

## Science Policy

# ASA Members Experience Capitol Hill from the Inside

Stephen Pierson, ASA Director of Science Policy

*For this month's column, I am pleased to feature ASA members who have spent a year working on Capitol Hill or in the administration. As I mentioned in my October column, such service is an excellent way for ASA members to have an impact on science policy. Here, Ivelisse Aviles and James Murphy share their experiences and insights.*

## Ivelisse Aviles

Ivelisse Aviles spent most of 2008 in the office of Rep. Luis Fortuño (R-PR) on special assignment from NIST. She has since returned to NIST, where she is a mathematical statistician.



How did I age a decade in less than a year? I worked for a member of Congress and made the most of my time on Capitol Hill. For 10 months, I served as primary advisor to Rep. Luis Fortuño (R-PR) on science, space, technology, and telecommunications. I counseled him on topics as diverse as biorefineries, homeland security, labor-management committees, marine sanctuaries, the congressionally mandated transition from analog to digital television, and knowledge-economy opportunities.

I came to the Hill on a special assignment as a Department of Commerce Science and Technology (ComSci) Fellow from my position as a mathematical statistician at the National Institute of Standards and Technology. The Hill has a fascinating and peculiar culture, filled with traditions and interpersonal relationships. I learned how to adapt in a second and communicate in a minute.

The importance of having a strategy was quickly learned. Just as serving as reviewer for proposals equips the researcher with tools to write successful grant proposals, listening and talking to lobbyists, representatives of federal agencies, and other congressional staffers have clearly taught me how to talk to Congress. It is vital to leave a "strong signal." Many people talk with "too much noise" and the message gets lost. Even a strong signal will get lost in such a noisy environment. Keep in mind that being at the right place at the right time matters a great deal on the Hill.

I had the opportunity to study the implications of a block-grant formula used to allocate funding for states versus fixed amounts used for the U.S. territories (energy program). I also was able to address key decisionmakers about the importance of providing a scientific foundation upon which regulation can be based at a nanotech briefing. That is, knowing how to collect and analyze data and gauge uncertainty on such a small scale is fundamental to staying competitive in nanotechnology and implementing proper federal regulation. In this fast-paced environment, my statistics

## ASA Science Policy Actions

The ASA signed onto Science Debate 2008, a grassroots initiative to inject science and technology issues into presidential campaigns and debates

The ASA signed onto a letter urging the next president of the United States to appoint a science advisor before taking office and to elevate the position to a cabinet rank

The ASA submitted comments on proposed changes to Centers for Medicare and Medicaid Services Public Use Files

The ASA nominated ASA members for an NSF Directorate director, National Assessment Governing Board, and FDA Science Board

background helped me make unique connections and figure out building blocks and implications even faster.

Statisticians are involved in a broad range of topics and projects. We are indeed invaluable assets to those with whom we collaborate. Now, are we thinking seriously about what decisionmakers really mean by statistics? The Hill could use many more technical people (willing to adapt). Can you envision a statistician's role on the Hill? How would Congress have drafted a financial rescue plan if you would have been asked? Precious few statisticians are involved in policy matters. Fortuño's chief of staff used to refer to me as the "secret weapon." (No, I did not destroy, but was capable of explaining technical implications of policy considerations.) I look forward to sharing newly gained insights and anecdotes when we meet at the next JSM.

Being part of the Hill made me a stronger professional and a wiser American. It is amazing how transformational this type of assignment can be. Recall the movie "The Matrix" (red or blue pill)? I feel I have taken the (nonpartisan) red pill. Perhaps I aged 10 years in 10 months, but I would definitely do it again.

## James Murphy

James Murphy served as an AAAS Fellow in the office of Sen. Pete Domenici (R-NM) from 1985–1986. His fellowship was sponsored by the American Mathematical Society, the Mathematical Association of America, and the Society for Industrial and Applied Mathematics. He is currently head of the Division of Biostatistics and Bioinformatics at National Jewish Health in Denver, Colorado.



Washington, DC, as you probably already know, is a little different from the rest of the world. I was the math fellow from 1985–1986 in the office of Sen. Pete Domenici from New Mexico. At that time, the American Statistical Association did not have

a congressional fellows program. When I told the senator I was interested in finding out how Congress used statistics, he grinned and said, “We don’t. If they support our agenda, we quote them. If they don’t, we ignore them.”

This was not quite the case, but it does reflect that the major focus of members’ offices is on their political agenda, not on the fine points of statistical analysis. Congressional committees that focus on specific issues are more likely to be interested in the correct use of statistics. Because I spent my fellowship in a member’s office, my comments are based on that experience.

Despite my rough start, I felt I made a contribution to both the senator’s office and my profession by pointing out areas in which statistics could help people understand the impact of legislation. I wrote about my experiences in a series of articles for the Society of Industrial and Applied Mathematics’ news journal from 1985–1987.

If you wish to influence policy in a member’s office, you first need to gain the member’s trust that you can correctly represent the policies the member supports. This requires more than just statistics. If you work in a member’s office, you should be prepared to deal with just about anything. During one meeting with the secretary of education, the senator’s wastebasket caught fire. “Jim, please deal with this,” indicated this was a new part of my job description.

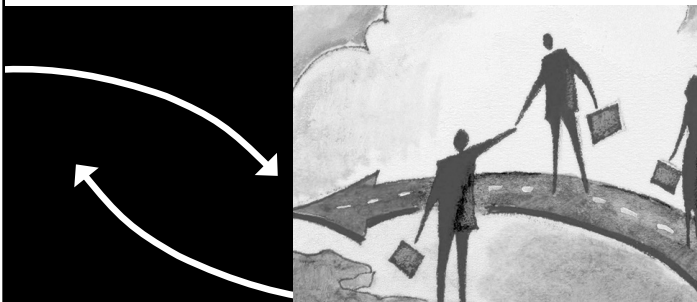
The level of statistical knowledge in Congress is what you would expect from a well-educated segment of the population. Therefore, you should expect limited understanding of statistics from the people you try to influence. I had one experience reviewing a bill in which the definition of statistical significance was incorrect. I called the appropriate office to report this and was told that if it was defined within the bill, then that was the definition that should be used, regardless. The bill was H.J. Res. 372, aka, Gramm-Rudman-Hollings.

So, what does Congress need from professional statisticians? Perhaps most importantly, they need to know they can talk to statisticians and that statisticians have important and coherent contributions to make to policy discussions. When I left the senator’s office, I wasn’t sure I had accomplished anything in this regard. Several years later, I met the office manager at another meeting and asked if he remembered me. He said, “Of course I do. You were the best fellow we ever had.” You never know what impact you might have.

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Another ASA Member, Steven Anderson, served as an AAAS Risk Policy Fellow, working at the USDA Food Safety and Inspection Service from 1999 to 2001. If you are interested in applying for an AAAS fellowship, I highly recommend you review the application procedure now so you are prepared for the 2010 fellowship application deadline of December 15. If you work in the federal government, check with your employer about the possibility of special assignments on Capitol Hill. You also may be interested in the Health Policy Fellowship, for which you will spend a year at NCHS. That application deadline is January 9. If you would like more information about any of these opportunities or are aware of other ASA members who have been AAAS fellows or otherwise spent a year on the Hill, email me at [pierson@amstat.org](mailto:pierson@amstat.org). ■

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