

Becoming a Responsible Science Advocate

Because science is so central to many of the challenges we face—from sustainable energy production to disease pandemics—it will be discussed by people of diverse perspectives with a stake in the outcome. But the data does not speak for itself; rather, science is filtered through our values and assumptions. Engaged experts can both set the record straight and add valuable perspective to a variety of issues, making it more likely that policy and individual decisions will be both informed and equitable.

Some scientists are concerned that advocating for the use of science in policy will have adverse personal or professional consequences. Fortunately, social science studies show that experts can continue to earn public trust while engaging in public discussion around scientific and policy issues (Kotcher 2017¹). And there are a growing suite of resources and organizations that can help you develop skills to support you when you advocate (see below).

A Long Tradition of Science Advocacy

Science advocacy is not a new concept—and indeed, scientist advocates have been central to critical advances in protecting public health and the environment. The Union of Concerned Scientists was founded in 1969 to give scientists a voice in discussions around nuclear safety and security. In the 1970s, Pennsylvania pediatrician Herb Needleman researched the effect of exposure to lead on young children’s brains, and successfully advocated for the removal of lead from gasoline and other products.

In the 1980s, Sherwood Rowland and Mario Molina helped confirm that chlorofluorocarbons (CFCs) were causing ozone depletion, leading to the Montreal Protocol that banned CFCs. In the 1990s, scientists began to publicly detail the growing consequences of climate change. In the 2000s, thousands of experts pushed back on political interference in science in the federal government, resulting in policies that protect government scientists from political interference in their work. Scientist advocates have informed the implementation of the Endangered Species Act, the Clean Air Act, and many other environmental and public health laws.

Ways to Use Your Expertise as a Responsible Advocate

You don’t have to dedicate your life to campaigning, nor do you need to be a senior scientist, to be an effective and responsible advocate. Ways you can engage on public policy issues include:

- **Advising government:** Hundreds of scientific advisory committees provide independent scientific advice to federal and state agencies and make it more likely that decisions will be made based on the evidence. Apply to one in your area of expertise.
- **Formally commenting on science-based government proposals:** Most environmental and public health laws require the government to base rules—or the removal of rules—on the best available science. Your technical comments both inform regulatory decisions and help courts determine whether rules and regulations are scientifically defensible.
- **Building relationships with legislative staff.** Offer yourself as a resource for your state and national legislators. Once you meet with them, they may look to you as a resource when they have questions about a scientific topic. You may eventually be asked to testify before a legislative committee, or to connect staff with other subject-matter experts at your institution.

¹ <http://www.tandfonline.com/doi/full/10.1080/17524032.2016.1275736>

- **Building relationships with reporters.** Many reporters lack scientific expertise, and will respond well to an offer to meet for coffee. You can talk about your research; how federal data collection and investments in research impact your region; emerging scientific issues of interest; and become a resource for where reporters can go to learn more.
- **Serving as a resource for community organizations.** Many grassroots organizations that are fighting for public health or environmental protections lack access to scientific expertise. Learn more about scientist-community partnerships at www.ucsusa.org/scientistsandcommunities.

Building a Culture that Values Science Advocates

Beyond using your expertise, you can help develop a culture of science advocacy that encourages others to engage and holds decision-makers accountable. Activities to explore include:

- **Developing your voice:** Write opinion articles and letters to the editor of your local newspaper in response to news events, many of which will have a science and policy component.
- **Contributing to the notion of science as public service:** At your institution, you can help others engage by creating space to talk about science advocacy. Host communications trainings for scientists. Hold an event where scientists use data to tell stories about how science impacts where you live. Promote institutional supports for experts who choose to invest time in public engagement.
- **Be politically active.** You can offer to advise the candidate of your choice, or volunteer for their campaign. Elected officials will remember who supported them and may turn to you for advice once in office. You can even run for office yourself.
- **Hold elected officials accountable.** Attend town hall meetings and protests, and ask questions about issues related to science policy. Call or write your members of Congress about your views, and ask them to commit to supporting the role of science in policymaking.
- **Support federal government scientists under attack.** Share and keep in touch with your federal colleagues. Write papers with them and develop sessions and abstracts to present at scientific conferences. Invite them to speak on your campus, and work with UCS to help them report political interference in their work through the Science Protection Project: ucsusa.org/protectionproject

Learn More

The UCS Science Network can be your first stop to learn about effective advocacy; find archived webinars, communications tips, and more at www.ucsusa.org/sciencenetwork. Learn more about how to defend yourself and peers from reputational attacks at www.ucsusa.org/harassmentguide.

There are many organizations that provide resources for scientists who want to build advocacy and communications skills, from fact sheets and seminars to full-time fellowship programs. The following is just a sampling:

• AAAS Fellowship Program	• Wilburforce Fellowship Program
• Thriving Earth Exchange	• Engaging Scientists and Engineers in Policy
• Physicians for Social Responsibility	• National Council for Science and the Environment
• COMPASS	• Research America
• National Center for Science Education	• 500 Women Scientists
• March for Science	• SACNAS
• National Society of Black Engineers	• Association for Women in Science