

## A Voice for Seismology: Inside Geo-CVD

Graduate students **Sutton Chiorini** (Miami University, Oxford, Ohio) and **Colin Pennington** (The University of Oklahoma, Norman, Oklahoma) received Seismological Society of America (SSA) travel grants to attend the September 2018 Geoscience Congressional Visits Day (Geo-CVD) in Washington, D.C. The annual event unites geoscience researchers, professionals, students, educators, engineers, and executives to raise visibility and support for the geosciences.

Chiorini and Pennington attended an SSA workshop for the basics on how Congress works and how to communicate with elected officials. They also studied relevant legislation, federal agencies, and programs. Then the SSA student members were off to Capitol Hill to advocate for seismology.

Before the trip, Chiorini hadn't given a career in policy much thought. "But after this experience, it's definitely a stronger candidate on my list," she says.

The takeaway for Pennington: "It made me want to be more actively engaged."

Read on to learn more about their trip to Washington.

### Why did you apply for the Geo-CVD program?

**Sutton Chiorini:** My graduate research focuses on detecting induced seismicity in Ohio due to hydraulic fracturing and wastewater disposal. There are communities in the mid-continental United States that both depend on these industries and are affected by the resulting seismicity. Geo-CVD seemed like the perfect opportunity to discuss with legislators how these communities are being impacted and remind them of the importance of my research and geological research as a whole.



**Colin Pennington:** I work in Oklahoma, and my research is focused on understanding the induced seismicity there. I thought it was important that Oklahoma's representatives be informed about the work we are doing there and how geoscience funding supports it. I also wanted to let them know about bills they could support that would support research in seismology and how that would benefit the people of Oklahoma.

### What turned out to be the most helpful tip or words of advice that you received from SSA staff before your big day on the Hill?

**SC:** Receiving background on what bills were coming on the floor and how they would impact the U.S. Geological Survey (USGS) and the National Science Foundation (NSF)—the institutions that fund my science—was incredibly helpful. Being told to stay on message and have a clear goal in mind was also key, along with knowing my "ask" versus my "message."

**CP:** To relax and not be nervous about talking with the aides or representatives. Also, to have a specific "ask" for each representative, depending on their interests. This helped a lot when crafting a message for each of them.

### Who did you meet with in Washington and what was your message?

**SC:** I met with a number of legislative aides and staff in Washington representing members of Congress from Ohio, Oklahoma, and West Virginia. My message to them: research like mine is crucial for both scientific and social reasons and needs continued funding.

**CP:** I met with representatives or aides from Oklahoma and Florida. I explained my research and how funding from the NSF, the USGS, and the Department of Energy has supported it. I asked them to continue their support for the geosciences. If they were from Oklahoma, I also asked them to support the National Earthquake Hazards Reduction Program (NEHRP) Reauthorization Act.

### What was the most challenging part of crafting that message for policymakers?

**SC:** Staying away from jargon, since most of what I do is coding and math, was difficult as was keeping my explanation concise and digestible. I worked on staying on message rather than just geeking out about science and rambling.

**CP:** Crafting a specific "ask" for each of them based upon my research and what issues were affecting the area they represent. For example, Florida does not have earthquakes, so my message for their representatives was broader than my message for Oklahoma.

### How was your message received?

**SC:** My message was well-received. Oklahoma is motivated to figure out the source of induced seismicity from hydraulic fracturing as their economy is strongly dependent on it, and the earthquakes are negatively impacting communities and infrastructure. Many legislators didn't appear to

have bills like NEHRP and the INSPIRE Act on their radar, but after our discussions they were incredibly receptive to supporting them.

**CP:** It was received very enthusiastically. Everyone was open to learning about our research and what they could do to help. I was able to bring NEHRP to the attention of a few of the Oklahoma representatives as well, and they seemed eager to support it.

**What was the most interesting item on the current legislative docket?**

**SC:** NEHRP, because of its impact on funding for instrumentation and database management in earthquake detection and research. I'm also interested in the pathway to careers in STEM, especially for historically underrepresented groups like women, so the Building Blocks of STEM Act is definitely of interest to me.

**CP:** NEHRP is the most important legislation to get passed.

**Did this program change your view of the legislative process?**

**SC:** It demonstrated to me that I do have a voice. I can make a difference in politics and how the country is run, and I think that's an incredibly powerful and empowering feeling. I know that by showing up and delivering a message, I am making a difference.

**CP:** How quickly things can start to move or change in the legislative process. Bills can quickly move through committees and go up for votes if there is broad support and enough time.

**How might your personal advocacy efforts change as a result of your experience at Geo-CVD?**

**SC:** After attending Geo-CVD, I'm more motivated to contact legislators regarding votes.

**CP:** It made me want to be more actively engaged. Communicating with people at a representative's local office can be just as effective as meeting an aide in D.C. The

legislative aides and representatives are eager to hear the point of view of others—especially if they are a constituent.

**What qualities do you think an effective advocate for the geosciences needs to possess?**

**SC:** Someone who can speak and present themselves well and doesn't necessarily just have the book knowledge but also the emotional intelligence and communication skills to convey an effective message.

**CP:** They need to be excited and passionate about their area of research. That goes a long way in winning people over.

**Suggestions for other students interested in advocating for the geosciences from afar?**

**SC:** Know your members of Congress! Keep tabs on how they're voting and what they've voted for in the past. And know when legislation that can impact you is coming up for a vote, so that you can contact your legislator and explain why this vote matters. You have a voice! Your email or phone call can make all the difference.

**CP:** Communicate with your representative's local office and go to the town hall meetings that your representative holds. A lot of representatives say that town hall meetings have the largest impact on how they address issues.

**Suggestions for future Geo-CVD graduate student attendees?**

**SC:** Research the representatives you're meeting with prior to attending. Not just how they've voted and where their campaign contributions have come from, but also look for personal connections to help you build your relationships.

**CP:** Don't be nervous—everyone will be excited to meet you! Also wear comfy shoes since you will be walking around a lot.

*Questions about participating in Geo-CVD? Email SSA at [policy@seismosoc.org](mailto:policy@seismosoc.org).*

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