
From the AMS Secretary

Each of the five AMS policy committees, which report to the AMS Council, has one face-to-face meeting annually. Two of them meet in the spring; three in the fall. This is a report on the fall 2002 meetings of the Committee on Publications, held in Chicago on September 13–14, 2002; the Committee on the Profession, held in Chicago on September 21, 2002; and the Committee on Education, held in Washington, DC, on October 25–26, 2002.

Committee on Publications Highlights

As part of the regular review cycle of the Society's publishing program, a subcommittee, chaired by Gail Ratcliff, carried out a review of the AMS electronic-only journals. A final report was given at the September meeting of the Committee on Publications (Cpub). The subcommittee received many positive remarks as a result of its surveys and concluded that the journals were doing well. The report mentions that authors are happy with the speed of publication, the two specialized journals are attracting authors whose work fits into their specific areas, and all the editorial boards are working well.

As a result of discussions held by Cpub in 2001, the AMS now features a page specially designed for journal authors, and access to AMS electronic journal back files will now be free five years after publication. The AMS journals posted on JSTOR do not fall under this policy.

The executive director mentioned that momentum is building for a coordinated effort to put "all past mathematical literature" online as a Digital Mathematics Library (DML). Participants have agreed that the project must be international in scope, loosely under the International Mathematical Union (IMU). Some of the key goals of this initiative are to coordinate all ongoing efforts and to propose a good initial model which will concentrate on journal collections.

One major issue connected with this project is the archiving of material in a suitable format under the control of the academic community. There is currently little specific action needed from the AMS for the DML other than to continue its basic support of the concept. The Society has adopted a policy on copyright, however, that ultimately may impede future work on the DML. In 2003 this policy will be reviewed by the executive director and the Committee on Publications in light of the changing environment.

Cpub discussed the ongoing focused planning process by AMS staff and was asked to make suggestions about the planning process in the areas of transition to electronic journals, the production process within the publication environment, the issues for *Math Reviews*, and the transition from paper to electronic publishing. Data is being gathered for a cost benefit discussion and the practices of other publishers. The committee will also look at the proposed author resource center and Web-based upload tool that would allow journal authors to submit manuscripts more efficiently to the AMS.

The publisher provided the traditional report on the Society's book program, stating that the AMS staff had carried out a detailed analysis of the book program finances as well as many of the associated business practices. As a result, a lot of changes have been made in marketing and distribution and to the production environment. The analysis shows that even though the book program is bigger and better than ten years ago, it is still paying only for its direct expenses. As a result, further changes will need to be made in distribution, pricing, acquisitions, and the overall program mission and goals. Other recommendations include the renegotiation of many of the copublication and distribution agreements, and a better process for ushering book projects through the system, from initial contract to final publication. One clear conclusion is that the Society must expand the scope of the book program if it wants to expand its financial base. This will mean publishing more books in certain areas that traditionally have not been the strength of the AMS book publishing program.

The publisher reported on journal backlogs, concluding that the problem mostly results from the refereeing side. The proposed central processing of papers at the AMS, already successful with the *Bulletin*, is seen as a possible solution.

Also presented were a report on *Math Reviews* by the executive editor and a report on the *Bulletin* and *Notices* by the publisher.

Committee on the Profession Highlights

The Committee on the Profession (CoProf) discussed a proposal for a new AMS Book Prize; a recommendation that the AMS Council establish the prize was approved by email following the meeting. The Book Prize would recognize a single, relatively recent, outstanding research book that makes a seminal contribution to the research literature, reflects the highest standards of research exposition, and promises to have a deep and long-term impact in its area. Books published within the six calendar years prior to the year in which nominations are due would be eligible. The prize would be awarded every three years, and the amount would be \$5,000. CoProf also discussed a proposal to establish an AMS award to recognize outstanding achievement by a mathematics department, but ultimately decided to hold this proposal over for further consideration at its meeting next year.

CoProf endorsed a recommendation that the AMS implement the option of electronic voting for the 2003 elections by hiring an electronic balloting firm to handle the process via the Internet. Other societies, such as the American Physical Society, have recently implemented electronic balloting, with a significant increase in member voting rates and a reduction in costs.

CoProf approved recommending to the Council changes in the bylaws governing life membership. The recommendation offers two options for rewording the relevant section of the bylaws. One gives the Council the authority to determine eligibility and dues levels for this category of membership, subject to the usual approval of the dues by the Board of Trustees. The other proposal includes language that describes factors the Council must consider in establishing the dues amounts. Both of the options will be forwarded for Council consideration at its January 2003 meeting.

The Committee reviewed the draft document outlining the focused planning process for membership, now scheduled to take place during 2003. Members of the Committee viewed the document quite favorably, and they suggested several new issues for exploration during the planning effort. The chair will appoint a subcommittee to react to specific topics, questions, and issues that arise as the project progresses over the coming year. In addition, CoProf selected membership as the area for annual review during the coming year.

The committee reviewed two areas of Society activity that fall within its charge: human rights and professional

ethics. Separate subcommittees formed to review these areas each presented reports. No significant problems were reported for either area of activity.

Committee on Education Highlights

The Committee on Education (CoE) discussed the impact that President Bush's "No Child Left Behind" law may have on K-12 mathematics education, the professional training and development of teachers of mathematics, and the funding of research in mathematics education through the National Science Foundation (NSF) and the Department of Education. Visitors included representatives from the NSF, the Department of Education, and other mathematical and educational groups. Panels of mathematicians involved in education offered inside views on teaching mathematics courses designed for future K-12 teachers, and the impact of NSF's VIGRE (Vertical Integration of Research and Education in the Mathematical Sciences) program on U.S. mathematics departments. Chairs of doctorate-granting departments of mathematics were again invited to participate in the meeting. A total of thirty-nine participants were involved in the meeting.

National Science Foundation

Judith Ramaley, assistant director of the NSF's Directorate of Education and Human Resources, outlined the new Math and Science Partnerships (MSP) program, created to implement an important part of the president's "No Child Left Behind" initiative. The NSF will be the lead funding agency, with some funding coming through the Department of Education. Janice Earle, of NSF's Elementary, Secondary and Informal Education Division, also provided details on the MSP program's goals: (1) to ensure that all students have access, are prepared, and are encouraged to participate and succeed; (2) to enhance the quality, quantity, and diversity of teachers; and (3) to develop evidence-based outcomes. Ramaley discussed the projects funded in the first round of awards: seven comprehensive projects, seventeen targeted, and twelve smaller awards for development of an MSP Learning Network. Successful proposals were partnership-driven, in addition to addressing teacher quality and quantity, offering challenging courses, promising evidence-based design and outcomes, and providing evidence of likely institutional change and sustainability. The year 2003 will see the creation of the Learning Network, the second round of awards, and development of teacher institutes. Solicitations had not yet been written, and Ramaley and Earle invited CoE input, especially on the proposed teacher institutes and the Learning Network. Earle also described the Centers for Learning and Teaching program and mentioned the opportunities and the frustrations of NSF's current focus on large partnership-oriented programs. Calvin Williams, Division of Undergraduate Education, and Eric Sheppard, Division of Graduate Education, discussed details of programs within their divisions. There was discussion of the impact of

increased stipends in the graduate research fellowship program.

U.S. Department of Education

Patricia O'Connell Ross described the department's participation in the Math and Science Partnerships Program, which will provide more money to state and local authorities, but also require accountability. There will be a major rethinking of Title I programs, with schools held to much more rigorous standards in mathematics and reading. Teacher development will receive more funding. President Bush will announce a major initiative in mathematics and science in early December. A concern is that, unlike reading, there is not a strong research base in mathematics education, and one of the department's goals is to develop a major research program on successful learning in mathematics. There was discussion about a design proposal approved in September to examine the mathematical preparation of teachers, the people to be involved in that project, and its connection to the Conference Board of Mathematical Sciences Mathematical Education of Teachers project. Ross announced that OERI (Office of Education Research and Improvement) will be replaced by an Institute for Educational Sciences, created as a more autonomous organization to conduct program evaluation.

Although both the NSF and the Department of Education fiscal year 2003 appropriations are still held up in Congress, Ross noted that the 50 percent increase for research in the department's budget has held up so far in the federal budget process.

Panel Discussion on Teacher Development

Scott Baldrige (Indiana University), Sybilla Beckmann (University of Georgia), and Gary Jensen (Washington University) talked about courses and methods used in their departments for education majors and stimulated discussion on the thought necessary for course design, development of materials, the mathematical content, the importance of knowing the students' backgrounds, teaching future teachers what they will need in their classrooms, and the issues of grading.

Panel Discussion on NSF's VIGRE (Vertical Integration of Graduate Research and Education) Program

Richard Hain (Duke University) and Robert Lazarsfeld (University of Michigan) discussed the impact of VIGRE programs on their departments. CoE members also received the report from a recent workshop on the program. Both visitors felt the VIGRE program had been a positive experience for their institutions, but they discussed with CoE members some concerns and possible consequences: for instance, the long-term stability of the program and the impact on a department that suddenly loses such a large award, the sustainability of support for postdoctorates, the emphasis on change rather than on quality of instruction, and changes in the VIGRE management team and the possibility of changes in the criteria for evaluation.

Participation of Research Mathematicians in Mathematics Education

Roger Howe distributed a draft proposal to develop a cadre of mathematicians experienced and willing to act as professional consultants on mathematics education, to provide support for them so they can successfully interact with educators, and to introduce educational administrators to the support that mathematicians can provide. The idea arose as a result of the many ad hoc requests he and other mathematicians receive for help on educational projects and would provide a way to professionalize and recognize this activity. Howe invited CoE members to comment on the draft proposal.

Brookings Institution

Tom Loveless discussed the recent Brown Center Report "How Well Are American Students Learning?" His analysis of trends in NAEP (National Assessment of Education Progress) test data (for ages 9, 13, and 17) led him to conclude that computation skills (especially fractions) have either stagnated or lost ground since 1990. Discussion included possible reasons, including the impact of NCTM (National Council of Teachers of Mathematics) standards and the use of calculators.

Achieve, Inc.

Achieve, Inc., was created in 1996 after a governors' summit meeting on education as an independent body working to achieve agreement across states on strategies to improve K-12 education. Fifteen states are currently involved. Matt Gandal described the problems of misalignment of standards, tests, and assessment. State standards demonstrated coverage of content but not focus, tests are not measuring what is being taught, and therefore cross-state comparison of results is not possible. Maria Santos discussed the further challenges posed by the new "No Child Left Behind" law, which requires every state to test in mathematics in grades 3-8 and high school. Achieve's Mathematics Achievement Partnership (MAP) focuses on middle school grades, offering support to states on standards, professional development for teachers, testing and assessment, and cross-state comparisons. CoE members received a consultation draft of "Foundations for Success: Mathematics Expectations for the Middle Grades" and sample items from the MAP proto-test. Many mathematicians have been involved in the advisory panel for the development of the "Foundations for Success" report. CoE members were interested in plans for the long-term continuation of this very ambitious undertaking.

MAA Guidelines for Programs and Departments in Undergraduate Mathematical Sciences (rev 2000)

MAA has requested the committee's endorsement of the report "MAA Guidelines for Programs and Departments in Undergraduate Mathematical Sciences". After discussion, CoE approved the endorsement of the principles on which the report was based and recommended that the AMS Council make a similar endorsement. This recommendation has been submitted to the Council.

Mathematical Sciences Education Board (MSEB)

Carole Lacampagne reported on MSEB's planned activities for the next ten years. Priority areas include learning, instruction, assessment, equity, attracting and retaining students, evidence of effectiveness, teacher development, and public perceptions. Current projects include a review of evaluation data on effectiveness of curriculum materials. She will send the committee information on the texts to be reviewed and on forthcoming workshops and conferences.

MAA Committee on Undergraduate Programs in Mathematics (CUPM)

Michael Pearson reported that CUPM is working on an update of curriculum guidelines, to appear in 2003, and outlined some general recommendations in the current draft (a publicly releasable draft was not available at the time of the meeting). Several CoE members had provided reactions to the draft guidelines at the summer 2002 MathFest in Burlington, and Pearson said that the current draft reflects reviews received at that time, although further rewriting was still to be done.

Review of AMS Educational Activities

CoE established a five-year cycle of reviews, beginning with a review of the Young Scholars Program in 2003, to be conducted by a subcommittee appointed by the chair. In 2004 CoE will look at graduate education, and in 2005 it will review education committees in which the AMS is involved. Areas for review in 2006 and 2007 will be decided at a future time.