

Phoebe Sharp  
Rhodes College  
Department of Physics  
Class of 2018

### **Science Policy As An Undergraduate Physics Major: Advocacy**

I applied for the SPS Congressional Visit Day because I was interested in advocating for stronger Physics classes and teachers in public schools across the nation. The United States is a very confident country, but we fall very far behind compared to other countries in regards to science education among our students. Coming from the Rhodes College SPS Chapter, I have a great support network of other physics students and professors that understand the importance of physics, so I was more confident in my approach to this subject. I was let down by the lack of passion for science I assumed almost everyone had.

This time every year, constituents, lobbyist, and advocates (oh my!) come to the capitol to talk with their representatives, or rather their staffers, about their interests, bills that impact them, and monetary requirements to meet and fulfill next year's budget. As undergraduate physics majors, we were in Washington, D.C. to advocate for our science policy concerns, including immigration policy, physics education, renewable energy, and more funding for research. Beyond sharing our passions and concerns about the future of physics with our representatives, we had a crash course in Advocacy 101, snowy pictures, and an impactful few days.

There were three main points I took away from this visit, the first being that my fellow SPS members on this trip were amazing. All five of us were interested in different aspects of science policy, but we all cared about each other's topics. In each meeting, the lead was the student from that state, so I led the meetings with representatives from Tennessee. I decided to advocate for more physics teachers in public schools, because there aren't that many in this

country. Each meeting was between half an hour to an hour, and after we had introductions and explained and pushed for more attention to physics in public education, the other students in the meeting with me shared their experiences with physics in their schools back in their home states. Their support for my push for better physics education in public schools was very encouraging and I can only hope that I was as encouraging with their topics.

The second point I took away from this meeting was that many science policy lobbyists and advocates on the hill are brilliant and doing an amazing job, but we need more physicists in Washington. All three lobbyists that met with us to prepare us for our day on the hill had a graduate degree in physics and ended up in policy through an AIP or APS Policy Fellowship. The goal of this fellowship was to connect educated and qualified scientists to representatives and committees that impact science policy and funding, hoping to provide reliable and convincing scientists when making decisions impacting the future of science in this country. If we are able to flood the committees, meetings, and hearings with scientists that are knowledgeable about energy, safe waste disposal, environmental science, and other areas of contention in this political climate, then our country would be better suited to handle this impending and ominous decisions. The 2018 CVD SPS members are able to add to this growing pool of physicists on the hill. I'm optimistic for the influx of scientists to influence and potentially write policy that will better our environment and society.

The third point from this visit was that meetings to advocate for science policy are tricky to predict. Often times our meetings with staffers would go seemingly well. They would listen to our pitch, ask us questions, and get to know us. Being approached by 2-5 physics students can be a strange situation. The preface of the meeting had two points: to provide experience for students at voicing our concerns about topics we care about on capitol hill, and for representatives to get

more experience with their constituents. The majority of the meetings I had were enjoyable. The staffers were encouraging for the most part. The hiccup came when we were meeting with some of my representatives.

One of many impactful meetings was with Representative Jim Cooper from my district in Nashville, TN. After giving my talk about why we need to care about physics in public schools, Rep. Cooper provided me with a very memorable experience. He provided some helpful criticisms of the program but also instilled in me a higher standard of preparation. I had made a “leave behind”, or an outline of the points I wanted to address in my meeting, he provided helpful critics for ways to make it better and more impactful for future meetings. Unfortunately, there was a miscommunication with the purpose of the meeting, and I can only assume his agenda involved us pushing a bill or asking for a specific amount of funding, which we did not do. We were advocating not lobbying for science. After a few minutes of him expressing his concerns about our lobbying attempts, I was determined to not leave this office feeling like we did something wrong. In expressing our gratitude for his criticism, I asked for more feedback and suggestions for the next time we are in a meeting like this. He encouraged us to not go into politics because politicians want to be “wined-and-dined”, not convinced intellectually. Which, if he felt so negatively about his profession, why is he still in it? I appreciate his candidness and his disguised encouragement to do better. But this reinforced an appreciation of communication that I have, as well as emphasize the true nature of politics. More scientists need to convince politicians intellectually, which is what we hope our politicians to respond to. Other tactics should be used to lobby for science policy, but it’s important that those interested in science policy are aware of the current nature of the political climate.

The SPS Congressional Visit Day was an incredible experience. Collecting five students and organizing 15 meetings for each group of students that are approximately half an hour to an hour each was not an easy ask (shout out to Kerry). Keeping those students on time and on task, despite many offices cancelling their meetings because of the snow, was also challenging (shout out to James and Danielle). And meeting four other brilliant and bright physics majors from across the country has only made physics and science policy stronger. Becoming involved in science policy encompasses so many different departments and requires collaboration among many departments, it's a great area to become involved in. SPS CVD is unlike any class, research, or conference, making it enthralling for participants and worth the hard work.



Left: Phoebe in the Senate building, posing for LinkedIn profile pictures.



Left: Guillo serving our family-sized spaghetti after a long day of Advocacy 101



Left: Laura supporting her

Wolfpack from NC State in front of  
Capitol



Left: Laura and Michelle Obama, two of the most brilliant women I know/ would like to know