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Science as a Public Good: Findings From a Survey of March for Science Participants

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Abstract

On April 22, 2017, millions of people marched for science in response to a growing sense of urgency for preserving scientific funding and knowledge, both perceived as threatened by the Trump administration. This research note highlights data collected at three marches: Washington, D.C.; Los Angeles, California; and Austin, Texas. We examine marcher motivations for participation, finding the environment, current administration, and science funding were most prevalent. Furthermore, we find the majority of marchers support stances that position science as public good, including the belief that science informs responsible government policies and the support of government investments in science.

Keywords

March for Science, public goods, science activists, Trump administration, climate change

Introduction

There have been times throughout the 20th century when scientists have organized and publicly advocated for a cause, often with great controversy.

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After World War II, scientists spoke out against the nuclear arms race, in the late 1950s they criticized pesticides, in the 1970s they turned their attention to chemical warfare, and in the 1980s climate issues began to take center stage for scientists concerned about the impact of global warming (Barrow & Mark, 2001; Boyer, 1984; Carson, 1962; Gay, 2012; Kuznick, 2004). These topics reflect scientific innovations in response to complex social problems only democratic political processes can solve (Pielke, 2007). Those scientists who recognize a need for advocacy and speak out on issues related to their work, however, risk hurting their scientific credibility. The main concerns are that activism could erode scientists' status as impartial experts, reflect normative rather than positivist positions, and bring accusations that scientists are self-interested opportunists advocating for a cause to get more funding and prestige (Frickel, 2004; Horton, Peterson, Banerjee, & Peterson, 2015; Kotcher, Myers, Vraga, Stenhouse, & Maibach, 2017; Lackey, 2007, 2016). This research note explores what motivates scientists to take public action in the face of such concerns, and why, in April 2017, a million scientists and their supporters, according to march organizers, publicly took to the streets to march for the sake of science ("By the Numbers," n.d.)—arguably the largest activist effort by scientists in history.

The Role of Scientists and Motivations for Protest

In 1998, prominent marine ecologist and environmental scientist Dr. Jane Lubchenco issued a call for a new social contract for scientists, arguing that scientists have a responsibility to "devote their energies and talents to the most pressing problems of the day, in proportion to their importance, in exchange for public funding" (Lubchenco, 1998). The following year, UNESCO hosted a World Conference on Science that attracted some 1,800 delegates and resulted in a Declaration on Science and the Use of Scientific Knowledge that pushes an agenda of scientific knowledge for progress, science for peace, science for development, and science in, as well as for, society (UNESCO, 1999). Today there are hundreds of scientific organizations around the world, including national science academies, the American Association of the Advancement of Science, and the Union of Concerned Scientists, all dedicated to advocating for science.

Advocacy, for some, creates a tension with credibility. Credibility is dynamic and multidimensional, co-constructed by the public and scientists (Horton et al., 2015). When scientists display goodwill (i.e., care for society) and expertise (i.e., specialized knowledge), they are considered credible and remain trusted by the general public (Horton et al., 2015; Kotcher et al., 2017). But Lackey (2007, 2016) warns that attention to social relevance may

undermine scientific credibility and advises scientists to focus foremost on developing and providing technical information in ways that describe the world accurately and transparently, independent of policy stances. Attaching science to a specific policy stance can erode scientific credibility (Kotcher et al., 2017; Pielke, 2007), which is why Pielke (2007) recommends an "honest broker" role for scientists in public policy-making. Loss of credibility becomes an acute risk among subgroups of the American population including conservatives who have become increasingly distrustful of scientists and their findings (Gauchat, 2012), and whose detachment from science may add to the political polarization now prevalent in the United States.

Yet, public trust in scientists overall remains high (Pew Research Center, 2016) and despite potential risks, many scientists are active in politics and policy debates (Meyer, Frumhoff, Hamburg, & de la Rosa, 2010; National Academies of Sciences, Engineering, and Medicine, 2017). On an individual level, scientists may be moved to activism by similar influences on the general public. In their research on energy conservation activism, Bolsen, Druckman, and Cook (2014) show that collective action can be generated when individuals have a sense of responsibility for a cause, as well as when they can foresee the possible impacts of their actions. Additionally, if a peer group is participating in an activity, individuals are likely to demonstrate greater interest in the activity even if the outcome is uncertain (Robison, 2016).

A group's values and behavioral norms also influence political participation. Norms for the scientific community have been shifting for decades (Lubchenco, 1998). There is a clear call for scientists to engage the public more fully in their research (Lane, 1997) and for scientists as a group to be more engaged in their communities—beyond their areas of expertise—to fulfill their civic duty (Greenwood & Riordan, 2001; Nelson & Vucetich, 2009). Compounding these shifts in scientific culture are threats to the values of that group.

Political activism can also be inspired when there is a threat that a valued policy will be changed (Miller & Krosnick, 2004). In the model of protest motivation developed by Van Stekelenburg, Klandermans, and Van Dijk (2009, 2011), "the more people feel that interests of the group and/or principles that the group values are threatened, the angrier they feel and the more they are motivated to take part in protest to protect their interests and/or to express their indignation" (Van Stekelenburg & Klandermans, 2017, p. 124). The recent March for Science is a profound example of how threat has a strong role to play in bringing a group together and inspiring action. Using this event as a jumping off point, this study asks: *What motivates individuals to become politically active on issues related to science? What perceptions*

do activists hold regarding the role of scientists and science in politics and policy?

The March for Science

On April 22, 2017—Earth Day—approximately one million people in more than 600 cities around the world participated in The March for Science (hereafter, "March") to "improve science outreach and communication, advance science education and scientific literacy, and foster a diverse and inclusive scientific community" ("March for Science Mission," n.d.). Scientists and their allies united to bring attention to the importance of science for social well-being in a nonpartisan, nonpolitical way (Smith-Spark & Hanna, 2017). The March also called for evidence-based policymaking, with many of these concerns focused on the Trump administration. Not explicitly partisan, criticisms were centered in "concern about valid information itself and its role in public policy, combined with a deep fear about the fate of federal science budgets, which Trump has targeted for sweeping cuts" (Mooney, 2017).

When conservatives took control of the White House and U.S. Congress after the 2016 elections, they put science skeptics and nonscientists in charge of government agencies designed to promote science and revealed plans to significantly cut funding for science—especially projects targeting climate change (Atkin, 2017; Bolton, 2017; Kahn & Magill, 2016; Reardon, Tollefson, Witze, & Ross, 2017). While the threat of budget cuts aimed at scientific endeavors, especially in the social sciences, is not a recent phenomenon (Rest & Halpern, 2007; Sides, 2015), there is a heightened sense of urgency as not only funding, but trust in science itself, appears to be waning and research is increasingly politicized. There is also a growing concern among scientists and their supporters that accessing basic data will become more difficult (Atkin, 2017).

This growing sense of urgency encouraged March organizers to take action in a way that would draw broad public attention to the role of science in our everyday lives (Sneed, 2017). To better understand those marching for science, our research team attended the March in Washington, D.C., as well as satellite marches in Los Angeles, California and Austin, Texas. Combined, these marches drew crowds of some 150,000 activists, per organizer estimates (March for Science, 2017), and provided a data-collecting opportunity to better understand science activism and the role of science in public policy.

Method

The study employed an intercept survey methodology at multiple sites to capture a targeted audience: participants at March for Science rallies. The research

teams in Washington, D.C. and Austin, Texas worked in three pairs to survey March participants; in Los Angeles, California there were two researchers who worked independently.[1] Each location was set up differently in terms of pre-March activities and the March itself. To maximize participation in the survey and ensure that researchers did not canvas the same group of participants, each location leader geographically dispersed surveyors to different zones of the March area. In order to improve representative sampling, all surveyors were instructed to approach every fortieth individual—even if the individual did not look interested—to request participation in the survey (Walgrave & Verhulst, 2011). If the individual declined or was not eligible due to being a minor younger than 18 years, another 40 individuals were to be counted off before an individual was approached. Although individuals were systematically selected to request participation, the limitation of intercept surveys is that they create a nonprobability sample (Butler, 2008). While the random selection of participants in the study was not precise, it was chosen for ease of implementation as the March and its events present a challenging environment for fieldwork—participants are busy with other activities, it is crowded and loud, and the weather was less than ideal (i.e., rainy in D.C.).

There were two versions of the survey—scientist and nonscientist.[2] Both versions of the survey included questions about level of political activity, attitudes toward science and scientists, and perceptions of the media in order to capture attitudes and beliefs relevant to understanding science advocacy and the role of scientists in public policy (Horton et al., 2015; Kotcher et al., 2017). Some questions replicated validated items from the World Values Survey, a 2014 PEW American Association for the Advancement of Science survey, and the General Social Survey. Additionally, scientists were asked a unique set of questions about their research and funding, while nonscientists were asked about their exposure to science and scientists' work.[3]

Survey Findings

We surveyed a total of 203 March for Science participants—93 nonscientists and 110 scientists. Surveyed marchers came from 23 states and Washington, D.C.[4] While 64% of the Washington, D.C. March participants were from Maryland, Virginia, Pennsylvania, or D.C., participants came from 17 other states. At the Los Angeles March for Science, 100% were from California, and 95% of the participants in Austin were from Texas.

We observed many similarities in the background of the respondents (Table 1). The overwhelming majority affiliated with the Democratic Party (72.28%) and reported that they subscribe to no religion (61.22%). Not surprisingly, the majority also cited being "moderately" (56.65%) and "very" (28.08%)

Table 1. Background of Marchers Surveyed.

	All, % (*n*)	Scientists, % (*n*)	Nonscientists, % (*n*)
	N = 203	54.19% (*N* = 110)	45.81% (*N* = 93)
Political and religious beliefs			
Republican	2.48 (5)	0.92 (1)	4.30 (4)
Democrat	72.28 (146)	71.56 (78)	73.12 (68)
Independent	10.89 (22)	11.01 (12)	10.75 (10)
No religion	61.22 (120)	62.26 (66)	60.00 (54)
Protestant	13.27 (26)	13.21 (14)	13.33 (12)
Buddhist	6.12 (12)	5.66 (6)	6.67 (6)
Political activity			
Very active	28.08 (57)	25.45 (28)	31.18 (29)
Moderately active	56.65 (115)	58.18 (64)	54.84 (51)
Voted 2016 presidential election	96.06 (195)	93.64 (103)	98.92 (92)
Voted 2014 midterm election	81.77 (166)	82.73 (91)	80.65 (75)
Race and ethnicity			
White	86.36 (171)	85.85 (91)	86.96 (80)
African American	3.03 (6)	1.89 (2)	4.35 (4)
Asian American	3.03 (6)	2.83 (3)	3.26 (3)
Latino	12.56 (25)	14.15 (15)	10.75 (10)
Education			
Associate's degree or less	17.91 (36)	6.42 (7)	31.52 (29)
Bachelor's degree	31.34 (63)	21.10 (23)	43.48 (40)
Postgraduate degree	50.75 (102)	72.48 (79)	25.00 (23)
Age (years)			
18-24	9.45 (19)	7.34 (8)	11.96 (11)
25-44	39.80 (80)	41.28 (45)	38.04 (35)
45-64	41.79 (84)	44.04 (48)	39.13 (36)
≥65	8.96 (18)	7.34 (8)	10.877 (10)
Field of work			
Agriculture, farming, and fishing			1.12 (1)
Arts and music			3.37 (3)
Banking, finance, real estate, insurance			3.37 (3)
Community and social services			2.25 (2)
Computer programming, information technology			12.36 (11)
Education			16.85 (15)
Engineering			1.12 (1)
Government, public administration, military			11.24 (10)
Health care			11.24 (10)
Manufacturing, mining, and construction			1.12 (1)

(continued)

Table 1. (continued)

	All, % (*n*)	Scientists, % (*n*)	Nonscientists, % (*n*)
	N = 203	54.19% (*N* = 110)	45.81% (*N* = 93)
Media, publishing, and communications			11.24 (10)
Other professional occupations			8.99 (8)
Retail and wholesale trade			6.74 (6)
Self-employed (no field identified)			1.12 (1)
Student (no discipline identified)			3.37 (3)
Transportation and utilities			2.25 (2)
Other occupation			2.25 (2)
Discipline			
Biology and medical sciences		50.00 (54)	
Chemistry		8.33 (9)	
Earth sciences		11.11 (12)	
Engineering		10.19 (11)	
Math and computer science		4.63 (5)	
Physics and astronomy		1.85 (2)	
Social and behavioral science		11.11 (12)	
Other science		2.78 (3)	

Note. Frequency of response shown with number of observations in parentheses. Due to missing survey responses, some figures differ from the total number of respondents reported.

politically active. Ninety-six percent said they voted in the 2016 presidential election, and 81.77% reportedly voted in the 2014 midterm election—much higher than national averages.[5] The majority was non-Hispanic White (86.36%), college educated (82.09%), and middle-aged (average age: 44 years). Among scientists, 93.58% had a bachelor's degree or higher, compared with 68.48% of nonscientists. Furthermore, 81.59% of all respondents were aged 25 to 64 years. Most scientists were from the fields of biology and medical sciences (50.00%), but the earth sciences (11.11%), social and behavioral sciences (11.11%), and engineering (10.19%) were also notably represented. Among nonscientists, those employed in the field of education constituted the largest group (16.85%), followed by computer programming/information technology (11.24%), health care (11.24%), government/public administration/military (11.24%), and media, publishing, and communications (11.24%).

Motivations to March: Coupled Concerns of the Environment, Current Administration, and Science Funding

To assess motivations to march, survey respondents were asked: "Name one or two things that inspired you to come to the march today." Responses to this

Table 2. Motivations to Attend the March for Science Across Scientist and Nonscientist Groups.

Name one or two things that motivated or inspired you to come to the march today			
Scientists	% (*n*)	Nonscientists	% (*n*)
The current administration	30.00 (33)	The environment	49.46 (46)
Importance of science in general	28.18 (31)	The current administration	31.18 (29)
The environment	27.27 (30)	Importance of science in general	22.58 (21)
Science funding	26.36 (29)	Social reasons	18.28 (17)
Facts, alt-facts, and misperceptions	23.64 (26)	Facts, alt-facts, and& misperceptions	11.83 (11)
The future	17.27 (19)	Science funding	10.75 (10)
Science and policy	13.64 (15)	The future	8.60 (8)

Note. Frequency of response shown with number of observations in parentheses. Total number of scientists is 110; total number of nonscientists is 93.

open-ended question were recorded in writing by interviewers and later entered into the database. Using a semigrounded theory approach (Glaser & Strauss, 2017), categories were created from emergent themes by the coders. Responses could be assigned multiple categories. Nine categories emerged for which there were adequate intercoder agreement with a Fleiss' Kappas > 0.6 (range: 0.60-0.98, mean Kappa = 0.74).[6] In order of prevalence of mention, these included: the environment (37.44%), the current administration (30.54%), importance of science in general (25.62%), science funding (19.21%), facts and alternative facts (18.23%), social network (15.27%), the future (13.30%), science and policy (9.85%), and science education (5.42%).

While individuals reported a wide range of motivations for attending the March for Science, including concerns over reduced research funding and the growth of "alternative facts," three dominant themes emerged from the responses. More than a third of respondents cited concern for the environment (37.44%), followed by concern for the current presidential administration (30.54%). Another quarter of respondents (25.62%) cited motivation to show support for science—to raise awareness of the importance of science or to get people excited about it.

Scientists and nonscientists had slightly different motivations for marching (Table 2). Among scientists, the most common motivators were concern about the current administration (30.00%) and a desire to promote science in general (28.18%). Slightly less frequently than those were three issues: the

environment (27.27%), scientific funding (26.36%), and the rise of alternative facts (23.64%). For nonscientist respondents, concerns about the environment (49.46%) and the current administration (31.18%) also ran high.

Because respondents were asked to cite one or two motivations to march, it is possible to examine the connections between concerns that motivated individuals to participate in the march. We find important linkages between concerns for the environment, current administration, and science funding. One scientist explained that he feels like

> science is not being appreciated for values it provides to society. [I'm] concerned that the government is ignoring contributions of science particularly in how it tells us what's going on in the natural world and impacts we have on the environment.

Another scientist said that she was motivated to come to the March because of the "denial of climate change [and] rhetoric among the campaigns [as well as the] cutting off of scientific funding." A nonscientist expressed her motivation as "funding cuts for NSF, funding cuts for [the] EPA, [and] climate change deniers in the White House." Overall, among scientists who cited the environment as a motivation to march, 43.33% also named the current administration. An equal percentage of environmentally motivated scientists also cited funding for science. Among nonscientists who named the environment as a motivator to march, nearly the same percentage—41.30%—cited the current administration but only 15.22% named science funding.

In all, we find that 60.10% of all respondents cited the environment, the current administration, or funding for science as their top one or two motivations for marching. This indicates that while the March was designed to be nonpolitical, marchers were acting in response to current politics. Their motivations may be interpreted as reaction to an administration that has threatened values and policies they value; President Trump has stripped funding for the Environmental Protection Agency (Letzter, 2017), removed the United States from international climate agreements (Liptak & Acosta, 2017), and appointed individuals to key environmental cabinet positions who reject the scientific consensus regarding anthropogenic causes of climate change (Mooney, Dennis, & Mufson, 2016) and support environmental deregulation (DiChristopher, 2017). The marchers' motivations may also be interpreted as action to protect science as a public good.

Science as a Public Good

Marchers who participated in our survey were asked if science and technology: (1) make our lives better and (2) create opportunities for future generations. Additionally, we asked if scientific data informs responsible government

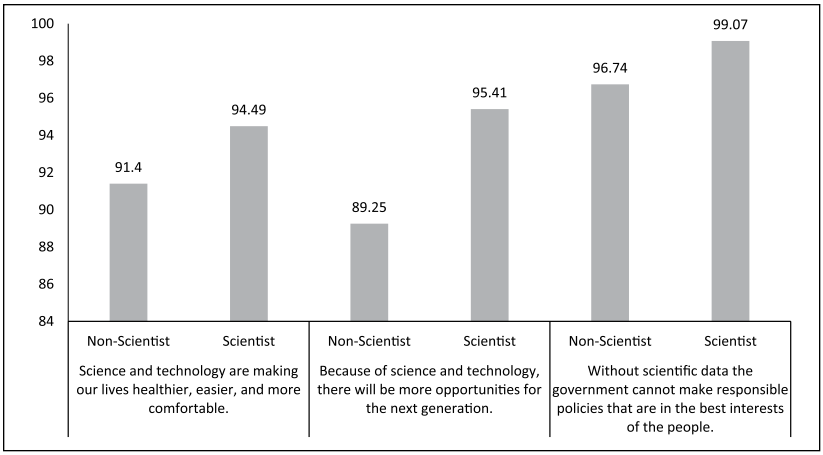

Figure 1. Perceptions of science as public good across scientists and nonscientists.
Note. Frequency of agreement with the statement shown is reported by profession. Due to missing data, the sample analyzed for the questions on science making lives healthier and more opportunities for the next generation included 93 nonscientists and 109 scientists. The sample for the question on making responsible policy included 92 nonscientists and 108 scientists.

policies that serve "the best interests of the people." Together these questions inform our understanding of how science serves as a public good in the minds of our respondents. Figure 1 shows that on all three questions, more than 89% of both nonscientists and scientists agreed that science benefits our society in these ways. More remarkable is that nearly all respondents (more than 97%) agreed that scientific data is critical for good governance.

Examination of government funding for science is another angle by which to gauge marchers' perceptions of science as a public good. Participants were asked a series of questions to assess their perceptions of government funding of science (Table 3); overwhelmingly, they supported government investment in science. Approximately 9 of 10 respondents agreed that government investment in research is essential for scientific progress and that the government should spend more on scientific research. Concern for future levels of government support of scientific endeavors were equally high. Interestingly, survey respondents did not see private investment as a substitute for government funding; 54.84% of nonscientists and 61.47% of scientists disagreed with the idea that private investment could ensure scientific progress in the absence of government investment. This underscores that support for science is perceived as a role of government, not the private domain, thereby positioning it in the domain of public goods.

Table 3. Support for Government Funding of Science Across Scientists and Nonscientists.

	Completely disagree	Disagree	Neutral	Agree	Completely Agree
Government investment in research is essential for scientific progress					
Nonscientist	0.00 (0)	0.00 (0)	3.23 (3)	7.53 (7)	89.25 (83)
Scientist	1.83 (2)	0.00 (0)	3.67 (4)	11.01 (12)	83.49 (91)
The government should spend more on scientific research.					
Nonscientist	0.00 (0)	0.00 (0)	3.23 (3)	13.98 (13)	82.8 (77)
Scientist	0.92 (1)	0.92 (1)	4.59 (5)	16.51 (18)	77.06 (84)
I am concerned about the level of future government support of scientific research.					
Nonscientist	0.00 (0)	1.08 (1)	1.08 (1)	10.75 (10)	87.1 (81)
Scientist	0.92 (1)	0.92 (1)	3.67 (4)	2.75 (3)	91.74 (100)
Private investment will ensure that enough scientific progress is made even without government investment					
Nonscientist	31.18 (29)	23.66 (22)	18.28 (17)	12.9 (12)	13.98 (13)
Scientist	28.44 (31)	33.03 (36)	13.76 (15)	11.01 (12)	13.76 (15)

Note. Frequency of response shown with number of observations in parentheses. Due to missing data, there are 93 nonscientists and 109 scientists in the sample analyzed.

Perceptions of the Role of Scientists

By the act of marching, Marchers revealed their value of science activism. Their response to questions we posed also demonstrated their support of scientists taking an active role in public policy. When asked to indicate level of agreement with the statement—"scientists should focus on establishing sound scientific facts and stay out of public policy debates"—50.54% of nonscientists *completely disagreed* as did 44.40% of scientists. Another 33.33% of nonscientists and 36.7% of scientists indicated that they disagreed. Exploring the issue of areas of expertise, we posed a question framed around science and technology. We found that 77.42% of nonscientists and 70.64% of scientists *completely agreed* that "scientists should take an active role in public policy debates about issues related to science and technology."[7] Another 18.28% and 23.85% of nonscientists and scientists, respectively, replied they agreed. These responses indicate that most marchers surveyed see the role of scientists as engaging the public—and government—with information and evidence in efforts to promote the most informed policies possible. However, there are some who remain skeptical of this responsibility. Even among the group of respondents that are fully engaged in science advocacy, 16.13% and 18.9% of nonscientists and scientists, respectively, were neutral or agreed that scientists should stay out of public policy debates.

This reminds us that despite changing norms of the scientific community, the role of scientists in the political arena is still not agreed upon.

Discussion and Conclusion

Based on these preliminary findings, scientists and those who value science were motivated to activism by the feeling that it was their responsibility to stand up and protect science for the good of the public. In doing so, scientist and nonscientist marchers recognize science as a public good that benefits our society and should be funded by the government. How populations understand science as a public good informs how willing they are to promote and defend funding for basic or applied science research as well as science education.

Scientific knowledge may not be an obvious public good but qualifies when it is accessible and available to everyone (Antonelli, 2005). Accessibility can be problematic; even when data collected is made public, information may not be usable or easily understood by nonexperts. Consequently, questions remain concerning the equitable distribution of scientific knowledge (Antonelli, 2005; Archibugi & Filippetti, 2015; Callon, 1994). To further complicate the matter, scientific knowledge is a mix of public and private investment. While the government pays for a great deal of its generation—some 56% of basic research in the United States is funded by federal, state, or local governments (Boroush, 2013)—businesses, universities and colleges, and other nonprofit organizations pay for the rest and protect this knowledge with patents or copyrights.

Our findings indicate the marchers surveyed position science as a public good. They support government, more than private, funding of science, and they perceive scientific knowledge as making lives better, providing opportunities for future generations, and providing information for sound policy making. While the latter perceptions are in line with trends among the general public, recent surveys by Pew Research indicate that there are deep ideological divides for support of government funding of science (Pew Research Center, 2015). This underscores the tension between science and government that often hinges on ideology and politics. Our findings regarding the role of scientists reveal even those engaged in science advocacy are not settled on the appropriate responsibility of scientists in public policy. For science to be a credible resource for society, scientists must be trusted to be without their own political agenda (Suhay & Druckman, 2015; Wilholt, 2010). Unfortunately, many scientific conclusions have become tied to ideological viewpoints (Pielke, 2007), such that the statement of a scientific fact (e.g., that climate change is occurring) becomes a de facto political claim.

The Trump administration's skeptical approach to climate change and suggested cuts to science funding motivated most of those surveyed to

participate in the March. While our sample makes this connection, it is not clear how much of this group's reaction is reflected in the broader population. We recognize the data collected are not generalizable; however, they are valuable as an in-depth account of the motivations and perceptions of science activists. Follow up surveys with this sample will allow us to evaluate how durable these perceptions are overtime, and a survey of a representative group of American adults will permit us to explore these findings beyond scientists and science activists. It is critical to understand how the American public perceives science and the role of science in public policy as the complexity of the social issues faced and the value divisions (e.g., political polarization) attached to them have increased. In this climate, Pielke (2007) warns that science, on its own, has little capacity for resolving problems. The productive role for scientists, he argues, is as an "honest broker," focused on the development of new and innovative policy options. The expansion of policy options allows for compromise and, thereby, leads to action in spite of value differences. As scientists grapple with being part of the democratic process, it will be important to identify how differences political engagement and ideology, experiences with citizen science, and perceptions of science and the role of scientists are associated with perceptions of—and advocacy for—science as a public good. The health of our scientific enterprise—and the public benefit gained from this knowledge—is at stake.

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Notes

1. The authors could not have collected data without the following team: Casey Tesfaye, Leanne Streja, Sarah Flanagan, Elizabeth Marchio, Aliyah Wakil, Jeremy Saenz, Mattie Squire, Rachel Martin, Jessica Raterman, and Dr. Tarla Rai Peterson.
2. These were assigned based on the participant's self-identification as a professional scientist or not.

3. The full questionnaire is available at https://localdisresilience.com/contact/si/
4. For a map of the origins of respondents, see https://localdisresilience.com/contact/si/
5. The U.S. Census Bureau reports that 41.9% and 61.4% of the eligible population voted in the 2014 and 2016 elections, respectively.
6. These scores represent acceptable levels of agreement in all reported benchmark configurations but still warrants some caution in interpretation (Altman, 1991; Emam, 1999; Landis & Koch, 1977). For the analysis, categories were assigned to a response if at least two coders agreed on that category.
7. Due to missing data, the sample analyzed for these two questions on the role of scientists in public policy included 93 nonscientists and 109 scientists.

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