educate the public and policymakers on the need for a mandatory emissions cap, hiring the country’s top political consultants. They also invested in partnerships with corporations and other organizations in a strategy aimed at counter-balancing the amount spent on lobbying by opposing industry associations and companies.

As the analysis indicates, the environmental movement has made sizable gains in closing the spending gap with their conservative and industry opponents. Indeed, the effort to pass cap and trade

FOR MANY ORGANIZATIONS, THE SIGNIFICANT PROPORTION OF CONTRIBUTIONS ARE FROM ULTRA-WEALTHY DONORS.

legislation may have been the best-financed political cause in American history. The effort also demonstrates not only the vast revenue base and organizational capacity of the environmental movement, but also the movement's enhanced ability to coordinate activities among its constituent members and to build alliances.

It is important to keep in perspective, however, that money was only one factor among many shaping the outcome of the cap and trade debate. In their study of nearly 100 policy issues, a team of political scientists led by Frank Baumgartner concludes that relatively resource-poor coalitions were no more likely to be on the losing side of a policy debate than their resource-advantaged opponents.² Instead, the impact of spending on lobbying, advertising and communication often varies depending on other factors, such as the cohesion of a coalition and the wider political context. In the case of cap and trade legislation, the continued economic recession, the heavy focus on the health care debate, a perceived lack of leadership by the White House and decisions by key leaders in the Senate all are presumed to have shaped the legislative outcome.³

FINANCIAL RESOURCES AND SPENDING LIMITS

As previous studies have described, perhaps no other social movement in U.S. history matches the size, diversity and financial resources of the environmental movement. In one analysis, sociologist Robert Brulle estimated that as of 2003, there were more than 6,500 national and 20,000 local environmental organizations in the United States, with an estimated 20-30 million members and more than \$5 billion in annual revenue.⁴ In his book *Environment Inc.*, political scientist Christopher Bosso examined the 31 largest U.S. national environmental organizations and estimated their 2002 annual revenue at \$2.1 billion, with these organizations employing more than 7,000 staff. As he writes, groups such as the Environmental Defense Fund (EDF) and the Natural Resources Defense Council (NRDC) are perhaps unique among Beltway advocacy organizations in their more than

three-decade linear growth in financial resources and in their capacity to work on multiple issues across state, national and international levels.⁵

As Bosso details, national environmental organizations have developed a mix of revenue sources, relying on foundation and government grants, corporate donations, returns from investments and assets, dues from more than 12 million members, and profits from branded credit cards, books, calendars, stickers, films and stuffed toys. But almost all of the organizations rely on targeted donors as their major revenue stream, with 60-90 percent of revenue attributed to direct contributions.⁶

For many organizations, the significant proportion of contributions are from ultra-wealthy donors. In his book *The Climate War*, journalist Eric Pooley reported that hedge fund trader Julian Robertson, who has a net worth of \$2.2 billion⁷, gave the Environmental Defense Fund (EDF) more than \$40 million between 2005 and 2009 to support the group's efforts on climate change, accounting for almost one-third of the \$144 million that EDF spent on the issue during the period.⁸ In 2009, according to its annual report, EDF received an additional \$48.5 million multiyear gift from an unnamed source.⁹ In another example, *Bloomberg Businessweek* estimates that hedge fund billionaire Robert W. Wilson gave more than \$500 million to environmental organizations between 2004 and 2008.¹⁰ Clean energy entrepreneur David Gelbaum, according to *The New York Times*, has given \$200 million to the Sierra Club during his lifetime, and between 2004 and 2008 gave \$48 million to the organization.¹¹

Yet despite the significant donor base of the environmental movement, when comparing the assets and spending of the coalitions aligned in support and against cap and trade legislation, several considerations are important to note. First, most national environmental organizations are 501(c)(3) tax-exempt organizations. Under this IRS classification, donations to the organizations are tax deductible, creating sizable revenue streams. Yet this classification also restricts spending by

THERE ARE FAR FEWER CONSERVATIVE THINK TANKS THAN ENVIRONMENTAL GROUPS IN THE UNITED STATES, AND AS WILL BE REVIEWED, EVEN THE LARGEST OF THESE THINK TANKS HAVE SMALLER BUDGETS THAN MANY OF THE NATIONAL ENVIRONMENTAL ORGANIZATIONS. THESE THINK TANKS ALSO FOCUS ON A BROAD RANGE OF ISSUES FROM FOREIGN POLICY TO HEALTH CARE TO TAXES TO FINANCIAL REGULATION.

national environmental groups in most cases to \$1 million annually on direct lobbying and \$250,000 on grassroots mobilization of the public specific to legislation.

As I describe in this chapter, however, environmental groups, as allowed by their 501(c)(3) status, have spent heavily on “general education” efforts designed to build lawmaker, executive branch and public support for a cap on emissions. Examples of general public education activities include advertising campaigns, public events, stakeholder meetings, voter guides, reports and media relations efforts that advocate generally for policy action on climate change and/or for a mandatory cap on emissions. Apart from public education initiatives, national environmental groups can also spend unlimited sums in mobilizing their more than 12 million members to contact Congress specific to legislation. Efforts by volunteers on legislative campaigns also do not count toward the dollar caps on lobbying or mobilization spending.¹²

National environmental organizations have also invested significant resources in building coalitions with major corporations, entities that can spend unlimited amounts on direct lobbying and legislative campaigns. Environmental groups have coordinated their activities in support of climate action through formal partnerships with religious, labor, national security, clean energy and minority rights groups. The environmental groups’ efforts at communication and lobbying also have been aided by the activities of allied think tanks and media watchdogs.¹³

In addition, some environmental organizations, most notably the Sierra Club and the League for Conservation Voters, are 503(c)(4) designated;

under this classification they can devote unlimited amounts to both lobbying and to public mobilization in support of legislation, as long as these efforts are deemed consistent with the direct interests of the organization and are not the organization’s primary activity. Other groups, such as the Environmental Defense Fund (EDF), have started 503(c)(4) partner organizations that spend considerably on lobbying and legislative campaigns.

Most conservative think tanks also are 501(c)(3) organizations, devoting resources to policy analysis and communication through reports, op-eds, media appearances and other strategies. In his 2004 book, Andrew Rich estimated that roughly 100 out of the 165 ideologically identifiable think tanks in the United States were conservative.¹⁴ In a separate 2008 study, Peter Jacques and colleagues identified 44 national and regional conservative think tanks that had engaged in activities specific to environmental issues.¹⁵

Still, however, there are far fewer conservative think tanks than environmental groups in the United States, and as will be reviewed, even the largest of these think tanks have smaller budgets than many of the national environmental organizations. These think tanks also focus on a broad range of issues from foreign policy to health care to taxes to financial regulation. Yet, across issues, their efforts are fairly cost-effective and efficient, involving a narrow set of activities mostly aimed at shaping decision-maker and elite opinion through op-eds, books, white papers, conferences, blogs and media relations.¹⁶

The work of think tanks is also often directly complemented by unrestricted spending on

grassroots mobilization and communication efforts by 501(c)(4) conservative organizations such as Freedom Works and the Club for Growth. Moreover, in this grassroots mobilization, cap and trade legislation has been efficiently folded into a larger meta-narrative opposing big government, taxes, “socialism” and “Obamacare.”

In addition to conservative advocacy groups, industry associations such as the U.S. Chamber of Commerce and the American Petroleum Industry are 501(c)(6) organizations that can spend unlimited sums on lobbying and public influence, so long as the activity is deemed to serve the common interest of association members. Corporations also are not limited in what they can spend on lobbying public officials.

A HISTORY OF DIFFERENCES

As scholars have described, the environmental movement is far from unified in outlook, goals or activities, diluting in part the capacity for this immense organizational structure and revenue stream to be applied to a specific issue or policy goal.¹⁷ Differences in expertise also shape the ability of environmental groups to organize politically, with some groups like EDF and NRDC better suited to Beltway politics than such organizations as the Sierra Club that rely more heavily on mobilization campaigns. Groups also fall into different advocacy niches, with some focusing on public interest litigation such as clean air laws, others on land and species conservation, and others on single issues like rainforests or climate change.¹⁸

In terms of outlook, several organizations are defined by their centrist ideology and willingness to work with industry on legislative compromises. EDF, as the creator and chief promoter of cap and trade, leans heavily on economists, research and analysis, coalition building and lobbying to achieve its goals. Other groups like NRDC and the World Resources Institute (WRI) are similarly known for their centrist “insiderism,” applying legal, scientific and economic expertise to promote legislation—or in the case of NRDC, to engage in court action against industry.

Land and wildlife conservation groups such as the Nature Conservancy, the World Wildlife Fund (WWF), the National Wildlife Federation (NWF) and the Wilderness Society are regarded as more

conservative in their outlook than even EDF. They tend to focus narrowly on land and species conservation and public education, forming partnerships with corporations and governments on these initiatives. As I will discuss, however, in recent years they have made climate change a leading organizational priority.

Sierra Club is the one comparatively big-budget organization that is to the left of EDF and NRDC in outlook. With a more participatory membership base than either of the groups mentioned, Sierra Club benefits from its 403(b) tax status to pursue a range of policy goals and strategies. Sierra Club is typically less willing than EDF to compromise on policy action with industry and is usually more focused on grassroots mobilization as a strategy rather than lobbying and Beltway coalition building. With a similar ideological orientation, grassroots mobilization emphasis and chapter focus, the League of Conservation Voters often mirrors the policy lead of the Sierra Club.

To the left even of these groups are Greenpeace and Friends of the Earth, which tend to be suspicious of market approaches to environmental problems, and rely instead on outsider strategies that involve direct efforts at influencing public opinion by targeting the reputation of corporations and elected officials.¹⁹

In contrast to the ideological diversity of the environmental movement, conservative organizations are marked by a much narrower outlook focused on limited government, reduced regulation and economic growth. These organizations and their industry allies are also advantaged by virtually unanimous opposition to cap and trade among Republican members of Congress, with many Republican leaders echoing the communication strategy of conservative groups by casting doubt on climate science and exaggerating the costs of action.²⁰ Democrats in Congress have been divided by geography and ideology in their support for legislation, with moderate Midwestern Democrats from coal, manufacturing and farm states more reticent to vote for cap and trade.²¹

THROUGH USCAP, PARTICIPATING ENVIRONMENTAL GROUPS AS 501(C)(3) ORGANIZATIONS DRAMATICALLY EXPANDED THEIR LOBBYING INFLUENCE... BY CONCENTRATING THEIR RESOURCES ON BUILDING FORMAL PARTNERSHIPS WITH CORPORATIONS.

CONVERGENCE ON CAP AND TRADE

Despite historically differing policy agendas, preferred strategies and ideologies, the major environmental organizations do coordinate their policy activities through convening organizations such as The Partnership Project and The Green Group. As Eric Pooley recounts, in 2007, when the two dozen leaders of the Green Group members arrived in Washington, D.C., they presented Congress for the first time with a unified policy agenda, urging lawmakers to pass an aggressive, mandatory cap on greenhouse gas emissions. Within this network, over the subsequent years, several key players and initiatives emerged.^{22, 23}

Efforts to pass cap and trade were pursued most intensively by a smaller subset of five environmental organizations that launched the U.S. Climate Action Partnership (USCAP) in 2007. USCAP played a lead role in the formulation and promotion of the House and Senate bills, with their members lobbying and advocating on behalf of the legislation. By 2009, USCAP included the environmental groups EDF, NRDC, WRI, the Pew Center on Global Climate Change, the Nature Conservancy and NWF and corporate members AES, Alcoa, Alstom, Boston Scientific Corp., British Petroleum, ConocoPhillips, Caterpillar, Chrysler, Deere & Co., Dow Chemical, Duke Energy, DuPont, Exelon Corp., Ford Motor Co., General Electric, Honeywell, Johnson & Johnson, NextEra Energy, NRG Energy, PepsiCo, PG&E Corp., PNM, Rio Tinto, Shell, Siemens, and Weyerhaeuser.

Through USCAP, participating environmental groups as 501(c)(3) organizations dramatically expanded their lobbying influence—albeit indirectly—by concentrating their resources on building formal partnerships with corporations. The members of USCAP commissioned the Meridian Institute, a non-profit specializing in mediation, to lead a series of ongoing and intensive negotiations that enabled the participating environmental groups and corporations

to agree on a set of policy proposals, announcements and activities in support of cap and trade legislation.²⁴

A second major group leading the effort in support of a mandatory cap on emissions was Al Gore's Alliance for Climate Protection. Unveiled in 2008 by Gore in a *60 Minutes* interview, the Alliance announced that it would embark on a three-year, \$300 million advertising campaign “to recruit 10 million advocates to seek laws and policies that can cut greenhouse gases.”²⁵ The Alliance was established as a 501(c)(3) and later added the 501(c)(4) Climate Protection Action Fund.

Gore's intention, as reported by Pooley, was to turn the instruments of mass persuasion applied so effectively by the oil industry to the cause of climate action and the passage of a cap and trade bill. He conceived of the advertising campaign as addressing the problem of donor confusion and overlapping competitive strategies among environmental groups. “Everyone is faced with a continuing struggle of funding from donors. And the more this issue rises, the more it is used in all the appeals, and that's fine in a way,” Gore told leaders of the Green Group in 2007. “But the message is chewed up and ends up not feeding the growth of a truly mass movement.”²⁶

In early 2009, USCAP and Green Group members further expanded their resources and reach by founding Clean Energy Works, a coalition of 50 allied environmental, labor, religious, national security and minority-rights organizations mobilized in support of cap and trade legislation. The coalition hired Joel Benenson, the lead pollster for the 2008 Obama campaign, and Paul Tewes, the campaign's lead field organizer.²⁷ Clean Energy Works employed 45 staffers and more than 200 field organizers across districts and states.²⁸ Besides consulting Obama's former top advisers, other leading strategy advice was also elicited. In 2010, EDF partnered with News Corporation to sponsor polling research by GOP

consultant Frank Luntz. His report, “Language of a Clean Energy Economy,” was designed to inform the message strategy of environmental groups, public officials and other allies as they pursued passage of cap and trade legislation.²⁹

CONSERVATIVE GROUPS: REVENUE AND SPENDING

In this section, I review tax filings and annual reports to estimate the revenue, general program spending, and climate change and energy-specific spending for the think tanks, advocacy groups and industry associations that opposed cap and trade legislation, dismissed expert consensus on climate science, and/or exaggerated the economic costs of action. These organizations have been identified in previous scholarly studies and in investigations conducted by journalists, environmentalists and others.³⁰

The first organizations summarized in Table 1.1 are large think tanks such as the Cato Institute, Competitive Enterprise Institute and Heritage Foundation, followed by smaller and less well-known think tanks. All of these organizations are 501(c) (3) designated. In total, these think tanks brought in \$311 million in revenue and spent \$229 million on all program activities.

Estimating the spending specific to climate change and energy policy is more difficult as each think tank does not provide figures on its spending devoted to a given policy issue. According to the annual reports and websites for the largest and most prominent think tanks, the Heritage Foundation, the American Enterprise Institute, the Hoover Institute and the Cato Institute devote considerable resources to foreign policy and national security issues. In terms of domestic policy, these think tanks in 2009 focused primarily on health care, taxes, government spending and financial regulation. The number of staff devoted to energy and environmental issues is also far less than those devoted to other areas. For example, although the Cato Institute’s Patrick Michaels is a prominent commentator on climate change, the think tank lists only three other experts in the area of the environment compared with a total of eight in foreign policy. A similar pattern of limited staffing and prioritization appears at the other think tanks. For example, in its 29-page annual report for 2009, the American Enterprise Institute devoted two paragraphs to climate change and energy policy.

With these considerations in mind, after reviewing their annual reports, 990 tax filings, and websites, I estimated climate and energy policy spending as 10 percent of all spending for most of the conservative think tanks listed in Table 1.1. The exceptions are the Heartland Institute, the Competitive Enterprise Institute, the Center for the Study of Carbon Dioxide and Global Change and the Marshall Institute, think tanks which have branded themselves in terms of their work on climate change. For these think tanks, I estimated 80 percent of their total spending as specific to climate and energy policy in 2009. Also, for the Institute for Energy Research, a think tank that focuses exclusively on energy issues, I included a 100 percent estimate. In total, based on these calculations, I estimate that the 29 think tanks spent in the range of \$35 million on program activities specific to climate change and energy policy in 2009.



TABLE 1.1
REVENUE AND SPENDING BY CONSERVATIVE THINK TANKS, 2009

	TOTAL REVENUE (\$)	TOTAL SPENDING (\$)	CLIMATE CHANGE & ENERGY SPENDING * (\$)	TAX STATUS
HERITAGE FOUNDATION	69,230,717	53,627,243	5,300,000	501(C)(3)
AMERICAN ENTERPRISE INSTITUTE	52,524,255	19,120,995	1,900,000	501(C)(3)
HOOVER INSTITUTION	36,718,000	34,130,000	3,400,000	501(C)(3)
YOUNG AMERICA'S FOUNDATION	21,843,300	13,166,739	1,300,000	501(C)(3)
CATO INSTITUTE	20,145,000	19,636,062	1,900,000	501(C)(3)
HUDSON INSTITUTE	12,456,864	8,764,942	870,000	501(C)(3)
MEDIA RESEARCH CENTER	10,593,706	8,003,548	800,000	501(C)(3)
MANHATTAN INSTITUTE	9,741,804	5,800,443	580,000	501(C)(3)
MERCATUS CENTER	9,630,804	9,951,652	990,000	501(C)(3)
NATIONAL CENTER FOR PUBLIC POLICY RESEARCH	8,607,003	5,266,782	520,000	501(C)(3)
REASON FOUNDATION	6,915,071	5,830,283	580,000	501(C)(3)
HEARTLAND INSTITUTE ▲	6,785,374	5,190,761	4,152,608	501(C)(3)
COMPETITIVE ENTERPRISE INSTITUTE ▲	5,257,682	3,797,966	3,038,372	501(C)(3)
INDEPENDENT WOMEN'S FORUM	4,263,640	3,902,536	3,902,536	501(C)(3)
NATIONAL CENTER FOR POLICY ANALYSIS	4,222,443	7,105,840	710,584	501(C)(3)
PACIFIC RESEARCH INSTITUTE	4,001,628	3,434,298	343,429	501(C)(3)
TEXAS PUBLIC POLICY FOUNDATION	3,522,429	2,365,752	236,575	501(C)(3)
MACKINAC CENTER	3,310,018	2,793,826	279,382	501(C)(3)
CLAREMONT INSTITUTE	3,308,113	2,390,032	239,003	501(C)(3)
JOHN LOCKE FOUNDATION	3,189,977	2,842,350	284,235	501(C)(3)
THE COMMITTEE FOR A CONSTRUCTIVE TOMORROW	3,071,277	3,119,554	311,955	501(C)(3)
GOLDWATER INSTITUTE	3,053,985	2,130,769	213,076	501(C)(3)
INSTITUTE FOR ENERGY RESEARCH ●	2,266,196	2,387,598	2,387,598	501(C)(3)
AMERICAN COUNCIL FOR CAPITAL FORMATION	1,616,879	1,122,210	112,221	501(C)(3)
CENTER FOR THE STUDY OF CARBON DIOXIDE AND GLOBAL CHANGE ▲	1,522,628	1,223,948	979,158	501(C)(3)
CAPITAL RESEARCH CENTER	1,371,978	788,318	78,831	501(C)(3)
FOUNDATION FOR RESEARCH ON ECONOMICS AND THE ENVIRONMENT	840,644	470,107	47,010	501(C)(3)
AMERICAN CAPITAL FORMATION POLICY CENTER	753,200	459,953	45,995	501(C)(3)
MARSHALL INSTITUTE ▲	469,845	492,458	393,966	501(C)(3)
TOTALS	311,234,460	229,316,965	35,896,534	

▲ SPENDING SPECIFIC TO CLIMATE CHANGE AND ENERGY POLICY ESTIMATED AT 80 PERCENT OF ALL PROGRAM SPENDING.

● SPENDING SPECIFIC TO CLIMATE CHANGE AND ENERGY POLICY ESTIMATED AT 100 PERCENT OF ALL PROGRAM SPENDING.

* ALL OTHER THINK TANKS, SPENDING SPECIFIC TO CLIMATE CHANGE AND ENERGY POLICY ESTIMATED AT 10 PERCENT OF TOTAL SPENDING.

NOTE: ALL FIGURES BASED ON ANNUAL REPORTS AND INTERNAL REVENUE SERVICE RECORDS.

TABLE 1.2**REVENUE AND SPENDING BY CONSERVATIVE ADVOCACY ORGANIZATIONS, 2009**

	TOTAL REVENUE (\$)	TOTAL SPENDING (\$)	CLIMATE CHANGE & ENERGY SPENDING* (\$)	TAX STATUS
AMERICANS FOR PROSPERITY	13,547,873	10,811,917	1,081,191	501(C)(4)
AMERICANS FOR PROSPERITY FOUNDATION	16,565,244	12,889,244	1,288,924	501(C)(3)
STATE POLICY NETWORK	4,480,054	2,838,969	283,896	501(C)(3)
FREEDOM WORKS INC.	3,695,035	2,278,882	227,888	501(C)(4)
FREEDOM WORKS FOUNDATION	4,159,904	2,746,882	274,688	501(C)(3)
CLUB FOR GROWTH	3,972,081	2,433,753	243,375	501(C)(4)
AMERICAN ENERGY ALLIANCE ▲	1,725,615	1,725,615	1,725,615	501(C)(4)
TOTALS	48,145,806	35,725,262	5,125,577	

▲ SPENDING SPECIFIC TO CLIMATE CHANGE AND ENERGY POLICY ESTIMATED AT 100% OF ALL SPENDING.

* ALL OTHER GROUPS, SPENDING SPECIFIC TO CLIMATE CHANGE AND ENERGY POLICY ESTIMATED AT 10% OF ALL SPENDING.

NOTE: ALL FIGURES BASED ON ANNUAL REPORTS AND INTERNAL REVENUE SERVICE RECORDS.

In Table 1.2., I examine conservative advocacy organizations such as Americans for Prosperity and Freedom Works. In 2009, these advocacy groups brought in a total of \$48.1 million in revenue and spent \$35.7 million on program activities. Two of the more broadly-focused conservative groups—Freedom Works and Club for Growth—are 501(c)(4) designated and have no limits on what they can spend on lobbying and grassroots mobilization specific to legislation. The other 501(c)(4) group—the American Energy Alliance—is the advocacy affiliate of the Institute for Energy Research, a think tank that strongly opposed cap and trade legislation.

In estimating spending specific to climate change and energy policy, I applied a similar process as the one used with the conservative think tanks. After reviewing the annual reports, 990 tax filings, and websites, given the broader portfolio of these groups, I estimate that about 10 percent of all program spending was devoted specifically to

climate change and energy policy. The exception is the American Energy Alliance, which I estimated at 100 percent of all spending. In total, the spending by these groups specific to climate change and energy policy was in the range of \$5 million. For these conservative advocacy groups, however, cap and trade policy fit efficiently into resources devoted to mobilization in opposition to big government, taxes and regulation more generally.

TABLE 1.3

REVENUE AND SPENDING BY INDUSTRY ASSOCIATIONS, 2009

	TOTAL REVENUE (\$)	TOTAL SPENDING (\$)	CLIMATE CHANGE & ENERGY SPENDING * (\$)	TAX STATUS
US CHAMBER OF COMMERCE	214,617,809	210,732,339	52,683,084	501(C)(6)
AMERICAN PETROLEUM INSTITUTE ●	203,962,560	193,355,940	96,677,970	501(C)(6)
AMERICAN COALITION FOR CLEAN COAL ▲	53,733,277	47,416,552	47,416,552	501(C)(6)
NATIONAL ASSOCIATION OF MANUFACTURERS	34,577,079	29,603,301	7,400,825	501(C)(6)
AMERICAN FARM BUREAU	26,115,079	25,506,839	6,376,709	501(C)(6)
NATIONAL MINING ASSOCIATION ●	15,125,480	15,965,096	7,982,548	501(C)(6)
TOTALS	548,131,284	522,580,067	218,537,688	

▲ SPENDING SPECIFIC TO CLIMATE CHANGE AND ENERGY POLICY ESTIMATED AT 100% OF ALL SPENDING.

● SPENDING SPECIFIC TO CLIMATE CHANGE AND ENERGY POLICY ESTIMATED AT 50% OF ALL SPENDING.

* ALL OTHER ORGANIZATIONS, SPENDING SPECIFIC TO CLIMATE CHANGE AND ENERGY ESTIMATED AT 25% OF ALL SPENDING.

NOTE: ALL FIGURES BASED ON ANNUAL REPORTS AND INTERNAL REVENUE SERVICE RECORDS.

The third set of organizations listed in Table 1.3 includes industry-affiliated associations such as the U.S. Chamber of Commerce, the American Petroleum Institute, the American Farm Bureau, the National Association of Manufacturers and the American Coalition for Clean Coal. While working on a range of issues, these organizations have been strong opponents of cap and trade legislation generally. As 501(c)(6) organizations, they have no limits on what they can spend on lobbying and grassroots mobilization, as long as their actions are consistent with the broad interest of their members. In 2009, these organizations took in \$548 million in revenue and spent \$522 million on all program-related activities.

The Chamber of Commerce spent the most on program activities, though 40 percent of its budget in 2009, according to news reports, was devoted to health care legislation. Health insurers gave the U.S. Chamber \$86 million to spend on advertisements, polling and grassroots events to oppose health care

reform.³¹ Besides energy and health care, the U.S. Chamber also prioritized efforts on financial regulatory reform, small business initiatives and rules for union organizing.³² The National Association of Manufacturers and the American Farm Bureau, according to their annual reports and websites, also had a similarly broad policy portfolio. With these considerations in mind, for these organizations, I estimated that 25 percent of all program spending was applied to climate change and energy policy.

For the American Petroleum Institute and the National Mining Association, both associations also worked on a broader set of issues such as corporate taxes and regulations related to labor, public health, and worker safety. Several of their members also lobbied *in favor* of cap and trade legislation, as discussed in the next section. Based on these considerations, after reviewing their annual reports and 990 tax filings, I estimated their spending specific to climate change and energy policy at 50 percent

85 PERCENT OF ALL SPENDING SPECIFIC TO THE ISSUE BY THE ALIGNED COALITION OF CONSERVATIVE GROUPS AND INDUSTRY ASSOCIATIONS COULD BE APPLIED IN UNRESTRICTED WAYS TO LOBBYING AND GRASSROOTS MOBILIZATION.

of all program activities. Finally, for the American Coalition for Clean Coal, I estimated the organization's spending at 100 percent of all program spending and discuss its expenditures on advertising later in the chapter. In total, for the associations listed in Table 1.3, they spent in the range of \$218 million on activities focused on climate change and energy policy in 2009.

Overall, in 2009, the conservative think tanks, advocacy groups and industry associations I reviewed took in a total of \$907 million in revenue, spent \$787 million on all program-related activities, and spent an estimated \$259 million specific to climate change and energy policy. Approximately 84 percent of the spending on climate and energy was by 501(c)(6) industry associations and another 1 percent by 501(c)(4) conservative advocacy groups. This means that 85 percent of all spending specific to the issue by the aligned coalition of conservative groups and industry associations could be applied in unrestricted ways to lobbying and grassroots mobilization.

ENVIRONMENTAL GROUPS: REVENUE AND SPENDING

Reviewing annual reports and publicly available tax documents, I compiled similar data on the national environmental organizations that mobilized in support of climate action with almost all of these organizations advocating on behalf of cap and trade legislation.³³ For these organizations as well, I include what they reported spending specifically on climate and energy-related program activities. Compared to the conservative think tanks, advocacy groups and industry associations, many of the environmental organizations provide details on spending specific to climate change and energy policy. For groups where this information is not available, I rely on conservative estimates with details on sources and estimates included in the end notes to this chapter.

In Table 1.4, I summarize revenues and spending for the environmental groups that are members of the U.S. Climate Action Partnership. These groups, for which cap and trade was their top policy priority, took in more than \$925 million in total revenue in 2009, spent more than \$649 million on all program activities, and spent an estimated \$161 million on climate change and energy-specific activities.

EDF, as the lead architect of cap and trade legislation and USCAP, spent \$33.3 million in restricted funds and \$11.7 million in unrestricted funds on "climate stabilization" in 2009. As mentioned earlier, EDF is estimated to have spent \$140 million on the issue between 2005 and 2009.³⁴ In 2009, NRDC is estimated to have spent \$28 million on climate and energy-related activities and NWF \$32 million.³⁵ (NWF left USCAP in 2009, but continued to work in support of cap and trade legislation.)



EDF, AS THE LEAD ARCHITECT OF CAP AND TRADE LEGISLATION AND USCAP, SPENT \$33.3 MILLION IN RESTRICTED FUNDS AND \$11.7 MILLION IN UNRESTRICTED FUNDS ON “CLIMATE STABILIZATION” IN 2009. AS MENTIONED EARLIER, EDF IS ESTIMATED TO HAVE SPENT \$140 MILLION ON THE ISSUE BETWEEN 2005 AND 2009.

TABLE 1.4
REVENUE AND SPENDING BY U.S. CLIMATE ACTION PARTNERSHIP, 2009

	TOTAL REVENUE (\$)	TOTAL SPENDING (\$)	CLIMATE CHANGE & ENERGY SPENDING *	TAX STATUS
NATURE CONSERVANCY	547,223,000	386,690,000	38,669,000	501(C)(3)
ENVIRONMENTAL DEFENSE FUND	125,425,925	74,482,377	33,365,820	501(C)(3)
ENVIRONMENTAL DEFENSE ACTION FUND	19,560,114	11,710,280	11,710,280	501(C)(4)
NATURAL RESOURCES DEFENSE COUNCIL	99,206,523	74,303,936	28,235,495	501(C)(3)
NRDC ACTION FUND	1,616,656	671,308	335,654	501(C)(4)
NATIONAL WILDLIFE FEDERATION	91,933,523	72,005,962	32,700,000	501(C)(3)
NATIONAL WILDLIFE FEDERATION ACTION FUND	1,574,748	789,354	789,354	501(C)(4)
WORLD RESOURCES INSTITUTE	27,913,000	23,452,000	10,302,720	501(C)(3)
PEW CENTER ON GLOBAL CLIMATE CHANGE	11,262,335	5,055,688	5,055,688	501(C)(3)
TOTALS	925,715,824	649,160,905	161,164,011	

* SEE END NOTES FOR DETAILS ON ESTIMATES RELATIVE TO SPENDING SPECIFIC TO CLIMATE CHANGE AND ENERGY POLICY.

NOTE: ALL FIGURES BASED ON ANNUAL REPORTS AND INTERNAL REVENUE SERVICE RECORDS.

TABLE 1.5**REVENUE AND SPENDING BY GREEN GROUP / PARTNERSHIP PROJECT MEMBERS AND OTHERS, 2009**

	TOTAL REVENUE (\$)	TOTAL SPENDING (\$)	CLIMATE CHANGE & ENERGY SPENDING * (\$)	TAX STATUS
SIERRA CLUB INC.	84,438,083	75,938,054	30,902,417	501(C)(4)
EARTH JUSTICE	34,598,044	33,314,249	3,331,424	501(C)(3)
GREENPEACE USA INC.	26,331,462	22,553,383	8,157,878	501(C)(3)
UNION OF CONCERNED SCIENTISTS	21,599,820	16,350,274	12,569,856	501(C)(3)
ENVIRONMENT AMERICA INC.	11,751,670	9,750,930	6,176,361	501(C)(4)
ENVIRONMENT AMERICA POLICY CENTER	4,482,796	2,266,433	1,618,765	501(C)(3)
LEAGUE OF CONSERVATION VOTERS INC.	11,238,646	8,287,323	4,143,661	501(C)(4)
LEAGUE OF CONSERVATION VOTERS FUND	10,813,771	8,384,762	4,192,381	501(C)(3)
RESOURCES FOR THE FUTURE	11,196,767	10,300,895	2,575,223	501(C)(3)
ENVIRONMENTAL LAW & POLICY CENTER	6,758,809	3,952,587	2,022,318	501(C)(3)
THE PARTNERSHIP PROJECT	4,671,842	4,826,682	3,861,345	501(C)(3)
FRIENDS OF THE EARTH USA	4,945,620	3,808,132	1,904,066	501(C)(3)
FRIENDS OF THE EARTH ACTION FUND	196,056	131,424	65,712	501(C)(4)
RAIN FOREST NETWORK	3,881,343	3,815,347	1,907,673	501(C)(4)
PHYSICIANS FOR SOCIAL RESPONSIBILITY	2,904,036	2,335,132	859,271	501(C)(3)
TOTALS	239,808,765	206,015,607	84,288,351	

* SEE END NOTES FOR DETAILS ON ESTIMATES RELATIVE TO SPENDING SPECIFIC TO CLIMATE CHANGE AND ENERGY POLICY.

NOTE: ALL FIGURES BASED ON ANNUAL REPORTS AND INTERNAL REVENUE SERVICE RECORDS.

In Table 1.5, I summarize revenues and spending by Green Group and Partnership Project member organizations. All of these groups, with the exception of Greenpeace and Friends of the Earth, supported cap and trade legislation, though their level of activity and commitment to the House and Senate bills

varied. These groups took in \$239.8 million in revenues and spent \$206 million on all program activities, with an estimated \$84 million spent specific to climate change and energy policy.³⁶

The lead organization among these groups—both in terms of its budget and 501(c)(4) flexibility—was

TABLE 1.6

REVENUE AND SPENDING BY CONSERVATION ORGANIZATIONS

	TOTAL REVENUE (\$)	TOTAL SPENDING (\$)	CLIMATE CHANGE & ENERGY SPENDING* (\$)	TAX STATUS
WORLD WILDLIFE FUND	166,770,175	224,159,728	22,415,972	501(C)(3)
NATIONAL AUDUBON SOCIETY	82,294,000	65,251,000	6,525,100	501(C)(3)
WILDERNESS SOCIETY	34,589,005	22,769,771	2,276,977	501(C)(3)
DEFENDERS OF WILDLIFE	33,032,000	30,381,000	3,038,100	501(C)(3)
NATIONAL PARKS CONSERVATION ASSOCIATION	23,925,333	25,359,248	2,535,924	501(C)(3)
OCEAN CONSERVANCY	16,676,332	12,141,570	1,214,157	501(C)(3)
OCEANA NORTH AMERICA	13,578,718	13,793,115	1,379,311	501(C)(3)
TOTALS	370,865,563	393,855,432	39,385,541	

* SPENDING SPECIFIC TO CLIMATE CHANGE AND ENERGY POLICY WAS ESTIMATED AS 10% OF ALL PROGRAM SPENDING.

NOTE: ALL FIGURES BASED ON ANNUAL REPORTS AND INTERNAL REVENUE SERVICE RECORDS.

the Sierra Club, which spent \$75.9 million on all programs in 2009 and an estimated \$30.9 million on climate change and energy programs.³⁷

In Table 1.6, I detail revenues and spending by the major conservation organizations other than the Nature Conservancy and the National Wildlife Federation. Some of these organizations, such as WWF, maintain programs outside of the United States. In total, these groups took in \$370 million in revenue, spent \$393 million on program activities, and spent an estimated \$39 million on climate change and energy-related activities (based on a 10 percent estimate of total spending.)

In Table 1.7, I summarize revenue and spending by climate change and energy-specific organizations, a cluster that includes Gore’s Alliance for Climate Protection. Of note, despite the group’s announced plans to spend \$300 million over three years, the figures for 2009—provided through correspondence with the Alliance—appear to fall well short of this plan. The Alliance, a 501(c)(3), took in \$15.9 million in revenue and spent nearly \$41 million on all

program activities (the difference was supported by 2008 revenue). The affiliated 501(c)(4) Climate Protection Action Fund took in \$11.1 million and spent \$7.2 million. In 2008, based on the 990 tax records for the Alliance, the group brought in \$88.3 million and spent \$66.8 million (the Action Fund spent \$150,000.) In total, for 2008 and 2009, the Alliance for Climate Protection and affiliated Action Fund generated \$115 million in revenue and spent \$115 million.

Other major budget groups include ClimateWorks, a foundation that also engages in climate policy-related program activities, and Clean Tech Fund, an affiliate of the Energy Foundation that sponsors organizations working on climate and energy action. For more on these foundations, see Chapter 2. In total, for 2009, these climate change and energy-specific organizations took in \$137.4 million in revenue and spent \$109.8 million on program activities. Only three of these groups, as 501(c)(4) organizations, were unrestricted in what they could spend on lobbying.

IN TOTAL, FOR 2008 AND 2009, THE ALLIANCE FOR CLIMATE PROTECTION AND AFFILIATED ACTION FUND GENERATED \$115 MILLION IN REVENUE AND SPENT \$115 MILLION.

**TABLE 1.7
REVENUE AND SPENDING BY CLIMATE CHANGE SPECIFIC ORGANIZATIONS, 2009**

	TOTAL REVENUE (\$)	TOTAL SPENDING (\$)	CLIMATE CHANGE & ENERGY SPENDING *	TAX STATUS
CLIMATEWORKS	60,360,000	24,321,000	24,321,000	501(C)(3)
GREENTECH ACTION FUND	17,855,000	9,346,055	9,346,055	501(C)(4)
ALLIANCE FOR CLIMATE PROTECTION	15,989,476	40,600,000	40,600,000	501(C)(3)
CLIMATE PROTECTION ACTION FUND	11,148,874	7,202,324	7,202,324	501(C)(4)
CERES INC.	7,885,258	5,770,687	5,770,687	501(C)(3)
CLEAN AIR TASKFORCE	4,815,649	5,841,790	5,841,790	501(C)(3)
CLIMATE CHANGE GROUP INC.	3,643,374	2,469,260	2,469,260	501(C)(3)
ISKY	3,425,549	2,437,179	2,437,179	501(C)(3)
CLEAN AIR COOL PLANET INC.	3,088,587	2,807,647	2,807,647	501(C)(3)
U.S. CLIMATE ACTION NETWORK	2,091,750	1,387,939	1,387,939	501(C)(3)
CENTER FOR CLIMATE CHANGE STRATEGIES	2,091,750	3,355,610	3,355,610	501(C)(3)
CLEAN ECONOMY NETWORK	1,782,579	1,390,470	1,390,470	501(C)(4)
350.ORG	1,661,440	1,378,371	1,378,371	501(C)(3)
ECOAMERICA	1,577,436	1,566,097	1,566,097	501(C)(3)
TOTALS	137,416,722	109,874,429	109,874,429	

* FIGURES FOR THE ALLIANCE FOR CLIMATE PROTECTION BASED ON CORRESPONDENCE WITH ORGANIZATION.

NOTE: ALL OTHER FIGURES BASED ON ANNUAL REPORTS AND INTERNAL REVENUE SERVICE RECORDS.

ENVIRONMENTAL ORGANIZATIONS IN 2009 TOOK IN THE EQUIVALENT OF THE COMBINED REVENUE OF THE DALLAS COWBOYS, NEW YORK YANKEES, LOS ANGELES LAKERS AND MANCHESTER UNITED.

ALLIES AMONG THINK TANKS AND MEDIA WATCHDOGS

These totals by environmental groups do not include other non-profit organizations that lobbied, provided analysis or coordinated communication activities in support of cap and trade legislation. Notably, two think tanks—the Center for American Progress (CAP) and the Bipartisan Policy Center—were prominent advocates in support of legislation. Information specific to their climate change-related activities is not available, but according to their 2009 tax documents, CAP took in \$38 million in revenue and spent \$29 million on all program activities, with \$14 million of this spending devoted to communication, media and policymaker outreach. CAP also coordinated a 501(c)(4) partner—the CAP Action Fund—which took in \$8.9 million in revenue, spent \$4.7 million on rapid response communication, public education, and grassroots organizing, and devoted an additional \$1.8 million to online communication strategies and blogging. In all, in 2009, the Center for American Progress and the CAP Action Fund spent \$35.6 on all program activities and devoted \$20.5 million—or 58% of spending—to communication, influence, and mobilization across issues.

The Bipartisan Policy Center took in \$24 million in revenue and spent \$20 million on all program activities. The think tank's 501(c)(4) partner, the Bipartisan Advocacy Network, took in \$3.2 million in revenue and spent \$2.6 million on all program activities. Media Matters for America, which serves as a watchdog on conservative media and groups, took in \$6.7 million in revenue and spent \$6.5 million on all program activities.

OVERALL SPENDING COMPARISON

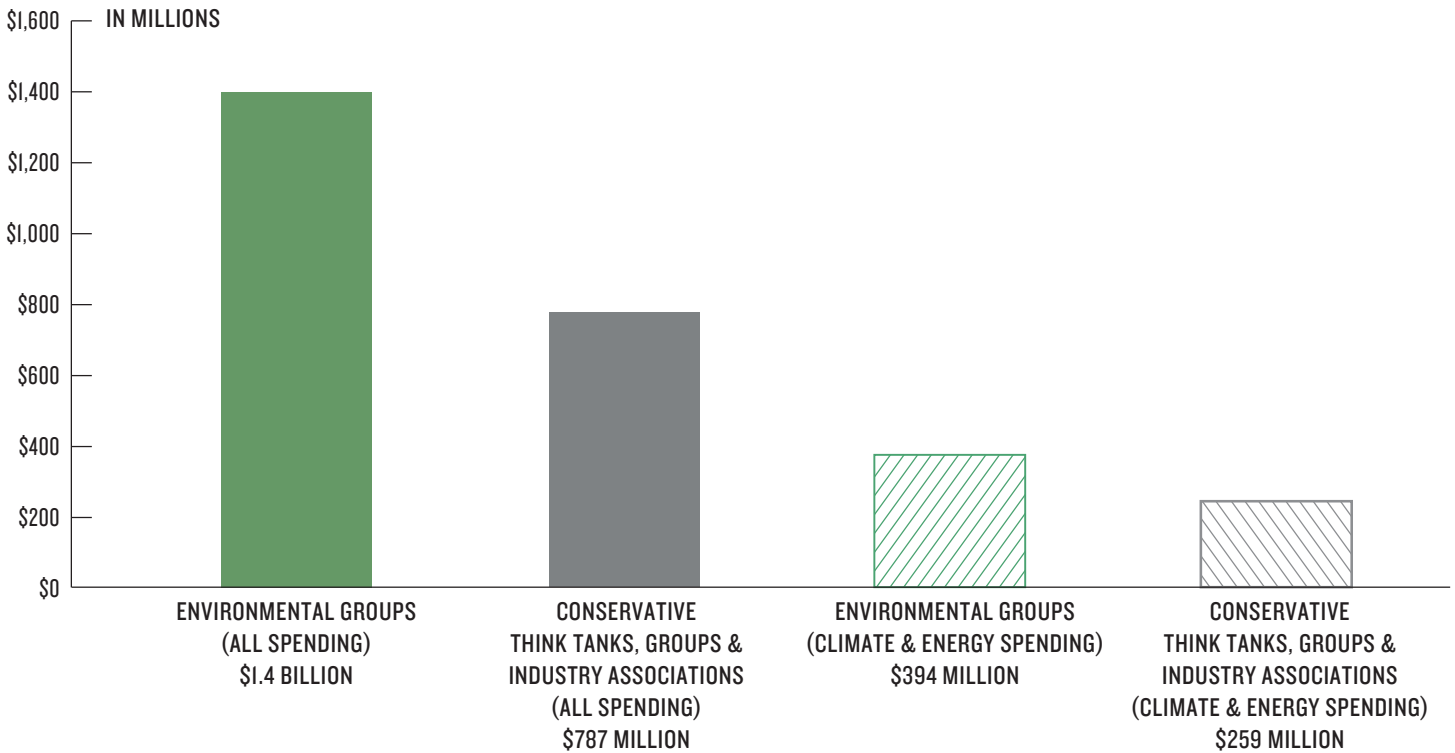
In total, the environmental groups analyzed in Tables 1.4-1.7 brought in \$1.7 billion in revenue, spent \$1.4 billion on program activities, and spent an estimated \$394 million on climate change and energy-specific activities. To put these figures into perspective, these environmental organizations in 2009 took

in the equivalent of the combined revenue of the Dallas Cowboys, New York Yankees, Los Angeles Lakers and Manchester United.³⁸ The revenue generated by environmental organizations in 2009 was also equivalent to the \$1.7 billion in receipts generated by 2008 presidential candidates Barack Obama and John McCain, which includes primary and general election donations and public funding. The total program spending of environmental organizations also exceeds the \$1.3 billion in spending by the two campaigns.³⁹ Finally, the more than \$394 million spent specific to climate change and energy exceeds the \$335 million spent by John McCain in the 2008 general election campaign.⁴⁰

In Figure 1.1, I compare the spending of climate action opponents and advocates. As the figure displays, the combined program spending of environmental organizations (\$1.4 billion) is almost twice as much as the combined program spending of conservative organizations and industry associations (\$787 million). Specific to climate change and energy policy, environmental groups outspent conservative groups and their industry association allies \$335 million to \$259 million. Spending figures, however, are only approximate. As reviewed, the figures under-count the resources devoted by environmental groups and over-count the resources devoted to the issue by the conservative-industry association alliance.

Yet despite these sizable advantages in spending for environmental groups, only 19 percent of the spending by environmental groups specific to climate change and energy policy was unrestricted as part of a 501(c)(4) organization. In comparison, as reviewed earlier, because of the 501(c)(6) tax status of the industry associations, approximately two-thirds of spending by the coalition of advocacy groups opposed to climate action was free to be applied in unlimited amounts to lobbying and direct grassroots mobilization.

FIGURE 1.1
SPENDING BY CLIMATE ACTION ADVOCATES AND OPPONENTS



SPENDING ON LOBBYING

As described in the last section, the environmental movement holds a heavy advantage in overall revenue and program spending, though the movement is comparatively limited in how much of this revenue can be applied directly to lobbying and legislative campaigns. Examining lobbying data collected by the Center for Responsive Politics, at first glance this disadvantage is borne out by differences across sectors. In 2009, the energy and natural resources sector spent \$419 million on lobbying and employed 2,340 lobbyists.⁴¹ In comparison, organizations in the environment sector spent \$22 million on lobbying and employed 460 lobbyists.⁴²

Yet these aggregate numbers overlook the many energy corporations and companies that either supported cap and trade legislation or, rather than block its passage, worked to influence the legislation so it would favor their interests. A series of 2009 reports from the Center for Public Integrity details the dramatically increased size and diversity of the

climate lobby over past legislative debates. In 2003, during the first Senate vote on climate legislation, nine environmental organizations lobbied on the bill, compared with 150 industry members, 70 percent of which were electricity, coal, oil, auto, steel and cement companies that opposed the bill.⁴³

In comparison, by the end of 2009, after passage of the Waxman-Markey bill in the House and as the Senate prepared to take up the Kerry-Lieberman version of the legislation, the number of groups that had lobbied on the issue stood at 1,160.⁴⁴ These groups not only included national environmental organizations, but also a broad range of corporate players either advocating in support of legislation or hoping to win concessions that would favor their interests. In addition to the two dozen corporations formally affiliated with the U.S. Climate Action Partnership (see earlier discussion), a separate coalition of major corporations, called Business for Innovative Climate & Energy Policy (BICEP), advocated for cap and trade measures that went beyond the House legislation and Senate bill. In 2009, these companies

IN ALL, SIX OF THE WORLD'S FIFTEEN LARGEST PUBLICLY-TRADED CORPORATIONS IN 2009 SUPPORTED CAP AND TRADE LEGISLATION: JP MORGAN CHASE (#1), BANK OF AMERICA (#2), GENERAL ELECTRIC (#3), SHELL (#8), BRITISH PETROLEUM (#10), AND WALMART (#14). THREE OF THE SIX WERE MEMBERS OF USCAP.

included Nike, the Gap, Best Buy, eBay, Starbucks, Sun Micro-Systems, Target, Symantec, Stonyfield Farms and Northface.⁴⁵

Among the other groups lobbying in support of cap and trade legislation were financial firms Goldman Sachs, JP Morgan Chase, Credit Suisse Bank and Bank of America; major venture capital firms; insurance companies; labor unions; wind and solar energy firms; municipal and state governments; public transportation agencies; major universities; and leading retailer Walmart. National gas companies and industry associations lobbied not to block legislation, but rather to alter a final version that would favor their industry.⁴⁶

In all, six of the world's fifteen largest publicly-traded corporations in 2009 supported cap and trade legislation: JP Morgan Chase (#1), Bank of America (#2), General Electric (#3), Shell (#8), British Petroleum (#10), and Walmart (#14). Three of the six were members of USCAP.⁴⁷

When organizations and corporations report their lobbying expenditures, they are only required to list the totals they spent on all lobbying during the period and the bills they lobbied on, but not how much they spent per bill. Complicating the process of making direct comparisons specific to cap and trade legislation, corporations and organizations also aggregate their lobbying totals differently. As allowed by the IRS, the Chamber of Commerce and General Electric, for example, define lobbying expenses as including federal lobbying, state lobbying, grassroots campaigns and advertising. Other companies and environmental groups report lobbying totals as defined under the Lobbying Disclosure Act, which does not include advertising.⁴⁸

Based on data collected for 2009 by the Center for Responsive Politics, Table 1.8 displays the amount spent by the major environmental organizations

discussed in the previous section. These amounts reflect the limited expenditures that environmental groups as 501(c)(3) organizations can devote to lobbying, though for EDF and NRDC these numbers also reflect the activities of their 501(c)(4) partner organizations. In total, for 2009, the environmental groups spent \$12.8 million on lobbying, with the great proportion of these expenditures focused on cap and trade legislation.



TABLE 1.8**TOTALS SPENT LOBBYING ON ALL ISSUES BY MAJOR ENVIRONMENTAL ORGANIZATIONS, 2009**

ORGANIZATION	SPENT ALL LOBBYING (\$)	ORGANIZATION	SPENT ALL LOBBYING (\$)
NATURE CONSERVANCY	2,230,000	DEFENDERS OF WILDLIFE	419,903
ENVIRONMENTAL DEFENSE FUND	2,171,000	ENVIRONMENT AMERICA	299,200
WORLD WILDLIFE FUND	1,600,000	GREEN TECH ACTION FUND	298,000
U.S. CLIMATE ACTION PARTNERSHIP	1,000,000	CLIMATE POLICY GROUP	240,000
CLEAN ECONOMY NETWORK	849,070	PEW CENTER ON GLOBAL CLIMATE CHANGE	146,462
NATURAL RESOURCES DEFENSE COUNCIL	692,616	DEFENDERS OF WILDLIFE ACTION FUND	126,532
NATIONAL WILDLIFE FEDERATION	590,000	FRIENDS OF THE EARTH	92,011
SIERRA CLUB	480,000	LEAGUE OF CONSERVATION VOTERS	90,000
UNION OF CONCERNED SCIENTISTS	467,500	NATIONAL AUDUBON SOCIETY	80,000
EARTHJUSTICE LEGAL DEFENSE FUND	453,139	ENVIRONMENTAL LAW & POLICY CENTER	40,000
NATIONAL PARKS CONSERVATION ASSOC.	442,326	TOTALS	12,807,759

SOURCE: CENTER FOR RESPONSIVE POLITICS.

Though environmental organizations were limited in what they could spend directly on lobbying, as described earlier, EDF and NRDC did devote considerable resources to developing alliances with companies and organizations that had both the resources and the legal flexibility to spend heavily in support of cap and trade legislation.⁴⁹ Table 1.9 details lobbying expenditures by the corporate members of USCAP. Though records do not allow for a determination of how much in direct resources these corporations

spent lobbying on cap and trade legislation specifically, each one is registered as having lobbied on the bill. The totals in some cases also include advertising expenditures. These corporations are led by General Electric and Duke Energy, founders of USCAP with EDF and the other environmental organizations.⁵⁰ In total, for 2009, these corporations spent a total of \$152 million on lobbying across all issues and bills.

TABLE 1.9**TOTALS SPENT LOBBYING ON ALL ISSUES BY MEMBERS OF USCAP, 2009**

ORGANIZATION	SPENT ALL LOBBYING (\$)	ORGANIZATION	SPENT ALL LOBBYING (&)
GENERAL ELECTRIC	26,400,000	WEYERHAEUSER CO.	3,140,000
CONOCOPHILLIPS *	18,069,858	CATERPILLAR *	2,602,660
BRITISH PETROLEUM *	15,990,000	CHRYSLER	2,543,304
SHELL	10,190,000	ALSTOM	2,030,000
PEPSICO	9,453,000	DEERE & CO. *	1,900,000
FORD MOTOR CO.	7,230,000	BOSTON SCIENTIFIC CORP.	1,890,000
HONEYWELL	7,092,000	ALCOA	1,600,000
DOW CHEMICAL	6,640,000	RIO TINTO	1,169,873
JOHNSON & JOHNSON	6,560,000	NRG ENERGY	910,000
PG&E CORP.	6,280,000	PNM RESOURCES INC.	470,000
DUKE ENERGY	5,880,516	AES CORP.	290,000
SIEMENS AG	5,122,000	NEXTERA ENERGY	N/A
DUPONT CO.	4,682,110		
EXCELON CORP.	4,573,000	TOTAL	152,708,321

* THESE COMPANIES LEFT USCAP IN FEBRUARY 2010.

SOURCE: CENTER FOR RESPONSIVE POLITICS.

In Table 1.10, I also summarize the lobbying expenditures of other major companies and organizations that lobbied on cap and trade and were publicly supportive of the legislation. Leaders among these groups include Walmart and the Edison Electric Institute—the latter of which represents major utilities even though individual utility

groups split on the bill.⁵¹ This group also includes the Bipartisan Policy Center, which spent \$3.6 million on lobbying across all issues, the Clean Energy Group (\$1.6 million), the Solar Energy Group (\$1.6 million) and the Center for American Progress (\$975,000). In total, these groups in 2009 spent \$64 million on lobbying across all issues and bills.

TABLE 1.10**TOTALS SPENT LOBBYING ON ALL ISSUES BY OTHER ORGANIZATIONS SUPPORTING CAP AND TRADE, 2009**

ORGANIZATION	SPENT ALL LOBBYING (\$)	ORGANIZATION	SPENT ALL LOBBYING (\$)
EDISON ELECTRIC INSTITUTE	10,500,000	NUCLEAR ENERGY INSTITUTE	2,070,000
WALMART	7,390,000	EBAY	1,841,400
AMERICAN ELECTRIC POWER	7,297,245	SOLAR ENERGY INDUSTRIES ASSOCIATION	1,643,000
JP MORGAN CHASE	6,170,000	CLEAN ENERGY GROUP	1,623,750
ENERGY CORP.	5,035,000	TARGET	1,480,000
AMERICAN WIND ENERGY ASSOCIATION	4,366,620	CENTER FOR AMERICAN PROGRESS	975,133
BIPARTISAN ADVOCACY NETWORK & CENTER	3,649,500	BEST BUY	900,000
BANK OF AMERICA	3,570,000	STARBUCKS COFFEE	520,000
CONSTELLATION ENERGY	2,500,000	NIKE INC.	480,000
NATIONAL GRID PLC	2,100,000	TOTALS	64,111,648

SOURCE: CENTER FOR RESPONSIVE POLITICS.

In comparison, in Table 1.11, I also compiled from the Center for Responsive Politics database the lobbying totals for prominent opponents of cap and trade legislation including the Chamber of Commerce, industry associations and oil and utility companies that were on record strongly opposing the bill. With few if any restrictions, the U.S. Chamber of Commerce spends more on lobbying than any other U.S. entity, with Exxon Mobil, Chevron and

Koch Industries also among the leaders. Much of this lobbying activity in 2009, however, was also centered on health care legislation, financial regulation, and other policy priorities. As mentioned earlier, this lobbying total by the U.S. Chamber also includes advertising expenditures.⁵² In 2009, these organizations spent \$272 million on lobbying across all issues and bills.

TABLE 1.11**TOTALS SPENT LOBBYING ON ALL ISSUES BY PROMINENT OPPONENTS OF CAP AND TRADE, 2009**

ORGANIZATION	SPENT ALL LOBBYING (\$)	ORGANIZATION	SPENT ALL LOBBYING (\$)
U.S. CHAMBER OF COMMERCE	144,366,000	AMEREN CORP.	4,610,000
EXXON MOBIL	27,430,000	ENERGY FUTURE HOLDINGS CORPORATION	3,974,014
CHEVRON CORP.	20,815,000	CONSOL ENERGY	3,440,000
KOCH INDUSTRIES	12,450,000	NATIONAL MINING ASSOCIATION	2,839,899
MARATHON OIL	9,950,000	ANADARKO PETROLEUM	2,813,370
NATIONAL ASSOCIATION OF MANUFACTURERS	9,250,000	BERKSHIRE HATHAWAY	2,656,105
AMERICAN PETROLEUM INSTITUTE	7,320,000	ARCH COAL	2,320,000
PEABODY ENERGY	5,835,000	AMERICAN COALITION FOR CLEAN COAL	1,557,557
NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION	5,516,000		
AMERICAN FARM BUREAU	5,194,042	TOTALS	272,336,987

SOURCE: CENTER FOR RESPONSIVE POLITICS.

With the exception of the figures for the environmental groups, this comparison of lobbying expenditures across coalitions should not be interpreted as reflecting the actual amounts spent on cap and trade legislation. Instead, in the aggregate, these totals are representative of the capacity for power and influence that each side could apply in 2009. Through their work building coalitions and alliances, the environmental groups were able to forge a network of organizations that spent a combined \$229 million on lobbying across all issues. In comparison, the network of prominent opponents of cap and trade legislation spent \$272 million lobbying across all issues. These figures represent a dramatically reduced power difference compared with past legislative debates over climate change.

SPENDING ON ADVERTISING

Though sometimes combined with the totals reported on lobbying, another key area of spending

activity was advertising. As mentioned, Gore's Alliance for Climate Protection was launched in 2008 with the expectation that the group would spend \$300 million over the next three years on a "mass persuasion" campaign to rival that of the oil companies. Modeled in part after the 2008 Obama campaign, the strategically framed advertisements directed audiences to visit the organization's Repower America website, where they could sign up to receive news, alerts and information about getting involved.

Yet in 2009, despite great expectations, the Alliance spent \$34 million on advertising, short of the widely publicized \$100 million-a-year goal.⁵³ Similarly, by the end of 2009, the Alliance had signed up 2.5 million "members" to receive news and alerts, short of the 10 million target.⁵⁴ In terms of advertising by other environmental organizations, according to their 2009 tax records, EDF spent \$9.6 million; NRDC, \$2.3 million; and Sierra Club, \$1.8 million. In

all, the Alliance and these groups spent \$47.7 million on advertising.

Full information on advertising expenditures by the Clean Energy Works coalition is not available. A spring 2010 news article reported that the coalition had spent \$3 million in recent months on ads.⁵⁵ Other environmental groups did not report substantial spending specifically on advertising, though expenditures on “public education” may have been applied to this purpose.

In comparison, according to their respective tax returns, the U.S. Chamber of Commerce spent \$71 million on advertising in 2009, the American Petroleum Institute spent \$57 million, the American Coalition for Clean Coal spent \$31 million, the National Association of Manufacturers spent \$4.5 million, and the Heritage Foundation spent \$3.7 million, for a combined total of \$167 million. Not all of this ad spending was on climate change. For example, as discussed earlier, much of the spending by the U.S. Chamber was aimed at health care legislation.

The lower-than-expected expenditures by the Alliance are significant when compared with the advertising expenditures of opponents. In addition, as Eric Pooley reports, the American Coalition for Clean Coal used the presumed \$100 million spending by Gore to rally additional financial support from its members to boost the Coalition’s advertising budget.⁵⁶

Image advertising by the major oil companies is also relevant, as this advertising may influence the perceived need among lawmakers and the public for cap and trade legislation, even if the ads did not directly address the debate, and even as some of the companies supported the bills. Television commercials and print advertisements by ExxonMobil, for example, re-framed the oil company in terms of science and innovation, using its own researchers as spokespeople, creating the impression the company is investing heavily in clean energy technology, despite devoting only 1 percent of profits to the effort.⁵⁷

Chevron took a different approach, featuring in commercials, ads, and billboards people who were pledging to reduce energy use by walking to work or turning off the lights. After the Gulf oil spill in 2010, BP switched from a strong advertising focus on renewables to a promise that it would take “full

responsibility” for the spill, claims it had organized the “largest environmental response in American history” and declaring “we will make this right.” Each of these frames on the energy problem attributes action to the social responsibility of energy companies or to the individual responsibility of consumers. These interpretations deflect attention away from action by government.⁵⁸

Figures on advertising spending by oil companies in 2009 are not available, but an analysis by the firm Kantar Media CMAG for the Alliance for Climate Protection provides some insight on the scale of spending by these companies. During the first 10 months of 2010, Exxon Mobil spent \$29 million, Shell spent \$9.7 million and Chevron spent \$7.2 million. In responding to the oil spill, BP spent \$126 million.

DONATIONS TO PUBLIC OFFICIALS AND ELECTION SPENDING

Donations to members of Congress are equally complex to track, though do show a sizable advantage for proponents of cap and trade legislation. Data compiled by Maplight.org estimates that in the two years leading up to the June 2009 House cap and trade vote, donations to elected members of Congress from interest groups supporting the bill outnumbered the donations from interest groups opposed to the bill nearly 9 to 1 (\$35 million to \$4 million). Similarly, on the Senate bill, in the two years leading up to its August 2010 failure, donations to Senators from interest groups supporting the bill outnumbered those from groups opposed by 5 to 1 (\$6.4 million to \$1.2 million).⁵⁹

A clear financial advantage still held by the conservative movement and industry allies exists in the arena of election spending, as a recent analysis by the Center for Responsive Politics indicates. In 2010, following the *Citizens United* court ruling, conservative and allied industry organizations engaged in unprecedented independent campaign spending. The Chamber of Commerce (\$33 million), American Crossroads (\$22 million) and Crossroads GPS (\$17 million) combined for \$73 million in independent expenditures. In comparison, the League of Conservation Voters (\$5.5 million), Defenders of Wildlife (\$1 million) and the Sierra Club (\$700,000) combined to spend \$7.2 million.⁶⁰

In other areas of election spending, however, the environmental movement has held an upper hand, as

IN THE TWO YEARS LEADING UP TO THE JUNE 2009 HOUSE CAP AND TRADE VOTE, DONATIONS TO ELECTED MEMBERS OF CONGRESS FROM INTEREST GROUPS SUPPORTING THE BILL OUTNUMBERED THE DONATIONS FROM INTEREST GROUPS OPPOSED TO THE BILL NEARLY 9 TO 1 (\$35 MILLION TO \$4 MILLION). SIMILARLY, ON THE SENATE BILL, IN THE TWO YEARS LEADING UP TO ITS AUGUST 2010 FAILURE, DONATIONS TO SENATORS FROM INTEREST GROUPS SUPPORTING THE BILL OUTNUMBERED THOSE FROM GROUPS OPPOSED BY 5 TO 1 (\$6.4 MILLION TO \$1.2 MILLION.)

evidenced by the fundraising success that defeated Proposition 23 in California. Backed by Texas-based oil companies Valero and Tesoro, along with other members of the petroleum industry, Proposition 23 would have halted state legislation regulating greenhouse gas emissions. In total, supporters of the proposition raised approximately \$10.6 million. In comparison, the “No on Proposition 23” coalition raised at least \$25 million, resulting in a more-than 2-to-1 financial advantage over their opponents.⁶¹

More than half of this total came from ultra-wealthy donors, including \$5 million from hedge fund manager Thomas Steyer, \$2 million from clean energy entrepreneur John Doerr, \$1 million from Sun Microsystems co-founder Vinod Khosla, \$1 million from Intel founder Gordon Moore, \$1 million from film director James Cameron, \$1 million from the founders of The Gap, \$700,000 from Bill Gates and \$500,000 from Wendy Schmidt, wife of former Google chief executive Eric Schmidt.⁶²

In an additional sign of their financial prowess, environmental organizations were also able to contribute nearly \$10 million of their own money to the fight, an amount equivalent to the contributions by their oil industry opponents. This spending included \$3 million by the National Wildlife Foundation, \$1.86 million by the National Resources Defense Council, \$1.67 million by the League of Conservation Voters, \$1.1 million by the Environmental Defense Fund, \$900,000 by the Climate Works Foundation (see chapter 2), \$800,000 by the Nature Conservancy,

\$127,000 by Environment California, \$113,000 by the Union of Concerned Scientists and \$100,000 by the Audubon Society.⁶³

Proposition 23 was defeated 61 percent to 39 percent, drawing considerable support among Republican voters in the state. Not only was the “No on Prop 23” coalition able to run substantially more television ads than its opponents, environmental groups also took advantage of their organizational resources and members in the state to recruit 3,200 volunteers; to generate 2.8 million phone calls, 3.4 million pieces of mail and 379,676 on-campus contacts; and to launch a sophisticated get-out-the vote effort targeting 481,000 voters, contacting these voters with phone calls, e-mails and text messages in the three days before the vote.⁶⁴

CONCLUSION

As I have described in this chapter, propelled by a wealthy donor base and key alliances with corporations and other organizations, the environmental movement appears to have closed the financial gap with its opponents among conservative groups and industry associations. Indeed, the effort to pass cap and trade legislation may have been the best-financed political cause in American history. The effort also demonstrates not only the vast revenue base and organizational capacity of the environmental movement, but also the movement’s enhanced ability to coordinate activities among its constituent members and to build partnerships.

However, as detailed in this chapter, the great proportion of this spending by environmental groups is restricted, limiting their ability to engage in direct lobbying efforts or mobilization campaigns on behalf of a specific bill. Still, environmental groups spent large sums on general education efforts, engaging policymakers, journalists and the public. They also spent unrestricted amounts on mobilizing their 12 million members in support of cap and trade legislation. Environmental groups additionally invested considerable resources in brokering alliances with major companies that indirectly augmented the efforts of environmental groups to lobby on behalf of legislation.

Finally, while conservative groups still enjoy a sizable advantage in election spending, the Proposition 23 campaign in California demonstrates the vast financial resources that environmental groups have at their disposal and the amount of wealth they can draw on from donors in the clean energy, high-tech, investment banking and entertainment industries. In the next chapter, I examine the influence of foundations as funding sources and agenda-setters in the debate over climate change.

ENDNOTES

- ¹ Darren Samuelsohn, “Climate Bill Blame Game Begins,” *The Politico*, July 22 2010. Available at: www.politico.com/news/stories/0710/40132.html.
- ² Pages 191-214 in Frank Baumgartner et al, *Lobbying and Policy Change: Who Wins, Who Loses, and Why* (University of Chicago Press, 2009).
- ³ For a detailed review of the tactical decisions of Senate leaders, the influence of competing issues and priorities and the efforts of many industry sectors to influence the bill to their advantage rather than outright block it, see Ryan Lizza, “As the World Burns” *The New Yorker*, October 11 2010.
- ⁴ Robert J. Brulle, “The U.S. Environmental Movement,” in *20 Lessons in Environmental Sociology*, ed. K. Gould and T. Lewis (Roxbury Press, 2008).
- ⁵ Pages 98 and 8-10 in Joshua Freed, “Creating a Clean Energy Century,” (Washington, DC: Third Way, 2010).
- ⁶ Pages 111-12 in C.J. Bosso, *Environment, Inc: From Grassroots to Beltway* (Univ Pr of Kansas, 2005).
- ⁷ Forbes list of richest Americans, 2009. Available at: www.forbes.com/lists/2009/54/rich-list-09_Julian-Robertson-Jr_GK7Q.html.
- ⁸ See page 98 in E. Pooley, *The Climate War: True Believers, Power Brokers, and the Fight to Save the Earth* (New York: Hyperion, 2010).
- ⁹ See EDF 2010 Financial Commentary at: www.edf.org/documents/11480_AR10_Finance.pdf.
- ¹⁰ *Bloomberg Businessweek*’s list of Top 50 American Philanthropists is available at: www.businessweek.com/interactive_reports/philanthropy_individual_2008.html?chan=magazine+channel+special+report.
- ¹¹ Todd Woody, “You’d Never Know He Was a Sun King,” *The New York Times*, May 10 2010. Available at: www.nytimes.com/2010/05/09/business/09green.html. See also Stephanie Strom, “Major Donor Says Finances Forced Cuts,” *The New York Times*, December 9 2009. Available at: www.nytimes.com/2009/12/10/us/10aclu.html?scp=1&sq=Gelbaum&st=cse.
- ¹² For a summary of rules and limits on lobbying, see guide from Center for Lobbying in the Public Interest at: www.nhnonprofits.org/uploads/Direct_or_Grassroots_Lobbying.pdf. For a discussion of nonprofits as participants in political process, see J.M. Berry and D.F. Arons, *A Voice for Nonprofits* (Brookings Inst Pr, 2005).
- ¹³ For a discussion of the differences between direct lobbying and public education, see pages 47-65 in *ibid*.
- ¹⁴ A. Rich, *Think Tanks, Public Policy, and the Politics of Expertise* (Cambridge Univ Pr, 2004).
- ¹⁵ P.J. Jacques, R.E. Dunlap, and M. Freeman, “The Organisation of Denial: Conservative Think Tanks and Environmental Scepticism,” *Environmental Politics* 17, no. 3 (2008).
- ¹⁶ On think tank organizational structure and strategies, see Rich, *Think Tanks, Public Policy, and the Politics of Expertise*. A Rich and RK Weaver, “Think Tanks in the U.S. Media,” *The Harvard International Journal of Press/Politics* 5, no. 4 (2000). D.E. Abelson, *Do Think Tanks Matter?* (McGill-Queen’s University Press, 2002).
- ¹⁷ Brulle, “The U.S. Environmental Movement.” Bosso, *Environment, Inc: From Grassroots to Beltway*.
- ¹⁸ Brulle, “The U.S. Environmental Movement.” Bosso, *Environment, Inc: From Grassroots to Beltway*. See also M. Dreiling and B. Wolf, “Environmental Movement Organizations and Political Strategy,” *Organization & Environment* 14, no. 1 (2001).
- ¹⁹ For a discussion on the history and nature of these groups, see pages 17-83 in Bosso, *Environment, Inc: From Grassroots to Beltway*.
- ²⁰ For more on the conservative movement’s success in partnering with industry and Republican elected officials to defeat or delay action on climate change,

see the work by sociologists Aaron McCright, Riley Dunlap and colleagues. A.M. McCright and R.E. Dunlap, "Challenging Global Warming as a Social Problem: An Analysis of the Conservative Movement's Counter-Claims," *Social Problems* 47, no. 4 (2000). A.M. McCright and R.E. Dunlap, "Defeating Kyoto: The Conservative Movement's Impact on U.S. Climate Change Policy," *Social Problems* 50, no. 3 (2003). Jacques, Dunlap, and Freeman, "The Organisation of Denial: Conservative Think Tanks and Environmental Scepticism." A.M. McCright and R.E. Dunlap, "Anti-Reflexivity," *Theory, Culture & Society* 27, no. 2-3 (2010).

²¹ Pooley, *The Climate War: True Believers, Power Brokers, and the Fight to Save the Earth*.

²² Pooley, deputy editor of *Bloomberg Businessweek*, is former contributing editor to *Time magazine* and editor of *Fortune magazine*. His book *The Climate War* is based on several hundred interviews conducted between 2007 and 2009, including with such key decision makers as Al Gore and Fred Krupp, head of the Environmental Defense Fund. See page 166 in *ibid*.

²³ Notably absent from support for cap and trade were Greenpeace and Friends of the Earth, though both organizations continued to mobilize for action on climate change.

²⁴ For details on how EDF and NRDC brokered the coalition that formed USCAP, see pages 103-77 in Pooley, *The Climate War: True Believers, Power Brokers, and the Fight to Save the Earth*.

²⁵ Andrew Revkin, "Gore Group Plans Ad Blitz on Climate Change," *The New York Times*, April 1.

²⁶ See pages 24-29 in Pooley, *The Climate War: True Believers, Power Brokers, and the Fight to Save the Earth*.

²⁷ Julie Kosterlitz, "Inside the Energy Bill War Room," *The National Journal*, March 20 2010. Available at: www.nationaljournal.com/njmagazine/II_20100320_3010.php.

²⁸ Darren Samuelsohn, "Environmental Lobbying Group Shuts Down after Climate Bill Stalls," *Politico*, September 8 2010.

²⁹ Pages 436-37 in Pooley, *The Climate War: True Believers, Power Brokers, and the Fight to Save the Earth*. See also EDF news release at: www.blogs.edf.org/climate411/2010/01/21/poll-results-the-people-want-a-climate-bill/.

³⁰ Based on scholarly studies: Jacques, Dunlap, and Freeman, "The Organisation of Denial: Conservative Think Tanks and Environmental Scepticism." McCright and Dunlap, "Defeating Kyoto: The Conservative Movement's Impact on U.S. Climate Change Policy." McCright and Dunlap, "Challenging Global Warming as a Social Problem: An Analysis of the Conservative Movement's Counter-Claims." Other sources for identifying these think tanks, groups, and associations included a 2010 report by Greenpeace (discussed in Chapter 2), available at: www.greenpeace.org/kochmoney, a 2007 report by the Union of Concerned Scientists, available at: www.ucsusa.org/global_warming/science_and_impacts/global_warming_contrarians/exxonmobil-report-smoke.html, and a searchable database compiled by Media Matters for America at: www.mediamattersaction.org/transparency/.

³¹ Drew Armstrong, "Insurers Gave Chamber \$86.6 Million Used to Oppose Obama's Health Care Law," *Bloomberg News*, November 17 2010. Available at: www.bloomberg.com/news/2010-11-17/insurers-gave-u-s-chamber-86-million-used-to-oppose-obama-s-health-law.html.

³² Anne C. Mulkern, "U.S. Chamber Ended Year with a Spending Spree," *Greenwire* 2010. Available at: www.nytimes.com/gwire/2010/01/27/27greenwire-us-chamber-ended-2009-with-spending-spree-79614.html?pagewanted=1.

³³ These groups were selected from among the major national environmental organizations analyzed by Bosso and that coordinated their work through alliances such as USCAP, the Green Group, and The Partnership Project. As discussed, they also include a number of climate change and energy specific groups that have formed over the past decade. Each organization lists climate change as either their lead or among their top policy priorities in their annual reports or at their Web sites. See also discussion in the section of this chapter titled "Converging on Cap and Trade." Several organizations from Bosso's analysis did not work as actively on national policy

related to climate change and were not included in the current analysis. These were: American Rivers; Sea Shepherd; the Center for Health, Environment, and Justice; Earth Island Institute; National Park Trust; Conservation Fund; Conservation International; Earth Share; the Environmental Working Group; Ducks Unlimited; the Izaak Walton League; Clean Water Action Fund; and Trust for Public Land. Bosso, *Environment, Inc.: From Grassroots to Beltway*.

³⁴ See page 98 in Pooley, *The Climate War: True Believers, Power Brokers, and the Fight to Save the Earth*.

³⁵ Details specific to Table 1.4. *Nature Conservancy*: Figures from 990 IRS form. All program spending includes just “Conservation activities and actions,” not land purchases. Spending specific to climate change and energy policy estimated as 10% of this total. *Environmental Defense Fund*: According to their IRS 990 form, between 10/08 and 9/09, spent \$33.3M specific to “stabilizing climate.” *EDF Action Fund*: According to IRS 990 form, between 10/08 and 9/09, spent \$11.7M specific to “stabilizing climate.” *NRDC*: According to 2009 annual report, 38% of all spending was devoted to climate and energy. This ratio was applied to total spending between 7/08 and 6/09 as reported by NRDC’s 990 IRS form. *NRDC Action Fund*: Figures from IRS 990 form. Estimated as 50% of all spending between 7/08 to 6/09. *NWF*: Spending specific to climate change and energy policy estimated as 25% of combined spending on education/outreach (\$27.3M), advocacy programs (\$25.4M), and member education (\$12.7M), as reported on IRS 990. *NWF Action Fund*: According to IRS 990, between 9/08 and 8/09, spent \$789 thousand specific to Web site engaging hunters, anglers on climate legislation. *WRI*: Figures based on 2009 Annual Report. WRI lists “Climate, Energy, People” as 23% of all Operating Expenses and External Relations as 8%, ratio of 31% applied to total spending. *Pew*: According to IRS 990, between 4/08 and 3/09, spent \$950K on “innovation solutions on climate,” \$1.8M on “domestic & international policy” and \$2.3M on “Education and Outreach.”

³⁶ Details specific to Table 1.5. *Sierra Club*: Figures based on 990 IRS Form. In 2009, spent \$38M on studying/influencing policy. I estimated spending specific to climate and energy policy as 80% of this

spending. *Earth Justice*: Figures based on 2009 Annual Report. I estimated spending specific to climate and energy policy as 10% of total spending. *Greenpeace*: Figures based on 2009-10 Annual Report. Spending on climate and energy policy includes \$3.5M specific to climate and an estimated 50% of the \$9.3M spent on “outreach,” “education,” and “action.” *Union of Concerned Scientists*: Figures based on 2009 Annual Report. Spending specific to climate and energy policy includes \$5.5M for climate, \$1.96M for clean vehicles, \$2.75M on clean energy, \$1.95M on scientific integrity, and \$458 thousand on legislative action. *Environment America*: According to 990 Tax form, between 7/08 and 6/09 spent \$3.97M on “global warming” and \$2.2M on “clean energy.” *Environment America Policy Center*: According to 990 IRS form, between 7/08 and 6/30/09 spent \$1.6M on global warming and clean energy. *League of Conservation Voters Fund*: Figures based on 2008 990 Tax form. I estimated spending specific to climate and energy as 50% of all program spending. *League of Conservation Voters Inc.*: Figures based on 2008 IRS Form. I estimated spending specific to climate change and energy policy as 50% of program spending. *Resources for the Future*: Figures based on 2009 Annual report. I estimated spending specific to climate and energy policy as 25% of all program spending. *Environmental Law & Policy Center*: According to 990 IRS form, between 7/08 and 6/09 spent \$1.5M on global warming and \$481K on clean transportation. *Partnership Project*: Figures based on 990 IRS form. I estimated spending specific to climate and energy policy as 80% of all spending between 7/08 and 6/09. *Friends of the Earth USA*: Figures based on 990 IRS form. I estimated spending specific to climate change and energy policy as 50% of all spending between 7/08 and 6/09. *Friends of the Earth Action Fund*: Figures from 990 IRS form. I estimated spending on climate change and energy policy as 50% of all spending between 7/08 and 6/09. *Rain Forest Network*: Figures based on 2009 Annual Report. I estimated spending specific to climate and energy policy as 50% of total program spending. *Physicians for Social Responsibility*: Figures based on IRS 990 form. In 2009, spent \$859,271 on global warming and energy activities.

³⁷ See pages 378–80 in Pooley, *The Climate War: True Believers, Power Brokers, and the Fight to Save the Earth*.

³⁸ Financial information on the top grossing franchises across sports for 2009 are from the website of *Forbes magazine*. Dallas Cowboys: www.forbes.com/lists/2009/30/football-values-09-Dallas-Cowboys_300988.html; New York Yankees: www.forbes.com/lists/2009/33/baseball-values-09-New-York-Yankees_334613.html; Los Angeles Lakers: www.forbes.com/lists/2009/32/basketball-values-09-Los-Angeles-Lakers_320250.html; Manchester United: www.forbes.com/lists/2009/34/soccer-values-09-Manchester-United_340001.html.

³⁹ Analysis by the Center for Responsive Politics: www.opensecrets.org/pres08/totals.php?cycle=.

⁴⁰ Ibid. www.opensecrets.org/pres08/summary.php?cycle=2008&cid=N00006424.

⁴¹ See Center for Responsive Politics: www.opensecrets.org/lobby/indus.php?year=2009&lname=E++&id=.

⁴² See Center for Responsive Politics: www.opensecrets.org/lobby/indusclient.php?year=2009&lname=Q11&id=.

⁴³ Marianne Lavelle, "The Climate Change Lobby Explosion," *Center for Public Integrity*, February 25 2009. Available at: www.publicintegrity.org/investigations/climate_change/articles/entry/1171/.

⁴⁴ Marianne Lavelle, "The Climate Change Lobby from Soup to Nuts," *Center for Public Integrity*, December 27 2009. Available at: www.publicintegrity.org/investigations/global_climate_change_lobby/articles/entry/1884/.

⁴⁵ More information about the U.S. Climate Action Partnership can be found at their website: www.us-cap.org/.

⁴⁶ Lavelle, "The Climate Change Lobby from Soup to Nuts." See also Marianne Lavelle, "The Climate Lobby's Non-Stop Growth," *Center for Public Integrity*, May 20 2009. Available at: www.publicintegrity.org/investigations/climate_change/articles/entry/1376/.

⁴⁷ See *Forbes Magazine Global 2000 List for 2010 based on 2009 data* at: www.forbes.com/lists/2010/18/global-2000-10-The-Global-2000-Rank.html.

⁴⁸ Mulkern, "U.S. Chamber Ended Year with a Spending Spree."

⁴⁹ This is a common strategy by nonprofit advocacy organizations in policy debates, see Baumgartner et al, *Lobbying and Policy Change: Who Wins, Who Loses, and Why*. For specific details on how EDF and NRDC brokered the coalition that formed USCAP, see pages 103–177 in Pooley, *The Climate War: True Believers, Power Brokers, and the Fight to Save the Earth*.

⁵⁰ See Pooley, *The Climate War: True Believers, Power Brokers, and the Fight to Save the Earth*.

⁵¹ See pages 270–272 in *ibid*.

⁵² Armstrong, "Insurers Gave Chamber \$86.6 Million Used to Oppose Obama's Health Care Law." Also see earlier discussion in section on "Conservative Groups: Revenue and Spending."

⁵³ Advertising data provided by Alliance for Climate Protection.

⁵⁴ In 2009, I co-authored a case study and analysis on opinion-leader campaigns specific to climate change, discussing the strategy and impact of Gore's We Can Solve It and Repower America campaigns run by the Alliance for Climate Protection. M.C. Nisbet, Kotcher, J.E., "A Two-Step Flow of Influence? Opinion-Leader Campaigns on Climate Change," *Science Communication* 30, no. 3 (2009). On figure of 2.5 million members, see page 419 in Pooley, *The Climate War: True Believers, Power Brokers, and the Fight to Save the Earth*.

⁵⁵ Kosterlitz, "Inside the Energy Bill War Room."

⁵⁶ Page 186 and 352 in Pooley, *The Climate War: True Believers, Power Brokers, and the Fight to Save the Earth*.

⁵⁷ See discussion by Daniel J. Weiss of the Center for American Progress. Available at: www.americanprogress.org/issues/2009/03/big_oil_misers.html.

⁵⁸ On framing and attributions of responsibility for social problems such as climate change, see Matthew C. Nisbet, ed. *Knowledge into Action: Reframing the Debates over Climate Change and Poverty*, Doing

News Framing Analysis: Empirical and Theoretical Perspectives (Mahweh: New Jersey: Routledge, 2010).

⁵⁹ Analyses and data provided by Maplight.org. For data specific to the House Waxman-Markey bill, see: www.maplt.org/edOYNY. For data specific to the Senate bill, see: www.maplt.org/fRXfs5.

⁶⁰ Analysis by the Center for Responsive Politics at its website: www.opensecrets.org/outsidespending/summ.php?cycle=2010&type=p&disp=O; See also: www.opensecrets.org/news/2010/10/american-crossroads-spends-big.html.

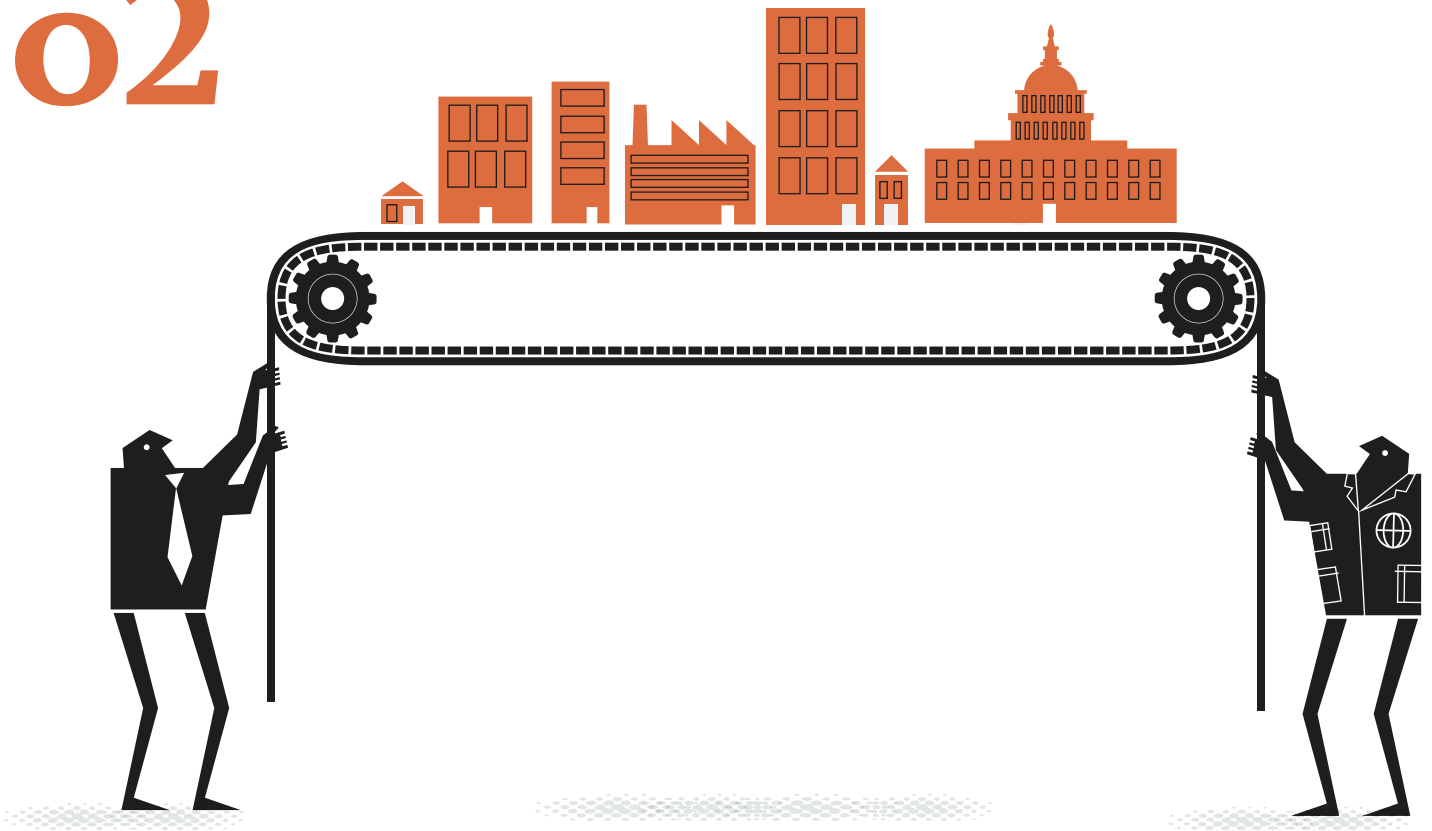
⁶¹ For a full list of coalition members, go to: www.stopdirtyenergyprop.com/our-coalition.php.

⁶² Carol Davenport, "From Vanguard to a Bulwark," *The National Journal*, October 29 2010.

Available at: www.nationaljournal.com/member/magazine/california-s-cap-and-trade-law-an-island-of-success-for-greens-20101028?print.

⁶³ See Ballotpedia.org: www.ballotpedia.org/wiki/index.php/California_Proposition_23,_the_Suspension_of_AB_32_%282010%29.

⁶⁴ Margot Roosevelt, "Prop. 23 Battle Marks New Era in Environmental Politics," *Los Angeles Times*, November 4 2010. Available at: www.articles.latimes.com/2010/nov/04/local/la-me-global-warming-20101104.



DESIGNS TO WIN: ENGINEERING SOCIAL CHANGE

In spring 2010, Greenpeace USA released the report “Koch Industries, Secretly Funding the Climate Denial Machine.”¹ Analyzing publicly available tax documents, Greenpeace totaled contributions to conservative organizations from foundations established by the billionaires David and Charles Koch. The libertarian brothers own the oil and gas company Koch Industries, the second-largest privately held company in the United States. According to the report, between 2005 and 2009, Koch-affiliated foundations gave \$31.3 million to conservative organizations that challenged consensus views on climate change, and a total of \$54.9 million since 1997. The Koch brothers, according to Greenpeace, were the new “conservative kingpins” of the “Climate Denial Machine,” exceeding the financial influence even of ExxonMobil.²

The Greenpeace analysis was discussed by bloggers and referenced in several news reports, but the funding strategy of the Koch brothers did not gain widespread attention until an August cover story in *The New Yorker*. Headlined “Covert Operations: The Billionaire Brothers Who Are Waging a War Against Obama,” investigative reporter Jane Mayer turned out 6,000 words detailing the Koch brothers’ biographies, libertarian world view and decades of support for conservative causes.³

In highlighting the findings of the Greenpeace report, Mayer drew a direct connection for her readers between Koch-supported activities and recent poll findings indicating that “more Americans are convinced than at any time since 1997 that scientists have exaggerated the seriousness of global warming.” In another example of the Kochs’ covert influence, she quoted Center for American

THE BELIEF THAT CONSERVATIVE PHILANTHROPISTS ARE MORE STRATEGIC AND THEREFORE MORE EFFECTIVE IN THEIR INVESTMENTS THAN THEIR MODERATE COUNTERPARTS REFLECTS CONVENTIONAL WISDOM THAT DATES BACK SEVERAL DECADES.

Progress blogger Joe Romm, who alleged that a David Koch-funded exhibition on human evolution at the Smithsonian Museum of Natural History, “whitewashes the modern climate issue,” a claim the museum strongly disputed.⁴

Mayer’s article triggered considerable follow-up coverage and commentary. Among the examples are an extended interview with Terry Gross at NPR’s *Fresh Air* (titled “The Brothers Koch: Rich, Political, and Playing to Win”)⁵, a 10-minute interview on MSNBC’s *The Rachel Maddow Show* (“The Gilded Age,”)⁶ and a Sunday column summarizing her article by *The New York Times*’ Frank Rich (“The Billionaires Bankrolling the Tea Party”).⁷

In 2004, Mayer had written what she described in her interview with Terry Gross as “a very tough piece” on George Soros for *The New Yorker*. The tough piece was titled “The Money Man: Can George Soros’s millions insure the defeat of President Bush?”⁸ Mayer told Gross that it is a “choose your poison” scenario when it comes to “the role of these huge fortunes in flooding money into American politics.”

But as she also asserted, transparency was a major difference between the Koch brothers and philanthropists like Soros. The Kochs refused to be interviewed by Mayer, while Soros spent days talking to her and was open about his organizations’ operations. Another key difference, according to Mayer, was the philanthropic approach that David Koch takes as a formally trained engineer. In her article, she features a quote from a previously published interview conducted by *Reason* magazine editor Brian Doherty: “To bring about social change,” Koch told Doherty, requires a “strategy” that is “vertically and horizontally integrated,” spanning “from idea creation to policy development to education to grassroots organizations to lobbying to litigation to political action.”⁹

The belief that conservative philanthropists are more strategic and therefore more effective in their investments than their moderate counterparts reflects conventional wisdom that dates back several decades. Over the years, this view has been reinforced and bolstered by the narratives told through numerous reports and articles.¹⁰ Philanthropists that favor environmental groups and related causes may have more money, goes the explanation, but libertarian “kingpins” like the Koch brothers funnel their funding into a narrow set of conservative causes, think tanks and groups that mobilize, often covertly, in support of specific policy outcomes.

Yet, the reality is more complex than the portrait painted by Mayer or as conventionally perceived. Far from being passive supporters, foundations have strongly shaped—if not defined—the environmental movement’s agenda, engaging in many of the same funding strategies as conservatives. On no issue is this more evident than climate change.

ORGANIZATIONAL NETWORKS CENTERED ON MARKET-BASED APPROACHES

Forty years ago, two of today’s most powerful environmental organizations—the Environmental Defense Fund and the National Resources Defense Council—were launched with funding from the Ford Foundation, grants that were part of Ford’s strategic investment in the environment and in public interest law. In the early 1980s, as the Reagan administration attempted to roll back environmental laws, the Henry P. Kendall Foundation brought together ten of the largest environmental organizations with the goal of coordinating their advocacy efforts, messages and advertising. This investment by the Kendall Foundation eventually led to the formation of the Green Group.¹¹

In the late 1990s, the Pew Charitable Trusts used its funding to create several mission-specific groups, including the Pew Center for Global Climate Change, a group that later would be one of the principal players in establishing the U.S. Climate Action Partnership. In 2001, the Gordon and Betty Moore Foundation gave \$260 million to Conservation International (CI) to support its “debt for nature swap” rainforest initiative.¹² In recent years, it has given \$20 million to specifically support CI’s “Building Green Economies” program.¹³ As discussed in Chapter 1, between 2005 and 2009, billionaire Julian Robertson gave more than \$40 million to the Environmental Defense Fund for its work on climate change, an amount that exceeds the combined total given by the Koch-affiliated foundations and ExxonMobil to conservative groups during the same period.

As these examples suggest, rather than issuing specific policy directives, foundations and philanthropists have shaped the agenda of the environmental movement in subtle, yet equally powerful ways. In analyzing the influence of foundations, sociologists Robert Brulle and T. Craig Jenkins note that philanthropists tend to favor environmental groups that adopt more technocratic approaches to problems such as climate change, funding national-level organizations that rely on highly credentialed staff to pursue such “insider” strategies as lobbying, coalition building, economic analysis and litigation. Organizations such as Greenpeace or Friends of the Earth and other more classic protest groups that favor such “outsider” strategies as boycotts, demonstrations and the targeting of corporations and political leaders are far less likely to receive funding.¹⁴

As fellow sociologist Timothy Bartley adds, wealthy foundations are perhaps most influential as network builders and recruiters, using their funding as a means to channel a diversity of highly professionalized and specialized groups into activities that promote market-centered approaches to environmental problems. Foundation funding, writes Bartley, “is a process of building social networks that tie a variety of organizations (and individuals) to one another—whether by creating new ties, strengthening existing ones, or even creating new intermediary organizations.”¹⁵

Often excluded from this network building are organizations that favor disruptive, system-

challenging activities that call for changes in accountability, transparency, governance, justice, equity and direct public participation in decision making. As foundations begin to invest in an issue, observes Bartley, market-based approaches to a problem are likely to become the dominant strategy pursued across groups, while system-challenging approaches are likely to become far less visible.¹⁶ This network-building also can lead to path dependency, with a single, dominant policy approach pursued, while other policy paths—and their organizational advocates—are left unfunded or rejected out of hand.

A BLUEPRINT TO SOLVE CLIMATE CHANGE

In 2006, several of the country’s wealthiest foundations hired the consulting firm California Environmental Associates to comprehensively survey the available scientific literature and to consult more than 150 leading climate change and energy experts. The result of this intensive undertaking was the 2007 report *Design to Win: Philanthropy’s Role in the Fight Against Global Warming*.¹⁷

Echoing Gore’s dire message in *An Inconvenient Truth*, the report warned that the “battle” to avert “catastrophic climate change” could be “lost” in the next decade. The train was “leaving the station—and picking up steam,” warned the report.¹⁸

The report did not recommend partisan activity, nor did it call for direct lobbying on specific legislation. However, playing well within the established rules of philanthropy, the call for a coordinated investment in a specific policy agenda was clear. Leading the report was the recommendation that “tempering climate change” required a strong cap and trade policy in the United States and the European Union, and a binding international agreement on greenhouse gas emissions that included China and India. Philanthropists, argued the report, were already supporting cap and trade initiatives, and were urged to do more.

Reflecting a strong faith in market incentives to drive social change, the report predicted: “A cap on carbon output—and an accompanying market for emissions permits—will prompt a sea change that washes over the entire global economy.” The report included little to no discussion of the role of government in directly sponsoring the creation of

ENVIRONMENTAL ASSOCIATES HAD INTERVIEWED 150 EXPERTS AS PART OF THE PROJECT, YET THE REPORT IS NOTABLE FOR THE ABSENCE OF ANY MEANINGFUL DISCUSSION OF SOCIAL, POLITICAL OR CULTURAL DIMENSIONS OF THE CLIMATE CHANGE CHALLENGE. AS PORTRAYED, CLIMATE CHANGE WAS A PHYSICAL THREAT THAT ONLY REQUIRED SCIENCE AND ECONOMICS TO SOLVE, A TECHNOCRATIC VIEW REFLECTIVE OF AN EXPERT ADVISORY COMMITTEE COMPOSED PREDOMINANTLY OF SCIENTISTS, ENGINEERS AND ECONOMISTS.

new energy technologies. Instead, the report offered a decidedly optimistic outlook: “The good news is that we already have the technology and know-how to achieve these carbon reductions—often at a cost savings.”

Where a role for government was discussed, the focus was on implementing mitigation strategies that could be pursued across five major societal sectors. These included the power sector, with strategies aimed at minimizing coal and promoting diffusion of such alternative energy sources as wind and solar; the industry sector, with a focus on reducing emissions and increasing efficiency; the building sector, with a focus on green design and retrofits; the transportation sector, with a focus on increasing fuel efficiency and reducing auto use; and the forestry sector, with a focus on slowing deforestation.

In a section titled “Defining the Win: 2 degrees and 450 ppm,” the report concluded that a cap and trade system, along with the sector-specific interventions, could eliminate 11 gigatons of CO₂ emissions by 2030, moving the world a third of the way toward the ultimate goal of keeping CO₂ levels from rising above the target of 450 ppm and average temperatures from rising more than 2 degrees. To do that, however, the report urged U.S. philanthropists to more than triple their current support for these strategies from \$210 million in 2007 to more than \$600 million annually over the next decade and beyond.

Environmental Associates had interviewed 150 experts as part of the project, yet the report is notable for the absence of any meaningful discussion

of social, political or cultural dimensions of the climate change challenge. As portrayed, climate change was a physical threat that only required science and economics to solve, a technocratic view reflective of an expert advisory committee composed predominantly of scientists, engineers and economists.¹⁹

Donors and philanthropists, argued the report, must be strategic and choose interventions that maximize the potential for a low-carbon future. The path was reduced to a relatively simple social equation: “By filtering the options according to their cost, mitigation potential, geographic focus and, most importantly, their potential to prevent lock-in, *Design to Win* has yielded an initial set of focused philanthropic investments that can forestall 11 gigatons of emissions.”

The *Design to Win* report was intended as a blueprint to guide the investment strategies of the sponsoring foundations as well as the broader philanthropic community. In 2008, to augment these strategies, the sponsoring foundations established ClimateWorks, a foundation devoted exclusively to investing more than \$1 billion over the next few years in support of organizations pursuing the *Design to Win* recommendations.

Heading up ClimateWorks was Hal Harvey, former environment program officer at the *Design to Win* sponsor Hewlett Foundation. A Stanford-trained engineer, Harvey began his career in the 1970s as the founder of a company that built solar houses before moving on to philanthropy.

In a 2009 profile in *The New York Times* titled

“ClimateWorks is Carrying Out a New Global Strategy,” Harvey offered an outlook very different from the wicked nature of the problem discussed in the introduction to this report: “Climate change, unlike a lot of large-scale problems, is actually one that is solvable. It is also one where we know what we need to do.”²⁰

“Sometimes I get accused of being too much of an engineer,” Harvey said. “But sometimes with social problems, it’s good to subject them to math.” Speaking specifically of ClimateWorks, Harvey declared: “We have the best data in the world on how to prevent climate change. Everything was ranked by magnitude, location and sector. It’s a systematic approach to problem solving.”

Harvey’s outlook on investing in solutions to the climate problem appears to follow from the lessons he learned in building solar houses: “Early decisions have long consequences,” he told *The New York Times*. The choices that an architect or developer make, said Harvey, set in motion patterns of behavior that can linger for decades.

ANALYZING THE DESIGN TO WIN STRATEGY

In order to examine how the *Design to Win* strategy has guided the decision making of major foundations, with the help of four graduate students, I analyzed 1,246 grants from nine aligned foundations distributed between 2008 and 2010. These aligned foundations are among the wealthiest in the country and include several of the top funders of environment-related programs.²¹ The foundations analyzed were the David and Lucile Packard Foundation (#1 in environmental funding for 2009), the Sea Change Foundation (#4), the William and Flora Hewlett Foundation (#5), the Kresge Foundation (#13), the Doris Duke Charitable Foundation (#24), the McKnight Foundation (#39), the Oak Foundation (#41), the Energy Foundation and ClimateWorks.

Several lines of evidence suggest that these nine foundations relied heavily on the *Design to Win* report’s definition of the problem and its specific recommendations to guide their investments. Duke, Hewlett, Energy, Packard and Oak funded the original *Design to Win* report and today are listed as “aligned funders” at the ClimateWorks website.²² As discussed later in this section, with the exception of Duke, each of these foundations contributed to

the launch of ClimateWorks. At their websites, both Hewlett and Packard explicitly describe the *Design to Win* report as guiding their funding strategy.²³ Sea Change and Kresge are also listed as aligned funders by ClimateWorks. As discussed later in this section, they have additionally been major contributors to the Energy Foundation.²⁴

There are similar close ties among foundation leaders and personnel. Harvey, the head of ClimateWorks, was formerly the environment program officer at Hewlett and served in that position as a member of the *Design to Win* report steering committee. Before joining Hewlett, he founded the Energy Foundation. Heather Thompson, vice president of programs at ClimateWorks, was formerly with the consulting firm California Environmental Associates, and led the *Design to Win* project. Jennifer Fox, director of strategic planning at ClimateWorks, was formerly with the environment program at Hewlett.²⁵ In addition, the environment program officers at Packard, Duke, Energy and Oak were also members of the *Design to Win* report’s steering committee.

It is important to note, however, that a range of factors have shaped the funding decisions by leaders at these foundations, and each organization makes final funding decisions independent of the others. In addition, the original *Design to Win* report includes the disclaimer: “The views expressed in this document are those of the authors (i.e., California Environmental Associates), and not necessarily those of the scientific advisors or funders.”

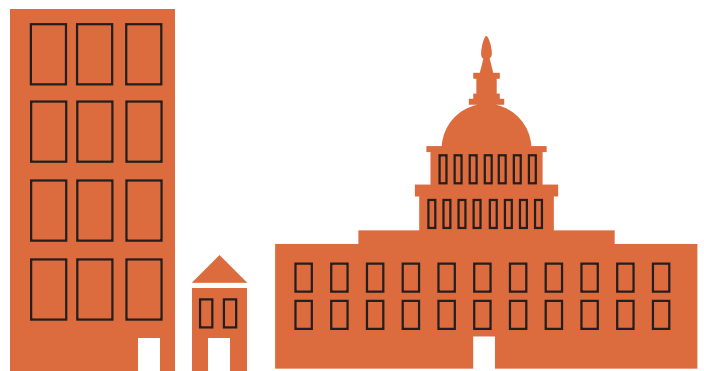


TABLE 2.1
SOURCES AND AVAILABILITY OF GRANT INFORMATION
BY FOUNDATION, 2008 TO 2010

	2008	2009	2010
CLIMATEWORKS	990 TAX FORM [▲]	ANNUAL REPORT [▲]	NOT AVAILABLE
ENERGY FOUNDATION	SITE SEARCH ENGINE [▲]	SITE SEARCH ENGINE [▲]	NOT AVAILABLE
DORIS DUKE	SITE LISTING [●]	SITE LISTING [●]	SITE LISTING [●]
HEWLETT	SITE SEARCH ENGINE [●]	SITE SEARCH ENGINE [●]	SITE SEARCH ENGINE [●]
KRESGE	ANNUAL REPORT [●]	ANNUAL REPORT [●]	NOT AVAILABLE
MCKNIGHT	SITE SEARCH ENGINE [●]	NO FUNDING GIVEN	SITE SEARCH ENGINE [●]
PACKARD	SITE SEARCH ENGINE [●]	SITE SEARCH ENGINE [●]	SITE SEARCH ENGINE [●]
OAK	990 TAX FORM ^{▲●}	SITE LISTING	NOT AVAILABLE
SEA CHANGE	990 TAX FORM [▲]	NOT AVAILABLE	NOT AVAILABLE

▲ GRANTS PAID

● GRANTS AWARDED

SOURCES OF DATA AND
CATEGORIZATION OF GRANTS

Table 2.1 summarizes the sources of information and data for the grants analyzed specific to each of the nine aligned foundations. For all of the foundations, data is publicly available for grants distributed in 2008. The same is true for 2009 with the exception of Sea Change. For 2010, at the time of the analysis in January 2011, only four of the foundations provided information on the grants they distributed. All grants that in their description and/or title included a substantial focus on climate change, energy, greenhouse gas emissions or carbon were included in the analysis, resulting in a sample of 1,246 grants across the nine foundations.

Each grant’s title, description, amount and recipient were entered into Excel for categorization and then SPSS for analysis. Categorization of each grant was based on the description provided by the funded organization, which usually in a few sentences summarized its intended focus, activities

and goals for the supported initiative. Some funded requests described a narrow and specific focus, while most described multiple goals and related activities. As a consequence, each grant could be assigned more than one category.

The categories were developed based on the recommendations in the *Design to Win* report and on my initial analysis of the frequently appearing themes across the grant descriptions. As described later in this section, categories were grouped into “policy focus,” “research focus” and “communication focus.” As an example of the categorization process, consider the following description of a funded grant from the assembled database:

The Pacific Northwest’s leading green-building organization operates the Living Building Challenge, a green-building certification system that is more environmentally stringent than the familiar LEED-rating system. This 18-month, \$270,000 grant will be used to promote Cascadia’s certification system and

TABLE 2.2**GRANTS FROM ALIGNED FOUNDATIONS TO CLIMATEWORKS AND ENERGY FOUNDATION, 2008 TO 2010**

	CLIMATE WORKS (\$)	ENERGY FOUNDATION (\$)
HEWLETT *	481,535,000	24,075,000
PACKARD	120,557,793	7,000,000
KRESGE	-	5,000,000
MCKNIGHT	16,000,000	-
OAK	1,600,000	-
SEACHANGE	-	15,500,000
ENERGY FOUNDATION	26,000,000	-
CLIMATEWORKS	-	84,370,000
TOTAL	645,692,793⁺	135,945,000⁺

* 461,095,000 WAS COMMITTED BY HEWLETT IN 2009 TO BE DISTRIBUTED OVER 5 YEARS.

NOTE: DORIS DUKE DID NOT CONTRIBUTE FUNDS TO CLIMATEWORKS OR THE ENERGY FOUNDATION DURING THE PERIOD ANALYZED.

educate prospective users, host a national conference, and complete a water-policy report for public officials.

Based on the description, I categorized the grant as including a policy focus on “promoting efficient buildings, retrofit, green design.” I also categorized the grant as including a communication focus on “public education” generally, on targeting “builders, architects, planners” specifically, and as supporting communication activities related to a “brief, report, journal or book,” and a “meeting, summit, workshop or conference.”

**TOTAL FUNDING DISTRIBUTED BY
ALIGNED FOUNDATIONS**

Table 2.2 summarizes grants directly to ClimateWorks and the Energy Foundation. This decision reflects one of the central recommendations of the *Design to Win* strategy—that foundations create nation-specific expertise to facilitate grant-making. Contributions to ClimateWorks from

Hewlett, Packard, McKnight and Oak totaled more than \$645 million, with \$481 million contributed by Hewlett alone. Contributions to the Energy Foundation totaled \$135 million. These totals likely underestimate the combined amount distributed between 2008 and 2010 since not all records were available for several foundations at the time of the analysis (See Table 2.1).

Apart from these grants to expert intermediaries, Table 2.3 summarizes the amount given directly by the nine aligned foundations to organizations and institutions between 2008 and 2010. Approximately \$368 million was distributed across 1,246 individual grants. An estimated \$30 million of this money was given to organizations outside of the United States, \$248 million to organizations in the United States that had an international or national-level focus to their funded grant activity, and the other approximately \$90 million to organizations with a regional, state or local focus, with activities funded in the Midwest and West receiving the greatest support.

TABLE 2.3**AMOUNT AND NUMBER OF GRANTS DISTRIBUTED BY FOUNDATION, 2008 TO 2010**

	AMOUNT (\$)	NUMBER OF GRANTS
ENERGY FOUNDATION	111,871,644	766
CLIMATEWORKS	63,898,794	63
HEWLETT	45,307,700	99
SEA CHANGE	40,630,802	62
PACKARD	39,876,095	113
OAK	29,896,534	49
KRESGE	24,432,660	71
DORIS DUKE	9,383,890	21
MCKNIGHT	3,000,000	2
TOTAL	368,298,119+	1246+

However, given that not all foundation records are publicly available for this period, the total of \$368 million likely underestimates the actual amount distributed between 2008 and 2010. If an average based on a foundation's previous year giving is used as a stand-in for missing years, these nine foundations would have distributed more than \$560 million between 2008 and 2010.

**FUNDING ASSOCIATED WITH POLICY ACTION,
RESEARCH AND ANALYSIS**

In Table 2.4, based on my coding of each of the grant's descriptions, I include a summary of the policy focus, policy actions and forms of research and analysis supported by the nine foundations. Recall that each grant could be assigned more than one category, since many funded initiatives included several goals or activities. The categories in Table 2.4 therefore total greater than \$368 million.

As reflected in the table, these nine foundations, much like their conservative counterparts,

concentrated their investments in a clear set of policy goals. This included \$39 million for initiatives that included a focus on cap and trade policies; \$32 million in support of efforts that included a focus on an international agreement or the policies of a specific country; and \$18.7 million to programs that included a focus on limiting or opposing coal-fired power plants.

Also in line with the strategies of conservative philanthropists, these foundations strongly supported the general program work of organizations, with \$46 million in grants mentioning general program support and \$1.4 million including support for a staff person, fellow, student or individual expert. Finally, given the \$69 million and \$55 million of funded program activities that included an unspecified reference to either promoting climate change or clean energy policy, the total amount dedicated to programs focused on cap and trade and/or an international agreement is likely to be much greater. I will return to this topic later in the chapter.

TABLE 2.4**FUNDING ASSOCIATED WITH SPECIFIC POLICY FOCUS, 2008 TO 2010**

	AMOUNT OF GRANTS INCLUDING FOCUS/GOAL (\$)	NUMBER OF GRANTS INCLUDING FOCUS/GOAL
GENERAL PROGRAM SUPPORT		
SUPPORT GENERAL PROGRAM	46,276,068	48
FUND STAFF, FELLOW, CONSULTANT	1,418,500	8
ACTION TO LIMIT/CAP EMISSIONS		
PROMOTE CLIMATE POLICY, UNSPECIFIC	69,399,255	140
PROMOTE CLEAN ENERGY POLICY, UNSPECIFIC	55,209,091	115
PROMOTE U.S. EMISSIONS CAP, CREDITS, OFFSETS, TRANSFERS	39,603,623	100
OPPOSE, LIMIT COAL POWER PLANTS	18,754,816	110
PROMOTE SUSTAINABLE AGRICULTURE, LIMIT EMISSIONS	16,542,441	48
OPPOSE TAR SANDS	2,700,000	2
INTERNATIONAL AGREEMENT, NON-US DECISION MAKING		
SUPPORT INTERNATIONAL AGREEMENT, SHAPE NON-U.S. DECISION MAKING	32,487,552	60
PROMOTE EMISSION ACCOUNTING, REPORTING, VERIFICATION	4,124,304	13
SUPPORT FOR COPENHAGEN-RELATED ACTIVITY	815,264	6
ECONOMIC DEVELOPMENT AND HUMAN DIMENSIONS		
CREATE JOBS, JOB TRAINING	8,631,378	23
PROMOTE ECONOMIC GROWTH, GREEN ECONOMY, UNSPECIFIC	3,365,240	17
ADAPTATION / LIMIT VULNERABILITY (UNSPECIFIC)	3,889,387	15
PROTECT PUBLIC HEALTH, WELL-BEING	1,901,400	12
PROTECT NATIONAL SECURITY, STRENGTHEN MILITARY	1,875,000	7
PROMOTE GOVERNMENT ROLE IN INNOVATION, R&D	1,210,000	5
PROMOTE JUSTICE, EQUITY	450,000	3

TABLE 2.4 (CONT.)

FUNDING ASSOCIATED WITH SPECIFIC POLICY FOCUS, 2008 TO 2010

	AMOUNT OF GRANTS INCLUDING FOCUS/GOAL (\$)	NUMBER OF GRANTS INCLUDING FOCUS/GOAL
IMPROVE EFFICIENCY, REDUCE ENERGY USE		
ENERGY EFFICIENCY, UNSPECIFIC	54,880,720	181
PROMOTE FUEL STANDARDS, CLEAN AUTOS	29,297,414	110
PROMOTE PUBLIC TRANSPORTATION	29,039,979	39
CHANGE BUSINESS/INVESTING PRACTICE	12,678,081	39
PROMOTE EFFICIENT BUILDINGS, RETROFIT, GREEN DESIGN	8,194,878	47
PROMOTE APPLIANCE EFFICIENCY STANDARDS	7,531,000	16
IMPROVE TRANSMISSION / GRID / STORAGE	6,436,095	26
PROMOTE SMART GROWTH, SUSTAINABLE MUNICIPAL PLANNING	5,025,298	14
CHANGE UTILITY PRACTICE / INCREASE EFFICIENCY	2,533,199	10
RENEWABLE AND TRANSITION ENERGY SOURCES		
PROMOTE RENEWABLE ENERGY, UNSPECIFIC	33,760,908	110
PROMOTE BIOFUELS, SPECIFIC	4,731,520	28
PROMOTE/EVALUATE CARBON CAPTURE	2,471,887	9
MANAGE SITING, TRANSMISSION ISSUES	2,280,000	6
PROMOTE SOLAR	1,427,000	16
PROMOTE WIND	480,000	6
PROMOTE/EVALUATE NATURAL GAS	203,768	4
ECOSYSTEM PROTECTION AND MANAGEMENT		
PROTECT / MANAGE FORESTS, REDUCE DEFORESTATION	17,094,811	52
PROTECT / CONSERVE LAND	13,213,766	19
PROTECT / MANAGE BIODIVERSITY, SPECIES	5,726,765	13
PROTECT / MANAGE WATER RESOURCES	5,520,000	18
PROTECT / MANAGE AIR QUALITY, POLLUTION	800,000	2
PROTECT / MANAGE OCEANS, FISHERIES	225,000	1

TABLE 2.5**FUNDING ASSOCIATED WITH RESEARCH AND ANALYSIS, 2008 TO 2010**

	AMOUNT OF GRANTS INCLUDING FOCUS/GOAL (\$)	NUMBER OF GRANTS INCLUDING FOCUS/GOAL
POLICY / ECONOMIC IMPACT ANALYSIS	48,881,954	133
ASSESS ENVIRONMENTAL IMPACTS	17,935,299	27
UNIVERSITY AFFILIATED RESEARCH, PROGRAM OR INITIATIVE	13,152,795	44
RESEARCH ON ACCOUNTABILITY / TRANSPARENCY	5,602,707	6
DEVELOP CALCULATOR, MAP, TOOL	5,019,166	11
TECHNOLOGY RESEARCH	3,623,000	12
TRANSPORTATION RESEARCH	2,405,000	4
EFFICIENCY RESEARCH	2,150,000	2
ASSESS HEALTH IMPACTS	1,129,400	9
CONDUCT LEGAL RESEARCH, ANALYSIS	1,115,000	5

TABLE 2.5 REFLECTS HEAVY INVESTMENT IN THE *DESIGN TO WIN* REPORT'S FRAMING OF CLIMATE CHANGE AS A PHYSICAL THREAT THAT REQUIRES PRIMARILY SCIENTIFIC AND ECONOMIC EXPERTISE TO SOLVE.

Sector-specific investments as recommended in the *Design to Win* report also are evident. These include \$54 million in grants associated with energy efficiency initiatives; \$33 million associated with renewable energy; \$29 million associated with public transportation programs; \$29 million associated with fuel standards; \$17 million associated with forest management; and \$13 million associated with land conservation.

Table 2.5 reflects heavy investment in the *Design to Win* report's framing of climate change as a physical threat that requires primarily scientific and economic expertise to solve. More than \$48 million in grants were associated with policy analysis or economic impact analysis; \$17 million with

environmental impact analysis; and \$13 million given directly to support university-based programs.

Tables 2.4 and 2.5 also allow for inferences about the types of programs and activities that were not given priority. This is especially clear in comparing the limited amount of funding associated with human dimensions of the climate change problem. For example, the \$8 million in grants associated with jobs and the \$3 million associated with general economic growth, while significant amounts, are much less than the more than \$39 million associated with cap and trade policies and even the \$17 million associated with forest policy. Only \$350,000 in funding was associated with programs focused on the government's role in promoting clean energy

MORE THAN \$43 MILLION IN GRANTS WERE ASSOCIATED WITH EDUCATING POLICYMAKERS AT THE FEDERAL OR STATE LEVEL IN THE UNITED STATES OR INTERNATIONALLY. MORE THAN \$32 MILLION IN GRANTS INCLUDED A FOCUS ON PUBLIC EDUCATION OR MOBILIZATION.

development, either through stimulus spending or research and development.

Consider also the comparatively minor \$1.9 million in grants associated with public health and the \$1.1 million associated with health impact assessment. Perhaps most noteworthy is the \$450,000 in funding associated with programs that included an explicit focus on either social justice or equity.

FUNDING ASSOCIATED WITH COMMUNICATION FOCUS OR ACTIVITY

Communication, media and public perceptions earned two sentences out of the 50-page *Design to Win* report. Reflecting the assumption that increased knowledge will lead to action, the report states: “Educating voters and consumers through the media can build political support for reforms. Supporting technical analyses and translating the findings for opinion leaders and decision makers can improve the caliber of resulting practices.”

Given the absence of a focus on communication and media in the *Design to Win* report, and given the brief descriptions for each grant, it is impossible to precisely evaluate the types of communication activities that were supported. Follow-up research should adopt a case study approach evaluating specific initiatives. Yet from the funding figures in this analysis, several patterns are clear, with apparent significant investment in public education campaigns and the targeting of key influential groups.

Table 2.6 summarizes funding for grants that include a focus on communication campaigns generally, the targeting of a specific group as well as the type of communication activity funded. More than \$43 million in grants were associated with educating policymakers at the federal or state level in the United States or internationally. More than \$32 million in grants included a focus on public

education or mobilization. Similarly, more than \$14 million in grants included a plan to educate opinion leaders, key stakeholders or influentials.

Grants also involved plans to target specific stakeholder groups. These efforts included \$5.3 million in grants associated with targeting business leaders; \$5.1 million associated with coordinating the efforts of philanthropists; and more than \$4 million that included a focus on religious leaders and communities. Grants also targeted specific professional or expert groups, such as the \$1.7 million to cultivate relationships with journalists. The findings in Table 2.6 are also noteworthy for the groups that received limited priority. For example, more than five times as much money was associated with targeting business leaders and other philanthropists than was invested in programs focused on college students, youth or young adults.

Finally, grants were also associated with several different types of communication initiatives. Approximately \$23 million in grants included support for a communication or media relations campaign. Foundations also funded more than \$4 million in grants associated with reports, white papers, journals and briefs. In comparison, a limited number of grants included formal initiatives aimed at better understanding audiences or at supporting media resources that audiences could use to participate on the issue. There was just \$1.4 million associated explicitly with audience research and only \$1.7 million given in direct support for not-for-profit media organizations or initiatives.

TABLE 2.6
FUNDING ASSOCIATED WITH COMMUNICATION
FOCUS OR ACTIVITY, 2008 TO 2010

	AMOUNT OF GRANTS INCLUDING FOCUS/GOAL (\$)	NUMBER OF GRANTS INCLUDING FOCUS/GOAL
FOCUS OF COMMUNICATION, GENERAL REFERENCE		
POLICYMAKERS, DECISION MAKERS	43,414,896	106
PUBLIC, MOBILIZATION, PUBLIC EDUCATION	32,926,500	80
STAKEHOLDERS, INFLUENTIALS, OPINION-LEADERS	14,088,376	38
ADVOCATES, ENVIRONMENTALISTS	5,377,527	10
SPECIFICALLY MENTIONED SOCIAL GROUP, STAKEHOLDER		
BUSINESS LEADERS	5,395,594	25
PHILANTHROPIC COMMUNITY, GRANTMAKERS	5,198,678	9
FAITH COMMUNITY, RELIGIOUS ORGANIZATIONS	4,223,743	20
MINORITY, LOW INCOME	2,929,011	16
MILITARY MEMBERS, COMMUNITY	2,125,000	6
LABOR LEADERS, COMMUNITY	2,009,687	9
AGRICULTURAL COMMUNITY, FARMERS	2,000,490	16
HUNTERS, FISHERMEN, SPORTSMEN	1,494,690	7
COLLEGE STUDENTS, YOUTH, YOUNG ADULTS	1,020,000	7
NATIVE, INDIGENOUS PEOPLE	595,000	5
SPECIFIC EXPERT, PROFESSIONAL COMMUNITY		
JOURNALISTS, REPORTERS, MEDIA PRODUCERS	1,779,759	12
SCIENTISTS	846,246	4
BUILDERS, ARCHITECTS, PLANNERS	800,000	5
PUBLIC HEALTH EXPERTS, PROFESSIONALS	458,500	4
ECONOMISTS	346,246	3
ARTS, CULTURE, CREATIVE PROFESSIONS	137,500	2
TYPE OF COMMUNICATION ACTIVITIES, INITIATIVE		
COMMUNICATION CAMPAIGN, OUTREACH, MEDIA RELATIONS	23,526,868	54
SUPPORT FOR BRIEF, REPORT, JOURNAL, BOOK	4,114,860	22
SUPPORT FOR MEETING, SUMMIT, WORKSHOP, CONFERENCE	3,932,656	40
SUPPORT FOR MEDIA ORGANIZATION, PRODUCTION	1,784,011	12
SUPPORT FOR PUBLIC OPINION, AUDIENCE RESEARCH	1,418,500	8

TABLE 2.7

ORGANIZATIONS RECEIVING THE MOST FUNDING, 2008 TO 2010

	AMOUNT OF GRANTS (\$)	NUMBER OF GRANTS
BIPARTISAN POLICY CENTER ▲	34,688,000	9
EUROPEAN CLIMATE FOUNDATION	17,074,885	10
NATURAL RESOURCES DEFENSE COUNCIL ▲	14,117,450	45
ALLIANCE FOR CLIMATE PROTECTION ▲	10,000,000	1
SIERRA CLUB ▲	9,268,100	9
ROCKEFELLER FAMILY FUND	8,975,000	9
INTERNATIONAL COUNCIL ON CLEAN TRANSPORTATION	8,355,000	11
NEW VENTURE FUND	8,191,310	6
ENVIRONMENTAL DEFENSE FUND ▲	7,543,155	27
UNION OF CONCERNED SCIENTISTS ▲	7,427,802	21
DUKE UNIVERSITY	7,124,905	9
THE PARTNERSHIP PROJECT ▲	5,115,752	5
LEAGUE OF CONSERVATION VOTERS ▲	4,736,200	9
NATIONAL WILDLIFE FEDERATION ▲	4,311,481	15
ENVIRONMENTAL LAW AND POLICY CENTER	4,137,000	21
WESTERN RESOURCES ADVOCATES	3,739,100	14
ENVIRONMENT AMERICA AND STATE AFFILIATES ▲	3,692,700	22
AMERICAN COUNCIL ON ENERGY EFFICIENCY	3,452,000	17
CLEAN AIR TASK FORCE	3,306,903	11
TIDES FOUNDATION & CENTER	3,300,000	5
WORLD RESOURCES INSTITUTE ▲	2,976,000	11
CERES INC. ▲	2,975,700	12
WORLD WILDLIFE FUND ▲	2,918,276	4
CENTER FOR CLIMATE STRATEGIES ▲	2,435,000	12
WOODS HOLE INSTITUTE	2,250,000	2
TOTAL	182,111,719	317

▲ INDICATES ORGANIZATIONS THAT ENGAGED IN POLICY ANALYSIS, ADVOCACY, AND PUBLIC OUTREACH IN SUPPORT OF CAP AND TRADE LEGISLATION.

ALTHOUGH 1,246 GRANTS WERE DISTRIBUTED, 25 ORGANIZATIONS COMBINED TO RECEIVE MORE THAN \$182 MILLION—OR MORE THAN HALF—OF THE TOTAL \$368 MILLION. OF THE 25 ORGANIZATIONS, 14 WERE NATIONALLY PROMINENT SUPPORTERS OF CAP AND TRADE LEGISLATION

ORGANIZATIONS RECEIVING THE MOST FUNDING

Although 1,246 grants were distributed, 25 organizations combined to receive more than \$182 million—or more than half—of the total \$368 million. Of the 25 organizations, 14 were nationally prominent supporters of cap and trade legislation (see Table 2.7).²⁶

Topping the list of recipients at \$34.6 million is the Bipartisan Policy Center, a think tank conducting policy analysis and outreach on cap and trade legislation and other energy issues (see Chapter 1 for discussion of lobbying activity). Between 2008 and 2010, the center received \$14.3 million from the Hewlett Foundation to support its National Commission on Energy Policy (NCEP), and an additional \$4.3 million from Hewlett to support analysis on national climate policy. Since 2002, the center has received a combined \$41.3 million from Hewlett to support its activities on climate change and energy.²⁷

In 2008 and 2009, the Bipartisan Policy Center also received \$7.8 million from ClimateWorks for general support of work on energy efficiency, renewables and climate change; \$6.5 million for the Carbon Cap Project; and \$1.7 million to “educate and inform relevant constituencies about climate change impacts and solutions.” Hal Harvey, CEO of ClimateWorks and former environment program officer at Hewlett, serves on the board of directors at the Bipartisan Policy Center.

After the failure of the Senate in 2010 to pass legislation, the Bipartisan Policy Center ended the work of the National Commission on Energy Policy. Former NCEP co-chairs included John Holdren (2002–08), now White House science adviser, and William F. Reilly (2002–10), currently chair of the board at ClimateWorks.²⁸

The list of top 25 recipients also features Al Gore’s The Alliance for Climate Protection (\$10 million) as well as four of the five environmental organizations that are current or past members of the U.S. Climate Action Partnership. These are Natural Resources Defense Council (\$14 million), the Environmental Defense Fund (\$7.5 million), the National Wildlife Federation (\$4.3 million) and the World Resources Institute (\$2.9 million). Other groups that were prominent supporters of cap and trade legislation include the Sierra Club (\$9.6 million), the Union for Concerned Scientists (\$7.4 million), the League of Conservation Voters (\$4.7 million), Environment America (\$3.6 million), the World Wildlife Fund (\$2.9 million), Ceres (\$2.9 million) and the Center for Climate Strategies (\$2.4 million).

Another top recipient of funding was The Partnership Project (\$5.1 million), an organization that serves to coordinate policy work and communication initiatives among the major environmental organizations, as discussed in Chapter 1. The organization received \$3.1 million from Sea Change to “educate the public about climate change and energy policy,” \$1 million from the Energy Foundation to support the advertising and grassroots initiative Clean Energy Works (see also Chapter 1), and an additional \$1 million for general operating support. The top 25 recipients also include Western Resource Advocates, the New Venture Fund and the Environmental Law and Policy Center, advocates for regional and state-level emissions regulations in the Mountain West and Midwest respectively.

Not all of the recipients engage in campaign work. The European Climate Center is an example of the *Design to Win* report’s call for establishing region-specific expert funders on climate change.

THE ANALYSIS OF THE *DESIGN TO WIN* STRATEGY SHOWS THAT CONTRARY TO CONVENTIONAL WISDOM, THESE NINE ALIGNED FOUNDATIONS HAVE BEEN AS STRATEGIC IN TARGETING SPECIFIC POLICY OUTCOMES AS EVEN THE KOCH BROTHERS...YET FOCUS AND STRATEGY ARE ONLY AS EFFECTIVE AS THE PREMISES UPON WHICH THEY ARE BASED.

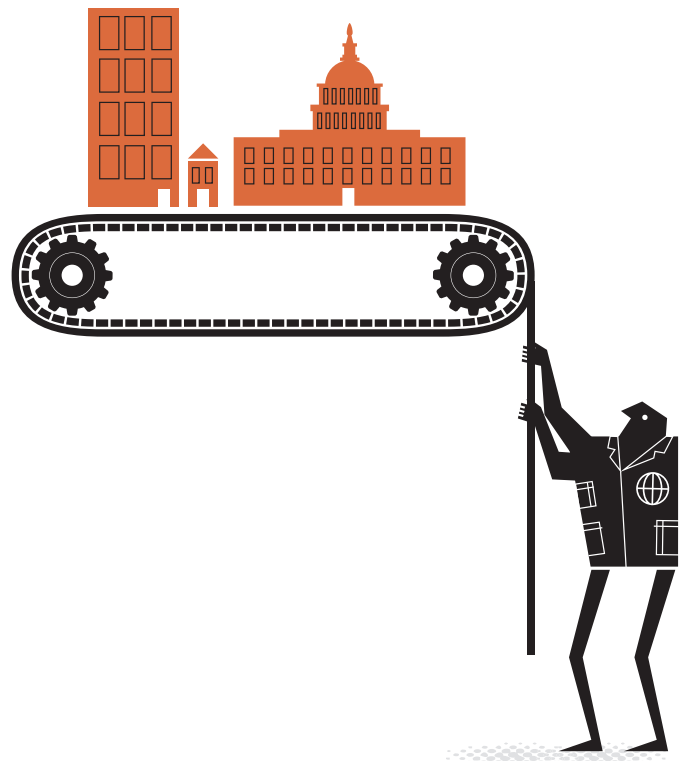
Other such recipients as the Rockefeller Brothers Fund and the Tides Foundation also are foundations. Several such organizations as the International Council on Clean Transportation, the American Council on Energy Efficiency and the Clean Air Task Force tend to focus on technical questions of policy formulation and implementation rather than advocacy and campaigning. Duke University and the Woods Hole Institute received funding in support of scientific research and economic analysis.

CONCLUSION

The analysis of the *Design to Win* strategy shows that contrary to conventional wisdom, these nine aligned foundations have been as strategic in targeting specific policy outcomes as even the Koch brothers, applying more than 10 times the amount of money in pursuit of their goals. The Bipartisan Policy Center alone received one out of every 10 dollars distributed, with the \$34.6 million in funds received by the center exceeding the \$31.3 million distributed by Koch-affiliated foundations to all conservative organizations between 2005 and 2009. Moreover, it is likely that the release of the 2007 *Design to Win* report and the resulting coordination among major foundations helped solidify the focus of national environmental groups on cap and trade legislation as the central policy approach to climate change while also recruiting groups to work on other sector-specific mitigation actions. The report also likely influenced the funding decisions of other major foundations.

Yet focus and strategy are only as effective as the premises upon which they are based. As described, the *Design to Win* report appeared to define climate change in conventional terms, as an environmental problem that required only the mobilization of

market incentives and public will. With this definition, comparatively limited funding was directed toward fostering the role of government in promoting new technology and innovation. Nor was there equivalent investment in such important human dimensions of the issue as adaptation, health, equity, justice or economic development. Finally, though there was considerable funding associated with communication campaigns and public education activities, given the limited mention of these strategies in the *Design to Win* report, it is not clear what assumptions informed investment in this area. Future research should evaluate directly the strategies and impacts of these public education and communication efforts.



ENDNOTES

¹ The Greenpeace report, updates and blog posts can be found at: www.greenpeace.org/kochmoney.

² According to Greenpeace, between 2005 and 2008, ExxonMobil had given \$8.9 million to these conservative groups, and a 2007 Union of Concerned Scientists report estimated the oil company had distributed \$16 million between 1998 and 2005. In sum, dating back to the late 1990s, the Koch brothers had given \$54.9 million to conservative organizations disputing climate change, compared with ExxonMobil's \$22.9 million. The 2007 Union of Concerned Scientists report is available at: www.ucsusa.org/assets/documents/global_warming/exxon_report.pdf.

³ Jane Mayer, "Covert Operations: The Billionaire Brothers Who Are Waging a War against Obama," *The New Yorker*, August 30 2010. Available at: www.newyorker.com/reporting/2010/08/30/100830fa_fact_mayer.

⁴ Romm earlier had speculated at his blog that the Koch brothers had influenced the exhibit's presentation to present climate change "as no big deal." At his post you can watch a video of Romm conducting an interpretative, critical analysis of the exhibit. The message of the exhibit, Romm says, is that whatever happens, humans will evolve, because that is what happened in the past.

Available at: www.climateprogress.org/2010/04/01/must-see-video-polluter-funded-smithsonian-exhibit-whitewashes-danger-of-human-caused-climate-change/.

⁵ The audio of the NPR Fresh Air segment is available at: www.npr.org/templates/story/story.php?storyId=129425186.

⁶ A YouTube clip of the MSNBC Rachel Maddow Show segment is available at: www.youtube.com/watch?v=YcpS9KNvqNc.

⁷ Frank Rich, "The Billionaires Bankrolling the Tea Party," *The New York Times*, August 28 2010. www.nytimes.com/2010/08/29/opinion/29rich.html.

⁸ Jane Mayer, "The Money Man: Can George Soros's Millions Insure the Defeat of President Bush?," *The New Yorker*, October 18 2004. Available at: www.newyorker.com/archive/2004/10/18/041018fa_fact3.

⁹ Page 410 in B. Doherty, *Radicals for Capitalism: A Freewheeling History of the Modern American Libertarian Movement* (PublicAffairs, 2007).

¹⁰ For examples, see Robert O. Bothwell, "Foundation Funding of Grassroots Organizations," (Washington, DC: National Committee for Responsive Philanthropy, 2000). R.O. Bothwell, "Foundation Funding of Grassroots Organisations," *International Journal of Nonprofit and Voluntary Sector Marketing* 7, no. 4 (2002). S. Covington and National Committee for Responsive Philanthropy, *Moving a Public Policy Agenda: The Strategic Philanthropy of Conservative Foundations* (National Committee for Responsive Philanthropy, 1997). S Covington, "Right Thinking, Big Grants, and Long-Term Strategy: How Conservative Philanthropies and Think Tanks Transform Us Policy," *Covert Action Quarterly* (1998). R. Egen, *Buying a Movement: Right-Wing Foundations and American Politics* (People for the American Way, 1996); J. Krehely et al., *Axis of Ideology: Conservative Foundations and Public Policy* (National Committee for Responsive Philanthropy, 2004).

¹¹ See discussion, pages 112-14 in C.J. Bosso, *Environment, Inc: From Grassroots to Beltway* (Univ Pr of Kansas, 2005).

¹² Ibid.

¹³ From the Moore Foundation website: www.moore.org/ci.aspx.

¹⁴ Robert J. Brulle and J. Craig Jenkins, "Foundations and the Environmental Movement; Priorities, Strategies, and Impact," in *Foundations for Social Change: Critical Perspectives on Philanthropy and Popular Movements* ed. Daniel and McCarthy Faber, Debra, (New York: Rowman & Littlefield, 2005).

¹⁵ T. Bartley, "How Foundations Shape Social Movements: The Construction of an Organizational

Field and the Rise of Forest Certification,” *Social Problems* 54, no. 3 (2007).

¹⁶ Ibid.

¹⁷ The report is available at: www.ef.org/documents/Design_to_Win_Final_Report_8_31_07.pdf.

¹⁸ The dominant frame of reference offered by *An Inconvenient Truth* was that of a looming “climate crisis,” with action needed before it was too late to avert catastrophic impacts. See a past analysis and paper I published on the framing of the climate change debate, including the narrative presented by the film, Matthew C. Nisbet, “Communicating Climate Change: Why Frames Matter for Public Engagement,” *Environment: Science and Policy for Sustainable Development* 51, no. 2 (2009). Available at: www.environmentmagazine.org/Archives/Back%20Issues/March-April%202009/Nisbet-full.html.

¹⁹ The Advisory Committee included Dr. Rubens Harry Born, Vitae Civilis Institute, Brazil; Dr. Adrian Fernandez, National Institute for Ecology of Mexico; Prof. Michael Grubb, Cambridge University; Mr. David Hawkins, Natural Resources Defense Council; Dr. Mark Levine, Lawrence Berkeley National Laboratory; Dr. Jonathan Pershing, World Resources Institute; Ms. Anumita Roychowdhury, Centre for Science and Environment; Ms. Frances Seymour, Center for International Forestry Research; Dr. Priyadarshi Shukla, Indian Institute of Management; Dr. Robert Socolow, Princeton University; Dr. Michael Wang, Argonne National Laboratory; and Dr. Ni Weidou, Tsinghua University.

²⁰ Richard Paddock, “Climateworks Is Carrying out New Global Strategy” *The New York Times*, December 5 2009. Available at: www.nytimes.com/2009/12/06/us/06sfclimate.html.

²¹ See data compiled by The Foundation Center for 2009: www.foundationcenter.org/findfunders/statistics/pdf/04_fund_sub/2009/50_found_sub/f_sub_c30_09.pdf.

²² See ClimateWorks website: www.climateworks.org/about/funders/.

²³ Hewlett: www.hewlett.org/newsroom/newsletter/going-global-fight-against-climate-change.

Packard: www.packard.org/genericDetails.aspx?RootCatID=2&CategoryID=47&ItemID=3989.

McKnight: www.mcknight.org/environment/climate.aspx.

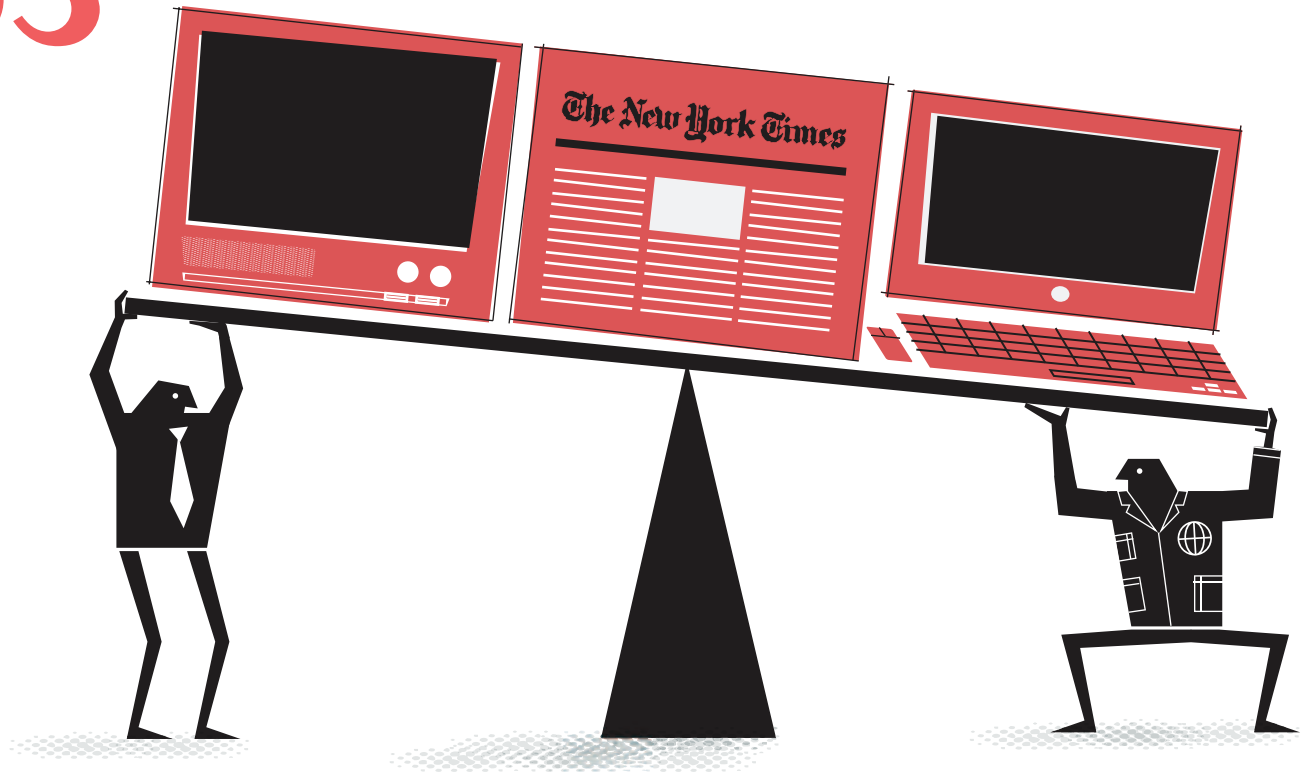
²⁴ Ibid.

²⁵ See ClimateWorks website: www.climateworks.org/about/staff/.

²⁶ For most of the major environmental groups, grants from foundations make up only a small portion, approximately 15 percent, of total revenue. See Chapter 1 for discussion.

²⁷ To see specific grants and amounts, search “Bipartisan Policy Center” at the Hewlett Foundation’s online Grants Database: www.hewlett.org/grants/search?order=field_date_of_award_value&sort=desc.

²⁸ Darren Samuelsohn, “Bipartisan Energy Panel Calls It Quits,” *Politico*, December 21 2010. Available at: www.dyn.politico.com/printstory.cfm?uuid=062A76D4-ECC4-601B-3E089A2365EC31AA. See also Bipartisan Policy Center news release at: www.bipartisanpolicy.org/news/press-releases/2010/12/bipartisan-policy-center-announces-plans-develop-major-new-energy-projec.



THE DEATH OF A NORM: EVALUATING FALSE BALANCE IN NEWS COVERAGE

In the 2006 film *An Inconvenient Truth*, one of the more memorable comparisons that Al Gore offers his audience is the supposed difference between the state of climate science and how it is portrayed in the news media. His comparison opens like this: “Isn’t there a disagreement among scientists about whether the problem is real or not?”

“Actually, not really,” answers Gore.

“There was a massive study of every scientific article in a peer-reviewed journal written on global warming in the last 10 years,” Gore continues, referring to a 2004 essay published in *Science* by historian Naomi Oreskes.¹ “They took a big sample of 10 percent, 928 articles. And you know the number of those that disagreed with the scientific consensus that we’re causing global warming and that it is a serious problem out of the 928: Zero.” Gore then goes on to discuss an industry-linked memo that

planned to “reposition global warming as a theory rather than fact.”

“But have they succeeded?” he then asks. “There was another study of all the articles in the popular press,” says Gore, referring to a 2004 study by social scientists Max and Jules Boykoff.² “Over the last 14 years they looked at a sample of 636. More than half of them said, ‘Well, we are not sure. It could be a problem, may not be a problem.’ So no wonder people are confused.”³

Gore repeated his comparison in his 2009 book *Our Choice: A Plan to Solve the Climate Crisis*, citing again the Boykoff study.⁴ In a 2010 blog post, Gore repeated the critique, asserting: “Overall, the media’s coverage of the climate issue has been atrocious.”⁵

Gore’s continued criticism of the news media, however, overlooks the findings of more recent

GORE IS THE MOST PROMINENT VOICE AMONG A CHORUS OF CLIMATE ADVOCATES WHO CONTINUE TO BLAME SOCIETAL INACTION ON NEWS COVERAGE. IN FACT, THE ASSERTION HAS BECOME A WELL-WORN RITUAL THAT ANIMATES DISCUSSION AT CONFERENCES, BLOGS AND POPULAR WRITING.

research. In a 2007 paper titled “Flogging a Dead Norm,” Max Boykoff updated his study to examine coverage appearing between 2003 and 2006.⁶ His analysis found that by 2006, false balance in coverage had almost completely disappeared from major U.S. news outlets. More than 96 percent of coverage that year reflected the consensus view among researchers that climate change was real and humans were a cause.

Gore is the most prominent voice among a chorus of climate advocates who continue to blame societal inaction on news coverage. In fact, the assertion has become a well-worn ritual that animates discussion at conferences, blogs and popular writing. Yet like the presumed financial and strategic advantages of the conservative movement, the question of news media performance is far more complex than commonly discussed.

In this chapter, on the question of whether the mainstream media continue to falsely portray climate change, I analyze the coverage of five major U.S. news outlets. If false balance had virtually disappeared from national coverage as of 2006, did this same tendency hold in 2009 and 2010, as cap and trade legislation was debated, meetings on a binding international emissions treaty were held in Copenhagen, and groups strongly dismissive of climate science were presumed to have gone into high gear, their communication efforts fueled by a controversy over the surreptitiously released emails of climate scientists?

BIAS IN NEWS ATTENTION TO CLIMATE CHANGE

To be sure, there are multiple areas where fault can be found in news coverage of any subject, even more so for a complex, uncertain and politically-contentious issue such as climate change. As more than two decades of research in news sociology

describes, journalists not only actively prioritize some issues or events to be covered, but they also frame these events and issues to emphasize certain dimensions over others. This process is influenced by societal context and culture; ownership structure and industry trends; the strategies of sources and advocates; organizational routines, pressures and professional norms; and the personal background of journalists, including educational training, experience, race, gender, class and ideology.⁷

On climate change, one area where many have pointed to a clear divergence between objective conditions and their subjective portrayal is in the pattern of news media attention to climate change. With increasing evidence of climate change and its impacts, the reasoning goes, you would expect sustained—if not increasing—attention to the issue.

Yet as Max Boykoff has tracked, U.S. newspaper coverage has followed up-and-down swings in attention.⁸ Similar to other science-related issues, in the United States there has always tended to be a baseline of relatively low levels of attention to climate change among science journalists and environmental reporters, but when climate change has received its greatest media attention, as Boykoff describes, it has been around such dramatic political focusing events as the 1997 Kyoto meetings, the 2006 release of *An Inconvenient Truth*, the 2006 UK Stern report and the 2007 award of the Nobel Peace Prize to Gore and the IPCC scientists⁹, instances that have triggered additional coverage from political reporters and commentators.¹⁰

A number of other likely factors account for the upswings and then downturns in U.S. news attention. Perhaps the foremost factor in recent years has been the reduced capacity of news organizations to cover climate change, a reduced capacity that comes at a time when many other issues are also competing for news attention.¹¹ Communication researchers

Katherine McComas and James Shanahan have observed that journalists' coverage of climate change is also driven by the need to tell dramatic stories and compelling narratives. Much of the drama in news reporting generally—and in science reporting as well—derives from visible political conflict, personality clashes and exaggerated claims over the certainty and risks of climate change, as well as the costs or benefits of action.¹²

These dimensions, according to the researchers, serve as grist for the storytelling mill that allow journalists to construct a “news saga” they can cover for more than a single day or news cycle, but eventually move on to another issue that can be defined as possessing novel yet equally ephemeral dramatic qualities. For an issue of the complexity and magnitude of climate change, this pattern in news attention makes it that much more difficult to sustain societal focus on the problem.¹³ As *New York Times* journalist and Dot Earth blogger Andrew Revkin writes:

The problem is that the processes that winnow and shape the news have a hard time handling the global-warming issue in an effective way. The media seem either to overplay a sense of imminent calamity or to ignore the issue altogether because it is not black and white or on a time scale that feels like news. This approach leaves society like a ship at anchor swinging cyclically with the tide and not going anywhere.

BIAS IN NEWS DEPICTIONS OF CLIMATE CHANGE

Apart from news attention, a more complex set of considerations applies to judging how the media characterize the climate debate. As both Boykoff and Revkin have described, relative to the assertions that CO₂ warms the planet or that humans contribute to climate change, there is overwhelming scientific agreement, and therefore a clear objective basis upon which to criticize the media if they fail to accurately convey this consensus. However, other dimensions that still hold higher degrees of scientific uncertainty – such as the linkages between climate change and hurricane intensity, or on matters of political disagreement, such as if cap and trade legislation is an effective solution – remain subjects where journalists justifiably should emphasize a greater diversity of views.¹⁴

Consider also the example of the e-mails surreptitiously released from servers at the Climate

Research Unit at East Anglia University in 2009, an event now commonly called “Climategate.” Many scientists judge the coverage of Climategate as severely out of proportion to its significance. “I do think that many normally responsible journalists fell hook, line and sinker for a dishonest smear campaign here, and that is really unfortunate,” said Michael Mann, one of the scientists at the center of the e-mail exchanges. “I think it’s a real wake-up call for science journalism specifically, but for journalism more generally.”¹⁵

Yet in contrast, journalists, policy experts and some leading scientists such as Georgia Tech’s Judith Curry have viewed Climategate as revealing newsworthy dimensions of the political debate. Careful to assert that the emails among scientists do nothing to challenge the basic findings of climate research, they argue that the event instead uncovers how a group of scientists coordinated activities that went beyond what have been considered the traditional norms of science, attempting to shape the peer-review process in a way that promoted their own views and discredited others, delaying access to data and downplaying areas of uncertainty.¹⁶

In all, according to these critics, though the scientists eventually were exonerated of falsifying data, the e-mails do raise concerns over “tribalism” and the “siege mentality” of those involved. The episode, argue climate scientist Mike Hulme and philosopher Jerome Ravetz, points to the need to make climate science more open to “extended peer review” and to invite a broader range of professionals to provide input on scientific conclusions.¹⁷

ANALYZING PATTERNS IN NEWS COVERAGE

To assess the performance of the mainstream news media in 2009 and 2010, I examined coverage appearing across these years at *The Washington Post*, *The New York Times*, *The Wall Street Journal*, *CNN.com* and *Politico*. As mentioned at the outset of this chapter, if false balance had virtually disappeared from national coverage as of 2006, did this same tendency hold in 2009 and 2010, as cap and trade legislation was debated, the Copenhagen meetings were held and as debate took place over Climategate? In addition, across months, how much news attention did the issue of climate change receive? Within this coverage, how much attention did Climategate receive?

The New York Times, *The Washington Post* and *The Wall Street Journal* were chosen for the analysis

because they remain the trend-setting news outlets of record in the United States and their selection also replicates the three most influential U.S. newspapers analyzed in the earlier Boykoff studies. Even in a world of blogs and fragmented audiences, the coverage appearing at these outlets strongly shapes the news decisions made at the broadcast and cable networks and informs the decisions of policymakers.¹⁸ These outlets are often the main targets of advocates on both sides of the debate, with a quote or op-ed at these papers symbolizing success.¹⁹

In addition, the websites of these organizations—with their print editions still serving as the central content—are among the most heavily-visited news outlets. As tracked by Nielsen, *The New York Times* and *The Washington Post* rank No. 5 and No. 9 respectively among news sites in terms of traffic. The website of *The Wall Street Journal* is the top source for public affairs information among business leaders and professionals.²⁰

Similarly, *CNN.com*, which produces its own Associated Press-style syndicated coverage, is the No. 4 visited news site online, according to Nielsen. *Politico* has become the paper of record for members of Congress and is the paper “the White House wakes up to,” as memorably headlined in a profile at *The New York Times*. *Politico* also strongly shapes the agenda of news at the cable networks and blogosphere, setting the tone for political reporting and commentary.²¹ Moreover, despite their prominence, no other analysis to date has examined coverage at these two influential outlets.

Relevant climate change-related articles were identified by searching LexisNexis between Jan. 1, 2009, and Dec. 31, 2010, retrieving all articles that in the headline or lead paragraph included “climate change” or “global warming.” The returned articles were individually reviewed by a team of graduate students; duplicates and nonrelevant articles were discarded, resulting in a final population of 1,862 climate change-related articles from the five news organizations. These articles included news stories, style features, magazine stories, film and book reviews, columns, in-house editorials, op-eds and letters to the editor.

As Figure 3.1 indicates, similar to the patterns observed by Boykoff, news attention across the months of 2009 and 2010 was highly episodic. Attention across the five news outlets peaked in relation to major political events, particularly in the

build-up to the meetings in Copenhagen to broker an international agreement on emissions, and to a lesser to degree in reaction to severe weather. In 2009, the five organizations published 1,190 news and opinion articles focused on climate change, with 498 articles—or 42 percent of this coverage—appearing in October, November and December. In 2010, news attention declined by 43 percent from 2009 levels to 672 total articles published for the year. Interviewing journalists at the end of 2010, Cristine Russell at *Columbia Journalism Review* notes that for many, the decline in attention reflects the perceived loss in political viability both for cap and trade legislation and for a binding international agreement.²²

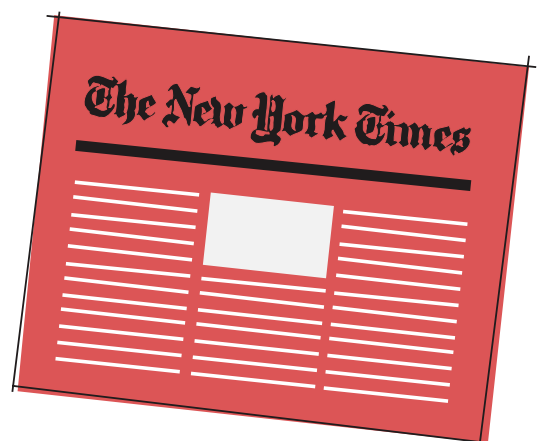
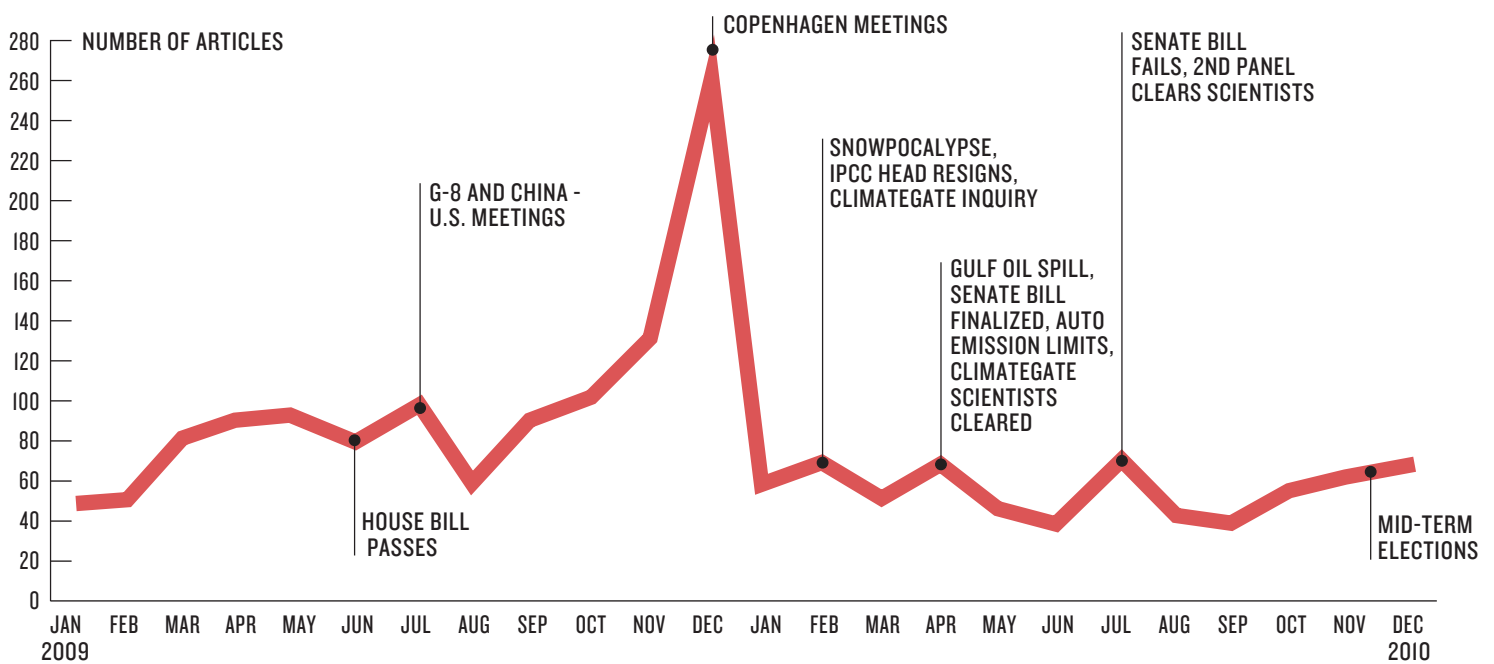


FIGURE 3.1
COMBINED NEWS ATTENTION TO CLIMATE CHANGE, 2009 TO 2010



NOTE: COMBINED NUMBER OF ARTICLES WITH “CLIMATE CHANGE” OR “GLOBAL WARMING” APPEARING IN HEADLINE OR LEAD PARAGRAPH AT *THE NEW YORK TIMES*, *WASHINGTON POST*, *CNN.COM*, *POLITICO* AND *WALL STREET JOURNAL*. THE GRAPH DISPLAYS A TOTAL OF 1,862 ARTICLES ACROSS THE 24 MONTHS, 1,190 ARTICLES IN 2009 AND 672 ARTICLES IN 2010.

The spike in attention leading up to and during the Copenhagen meetings is not surprising, given that the summit was one of the major foreign policy events of the year and a leading focus of the White House for the month of December. Apart from these five major U.S. news organizations, Pew estimates that attention to climate change during the week of the summit constituted approximately 10 percent of all public affairs coverage appearing at major U.S. print, online, radio and TV news outlets. This was the greatest attention to the issue for any week since Pew started tracking coverage at the start of 2007.²³

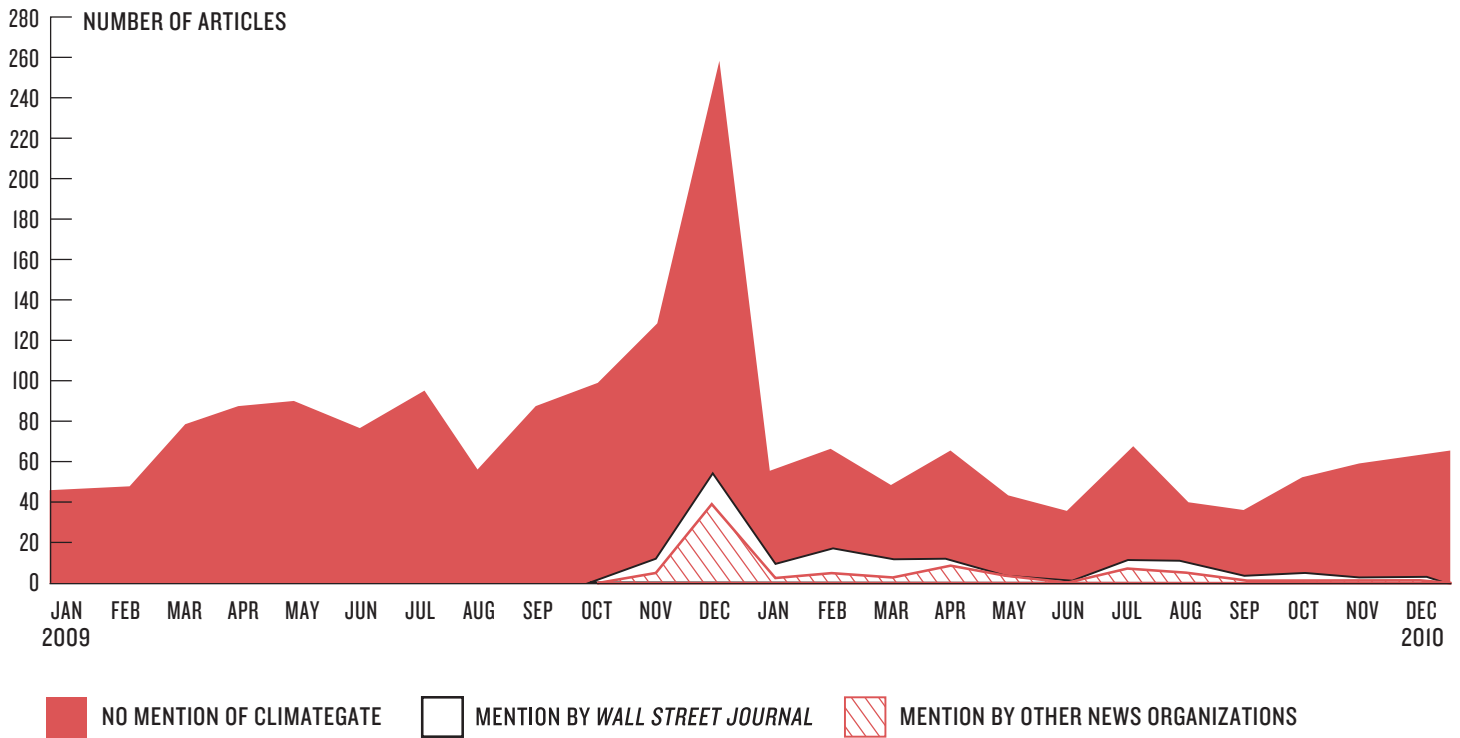
In a 2010 Oxford University report, James Painter estimates 4,000 journalists from 119 countries attended the summit, with 330 journalists present from the United States, second only to the number from host country Denmark. The summit featured negotiations between President Obama and world leaders and the participation of thousands of government, industry and interest group representatives. U.S. universities and scientific societies sent typically one press officer from their organization. In comparison, Greenpeace and the World Wildlife Fund

combined to send 30. Given the high-level political negotiation, not surprisingly, Painter estimates that less than 10 percent of world coverage focused on climate science.²⁴

As Figure 3.2 shows, in December 2009, the five media organizations combined to publish 263 news and opinion articles focused on climate change. Approximately 21 percent—or 54 of the articles—mentioned the leaked/stolen e-mails (the story first was reported on Nov. 20). *The Wall Street Journal* published 14 articles mentioning the incident, and the other outlets mentioned the incident in a total of 40 articles.

In the months following, however, *The Wall Street Journal* continued to focus on the story while the other news organizations did not. Between January 2010 and August 2010, when the Senate bill was declared dead, 449 news and opinion articles across the five media organizations had focused on climate change. During this period, 81—or 1 out of every 5—referenced the debate over the leaked e-mails. More than half of these articles appeared in *The Wall Street Journal*.

FIGURE 3.2
NEWS ATTENTION TO CLIMATEGATE AT WALL STREET
JOURNAL VS. FOUR OTHER OUTLETS



NOTE: ARTICLES MENTIONING “CLIMATEGATE,” “STOLEN E-MAILS,” “LEAKED E-MAILS,” “HACKED E-MAILS” OR “EAST ANGLIA” WERE IDENTIFIED AND CHECKED FOR RELEVANCY BEFORE BEING INCLUDED IN THE FINAL TOTAL. “OTHER OUTLETS” INCLUDE COMBINED COVERAGE AT *THE NEW YORK TIMES*, *THE WASHINGTON POST*, *CNN.COM* AND *POLITICO*.

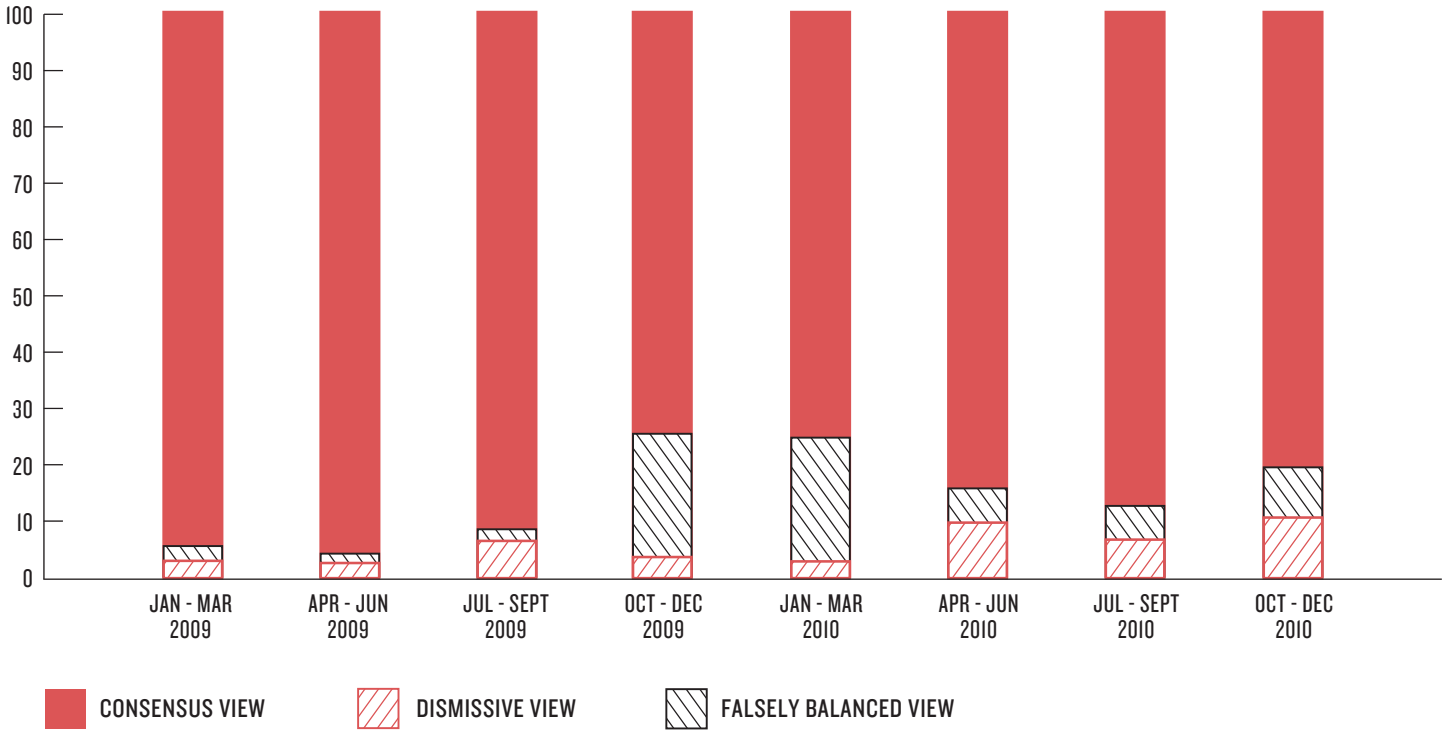
To understand how these national news organizations portrayed the reality and causes of climate change across this period, I randomly sampled within month one out of every four articles appearing at the five news organizations across the period Jan. 1, 2009, to Dec. 31, 2010, resulting in a representative sample of 413 news and opinion articles.

Specially-trained graduate students scored each article using a measure similar to that used in the Boykoff studies, recording whether the article conveyed the “consensus view” that humans play a role; the “falsely balanced view” that it is uncertain whether climate change is real and/or that humans are a cause; and the “dismissive view” that either climate change is not occurring or, if so, humans are not a cause. To ensure inter-subjectivity and consistency in coding, the three graduate students were first tested on a common, purposively chosen sample of 45

articles. The students agreed on coding decisions 72 percent of the time, with this test for reliability correcting for chance agreement ($K\text{-alpha} = .72$).²⁵

As Figure 3.3 shows, during the first nine months of 2009, at least 93 percent of all news and opinion articles published by the five news outlets reflected the consensus view that climate change is real and that humans are a cause. Between October 2009 and March 2010, as the Copenhagen meetings took place and debate over Climategate occurred, 75 percent of all articles reflected the consensus view. For the rest of 2010, as the Senate bill was debated and the mid-term elections took place, approximately 85 percent of coverage reflected scientific consensus.

FIGURE 3.3
PORTRAYAL OF REALITY AND CAUSES
OF CLIMATE CHANGE, 2009 TO 2010



NOTE: ANALYSIS BASED ON REPRESENTATIVE SAMPLE OF 413 ARTICLES APPEARING AT THE FIVE NEWS OUTLETS BETWEEN JAN. 1, 2009, AND DEC. 31, 2010. DATA IS AGGREGATED AND DISPLAYED BY THREE MONTH INTERVAL.

The figure displays trends in combined coverage by the five news organizations. In order to more carefully understand possible differences between these outlets, I examined each news organization’s coverage from Jan. 1, 2009, and Nov. 30, 2009, (before Copenhagen) and then between Dec. 1, 2009, and Dec. 31, 2010 (during and after Copenhagen).

As Table 3.1 indicates, across the two periods, at *The New York Times*, *The Washington Post* and *CNN.com*, approximately nine out of 10 news and opinion articles reflected the consensus view on climate change. As Table 3.2 shows, at *Politico* during this period, at least seven out of 10 articles portrayed the consensus view. Only at *The Wall Street Journal* did this trend not hold up, yet even in this case, the difference in portrayal was confined largely to the opinion pages. Across the two-year period, at least eight out of 10 news articles at the paper reflected

the consensus view, but at the opinion pages, less than half of articles asserted that climate change was real and that humans were a cause.

These findings specific to *The Wall Street Journal* are consistent with those from other recent studies. Analyzing coverage between 1997 and 2007, Australian communication researcher James McKnight notes the unique tendency by News Corporation-owned newspapers and TV outlets in the United Kingdom, Australia and the United States to emphasize in their commentary the uncertainty of climate change, framing consensus views on climate science as colored by political correctness and a matter of orthodoxy. In contrast, contrarians were defined as courageous dissenters.²⁶

ACROSS THE TWO PERIODS, AT *THE NEW YORK TIMES*, *THE WASHINGTON POST* AND *CNN.COM*, APPROXIMATELY NINE OUT OF 10 NEWS AND OPINION ARTICLES REFLECTED THE CONSENSUS VIEW ON CLIMATE CHANGE... AT *POLITICO* DURING THIS PERIOD, AT LEAST SEVEN OUT OF 10 ARTICLES PORTRAYED THE CONSENSUS VIEW. ONLY AT *THE WALL STREET JOURNAL* DID THIS TREND NOT HOLD UP...

TABLE 3.1
PORTRAYAL OF CLIMATE SCIENCE BY *THE NEW YORK TIMES*, *WASHINGTON POST*, AND *CNN.COM*, BEFORE AND AFTER COPENHAGEN

	NY TIMES PRE- COPENHAGEN (%)	NY TIMES POST- COPENHAGEN (%)	WPOST PRE- COPENHAGEN (%)	WPOST POST- COPENHAGEN (%)	CNN.COM PRE- COPENHAGEN (%)	CNN.COM POST- COPENHAGEN (%)
ALL ARTICLES						
CONSENSUS VIEW	98	87	93	88	96	96
FALSELY BALANCED VIEW	0	13	5	12	5	4
DISMISSIVE VIEW	2	0	2	0	0	0
SAMPLE SIZE	62	53	41	43	22	24
NEWS ARTICLES						
CONSENSUS VIEW	100	88	90	88	95	95
FALSELY BALANCED VIEW	0	13	11	13	5	5
DISMISSIVE VIEW	0	0	0	0	0	0
SAMPLE SIZE	37	32	19	16	19	21
OPINION ARTICLES						
CONSENSUS VIEW	96	83	96	87	100	100
FALSELY BALANCED VIEW	0	17	0	13	0	0
DISMISSIVE VIEW	5	0	4	0	0	0
SAMPLE SIZE	22	18	25	23	3	2

NOTE: "PRE" REFERS TO PERIOD LEADING UP TO COPENHAGEN MEETINGS, JAN. 1, 2009 TO NOV. 30, 2009. "POST" REFERS TO PERIOD DURING AND FOLLOWING COPENHAGEN MEETINGS, DEC. 1, 2009 TO DEC., 31 2010. VALUES ARE ROUNDED AND MAY TOTAL MORE THAN 100%.

TABLE 3.2**PORTRAYAL OF CLIMATE SCIENCE BY *POLITICO* AND *WALL STREET JOURNAL*, BEFORE AND AFTER COPENHAGEN**

	POLITICO PRE- COPENHAGEN (%)	POLITICO POST- COPENHAGEN (%)	WSJ PRE- COPENHAGEN (%)	WSJ POST- COPENHAGEN (%)
ALL ARTICLES				
CONSENSUS VIEW	90	77	76	55
FALSELY BALANCED VIEW	10	11	17	23
DISMISSIVE VIEW	0	13	7	23
SAMPLE SIZE	31	47	46	44
NEWS ARTICLES				
CONSENSUS VIEW	89	73	92	79
FALSELY BALANCED VIEW	12	14	7	21
DISMISSIVE VIEW	0	14	0	0
SAMPLE SIZE	26	37	28	19
OPINION ARTICLES				
CONSENSUS VIEW	100	89	50	30
FALSELY BALANCED VIEW	0	0	33	26
DISMISSIVE VIEW	0	11	17	44
SAMPLE SIZE	4	9	18	23

NOTE: "PRE" REFERS TO PERIOD LEADING UP TO COPENHAGEN MEETINGS, JAN. 1, 2009 TO NOV. 30 2009. "POST" REFERS TO PERIOD DURING AND FOLLOWING COPENHAGEN MEETINGS, DEC. 1, 2009 TO DEC., 31 2010. VALUES ARE ROUNDED AND MAY TOTAL MORE THAN 100%.

AS THIS ANALYSIS INDICATES, WITH THE EXCEPTION OF THE EDITORIAL PAGES AT *THE WALL STREET JOURNAL*, IN 2009 AND 2010 THE MAJOR NATIONAL NEWS ORGANIZATIONS OVERWHELMINGLY REFLECTED THE CONSENSUS VIEW ON THE REALITY AND CAUSES OF CLIMATE CHANGE.

CONCLUSION

As this analysis indicates, with the exception of the editorial pages at *The Wall Street Journal*, in 2009 and 2010 the major national news organizations overwhelmingly reflected the consensus view on the reality and causes of climate change.

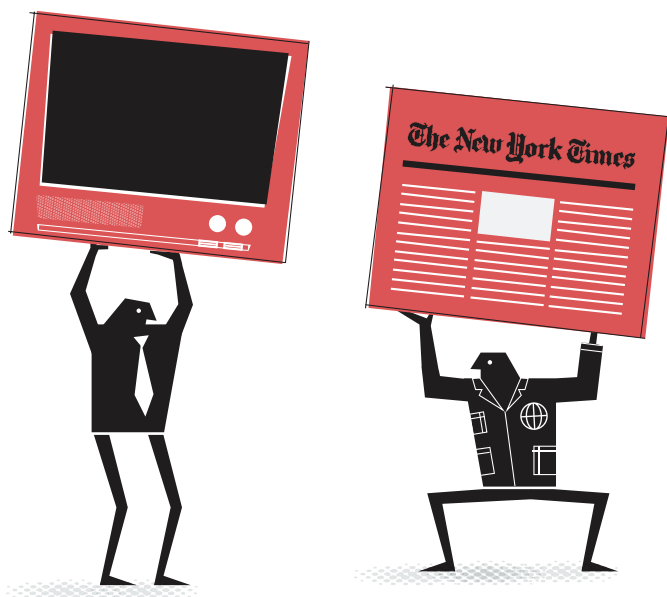
The analysis also suggests limited news attention to Climategate. After initial focus on the event in December 2009, with the exception of *The Wall Street Journal*, the event received scant follow-up from the other news outlets. At one level, many climate advocates view this as a flaw in the performance of organizations such as *The New York Times* and *The Washington Post*. These advocates claim that the outlets did not do enough in subsequent coverage to correct possible misperceptions among readers, especially when the scientists involved were later cleared of falsifying data.

A similar argument asserting that Climategate should have received more attention has been made, yet on very different grounds. As reviewed earlier, in this view, *The New York Times* and *The Washington Post* are faulted for not pursuing the story as aggressively as the UK newspaper *The Guardian*, which ran a 12-part series on the e-mails by veteran journalist Fred Pearce. Not only did the event reveal that a group of scientists had attempted to influence the peer-review process, block access to data and downplay uncertainty, but as Curtis Brainard later argued at the *Columbia Journalism Review*, the *Guardian* series provided an important opportunity for readers to learn about the social context that shapes peer review and research.²⁷

It is more difficult to assess other forms of false balance relative to the climate debate. In one notable example, in a Harvard University white paper analyzing how the U.S. media has covered the economic debate over climate change, journalist Eric Pooley strongly criticized his colleagues for balancing the

assessment provided by academic economists and nonpartisan agencies with the exaggerated economic impacts claimed by many conservative organizations and Republican leaders.²⁸

Finally, as discussed in Chapter 4, given the tendency of many audiences to selectively seek out and pay attention to ideologically confirming information, just a few prominently-placed op-eds or articles dismissing consensus views on climate change—or exaggerating the economic costs of action—can serve to reinforce doubt and strengthen opposition to such policy proposals as cap and trade.



ENDNOTES

- ¹ N. Oreskes, "Beyond the Ivory Tower: The Scientific Consensus on Climate Change," *Science* 306, no. 5702 (2004).
- ² MT Boykoff and JM Boykoff, "Balance as Bias: Global Warming and the U.S. Prestige Press," *Global Environmental Change* 14, no. 2 (2004).
- ³ I transcribed Gore's comments from the DVD of the film. Gore also draws the same comparison in his 2006 companion book to the film, A. Gore, *An Inconvenient Truth: The Planetary Emergency of Global Warming and What We Can Do About It* (Rodale Books, 2006).
- ⁴ A. Gore, *Our Choice: A Plan to Solve the Climate Crisis* (Rodale Books, 2009).
- ⁵ Blog post by Gore at: www.blog.algore.com/2010/12/fox_news_manipulates_climate_c.html.
- ⁶ M.T. Boykoff, "Flogging a Dead Norm? Newspaper Coverage of Anthropogenic Climate Change in the United States and United Kingdom from 2003 to 2006," *Area* 39, no. 4 (2007).
- ⁷ For a classic book-length discussion of these factors as applied to public affairs reporting generally, see P.J. Shoemaker and S.D. Reese, *Mediating the Message: Theories of Influences on Mass Media Content* (Longman, 1996). See also M. Schudson, "The Sociology of News Production," *Social Meanings of News: A Text Reader* (1997). Specific to climate change, see M.T. Boykoff, "From Convergence to Contention: United States Mass Media Representations of Anthropogenic Climate Change Science," *Transactions of the Institute of British Geographers* 32, no. 4 (2007). See also A. Anderson, "Media, Politics and Climate Change: Towards a New Research Agenda," *Sociology Compass* 3, no. 2 (2009).
- ⁸ Boykoff and his colleague Maria Mansfield have tracked the volume of coverage by month across major U.S. and world newspapers by searching the index terms in the LexisNexis database. A graph plotting these trends is available at: www.sciencepolicy.colorado.edu/media_coverage/.
- ⁹ Boykoff, "From Convergence to Contention: United States Mass Media Representations of Anthropogenic Climate Change Science."
- ¹⁰ In previous studies of science-related debates, I have examined the impacts on coverage of a switch from the science beat to the political and opinion beats. Increased attention from political reporters and commentators not only increases the total amount of coverage of an issue but also alters its framing, magnifying the focus on dramatic claims involving risks and benefits, on political figures and personalities and on conflict. See M.C. Nisbet and M. Hoge, "Attention Cycles and Frames in the Plant Biotechnology Debate," *The Harvard International Journal of Press/Politics* 11, no. 2 (2006).
- ¹¹ In this regard, sociologists Steve Hilgartner and Charles Bosk have compared the public, political actors and news organizations to social arenas that, like ecosystems, have a limited carrying capacity, meaning that each can only pay attention to a few problems at any given time. As one issue rises to attention, such as the economy or the mid-term elections in 2010, attention to other issues such as climate change declines. S. Hilgartner and C.L. Bosk, "The Rise and Fall of Social Problems: A Public Arenas Model," *American Journal of Sociology* 94, no. 7 (1988).
- ¹² K. McComas and J. Shanahan, "Telling Stories About Global Climate Change," *Communication Research* 26, no. 1 (1999).
- ¹³ See pg. 142 in Andrew Revkin, "Climate Change as News: Challenges in Communicating Environmental Science," in *Climate Change: What It Means for U.S., Our Children, and Our Grandchildren*, ed. P.M. Doughman, J.C. Dimention (Boston, Mass.: MIT Press, 2007). Available at: www.sass.caltech.edu/events/Revkin2007_CommunicatingClimateChange_BookChapter.pdf.
- ¹⁴ M. Boykoff, "The Real Swindle," *Nature Reports Climate Change* 2, no. 2 (2008). See also specifically the schematic on the problem of assessing bias apart from areas where there is clear convergence

in scientific agreement. Graph is based in part on talk by Andrew Revkin at the 2006 meetings of the Society for Environmental Journalists. Available at: www.nature.com/climate/2008/0803/fig_tab/climate.2008.14_F2.html.

¹⁵ Quoted from interview with *Yale Forum on Climate Change & the Media*. Available at: www.yaleclimatemediaforum.org/2010/05/climategate-coverage/.

¹⁶ UK journalist Fred Pearce did an extended series of articles for *The Guardian* newspaper on the incident that later were compiled in F. Pearce, "The Climate Files: The Battle for the Truth About Global Warming," (Guardian Books, 2010). Policy expert Roger Pielke Jr. raises concern about what the e-mails reveal relative to the advocacy role played by the scientists involved in R. Pielke, *The Climate Fix: What Scientists and Politicians Won't Tell You About Global Warming* (Basic Books, 2010). Judith Curry, chair of the Department of Atmospheric Sciences at the Georgia Institute of Technology, has noted her concerns via a series of widely read blog posts. See specifically: www.curry.eas.gatech.edu/climate/towards_rebuilding_trust.html.

¹⁷ Mike Hulme and Jerome Ravetz, "Show You're Working: What Climategate Means," *BBC News Online*, December 1 2009. Available at: www.news.bbc.co.uk/2/hi/8388485.stm.

¹⁸ Analyses by Pew find that more than 99 percent of links at major U.S public affairs blogs reference original reporting or commentary appearing first at the major U.S. legacy media. Bloggers tend to converge on a different agenda of issues from legacy media, and this has been the case in several instances relative to climate change, but the information that feeds the content of their discussion is almost exclusively drawn from legacy reporting. See Pew Project for Excellence in Journalism, "New Media, Old Media.," (Washington, DC 2010). Available at: www.journalism.org/analysis_report/new_media_old_media.

¹⁹ As will be discussed in Chapter 4, blog reading also is highly selective and strongly motivated by ideology and identity. If online users encounter

information that is falsely balanced or outright misleading at a conservative blog such as *Climate Depot*, it likely serves to reinforce already strongly dismissive views on climate change. The same is true if progressives or scientists encounter claims about conservative influence or biased media at a blog such as *Climate Progress*. Moreover, apart from direct readership by like-minded others, blogs also are presumed to influence news coverage of climate change. If that is the case, such influence should show up in the analysis of the five national news organizations. In sum, these are all important trends and questions that should be addressed in subsequent research.

²⁰ See discussion as part of the 2010 State of the Media report by the Pew Project for Excellence in Journalism. Available at: www.stateofthedia.org/2010/online-summary-essay/nielsen-analysis/.

²¹ Mark Leibovich, "The Man the White House Wakes up To," *The New York Times Magazine*, April 21 2010. Available at: www.nytimes.com/2010/04/25/magazine/25allen-t.html,

²² Cristine Russell, "From Copenhagen to Cancun: A Challenging Year for the Climate Story," *The Columbia Journalism Review*, November 24 2010. Available at: www.cjr.org/the_observatory/from_copenhagen_to_cancun.php?page=all.

²³ See analysis by Pew Project for Excellence in Journalism at: www.pewresearch.org/pubs/1439/media-coverage-debate-climate-gate.

²⁴ James Painter, "Summoned by Science: Reporting Climate Change at Copenhagen and Beyond," (Oxford, UK: Oxford University, 2010). Available at: www.reutersinstitute.politics.ox.ac.uk/publications/risj-challenges/summoned-by-science.html.

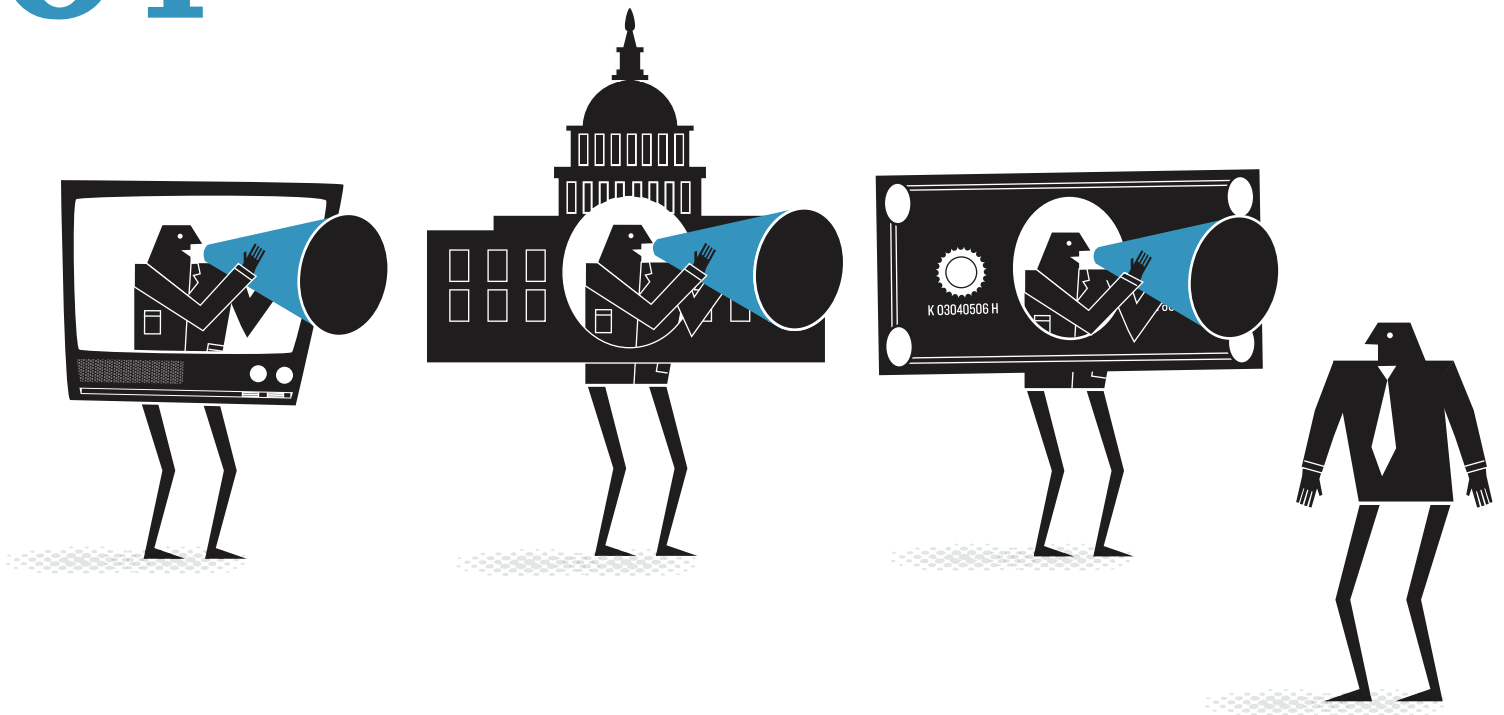
²⁵ See K. Krippendorff and A.F. Hayes, "Answering the Call for a Standard Reliability Measure for Coding Data," *Communication Methods and Measures* 1 (2007).

²⁶ David McKnight, "A Change in the Climate? The Journalism of Opinion at News Corporation," *Journalism* 11, no. 6 (2010).

²⁷ Curtis Brainard, “U.S. Press Digs into IPCC Story,” *The Columbia Journalism Review*, February 15 2010. Available at: www.cjr.org/the_observatory/us_press_digs_into_ipcc_story.php?page=all.

²⁸ E. Pooley et al., *How Much Would You Pay to Save the Planet?: The American Press and the Economics of Climate Change* (Joan Shorenstein Center on the Press, Politics and Public Policy, Harvard University, John F. Kennedy School of Government, 2009). Available at: www.hks.harvard.edu/presspol/publications/papers/discussion_papers/d49_pooley.pdf.

CHAP. 04



PROJECTIONS OF INFLUENCE: HOW IDEOLOGY COLORS PERCEPTIONS

The years 2006 and 2007 brought great hope to scientists and environmentalists that their efforts at communicating the urgency of climate change had pushed American consciousness across an important threshold. As public concern appeared to be rising, action in the form of cap and trade legislation seemed inevitable, especially with the Democratic takeover of Congress and the 2008 presidential election on the horizon.

At the center of this perceived tipping point was Al Gore and his film *An Inconvenient Truth*¹ In a two-year period that witnessed a record surge in news attention to climate change, Gore was featured on more than a dozen magazine covers, including *Vanity Fair*, *People* and *Rolling Stone*. As he made appearances at the MTV Music Awards, Grammys and the Academy Awards, journalists referred to him as the “Goracle” and labeled him a “rock star.”

A *Washington Post* headline declared Gore was “America’s Coolest Ex-Vice President Ever,”² and the media widely speculated whether he would run for president again. A *Time* cover story by Eric Pooley defined the decision as “The Last Temptation of Al Gore.”³

In Fall 2007, when Gore shared the Nobel Peace Prize with the IPCC scientists for “their efforts to build up and disseminate greater knowledge” about climate change, *The Washington Post’s* Paul Fahri wrote that Gore’s campaign had made “global warming into something more than just a debate among climatologists; it made the issue a water-cooler phenomenon, sparking conversation throughout the Oprah-sphere.”⁴

Yet today, in comparison to 2007, fewer Americans say that climate change is real, that they are worried about the issue or that it should be a

top priority. Moreover, the difference between how Republicans and Democrats view the issue is wider today than at any time in history. Perhaps no other dimension of the climate change debate generates as much frustration for scientists and environmentalists as the perceived turnaround in public opinion since 2007; a condition blamed strongly on the communication efforts of conservative groups, commentators, and elected officials.

However, the factors shaping the downward trends and polarization are complex and not easily reducible to a single cause. As I discuss in this chapter, studies and polling evidence point to a clear, if not central, role for the economy and unemployment. Public opinion is similarly influenced by political mood and by evaluations of political leaders such as Gore. Studies also show that perceptions of the problem are linked strongly to the specific policies pursued, especially in the context of an economic recession and an era of strong distrust in government. Research is less clear about the wider impact on public opinion from conservative outlets such as Fox News or from Climategate.

Finally, just as economic circumstance, political mood and ideology shape the public's judgments, they also influence the outlook of scientists and environmentalists. To understand this process, I analyzed a recent survey of members of the American Association for the Advancement of Science. In comparison to the public and other social groups, AAAS members are on the whole disproportionately partisan and ideological in their outlook. These factors impact how they seek out information, reach judgments about climate politics, assign blame for inaction and evaluate the media.

THE ECONOMY AND OUR FINITE POOL OF WORRY

Social psychologists describe the public as having a "finite pool of worry." As one perceived risk gains attention, other risks often are bumped from concern. Perhaps no other issue has the ability to swamp public attention to a greater extent than the economy and unemployment. Unlike the diffuse, creeping nature of climate change, the economy and unemployment for many Americans provide daily and powerful reminders of their vulnerability.⁵

Consider the inverse relationship between concern for jobs and concern for the environment. As

Figure 4.1 displays, in 2007, unemployment stood at its lowest level since the Clinton-era boom years. That year, an equal 57 percent of Americans named both jobs and the environment as top policy priorities. Yet by 2009, unemployment had jumped to 9.3 percent. When Obama took office, 83 percent named jobs a top priority, compared with 41 percent who defined the environment in similar terms and 30 percent who said global warming was a leading concern. A similar downturn occurred between 2002 and 2003, as the economy struggled after the September 11 terrorist attacks. The threat of terrorism along with war also likely taxed the ability of the public to turn its concern to the environment. Gallup data reflects an identical inverse relationship between public worry over climate change and the unemployment rate over the same time period, 1997 to 2011.⁶

In a 2010 study, economists Matthew Kahn and Matthew Kotchen investigated directly the linkages between the economic recession that hit the United States in 2007 and the subsequent downturn in climate change concern.⁷ Analyzing Google search trends, they discovered that in states with higher unemployment rates, given a limited pool of worry, individuals were much less likely to search for information about global warming. Turning to national survey data, after controlling for demographics, they found that individuals living in states with higher unemployment rates were appreciably less concerned and more dismissive of climate change.

Lastly, they examined polling data from California, analyzing the relationship between a survey respondent's attitudes and the unemployment rate in their surrounding county. After controlling for demographics, Kahan and Kotchen's analysis showed that even in pro-environment California, a significant increase in the local unemployment rate could decrease the perceived priority of the environment by as much as 50 percent. Reflecting on their three analyses, the economists concluded "the general pattern is clear: higher unemployment rates—at least when levels reach those observed during the recent recession—erode public concern about the environment." Conversely, they observed, elevated concern only is likely to occur during periods of relative economic boom.

In sum then, the elevated public concern over climate change that occurred in 2006 and 2007

corresponded to a decade low in unemployment. In recent years as unemployment has risen sharply, the perceived priority of the issue has dropped. Beyond this trend data, the study by Kahan and Kotchen demonstrates the strong linkages between individual perceptions of climate change and state and local unemployment. The Congressional Budget Office projects unemployment rates will not return to the 2006 and 2007 lows until 2015, suggesting that an upward shift in public concern with climate change may be unlikely over the next half-decade.⁸

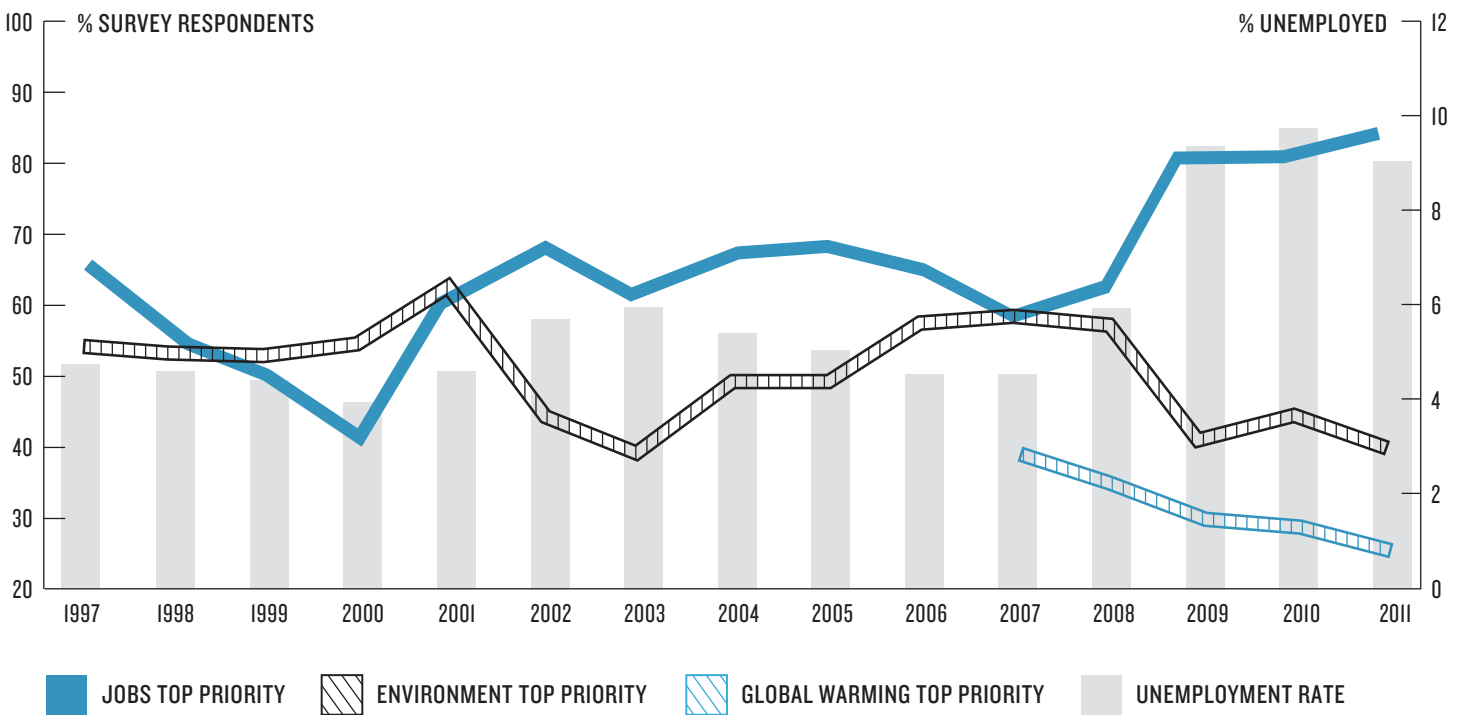
POLITICAL LEADERS AND POLARIZATION

Not only did 2006 and 2007 mark decade lows for unemployment, those same years were also unique politically. As Figure 4.2 indicates, elevated

concern with climate change came not only as economic conditions improved, but also during a period of intense dissatisfaction with George W. Bush.

This political mood would eventually propel Barack Obama to an election victory in 2008, but before Obama's candidacy gained momentum, the same political sentiment fueled the re-emergence of Gore and the 2006 Democratic takeover of Congress. In short, to understand shifts in public opinion about climate change between 2000 and 2008 necessitates also understanding the rise and fall in public esteem of the country's two most prominent political figures.

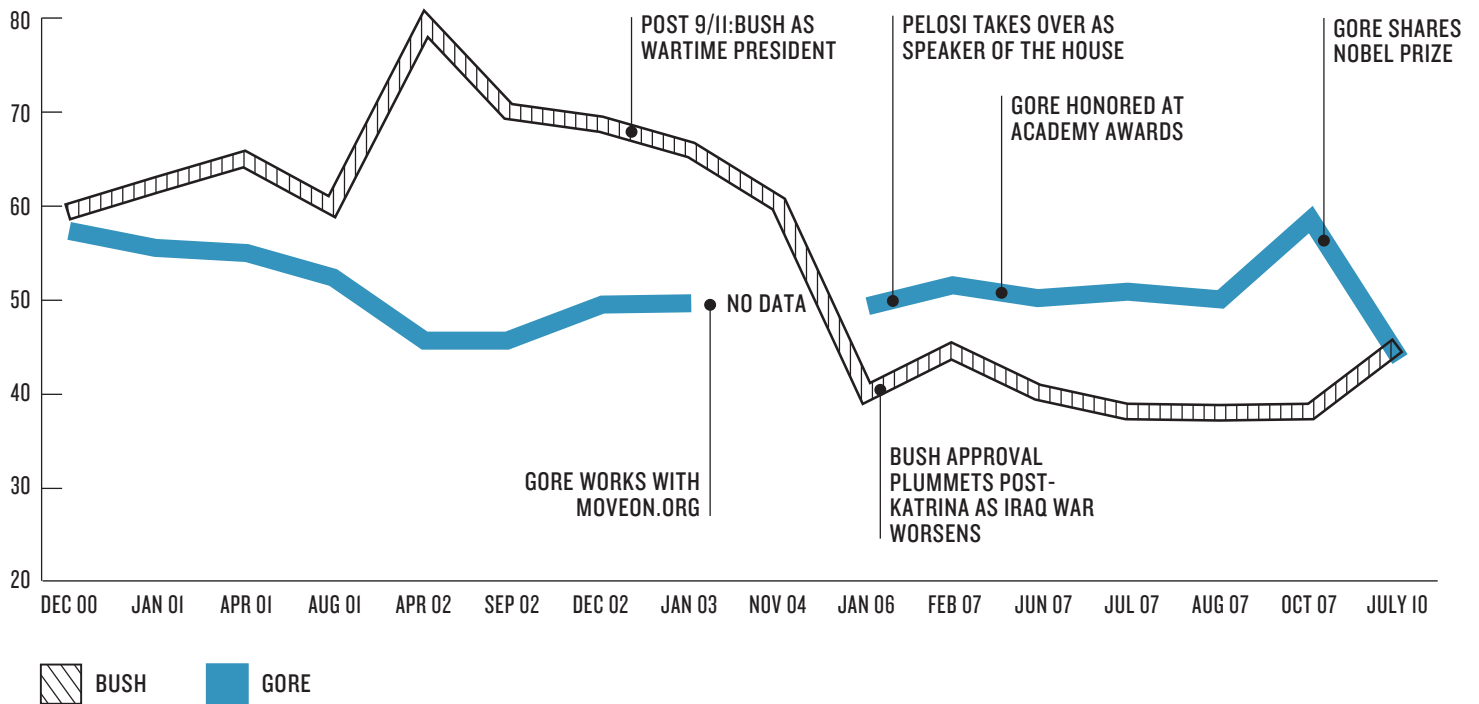
FIGURE 4.1
THE RELATIONSHIP BETWEEN THE ECONOMY AND THE PERCEIVED PRIORITY OF THE ENVIRONMENT/GLOBAL WARMING



NOTE: RESPONDENTS WERE ASKED: "I'D LIKE TO ASK YOU SOME QUESTIONS ABOUT PRIORITIES FOR PRESIDENT-ELECT OBAMA AND CONGRESS THIS YEAR. AS I READ FROM A LIST, TELL ME IF YOU THINK THE ITEM THAT I READ SHOULD BE A TOP PRIORITY, IMPORTANT BUT LOWER PRIORITY, NOT TOO IMPORTANT OR SHOULD IT NOT BE DONE: ..."IMPROVING THE JOB SITUATION"... "PROTECTING THE ENVIRONMENT" ... "DEALING WITH GLOBAL WARMING." UNEMPLOYMENT RATE FOR JANUARY OF EACH YEAR, CORRESPONDING TO THE TIME OF THE ADMINISTERED SURVEY.

SOURCE: PEW CENTER FOR PEOPLE AND THE PRESS.

FIGURE 4.2
PERCENTAGE OF PUBLIC WITH “FAVORABLE”
OPINION OF GEORGE W. BUSH OR AL GORE



NOTE: RESPONDENTS WERE ASKED: “WE’D LIKE TO GET YOUR OVERALL OPINION OF SOME PEOPLE IN THE NEWS. AS I READ EACH NAME, PLEASE SAY IF YOU HAVE A FAVORABLE OR UNFAVORABLE OPINION OF THESE PEOPLE -- OR IF YOU HAVE NEVER HEARD OF THEM. HOW ABOUT?” DATA IS DISPLAYED ONLY FOR YEARS AND MONTHS WHERE QUESTION WAS ASKED BOTH FOR BUSH AND FOR GORE.

SOURCE: GALLUP ORGANIZATION.

Individuals are not passive recipients of information, especially individuals who identify strongly as a Republican or Democrat. Faced with an almost constant torrent of news and information, to reduce uncertainty and reach quick judgments, partisans engage in what social psychologists refer to as motivated reasoning. They choose and seek out information sources, and selectively interpret the information they find through the lens of their political identity. In this process, it is rare that someone with a strong political orientation changes their mind about a public figure or issue. Instead, the process of selective information seeking and interpretation serves to intensify their existing viewpoints.⁹

Much discussion and attention has focused on the differences in perceptions about climate change

that exist between self-identifying Republicans and Democrats. Studies find both groups answer that they are well-informed about the issue and are certain of their views, but they view the reality of the problem very differently.¹⁰ Indeed, climate change has joined more traditionally divisive political issues such as torture, gun control, abortion and taxes in defining what it means to be a strong partisan in American politics.¹¹

Justifiable blame has been attributed to the George W. Bush administration and conservatives who through their policy positions and message strategies have reinforced the gap in perceptions between Republicans and Democrats on the issue. Largely overlooked, however, is the role that Democratic leaders, most notably Gore, have played in contributing to the polarization that exists today.

Stanford University communication researcher Jon Krosnick and University of Illinois colleague Allyson Holbrooke trace the origin of political polarization to the 1997 campaign by the Clinton White House to rally public support for a treaty at the December international meetings in Kyoto, Japan. This campaign dramatically increased overall news attention to climate change, more than doubling newspaper coverage over previous months and catalyzing a tenfold increase in TV coverage.¹²

The increased attention was driven primarily by the suddenly magnified political relevance of the story, triggering coverage from political reporters, commentators and political cartoonists. According to Krosnick's analysis, the majority of this coverage reflected a consensus view on the causes and threats of climate change, yet paired with these assertions about the science were even more accessible messages from Clinton, Gore and opposing Republican leaders about the political relevance of the issue.

Analyzing public opinion, Krosnick and Holbrooke find there was little change in aggregate public views across the period of the campaign. Yet behind this aggregate, given the messaging led by the White House and the response from conservatives, strong Democrats grew more concerned and engaged on the issue, while strong Republicans grew more dismissive. Views on the reality of climate change moved from a 5 percent difference to an 18 percent gap among partisans. Support for regulating air pollution from businesses moved from a 4 percent to a 14 percent difference.

As Krosnick and Holbrooke conclude, the White House goal was not to build cross-cutting, bipartisan mobilization in support of Kyoto, but rather to rally a strongly Democratic base—approximately 10 percent of the public—who would contact and petition Congress to support the treaty.

Over the past decade, the propensity for Gore and conservatives to use climate change to mobilize their respective bases has intensified the polarization that began with the 1997 Clinton Kyoto campaign. As Gore has worked tirelessly to translate climate science for the public, he has also consistently sought to mobilize progressives politically.

Following his loss in 2000, as Gore returned to delivering his slideshow on climate change, he began in 2002 to partner with MoveOn.org delivering

speeches critical of the Bush administration's policies on Iraq, the economy, terrorism and climate change.¹³ In May 2004, with the release of the blockbuster film *The Day After Tomorrow*, Gore joined with MoveOn.org and environmental groups in an effort to use the film as a "teachable moment" with the summer blockbuster billed as the environmental movement's equivalent to *The Passion of the Christ*.¹⁴

"The Bush administration is in some ways even more fictional than the movie in trying to convince people that there is no real problem, no degree of certainty from scientists about the issue," Gore told reporters at a MoveOn.org event that also featured scientists.¹⁵ Though receiving far less attention than *The Passion*, the climate disaster film generated 10 times as much coverage as the 2001 IPCC report, with political stories comprising 37 percent of this coverage.¹⁶

In 2007, boosted by the media attention generated by *An Inconvenient Truth* and his receipt of the Nobel prize, Gore's popularity crested at 58 percent (see Figure 4.2). In contrast, Bush's favorability had hit an all-time low the same year, with public esteem eroded by the war in Iraq and reinforced by his handling of Hurricane Katrina. As mentioned at the outset of this chapter, the media widely speculated as to whether the Goracle would run for president. In April 2008, as his WE campaign began its bipartisan advertising campaign (see Chapter 1), Gore continued his prominent role as a partisan leader, appearing at Democratic fundraisers, endorsing Obama in June and delivering a primetime speech at the Democratic National Convention in August.

The six years of Gore's political campaigning on climate change had mobilized a base of concern among Democrats but reinforced disbelief among Republicans. In 2002, according to Gallup trends analyzed by sociologists Riley Dunlap and Aaron McCright, 56 percent of Democrats thought the effects of global warming already had begun, compared with 46 percent of Republicans. By 2008, Bush's last year in office, Gore's efforts had helped boost belief among Democrats to 76 percent, while belief among Republicans remained virtually unchanged at 41 percent.¹⁷ Survey research conducted by Stanford's Krosnick finds a similar pattern across the same period. Additionally, he reports that even though they viewed the issue very differently, strong Democrats and Republicans each held similar

GORE REMAINS THE PUBLIC FIGURE MOST CLOSELY ASSOCIATED WITH CLIMATE CHANGE—BOTH THE SCIENCE AND THE POLICY—AND YET IN 2010 ONLY 44 PERCENT OF AMERICANS HAD A FAVORABLE IMPRESSION OF GORE, A LEVEL EQUIVALENT TO THAT OF GEORGE W. BUSH (45 PERCENT) AND SARAH PALIN (44 PERCENT).

levels of knowledge and were equally certain of their opinions.¹⁸

By 2010, the country's political mood had shifted right of center. This new political mood, combined with Gore's divorce and news stories alleging sexual misconduct, likely contributed to a 14 percent drop in his favorability (see Figure 4.2). Gore remains the public figure most closely associated with climate change—both the science and the policy—and yet in 2010 only 44 percent of Americans had a favorable impression of Gore, a level equivalent to that of George W. Bush (45 percent) and Sarah Palin (44 percent).¹⁹

THE POLICY-DEPENDENT NATURE OF PERCEPTIONS

Just as public opinion needs to be considered in the context of the economy and the role of prominent political figures, belief in the reality and risks of climate change is also linked to the proposed policy solutions. In a 2010 paper, Patrick Moynihan and Gary Langer, directors of survey research at Harvard University and ABC News, respectively, and Peyton Craighill, a Democratic pollster, described the policy-dependent nature of climate change perceptions.²⁰ Analyzing survey data from 2008 and 2009, they assert it is wrong to assume questions asking about the causes and impacts of climate change are in fact measuring knowledge.

Instead, answers to these questions are much more likely to be indirect opinions about cap and trade policy and a Kyoto-style international agreement. In recent years, as Democrats have grown more accepting of the role of humans in causing climate change and Republicans have remained little changed in their outlook, their answers to these survey questions are likely “a vehicle to express

antipathy toward the solution, not to voice firm belief in the existence of the problem,” conclude the polling experts.

In a series of studies, Yale University's Dan Kahan and colleagues reach a similar conclusion. These studies have examined how perceptions of scientific consensus on climate change vary by an individual's underlying cultural values and in relation to the inferred course of policy action.²¹ In this research and in earlier studies conducted by Yale's Anthony Leiserowitz,²² people who are strongly individualistic and hierarchical in their worldviews tend to reject the conclusions of climate science because they see consensus as supporting policy actions that constrain free market choices or industry. They similarly reject scientific information when it is conveyed by someone such as Gore, whom they view as not sharing their values. This process of motivated reasoning maps closely to partisan and ideological differences, as individualistic and hierarchical values are more strongly held among conservative Republicans than liberal Democrats.²³

THE IMPACT OF FOX NEWS AND CLIMATEGATE

In combination with the factors reviewed so far, individuals also integrate frames of reference provided by the media into their pre-existing beliefs and opinions. Media messages, however, rarely alter the views of those already engaged on an issue. Instead, motivated reasoning leads strongly partisan individuals to selectively seek out, pay attention to and accept congenial arguments and information, ignoring if not outright rejecting those arguments with which they are likely to disagree. This process means that the use of conservative media outlets such as Fox News and focusing events such as Climategate tend to reinforce existing views about climate change rather than altering them.²⁴

Stanford's Krosnick in experimental studies finds that subjects who watched a falsely balanced news portrayal of climate change afterward were less worried and concerned about climate change than subjects who had watched a clip portraying only a consensus view of the problem.²⁵ Yet consider how this process likely plays out in the real world.

The most readily available media source where individuals are likely to encounter falsely balanced coverage of climate change is Fox News. In a 2010 survey, Krosnick finds that about one-third of Americans can be classified as frequent viewers of Fox News and about 15 percent watch the network every day. In his analysis, though a majority of Fox News viewers believed in manmade climate change and trusted scientists, this percentage was lower than for regular viewers of other TV sources. Krosnick attributes the findings to motivated reasoning. Conservative-leaning individuals who already hold stronger doubts about climate change are more likely to view Fox News, and this viewing reinforces these doubts.²⁶

A recent study led by American University's Lauren Feldman arrives at similar conclusions. Feldman and her colleagues compared coverage in 2007 and 2008 at Fox News with coverage by CNN and MSNBC. Not only did Fox include a stronger proportion of dismissive guests and assertions, Fox also featured heavier coverage on the issue than the other two cable networks. Analyzing survey data from 2007, Feldman and her colleagues find that in comparison to viewers at other networks, Fox News viewers were slightly less likely to think scientists agreed on climate change, that humans were a cause and that climate change was occurring.²⁷

Feldman and her colleagues noted an important additional finding. Republicans who watched CNN and MSNBC were more concerned about climate change than their partisan counterparts among Fox News viewers. A similar influence, however, was not observed by Democrats who regularly watched Fox News. Among the possible explanations for this finding, they suggest, is that the views of Republicans on climate change may be less solidified than Democrats, thereby making them more easily influenced by the content of cable news.

Similar factors related to selective attention and motivated reasoning apply to understanding the impact of Climategate on public opinion. Analyzing national survey data from January 2010, Anthony

Leiserowitz and Edward Maibach find that just 25 percent of Americans were aware of and had followed news of the controversy. Moreover, just 12 percent of all respondents said the event had diminished their certainty that climate change was happening and these expressed doubts were held strongest among those respondents scoring high on individualist/conservative values.²⁸

Evaluating aggregate trends in public trust of climate scientists between 2008 and the end of 2009, Stanford's Jon Krosnick additionally reports no discernible influence on public opinion: "My guess is that relatively few Americans are aware of the media controversy or are paying attention to it, and even fewer are influenced by it. The scientific community is overreacting to these events," concluded Krosnick.²⁹

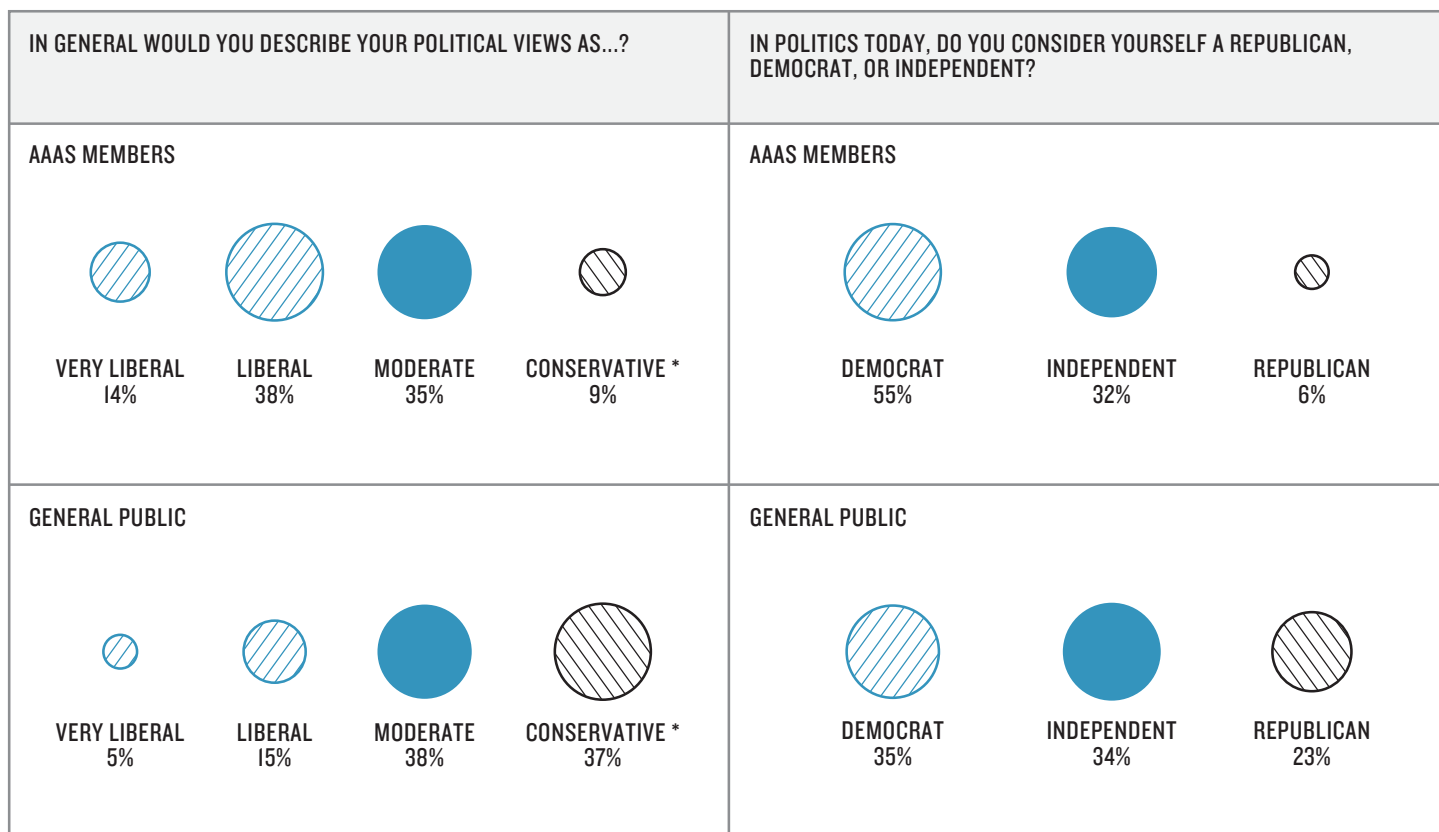
THE POLITICAL VIEWS OF AAAS MEMBERS

As discussed, considerable attention and research has focused on the factors shaping public perceptions of climate change. To date, however, there has been little analysis of how similar factors might influence the perceptions of scientists and environmentalists as a political community. For these professionals, much like the public, they are likely to rely heavily on their ideology and selective information sources to form opinions and judgments.

In 2009, Pew conducted a representative survey of 2,535 members³⁰ of the American Association for the Advancement of Science (AAAS). With an annual \$70 million budget, AAAS publishes *Science* magazine and educates policymakers, the media, the public and its members on a range of issues, including climate change. To examine how AAAS members as a political community view the debate over climate change, its seriousness and related political events, I downloaded the 2009 Pew survey data and ran several analyses not included in the corresponding Pew report.³¹

To be clear, the survey of AAAS members is by no means representative of scientists who are actively engaged in climate change research. On the reality and causes of climate change, there is no debate among these specialists. A 2009 survey of 3,100 earth scientists found that among the most productive climate change researchers, 96 percent thought temperatures had risen over the past century and 97 percent thought humans were a cause.³² Respondents to the AAAS survey instead are

FIGURE 4.3
IDEOLOGICAL AND PARTISAN DIFFERENCES BETWEEN
AAAS MEMBERS AND THE PUBLIC



NOTE: BUBBLE SIZE IS PROPORTIONATE TO PERCENTAGE OF RESPONDENTS SELF-IDENTIFYING BY EACH IDEOLOGICAL CATEGORY. FOR AAAS MEMBERS, THE "CONSERVATIVE" CATEGORY INCLUDES 8% "CONSERVATIVE" AND 1% "VERY CONSERVATIVE." FOR THE PUBLIC, THE "CONSERVATIVE" CATEGORY INCLUDES 30% "CONSERVATIVE" AND 7% "VERY CONSERVATIVE." PERCENTAGES DO NOT TOTAL 100 SINCE SOME RESPONDENTS CHOSE "NO ANSWER" OR "OTHER" TO THE QUESTIONS ON IDEOLOGY AND PARTISANSHIP.

SOURCE: 2009 SURVEYS CONDUCTED BY PEW CENTER FOR PEOPLE AND THE PRESS. N= 2,535.

representative of the organization’s interdisciplinary and professional composition, with 44 percent of members working in the biological, medical or agricultural sciences (see Table 4.2).^{33 34}

As Figure 4.3 shows, members of AAAS are strongly left-leaning and ideological. More than half self-identify as either liberal or very liberal, only roughly a third as moderate, and just 9 percent as conservative. In comparison, 37 percent of the public identify as conservative, 38 percent as moderate and just 20 percent as either liberal or very liberal. AAAS members are also strongly partisan. Approximately

55 percent of AAAS members identify as a Democrat, 32 percent as Independent and only 6 percent as Republican. In comparison, 35 percent of the public identifies as a Democrat, 34 percent as an Independent and 23 percent as a Republican.

In Tables 4.1 – 4.3, I include details on the educational, disciplinary and employment sector background of the AAAS survey respondents and the ideological distribution within each category. As Table 4.1 shows, 51 percent of AAAS members hold a Ph.D./D.Sc. or a joint Ph.D./M.D. Somewhat surprisingly, there is little variation in ideological outlook by educational background. Across each educational level, at least 46 percent self-identify as either liberal or very liberal. Self-identification as conservative varies only between 8 percent to 14 percent, not counting the three dental degree holders in the sample.

Similarly, as Table 4.2 details, there is limited ideological variation by employment sector. In this case, 41 percent of AAAS members work at a university or college, 10 percent in industry and 7 percent in government. Yet even among those working in industry, 44 percent self-identify as either liberal or very liberal and only 13 percent as conservative.

Finally, as Table 4.3 indicates, there is an equivalent lack of ideological variation by disciplinary background. At least 45 percent of respondents across discipline self-identify as liberal or very liberal. Across disciplines, those identifying as conservative varies only between 4 percent to 15 percent. Of note, approximately two-thirds of AAAS members in the social and behavioral sciences self-identify as liberal or very liberal.

The reasons for the limited variation in ideology across AAAS members requires further research. Political ideology is a socialized outlook beginning in childhood that most adults carry across their lifespan. Though individuals will shift their partisan identity marginally—for example, from Republican to Republican-leaning Independent—ideological outlook usually does not change in reaction to political events (i.e., the perceived attacks on science by conservative leaders.)

TABLE 4.1
IDEOLOGY BY EDUCATIONAL BACKGROUND OF AAAS MEMBERS

	VERY LIBERAL (%)	LIBERAL (%)	MODERATE (%)	CONSERVATIVE (%)	NUMBER OF RESPONDENTS	PROPORTION OF RESPONDENTS (%)
PH.D./D.SC.	15	40	35	8	1204	48
BACHELORS	16	40	31	12	248	10
MASTERS	13	33	42	11	203	8
M.D.	10	45	34	10	120	5
PH.D & M.D.	16	32	43	10	85	3
OTHER	27	33	27	12	35	1
LLB/J.D.	29	43	14	14	8	.3
D.D.S.	0	50	50	0	3	.1
UNSPECIFIED	14	37	40	10	628	25

NOTE: CELLS ARE ROUNDED AND THEREFORE MAY NOT TOTAL 100.

SOURCE: 2009 SURVEY CONDUCTED BY PEW CENTER FOR PEOPLE AND THE PRESS. SAMPLE SIZE= 2,535.

TABLE 4.2

IDEOLOGY BY EMPLOYMENT SECTOR OF AAAS MEMBERS

	VERY LIBERAL (%)	LIBERAL (%)	MODERATE (%)	CONSERVATIVE (%)	NUMBER OF RESPONDENTS	PROPORTION OF RESPONDENTS (%)
UNIVERSITY/COLLEGE	16	44	33	6	1034	41
INDUSTRY/BUSINESS	13	31	43	13	258	10
GOVERNMENT	13	40	40	8	175	7
STUDENT	17	41	29	12	177	7
NONPROFIT ORGANIZATION	18	39	38	6	108	4
HEALTH CARE	8	40	42	10	80	3
RETIRED	12	35	42	11	74	3
HOSPITAL	15	46	39	0	15	.6
OTHER	11	39	25	15	240	10
UNSPECIFIED	15	33	42	11	374	15

NOTE: CELLS ARE ROUNDED AND THEREFORE MAY NOT TOTAL 100.

SOURCE: 2009 SURVEY CONDUCTED BY PEW CENTER FOR PEOPLE AND THE PRESS. SAMPLE SIZE= 2,535.

Given that nearly half of AAAS members hold Ph.D.s and work at universities, they are comparable in background and ideological outlook to university professors more generally. A 2007 survey analysis by sociologists Neil Gross and Solon Simmons finds that university, college and junior college faculty across disciplines self-identified 44 percent as liberal, 46 percent as moderate and 9 percent as conservative.³⁵ To explain these findings, a team of political scientists recently has argued that starting in college, liberal-leaning students are more likely to choose a path toward a Ph.D., whereas conservative-leaning students select majors that are business oriented.³⁶ A similar self-selection process has been argued by sociologists to explain why scientists are far less likely to be religious than the public at large.³⁷

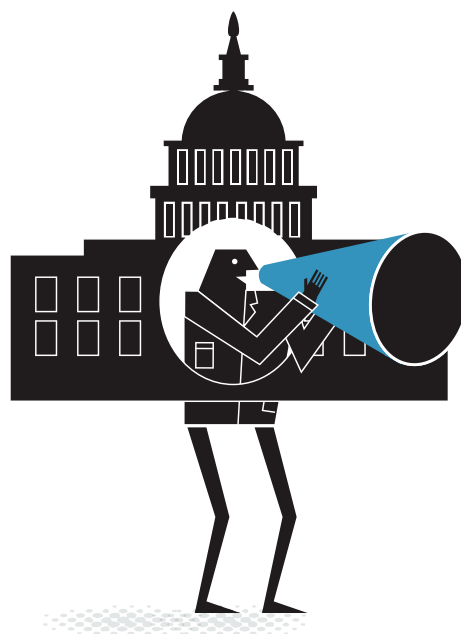


TABLE 4.3
IDEOLOGY BY DISCIPLINARY AFFILIATION OF AAAS MEMBERS

	VERY LIBERAL (%)	LIBERAL (%)	MODERATE (%)	CONSERVATIVE (%)	NUMBER OF RESPONDENTS	PROPORTION OF RESPONDENTS (%)
AGRICULTURE, BIOLOGICAL & MEDICAL SCIENCES	14	44	36	7	1088	44
CHEMISTRY	10	35	43	12	275	11
ENGINEERING	11	37	38	15	158	7
SOCIAL & BEHAVIORAL SCIENCES	27	38	31	4	165	7
PHYSICS & ASTRONOMY	15	39	33	13	148	6
EARTH SCIENCES	20	39	33	10	126	5
MATHEMATICS & COMPUTER SCIENCE	20	35	32	14	87	4
UNSPECIFIED	14	35	41	11	406	16

NOTE: CELLS ARE ROUNDED AND THEREFORE MAY NOT TOTAL 100.

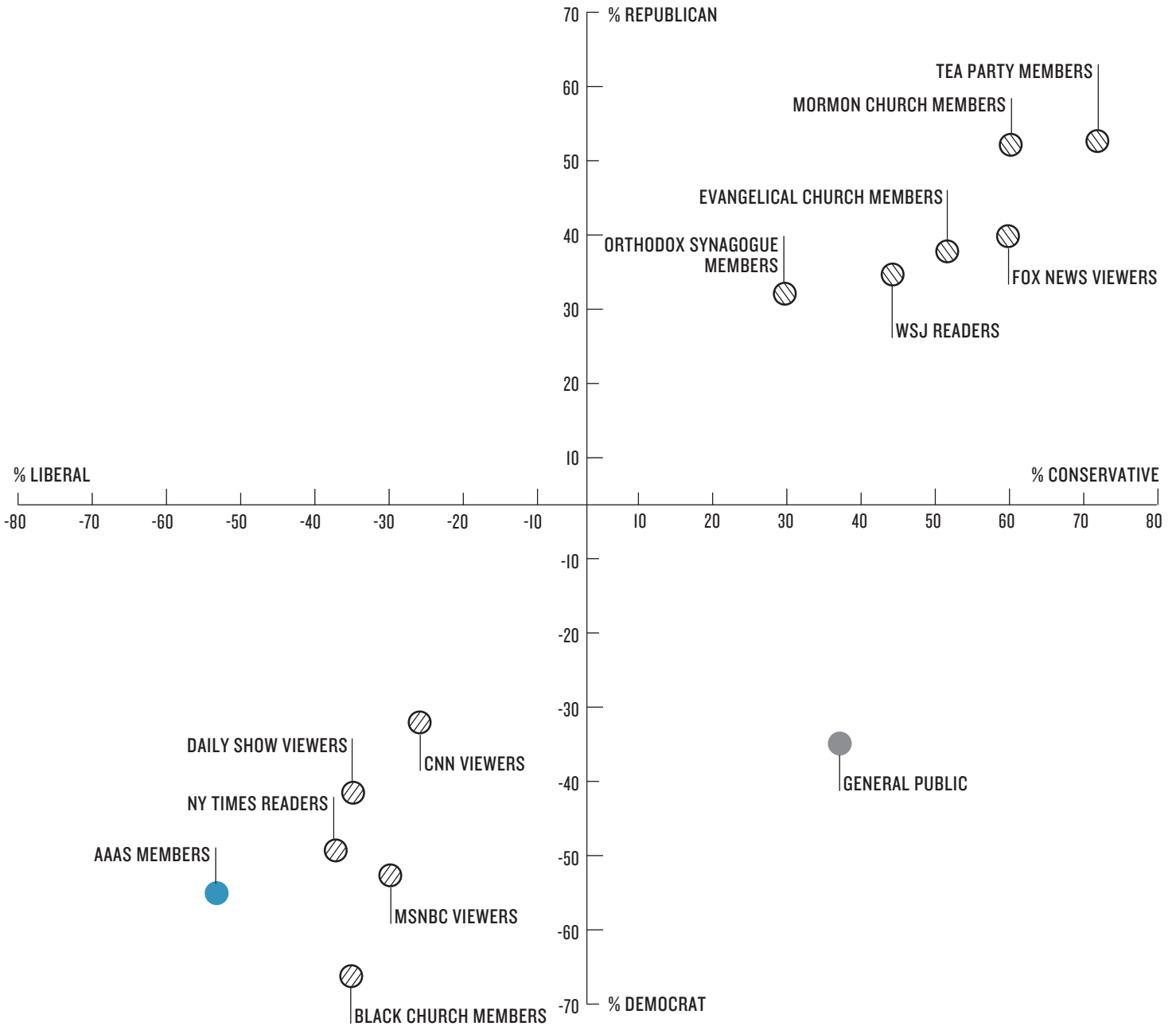
SOURCE: 2009 SURVEY CONDUCTED BY PEW CENTER FOR PEOPLE AND THE PRESS. SAMPLE SIZE= 2,535.

COMPARING AAAS MEMBERS TO OTHER SOCIAL GROUPS

As the data show, AAAS members are strongly like-minded in terms of ideology and partisanship. With “moderate” and “independent” the mid-points in a continuum of political identity, more than a majority of AAAS members declare themselves to the left of these outlooks. In Figure 4.4, I compare AAAS members with other politically relevant social groups on a matrix that plots these groups by proportion as Democrat/Republican and Liberal/Conservative. As the figure depicts, there is considerable ideological and partisan distance between AAAS members, the general public and many other politically relevant social groups.

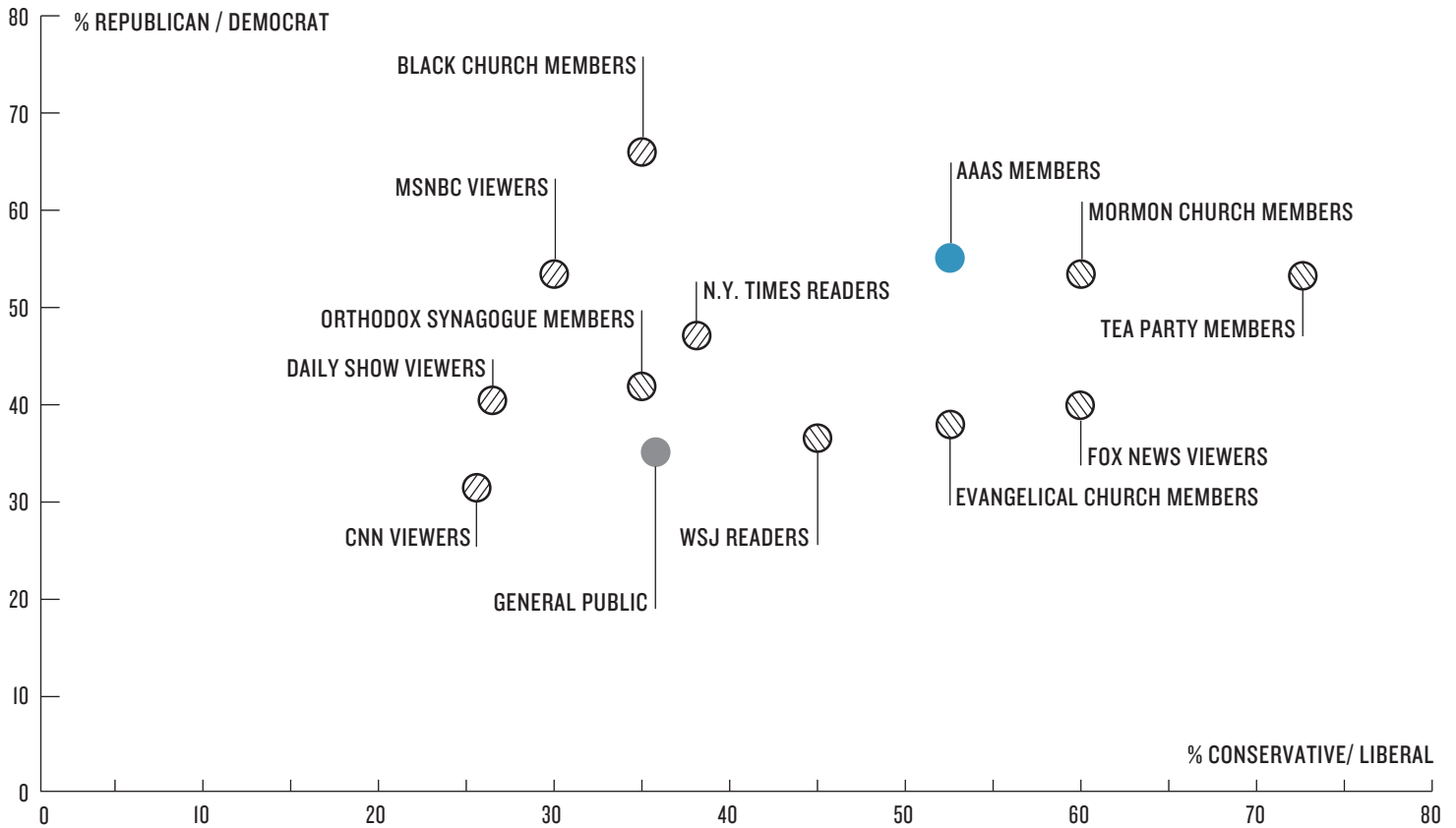
I then “folded” the graph to compare like-mindedness of groups regardless of ideological or partisan direction. As depicted by Figure 4.5, in comparison to other social groups for which data is available, AAAS members rank among the most partisan and ideological. AAAS members are as ideologically like-minded as evangelical church members and substantially more partisan. Only black church members exhibit a stronger partisan lean than AAAS members and only Fox News viewers, Mormon Church members and Tea Party members exhibit a stronger ideological lean.

FIGURE 4.4
IDEOLOGICAL AND PARTISAN DISTANCE BETWEEN
AAAS MEMBERS AND OTHER SOCIAL GROUPS



SOURCE: PEW CENTER FOR PEOPLE AND THE PRESS; PEW PROJECT ON RELIGION AND PUBLIC LIFE.

FIGURE 4.5 IDEOLOGICAL AND PARTISAN LIKE-MINDEDNESS ACROSS SOCIAL GROUPS



SOURCE: PEW CENTER FOR THE PEOPLE AND THE PRESS; PEW RELIGION AND PUBLIC LIFE PROJECT.

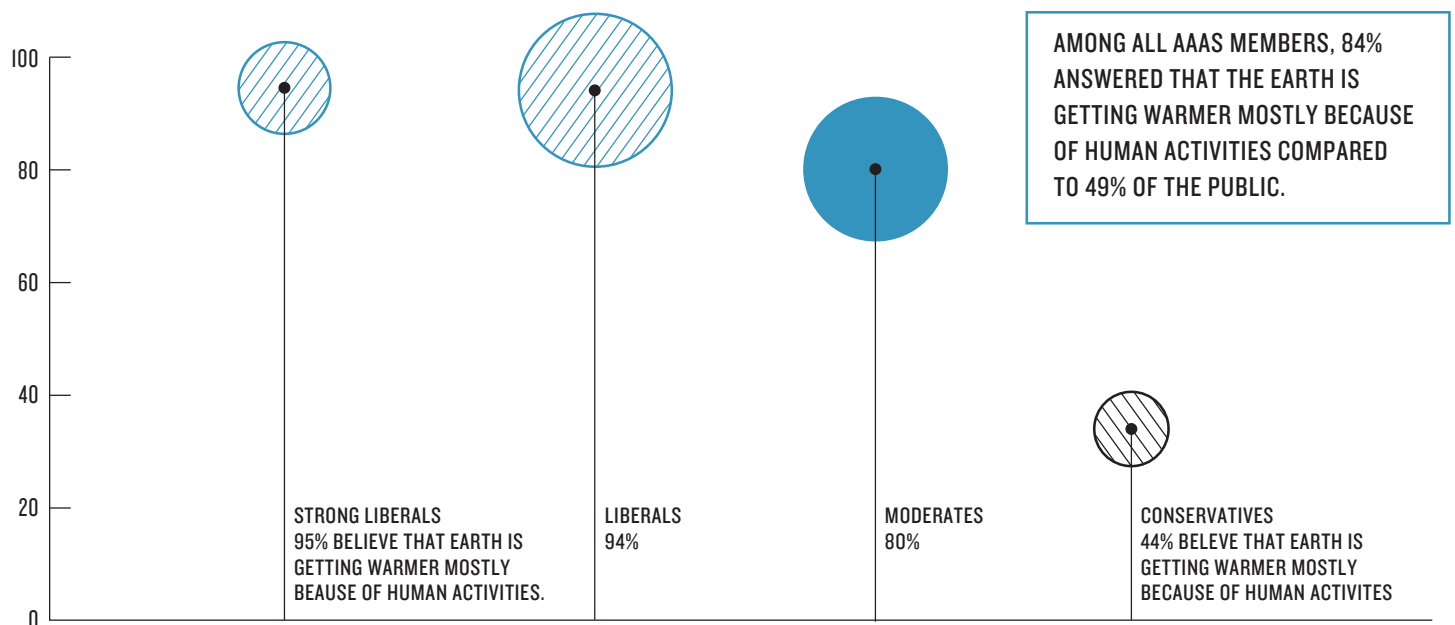
Not only are AAAS members unique from the general public and other groups in terms of partisanship and ideology, but as the Pew report describes, they also hold a very different financial outlook. In 2009, as unemployment peaked and the economy struggled, 60 percent of AAAS members described their household situation as “living comfortably,” compared with 40 percent of the public. AAAS members are also more positive in their views of government than the general public and more negative in their views of business. Finally, more than eight out of 10 AAAS members self-identify as “white.”

IDEOLOGY AND PERCEPTIONS OF CLIMATE CHANGE

As Figures 4.6 and 4.7 show, perceptions of climate change among AAAS members vary considerably by ideology, just as they do among the general public. Less than a majority of conservative AAAS members think the Earth is warming and that humans are a cause, compared with more than 80 percent of moderates and more than 95 percent of liberals. Similarly, there are even stronger differences in the perceived seriousness of the issue. Only 26 percent of conservatives and 62 percent of moderate AAAS members think global warming is a very serious problem, compared with more than 80 percent of liberals.

PERCEPTIONS OF CLIMATE CHANGE AMONG AAAS MEMBERS VARY CONSIDERABLY BY IDEOLOGY, JUST AS THEY DO AMONG THE GENERAL PUBLIC. LESS THAN A MAJORITY OF CONSERVATIVE AAAS MEMBERS THINK THE EARTH IS WARMING AND THAT HUMANS ARE A CAUSE, COMPARED WITH MORE THAN 80 PERCENT OF MODERATES AND MORE THAN 95 PERCENT OF LIBERALS. SIMILARLY, THERE ARE EVEN STRONGER DIFFERENCES IN THE PERCEIVED SERIOUSNESS OF THE ISSUE.

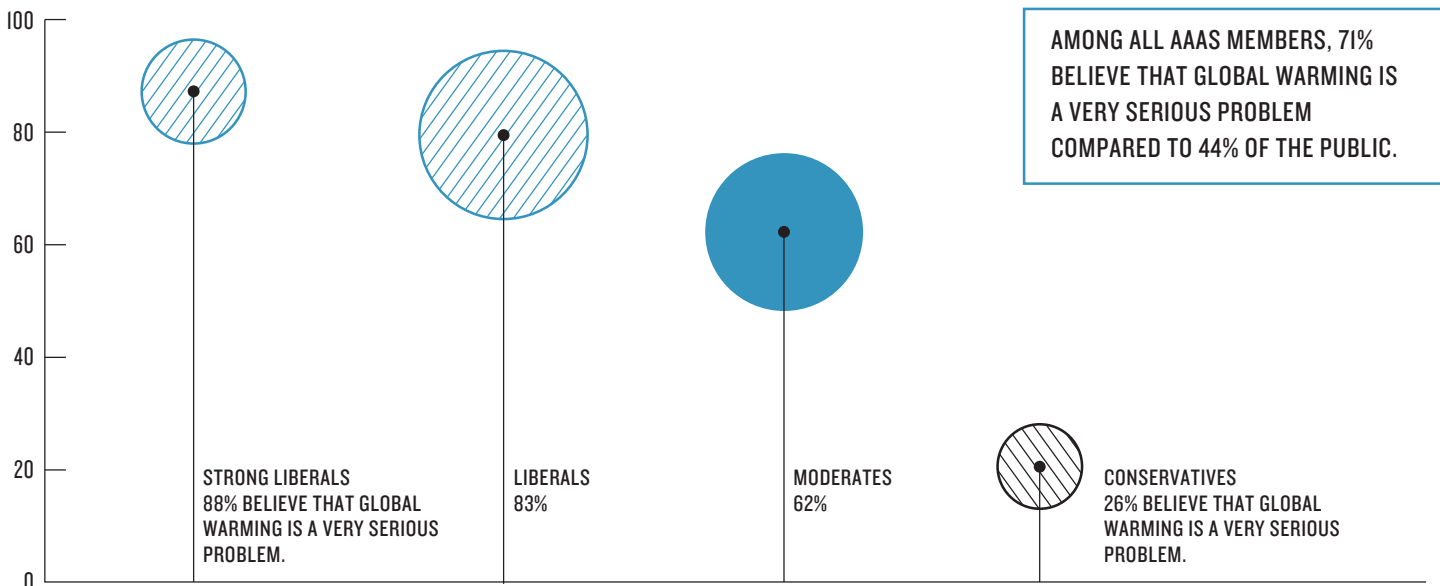
FIGURE 4.6
PERCENTAGE OF AAAS MEMBERS SAYING EARTH IS GETTING WARMER DUE TO HUMAN ACTIVITIES



NOTE: BUBBLE SIZE IS PROPORTIONATE TO PERCENTAGE OF RESPONDENTS SELF-IDENTIFYING BY EACH IDEOLOGICAL CATEGORY. RESPONDENTS WERE ASKED: "FROM WHAT YOU'VE READ AND HEARD, DO YOU THINK, THE EARTH IS GETTING WARMER MOSTLY BECAUSE OF NATURAL CHANGES IN THE ATMOSPHERE; THE EARTH IS GETTING WARMER MOSTLY BECAUSE OF HUMAN ACTIVITY SUCH AS BURNING FOSSIL FUELS, THERE IS NO SOLID EVIDENCE THAT THE EARTH IS GETTING WARMER."

SOURCE: 2009 SURVEYS CONDUCTED BY PEW CENTER FOR PEOPLE AND THE PRESS. SAMPLE SIZE= 2,535.

FIGURE 4.7
PERCENTAGE OF AAAS MEMBERS SAYING THAT GLOBAL WARMING IS A “VERY SERIOUS” PROBLEM



NOTE: BUBBLE SIZE IS PROPORTIONATE TO PERCENTAGE OF RESPONDENTS SELF-IDENTIFYING BY EACH IDEOLOGICAL CATEGORY. RESPONDENTS WERE ASKED: “IN YOUR VIEW, HOW SERIOUS A PROBLEM IS GLOBAL WARMING? IS IT VERY SERIOUS, SOMEWHAT SERIOUS, NOT TOO SERIOUS A PROBLEM, NOT A PROBLEM.”

SOURCE: 2009 SURVEYS CONDUCTED BY PEW CENTER FOR PEOPLE AND THE PRESS. SAMPLE SIZE= 2,535.

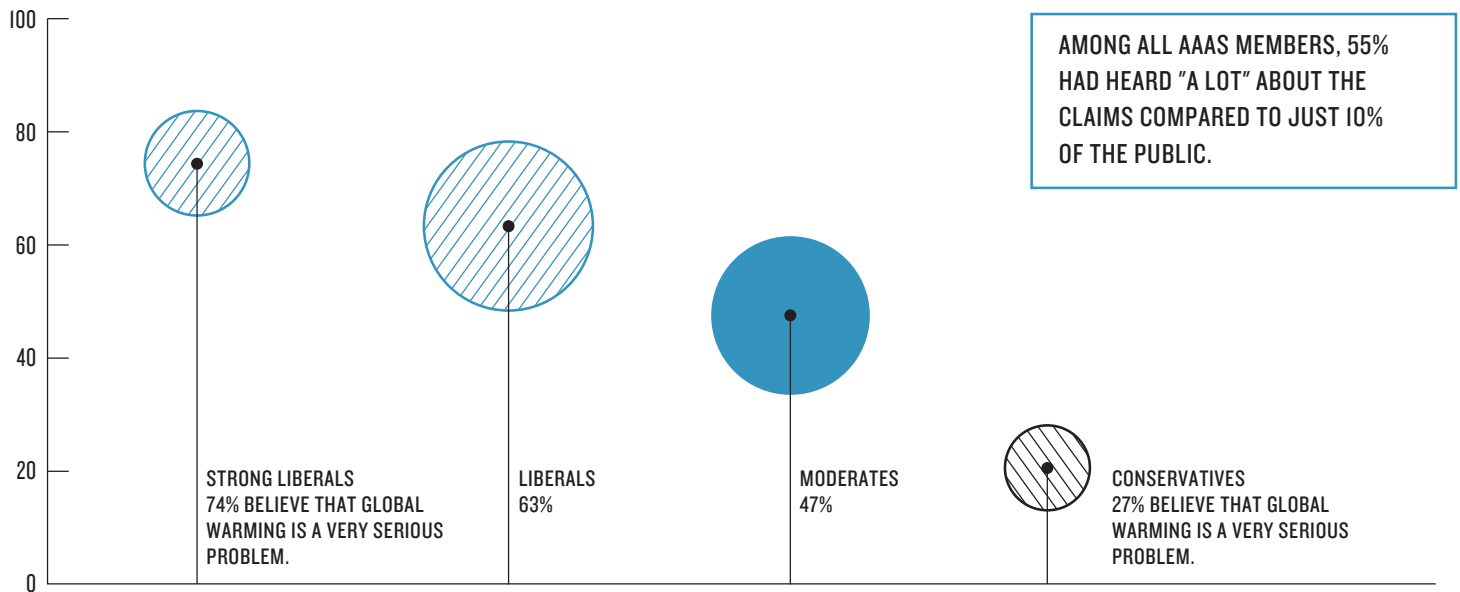
I also analyzed the AAAS data to understand how ideology affects the interpretation of science-related political trends and controversies. During the Bush administration, many scientists mobilized in response to what they perceived as attempts by the administration to control the public statements of government scientists and to interfere with the conclusions of government reports. This debate received heavy attention at science-related blogs, from science journalists and via several top-selling books.

As Figure 4.8 shows, awareness of these claims among AAAS members varied strongly by ideology, indicating that many AAAS members were selectively seeking out commentary and news regarding the issue. In 2009, among strong liberals, 74 percent reported hearing a lot about the claims, compared with just 27 percent of conservative AAAS members. In comparison, just 10 percent of the public had heard “a lot” about the debate.



FIGURE 4.8

PERCENTAGE OF AAAS MEMBERS HEARING “A LOT” ABOUT BUSH ADMINISTRATION INTERFERENCE WITH GOVERNMENT SCIENTISTS



NOTE: BUBBLE SIZE IS PROPORTIONATE TO PERCENTAGE OF RESPONDENTS SELF-IDENTIFYING BY EACH IDEOLOGICAL CATEGORY. RESPONDENTS WERE ASKED: “HOW MUCH, IF ANYTHING, HAVE YOU HEARD ABOUT CLAIMS THAT GOVERNMENT SCIENTISTS WERE NOT ALLOWED TO REPORT RESEARCH FINDINGS THAT CONFLICTED WITH THE BUSH ADMINISTRATION’S POINT OF VIEW?”

SOURCE: 2009 SURVEYS CONDUCTED BY PEW CENTER FOR PEOPLE AND THE PRESS. SAMPLE SIZE= 2,535.

Among AAAS members who had heard of the claims, ideology was strongly associated with evaluations of the allegations. On this matter, 57 percent of conservative AAAS members said the claims were true, compared with 87 percent of moderates and 97 percent of liberals. Those answering true were also asked whether the Bush administration engaged in greater levels of political interference than past administrations, with 68 percent of conservatives answering in the affirmative, compared with 88 percent of moderates and 96 percent of liberals.

The difference in awareness and perception of political interference is likely reinforced by diverging patterns and attention to science-related blogs, outlets where the Bush allegations were frequently discussed and lamented. Among strong liberal members of AAAS, a combined 50 percent say they read science blogs often or occasionally, compared with 37 percent of conservative members.

GIVEN A STRONGLY IDEOLOGICAL AND PARTISAN OUTLOOK, GREATER FINANCIAL SECURITY AND A DEEPER TRUST OF GOVERNMENT, IT IS LIKELY VERY DIFFICULT FOR MANY SCIENTISTS AND ENVIRONMENTALISTS TO UNDERSTAND WHY SO MANY AMERICANS HAVE RESERVATIONS ABOUT COMPLEX POLICIES SUCH AS CAP AND TRADE THAT IMPOSE COSTS ON CONSUMERS WITHOUT OFFERING CLEARLY DEFINED BENEFITS.

CONCLUSION

The analysis of the AAAS member survey opens a window to a dimension of the climate-change debate that deserves considerably more attention and research. As the results indicate, just as it does among the public, ideology shapes how these non-specialists view the causes and seriousness of climate change, as well as their attention to and interpretation of key related political events. Moreover, to the extent that AAAS membership is consistent with the political identity of the environmental movement and scientific community at large, the findings suggest several important themes to consider.

First, given a strongly ideological and partisan outlook, greater financial security and a deeper trust of government, it is likely very difficult for many scientists and environmentalists to understand why so many Americans have reservations about complex policies such as cap and trade that impose costs on consumers without offering clearly defined benefits. As the poll trends and studies reviewed in the first half of the chapter describe, economic context as well as the proposed policy solutions to climate change strongly shape public views. In discussion of communication initiatives and political strategy, motivated reasoning leads many scientists and environmentalist to often overlook these factors and instead focus on presumed flaws in media coverage or on the activities of conservatives.

Second, as a natural human tendency, the political preferences of scientists and environmentalists likely lead them to seek out congenial sources in the

media and to overlook the polarizing qualities of admired leaders such as Gore. These processes of motivated reasoning also likely shape a view of the world that is inherently hostile even when objective indicators of financial resources, media coverage and public opinion suggest otherwise. Specific to the media, past research predicts that, given the strong ideological and partisan orientation of scientists, they are likely prone to perceive even favorable media coverage as impeding their goals.³⁸ A strong ideological identity also likely leads such scientists to overestimate the effects on public opinion of an event such as Climategate.³⁹

Third, as organizations such as the AAAS train and encourage their members to engage in public outreach, most participating scientists are likely to view politics very differently from the audiences with which such scientists are trying to engage, a challenge that merits greater focus as part of these trainings.

Finally, given the strong shared political identity of scientists and environmentalists, moderates and independents among their ranks may feel reluctant to express their own political views and policy proposals, especially with regard to cap and trade policy or in critiquing an admired political leader.⁴⁰ With an ever-increasing reliance on blogs, Facebook and personalized news, the tendency to consume, discuss and refer to self-confirming information sources is only likely to intensify, as will in turn the criticism directed at those who dissent from conventional views on policy or strategy.

ENDNOTES

- ¹ For discussion of how the tipping point metaphor was widely applied in 2006 and 2007 to describe a perceived shift in climate politics, see Deborah Guber and Christopher Bosso, “Past the Tipping Point? Public Discourse and the Role of the Environmental Movement in a Post-Bush Era,” in *Environmental Policy: New Directions for the 21st Century, 7th Ed*, ed. Norman Vig and Michael Kraft (Washington DC: Congressional Quarterly Press 2009).
- ² William Booth, “Al Gore, Rock Star. Oscar Hopeful May Be America’s Coolest Ex-Vice President Ever,” *The Washington Post*, February 25 2007. Available at: www.washingtonpost.com/wp-dyn/content/article/2007/02/24/AR2007022401586.html.
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- ⁴ Paul Fahri, “The Little Film That Became a Hot Property,” *The Washington Post*, October 17 2007. Available at: www.washingtonpost.com/wp-dyn/content/article/2007/10/12/AR2007101202295.html.
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³³ See page 58 of the Pew top-line report for details on sampling and response rates to the AAAS survey. Available at: www.people-press.org/reports/pdf/528.pdf.

³⁴ Many scientists and related professionals are not members of AAAS. In a classic free-rider problem, some individuals may forgo membership because the chief benefit—a subscription to *Science* magazine—can be read online via their institution. Others may prefer to join more specialized, disciplinary societies, such as the Federation of American Societies for Experimental Biology, the American Geophysical Union or the American Institute of Biological Sciences. Still others may disagree with some of the policy positions taken by AAAS.

³⁵ N. Gross and S. Simmons, "The Social and Political Views of American Professors," *Harvard University* (2007). See also Anon., "The Liberal and Moderate Professoriate," *Insider Higher Ed*, October 8 2007. Available at: www.insidehighered.com/news/2007/10/08/politics.

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³⁷ E.H. Ecklund and C.P. Scheitle, "Religion among Academic Scientists: Distinctions, Disciplines, and Demographics," *Social Problems* 54, no. 2 (2007).

³⁸ Referred to as the "hostile media effect," this relationship is one of the most commonly found media influences in the field of communication research. The classic study in the area found that pro-Israel and pro-Palestinian students on a college campus viewed the same CBS news report of the conflict in the Middle East as biased against their preferred position. See R.P. Vallone, L. Ross, and M.R. Lepper, "The Hostile Media Phenomenon: Biased Perception and Perceptions of Media Bias in Coverage of the Beirut Massacre," *Journal of Personality and Social Psychology* 49, no. 3 (1985). For more recent analysis applied to politics and evaluations of cable news coverage, see P.K. Coe et al., "Hostile News: Partisan Use and Perceptions of Cable News Programming," *Journal of Communication* 58, no. 2 (2008). A study at the University of Wisconsin examined how scientists and animal rights activists also viewed the same coverage of the debate over the use of primates in research as hostile to their side. A.C. Gunther et al., "Congenial Public, Contrary Press, and Biased Estimates of the Climate of Opinion," *Public Opinion Quarterly* 65, no. 3 (2001).

³⁹ Known as the Third Person Effect, in this equally common finding from communication research, a member of one social group will perceive media coverage or a message as not affecting them but will think the media coverage has influenced those most socially distant from their group. This is particularly relevant to scientists who tend to view the wider public as mostly ill-informed about science if not often irrational. For general overviews, see R.M. Perloff, "Third-Person Effect Research 1983-1992: A Review and Synthesis," *International Journal of Public Opinion Research* 5, no. 2 (1993). W.P. Davison, "The Third-Person Effect in Communication," *Public Opinion Quarterly* 47, no. 1 (1983).

⁴⁰ In this research, perceived majority opinion within a social group strongly influences the willingness of individuals who hold to the minority view to express their opinion. This reluctance strengthens the perception that everyone within a group is united in their outlook and increases the pressure for those in the minority to remain silent. For an overview and application to politics, see A.F. Hayes, D.A. Scheufele, and M.E. Hoge, "Nonparticipation as Self-Censorship: Publicly Observable Political Activity in a Polarized Opinion Climate," *Political Behavior* 28, no. 3 (2006). For an application and case specific to a science debate, see D.A. Scheufele, J. Shanahan, and E. Lee, "Real Talk," *Communication Research* 28, no. 3 (2001).

CONCLUSION: MOVEMENTS, NETWORKS AND PROGRESS

As detailed in this report, the major environmental organizations are a \$1.7 billion-a-year movement, with revenue streams that rival the most expensive presidential campaigns in history and the combined earnings of the world's richest sports franchises. In their efforts to pass cap and trade legislation, they spent heavily on general education efforts, engaging policymakers, journalists and the public. They also invested considerable resources in mobilizing their more than 12 million members and in brokering alliances with some of the world's largest companies, partners intended to augment their efforts at direct lobbying. Through these means and others, environmental groups have closed the gap with their traditional opponents in terms of spending and influence. Indeed, the effort to pass cap and trade legislation may be the best financed political cause in American history.

The organizations that led the effort on cap and trade legislation are unique among Beltway groups for their decade-spanning, linear growth in revenue and size. Dominated by senior leaders and staff from the Baby Boomer generation, these organizations together employ a highly credentialed and professional elite numbering in the several thousands. Yet the very nature and size of the environmental movement may pose challenges in adapting strategy and achieving success over the next decade.

Few national groups—with the exception of the Sierra Club—have a participatory membership base, limiting their ability to mobilize citizen voices in support of policy measures and to build networks in such key political regions as the Midwest. The highly professionalized, hierarchical nature of many environmental groups may also limit their ability to appeal to younger generations of Americans. Scholars argue that social media has created a new culture of organizing. In this culture, activism is viewed as strongly participatory and decision making as distributed rather than hierarchical. Relative to this trend, those environmental groups that combine participatory, face-to-face organizing with social media tools may be uniquely advantaged in recruiting younger Americans to their cause.¹ They may also be more likely to advocate for what some sociologists argue are deeply

needed, system-challenging strategies that redefine how society thinks about economic growth and consumption.²

The continued absence of meaningful participatory input from the public and other stakeholders shields some national environmental groups from considering new policy strategies or directions. Moreover, given the vast sums spent in support of cap and trade policy and a binding international agreement on emissions, this longstanding financial commitment to a specific course of action may make it difficult for many groups to reassess how they have defined the problem, formulated strategies and pursued their goals. Instead of shifting directions, the answer may be to commit even more money to traditional paths. Compounding matters, as reviewed in this report, many environmentalists and their allies among scientists share a strongly partisan and ideological outlook, an orientation that colors how they communicate about climate change; who or what they blame for inaction; and how they assess the media, other social groups and the public.

The analysis of the *Design to Win* strategy shows that contrary to conventional wisdom, foundations supporting action on climate change have been as strategic and as focused on achieving policy outcomes as even the Koch brothers, applying more than 10 times the amount of money in pursuit of their goals. Yet focus and strategy are only as effective as the premises upon which they are based. The report defined the win in terms of long-term atmospheric targets achieved through cap and trade legislation and an international agreement.

In contrast to the *Design to Win* strategy, a number of scholars and policy thinkers assert there needs to be more intensive investment in understanding how innovation happens and the role of government as catalyst. As they argue, increasing the price of dirty fuels is only a first step, and they warn that too much faith has been placed in market responses to spur adoption of new technology. They advocate for shifting the national conversation to energy insecurity and the need for innovation, rather than remaining focused primarily on climate change and the regulation of emissions. They point to President Obama's 2011 "Winning the Future" State

of the Union speech as representative of an emerging strategy that shifts the conversation to energy insecurity and the need for innovation.

This tension reflects two major coalitions in American politics today—one motivated primarily by climate change and the other by energy insecurity. The “Green” network, as examined in this report, is composed of national environmental groups; allies among the Democratic Party and progressive groups; politically active scientists and affiliated organizations; and the philanthropists who have traditionally invested in their efforts. These groups continue to focus primarily on the urgent threat of climate change, the need for policies that regulate greenhouse gas emissions and conservatives and industry as the major obstacles to progress.

The “Innovation” network includes a coalition of left-leaning, centrist and right-leaning organizations joined by universities, groups such as the National Academies³, energy scientists, technology entrepreneurs, business leaders⁴ and supporting foundations⁵. The Innovation network’s portfolio of policies focuses on increasing research spending; improving science education; creating regional hubs for technology development; reforming subsidies for fossil fuel industries; using defense spending and the military to catalyze wider changes in energy technology and use; and promoting such specific technologies as small-scale nuclear reactors, batteries, geothermal power, wind and solar power, carbon sequestration and biofuels.⁶ Instead of viewing conservatives and industry as obstacles to these goals, the innovation network tends to view them as potential partners.

To be clear, these two networks are not mutually exclusive in their membership, strategies or goals. Indeed, many environmental leaders advocate for a similar set of initiatives. However, what tends to demarcate their boundaries is the differential impetus placed on either climate change or energy insecurity as the motivating problem; the ideological, professional and social composition of the groups; the attributions they make regarding who or what is to blame for societal inaction; and the strategies they pursue as a result.

Over the next decade, as these two networks move forward with their efforts at the national level, many debates and key decisions will additionally take place across regions, states and communities. Examples include controversies over natural

gas extraction and carbon capture; the siting of wind and solar power installations; the building of nuclear power plants; funding for adaptation efforts; and support for science education. Important, yet frequently overlooked questions will also revolve around social justice, opportunity and equity. Some communities already have a head start on measures making them more resilient to the impacts of climate change and to competing economically; others are already far behind. There will be similar questions related to the information needs of these communities and the capacity of local media organizations and other institutions to facilitate public participation, enable economic opportunity and hold decision makers accountable.

Both at the national and local level, the challenge will be to ensure the Green network and Innovation network work in tandem rather than in opposition. Research and initiatives will be needed that support these networks as they formulate their strategies and collaborate to achieve closely linked goals.

ENDNOTES

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² R.J. Brulle and J.C. Jenkins, “Fixing the Environmental Movement,” *Contexts* 7, no. 2 (2008). R.J. Brulle, “From Environmental Campaigns to Advancing the Public Dialog: Environmental Communication for Civic Engagement,” *Environmental Communication: A Journal of Nature and Culture* 4, no. 1 (2010).

³ The National Academies through its *Rising Above the Storm* reports has helped set the agenda and focus on energy, innovation and competitiveness. Norman Augustine, lead author on the reports, is the former head of Lockheed Martin. N.R. Augustine, “Rising above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future,” National Academy of Science, National Academy of Engineering, Institute of Medicine, National Academy Press, Washington, DC (2005). NR Augustine et al., “Rising above the Gathering Storm, Revisited: Rapidly Approaching Category 5,” Washington, DC: National Academy of Sciences, National Academy of Engineering, Institute of Medicine (2010). See also the Academies’ initiative on America’s Energy Future: www.sites.nationalacademies.org/Energy/index.htm.

⁴ Most notable among business leadership is the American Energy Innovation Council, a coalition that includes Bill Gates of Microsoft, Jeff Immelt of General Electric and Norman Augustine. See www.americanenergyinnovation.org/. For an example of the groups and ideas representative of the emerging Innovation network, see the agenda, participants and funders of the Energy Innovation 2010 conference: www.itif.org/events/energy-innovation-2010.

⁵ The Nathan Cummings Foundation, which funded this report, is one among several sponsoring this emerging network of groups.

⁶ For discussion of these policy proposals, see Marc Muro, Steven F. Hayward, Ted Nordhaus, and Michael Shellenberger, “Post-Partisan Power: How a Limited and Direct Approach to Energy Innovation Can Deliver Clean, Cheap Energy, Economic Productivity, and National Prosperity,” (Washington DC: American Enterprise Institute, Brookings Institution, and The Breakthrough Institute). Available at: www.thebreakthrough.org/blog/Post-Partisan%20Power.pdf. See also Joshua Freed, “Creating a Clean Energy Century,” (Washington, DC: Third Way, 2010). Available at: www.thirdway.org/subjects/9/publications/351.



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