Initial Report:

David Szymanski

2008–2009 GSA-USGS Congressional Science Fellow

Quantifying Change on Capitol Hill

"Prepare for a big change" is probably the most common advice that incoming Congressional Science Fellows receive from former Fellows. I left the laboratory in late August 2008 expecting change—a familiar word after the last election cycle. Like most scientists, I expected to be able to quantify the personal and professional changes I was about to experience, but I was mistaken. It turns out there are very few metrics for these types of change in D.C., aside from election numbers (but I do have a little bit of advice: avoid using the term "delta" to describe change next time you have a meeting on the Hill).

It is a remarkable opportunity to be in our nation's capitol during one of the most exciting and difficult periods in recent U.S. history. In this first report as the 2008–2009 GSA-USGS Congressional Science Fellow, I will give you a brief recap of my experiences up to the end of the 110th Congress and look ahead at some science policy issues for the 111th Congress.

Shortly after arriving in Washington, D.C., I joined a class of more than 130 science and technology policy Fellows for an intense two-week orientation program coordinated by the American Association for the Advancement of Science (AAAS). Each year, ~100 Fellows join various offices in the executive branch, while the remaining Fellows—like the 34 in my cohort—spend their fellowship year working on science policy in congressional offices. The AAAS orientation program introduces incoming scientists to the life on the Hill in a marathon series of lectures, exercises, and networking functions across the city, ranging in subject from history and science policy to the bizarre dance that is the federal budget process.

Immediately after orientation in early September, congressional Fellows set out to interview in countless Senate and House offices. In perhaps the most uplifting revelation to a scientist entering Washington, I quickly learned that science Fellows are a hot commodity on the Hill. Beyond being cheap labor (and we are—fellowships are fully funded by either AAAS or partner organizations like GSA-USGS), congressional Fellows have an exceptional reputation for their contributions to House and Senate offices. Nearly every piece of legislation has some component of science or technology, from basic research and development programs and space exploration to healthcare and land management.

Over the course of seven days, I completed 22 interviews—including second and third interviews—in fourteen separate House and Senate offices. After the first day, I learned to schedule consecutive interviews on one side of Capitol Hill or the other—House and Senate offices are separated by the length of the U.S. Capitol and then some, and D.C. is a sauna in late summer. To get the most exposure to work environments and legislative goals in congressional offices, I interviewed with personal and committee offices in both chambers. It is said that Congress is like 535 small businesses; each office culture is different, and Fellows need to find the right fit for a productive experience.

In the end, I found that "right fit" and accepted an offer to serve in the office of Senator Jon Tester (D-Mont.), where I am working on energy and natural resource policy. I am quickly learning that scientific breadth is more important here than the depth required in academia. This is not to say that data are unappreciated on the Hill—it's simply that uncertainty and time are luxuries when it comes to the confluence of competing interests.

This is the most important piece of information for a scientist engaging in public policy: Scientific data are part of a policy solution, not the solution itself. This should not be viewed as an anathema, but rather an opportunity to learn how to communicate science for policy development under those competing interests. By the time this article is in print, the first session of the 111th Congress will be in full swing. When I arrived in my Senate office after returning from the GSA Joint Annual Meeting in Houston last fall, Congress had just passed the Emergency Economic Stabilization Act of 2008, securing US$700 billion for the Troubled Asset Relief Program (TARP). Prior to the subprime mortgage debacle coming to a head in September, it looked like energy and climate change were going to top the list of national priorities, but instead, the national economy dominated the end of the 110th Congress and will likely dominate the 111th Congress as well.

As you read this, the new Congress will most likely have passed, and the president signed into law, a large economic stimulus bill. At the time of this writing (December 2008), legislators have already begun debate on the best way to jumpstart the economy, and energy and climate change may still play a central role. Senators Harry Reid (D-Nev.) and Debbie Stabenow (D-Mich.) have independently introduced bills designed to create additional "green-collar" jobs by investing in energy efficiency programs, alternative energy technology and infrastructure development, and natural resource conservation. The idea behind such programs is that economic development, clean energy, and climate change mitigation are not mutually exclusive. But creating effective legislation to stimulate the economy and simultaneously curb greenhouse gas emissions is not easy, which means scientists can help inform the debate.

The key is learning how to inform the debate in light of complex decisions and competing interests. Based on my

continued on p. 24

continued from p. 23

short time in Congress, my impression is that skepticism about climate change and science in general is on the decline. But the mere acceptance of scientific data does not lessen the burden of political decision making. In terms of energy policy, for example, the biggest question is how to change from a fossil fuel–based economy to one based on clean, renewable alternatives. There is no single "right" way to do this, but scientific analysis can help make more prudent decisions.

In the coming months, I hope to provide you with a glimpse of how scientists can help inform the legislative process. How can scientists quantify change in Washington, D.C.? Like our democracy itself, it's all in the numbers. We are not just constituents; we scientists also shape policy, from inside and outside the Washington beltway. The more scientists who get involved, the better the outcome. Even in these difficult economic times, I am convinced that this is an unprecedented time for earth scientists to help guide U.S. science policy. I am grateful to GSA and the USGS for the opportunity to be part of the change.

This manuscript is submitted for publication by David Szymanski, 2008–2009 GSA-USGS 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. 08HQGR0141. 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. Szymanski can be reached at David_Szymanski@tester.senate.gov.

Philmont Scout Ranch Volunteer Geologist Program

Cimarron, New Mexico, USA

Sponsored by the Rocky Mountain Association of Geologists

The Tooth of Time, New Mexico.

Volunteer to teach and demonstrate area geology to high school–age boys and girls in back-country New Mexico (at French Henry mining camp, Baldy Town, or Cypher's Mine). This summer, volunteers will be allowed to arrive a day early and leave a day late and can work for up to two weeks on a first-come, first-served basis. Students who would like to volunteer must show proof of enrollment in a graduate-level program.

The 2009 program begins 14 June and ends the week of 9 August. Only 54 spots are available this summer, so sign up early!

For more information and to sign up, contact Ed Warner, P.O. Box 480046, Denver, CO 80248-0046, USA, +1-720-904-0560, ewarn@ix.netcom.com. Alternate contact: Bob Horning, P.O. Box 460, Tesuque, NM 87594, USA, +1-505-820-9290, rrhorning@grappawireless.com.

Learn more about the geology of the area at http://pubs.usgs.gov/pp/pp_505/html/pdf.html.