As graduate students in agronomy, crop science, and soil science, our time is valuable. Graduate students are committed to research, teaching, and extension responsibilities in addition to leadership roles, career advancement workshops, and mentoring opportunities. Although there are already many demands on our time, it is important to engage with science policy as our voices can be some of the most influential in academia. It is vital for scientists to be involved with policy creation to ensure that legislators are crafting policy that is based in science. In addition, Rachel Owen, an ASA, CSSA, and SSSA graduate student member and past Director of National Affairs for the University of Missouri Graduate Professional Council, explains that there is a need to remind policymakers of the significance of our research funding. Most of our research would not be possible without federal funding, and our research potentially drives innovation and has high economic return on investment.

Entering the discussion on science and technology policy in the U.S. is easy and accessible. Here, I describe ways we can make an impact in the science policy arena during graduate school without diverting too much time and energy away from our core responsibilities.

Impact Science Policy at the District and State Level

One of the biggest misconceptions about engaging with science policy is that making an impact requires traveling to Washington, DC. Dr. Julie McClure, Science Policy Manager for the Societies’ Science Policy Office, who acts as a liaison between the Societies’ research community, science-funding agencies, and members of Congress as she advocates for research funding, debunks this misconception. Recently, when asked about how graduate students can be effective science policy advocates, Dr. McClure reported that “graduate students are especially effective advocates, not only because graduate students represent the future of research and innovation, but also the future of voters.” Dr. McClure continued by stressing that advocacy can be accomplished at the local level. She suggests that graduate students sign up to receive emails from their members of Congress to learn about local events, such as town halls, and then follow up by attending. These events, or meetings, at the congress member’s district or state office, are excellent places to pose research-related questions to Congress. Organizing several graduate students to attend a meeting with congressional staffers at a local district office could also be impactful, and this helps develop a relationship with your representative. Furthermore, if you want to engage with science policy but lack time for meetings, simply calling, emailing, or tweeting your Congress member about issues such as research funding and the farm bill are ways to make your voice heard, according to Dr. McClure.

Science Policy Advocacy Resource Toolkits

Advocacy toolkits provide resources to help you effectively engage and educate. ASA, CSSA, and SSSA members have access to these resources in the Science Policy Advocacy Resource Toolkit: www.agronomy.org/science-policy/get-involved/toolkit. In addition, AAAS has a Science Communication Toolkit available online to provide guidance for scientists who are preparing for public speaking events, such as meeting with congressional staffers about the importance of science research funding (www.aaas.org/comm-toolkit).

Science Policy Internships, Fellowships, and Workshops

If you have taken the leap to get involved with science policy as a graduate student and are able to commit to travel or longer time commitments, explore some of the potential opportunities that are available through ASA, CSSA, SSSA, AAAS, and other organizations.

ASA, CSSA, SSSA Opportunities

Once a year, Society graduate students are selected as recipients of the Future Leaders in Science Award. Award recipients are invited to travel to Washington, DC for Congressional Visits Day (CVD), a two-day event that is focused on raising awareness and support for science and research funding. On the first day of CVD, participants receive training on policy, communication, and advocacy to be effective communicators with members of Congress and their staff. The following day, graduate students and Society member scientists meet with Congress members and staffers on Capitol Hill. Congressional Visits Day is an excellent opportunity to learn about effect civic engagement tools, which can then be utilized at the local level to continue making an impact in science policy. Additional information
on CVD can be found on the ASA, CSSA, or SSSA websites: www.agronomy.org/science-policy/get-involved/cvd.

Also available through the Societies is the Congressional Science Fellowship Program. This program is designed to allow an ASA, CSSA, or SSSA member to be a helpful part of the policymaking process on Capital Hill by using their scientific expertise to shape policy decisions. Applicants must have completed their Ph.D. by the start of the program. More information can be found at: www.agronomy.org/science-policy/fellowship.

Opportunities Beyond ASA, CSSA, and SSSA

Fellowship and workshop opportunities do not end with ASA, CSSA, and SSSA. Seeking opportunities with organizations such as AAAS can expand your science policy reach beyond agronomy, crop science, and soil science. There are two prominent ways to get involved with AAAS. The AAAS Science and Technology Policy Fellowship is designed for outstanding scientists to serve for a year in either the Legislative, Executive, or Judicial branches of the U.S. federal government (Twitter: @AAAS_STPF). To learn more about the fellowship program, follow the blog organized by the current AAAS fellows: www.aasapolicyfellowships.org/blog. Also organized by AAAS is the annual Catalyzing Advocacy in Science and Engineering (CASE) Workshop. This 3.5-day program in DC introduces graduate students to Congress, the federal budget and appropriations processes, and effective science communication. The capstone of the workshop is congressional visits with Congress members and staffers to advocate for science research funding. Students who are AAAS members may apply for AAAS funding to attend the workshop, and non-members can be sponsored by their institution. Check out AAAS’s website for more information: www.aaas.org/page/about-case.

Another full-time training opportunity in science policy is the Christine Mirzayan Science and Technology Policy Graduate Fellowship Program through the National Academies of Science, Engineering, and Medicine (Twitter: @mirzayanfellow). The Mirzayan Fellowship Program is designed for early career scientists who are interested in working in science policy at the federal, state, or local levels after the fellowship. All fellows receive a stipend to relocate to Washington, DC from January to April to be part of an Academies’ committee, board, or unit to gain skills necessary to have a career in science policy and learn about the role scientists play in advising the nation (https://mirzayanfellow.nas.edu/).

Graduate students who have a passion for public service and are interested in working on science and technology policy at the federal level can pursue a Policy Internship with the Office of Science and Technology Policy, part of
the Executive Branch of the federal government (Twitter: @WHOSTP). Internship periods include the spring, summer, and fall every year, and applications are received on a rolling basis (www.whitehouse.gov/ostp/internships).

At the state level, there are science policy fellowship programs available such as the California Council on Science and Technology Science and Technology Policy Fellowship (Twitter: @CCSTFellows) and the Missouri Science and Technology Fellowship (MOST) (Twitter: @MOSTPolFellows). MOST, according to its co-founder and ASA, CSSA, SSSA graduate student member Rachel Owens, “aims to inform and advance evidence-based policy in Missouri and allows Fellows to assist legislators in drafting policies and provide non-partisan, unbiased advice based on scientific evidence.” MOST is still in the development phase but plans to host fellows in the near future (http://fellows.cst.us/ and http://mostpolicyfellows.org).

Science Policy on Twitter

Social media, especially Twitter, is a medium that is used by millions worldwide as a primary news source. Use Twitter to your advantage by staying up to date with ground-breaking news and opportunities related to science policy issues. Do this by following the Twitter accounts mentioned in this article as well as the accounts below, which I find useful for engaging with professionals interested in science policy:


@ESEPCoalition: “An ad hoc alliance to empower scientists and engineers to effectively engage in the policy making process at all levels of government.”

@FYIscipolicy: “A science policy news service supported by the American Institute of Physics.”

@ScienceInsider: “Breaking news & analysis of science policy, politics, personalities, money & controversies.”

@SciPolGuy: “Vice President for Policy, Association of American Universities. Interested in #sciencepolicy #sci-pol #highereducation #scicomm.”

@SciPolJobs: “Jobs, fellowship, and internship opportunities in science policy.”

Graduate students have many demands on their time, but making our voices heard as science policy advocates is important and accessible. The tips in this article can help you get started advocating based on your interests and time commitment.

C.J. Nevins, Ph.D. Student, Soil and Water Sciences, University of Florida, Gainesville (nevinsc@ufl.edu)