

A Scientific Sabbatical on Capitol Hill



Nicole Gasparini, 2005–2006 GSA–U.S. Geological Survey Congressional Science Fellow

When I accepted the GSA–USGS Congressional Science Fellowship, my colleagues had a wide array of responses: some were very supportive of my decision, while others made comments like “you’re going to become one of *those* people.” I’m not sure what that meant, but I did understand why some people were confused about my choice. I have always bemoaned the lack of women in science, and while I had opportunities that year to continue in more traditional research positions, I chose the Congressional Fellowship, which led me away from a lab bench or, in my case, from rivers. Apparently, it seemed to some that I wasn’t going to be the role model of a woman scientist that I had often longed for during my training.

I hope that is far from the truth. I have always loved science, and I never planned to leave research forever, even though I knew the Fellowship could lead me in that direction. As a student, I sometimes found it frustrating that few of my advisors had experience outside of academia. Even though I aspire to a job similar to that of my academic advisors, I know that there are not enough faculty positions for every Ph.D. student. I felt that in order for me to be a good teacher and role model, I needed to have a few more experiences under my belt. As a bit of a politics junky, it seemed to me that the Congressional Fellowship would be an ideal way to broaden my horizons. When GSA selected me as the 2005–2006 Fellow, I jumped at the opportunity.

I’d never had a formal civics class before I arrived in Washington, D.C., but jumping into the fire is often the best way to learn. As a Congressional Fellow, I was given all the responsibilities of a legislative assistant. My portfolio of policy issues included science research and development, climate change, water infrastructure, disaster preparedness, nuclear waste, nuclear nonproliferation, and human rights. Congress members often get information from their staff through memos, and I had never written a memo before last year. I wasn’t worried though; I write C++ code, so how hard could it be to write a memo? It turns out that writing computer code was much easier for me than those first few memos. Writing speeches and talking points was also challenging, because I had never written in anyone else’s voice but my own. The learning curve on the Hill is steep, but I quickly found my rhythm. I got used to hearing the phrase “that needed to be done ten minutes ago,” and I figured out that Congress members do not use the term “order-of-magnitude.”

My day-to-day tasks in the office varied widely. When Congress was in session, many of my days were spent frantically finding the last-minute facts that my boss needed for committee hearings, votes, or speeches on the House floor. There are schedules in Congress, but they are often not followed, and last-minute changes always come up. Although the House floor is for members only, I did get to join my boss on the floor when he was debating an amendment I had helped to write. It was a bit nerve-wracking for me, but I also found it fascinating to witness the last-minute politicking and arm-twisting that invariably happens before votes.

As much as I loved the chaos while Congress was in session, I had more time to pursue my own policy interests when Congress was in recess. Learning the ins-and-outs of the legislative process and writing talking points and press releases were very

important parts of my Fellowship experience, but most enlightening for me was seeing how science is viewed and used in the policy arena. Before the fellowship, I had been entrenched in academia, and I had forgotten that most people do not understand how scientific funding works and how difficult it is to actually receive grant money. Peer review, of both grants and journal articles, is a black-box process to many outside of research. It was disheartening at times to see that some Congressional staff, who will ultimately advise their bosses on how to fund agencies like the National Science Foundation and the National Institutes of Health, have only minimal understanding of how these agencies actually distribute research funds.

Scientific agencies and scientists themselves are partially to blame for the mystery surrounding how peer review and funding work. Congressional staffers are generally overworked and underpaid, and there is little spare time for reading on federal agencies. However, to my knowledge, the office I worked in never turned away a visit from a constituent, regardless of what he or she wanted to talk about. In my office, I was the person who met with nearly every scientist who walked through the door. I was surprised by how few scientists or representatives of scientific groups actually visited the office. Science will never be integrated into policy if the scientific community does not participate in the policy process.

Even when policy makers intend to meld science into legislation, the results can be tenuous. Last year, a case came before the Supreme Court involving a Michigan landowner who was charged with violating the Clean Water Act (CWA) when he filled wetlands on his property without obtaining a permit. The CWA requires a permit for discharging fill material into “navigable waters.” Congress had defined “navigable waters” as “waters of the United States, including the territorial seas.” The Army Corps of Engineers includes wetlands “adjacent” to other waters of the United States in “waters of the United States.” A lower court ruled that because the landowner’s wetlands have “surface connections” to tributaries of waterways that are tradi-

tionally deemed “navigable,” the wetlands were thus “adjacent” to navigable waters. The Supreme Court was split on the case with a 4–1–4 vote; ultimately, the Court did not clearly address what waters are and are not protected by the CWA. Justice Antonin Scalia’s position, written for himself, Chief Justice John Roberts, and Justices Clarence Thomas and Samuel Alito, states that “the waters” in the CWA refers to water “found in streams and bodies forming geographical features such as oceans, rivers, and lakes,” as defined by *Webster’s New International Dictionary* (1954). While in a briefing on the details of this case, I thought about my training in hydrology and how I might define “connections” between waterways. Although you don’t need a Ph.D. to understand the water cycle, it seems to me that a 1954 definition of water might not fully capture

the complexity of connections between waterways. I’m sure that scientists are weighing in at every point of this case as it makes its way through the courts (where it still remains), but I was left wondering if this was the best way to integrate science into policy.

At times during my year on the Hill, I was inspired, yet at other times, I was very frustrated. These feelings led me to contemplate staying in Washington to “make a difference.” In the end, however, I decided that the biggest difference I could make was to go back to research and teaching and try to educate the next generation of scientists to be more aware of the science-policy nexus. At some point, I hope to get more involved in policy at the local level, maybe by attending town meetings or even running for a position on the school board. For now,

though, I am enjoying my life as a geomorphologist again; I definitely prefer writing manuscripts to writing memos.

This manuscript is submitted for publication by Nicole Gasparini, 2005–2006 GSA–U.S. Geological Survey Congressional Science Fellow, with the understanding that the U.S. government is authorized to reproduce and distribute reprints for governmental use. The one-year fellowship is supported by GSA and by the U.S. Geological Survey, Department of the Interior, under Assistance Award No. 05HQGR0141. The views and conclusions contained in this document are those of the author and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the U.S. government. Gasparini can be reached at nicgaspar@gmail.com.

About People

GSA Fellow and past president (2000) **Mary Lou Zoback** has been appointed vice president of Earthquake Risk Applications at Risk Management Solutions, a private, worldwide corporation founded at Stanford University in 1988. Zoback leaves the U.S. Geological Survey (USGS) after 28 years of service, most recently as a senior research scientist with the USGS Earthquake Hazards Team in Menlo Park, California, and regional coordinator for the USGS Northern California Earthquake Hazard Program.

Zoback is a woman of accomplishment. She served as chair of the steering committee for the 1906 Earthquake Centennial Alliance, which helped coordinate the 100th Anniversary Earthquake Conference commemorating the 1906 San Francisco earthquake. She was awarded the American Geophysical Union’s Macelwane Award in 1987 for “significant contributions to the geophysical sciences by a young scientist of outstanding ability” and currently serves on the Council of the National Academy of Sciences. Most recently, Zoback was named co-recipient of the Earthquake Engineering Research Institute’s Northern California Chapter’s 2006 Award for Innovation and Exemplary Practice in Earthquake Risk Reduction.