

# Engaging Scientists in Policy Making around the Geosciences:

## The Case of the Union of Concerned Scientists' Science Network

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# Union of Concerned Scientists

## Introduction

In recent years, understanding of science and respect for its role in decision making have declined. An excessively partisan political climate and an increasingly noisy media landscape have combined to produce an environment in which science is easily drowned out by misinformation or manipulated for the benefit of private interests. We cannot hope to solve the problems of climate change, sustainable food, power, and transportation, and reducing the threat of catastrophic war without the aid of rigorous, independent science.

In response to these challenges, the Union of Concerned Scientists has launched a new initiative: the Center for Science and Democracy. The Center is dedicated to strengthening the essential role of science, evidence-based knowledge, and constructive debate in the U.S. policy-making process, using three core strategies:

- **Restoring public confidence** in, and support for, the use of independent science in public policy making;
- **Helping decision makers, citizens and journalists** distinguish evidence-based information from propaganda;
- **Working with scientists** to help them become more effective communicators and policy contributors.

The UCS mission calls for scientific experts to weigh in on issues, from climate change to scientific integrity in our government. It is this need that sparked the development of the Science Network.

## The Science Network

The UCS Science Network consists of over 17,000 scientists, engineers, economists, public health specialists, and technical experts that engage in finding science-based solutions to some of our nation's most pressing problems. Science Network members play a crucial role in providing a scientific foundation to many of UCS's campaigns.

**Science Network members are equipped with a variety of resources to improve their skills and share their expertise.**

### Improve Your Skills

The Science Network offers skills-based workshops and webinars that cover topics such as working with the media and science communication and advocacy.

### Share Your Expertise

Science Network members have access to online and offline opportunities to inform the public and influence policy makers by:

- Providing compelling testimonies at public hearings
- Joining professional sign-on letters
- Hosting educational briefings for policy makers

### Expand Your Network

Our expansive network includes experts from diverse backgrounds and covers broad knowledge and perspectives. We offer Science Network networking events. Our online community, including guest blogs, our online action center, and conversations on social media, provides unique opportunities to connect and learn from fellow Network members.

#### Early Career Scientists:

The UCS Science Network offers resources, events, and trainings that are tailored especially for graduate students and recent graduates, including networking, skills building, and professional development opportunities that can help you advance your career as a scientist and advocate.



## Impact

Science Network members play important roles in successful projects.

### 'Communicating Scientific Uncertainty' Webinar

Scientists think of uncertainty differently than the public or the media. Due to this disparity, scientists can face challenges when they try to communicate uncertainty to these groups. In response, we held a webinar on communication strategies for discussing levels of confidence with different audiences, from the press to policy makers to the public.

- **195 members** attended and participate in this webinar.
- **Brenda Ekwurzel**, a senior climate scientist at UCS, and **Knute Nadelhoffer**, a professor of Ecology and Evolutionary Biology at the University of Michigan, spoke about their experiences as scientist
- **Aaron Huertas**, press secretary of UCS, gave the press and communications expert point of view.

### Shutdown Stories



We asked Science Network experts to submit their stories about how the October 2013 government shutdown affected them and their work. We utilized their stories to draw attention to the impacts the government shutdown had on the scientific enterprise. We leveraged over 50 submitted stories by featuring real-life, personal anecdotes through blogs, op-eds, and media quotes in the *Scientific American*, *Science Policy Journal*, *Index on Censorship*, *The Guardian* and *National Geographic*.

*"The bottom line? I am a state employee who depends on federal resources to do a job that directly benefits state agencies and I cannot do my job right now."*  
-Anonymous Science Network Member

### Michigan's Energy Future Workshop



On March 17, experts in Michigan received in-depth media training from Rich Hayes, Deputy Communications Director at UCS, at the Michigan's Energy Future event. They also accompanied UCS staff to meetings with legislators at the state capitol, to put their science communication skills into practice and offer their support as experts for renewable energy in Michigan.

*"It was a great networking event and a good way for me to keep current on the work of others."* -John Patten, Ph.D., Western Michigan University

### Regional Climate Change Impacts



The Clean Energy group at UCS worked with many experts from the Science Network to review UCS's regional Climate Impacts Assessments. They also participated in press tours, local forums, and interviews with local media to ensure the region was aware of the science behind these local impacts.

## Feedback



#### On getting involved in science policy

"Groups like UCS and their work in the Science Network make these challenges easier. The resources are there to provide opportunities to inform the public and influence policy makers." *Samuel Brinton, graduate student at MIT, Executive Director of Stand with Science.*

#### On making an impact

"My collaboration with UCS has transformed my role as a scientist and as a citizen. They helped make my scientific research relevant, my communication effective, and my network of collaborators more powerful." *Cameron Wake, climate scientist, University of New Hampshire*

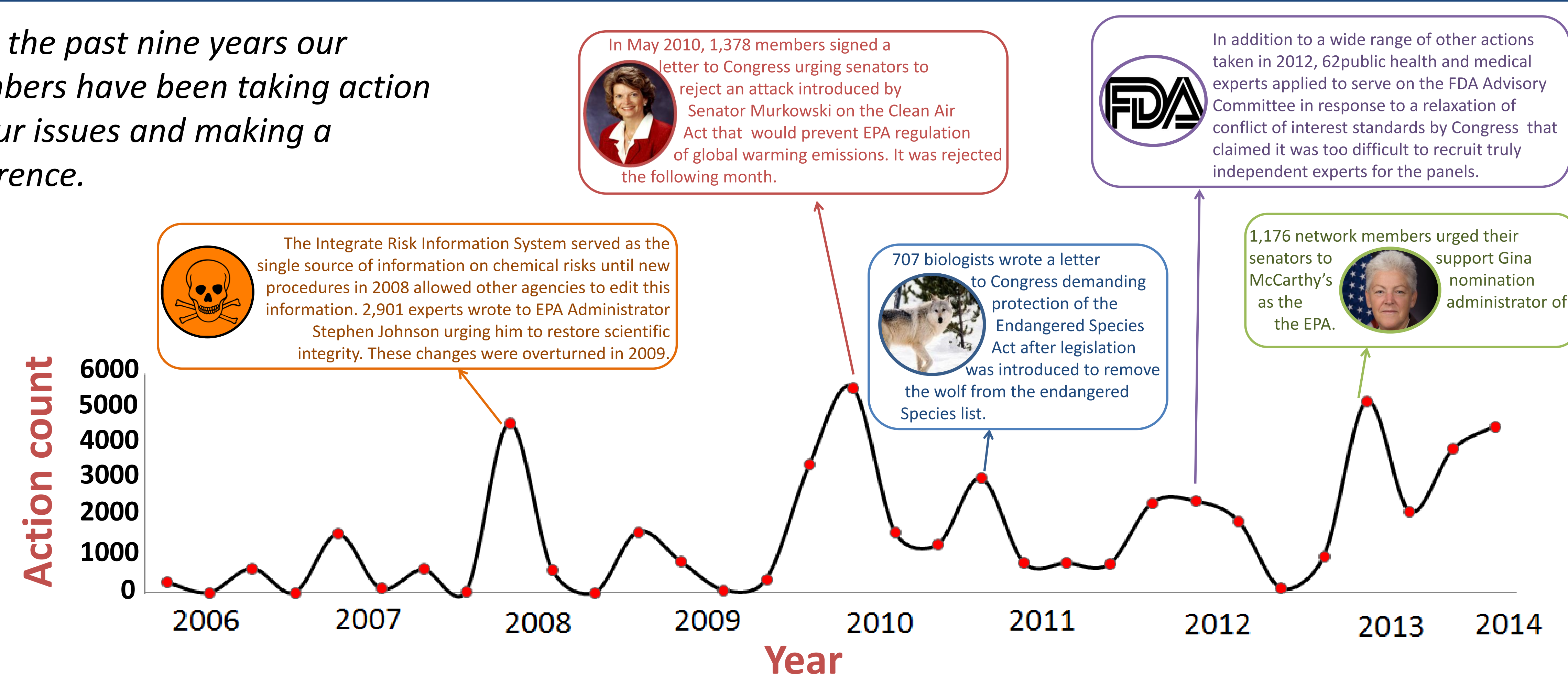


#### On our Science Network Workshop Series

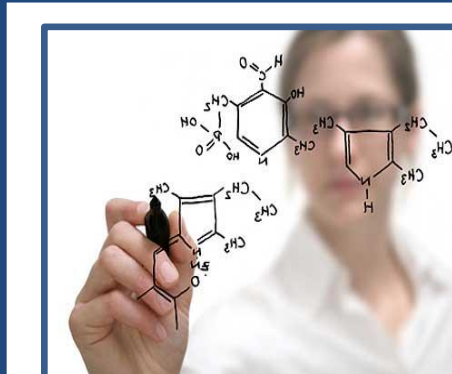
"This was my first time participating in a webinar with UCS, and I'm looking forward to more. I found it very helpful. I believe it is really important to enable scientists to have a better dialogue with non-scientists, and raise the level of understanding of both viewpoints." *Science Network member*

## Actions

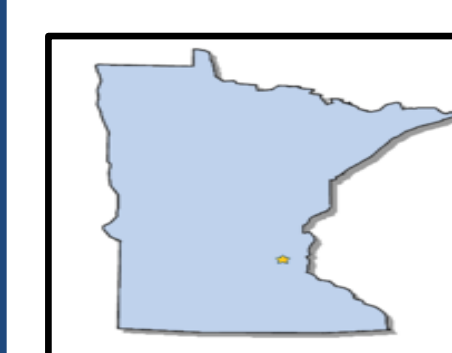
*Over the past nine years our members have been taking action on our issues and making a difference.*



## Future Plans



**Diversifying the Network.** We recognize the importance of strengthening the Network by including people with diverse areas of expertise, backgrounds, and perspectives. As the Network expands, we will continue to engage women and minorities to give them the opportunity to learn communication and advocacy skills so they can serve as a resource to their communities.



**Going to the States.** With demonstrated impact at the national level, the Network will focus more on state and local policy-making opportunities in the future. This will include working with scientists in Minnesota to develop a strategy to stand up for a strong Renewable Energy Standard by 2040, continued engagement with experts in Colorado and California as they fight for citizens' right to know about fracking risks, and connecting with public health professionals and food experts to discuss local and regional solutions to current unhealthy food environments and policies.

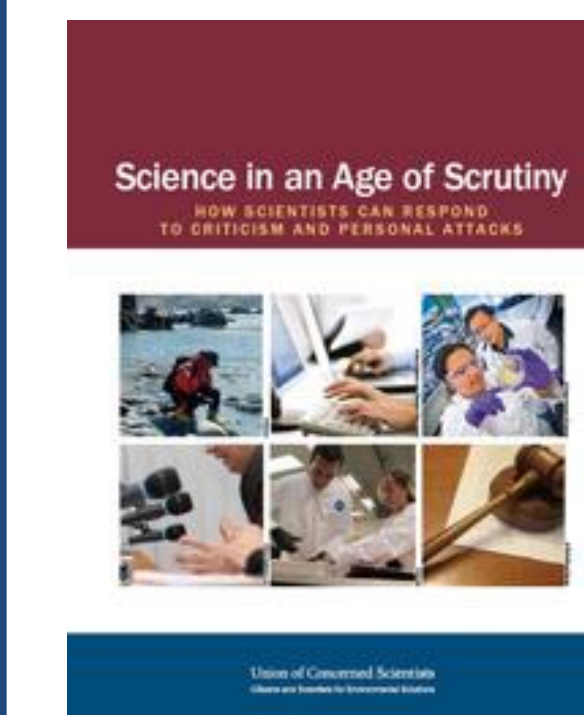


**Focusing on Early Career Scientists.** The Science Network is planning a Summer 2014 launch of an Early Career Scientist toolkit of career development and skills-building resources for students and recent graduates interested in pursuing fields related to science policy. We will continue to engage early career scientists through workshops, Hangouts, and networking events across the country.

## Challenges

Scientists face many barriers to engaging in policy.

**Academic culture:** Researchers often feel that communication and advocacy activities such as blogging and policy-maker engagement are devalued or even discouraged.



**Government Policies:** Some federal agencies have unnecessarily restrictive policies governing how their scientists can talk to the media or use social media.



**Lack of Time and Resources:** The Science Network has created a suite of resources for experts at all levels of experience who are interested in getting more involved.

**Harassment of Scientists:** Many scientists' work will be scrutinized, and they may be personally attacked by individuals and organizations who do not like their research results.



## Join Us

The UCS Science Network is intended for experts with or working towards and advanced degree. **Sign up today** to receive timely action alerts and invitations to online and in-person events specifically designed for experts like you.

[www.ucsusa.org/ScienceNetwork](http://www.ucsusa.org/ScienceNetwork)

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