

**American Mathematical Society
Committee on Science Policy Meeting
March 16-17, 2012
Washington, DC**

Summary

The 2012 Committee on Science Policy (CSP) meeting consisted of presentations and discussions over a day and a half. Attendees included committee members, a number of chairs of departments of mathematics from around the country and guests.

Highlights from presentations:

Dahlia Sokolov

***Democratic Staff Director, Subcommittee on Research and Education
House Committee on Science, Space and Technology***

Dahlia Sokolov gave her perspective on the outlook for STEM research and education in 2012. She mentioned that there were a number of hearings held last year on STEM education, but they were focused mostly on private sector activities. She is anticipating hearings on federal activities in STEM during the coming year, as well as on ways to better measure the impact of efforts in STEM education.

Sokolov also spoke about the diverging views between the two parties on the role of the federal government in supporting the research and science agenda. The elections this year also bring uncertainty as to how things will play out.

Tom Culligan

Legislative Director, Office of Rep. Frank Wolf (R-VA-10)

Tom Culligan spoke about the provisions in the Budget Control Act of 2011. He pointed out that the Act impacts discretionary, non-defense spending in FY 2012 and FY2013. Additionally, the elections this fall, the promise of across-the-board cuts (sequestration), tax reform, deficit reduction, the expiration of the Bush tax cuts, and other budget interests are coming together at once to make predictions of federal support for science and education programs impossible.

There was general discussion on how the mathematics community can contribute to the conversation on Capitol Hill about the importance of science. Culligan said that talking about the ways that research gives back to society is important for lawmakers to hear and he encouraged the group to develop relationships with representatives to further this understanding.

Tom Statler

***Program Director, Division of Astronomical Sciences
National Science Foundation***

Tom Statler spoke to the group about initiatives at the National Science Foundation in expanding public access to research results and he provided definitions, background and context to NSF activities related to 'open access.' He mentioned that data management plans have been required in all NSF proposals since January 2011 and he talked about NSF's commitment to setting priorities and establishing policies to further public access to high-value digital products of NSF-funded research.

Statler described an internal working group at NSF that is looking at alternatives for open access publishing. He also talked about the challenges to an open access transition and the pilot projects that are underway that will aid in the assessment of how to proceed.

Joan Ferrini-Mundy
Assistant Director, Directorate for Education and Human Resources
National Science Foundation

Joan Ferrini-Mundy's presentation was centered on undergraduate STEM education, particularly the recently released President's Council of Advisors on Science and Technology (PCAST) report entitled "Engage to Excel: Producing One Million Additional College Graduates with Degrees in Science, Technology, Engineering, and Mathematics," which provides a strategy for improving STEM education during the first two years of college. The report presents five broad recommendations to increase the number of college graduates in STEM fields in the next ten years. She spoke particularly to the recommendation for a national experiment in mathematics undergraduate education at NSF, the Department of Labor and the Department of Education, which includes an approach that would have curricula development and teaching of college mathematics done by faculty from mathematics-intensive disciplines other than mathematics.

Ferrini-Mundy also described several NSF programs that address STEM education, including Transforming Undergraduate Education in STEM Programs (TUES), a signature program of the NSF Directorate for Education and Human Resources (EHR) that supports innovations in teaching and learning. This program, along with the new WIDER, E² and collaborations with the Department of Education are at the core of EHR undergraduate efforts. Jennifer Slimowitz-Pearl (NSF/MPS-DMS) also spoke briefly about the NSF's K-16 mathematics initiatives.

Richard Yamada
AMS Congressional Fellow
Office of Senator John Boozman (R-AZ)

Richard Yamada gave his impressions of how the federal government works from his perspective as a Congressional Fellow working in a Senate office. He spoke about the difficulty of trying to balance stakeholder needs when it comes to federal spending and other legislative priorities. He also talked about the role of lobbyists and his impression that issues are more likely to be regional than political.

Hans Kaper
SIAM Committee on Science Policy
Math & Comp Sci Division, Argonne National Laboratory

Hans Kaper gave a presentation about how the Committee on Science Policy of the Society for Industrial and Applied Mathematics (SIAM) operates. He shared their committee charge and composition guidelines, as well as their membership list and information on their meetings schedule and broad activities under the direction of a private government relations firm.

The SIAM Committee on Science Policy meets twice per year – in the fall to prepare for the following year and in the spring to advocate policy priorities in Congress. The committee may also advocate for or against particular legislative issues when necessary throughout the year and will provide input when requested by outside concerns. If the committee is to take a position on something or write a report, it is done with the guidance of the SIAM Council.

Sastry Pantula
Director, Division of Mathematical Sciences (DMS)
Directorate for Mathematical and Physical Sciences (MPS), National Science Foundation

Sastry Pantula began his presentation by asking the mathematics community to help identify new program officers for NSF/MPS-DMS and encourage people to apply, including for the Assistant Director position at MPS. He then talked about the new "One NSF" framework and the priority areas for MPS in 2013, including INSPIRE and Expeditions in Education (E²); Cyberinfrastructure Framework for 21st

Century Science and Engineering (CIF21); and Cyber-Enabled Materials, Manufacturing, and Smart Systems (CEMMSS).

Pantula then discussed funding at the NSF, particularly within MPS, the largest directorate. He said that although the MPS budget as presented in the President's Request for FY2013 is up 2.8%, the reality is that it is still down compared to FY2010. With budgets shrinking, he encouraged the mathematics community to help set the budget drivers.

Other Discussion

There was discussion on how to make the Committee on Science Policy more effective -- this centered on the structure of future Committee on Science Policy meetings. It was decided that the meeting dates for 2013 will be Thursday - Friday, March 14-15. The meeting will begin with an orientation and training session beginning mid-day Thursday and culminate with visits to Congressional offices on Friday. This type of CSP meeting will need to be ongoing in order to build the relationships necessary to make these efforts effective. There were also a few other suggestions for CSP activities, including providing opinion pieces for the Notices and raising awareness of the issues involved in the data deluge.

Another subject discussed at some length was the PCAST Report. It was noted that there was no mathematician on the council of advisors and although the recommendations in the report are not a mandate, the committee felt that the AMS should respond to the report. It was suggested that the AMS Committee on Education (COE) have a forum at the Joint Meetings related to the issue of undergraduate teaching. Also, COE could assemble a working group to collect documentation of exemplary programs and anecdotal stories of what is already being done to address the issue of getting more undergraduate students to pursue STEM majors. Tara Holm, the Chairs of COE, will identify individuals to spearhead this effort. Bob Daverman and Eric Friedlander also volunteered to help assemble the working group.

Committee on Science Policy Events at the 2012 Joint Mathematics Meeting

The committee now has one slot at the Joint Mathematics Meetings each year and the committee discussed making a presentation on the issue of Open Access at the 2013 JMM in San Diego, CA.

Date of Next Meeting

The 2013 Committee on Science Policy meeting will be held on March 14-15, 2013 in Washington, DC.

Submitted by Anita Benjamin
American Mathematical Society
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