

## **2008 Annual Report to the Council Committee on the Profession**

The Committee on the Profession (CoProf) held its annual meeting on September 13, 2008, at the O'Hare Hilton Hotel in Chicago, IL. Highlights of that meeting are provided below.

**Annual review:** This year, CoProf's annual review, conducted by a subcommittee, was on the topic of the Society's activities related to professional ethics. In general, the subcommittee felt that both the Committee on Professional Ethics (COPE) and the Committee on Academic Freedom, Tenure and Employment Security (CAFTES) were functioning appropriately. The subcommittee requested that the AMS membership be reminded of these two committees, that the committee consider issues regarding the impact of technology on plagiarism, and that CoProf consider writing a general statement on the ethics of hiring practices. CoProf endorsed the report of the subcommittee, and approved the following recommendations:

- Ask the chair of COPE (Catherine Roberts) to include information on COPE and CAFTES in her upcoming article to appear in the Notices.
- Ask COPE to periodically update its manual with examples to reflect current issues with technology.
- Appoint a subcommittee to consider what issues should be considered in a general statement on the ethics of hiring. These issues will be brought to CoProf next year, and at that time the committee will decide on whether it will make a general statement.

**2008 Culture Statement:** The Committee on the Profession has been making a series of statements that highlight ways in which the traditions of mathematics differ from those in other disciplines, especially other sciences and engineering. This year, CoProf discussed a statement concerning levels of grant funding. The information statement on the culture of mathematics for 2008 is included at the end of this report.

**Programs that Make a Difference:** In January 2005, Council endorsed CoProf's recommendation to recognize two programs each year that: (1) aim to bring more persons from underrepresented minority backgrounds into some portion of the pipeline beginning at the undergraduate level and leading to an advanced degree in mathematics, or retain them in the pipeline; (2) have achieved documentable success in doing so; and (3) are replicable models. The programs recognized in 2008 are: Summer Undergraduate Mathematical Science Research Institute (SUMSRI), Miami University (Ohio) and Summer Program in Research and Learning (Math SPIRAL), University of Maryland.

The subcommittee that was formed to choose the 2009 recognitions requested proceeding under a different schedule, with a call for nominations sent out by email in the summer, and the subcommittee to make its decisions by November 1. Subsequently, CoProf had the opportunity to endorse the subcommittee's decision by email. Five nominations were received. The two programs that were chosen will be featured in the May 2009 issue of the *Notices* and will be presented on a web site linked to the AMS home page. Please

note that although the directors of the programs have been notified, the news will be embargoed until the *Notices* issue has been published.

**Prizes:** CoProf discussed prizes once again at its September 2008 meeting, and in particular discussed ways in which the AMS might use the spendable income from the Steele fund. The committee recommended doing two things: Increasing the Lifetime award to twice the standard amount (making it a \$10,000 prize) and creating new prizes with the remaining spendable income that is now available. In order to carry out the second action, however, the committee recommends that the Society form a task force in order to consider more carefully the principles by which we seek and create new prizes. The job of the task force would be to consider such principles, taking into account the practical constraints the AMS faces in seeking endowments. (The ECBT approved this as a presidential task force in November 2008.)

**Department Chairs Workshop:** CoProf recommended that the chairs of four-year colleges receive specific invitations to the Department Chair's Workshop at the 2009 JMM.

**Request for Apology:** A member of the AMS (Daniel Waterman, Professor emeritus, Syracuse University) has written to request that the AMS apologize to its black members for a consistent practice in the past of scheduling AMS Sectional meetings at institutions that did not permit African-Americans to attend. CoProf will appoint a subcommittee to investigate this issue, and bring a recommendation back to CoProf next year.

CoProf endorsed several motions and statements that are being sent to Council for action.

- **Advisory statement concerning interviewing at the JMM:** Recently, MAA officers received an email from an MAA member, expressing concern that interviews for employment are sometimes held in hotel rooms or suites at the winter Joint Mathematics Meetings. This practice is now less common than it used to be since the introduction of the unscheduled interview tables in the Employment Center, but we know that it continues to happen. Although we are aware that this can cause uneasiness or anxiety for applicants (especially female applicants), we do not specifically caution either side about this practice. A subcommittee of CoProf wrote the following statement, which has been approved by the entire Committee of the Profession:

“The AMS strongly encourages the use of Employment Center venues for all professional interviews of prospective employees at society meetings. The use of personal hotel rooms is particularly discouraged.”

- **Advisory Board for Employment Services:** The AMS offers four main employment services for the PhD job market:
  - EIMS job ads on the website and in a paper journal
  - Mathjobs.org electronic job application system
  - Job ads in the Notices of the AMS

- Employment Center in-person interviews at the Joint Mathematics Meetings

Policy issues sometimes arise while trying to make these services address the needs of the community. To meet its charge of policy oversight in the area of employment services, CoProf approved a three-person advisory board. The advisory board would consider occasional policy concerns specific to individual services, as well as take a longer view of the needs of the community. The advisory board would report regularly to CoProf about how the employment services of the AMS are meeting those needs. The charge of the Advisory Board for Employment Services appears at the end of this report.

- **Library Committee charge:** At its spring 2007 meeting, some members of the Committee on Committees remarked that the charges to several committee charges were rather unclear and might be out of date. For the AMS Library Committee charge, CoProf appointed a subcommittee to revise the charge. CoProf approved the following revised charge of the Library Committee, and brings that to the Council:

“The Library Committee considers the use by mathematicians of all the various resources found in mathematics libraries in Canada and the United States. It periodically collects and maintains authoritative data on those libraries, and it provides advice about the questions to be addressed when library surveys are conducted. It studies and articulates the needs and concerns of mathematicians about their use of both print and electronic information. It monitors problems in libraries and fosters dialog between mathematicians and librarians on issues concerning the dissemination and preservation of research. It supports librarians in their efforts to build and maintain better mathematics libraries and to provide ready access to information.”

- **Exemplary Program Prize charge:** The AMS has received a gift from an anonymous donor that endows this prize and allows for an annual prize amount of \$5,000. CoProf endorsed this change, and brings a revised formal description of the prize to Council.

The Committee selected the Society’s activities Human Rights of mathematicians as the topic of the next year’s annual review. This topic was last reviewed in 2002. CoProf has chosen citations and the impact factor of journals as a topic for next year’s information statement on the culture of mathematics.

CoProf will sponsor a panel at the Joint Mathematics Meeting in 2009. The panel will consist of several graduate students, postdocs and young faculty, and a graduate advisor, for an audience of undergraduate students. The topic of the panel will be: *What I wish I had known or studied before going to graduate school*. This panel was recommended by the Committee on Meetings and Conferences at its meeting of April 12, 2008.

The Committee on the Profession will hold its next meeting on September 12, 2009 at the Chicago O'Hare Hilton.

*Craig Huneke, Chair  
Committee on the Profession*

*Ellen J. Maycock  
Associate Executive Director  
November 19, 2008*

## **2008 Statement**

### **The Culture of Federal Support for Academic Research in Mathematics**

Academic research in mathematics, like research in engineering and the life, physical, and computer sciences, is financially supported by foundations, industry, and the Federal government. Approximately 70% of the external funding available for academic research in these fields comes from the Federal government, down somewhat from 80% thirty years ago. Most Federal funding for mathematical research comes from the National Science Foundation (NSF), the Department of Defense, the Department of Energy, and the National Institutes of Health. The NSF accounts for nearly 70% of the Federal support for academic research in the mathematics, and is the only agency that supports all branches of the mathematical sciences.

Amongst doctorate holders employed in academia, 66% of mathematicians describe research as a primary or secondary activity, quite like the 68% of physical scientists, and the 70% of computer and life scientists who make such a report. Nonetheless, a much smaller proportion of academic mathematicians are supported by the Federal government. In 2006, across all fields of science, 46.9% of those employed in academia received Federal support for their research: 56.3% of physical scientists, 43.9% of computer scientists and 57.9% of life scientists, as compared to 34.8% of mathematicians.

As compared to other natural sciences, there is also a large disparity in the per capita level of funding available to mathematicians. In FY2006, across all fields of science and engineering, the Federal government provided about \$260,000 per academic researcher. By field, this breaks down to \$360,000 per academic researcher in Computer Science, \$140,500 per academic researcher in the Physical Sciences, and \$430,000 per academic researcher in the Life Sciences. By contrast, in 2006 the Federal government provided about \$47,000 per academic researcher in Mathematics.<sup>1</sup>

When compared to other fields of science and engineering, opportunities for external funding in mathematical sciences are very limited. The vast majority of mathematicians receiving Federal support have just one, single investigator, NSF grant. These grants typically provide salary support for one, or two summer months, and some funds for travel. Almost no support is available for course release time, and there is limited support for graduate students, post-docs or equipment. Many well respected, productive mathematicians receive little or no external support for their research.

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<sup>1</sup>In these calculations the numerator comes from Appendix table 5-4: **Expenditures for academic R & D, by field**, and the denominator from the "Research" section of Appendix table 5-26: **S & E doctorate holders employed in academia...**

# Advisory Board on Employment Services

## General Description

Number of members is three.

Term is three years.

Membership: 3 at-large members, appointed by the President.

The chair is appointed by the President to a one-year term as chair, with the possibility of extension, extending her (his) term on the committee if necessary. The Associate Executive Director for Meetings and Professional Services shall provide administrative and staff support.

### 1. Principal Activities

The Committee provides advice and guidance to the AMS staff in the area of employment services for mathematical scientists and those who hire them.

Responsibilities include immediate attention to various policy questions that may arise from time to time, as well as a long-term view of the needs of the community, and the adequacy of AMS programs to meet those needs. The Advisory Board should update the Committee on the Profession annually about the state of AMS employment services and any current policy discussions or concerns.

### 2. Other Activities

The AMS offers various employment services to aid the hiring of PhD mathematical scientists. The list of the services is likely to change over time. It is useful to have committee members who are knowledgeable about AMS employment services and are recent users of them.

### 3. Miscellaneous Information

Ordinarily the Committee will not have face-to-face meetings. Committee business may be transacted by mail, email, telephone, fax, and conference call, expenses for all of which may be reimbursed by the Society.

### 4. Note to the Chair

Work done by committees on recurring problems may have value as precedent or work done may have historical interest. Because of this, the Council has requested that a central file system be maintained for the Society by the Secretary. Committees are reminded that a copy of every sheet of paper should be deposited (say once a year) in this central file. Confidential material should be noted, so that it can be handled in a confidential manner.

### 5. Authorization

Created by the Council on 4 January 2009.