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YOU Should Advocate for Science

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***YOU* Should Advocate for Science**

Are you engaged in rigorous science? If so, ask your elected representatives to fund it robustly and predictably and to oppose policies that impede scientific progress.



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By Denise J. Hills, Daniel Horton, Rafael Loureiro, Kimberly Pependorf, Christine Downs, Ronald E. Doel, T. Prabhakar Clement, and Adam Kobelski © 20 April 2018

Science advocacy is pretty simple. You just have to *ask*—in Congressional parlance—for what you want.

The idea of such an ask may seem strange, but it is key to getting heard on the Hill. And it isn't

wholly unfamiliar. After all, every time we write a grant proposal, we're embarking on an ask. After taking time to learn and practice how to craft our asks, we now have an ask of you: Contact your elected representatives and ask them to fund (<https://eos.org/opinions/invest-in-scientific-research-to-drive-innovation>) Earth and Space science research robustly and predictably (including appropriations (<https://eos.org/articles/federal-science-funding-drops-sharply-in-trump-budget-plan>) for Earth and space science funding agencies) and to oppose policies that impede scientific progress. Seek to talk to people (<http://actioncenter.agu.org/?4>) at all levels of government: city, state, and national.

Those engaged in rigorous science are the best advocates for it.

Why do we think you should become an advocate for science? Because those engaged (<https://eos.org/opinions/the-government-sidelines-science-but-to-what-extent>) in rigorous science are the best advocates (<https://eos.org/opinions/acquiring-a-taste-for-advocacy>) for it.

What's more, many of you will be coming to D. C. later this year for the American Geophysical Union's (AGU) 2018 Fall Meeting. Wouldn't that be the perfect opportunity to advocate for science on the Hill en masse?

A Pathway for Your Ask: AGU's Congressional Visits Days

Last May, we were among 11 AGU members from Alabama, Florida, Illinois, Louisiana, and Mississippi who congregated in Washington, D. C., for one of AGU's Congressional Visits Days (CVDs).

CVDs can be sponsored by many different groups; for example, other scientific organizations such as the American Association for the Advancement of Science and the Geological Society of America hold several a year. AGU-sponsored CVDs (currently, three or more per year) provide an opportunity for AGU members to meet their legislators and their staffers in D. C. During visits, participants discuss the importance of federally funded science and its influence on their research.

Some AGU CVDs include nearly 100 AGU members; others, like this third annual AGU members-only day, are smaller, allowing for more direct training and preparation of the participants. CVDs are a great way to start advocating for science.

We all had different reasons for attending CVD 2017. Kim Popendorf (Florida) wanted to inform her congressional representatives of the critical importance of federal funding for

infrastructure, such as ships and satellites; Denise Hills (Alabama) wanted to emphasize the value of supporting open science, and Ron Doel (Florida) wanted to highlight science, technology, engineering, and mathematics education.

The AGU Public Affairs (<https://sciencepolicy.agu.org/>) staff briefed us with information about the budget and appropriations process, along with what topical and timely legislative issues were of highest importance to discuss. But most important of all, they gave us guidance on how to craft our asks.

Congressional Visits Days are about building long-term relationships with legislators and becoming valuable resources moving forward.

CVDs aren't just a day on the Hill, AGU's Public Affairs team informed us. They're about building long-term relationships with legislators and becoming valuable resources moving forward.

Understanding Pitfalls

To appreciate the challenging decisions that members of Congress face, the Public Affairs staff had us work through a budget allocation exercise.

After an introduction to the federal budget, we were asked to distribute a set amount of funding across several different agencies handled by the House Appropriations Committee's subcommittee on Commerce, Justice, Science, and Related Agencies. This subcommittee sets funding levels for the Department of Defense and Department of Justice, as well as our nation's federal science agencies, including NASA and the National Science Foundation (NSF).

In our budget exercise, the overall funding was modestly increased, although at subinflationary levels, from the previous fiscal year.

We were asked, How would we prioritize which agencies got an increase? Which ones could be level funded or even decreased? Do we sacrifice justice reform efforts to increase spending elsewhere? If a group of lawyers or police officers were asked to do the same task, what would have been the result? This task was a realistic representation of the scope of budget decisions handled by policy makers.

Your Science Is Your Ask's Strength, but Have Patience

Armed with context on budget appropriations, it was easy to see how science can fall by the

wayside.

We learned that few members currently serving in Congress have a background in natural science. With such limited science representation, policy makers often underestimate or overlook the value of scientific pursuits unless their staff is well versed (<https://sciencepolicy.agu.org/resource-center/>) in these issues. With limited time and resources, they may not fully comprehend the connection between federally supported scientific research and the value to their local communities.

Therefore, advocacy for publicly funded science falls to us, the practitioners.

Success in advocacy may take time, especially as legislation can move slowly through Congress. The Public Affairs team cautioned that success in advocacy may take time, especially as legislation can move slowly through Congress. Keys to success include effective communication (<https://eos.org/opinions/the-language-of-science-and-communication-with-congress>), patience, persistence, sound science, good ethics, respect, politeness, finding champions, talking to the right staffers, good timing, and luck. And, of course, a well-structured ask.

Honing Your Ask: Approach Is Key

The Public Affairs team's key advice: "flip the pyramid" and put your ask up front. Instead of building on a broad foundation of facts, we should put our main point first and make it specific, contrary to how many scientists have learned to communicate (Figure 1).

For example, "Hi, my name is Dr. Downs, please support increasing NSF's budget to \$8 billion in fiscal year 2018, a 4% real increase from fiscal year 2016." Congressional staffers are acutely listening for that ask—if you don't make it, they're left guessing why you have come. The narrative details that support the ask come later, but the ask is key.

To begin as an advocate, just show up and be heard. Senators and representatives rarely hear from their constituent scientists.

The ask approach felt strange to us. It was opposite of how we typically talk about our research. The Public Affairs staff provided some encouragement: To begin as an advocate, just show up and be heard. Senators and representatives so rarely hear from their constituent scientists that just being there to start the conversation was much of the goal.

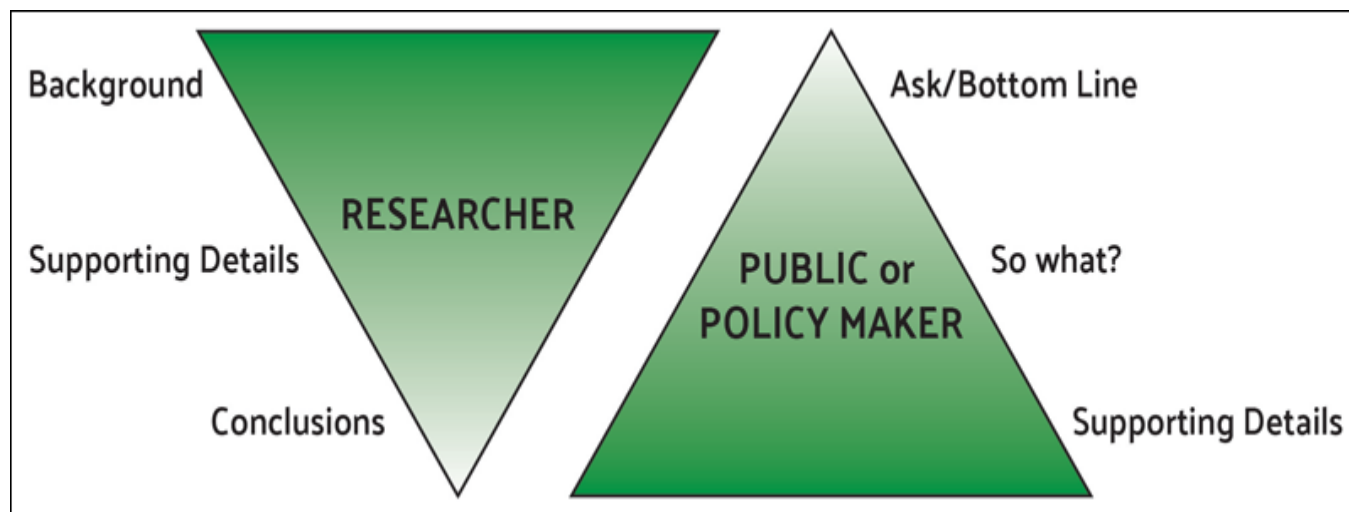
Then, tell your story, make yourself available, and relate your ask (<http://actioncenter.agu.org/app/onestep-write-a-letter?7&engagementId=464315>) to the state or district of the congressional

member. Show how your issue will have an impact on the people back home. The congressional member knows that an impact on the people they represent means an impact on potential voters.

Practicing the Ask

The morning of 3 May 2017 was warm and bright, with everyone ready for a long day of congressional visits. Each group of two to three AGU members was paired with an AGU Public Affairs representative to help navigate the mazelike congressional office buildings' hallways.

On that day, AGU's CVD participants met with more than 30 congressional offices and several members of Congress, including Rep. Mo Brooks (R-Ala.), Rep. Ileana Ros-Lehtinen (R-Fla.), and Rep. Debbie Wasserman Schultz (D-Fla.). Most meetings, however, were with congressional staffers, a common occurrence whether in D. C. or back home in district offices. Staffers are sometimes subject matter experts, tend to focus on policy specifics, and generally have more time to learn about your issues and concerns. They play a critical role in keeping members of Congress up to date on topics that matter to their constituents.



<https://eos.org/wp-content/uploads/2018/04/congressional-visits-days-alabama.png>

Fig. 1. Scientists tend to want to start with a broad foundation leading to a well-supported conclusion. Nonscientists want to know the ask (or conclusion) first, so that they know why they should care about what's being said. Credit: Modified from *Somerville and Hassol* [2011] Between office meetings, we walked the halls of the House and Senate buildings. We saw staff members taking calls and meeting with constituents like us. It became clear that Congress does not operate in a vacuum. Citizens like us bring their messages to their representatives, hoping to find a champion for their ask.

Let's organize an Earth and space science Congressional Visits Days in conjunction with the 2018 Fall Meeting in Washington, D. C.

It was an eye-opening experience to lead with the ask—pens hit paper as soon as we started talking. Often, we were queried for additional supporting information, so we shared brief stories of research projects or transformative technologies enabled by federal research dollars.

We connected our stories to the community: how improved weather forecasting leads to more accurate storm prediction, saving lives; how federal investment in energy research enables matching funds from industry to provide jobs and move us toward energy independence; how water research informs water (and other) resource management decisions; how student support encourages our best and brightest to remain in the United States to better our economy. We closed each meeting with invitations to visit us at our institutions and an offer to act as resources on science issues in the future.

The work we did that day was just the start of ongoing communication with congressional staff; many of us have already followed up by attending local congressional home offices and town hall events and sending emails to staffers. We know that our policy and appropriations goals (<http://actioncenter.agu.org/sciencefunding>) will be difficult to achieve, but our experience at AGU's CVD tells us it all starts with a simple ask.

Our Asks of You

We, the participants of AGU's CVD, have an ask of you, our fellow citizen scientists: Engage with your elected representatives (<https://actioncenter.agu.org/action?10>)—local, state, or federal. If you're not up to coming to D. C., seek your officials at their local offices. Discuss the importance of science and science support.



<https://eos.org/wp-content/uploads/2018/04/talk-to-your-legislator-invert-the-pyramid.jpg>

Team Alabama with Rep. Mike Rogers (R-Ala., 3rd district) at the recent 2017 AGU members-only CVD in Washington, D. C. From left to right, Adam Kobelski, Rogers, Prabhakar Clement, Denise Hills, and Lexi Shultz (AGU director of public affairs).

Credit: Adam Kobelski

Share your research (<https://sciencepolicy.agu.org/spa/be-a-voice-for-science-in-2018/>) in your community and with your neighbors. As they see how your science influences their lives, they may add their voice to our science advocacy chorus. Many drops make an ocean, and participatory democracy is not confined to a ballot booth—*everyone* can advocate.

We also have an ask of the AGU community: Let's organize an Earth and space science CVD in conjunction with the 2018 Fall Meeting in Washington, D. C. This event could be bigger, with more geoscientists doing face-to-face visits.

Let AGU leadership and the Public Affairs staff know that you'd relish the opportunity to talk science with your senators and representatives when you come to the 2018 Fall Meeting.

Won't you join us in being an advocate for science?

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