Gifford Wong

Research Staff Member at the IDA Science and Technology Policy Institute

What is your current occupation?

I'm currently a Research Staff Member (RSM) at the IDA Science and Technology Policy Institute (STPI) in Washington, DC. STPI is a Federally Funded Research and Development Center (FFRDC) that was established by Congress to inform the Office of Science and Technology Policy (OSTP) in the Executive Office of the President. My responsibilities, broadly, are to provide responsive, high-quality analyses of science and technology issues important to OSTP and other executive branch sponsors (e.g., National Science Foundation, National Institutes of Health, Department of Commerce, Department of Energy). Contributions include policy analysis and development, program evaluation, and science and technology assessment.

What is your educational background?

My educational background is a bit scattered, with 10 years separating my BA from my Honours and PhD efforts. I earned a PhD in Earth Sciences from Dartmouth College, where I used snow pits and ice cores to investigate regional changes in precipitation around northwest Greenland with Professors Robert Hawley and Erich Osterberg. Prior to that, I received an Honours in Antarctic Studies from the University of Tasmania at Hobart—examining major ion chemistry in Antarctic ice cores—and a Bachelor of Arts in Asian American Studies from the University of California at Berkeley. For most of the time between my undergraduate and Honours years, I was either a federal wildland firefighter (i.e., red-carded) and certified emergency medical technician (EMT-B), or a helicopter safety officer with the U.S. Antarctic Program. Starting at Dartmouth, I've also been both a student and practitioner of communicating science using principles found in improvisational theatre (for example, see Alan Alda's Center for

Communicating Science or skim https://blogs.agu.org/sciencecommunication/2014/12/03/yes-improvisational-acting-improves-communication-skills/).

A key message for students is that the geoscience workforce is dynamic, and boundaries between sectors and occupations are fluid. How has this been true in your career?

I agree that boundaries between sectors and occupations are both fluid—and connectable—including the circuitous path I took to go from wildland firefighting to glaciology to science policy. Even during my time post-PhD here in DC, for example, I've had the opportunity to bounce between different (but largely related) areas of focus. I started out as a William L. Fisher Congressional Geoscience Fellow (AGI) in a Senator's office working on climate change and domestic policy. I then became a AAAS Science and Technology Policy Fellow at the U.S. Department of State (Bureau of East Asian and Pacific Affairs), where I had the opportunity to work on diplomacy and foreign policy in the areas of environment, science, technology, and health. And now at IDA STPI, I'm work mostly on domestic science and technology policy issues and policy assessments.

Although my entry into the geosciences didn't formally start until I entered graduate school, I think the bulk of my early experiences—(boreal) summers fighting fires, (austral) summers supporting science with the U.S. Antarctic Program, post-college years doing national service with AmeriCorps—were chock full of geoscience'y experiences that helped inform my perspectives and, if nothing else, spurred me to consider pursuing a geoscience PhD (which leads me back to DC). If anything, the combination of my continuously curious outlook and consistent attempts to apply previously learned lessons is probably the biggest component of my ability to adapt to evolving science policy opportunities, something I developed and honed during my PhD.

Where do you see your sector moving in future years? How would you advise students to prepare to be competitive job applicants and successful employees?

Assuming people will label the sector I work in as "science policy," I think my sector will continue to rely on well-informed analyses—sometimes quick-turn, other times slower and more methodical—to inform decision making and policies (for example, see "The Next 75 Years of U.S. Science and Innovation Policy: An Introduction"). So many of today's decisions and policies require expert input, period. And there's no better place to be than in "the room where it happens," to brazenly quote from a highly successful musical.

If I were advising students to prepare to be competitive and successful in the world of science policy, I would suggest engaging in the following three areas (while caveating that there is likely no definitive list): (1) develop and nurture your sense of curiosity so that you become a life-long learner, (2) establish and refine your ability to communicate in a few different modalities (e.g., written, oral, social media) to different audiences (e.g., lay audiences, informed audiences,

science community peers), and (3) engage in meaningful ways to connect with other like-minded people (i.e., network).

What is the role of networking in your sector? Do you have advice for a student who is just beginning to build their network? What is the best way for students to get their foot in the door?

I cannot (and do not) deny the role of networking in science policy—it is there and it happens. Admittedly, I sometimes think it feels as if there is too much emphasis on the act of networking and not enough on the substance, which for me misses the main motivator of networking: there are so many interesting people out there who have done some amazing and inspiring things.

If you're a student who is working toward getting your foot in the door, there are a few of things I would suggest (while also caveating that there is likely no set way to network): (1) start by talking to people you know, (2) leverage existing resources such as your school's alumni list, and (3) don't be afraid to be polite (e.g., politely say "hi" [and possibly share a business card], politely ask for time (e.g., an informational coffee), politely thank them for their insights (and use a spreadsheet to politely remind yourself of who you've connected with).

- What I mean by "talking to people you know" is simply to start with folks you already work with and who know you in some capacity. Perhaps it's your advisor or sports coach. Share your ambitions with them because, if they know someone—someone who does the job you think you want to do—they'll be more likely to want to reach out and provide an introduction.
- Leverage existing resources so that you can reach out to people using a common thread of connection (e.g., the same alma mater).
- Remember to be polite. Time is a limited resource, and while everyone may be busy doing their day job, most everyone was, at some point in their careers, an outsider looking in and curious about how to start themselves. Not only should you follow-up with people who have generously shared their time and insights with you, remember that in a few years you will likely be in a position to pay it forward. Please do.

What does a "typical" day of work look like for you?

I suspect that for most folks, there isn't so much a "typical" day as there may be a "typical" week—for example, some days are loaded with back-to-back(-to-back) meetings, other days are mostly spent researching a topic, performing an analysis, or writing up the results (aka, getting to do actual work and research), and still other days are filled largely with management responsibilities (e.g., tracking tasks, managing expenditures, scheduling meetings).

That said, most days start with a quick sweep through my inbox to see what emails were sent overnight and read of any morning breaking news stories. I next try to map out how I hope to spend my day, making time for and prioritizing necessary tasks. From here, it's a mix of

watching the clock (to make sure I don't miss any meetings), doing work, and keeping an eye on my inbox for any additional time-sensitive requests.

What is the best part of your job?

I'd honestly say the best part of my job are the people I get to work with, both in my office and across the street, so to speak (our offices are kitty-corner from the White House Eisenhower Executive Office Building [EEOB]). It's always fun to work collaboratively on a challenging problem, especially when time is tight. And the opportunity to inform Federal policies in the science and technology realm is an incredible honor. (and a close second is my bike commute: I get to bike past the Supreme Court, the Capitol building, many of the Smithsonians and monuments along the Mall, and the White House—it's a route filled with iconic architecture and phenomenal buildings that help remind me of where I am)

Do you have any other comments or advice for students looking to enter your sector of the geoscience workforce?

For any students looking to enter into science policy from the geosciences (beyond what I've already shared), I would advise them to find a topic within the geosciences that they're passionate about and learn the science, including "how to science" (e.g., the literature review tools, the statistical tools, the writing-up-the-results tools). Once you've identified what you're interested in, go forth and learn … and continue to have fun.

Connect:

https://www.linkedin.com/in/giffordwong/

Learn more:

- Google Scholar

Select Media

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