AMERICAN MATHEMATICAL SOCIETY EXECUTIVE COMMITTEE AND BOARD OF TRUSTEES MAY 18-19, 2001 PROVIDENCE, RHODE ISLAND

MINUTES

A joint meeting of the Executive Committee of the Council (EC) and the Board of Trustees (BT) was held Friday and Saturday, May 18-19, 2001, at the AMS Headquarters in Providence, Rhode Island. The following members of the ECBT were present: Roy L. Adler, Hyman Bass, Robert L. Bryant, John B. Conway, Robert J. Daverman, Eric M. Friedlander, Linda Keen, Andy R. Magid, Joel H. Spencer, B. A. Taylor, and Karen Vogtmann. Felix E. Browder, David Eisenbud, and John M. Franks were unable to attend.

Also present were: Donald G. Babbitt (Publisher), Gary G. Brownell (Chief Financial Officer), John H. Ewing (Executive Director), Sandra Golden (Assistant to the Secretary), Ellen H. Heiser (Assistant to the Executive Director [and recording secretary]), Jane E. Kister (Executive Editor/Mathematical Reviews), James W. Maxwell (Associate Executive Director/Meetings and Professional Services), Constance W. Pass (Controller), and Samuel M. Rankin (Associate Executive Director/Government Relations and Programs).

President Bass and Board Chair Adler presided.

Items occur in numerical order, which is not necessarily the order in which they were discussed at the meeting.

0 CALL TO ORDER AND ANNOUNCEMENTS

0.1 <u>Opening of the Meeting and Introductions</u>.

President Bass convened the meeting and everyone introduced themselves.

0.2 <u>Housekeeping Matters</u>.

Executive Director Ewing discussed several housekeeping matters related to the present meeting.

1I EXECUTIVE COMMITTEE INFORMATION ITEMS

1I.1 <u>Secretariat Business by Mail</u>. Att. #2.

Minutes of Secretariat business by mail during the months October 2000 - March 2001 are attached ($\frac{#2}{2}$).

2 EXECUTIVE COMMITTEE AND BOARD OF TRUSTEES ACTION/DISCUSSION ITEMS

2.1 <u>Report on Committee on Publications (CPub)</u>.

The ECBT received the following report on recent CPub activities.

CPub met last September 9, 2000. The Committee received a report from the subcommittee to review the *Notices*, which it forwarded to the Council and the *Notices* Editorial Committee for their review.

CPub also received a recommendation from the Editorial Boards Committee to revise the appointment process for certain editorial committees, which it endorsed and forwarded to the ECBT and Council for approval. The ECBT passed it to Council without comment, and the January 2001 Council approved the recommendation.

CPub is scheduled to meet again on September 8, 2001. Each year CPub reviews one aspect of the AMS publication program. This year the primary journals will be reviewed. The members of this subcommittee are Howard Masur (University of Illinois at Chicago), Carl Pomerance (Bell Labs Research), Chuu-Lian Terng (Northeastern University) and Steven Weintraub (Louisiana State University. Steven Weintraub has agreed to serve as chair. The subcommittee to review the primary journals anticipates submitting a final report to CPub in time for their meeting on September 8, 2001.

2.2 <u>Report on Committee on the Profession (CoProf)</u>.

The ECBT received the following report on recent CoProf activities.

CoProf held its most recent meeting in September 2000, and a report on that meeting was received by the November 2000 ECBT. CoProf's next meeting is scheduled for September 22, 2001 in Chicago. The 2000 annual report on CoProf activities has been filed with the Council and is posted on the AMS website (http://www.ams.org/ams/coprof-report2000.html).

2.3 <u>Report on Committee on Meetings and Conferences (COMC)</u>. Att. #3.

The ECBT received the attached report (#3) on the March 24, 2001 COMC meeting.

2.4 <u>Report on Mathematical Reviews Editorial Committee (MREC)</u>.

The ECBT was informed that there is nothing to report from MREC at this time. The next meeting of the Committee is scheduled for October 1-2, 2001.

2.5 <u>Report on Committee on Education (COE)</u>. Att. #4.

The ECBT received the attached report (#4) on COE activities since their last meeting.

2.6 <u>Report on Committee on Science Policy (CSP)</u>. Att. #5.

The ECBT received the attached report (#5) on the April 20-21, 2001, CSP meeting.

2.7 <u>Washington Office Report</u>. Att. #6.

The ECBT received the attached report $(\frac{\#6}{})$ on recent activities of the Washington Office.

2.8 <u>Report from the President</u>. Att. #26.

The ECBT received the attached report ($\frac{#26}{}$) from from President Bass.

2.9 <u>Report of Long Range Planning Committee (LRPC)</u>.

The ECBT received the following report on the May 2001 LRPC meeting.

The LRPC met on May 18, 2001 and considered whether to carry out strategic planning in the near future. This is an issue that is considered every two years. The last major effort at strategic planning was carried out in 1990-91.

The LRPC concurred with the Executive Director's observation that, at this time, the annual planning process does not need to be revised, and the AMS mission does not need to be rethought, but that annual planning should be supplemented with concrete and tangible business planning aimed at a particular segment of AMS operations. The LRPC approved the Executive Director's recommendation that senior staff make a list of specific areas of the Society's operations in which business planning might be carried out in the coming years; that list will be brought to the May 2002 LRPC for consideration and possible action.

2.10 <u>Strategic Planning</u>. Att. #7.

A major strategic planning process was carried out in 1990-91. At the time, strategic planning was supposed to be renewed at least every five years, reviewing goals and strategies along with the general mission of the Society. In 1997, the Long Range Planning Committee considered whether to carry out strategic planning and decided to postpone the decision for two years. In 1999, it considered it again, and came to the same conclusion. At its May 2001 meeting, the LRPC considered strategic planning once again (see the previous item). Excerpts from the documentation provided to the LRPC are included in Att. **#7**.

The ECBT raised no objections to the plan outlined in the previous item.

May 2001 ECBT Minutes Page 4

2.11 <u>2002 Journal Pages</u>.

The ECBT authorized the following numbers of pages for 2002 journals:

Bulletin	640
Conformal Geometry and Dynamics	200
Electronic Research Announcements	200
Journal of the AMS	1,000
Mathematics of Computation	1,750
Memoirs	3,200
Notices	1,550
Proceedings	3,520
Representation Theory	500
Transactions	5,000
Sugaku	240

The ECBT also noted that the following numbers of pages are currently the staff's best estimates and were included in the version of the 2002 budget presented at this meeting:

Abstracts	660
Current Mathematical Publications	3,903
Mathematical Reviews	
Issue pages	9,445
Annual index pages	5,181
Total MR pages	14,626
St. Petersburg	1,208
Theory of Probability and Mathematical Statistics	324
Trudy Moscow	259
Employment Information in the Mathematical Sciences	464

2.12 2002 Journal Prices.

The BT (in consultation with the EC) approved the following list prices for 2002 journal subscriptions. It was understood that these prices (except for *Mathematical Reviews* products) include an additional 1% that is to be set aside in the Archiving Fund for AMS Journals and Books (the purpose of this Fund is outlined in item 2.13 of the November 1995 ECBT minutes).

Abstracts	\$ 106
Bulletin	\$ 337
Conformal Geometry and Dynamics	\$ 100
Journal of the AMS	\$ 232
Mathematics of Computation	\$ 388

Mathematical Reviews products:	
Paper	\$ 473
Current Mathematical Publications	\$ 555
MR Sections	\$ 135
Data Access Fee	\$6,141
MathSciDisc	\$1,865
MathSciNet	\$1,865
MathSciNet and MathSciDisc	\$2,600
Memoirs	\$ 524
Moscow	\$ 375
Notices	\$ 360
Proceedings	\$ 858
Representation Theory	\$ 100
St. Petersburg	\$1,389
Sugaku	\$ 156
Theory of Probability and Mathematical Statistics	\$ 532
Transactions	\$1,406

2.13 2002 Individual Member Dues.

The ECBT approved the Executive Director's and the Secretary's recommendation that ordinary high dues be set at \$140, and that the high/low dues cutoff remain at \$75,000, for 2002.

2.14 2002 Institutional Member Dues.

The ECBT approved an average increase of 3% for institutional members in North America, and a comparable increase for international institutional members, for 2002.

2.15 <u>Report on the Book Program</u>. Att. #12.

The ECBT received the following report on the book program:

The 2000 book program produced 105 new titles, meeting the budgeted output, with sales recorded at \$3,271,616 against a budgeted amount of \$3,424,927. While the title output was on target, the sales figure was impacted by a shortfall in budgeted translations series books, which could not be sufficiently made up by the increased title output in the newer, less expensive softcover series such as the *Student Mathematical Library* and *Courant Lecture Notes*. Unexpected weakness in foreign sales -- especially in Europe and Japan -- further hindered efforts to reach the budgeted sales figure. See the attached report (#12) for further details.

2.16 NSF Proposal for Support of the *Math in Moscow* Program. Att. #13.

The ECBT received the following report on the Math in Moscow program:

Following exchanges with the leadership of the Independent University of Moscow (IUM) very early in 2001, the AMS submitted a proposal to the Division of Mathematical Sciences in early February requesting \$150,000 for support over three years for the *Math in*

May 2001 ECBT Minutes Page 6

Moscow program of the IUM. This recently established program is aimed primarily at mathematically talented undergraduates. All instruction is provided in English. A semester of study will consist of courses in mathematics and theoretical computer science. These courses may be supplemented with a course in the Russian language or a course in the history of Moscow. These funds would provide partial support for a semester of study by ten U.S. undergraduates (or possibly one or two graduate students) each year. Graduates of the U.S.'s Research Experience for Undergraduates programs who are clear about their intent to become research mathematicians will provide a sizable pool of likely candidates for this international program. The *Math in Moscow* program can serve as a capstone experience for some of the best undergraduates in the U.S.

The narrative portion of the NSF proposal is provided in Att. #13. AMS received notification in March that this proposal has been recommended for approval at the requested funding level. Half of the funding is being provided by the International Division of NSF; the balance from the Division of Mathematical Sciences.

Work is underway to appoint a three-member oversight committee. Applications for admission are due in Moscow May 15 for classes beginning fall 2001, and September 15 for spring 2002. The AMS is assisting IUM in distributing information on the program. Appropriate application materials for support from the *Math in Moscow* program are also being developed.

2.17 <u>Report on Public Awareness Office</u>. Att. #14.

The ECBT received the following report on the Public Awareness Office:

The Public Awareness Office is now fully staffed. In approximately six months of operation, it has already accomplished a great deal, including publicity for the Joint Mathematics Meeting, a new series called *Mathematical Moments*, an arrangement with the television series *Discoveries and Breakthroughs* (produced by the American Institute of Physics), two *Who Wants to be a Mathematician* contests for high school students, the first issue of the *AMS Newsletter*, and a number of profitable contacts with news media. More details are contained in Att. #14.

2.18 Conducting BT and Council Business Between Meetings.

The November 2000 BT considered guidelines for conducting BT business between meetings that were formulated by an ad hoc subcommittee of the BT. It was pointed out that some of the guidelines conflicted with the Bylaws. It was therefore decided that action should not be taken and that the Chair of the Board and the Secretary of the Society should appoint an ad hoc subcommittee of the ECBT to study the issue further and recommend a policy for conducting BT *and Council* business between meetings to the May 2001 ECBT. If such a policy involved changing the Bylaws, then the proposal was to include the steps necessary to do so.

In the meantime, at the end of 2000, the District of Columbia (where the AMS is incorporated) passed legislation enabling electronic voting, and the January 2001 Council approved a recommendation from the Committee on the Profession that the Society take advantage of this rule change, for the convenience of AMS members and for possible cost savings. Doing so requires changing the AMS Bylaws, specifically Article VII, Section 2. The

Council decided that, should changes be made in that section, it would be prudent to simultaneously insure that alternate voting procedures are tolerated in the conduct of other AMS business, such as when the Council, the Executive Committee and/or the Board of Trustees must act between regularly scheduled meetings. A set of Bylaws changes to implement all this was presented, and the Council voted to present these changes as a ballot item in the 2001 AMS election, for approval by the membership.

The ECBT ad hoc subcommittee mentioned in the first paragraph above has therefore decided to table consideration of this matter until after the 2001 election.

2.19 <u>2002 ABC/ECBT Meetings</u>.

The ECBT approved the following dates and sites for 2002 ABC and ECBT meetings:

ABC	March 25, 2002 (Monday)	Providence, Rhode Island
ECBT	May 17-18, 2002 (Friday-Saturday)	Ann Arbor, Michigan
ABC	October 11, 2002 (Friday)	Providence, Rhode Island
ECBT	November 22-23, 2002 (Friday-Saturday)	Providence, Rhode Island

(The members of the ABC in 2002 will be: Bass, Daverman, Franks, Keen, Taylor, and Vogtmann.)

2C EXECUTIVE COMMITTEE AND BOARD OF TRUSTEES CONSENT ITEMS

2C.1 November 2000 ECBT Meeting.

The ECBT approved the minutes of the meeting of the Executive Committee and Board of Trustees held November 17-18, 2000, in Providence, Rhode Island. These minutes include:

- ECBT open minutes prepared by the Secretary of the Society,
- ECBT executive session minutes prepared by the Secretary of the Society,
- BT executive session minutes prepared by the Secretary of the Board.

2I EXECUTIVE COMMITTEE AND BOARD OF TRUSTEES INFORMATION ITEMS

2I.1 Joint Policy Board for Mathematics (JPBM).

The next meeting of JPBM will take place on May 21 2001. As agreed to previously, responsibility for organizing each meeting will rotate among the three constituent organizations. The first meeting under the new scheme will be the responsibility of the AMS.

2I.2 <u>Report on Awards from the Epsilon Fund for the Young Scholars Programs</u>. Att. #18.

The Young Scholars Awards Committee, chaired by Joel Spencer, met at MIT on February 8, 2001 to evaluate fifteen applications for support from the Society's Epsilon Fund.

May 2001 ECBT Minutes Page 8

All the proposals presented impressive programs for young scholars. A total of \$80,000 was available for awards for programs in the summer of 2001, the second year of this AMS program. Eight applications were selected for awards ranging from \$5000 to \$15,000. The programs selected for awards are listed in Att. #18.

2I.3 2001-2002 AMS Centennial Fellowships.

The AMS Centennial Fellowship Committee has announced fellowship awards granted to

Ivan Dimitrov (University of California, Los Angeles) Ravi Vakil (Massachusetts Institute of Technology) Jiahong Wu (Oklahoma State University) Meijun Zhu (University of Oklahoma)

All have accepted. The amount of each 2001-2002 fellowship award will be \$40,000, with an additional expense allowance of \$1600.

2I.4 <u>State of AMS 2001</u>. Att. #25.

A copy of the report to the April 2001 Council is attached (#25).

2I.5 <u>Report on 2001 Annual Meeting of the American Association for the Advancement of Science (AAAS)</u>. Att. #19.

A report on the AMS-supported activities at the recent AAAS meeting is attached (#19).

2I.6 Actions of the Agenda and Budget Committee (ABC).

At its March 30, 2001, meeting in Providence, Rhode Island, the ABC took the following action:

The ABC set the schedule for the May 2001 ECBT meeting and decided there should be an ECBT discussion session on *Use of Reserve Income*.

2I.7 <u>AMS Presence at the Annual Meeting of SACNAS</u>. Att. #20.

The AMS has provided \$5,000 toward support of the mathematics program at the past two national meeting of the Society for Advancement of Chicanos and Native Americans in Science (SACNAS). Att. #20 includes a request for support for the mathematics program at the upcoming SACNAS national meeting in late September in Phoenix and a brief report on how last year's funds were used. The first two years of AMS support came from the Program Development Fund. This outreach activity is now reviewed as a part of the regular annual budgeting process, and the requested support is built into the 2001 AMS budget. Associate Executive Director Maxwell and Public Awareness Officer Emerson will represent the AMS at this meeting.

SACNAS has shown itself to be highly effective at nurturing talented undergraduates from within their target communities to successful completion of graduate degrees in science and

mathematics. AMS's presence at the SACNAS national meetings since 1997 has enabled us to build strong ties within this community of scholars committed to excellence.

2I.8 <u>Report on Changes in Registration Fees for Conferences, Employment Center, or</u> <u>Short Course</u>. Att. #21.

Att. #21 describes the changes in registration fees approved by Executive Director Ewing since the last ECBT meeting.

2I.9 AAS-AMS-APS Public Service Award.

The second year awards were presented May 16, 2001, at a reception in Washington, DC, to Congressman Vernon Ehlers, member of the House Science Committee and leader of Congressional support for science and mathematics education, and to Dr. Neal Lane, former science advisor to President Clinton, and Director of the National Science Foundation. The AMS Washington Office again handled the logistical arrangements.

2I.10 AAAS-AMS Mass Media Fellowship.

The AMS will sponsor one fellow in the summer of 2001. Raphael Jones, graduate student of mathematics at Brown University, will spend his fellowship at the Discovery Channel Online.

2I.11 Agreement with SIAM and MAA on Joint Meetings.

Beginning with the 2002 Joint Meeting in San Diego, the Society for Industrial and Applied Mathematics will participate in the meeting on a regular basis. Their direct participation includes one SIAM invited address, and various program elements (panels, mini-symposia, etc.) over the first two days of the meetings in up to two rooms. SIAM pays for its own direct costs, but bears no responsibility for any other costs (and does not share in any of the revenues). A contract outlining this agreement is in the process of approval by the Joint Meetings Committee and SIAM.

3 BOARD OF TRUSTEES ACTION/DISCUSSION ITEMS

3.1 <u>Discussion of Fiscal Reports</u>.

The BT received and discussed various fiscal reports. Approval of the 2002 budget will be requested at the November 2001 ECBT meeting.

3.2 <u>Budgeted Staffing Levels</u>.

The BT received a report showing the budgeted full-time employees (FTEs) by division.

3.3 <u>Capital Expenditures - 2001 Capital Purchase Plan</u>.

The BT received a report on the 2001 capital purchase plan.

3.3.1 <u>Capital Expenditures - Approval of Specific Purchases</u>.

Requests for authorization to make specific large purchases (items costing \$100,000 or more) are included under this item. No such requests were made at this meeting.

3.4 Investment Committee Report.

The BT received a report on the May 18, 2001 meeting of the Investment Committee.

3.5 <u>Audit Committee Report</u>. Att. #28.

The Audit Committee met on May 18, 2001 with finance staff and a representative from the auditing firm of KPMG to review drafts of the audited financial statements. The Audit Committee also met privately with the auditor. It was noted that no material weaknesses involving the AMS's internal control structure and operation were found. The BT approved the Audit Committee's recommendation to accept the audited financial statements for the years ended December 31, 2000 and 1999. These statements are attached (#28).

3.6 Bequest from the Estate of Radha G. Laha.

On December 1 and 6 of 2000, the Society received distributions totaling \$189,308.73 from the estate of Radha G. Laha. The relevant section of the bequest includes the following:

C. Upon the death of the Donor and after making or allowing for any payments to be made in accordance with the provisions of the foregoing paragraph, the then remaining trust assets shall be held and distributed as follows:

2. Ten (10%) per cent to Research Fund of American Mathematical Society.

Since this bequest is to a fund that does not exist, it is necessary to interpret the intent of the donor.

The BT agreed to interpret the intent of the donor as making a gift to an endowment fund that supports mathematical research. Since support of mathematical research is the purpose stated in the Society's articles of incorporation, and since nearly all of the Society's activities ultimately support research, directly or indirectly, the BT voted to account for this gift as an endowment fund, known as the "Radha G. Laha Research Fund," whose income is unrestricted.

3.7 <u>Memorial Gardens</u>.

In 1998, the family of Kiiti Morita made a gift of \$100,000 to the Society to the unrestricted endowment. In thanking the family, the Board also "approved the suggestion that the Society show its appreciation for this donation by naming a room or other area of the Society's headquarters for Professor Morita. The selection of the exact location to be so named was left to the discretion of the staff."

After careful consideration, the staff decided to name a part of the gardens near the front entrance in honor of Kiiti Morita. These gardens are indicated with a bronze plaque, and special effort has been made to maintain them suitably.

Recently, Radha Laha left a bequest of approximately \$190,000 to the unrestricted endowment. The BT approved the staff's recommendation to designate another section of the AMS Headquarters gardens in honor of Radha Laha, with a similar bronze plaque.

The BT also considered a proposal that future large gifts to the unrestricted endowment be recognized in a similar fashion. The Executive Director was asked to prepare a more detailed proposal regarding naming opportunities for donors for consideration at the next ECBT meeting.

3.8 <u>Registration Fees for the January 2002 Joint Mathematics Meetings</u>.

Based on the information available at this meeting, the BT voted to advise the AMS-MAA Joint Meetings Committee that the member pre-registration fee for the January 2002 meeting be set at \$175.

3.9 <u>Changes in Fringe Benefits</u>.

The November 1996 BT authorized the Executive Director to approve changes in benefit plans (except for those changes which would significantly enhance or degrade the Society's financial health or relations with its employees) and asked that these changes be reported to the Board of Trustees when appropriate.

The following changes in fringe benefits have been made recently:

- Health insurance cost increased substantially in2001, with renewal rates increasing an average of about 19% across all AMS health plans. As a way of reducing health insurance costs we increased the co-payments for office visits, prescriptions, use of the emergency room for non emergencies and added a hospital care deductible. The Society also increased its share of the total premiums by adding an extra 5% to individual, two-person and family health insurance premiums. This means the Society is now contributing 85% toward the cost of individual health premium, 70% toward the cost of two-person health premium and 65% toward the cost of family health premium. By making changes it was possible for most employees to have lower total premium costs in 2001 than they would have had if the Society simply accepted the increases proposed by the health care providers.
- Long-term care insurance will be offered effective April 1, 2001 to all staff on a voluntary basis. This coverage will be offered by TIAA-CREF Life Insurance Company.
- Effective April 1, 2001, the Society contracted with Resource International Employee Assistance Services to provide an employee assistance program (EAP) available to all employees and their families. The program provides assistance with a wide range of problems (substance abuse, emotional problems, financial difficulties, etc.) that might be affecting an employee's ability to work effectively. The benefits of this program are potentially quite significant, and the cost is very reasonable (\$28 per employee per year).

3.10 <u>Trustee Reports on Divisions</u>. Att. #29.

Section VI of the 2000 operating plan (Report on Projects and Activities) had been sent to the BT separately, and each Trustee reported on the Division(s) with which he or she has liaison. The Trustees were favorably impressed with the activities of every division and were in agreement that things are going very smoothly.

Now that the 2000 Operating Plan is complete, a copy of it will be attached to the record copies of these minutes (Att. #29).

3.11 <u>Meeting of MR, Inc</u>.

In 1983, when the building that currently houses Math Reviews was purchased, a Michigan non-profit corporation was formed in order to obtain exemption from local property taxes in Ann Arbor and from sales and use taxes in Michigan. In order to maintain these exemptions, the corporation (MR, Inc.) must be maintained by holding an annual meeting at which the Officers and Directors of the corporation are elected.

The AMS BT meeting was therefore temporarily adjourned so that the AMS Trustees could convene as the Board of Directors of MR, Inc.

The Board of Directors of MR, Inc. elected the following officers:

President of the Corporation:	Roy L. Adler
Treasurer of the Corporation:	John M. Franks
Secretary of the Corporation:	Eric M. Friedlander
Directors of the Corporation:	Hyman Bass
	John B. Conway
	Linda Keen
	Andy R. Magid
	B. A. Taylor

The meeting of the Board of Directors of MR, Inc. then adjourned, and the meeting of the AMS BT reconvened.

3C BOARD OF TRUSTEES CONSENT ITEMS

3C.1 <u>Resolutions for Retirees</u>.

The BT approved the following resolution:

Be it resolved that the Trustees accept the retirement of Sandra C. Lyman with deep appreciation for her faithful service over a period of twelve years. The Board expresses its profound gratitude for this long record of faithful

service. It is through the dedication and service of its employees that the Society is able to effectively serve its members and the greater mathematical community. The Trustees offer Sandra their special thanks and heartfelt good wishes for a happy and well-deserved retirement.

3C.2 Trustees' Officers.

The BT named Linda Keen Chair of the Board, and John Conway Secretary of the Board, for the period February 1, 2002 - January 31, 2003.

3C.3 Vanguard Group Corporate/Organization Resolution. Att. #27.

The BT approved the attached (#27) Corporate/Organization Resolution Certificate for The Vanguard Group.

3I BOARD OF TRUSTEES INFORMATION ITEMS

3I.1 <u>Short-Term Investments</u>. Att. #23.

A report summarizing the Society's cash management policies and short-term investment performance during 2000 is attached (#23).

3I.2 Economic Stabilization Fund (ESF) Increment.

During 2000 the ESF was increased by transfers from operations of \$1,500,000 and decreased by net market losses of \$1,703,383.

Respectfully submitted,

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Robert J. Daverman, Secretary Knoxville, Tennessee August 1, 2001

ATTACHMENT 2 - SECRETARIAT BUSINESS BY MAIL MAY 2001 AMS ECBT

note: this attachment is not available electronically, but you can contact ellen heiser (*ehh@ams.org*) *to request a copy.*

ATTACHMENT 3 - REPORT ON COMMITTEE ON MEETINGS AND CONFERENCES MAY 2001 AMS ECBT

Committee on Meetings and Conferences

Meeting on March 24, 2001

Highlights

Report on the New Orleans Focus Group. Michael Starbird and Peter Kuchment moderated the Committee on Meetings and Conferences's (CoMC) New Orleans Focus Group discussions. Among the various suggestions that arose out of the focus group, a number were discussed during Michael's oral report to CoMC. These included:

- Designating one Invited Address slot at each Sectional Meeting for a member of an underrepresented group such as young mathematicians or mathematicians from four-year colleges.
- Having a Web-based conference. (CoMC discussed the pros and cons to this and felt it was not an idea that should be pursued.)
- Having a session on open problems in a particular field.
- Suggesting to Special Session organizers that they arrange dinners to promote interaction among session participants.
- Having poster sessions at the Joint Mathematics Meetings or at the Sectional Meetings.

No formal CoMC actions were taken on these suggestions.

Report of the Subcommittee to Review International Meetings. This subcommittee was composed of Rick Miranda (chair), Susan Friedlander and Karen Parshall. As part of its review, the subcommittee conducted an email survey of all the special session organizers for the international meetings of the past five years. Based on the rich feedback from this survey, the judgement was that international meetings are a very valuable component of the AMS's meetings program. The subcommittee made a number of recommentations to the Secretariat for adjustments to the procedures for international meetings. In connection with these recommendations, CoMC took two actions.

- CoMC unanimously approved the following policy: "The goal is to have one International Meeting per year [outside of North America]."
- CoMC unanimously approved the policy that the AMS consider joint SMM meetings every three years.

Report of the Subcommittee to Review the Overall Program at National Meetings, Including Governance meetings. Subcommittee chair Karen Collins reported on the recommendations made in the subcommittee's written report. The subcommittee recommended to the Secretariat that the instructions to Special Session organizers include some encouragement to have a designated mentor for younger participants in the session. It was also recommended that the prototype letter contained in the report, drafted by Associate Secretary Bernie Russo, be used by the Associate Secretaries for Special Session organizers.

Sibner Report on Goldfeld's Special Session Panel in New Orleans. Associate Secretary Lesley Sibner gave an oral report on Dorian Goldfeld's Special Session panel in New Orleans, put together in response to the Subcommittee's previous report in 2000 to Review National Meetings. Sibner reported that Goldfeld had arranged a pre-session discussion of open problems in analytic number theory. The discussion was one hour long with six panelists and was very well received by the standing-room-only crowd. Sibner recommended that this experiment be tried again in other Special Sessions, given the right situation and an interested organizer. CoMC urged Sibner to write a review of the experiment or ask Goldfeld to do it, so that the Associate Secretaries could give copies to interested Special Session organizers.

Number of Invited Addresses at National Meetings. The AMS Secretary and MAA Associate Secretary jointly recommended that each of the societies reduce the number of its Invited Addresses at the Joint Mathematics Meetings by one (from six to five.) The meeting schedule is extremely tight, some of the times late in the meeting seem undesirable, attendance at Invited Addresses can be rather small, and the AMS Program Committee has been able recently to put forward only a few suggestions. With a smaller number, the quality of talks and attraction to the audience may be higher. The AMS Secretariat and MAA Board of Governors endorsed this proposal.

CoMC approved reducing the number of AMS Invited Addresses at National Meetings from six to five. They also recommended that the last Invited Address time slot on the last day be the one deleted.

Other Informational Items. COMC's topic for annual review for 2002 is to be "Cosponsorship of meetings and conferences of other organzations and the AMS Conference program." .A subcommittee consisting of Dominic Clemence (chair), Irene Fonseca, and Rick Miranda will prepare a report on this topic for the next COMC meeting.

COMC will host a focus group at the San Diego meeting. The Focus Group has been tentatively scheduled for Monday morning, January 7, 7-9 am.

The next meeting of the committee is scheduled for the O'Hare Hilton on April 6, 2002.

Prepared by Karen Vogtmann and Jim Maxwell 4/20/2001

ATTACHMENT 4 - REPORT ON COMMITTEE ON EDUCATION MAY 2001 AMS ECBT

American Mathematical Society Report on Committee on Education

Roger Howe was reappointed as Chair for 2001. The next COE meeting will be held October 26-27, 2001, in Washington, DC.

Some activities since the last report to ECBT (November 2000) include a COEsponsored panel discussion at the January 2001 Joint Mathematics Meetings in New Orleans on the National Research Council's Mathematics Learning Study and its implications for teacher preparation. COE members also provided comment on a draft of the CBMS report on the mathematical preparation of teachers, scheduled for release shortly. COE Chair, Roger Howe, attended a workshop of the MAA Committee on Calculus Reform and the First Two Years (CRAFTY), one of several workshops held in preparation for a report on the needs and requirements for the mathematics major in the coming decade. COE's liaison to the MAA Committee on the Undergraduate Program in Mathematics (CUPM) - David Bressoud - received support to attend meetings/workshops. COE members had a chance to comment on various draft legislation concerning mathematics education that were introduced during the 106th Congress -Rep. Vernon Ehlers' education bills, and Rep. Holt's and Rep. Morella's bill implementing recommendations of the Glenn Commission report. Roger Howe provided detailed comments on these bills. Although they died with the end of the 106th Congress, the bills will no doubt be reintroduced in the 107th, revised in light of comments received.

Submitted by Monica Foulkes AMS Washington Office April 25, 2001

ATTACHMENT 5 - REPORT ON COMMITTEE ON SCIENCE POLICY MAY 2001 AMS ECBT

AMS COMMITTEE ON SCIENCE POLICY Meeting Friday-Saturday, April 20-21, 2001, Washington DC

Summary Report

With around 50 participants at the Friday sessions, this was the largest-ever CSP meeting. Invitees this year included Council members (the Council meeting followed on Saturday afternoon) and several chairs of departments of mathematics at doctorate-granting universities, in addition to traditional visitors from the Administration, Congress, federal agencies and other mathematical organizations.

CSP met at a time when the budget process for FY 2002 was just heating up in Washington (President Bush's detailed budget was only released April 9) and the primary focus of the meeting was to hear and discuss analyses and predictions offered by active players in this process. The overall message for science turned out a hopeful one; several movements were already under way in Congress to increase the small (1.3 percent) increase for NSF requested by the President. Several visitors thought the number would probably not increase by the 15 percent that would continue the progress towards doubling the NSF budget by 2005, but predicted 7 percent as realistic.

Rita Colwell, Director of the National Science Foundation, was CSP's keynote speaker. Colwell gave an upbeat interpretation of the President's budget request, saying that although it might sound like a small percentage, it provided several great steps forward for basic science research and education. Specifically, NSF will play a lead role in the President's Mathematics and Science Partnerships initiative, which will provide funding for states and local school districts to join with institutions of higher education. \$8 million will be devoted to increase stipends for Graduate Research Fellowships, Graduate Teaching Fellowships in K-12, and the Integrative Graduate Education and Research Traineeship programs. For FY 2002, a major focus will be a \$20 million increase for Interdisciplinary Mathematics (a 16.5 percent increase, bringing the total investment in mathematics to over \$141 million). Calling it her "mathematical soapbox", she routinely points out that the federal investment in mathematics to date has been surprisingly small, that NSF grants for mathematics are smaller than those in most other fields, and that, since 1992, the number of bachelor's degrees in mathematics has dropped by about 23 percent. NSF's FY 2002 budget emphasizes four areas: Biocomplexity in the Environment, Information Technology Research, Nanoscale Science and Engineering, and Learning for the 21st Century. Colwell gave special thanks to Sam Rankin for his leadership and work with the Coalition on National Science Funding. When asked what CSP could do to help, Colwell replied "deliver the message that NSF can use, and needs, funds in order to invest in science", noting that NSF had fully-detailed plans ready for any increases that might be granted in the future.

David Radzanowski, Office of Management and Budget, led CSP through the work of the Administration in building the President's FY 2002 budget, and how mathematics funding played out. Starting by taking out all "earmarks" (programs that were not priorities of the agencies), they added the costs of meeting Bush's campaign promises (tax cuts, etc.) and, after looking at the pace of spending in the past few years (considerably above inflation), and projected revenues for the next ten years, had to make additional cuts. For NSF, the Administration had \$20 million to work with, and ended up putting it into mathematics, which said something about their priorities. Although NSF "didn't get on the agenda" for FY 2002, the Administration will be undertaking a review of NSF in order to come up with sustained funding in future years. Work on the FY 2003 budget will begin in September.

Congressional visitors provided insights on developments in the FY 2002 budget.

- Allen Cutler, Majority Staff Analyst for Science, Space and Technology, Senate Budget Committee reported that the budget process was at the stage where both the House and the Senate had approved their own budget resolutions (the House version was essentially the Bush budget, but the Senate approved significantly more for science) and a conference committee must within days reconcile the differences before sending the numbers to the Appropriations Committees for dividing up. Thus a short window of opportunity existed in which to mobilize forces in support of amendments that would increase the budget for science – in particular, the Bond/Mikulski amendment to increase Function 250 (non-defense science, space and technology) \$1.44 billion above the level recommended by the President and the House. CSP acted on Cutler's recommendation and drafted a letter which was sent to the leaders and all members of the House Budget Committee (after the meeting an email alert was also sent to CSP, Council, and the AMS contact group, urging individual contacts).
- Sharon Hays, Majority Staff Director, Research Subcommittee of the House Committee on Science. Sherwood Boehlert, the new Chair of the House Science Committee, whose three priorities are education, energy, and the environment, has expressed his disappointment with the FY 2002 NSF budget request, and will work hard to see that the numbers reflect the priorities of the Science Committee. She has been reassured by signals from the Administration that, rather than reflecting a dislike of science (or NSF), the small FY 2002 numbers for NSF, and the lack of a science advisor to the President, just reflected the priorities of the President's campaign promises. Hays reminded CSP that the Committee on Science could write reauthorization bills for agencies, but they are merely guidelines for Appropriations Committees, which can ignore them as they carve up what the Budget Committees have allotted.
- Michael Stephens, Minority Staff, House Subcommittee on Appropriations for VA/HUD/Independent Agencies. Although the work of Congressional science committees is important to the mathematical community, it is the appropriations committees who cut the actual numbers. A seasoned veteran of appropriations since the 70's, Stephens' message was that there remains tremendous uncertainty about the outcome for FY 2002. The discretionary spending pot, where NSF competes with the likes of VA and HUD, received a healthy increase for FY 2001, largely the result of budget chaos at the end of the fiscal year, rather than a commitment to long-term increases for NSF. Stephens saw more fiscal restraint this year. Because there was such a gap between the Senate budget resolution and the President's, the budget conference could go into a stall and real negotiations not begin until the end of May, which could mean that the details would not be worked out until November (fiscal year 2002 begins October 1). When asked if he saw a potential "white knight", a champion for science, Stephens said the champion must be in the right place, i.e., on appropriations subcommittees.
- Jim Wilson, Minority Professional Staff, Research Subcommittee of the House Committee on Science. Another move in Congress is the somewhat unusual introduction by a Democrat (Rep. Eddie Bernice Johnson) of an authorization bill for NSF (H.R.1472). Noting that the bill will go nowhere, because minority bills are not moved by committee, Wilson says this nevertheless lays out the Democrats' disappointment with the President's request, and puts them on record as endorsing the doubling of the NSF budget by 2005. Although there was clearly bi-partisan support for doubling, Wilson noted that the majority leaders have been very successful at keeping their troops in line. However, he predicted that the President's 1.3 percent increase would not hold in the appropriations process.

Philippe Tondeur, Director of NSF's Division of Mathematical Sciences presented a different view of the President's budget request for NSF, saying that he thought it inappropriate to make negative comments about the budget at this point because mathematics had been treated very well (DMS is in line for a 16.5 percent increase). In fact, Tondeur urged mathematicians to make the case directly to Congressional appropriators that, because the Administration had already signaled its priorities by singling out mathematics, the \$20 million for mathematics should be increased to \$200 million. "If we don't advocate for mathematics," he said, "who will?" There was a very lively debate on the pros and cons of adopting this (new) strategy of asking Congress for a special appropriation for mathematics. Tondeur also gave an overview of the DMS priorities in FY 2002, noting that the decline in the number of U.S. citizen mathematics students was of great concern

Lester Su, Science Fellow for Representative Vernon Ehlers, (and also an AMS member) updated CSP on the status of the three education bills Ehlers introduced in the 106th Congress. Ehlers chairs the House Science Committee's Environment, Technology and Standards Subcommittee. Last year political machinations doomed the one bill that seemed assured of passage (H.R.100, National Science Education Act, which addresses teacher professional development). This year the climate is uncertain. Of the three bills reintroduced, only H.R.100 has prospects, but Ehlers must be cautious not to "step on Bush's toes" because the President has education as one of his initiatives. However, Chairman Boehlert (House Science Committee) is very supportive and if Ehlers gets the green light, Su expects the bill to get expeditious action. Within the month there would be a clear indication of what the President's education bill will look like.

Rich Borchelt, Director of Communications in the Department of Energy's Office of Science gave a spirited presentation on how to communicate science to the public and to policy makers.

Douglas Cochran, Manager of Applied and Computational Mathematics Program, DARPA (not an agency that has often sent representatives to CSP) gave a very welcome insight into programs at this "small, flat organization of freewheeling zealots". When asked what AMS could do to help DARPA, Cochran said 1) provide ideas, and 2) encourage mathematicians to become program managers.

CSP members developed a short list of names for the AMS-MAA government speaker at the January 2002 meeting in San Diego, and agreed to sponsor an event tentatively titled "Scientific Frontiers", on themes of nanotechnology, biocomplexity, and national security, with the format to be decided after speakers are committed.

Submitted by Monica Foulkes AMS Washington Office April 25, 2001

ATTACHMENT 6 - WASHINGTON OFFICE REPORT MAY 2001 AMS ECBT

Washington Office Report April 2001

President Bush introduced his detailed FY 2002 budget request April 9, 2001. Except for the National Institutes of Health, science budgets are down. The budget calls for a 1.3 percent increase (\$56 million) for the National Science Foundation. This is very disappointing after the 13 percent increase in FY 2001 for NSF – the largest ever. Together with other scientific and engineering societies, AMS is working to convince Congress that the President's NSF budget is unacceptable. Luckily, several Members of Congress believe this too. Senators Bond and Mikulski, as they did last year, have asked their colleagues to support a doubling of the NSF budget in five years, which requires increases of approximately 15 percent a year. The word is that Senators Bond and Mikulski are going to try to obtain a 15 percent increase for NSF in the coming appropriations process.

With regard to the NSF budget, the Coalition for National Science Funding (CNSF) – a group of over ninety science, engineering, and mathematics societies, professional societies, higher education organizations, industry, and universities advocating for the NSF – issues an annual statement to both houses of Congress and to the Administration. Sam Rankin, as he did last year, had primary responsibility for drafting this year's CNSF statement, which asks for a 15 percent increase for NSF over FY 2001.

Sam has taken over as chair of the CNSF and the Washington Office has created a website (www.cnsfweb.org) and an email listserve to improve group communications and visibility. As chair, Sam helped organize several meetings with appropriations and House Committee on Science staffers, in each case pushing for a 15 percent increase for the NSF. The Washington Office is again helping to organize the annual CNSF Exhibition (June 13, 2001) on Capitol Hill, showcasing NSF-supported research and education projects.

The Washington Office has again this year been very much involved in the annual Congressional Visits Day (CVD), May 1-2, 2001, when over two hundred scientists, mathematicians and engineers converge on Capitol Hill to visit Congressional offices. Sam Rankin wrote some briefing material for the participants. He and three other mathematicians will participate in CVD: Jane Hawkins from UNC-Chapel Hill, Tim Lance from SUNY Albany, and Andre Manitius from George Mason University.

Washington Office staff are organizing a May 16, 2001, reception on Capitol Hill for the presentation of the second annual Public Service Awards presented by the American Astronomical Society, the American Mathematical Society, and the American Physical Society. The 2001 awardees are Representative Vernon Ehlers from Michigan, and Dr. Neal Lane, former Assistant to President Clinton for Science and Technology and former Director of the National Science Foundation.

AMS President Hyman Bass testified on March 21, 2001 on behalf of NSF before the House Appropriations Subcommittee on VA-HUD-Independent Agencies. His testimony was made jointly with that of the Presidents of the American Chemical Society, the Federation of American Societies for Experimental Biology, and the American Physical Society. The joint testimony, which emphasized a 15 percent increase for the NSF, was well-received by Congressman James Walsh of New York, subcommittee chair.

At the request of Philippe Tondeur, Director of NSF's Division of Mathematical Sciences, the Washington Office organized three focus groups to discuss NSF's new Mathematical Sciences Initiative at the January 2001 Joint Mathematics Meetings in New Orleans. As usual, invitees quickly filled these sessions.

In November 2000 the Washington Office sponsored the annual AMS reception at the Chairs' Colloquium organized by the Board on Mathematical Sciences and held at the National Academy of Sciences. In December 2000, the office held its annual reception for representatives of Washington-based professional organizations, selected Hill staff, and Administration officials.

The Washington Office organized the recent April 20-21 Committee on Science Policy meeting (a report on this meeting can be found in a separate agenda attachment) and continues to provide staff support for CSP. This year's meeting included AMS Council members in addition to invited department chairs. The Council and CSP purposely scheduled these meetings contiguously so Council members could attend CSP. This meeting continued the format of having Hill and Administration staffers make presentations on Friday. The topic of the day, of course, was the discouraging science budgets for FY 2002.

Logistical support was provided to the presidents of AMS, APS, and ACS in January as they developed a list of recommendations for science appointments to submit to President Bush's transition team.

Sam Rankin has spent a great deal of time helping to set up a new organization promoting the physical sciences, mathematics, and engineering. The idea for this organization came from Mary Good, former Under Secretary of Commerce and current President of AAAS. Many hours have been spent in meetings to vet a business plan and philosophical ideas. A major goal of the organization is to enlist business and industry help, both financially and as advocates for strong federal funding for research in the physical science, mathematics, and engineering. So far, industry has not shown the enthusiasm hoped for, so the organization has had an inauspicious beginning.

The Washington Office continues to work with other societies and professional organizations, on an ad hoc basis as well as formally, on issues regarding science and mathematics research and education.

We also continue to issue alerts and information on legislative affairs of interest to mathematicians via our email at critical times to AMS committees and the AMS contact group, and to others via postings on the Government Relations pages of the AMS website.

Other Projects:

Staff continues to support the AMS Committee on Education, organizing its last meeting in October 2000, and creating and maintaining the education pages on the AMS website. The Washington Office continues to provide support for the NSF-funded AMS-MER Professional Master's Degree project; the third workshop will be held September 13-15, 2001, at the University of Cincinnati. We continue to support the NSF-funded project on Preparing Future Faculty in Science and Mathematics. Staff organized the annual Workshop for Department Chairs held in conjunction with the Joint Mathematics Meetings; fourteen department chairs took part in the workshop held at the January 2001 meeting in New Orleans. AMS held a breakfast in March for U.S. high school teachers who were awarded Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST), and also had a table at the exhibition where professional organizations and agency representatives met informally with the teachers and distributed information. Sam Rankin was again a member of the review panel to select AAAS Mass Media Fellows. AMS solicits mathematics applicants and supports one or two fellows each year. Raphael Jones, a graduate student in mathematics at Brown University, was awarded the AMS Mass Media Fellowship and will spend 10 weeks this summer at Discovery Channel Online.

Report presented by Samuel M. Rankin, III Director, AMS Washington Office

ATTACHMENT 7 - STRATEGIC PLANNING MAY 2001 AMS ECBT

Strategic Planning Rererevisited

The Society carried out an elaborate process of strategic planning about ten years ago. Guided by an outside consulting firm, the process included surveys, interviews, lengthy discussions, and retreats. It resulted in a strategic plan that was brought to the ECBT and Council, and that was formally approved by both. Indeed, the goal was ratification rather than mere introspection. At the conclusion of this process, there was a call to carry out strategic planning again, roughly every 3-5 years.

The Long Range Planning Committee revisited strategic planning in 1997, considering whether to engage in another round. Because many of the recommendations from the previous plan had been implemented only recently, they decided to wait and to reconsider the matter in 2 years. When it reconsidered in 1999, the LRPC once again saw no reason for another major planning effort and decided to reconsider in 2 *more* years. It is now 2 years later.

Should we repeat the strategic planning process? Rather than endlessly procrastinating two years at a time, this seems to be a good time to consider planning more generally. Ten years have passed, and with the passage of time we are better able to understand the accomplishments of the last effort as well as its shortcomings. We ought to judge not merely *whether* to carry out planning, but *what kind* of planning will benefit the Society most.

The purpose of this document is to review some of the background of the 1990-91 strategic planning process, to point out the major changes that resulted from that plan, and to make recommendations for future planning.

There is nothing magical about strategic planning, and neither obscure language nor lengthy retreats solve problems by some mysterious process. Ten years ago, the Society benefited from a healthy reevaluation of its mission. We are a different society now, however, with different needs. We have little to gain from an elaborate strategic planning effort led by outside consultants. On the other hand, there are some concrete steps we can take to augment our annual planning cycle, and there are refinements we can make to our statement of mission. The goal is not an extensive agenda for approval, but rather thoughtful introspection and sound business planning.

For background information, a number of documents have been attached at the end of this essay. The strategic plan itself (essentially, the article from the July/August 1991 *Notices*) describes the strategic planning process as well as its outcome. The list of goals and strategies in the 1992 (the first) annual operating plan provides contrast to the more recent operating plans. The list of guidelines, schedule, and "Cliffs Notes" show how annual planning is accomplished today. Finally, the main document from the Journal

Planning effort of two years ago provides an example of how specific business planning might be done in the future.

What is strategic planning?

Those who were engaged in the 1990 strategic planning effort had a specific goal in mind, and they hinted at that goal in the July/August 1991 *Notices* article that unveiled the final plan:

... the Society's mission has been interpreted in a way that allows the AMS to respond thoughtfully to current issues relating to mathematical research and scholarship. In fact, the Society has for some time been grappling with the issues raised in the strategic plan, but its efforts have been hampered and fragmented by a lack of clear focus and direction. Now, armed with a plan that incorporates concerns of the membership, reflects the thinking of leaders from the mathematical sciences community, and carries the approval of the ECBT, the AMS leadership and staff can begin to plan specific activities and programs to address these issues.

Indeed, the strategic plan was seen as a means to clarify which programs the Society should invest in, and which actions should be taken to achieve certain goals.

Strategic planning is accomplished in a process that is often obscured by its own language. Here is a description taken from materials provided by the consultants in the 1990-91 effort.

The process begins with a *mission* statement describing the purpose and aspirations of the organization. After gathering comments from various constituencies about current issues (the *strategic issues*), one formulates a *vision* statement, a current interpretation of the mission statement. From the vision statement, one creates specific *goals* – broadly defined but measurable (in the sense that one can determine whether or not one actually accomplished the goals). To attain the goals, one defines *objectives*, which are smaller, concrete goals. And to attain the objectives, one determines specific actions, which are *strategies* that can be carried out by designated people.

The vision statement, goals, objectives, and strategies are all viewed as time dependent, interpreted in terms of the mission statement and the strategic issues of current concern. The vision statement and goals may be applicable for several years, but they are supposed to be reviewed periodically to evaluate their relevance to current concerns. Objectives and strategies may change from year to year as operating plans are formulated, but their purpose remains the same — to implement the goals. This is the rationale for carrying out strategic planning every 3-5 years.

There are many different kinds of planning, however, each with different time horizons, and the description of *strategic planning* above combines several kinds. *Action planning* (represented by our own annual operating plans) is the regular cycle of planning for the next 1-2 years. It's usually tied to budget, and the aim is to set specific priorities. *Strategic planning* (the vision and strategies above) extends over 3-5 years. Beyond this, *critical assumptions* are meant to cover 5-10 years in the future, looking at the major trends in the real world that are likely to affect the organization. Finally, *core ideology*

covers the next 10-30 years, and concerns the basic purpose and values of the organization. The mission statement is meant to embody that purpose and those values. While much of the focus of planning is on *strategic planning* (3-5 years), the other components are equally important.

The 1991 strategic planning process engaged in many kinds of planning without explicitly recognizing the distinctions. Here is the list of 7 strategic issues that were "synthesized from interviews, surveys, and other information", covering almost every time horizon.

- 1. Examine the future of publications, meetings, and membership
- 2. Resolve uncertainty about other AMS programs
- 3. Define the role of the AMS in facing external challenges to the profession
- 4. Examine the vitality of the profession
- 5. Address the fragmentation of the mathematics community
- 6. Provide more opportunity to members for participation in AMS
- 7. Improve interactions between staff and volunteer leadership

On the other hand, there was little effort made on *critical assumptions* (business planning), and most of the effort during that time was spent on *core ideologies* (formalizing a mission statement), *strategic planning* (trying to set forth goals for the next few years), and *action planning* (laying out a detailed operating plan for 1992).

What did the 1991 strategic plan accomplish?

When strategic planning began in 1991, the Society was still debating the breadth and scope of its mission. The passage above outlining the goals of the strategic plan hints at the difficulty in reaching closure. In one area (*core ideologies*) the planning process achieved its goal: The strategic plan enunciated the mission of the AMS concisely:

The AMS, founded in 1888 to further the interests of mathematical research and scholarship, serves the national and international community through its publications, meetings, advocacy and other programs, which

- promote mathematical research, it communications and uses,
- encourage and promote the transmission of mathematical understanding and skills to ensure the continued vitality of the profession,
- support mathematical education at all levels,
- advance the status of the profession of mathematics, encouraging and facilitating full participation of all individuals,
- foster an awareness and appreciation of mathematics and its connections to other disciplines and everyday life.

It's easy to forget how much debate was behind this statement, and how much the attitudes of members have changed over the past years. The Society had an earlier

(briefer) mission statement, but the new one was broader and more detailed than the original — which was part of its purpose. It was intended to expand the Society's horizons and to keep them expanded for many years in the future.

The vision statement (meant to interpret the mission statement in terms of current issues) listed some of the challenges faced by the Society in carrying out its mission, including disseminating an increasing volume of mathematical literature, finding ways to link with other disciplines, embracing mathematics education, dealing with employment issues, and expanding efforts at public awareness. To deal with these challenges, the vision statement indicated that over the next three years, the Society should set six goals:

- articulate and advocate an agenda for providing the resources necessary for mathematical research,
- position the publication program for the future,
- make mathematicians more aware of the importance of activities that contribute to mathematics education,
- enhance the participation of underrepresented groups,
- promote public awareness of mathematics,
- renew AMS organization, management, and governance.

While these are admirable goals, their vagueness and generality reflect a desire to have uniform agreement rather than to have a blueprint for future action. The 21 objectives and many associated strategies (meant as an illustration for future operating plans) were often equally vague.

More than providing a statement of mission, however, the strategic plan engendered a sense that annual operating plans were useful. That, along with the mission, may be its most important legacy.

How did the operating plans evolve?

Immediately following the publication of the strategic plan, the Society began to assemble its first operating plan. A list of the objectives and strategies (without the detailed descriptions) from that first plan is included below.

The first operating plan was an attempt to organize the varied activities of the Society, and it relied on the six goals as the basic organizational tool. The operating plan was overly ambitious in places:

- Dampen the variations in the employment demand for mathematicians and avoid the damaging effects of wide fluctuations on mathematics.
- Review existing and impending technological developments and practices to identify those which threaten the viability of existing Society publications, and develop proposals for adaptation to these circumstances.

In other places, the operating plan recommended actions that may not have been so desirable:

• Engage a Staff Advisory Committee and employ a management expert ... [to implement] a form of total quality management

But the seeds for many of the fundamental changes in the coming years were contained in the list of proposed actions, including:

- Establish an office of the AMS in Washington, D.C.
- Charge the AMS Committee on Science Policy to develop a long-range plan that articulates an agenda for the Society ...
- Develop a broad marketing strategy that coordinates AMS acquisition and marketing efforts.
- Study the feasibility of producing an annual publication reporting new achievements in mathematics.

The Washington Office, the Federal Policy Agenda, the reorganized publication division, and the enhanced *Notices* (along with *What's Happening*) all were justified by statements in these early operating plans.

The initial planning process was not well integrated in the Society, however. Because the 1992 operating plan was organized around the six goals, it was difficult to assign responsibility to specific departments or people.

In the following year, the operating plan was reorganized, refined, and greatly expanded. It was organized around 10 Planning Units (PUs). Each unit was headed by designated staff leader (PUL), and appointments from the Board of Trustees (BT) and Council (CL) were added. The process was carried out in three major phases, with a total of 13 subphases and resulted in an operating plan of over 100 pages! Because the operating plan was more closely associated with natural parts of the Society, it became easier to assign responsibility for tasks to individual units. On the other hand, the number of objectives and strategies grew as their comprehensibility shrank.

By 1994, the operating plan involved 14 Planning Units, including all members of the Board and 20 members of the Council as liaisons. There were many phases. An effort was made to tie the planning process to budgeting by starting earlier. In addition, planning was intended to move from the "creative" mode to "maintenance", that is, from a process that concentrated on mainly *new* programs and projects to one that concentrated on the continued operations of the Society.

During this time, the planning process was refined and conducted largely by a professionally-trained planner, whose main responsibility was planning. That made it possible to piece together a detailed and comprehensive plan each year, with many objectives and strategies for each unit. On the other hand, it sometimes moved the planning process (or at least what was written in the plan) further from the staff who were directly responsible for carrying it out. For example, here is a paragraph from the 1993 operating plan addressed to book publishing:

The planning model will enable series planning and allow quota decisions to be made far in advance and before many authors have actually started writing. Thus the Society can solicit proposals, which match the planning model, and contact authors early in the process, working with them on editorial style as they develop their manuscripts. In this way the AMS can develop products which are better suited to the current needs of the mathematical community and have books that are more efficiently produced, which should make them more economical.

With the departure of the professional planners, the planning process was streamlined and simplified. After a transition period, the final structure of both the process and the plan itself has been stable for several years. Planning units are now replaced by the natural divisional/departmental structure of the Society. The operating plan itself is structured in a way that allows parts of the plan (mission statement and ongoing activities) to be carried forward each year without substantial change. Other parts (trends and issues) are changed as needed. Those parts that are most closely tied to the budget (new projects and financial implications) are placed at the end, and written in a concise form that is meant to be comprehended easily. Finally, an annual report that evaluates the outcome of the plan is added at the end, after the year is complete. The aim is to make the planning process easier to accomplish and comprehend, while connecting planning, budgeting, and the annual report.

Material used to carry out this annual process is included at the end of this document, including the guidelines, the current schedule, and some notes for those preparing the various sections.

In a sense, each operating plan combines *action* planning for the coming year with a little *strategic planning* for the next few. The ongoing activities in section (ii) are meant to give an overview of the department or division. The new projects in section (iv) are meant to be concrete and verifiable — the goal is to list a few (2-4) high-priority projects rather than dozens of small ones. Together, they provide a view of the coming year. The trends and issues in section (iii), however, are meant to look further afield, both outside the Society and to the future. In this way, the sequence of operating plans provides a sliding window for strategic planning.

What kind of planning do we need now?

The 1991 strategic plan gave the Society two things — a sense that annual operating planning was beneficial and a clear statement of our expanded mission. The annual planning process has evolved into a useful process, largely integrated into our general operations. It drives the budget and forces every division to look ahead on a regular basis. The mission statement is as valid today as it was 10 years ago and serves as the basis for the overall activity of the AMS. We do not have to revise our annual planning process, nor do we need to rethink our mission. We can, however, supplement and refine both.

The primary way to supplement our annual planning is with concrete and tangible business planning, aimed at a particular segment of our operations. A good example of this is the planning carried out several years ago for journals in which we examined data about the current environment, made an attempt to consider possible changes in the future (the *critical assumptions* mentioned above), and laid out some possible alternatives for action. This kind of "business planning" is valuable precisely because it tries to step outside the annual cycle of operations, and it is likely that it should be carried out in other areas.

During the second half of 2001, senior staff will consider specific areas of the Society's operations in which we can carry out business planning in the coming years. That list will be brought to the May 2002 LRPC for consideration and possible action.

The refinement of the mission is more subtle and requires more explanation. The mission statement sets forth the general purposes of the Society — promoting research, transmitting mathematical knowledge, supporting education, advancing the profession, and advocating for the profession. Year by year, our actions are meant to accomplish these purposes and (one hopes) to work on all of them from time to time. In *every* organization, however, it is necessary to set priorities. Setting priorities does *not* mean deciding which parts of the mission are unimportant; it means deciding how one wants to measure success in order to make choices.

There are four ways in which an association can be successful:

- *Operational Excellence* executing all services extraordinarily well, delivering a combination of quality and price that no can beat, and making a commitment to guaranteed value on all products and services.
- *Product and Program Leadership* providing leading edge programs, providing innovative new services at the cutting edge, and being in the forefront of new developments.
- *Member and Customer Intimacy* building long-term relationships with members, knowing members and customers, delivering precisely what they want (and knowing it in advance), and cultivating a sense of loyalty.
- *Advocacy Effectiveness* advocating the interests of the profession, maintaining personal relationships with leading decision-makers, and earning recognition for the discipline.

Nearly every association tries to be successful in each of these categories, and the AMS is no exception. *Setting priorities means deciding how to order these measures of success*, that is, deciding how one wants the association to be judged by members and customers. Which is most important? Which is least? It may be possible to be excellent in more than one category, but it is unlikely that any organization will excel in all.

Unlike some parts of strategic planning, this is more than an abstract academic exercise. As the broad mission statement for the Society took hold during the past 10 years, there have been more and more requests and opportunities for new services, programs, and outreach. Should we invest in major new employment services for departments and applicants? Should we develop expensive new software to integrate our phone and online support for members? Should we invest in Congressional fellows in Washington? The resources of the Society, both human and financial, cannot support all worthwhile projects, and it is necessary to make choices. While making those choices often requires merely balancing costs against benefits, there has to be some over-arching principle that guides the Society in deciding how to invest its resources wisely.

ECBT, May 2001

The Long Range Planning Committee, with advice from the ECBT, should consider how to weight each of these measures of success, and should routinely review this weighting.

The process of considering how one measures success for the Society, and periodic review of the outcome, is the most effective way to give the staff a clear sense of direction.

Conclusion

These recommendations may seem prosaic; business planning and measures of success are not especially daring or glamorous. They are, however, exactly the kind of planning from which the Society can profit at the moment. Unlike 10 years ago, no one senses a need to make great changes in the mission of the AMS. Unlike 10 years ago, we have in place an annual planning process that has evolved into an integral part of our operations. We can supplement that process by occasional in-depth studies of specific operations, as well as periodic review of our priorities. But there seems to be little need for a major new strategic plan. Planning and generating new ideas as a steady activity, year by year, seems to be far more effective than great spurts of new ideas once every decade.

John Ewing

ATTACHMENT 12 - REPORT ON THE BOOK PROGRAM MAY 2001 AMS ECBT

note: this attachment is not available electronically, but you can contact ellen heiser (*ehh@ams.org*) *to request a copy.*

ATTACHMENT 13 - NSF PROPOSAL FOR SUPPORT OF THE "MATH IN MOSCOW" PROGRAM MAY 2001 AMS ECBT

Travel Support for the Math in Moscow Program

Background

The Independent University of Moscow (IUM) is a small, elite institution of higher learning focusing primarily on mathematics. It was founded in 1991 at the initiative of a group of well-known Russian research mathematicians, who now comprise the Academic Council of the University. Professors Pierre Deligne and Robert McPherson, both permanent members of the Institute for Advanced Study, Princeton, also played crucial roles in founding the Independent University. The American Mathematical Society has had a special (although not official) relationship with the institution as well, arranging for help in obtaining publications and helping financially during one especially difficult period.

For Russians, studying at the IUM is regarded as difficult but extremely prestigious. The best students of the Mechanics and Mathematics Department of Moscow State University consider it an honor to study simultaneously at the IUM. They are attracted by its international prestige, its democratic atmosphere, small classes and individualized work with each student, informal contacts with professors, and the possibility of doing original research from the very first year.

Recently, the Independent University of Moscow created a new program, offering foreign students (undergraduate or graduate students specializing in mathematics and/or computer science) the chance to spend a semester in Moscow studying within its *MATH in MOSCOW* program. This proposal is a response to that program, attempting to encourage and support our most talented U.S. mathematics students to take advantage of a phenomenal resource.

Project Description

The American Mathematical Society proposes to administer a grant over a 3-year period, providing partial support for 10 undergraduates (or possibly one or two graduate students) each year to attend the *MATH in MOSCOW* program. Their semester of study will consist primarily of courses in mathematics and theoretical computer science. These courses may be supplemented with a course in the Russian language or a course in the history of Moscow, both offered in English. Each course completed in the *MATH in MOSCOW* program may be transferred to the student's U.S. university for 3 semester hours credit.

Students will gain much more than course experience, however. The main feature of the Russian tradition of teaching mathematics has always been the development of a creative approach to studying mathematics from the outset, the emphasis being on problem solving rather than memorizing theorems. Indeed, for the Independent University, discovering mathematics under the guidance of an experienced teacher is the central principle of its program, and the *MATH in MOSCOW* program emphasizes in-depth understanding of carefully selected material rather than broad surveys of large quantities of material. Even in the treatment of the most traditional subjects, students are helped to explore significant connections with contemporary research topics. This is possible because most of the program's teachers are internationally recognized research mathematicians, and all of them have considerable teaching experience in English, typically in the U.S. or Canada. (All instruction is in English.)

The program and its value will be widely advertised by the Society to the entire mathematics community within the United States, including Ph.D., Masters, and Bachelors departments. A committee of three U.S. mathematicians appointed by the AMS will select individuals for support under this grant from among all those U.S. undergraduates who have been admitted to the program. Officials of the *MATH in MOSCOW* program will provide copies of the relevant application materials of those admitted together with their suggested rankings. Individuals will be selected by the committee based on the likelihood of their success in the program. The committee will conduct its evaluations by email and phone, with administrative support provided by staff at the AMS.

All funds from the grant would be expended on student support. Administrative costs will be provided by the American Mathematical Society, and all overhead will be waived.

Rationale

For U.S. undergraduates the experience closest to the *MATH in MOSCOW* program is a summer Research Experience for Undergraduates (REU). Typically eight weeks long, an REU often provides mathematically talented U.S. undergraduates their first intensive experience in what it means to do research in mathematics. It also allows them to get to know other individuals who share their talent and interest in mathematics.

The *MATH in MOSCOW* program will provide an entire fifteen-week-long research experience for students, not only with other mathematically talented and highly motivated undergraduates but with some of the world's leading mathematicians as well. Students will be learning mathematics in an environment similar in spirit to that of an REU, but with broader representation from the international community. There are few better ways to prepare our most talented undergraduates for further work in mathematics.

The following excerpt is taken from material on the *MATH in MOSCOW* program on the IUM web site.

"We expect that the enrollment for all our courses will be small, so that the teachers will be able to work individually with all the students in the classroom as well as during consultation hours. Mathematics courses are taught with emphasis on problem solving rather than memorizing theory: this emphasis is characteristic of the Moscow school of mathematics.

However, we do not expect that students in the Math in Moscow program have had extensive math problem solving experience ... Our teachers are very attentive to student feedback; quizzes, tests, informal discussions allow them to control the level of the course, making it accessible to all the students taking it.

A list of the faculty at IUM and those currently active in the *MATH in MOSCOW* program is included in Attachment 1, along with a list of titles of the courses available to program participants.

This is not a substitute for traditional REU programs, of course. Indeed, graduates of the REU summer programs who are clear about their intent to become research mathematicians will provide a sizable pool of likely candidates for this international program. The *MATH in MOSCOW* program can serve as a capstone experience for some of the best undergraduates in our country.

There is another strong rationale for supporting such a program. While the Russian mathematical establishment continues to struggle with uncertain finances and shifting national priorities, the tradition of Russian mathematics remains remarkably vital. Building bridges between the Russian and U.S. mathematics communities is in the interest of both, and it surely is in the best interest of future scientific research. There is no better way to build these bridges than to introduce our most talented mathematicians of the future to the Russian community at an early stage in their careers. Creating ties between mathematicians in our two communities, both young and old, will leverage scientific cooperation far into the future over many years.

Finances

The following budget describes the estimated costs associated for one semester of study in the *MATH in MOSCOW* program.

Item Description	Amount
Math in Moscow program tuition	\$ 3,500
Books	200
Round-trip airfare	1,000
Room and board	2,400
Local transportation	100
Miscellaneous items, including	450
Medical insurance	

Total

\$ 7,650

For many students, however, there would be an additional tuition cost for an American institution through which they might register in order to transfer credits successfully. (For example, Cornell University has arranged to provide Cornell credits to students in the program if they pay a matching \$3,500 tuition to Cornell for the semester.) This cost would vary from student to student.

This grant would provide \$5,000 for each of ten students per academic year. This level of per-student funding compares quite favorably with the typical level of NSF's REU support, \$6,000 per-student for an (eight-week) REU program.
Attachment 1: Faculty of the Independent University of Moscow

A list of the current teaching staff (i.e., mathematicians teaching at the IUM during the academic years 1999-2000 and 2000-2001) follows. It should be understood that many staff members teach only one semester a year and spend most of the other semester abroad. An asterisk * precedes the names of those who intend to teach in the Math in Moscow program.

	Alexander Belavin	mathematical physics
	Michael Blank	dynamical systems, ergodic theory
*	Boris Feigin	representation theory, quantum groups
*	Misha Finkelberg	representation theory, quantum groups
	Serguei Demidov	history of mathematics
*	Alexei Gorodentsev	algebraic geometry, mathematical physics
*	Sabir Gussein-Zade	global analysis, topology, catastrophy theory
*	Yulij Ilyashenko	ODE, PDE, dynamical systems
*	Maxim Kazarian	catastrophy theory, topology, geometry
	Nikolai Konstantinov	mathematics education, math contests
*	Serge Lando	knot theory, combinatorics, algebraic geometry
	Robert Minlos	probability, math.physics
*	Serge Natanzon	complex analysis
*	Yuri Neretin	algebra, representation theory
*	Ossip Schvartsman	representation theory, complex analysis
	George Shabat	complex analysis, dessins d'enfants
*	Oleg Sheinman	physics, representation theory
	Valentin Shehtman	mathematical logic
*	Alexander Shen	mathematical logic, theoretical computer science
*	Alexei Sossinsky	topology, knot theory
	Vladimir Tikhomirov	control theory, geometry
*	Michael Tsfasman	algebraic geometry, number theory, coding theory
*	Victor Vassiliev	singularity theory, topology, finite type invariants, complexity theory
	Fyodor Zak	algebraic geometry
*	Vladimir Zakalyukin	singularity theory

Associate professors

Vadim Bugaenko Youri Burman Serguei Dorichenko Serguei Duzhin Vladimir Gordin Anton Gorodetski Joseph KrasilshcHIK Alexander Kuznetsov Andrei Levin

Serguei Lvovski Sergei Loktev Fyodor Pakovitch Dmitri Panishev Irina Paramonova (Schchepotchkina) Victor Prasolov

* Grigori Rybnikov
 * Arkadi Skopenkov
 Alexander Stoyanovski
 Mikhail Vialyi
 Alexander Vishik

Other

mathematicians

Ivan Arzhantsev Ilya Bogaievski Alexander Verbovetski Vassili Golychev Petr Grinevich George Iroshnikov Pavel Katsylo Sergei Loktev Dmitri Piontkovski Petr Pushkar' algebra global analysis, geometry, topology number theory knot theory, topology, PDE applied mathematics, PDE ergodic theory PDE, diffeotopy representation theory, quantum groups mathematical physics, algebraic geometry, number theory algebraic geometry representation theory complex analysis, dessins d'enfants Lie algebras representation theory, Lie algebras

topology, geometry algebra topology algebraic geometry, quantum groups theoretical computer science algebraic geometry, number theory

algebra, algebraic geometry singularity theory global analysis, PDE, diffeotopy algebraic geometry differential equations quantum mechanics algebraic geometry, algebra representation theory algebra topology, global analysis

Teachers of nonmathematical disciplines:

	Dmitri Alexandrov	physics
	Anna Andreeva	French
	Elena Cherenkova	French
	Alexei Kirichenko	physics
	Fabien Rassoul	French
*	Grigori Sapov	Economics
*	Sergei Smirnov	Russian history, History of Mathematics
*	Elena Tsfasman	Linguistics, Russian, English, French
	Valeria Zhigulskaya	French

MATH in MOSCOW proposes the following mathematics and computer science courses in 2001.

Elementary courses

Combinatorics Programming: from an Art to a Science Topology I Introduction to Number Theory Elementary Introduction to Geometric Group Theory Basic Algebra Geometric Foundations of Calculus Non-Euclidean geometry Ordinary Differential Equations

Intermediate courses

Advanced Algebra Differential Geometry Calculus on Manifolds Complex Analysis Dynamical Systems Topology II Algebraic Geometry: start up course Basic Representation Theory Computability and Complexity

Advanced courses

Calculus of Variations Equations of Mathematical Physics Mathematical Catastrophe Theory Introduction to Commutative and Homological Algebra

Riemann Surfaces

The non-mathematical courses offered are Economics, History of Mathematics and Science (AD 1500-2000) and Russian History and Russian Science in Moscow

attachment supplied by Jim Maxwell 3/7/01

ATTACHMENT 14 - REPORT ON PUBLIC AWARENESS

MAY 2001 AMS ECBT

Report on Public Awareness Office

The Public Awareness Office is now fully functional, staffed by two public awareness officers (Mike Breen and Annette Emerson) along with part-time secretarial help. As outlined in previous material, much of the work of the office during the first year is simply to investigate opportunities — to find out what is being done in the community, to find ways to support that activity, and to communicate with other scientific societies about their public awareness efforts. That investigation is actively underway.

In addition to this, however, the office has been able to accomplish a great deal in its first halfyear of full operation. In part, this is because the two officers are able to act creatively and independently carrying out their responsibilities. But it also is because merely creating an office has focused attention on public awareness, elevating its importance in almost everything we do. Both staff and volunteers think of public awareness in many different contexts, and in the longrun this is what will make the Public Awareness Office continue to succeed.

Some of the recent major projects that the Office has undertaken are:

Mathematical Moments

This program is designed to illustrate the prevalence of mathematics in everyday life. Each Moment consists of short text (1-2 paragraphs) and a graphic that describe an application of mathematics and the type of research being done in that application. Topics range from Securing Internet Communication to Describing the Oceans.

Not only is most of the public unaware of particular uses of mathematics, but also members of the scientifically-literate public – indeed, mathematicians themselves – are often unaware of how mathematics is used outside their field. It is hoped that Mathematical Moments will give everyone – from students who wonder about mathematics to members of Congress who appropriate funds for research – the realization that mathematics is a developing field, and one that develops for the public good.

The original set of Moments was distributed to key officials at NSF and is currently available on the AMS website at <u>www.ams.org/ams/mathmoments.html</u>. The program has been publicized via a mailing to Institutional Member Chairs and a news release that was sent to selected media contacts, outreach program organizers, Association of Science and Technology Centers and the Physics Astronomy and Mathematics (PAM) section of the Special Libraries Association. The latter two organizations posted the news release on their member listservs, and feedback to date has been very positive.

Plans are being made to distribute the set of Moments to mathematics departments in the U.S. and to develop more Moments.

Attachment 14 Page 2 of 4 May 2001 ECBT

Joint Mathematics Meetings

In New Orleans, the Office hosted a press room which served many functions: reporters

- got information on invited addresses, panel discussions and special sessions, and the many mathematical organizations involved in the Meetings;
- interviewed speakers;
- downloaded background information from the Web; and
- collected their thoughts between talks.

The writers were alerted to some of the highlights of the Meetings by press releases that were sent out about a month before the Meetings took place.

In addition to the opportunities the press room afforded to reporters, by having the press room the Public Awareness Officers learned

- what kinds of stories mathematical reporters are interested in,
- the methods reporters use to get information, and
- the time constraints under which they operate.

Who Wants To Be A Mathematician

This is a mathematical version of the popular television game show. Ten high school students have a chance to win two thousand dollars (offered by the AMS) by answering multiple-choice questions about mathematics. Both the students and the audience had an exciting and intellectually stimulating time when the show debuted in New Orleans at the Joint Mathematics Meetings. Other prizes are AMS and MAA gifts, graphing calculators, mathematical software and calculus texts. Putting on the show involves writing the questions, finding contestants and arranging sponsorship. Because it involves high school students who are local to the area where the event is held, the local press is more likely to cover the event. Thus, the show is fun for the participants and good publicity for mathematics and the AMS.

It is planned to put on the show at other Joint Mathematics Meetings, as part of Math Awareness Month, and perhaps in conjunction with the Arnold Ross Lectures.

Discoveries and Breakthroughs Inside Science (DBIS)

DBIS is a series (twelve per month) of 90-second video segments that show specific uses of science and how they affect consumers – for example, how mathematics was used to schedule games in the XFL. The program is run by the AIP and is syndicated to 60 television stations in the United States. The stations air the stories during their local news.

The Public Awareness Office serves as the liaison between the Society and the AIP. The Office searches the web, newspapers, and scientific magazines for possible topics for DBIS, which are then referred to the people at AIP. It also reviews scripts that contain mathematics, to make sure that the text is accurate.

AMS Member Newsletter

The purpose of the Newsletter is to cover topics not reported in Notices and to focus on events or programs of which members may not be aware. The Newsletter will be issued quarterly and will continue to publicize both ongoing programs and special activities, and to direct members to the AMS website for further information.

The first Newsletter (being mailed May 7, 2001 to all domestic members) focuses on the activities of the Public Awareness Office, the Washington, D.C. office, and the Epsilon Fund— all broadly categorized as outreach programs. Future issues will continue to inform members about outreach activities and other AMS division and department news.

Mathematics Awareness Month

Mathematics Awareness Month (MAM) is sponsored annually by the JPBM. The April 2001 theme was "Mathematics and the Ocean", and the Chair of the organizing committee was Christopher Jones, Brown University. Although this was the year in which SIAM organized MAM, it was natural that the PAO coordinated many aspects of the event, including mailing posters and updating the website. The mailing consisted of the theme poster (designed and provided by SIAM), announcement and sample news release, which went to approximately 3,100 Chairs in the U.S. The website at <u>www.mathforum.com/mam/01</u> includes the downloadable theme poster, announcement, sample news release, theme essay, related resources, and web pages of past Math Awareness Months.

According to plan, the AMS will be the official organizer of Math Awareness Month 2002; the PAO plans to produce and distribute publicity materials prior to the Joint Mathematics Meetings in January.

Arnold Ross Lectures

The annual Arnold Ross Lectures for talented high school mathematics students took place April 3 at the St. Louis Science Center. The PAO worked with the Meetings department to produce the Invitation and the Program for the event (which featured speakers Mary Ellen Rudin and John H. Conway) and posted a write-up about the event at <u>www.ams.org/ams/arl2001.html</u>. The Public Awareness Office will play an even larger role in these lectures in the future.

There are a number of ongoing activities in which the Office is actively engaged. The two most prominent are:

News releases and news items for the AMS website

The PAO, sometimes in collaboration with Allyn Jackson (Notices Senior Writer and Deputy Editor), generated news releases to publicize AMS meetings, prize-winners, fellowship awards, Mathematical Moments, the Who Wants to be A Mathematician game, Epsilon Fund awards, and special Notices articles. The news releases were mailed and posted on the AMS website (see www.ams.org/new-in-math/press/home.html).

The Office solicits and provides News and Calendar items to post on the AMS website home page.

Attachment 14 Page 4 of 4 May 2001 ECBT

News Clippings and Media Contacts

The PAO finds news stories or feature articles about mathematics for **Math in the Media** (<u>www.ams.org/new-in-math</u>) and **Mathematical Digest** (www.ams.org/new-in-math/mathdigest/), and maintains files of articles for future reference on the topic and to contact the article's writer and/or expert(s) in the field.

The Office fields calls from reporters seeking information about math-related topics. The Office supplied information on or referred reporters to experts in the following areas: congressional apportionment, the expected value of a hole-in-one golf promotion, the number of minority Ph.D.s in math, the odds of picking a four-leaf clover, and chain letters. The office has also referred reporters and sciences writers to other specialists ...(math and art, brain)

All this activity follows (roughly) the outline for the Public Awareness Office contained in the memo from the May 2000 ECBT meeting. None of these are novel ideas, but their rapid implementation and success are nonetheless surprising. One unanticipated consequence of establishing a Public Awareness Office is the increased responsibility that falls on the Society: When mathematics organizations want to publicize events or reach out to the public or simply solicit advice about publicity, they will increasingly turn to the AMS for help. This is natural because we have staff who devote themselves fulltime to public awareness, and who have contacts as well as expertise. The mathematics community benefits from our ability to provide help to other organizations, and ultimately the Society benefits as well.

John Ewing

ATTACHMENT 18 - REPORT ON AWARDS FROM THE EPSILON FUND FOR THE YOUNG SCHOLARS PROGRAM MAY 2001 AMS ECBT

Young Scholars Programs awarded funding for summer 2001 from the Epsilon Fund.

Program	Award
All Girls/All Math, University of Nebraska	\$ 5,000
Hampshire College Summer Studies in Mathematics	15,000
Mathcamp, Port Huron, Michigan	15,000
Mathematics Scholars Academy, Oklahoma State Univ.	5,000
Michigan Math & Science Scholars, Univ. of Michigan	15,000
PROMYS, Boston University	10,000
Ross Young Scholars Program, Ohio State University	10,000
University of Chicago Young Scholars Program	5,000
Total	\$ 80,000

prepared by Jim Maxwell 3/7/01

ATTACHMENT 19 - REPORT ON 2001 ANNUAL MEETING OF THE AAAS MAY 2001 AMS ECBT

American Association for the Advancement of Science

SECTION ON MATHEMATICS (A) Warren Page, Secretary

wxpny @aol.com (914) 476 - 6446

To: ECBT Subject: AMS-support at the 2001 AAAS Annual Meeting Date: March 5, 2001

Overview The AAAS annual meeting, considered by many to be the showcase of science, features a variety of presentation formats. In addition to more than one hundred 3-hour symposia on themes of contemporary interest, there are individual topical area lectures and plenary lectures. Because Section A's budget is too meager to support speakers, the generous annual support of the AMS has been centrally important in enabling Section A to offer programs and speakers that effectively communicate to general scientific audiences and the press (ergo, the public at large) the nature, excitement, and usefulness of mathematics.

February 15 – 20, 2001 AAAS Annual Meeting in San Francisco, CA Summarized below are Section A's sponsored symposia and talks presented at this meeting.

Juggling, Magic, Sports, and Combinatorics, organized by Joe Buhler and Ronald Graham Some New Card tricks based on Ring Theory, Persi Diaconis Odd Angles in Sports, Thomas Cover Juggling Mathematics, Joe Buhler and Ronald Graham

This symposium was an outstandingly successful way to communicate how mathematics relates to juggling, card tricks, and sports. After involving the audience (of approximately 60 people) in some card tricks, Persi Diaconis used ring theory to analyze and further elucidate their results. Persi's presentation was particularly noteworthy in that he wrote nothing and used nothing other than a handful of playing cards. Tom Cover's analysis of some counterintuitive questions (Are all sports equally exciting? Are games over at half time? Do longer games favor the stronger player?) also kept the audience intruiged. Joe Buhler and Ron Graham performed juggling as the means to illustrate and develop aspects of combinatorics that also have significance in other contexts. The audience was very responsive, encouraged further dialogue, and clearly left with a heightened awareness of how mathematics permeates all aspects of our lives.

The Mathematics of Congressional and Other Apportionments, organized by Donald G. Saari The Mathematics of Congressional Apportionments, Peyton Young Surprising Properties and Consequences of Ways to Allocate Power, Katri Sieberg Paradoxes of Fair Division, Steven J. Brams Why Congressional Apportionments Can Give Controversial and Arguably Wrong Outcomes, Donald Saari

There was an excellent mix of speakers from mathematics, political science, decision theory, and ecomomics. The talks were informative and were mainly designed to appeal to an audience of nonmathematicians. Saari, in particular, made clever use of mathematical concepts that would be well known to an educated layperson to explain

Attachment 19 Page 2 of 4 May 2001 ECBT

what lies behind a number of paradoxes and challenges raised by the preceding speakers. Although the audience had approximately 20 people (a bit disappointing and perhaps due to competing concurrent sessions), there was a high level of interaction – questions and discussion, including discussion among the speakers – following each presentation. Barbara Keyfitz and Duane Cooper

Mathematics and the Visual Cortex, organized by Jack Cowan Functional Architecture of the Visual Cortex, Gary Bladsel Orientation Preference and Tuning in the Visual Cortex, David mcLaughlin Oscillation in the Visual Cortex, Nancy Koppel A Dynamical Theory of Weakly Interacting Hypercolumns, Paul Bressloff An Overview of Mathematics and the Visual Cortex, Jack Cowan

This was superbly organized and delivered to an audience of approximately 45 people. It was high level, well done, and very informative The speakers explained the reasons and significance for presenting different approaches to modeling the V1-layer of the visual cortex (e.g., modeling by dynamical systems and solution either by computer simulation or qualitative methods). Some of the results show astonishing correspondence with experimental data. Each talk was followed by a short discussion led by a discussant – an effective way to get speaker and audience participation. The speakers represented a good blend of mathematicians and biological scientists, and both disciplines seemed to be included in the audience as well. Barabra Keyfitz and Martin Golubitsky

The Nature and Origin of Mathematical Thinking, organized by Keith Devlin The Nature and (Possible) Origins of mathematical Thinking, Keith Devlin How the Mind Creates Mathematics, George Lakoff Mathematical Research in Fact and Fiction, Robert Osserman Sociocultural Influences on Young Children's Informal Mathematical Thinking, Prentice Starkley Implications of Research on Mathematical Thinking for Mathematics Teaching, Anna Sfard

Beauty and the Beast: Visual Symbiosis of Art and Mathematics, organized by Michael Field Procedurally Defined Geometrical Sculptures, Carlo Sequin Organic Geometries from Artistic Intuition, Brent Collins Constructive Geometric Sculpture, George Hart From Chaos to Art, Design, and Education, Michael Field Hyperseeing, Knots and Minimal Surfaces, Nat Friedman

The symposium attracted an audience of about 40 - 50 people. As organizer, I was very pleased by the high standard of the talks. Two of the speakers (Carlo Sequin and Brent Collins) brought along a number of pieces of sculpture related to minimal surfaces and knots, and these were well received by the audience. I understand that there will be a (syndicated) article by Gareth Cooke related to the symposium that will appear in the March 6th issue of the Boston Globe. There are also possibilities for other articles, notably in the London Times. Mike Field

Applications of Mathematics to Problems in Medicine, organized by Panos M. Pardalos Quadratic Integer Optimization and Nonlinear Dynamics for Prediction of Epileptic Seizures, Leon D.Iasemidis

An Integrated Optimization approach to Medical Image Registration, Annard Rangarajan Deterministic Global Optimization in Structure Prediction of Polypeptides, C. A. Floudas Automated Computerized Treatment Planning System for Radiation Therapy, Eva K. Lee Optimization of Gamma Knife Surgery, Michael Ferris

This may have been a wonderful symposium for a much larger audience if it were not so poorly scheduled (toward the end of the meeting). I especially regretted having to leave before the seond speaker concluded in order to catch a

taxi to the airport. The presentations by Leon Iasemidis and by Annard Rangarajan were exemplary in how successfully to communicate substantive technical and mathematical notions to a general scientific audience (of about 20 people). Iasemidis showed that optimization techniques (quadratic integer programming) applied to nonlinear measures estimated from multi-electrode EEG recordings, for selection of critical brain sites over time, can lead to long-term prediction of impending epileptic seizures. His presentation was particularly fascinating because it included videos of patients' brain activities during epileptic seizure, thereby illustrating the intermittent transition of the brain from chaos to order and back to chaos.

Mathematical Aspects of Intellectual Property Management on the Internet, organized by Matthew Franklin

Leakers Beware: Trace and Revoke Mechanisms for Protecting Information, Moni Naor Protecting Your IP:Theoretical Results, Practical Realities, Joe Kilian IP Protection: Some Primitives and Problems, Ramarantham Venkatesan Cryptographic Tools and Realistic Models for Digital Rights management, Tomas Sander

The talks were interesting and informative, and there was good interaction among the more than twenty people who attended this symposium.

The Role of Mathematics in Pricing and Hedging Financial Assets, organized by Philip Protter An Introduction to Financial Asset Pricing Theory, Philip Protter Some New Applications of Financial Mathematics to the Valuation of Default Risk, Duffie D. Stanford

This symposium was very well received by a rather large audience of about 50 people. Both speakers had presentations that were of interest to the largely nonmathematical audience, and many curious questions were raised by those in attendance. Both presentations were well done, but Philip Protter's talk was particularly delightful – substantive and hilarious! Duane A. Cooper (University of Maryland)

February 14 – 19, 2002 AAAS Annual Meeting in Boston, MA Section A's Committee is currently working to produce an informative blend of mathematically-related symposia for this meeting. Potential proposals, based on current efforts, include the following.

Robot Arm Manipulation: Applications to Manufacturing and Folding (Robert Connelly Bioconsensus (Fred Roberts) Revisiting the Data: Florida, Ford & Firestone and the Future (Leon Seitelman) Articulation in Mathematics (Bernard Madison) Waves Patterns and Turbulence (Walter Craig) Mathematics and Theater (Arthur Jaffe) Living With Data: Achieving Quantitative Literacy (Lynn Steen) Chemotaxis Inverse Problems Mathematical and Computational Issues in the Geosciences Protein Motif Recognition Geometry of Receptor Sites Mathematical Modeling in Biology Mathematics of Search Engines The Ten Most Significant Altorithms Attachment 19 Page 4 of 4 May 2001 ECBT

The officers of Section A gratefully acknowledge AMS's generous annual support for these important initiatives.

ATTACHMENT 20 - AMS PRESENCE AT THE ANNUAL MEETING OF SACNAS MAY 2001 AMS ECBT

March 29, 2001

James Maxwell Associate Executive Director American Mathematical Society

Dear Jim,

I am writing regarding our previous E-mail conversation in which you have confirmed the plans for AMS to provide \$5000 in support of the mathematics program at the SACNAS national meeting in September of 2001.

The activities that have been scheduled as of today include a mathematics minisymposium titled "Trends in the Mathematics of the New Millennium." This symposium will bring together four mathematicians working in different fields with the purpose of presenting topics in modern areas of mathematics and their connections to other fields. The scheduled talks are:

1. "Definable sets: A model theoretic tool in an algebraic setting" Concha Gomez, Assistant Professor, Mathematics Department, Middlebury College

2. "The mathematics of calcium waves in cells" Monica Romeo, graduate student finishing in May 2001, Mathematics Department, Brown University

3. "Some recent advances in computational algebra" Ivelisse Rubio, Assistant Professor, Mathematics Department, University of Puerto Rico at Humacao

4. "Statistical quality control" Maria Calzada, Associate Professor, Mathematics Department, Loyola University New Orleans

Two of the symposium speakers already have funding to attend the conference. The AMS funds will be used to support the other two speakers (approximately \$1200 each) and 3 or 4 students (approximately \$750 each).

In addition, SACNAS expects to have graduate and undergraduate student presentations in mathematics, both oral and poster format. Additional mathematics undergraduate students are expected to attend and participate in the graduate school workshops. The deadlines for student participation are in June, so the final count is not possible to predict today. However, I anticipate that the increasing trends of the last few years will continue.

The SACNAS Executive Director is Ronaldo Ramirez (ronaldo@sacnas.org) and can be reached at (831) 459-0170 ext. 225. Thank you again for your support.

Best regards,

Ricardo Cortez

Assistant Professor, Department of Mathematics Tulane University

March 29, 2001

James Maxwell Associate Executive Director American Mathematical Society Providence, RI 02940

REPORT ON THE AMS FUNDING OF THE MATHEMATICS COMPONENT OF THE 2000 SACNAS ANNUAL CONFERENCE

The 2000 SACNAS conference in Atlanta included two minisymposia in the mathematical sciences: "Computational Mathematics" and "Biostatistics: Statistical Applications in Biomedical Research". In addition, there were 73 confirmed mathematics students in attendance, many of them giving oral or poster presentations.

The AMS funding was used to support some undergraduate students and two of the speakers in the "Computational Mathematics" session. As you know, all presenters, including students presenting posters, are fully funded by SACNAS and sponsors like the AMS. The cost of supporting one students was approximately \$800 (including airfare, room and board and registration). For professionals the cost was approximately \$1200.

We expect to increase the visibility of Mathematics at future conferences by inviting mathematicians as plenary speakers. I would like to thank you and the AMS for your continued support of the SACNAS activities at the conference.

Best regards,

Ricardo Cortez

Prepared from email by Jim Maxwell

ATTACHMENT 21 - REPORT ON CHANGES IN REGISTRATION FEES FOR CONFERENCES, EMPLOYMENT CENTER, OR SHORT COURSE MAY 2001 AMS ECBT

Report on changes in registration fees for conferences, Employment Center, or Short Course since the previous ECBT meeting.

1. Small increases in fees have been approved by the Executive Director for the Employment Center at the San Diego meeting in January, 2002. The approved fees are as follows:

Employers			
Advanced Registratio	n		
First Table	\$ 210	(up from \$200 in N	New Orleans)
2nd Table	\$ 60	(up from \$50 in No	ew Orleans)
On-site Registration			
First Table	\$ 300	(up from \$250 in N	New Orleans)
2nd Table	\$ 100	(up from \$75 in No	ew Orleans)
Applicants (no chang	e in fee	s)	
Advanced Registratio	n		\$40
Winter List w/ Message Center only \$20			\$20
On-site Registration \$75			\$75
Winter List w/ Message Center only \$20			\$20

Very few employers register on-site, and the price increase is intended to keep it that way.

2. Small increases in selected fees have been approved by the Executive Director for the Short Course at the San Diego meeting in January, 2002. The approved fees are as follows:

Member (AMS/MAA) Advanced Registration On-site Registration	\$80 \$100	(no change) (up from \$95 in New Orleans)
Non-member		
Advanced Registration	\$110	(new category for San Diego)
On-site Registration	\$130	(new category for San Diego)
Student/Unemployer		
Advanced Registration	\$35	(no change)
On-site Registration	\$50	(up from \$45 in New Orleans)

The aim of the new non-member fee is to remind people that their membership buys them something: a \$30 discount.

Prepared by Jim Maxwell April 20, 2001

ATTACHMENT 23 - SHORT-TERM INVESTMENTS MAY 2001 AMS ECBT

AMERICAN MATHEMATICAL SOCIETY

To:	Gary Brownell	Date:	August 30, 2001
From:	Connie Pass		
Subject:	Operating Fund Portfolio Management Report		

SUMMARY RETURNS:

The purpose of this memorandum is to summarize the Society's cash management policies and report on the operating portfolio's investment income performance during 2000.

Investment earnings results by type and in total and other pertinent portfolio information for 2000 and the preceding five years are as follows:

	<u>2000</u>	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1996</u>	<u>1995</u>
Overnight Repurchase Agreements	N/A	N/A	2.0%	2.7%	2.0%	3.5%
Money Market Funds	5.2%	4.9%	5.3%	5.3%	5.2%	5.6%
Vanguard Fixed Income Mutual Funds	13.7%	(2.4%)	9.3%	9.5%	3.6%	11.9%
High Yield Bond Funds (from 5/97)	(6.9%)	5.6%	1.4%	11.3%	N/A	N/A
Vanguard Convertible Securities (from 1/98)	4.2%	30.4%	2.5%	N/A	N/A	N/A
2 Year Treasuries (from 6/97)	N/A	5.8%	5.7%	4.2%	N/A	N/A
Certificates of Deposit & T-Bills	6.4%	5.4%	6.0%	5.8%	5.7%	6.0%
300 shares Disney Co. Common Stock	0.0%	(2.5%)	(8.5%)	42.8	N/A	N/A
Annual total portfolio return	6.4%	5.1%	5.5%	6.8%	5.1%	6.4%
AMS benchmark - Avg 3 month CD						
rate per Wall Street Journal	5.5%	4.9%	5.0%	5.2%	4.9%	5.4%
AMS returns versus benchmark	0.9%	0.2%	0.5%	1.6%	0.2%	1.0%
Wkly Average Operating Portfolio (in 000's)	\$9,525	\$8,800	\$8,300	\$6,900	\$4,600	\$5,100
Annual Investment Income (in 000's)	\$611	\$452	\$467	\$472	\$233	\$322

At 12/31/00 operating fund investments equaled approximately \$12,348,000, a decrease of \$21,000 from the previous year. Operations provided significant cash flows in 2000, but a total of \$2,038,000 was transferred to the long-term investment portfolio during the year.

At the May 1996 ECBT meeting it was agreed that the Society should have as a goal an accumulation of current assets such that they exceed current liabilities. To help achieve this objective, at the May 1997 ECBT meeting a plan for the creation of an intermediate term investment portfolio was adopted. Increases of \$1,000,000 (to \$4,000,000) in our money market funds, \$1,000,000 (to \$2,000,000) in our Vanguard fixed income funds, and \$500,000 (to \$1,500,000) in Treasury Notes were approved. In addition, we established a \$1,500,000 combined limit for bond mutual funds, consisting of high yield and convertible bond funds. This strategy has occasionally resulted in greater volatility, but overall has generated an appreciable increase in the earnings of our operating fund investments. By shifting a larger portion of operating fund investments into slightly riskier investment vehicles we have increased our earnings significantly over the last few years. In May 2000, the limits for money market funds, fixed income funds and the high yield/convertible funds were each increased by \$500,000.

The return for 2000 is 90 basis points above the benchmark (the average CD rate per the Wall Street Journal). The CD rates earned were greater than the target, as we locked in higher rates as the Fed was increasing rates at the end of 1999 and throughout a good portion of 2000. The Vanguard bond funds had greatly improved performance over the prior year's volatility, due to the effect of rate hikes during the year and the perceived safety of the investments as compared to the volatile stock market. The Convertible Securities fund more closely follows the equity markets, although it did not fare as poorly as the major equity indices. The high-yield bond fund was adversely affected by market jitters, and recent Fed rate decreases have not improved this much. See the I section of the Green pages for additional information.

DISCUSSION AND RECOMMENDATIONS:

Changes in the Cash Management Environment:

The equity markets started off well in 2000, but succumbed to economic jitters and poorer than expected corporate earnings in the latter part of the year. The S&P 500 lost 9.1% for the year, and the NASDAQ Composite lost 39.3% for the year. However, during most of the year the Fed continued its war against inflation and raised interest rates. Only late in the year did the Fed determine that the economic slowdown was more critical than inflation, and began lowering rates. Our short-term portfolio fared well in this environment, as we locked in higher CD rates when they were going up and the convertible securities fund was not as adversely affected as true equities. Also, the Vanguard bond funds did extremely well and continue to do so in 2001, as many investors move to a larger bond percentage for their portfolios in reaction to the volatile equity markets. The high yield bond fund did not fare as well, as the combination of increasing rates during most of the year and the economic slowdown that was apparent in the latter half of the year combined to decrease the value of these shares.

Cash management at the AMS:

The following rules govern AMS's management of cash:

1. Availability and Liquidity: The placement of investments in the operating portfolio is coordinated with the Society's immediate and estimated future cash requirements, which are based on actual and projected revenue and disbursement streams. Cash needs to be available at the appropriate times to cover the operating expenses of the Society as they are incurred - payroll, payroll taxes and other withholdings, and vendor liabilities comprise the bulk of our cash needs. Adequate portfolio liquidity is the ability to turn investments readily into cash without suffering undo loss of principal.

2. Income: Cash in excess of immediate operating needs should be invested so as to optimize returns. The Society is intentionally accreting such excess cash, so that current assets equal or exceed current liabilities.

3. Preservation of principal: Safety is of prime concern in investments of operating capital. Diversifying investment vehicles and monitoring investment maturity dates and market value fluctuations greatly reduces an investment portfolio's exposure to risk. Maximum allowable positions should be established for different types of investments.

The investment vehicles currently used by the AMS are:

• <u>High Yield and Convertible Bond Mutual funds</u>. During the spring of 1997 the BT authorized these new investment vehicles for use by the operating funds of the Society. Currently the maximum investment allowed is \$2,000,000 in any combination of high yield bond and convertible securities accounts. At December 31, 2000 we had \$1,657,000 invested in these vehicles (see following table). Gains or losses technically are not realized on these funds until they are redeemed, although, for financial statement purposes, the Society records these investments at market. We moved our investment in Northeast Investors Trust to the Strong High-Yield Bond Fund, due to poor performance by Northeast Investors as compared to applicable benchmarks.

Issuer	Strong Funds and Vanguard
Risk of default	Medium to High
Risk of market decline	Sensitive to movements in the equity markets
Maximum Amount	\$2,000,000
Comments	Total returns often parallel those of equity
	markets.

• <u>Fixed Income (Bond) Mutual funds</u>. The BT has authorized a maximum investment of \$2,500,000 in fixed income mutual funds, and at the end of 2000 we had \$2,307,000 invested). All of these investments are with the Vanguard Group of Valley Forge, Pa. A combination of three funds is used: the High Grade Short-Term Corporate Bond portfolio, the GNMA portfolio, and the Long-Term US Treasury portfolio. Historically, most of the volatility in the Society's short-term portfolio has been the result of market valuation adjustments on these investments (they are marked to market monthly); however, gains or losses technically are not realized on these funds until they are redeemed. As interest rates were relatively volatile during 2000 (the Fed changing course during the year), these funds increased in market value due to interest rate differences and the relative safety of the underlying investments.

Issuer	The Vanguard Group
Risk of default	Minimal
Risk of market decline	The longer the maturities of underlying
	Investments, the higher the risk.
Maximum Amount	\$2,500,000
Comments	Market value will decline as interest
	rates rise and increase as rates fall.

• <u>US Treasury Notes</u>. The BT has authorized a maximum investment of \$1,500,000 in US Treasury Notes. A loss of market value may be incurred on these investments in a rising interest rate environment if funds are needed before maturity and have to be sold; however this risk is slight as the Society's liquidity is deemed extremely adequate. Treasury Notes can be an attractive investment when interest rates are expected to decline and the yield curve is fairly steep. During 1997 we purchased four \$100,000, 2 year Notes yielding an average of about 6%. These were retained in 1998 and matured in 1999. No further purchases were made due to the interest rate environment.

Issuer	U.S. Government
Risk of default	None
Risk of market decline	None if held to maturity
Maximum Amount	\$1,500,000
Comments	Best used just before interest rates decline

• <u>Certificates of Deposit.</u> As in prior years, the largest percentage of the Society's operating investment portfolio has been invested in certificates of deposit, averaging 45% of the total portfolio during 2000. We generally purchase "jumbo" CDs of federally insured savings institutions and commercial banks that are assigned an acceptable safety rating by a weekly bank rating newsletter. Current investment policies limit the amount of each CD to \$100,000 (exclusive of accrued interest) per S&L and \$400,000 per large commercial bank. In practice, the Society has only invested amounts up to \$100,000 in any one financial institution and its affiliates. There is no limit to the total amount of CDs which can be held by the operating investment portfolio.

Issuer	Banks & Savings and Loans
Risk of default	None - federally insured
Risk of market decline	None
Maximum Amount	\$100,000 per bank or S&L,
	Unlimited in total

• <u>Money market funds</u>. The BT has authorized a maximum investment of \$4,500,000 in money market funds. At the end of 2000 the balance in money markets approximated \$2,953,000, principally in Vanguard's Money Market Prime portfolio. Yields on the funds averaged about 6.4% for the year. There is very little risk to principal because the valuation of the initial investment is not subject to change. Balances in these funds are generally maintained only at levels needed for short-term operating needs in excess of short-term maturities, since they under-perform alternative authorized investment vehicles. However, as we have noted in the past, once the certificate of deposit portfolio reaches approximately \$5,000,000, the spread between certificate rates available and money market rates decreases to a negligible amount.

Issuer	Vanguard and Paine Webber
Risk of default	Minimal
Risk of market decline	None
Maximum Amount	\$4,000,000

• <u>Treasury Bills.</u> T-Bills are convenient to use when we have a large planned expenditure for a predetermined future date, such as contributions to the Economic Stabilization Fund; however, better rates are available on alternative forms of short term operating investments. Treasury Bills have no market risk associated with them because they are backed by the full faith and credit of the US government, and they are highly liquid; accordingly, there is no limit to the total amount of T-Bills we hold in our portfolio.

Issuer	U.S. Government
Risk of default	None
Risk of market decline	None if held to maturity
Maximum Amount	Unlimited

• <u>Cash and repos (repurchase agreements)</u>. The AMS uses a concentration account at Citizens Bank - Massachusetts (which recently purchased the State Street Bank and Trust commercial accounts) into which all receipts are automatically deposited and from which all disbursements are made. In prior years, cash above a minimum balance was "swept" on a daily basis and invested overnight in repurchase agreements. Under a repurchase agreement, the AMS purchased government securities and the bank agreed to "repurchase" them the following day. The rate on these depends on the dollar amount of the repo; it is generally very low in comparison to rates available on other investment vehicles. We therefore limited funds available for overnight investment to only those that are deemed necessary for immediate operations. During 1996 the AMS increased its minimum balance requirements to provide a

larger earnings base against which the bank offsets its fees. This resulted in a significant decline in activity in this account during 1996 through 1998, as well as lower bank fees. In 1999, we cancelled the repurchase agreement, as any activity occurred only when adjusting the long term portfolio and the monthly fee to maintain the agreement was significantly greater than any earnings.

Issuer	Citizens Bank - Massachusetts
Risk of default	Minimal
Risk of market decline	None
Maximum Amount	\$1,000,000
Comments	Collateralized by US Gov't securities

Summary of Operating Portfolio Investments, December 31, 2000:

Description	Value at <u>12/31/00</u>	Board <u>Limit</u>	Excess of <u>Limit</u>
Money Market Funds	\$2,952,931	\$4,500,000	NA (1)
Certificates of Deposit	5,398,000	\$100,000 per inst.	NA
Treasury Notes		1,500,000	NA
Vanguard Bond Funds:			
GNMA Portfolio	1,008,952		
Short-term Bond Portfolio	415,167		
LT US Treasury Portfolio	882,812		
Subtotal	2,306,931	2,500,000	
High Yield and Convertible			
Funds:			
Strong	870,093		
Vanguard Convertible	787,369		
Subtotal	1,657,462	2,000,000	
Common Stock	32,838	Source is	NA
		Unrestricted gifts	
Total	<u>\$12,348,162</u>		

Attachment 25 Page 1 of 16 May 2001 ECBT

ATTACHMENT 25 - STATE OF AMS 2001 MAY 2001 AMS ECBT

State of AMS 2001

I have often said in past reports that the American Mathematical Society is a complicated organization. It has different faces—publisher, membership organization, and professional society—and its health can be measured in different ways—finances, satisfaction, or achievements. In the past, my annual report to the Council tried to emphasize one of these aspects each year. This year, however, I'd like to simplify my presentation by reducing the operation of the Society into its two simplest components—making money and spending it. I'll take the least amount of time describing the ways in which we make money, mainly because it's easier to describe (although not easier to do). Spending money is harder to describe because we have found so many new ways to do it.

Making Money

When it comes to revenues, members usually think of their dues first, associating each expenditure of the AMS directly with their most recent payment. But individual dues account for about 7% of the Society's revenue, and institutional dues account for only 3%. (And institutional dues are less than the discounts afforded to members on their subscriptions.)

The Society obtains revenue from meetings, but the direct costs of its entire meetings program slightly exceed the revenue. The Society also gets revenue from temporarily investing its cash from advanced payments, and it gains revenue from a variety of things such as mailing list sales, advertising, and contributions. But the Society makes most (75%) of its revenue from its publications, including books, journals, and the Math Reviews database.



• The book program (17% of revenues) continued to mature in 2000. The Society published 105 new titles, and unit sales of books increased by almost 10% over 1999. Unfortunately, the average revenue per unit was lower, and the revenue from book sales was



essentially the same as the year before. Our book program is more visible and healthier than at any time in the past, and it will continue to expand in the coming years.

- The journals program (24% of revenues) remains a substantial part of the AMS publication program. There is steady attrition of subscriptions, but attrition is less than expected. The four primary AMS journals, which constitute the largest part of the program, have been electronic for more than 5 years, and the latest version makes them more functional and more widely used. We continue to look for ways to improve the electronic versions and to encourage mathematicians to make better use of them.
- Math Reviews (34% of revenues) gets better and better each year. We added 71,327 items to the database in 2000, including 54,386 reviews. There are now over 120,000 links to original articles, allowing users to navigate the electronic literature (even without a subscription to Math Reviews!). We added a free tool (MR Lookup) for authors and publishers to create links using the resources of Math Reviews. The formation of consortia has made it possible for previously

non-subscribing institutions to obtain access to MathSciNet at minimal cost, and the consortia now include more than 300 new subscribing institutions as well as many previous subscribers. During the coming year, we will add an entirely new element to the Math Reviews database, including the original reference lists for many items in the database. Over time,



this new aspect of the database will allow MR to create a citation index in addition to the database of reviews and bibliographic information. MathSciNet — the most popular electronic product — is upgraded each year in a steady cycle of development.

The total revenue of the Society is approximately twenty-one million dollars. In recent years, that revenue has exceeded our operating expenses by a healthy amount, and the difference (*operating income*) has been roughly 8% of revenues. The excess is added to our reserves, which have grown (until recently!) as the market grew. Our growing reserves provide financial security for the Society. The steady operating income, however, masks an underlying problem faced by the Society in the next few years. Our revenues have been relatively constant for a period of time, and we have maintained operating income only by increased efficiency. Faced with inexorably increasing expenses, we must find ways to increase revenues in the future.



Spending Money

Of course, it's natural that *most* of the money we spend goes to the publication program it is a large enterprise involving most of the 225 staff of the Society. On the other hand, the publishing operations of the Society are both scholarly endeavors and programs designed to make extra revenue in order to pay for other activities. Investments in our publication program are therefore investments in the entire Society.

AMERICAN MATHEMATIC	CAL SOCIETY	- ^{Bo} u- ^B	Annu and annu annu annu annu annu annu an		
AMS Bookstore CML Journals MathScillet MR Lookup MSC					
Membership Join, Benew, Benefits, For Hambers Ouly Customer Services Contact Us, Castomer FAQ, License Agreements Employment Services Job Ada, Employment Canter, AMS Coversheet Service Meetings & Conferences Sectionals, National, International, AMS Conferences, Other Heatings and Activities AMS Governance Secretary, Leadership, Elactions, Committees Careers & Education Student help, Sarrey Data, Funding, Programs et all leading, Programs et all leading	MathSciNet About, Subscriptions, Consortia, Ense Inal, Damo, Support, Galdebook Journals Subscriptions, Search, Authors, Support Books AHS, Bookstore, Books Online, Author, Resources Mathematical Reviews Database Editorial Statement, Publication Formats, MSC, Esstured Reviews, Review Saturnianion Math on the Web Guides, Servers, People Reference Tools TeX Resources, Books Online, Preprints, Journal Price Survey, Tools, Staff, Other Societies	Government Relations AMS in Washington, News & Alarts, Communicating with Congress, Federal Budget Enformation Public Awareness Information for Journalists, Press Relates, AMS Fact Sheet Prizes & Awards Recipients, Press Releases Giving to the AMS Giving, Epsilon Fund Search the AMS website Site search, Site map	Nerves Mathematics and the Ocean _ thems for Mathematics Anarchese Hanth April 2001 AMS President testifies before House Appropriations Subcommittee, Hanch Z1 Mathematical Homentss num pergram from the AHS Public Anarchese Office AMS Epsilon Fund Makes Anarche Bother Analysis of Ocean Tides What's New in Math Feature Column Fourier Analysis of Ocean Tides What's New in Math Feature Column Fourier Analysis of Ocean Tides What's New in Math Feature Column Fourier Analysis of Ocean Tides What's New in Math Feature Column Fourier Analysis of Ocean Tides Good, Steve Wolliam, Good, Steve Wolliam,		

Most scientific societies would divide their other expenses into two categories, those directed at members and those directed at the scientific community as a whole. That

Attachment 25 Page 4 of 16 May 2001 ECBT

division is hard to accomplish for the AMS, however, because we tend to blur the lines between member service and professional outreach. For example, our two member journals, the Bulletin and the *Notices*, are major member benefits, but both journals are available online to all mathematicians for free. The AMS website has become a central way to communicate information to members, but all the information is made available to all mathematicians at no cost (to them). Employment services are accessible to everyone because restricting them to members (either individuals or institutions) seems unthinkable. Even discounts on meetings registrations are extended to people beyond our membership, often because our meetings are joint with other organizations. Our members (especially when it comes time to pay dues) sometimes ask what they get in return, and this blurring of member benefits and professional outreach makes it hard to give a direct answer.

On the other hand, many of our members understand that member services are often extended to the entire mathematics community, and they understand precisely because they represent many different communities. It is important to remember that more than a third of our membership is international, and that we have many types of members ordinary, reciprocity, Category-S,



emeritus, nominee. With the exception of the *Notices*, there are no activities of the AMS that all groups view as a "benefit of membership".



A list of activities on which we spend our money, therefore, often looks like a list of *outreach*, that is, things we do for the entire mathematics community. It's important to keep in mind that almost every one of these things benefits members, either directly or indirectly, and hence a part of every activity is a "member benefit" as well as outreach.

Here is a list of some of that outreach, divided into categories that reflect the part of the Society most directly responsible for the activity.

Washington Office

The Washington Office is our largest single outreach activity. The most important goal of the Office is to network with various groups in Washington, including Congress, the agencies, and (especially) the other scientific societies. Providing a visible presence for mathematics in these communities is critically important. But the Office also carries out a number of specific projects each year.

Mass Media Fellows Program

Through the American Association for the Advancement of Science, the AMS has sponsored one or two Mass Media Fellows per year since 1997. The cost is approximately \$7,500 per student (in addition to travel costs to attend the Joint Meetings). Through this program mathematics graduate students spend ten weeks in a mass media organization, including major magazines and newspapers. The participants are able to observe and participate in the process by which events and ideas become news, and improve their communication skills by learning to describe complex technical subjects in a manner understandable by the general public.

Congressional Luncheon

The Washington Office has organized Congressional Luncheon Briefings for the last four years. These briefings are held on Capitol Hill and are for Members of Congress and congressional staff. About 75-100 people attend the luncheon, which is organized and paid for by the Society. The overarching theme of these briefings is the importance of mathematics in today's society. Each briefing focuses on mathematics related to applications that benefit society, such as image reconstruction, communications security, brain function, and groundwater contamination.

Joint Public Service Award

The American Astronomical Society-American Mathematical Society-American Physical Society Public Service Award is awarded to a public figure in recognition of his or her sustained and exceptional contributions to public policies that foster support for research,

education, and industrial innovation in the physical sciences and mathematics. The first awards were presented in 2000 to Senator Bill Frist, Senator Joseph Lieberman, and Dr. Harold Varmus, former Director of the National Institutes of Health. Those awards were made at a reception in Washington,



Attachment 25 Page 6 of 16 May 2001 ECBT

supported by the three societies and organized by the AMS. The 2001 awards will honor U.S. Representative Vernon Ehlers and Dr. Neal Lane, former Science Advisor to President Clinton.

Department Chairs Workshop

Each January since 1998, on the day before the Joint Meetings, the AMS has held a Department Chairs Workshop. The aim of these workshops is to provide information that can help chairs successfully manage and lead their departments. Workshop sessions, led by current and former chairs, focus on a range of issues and practical matters. Topics covered include the promotion and tenure process, various personnel issues, long-range planning, budget management, technology, and instruction. The workshop format encourages group discussion and a sharing of ideas and experiences. A small registration fee covers part of the cost, but these are mainly subsidized by the Society.

Secondary Teachers Prize Breakfast

Since 1998 the AMS has sponsored a breakfast honoring the secondary school teachers who win the Presidential Award for Excellence in Mathematics Teaching each year. One teacher from each state achieves this honor, and the AMS invites the teachers, as well as representatives from other mathematics organizations, to this breakfast.

Preparing Future Faculty (PFF)

The preparing future faculty program is a program in which doctoral granting degree departments collaborate with mathematics departments from other types of institutions (two year, four year, or master's degree institutions). The PFF program addresses the scope of faculty roles and responsibilities in all these institutions. Participating graduate students are mentored by faculty from their doctoral department, as well as by faculty from the non-doctoral granting institutions. The AMS and MAA, through an NSF grant awarded to the Council of Graduate Schools and the Association of American Colleges and Universities, sponsor four institutions in the PFF program—Arizona State University, SUNY at Binghamton, Virginia Tech, and the University of Washington. The Society contributes administrative time and travel to this project.

Wonder Science

WONDER SCIENCE was a science publication of the American Chemical Society (ACS) and the American Institute of Physics (AIP) directed toward elementary and middle school children. In 1997 the AMS began cooperating with the ACS and AIP on this publication. In 1998 the AMS became a co-publisher, paying for a part-time consultant to work with the publication staff. WONDER SCIENCE was meant to help teachers and parents increase student interest in science. At one point WONDER SCIENCE had over twenty thousand subscribers. Unfortunately, for a complicated set of reasons, WONDER SCIENCE ceased publication in 1999.

AMS/MER Master's Degree Workshops

Supported by a NSF grant, the AMS and the Mathematicians and Education Reform Forum (MER), in cooperation with SIAM, have organized two workshops on professional master's degrees. A third workshop will be held in the fall of 2001. These workshops focus on creating a forum for mathematics departments to discuss the issues related to professional master's degrees, and to gain insights about how to successfully implement a professional master's degree in their departments. The workshops look at the overall picture in graduate education, examine professional master's degrees and their place in a department's overall graduate program, and provide nuts-and-bolts information on how to develop professional master's degrees.

AMS/MER Project on Excellence in Undergraduate Mathematics:

"Excellence in Undergraduate Mathematics: Confronting Diverse Student Interest" is a three-year project aimed at mathematical sciences departments. The joint project of the American Mathematical Society and the Mathematicians and Education Reform Forum is an integrated program of six national workshops, networks of mathematical sciences departments, programs at national meetings, and publications. While highlighting the needs of particular student groups, the programs will focus also on critical issues that cut across all instruction. Reform efforts will be put in the context of the institutional role of mathematical sciences departments and their relationships with partner disciplines.

Non-Traditional Employment

Supported by a Sloan Foundation grant, the AMS and SIAM, in cooperation with the MAA, have developed a CD-ROM and video on non-academic employment directed at undergraduate mathematical sciences majors. Through the CD one can view and hear the experiences of mathematicians, as well as learn about the day-to-day responsibilities of mathematicians working in a variety of industries. Students also find out what to expect after completing a degree in. mathematics. The same grant has also supported a website on non-academic employment (http://www.ams.org/careers).

Public Awareness

The new Public Awareness office is staffed by two people (with secretarial support). A great deal of its work in the first year has been devoted to planning, but it has already established contacts with the press and provided publicity for our Joint Meeting. The Office fields calls from reporters seeking information about math-related topics, and the staff has supplied information or referred reporters to experts on topics including Congressional apportionment, the expected value of a hole-in-one golf promotion, the number of minority PhD's in math, the odds of picking a four-leaf clover, and chain letters. The Office maintains the Public Awareness Office web pages (including outreach activities and special events of the AMS and other organizations), posts news releases, and acts as liaison with the Math on the Web editor. The Public Awareness Office is also represented on the AMS Staff Membership Council, which analyzes, revises and generates AMS communications to members and to potential members. In addition, the Office has worked on some specific projects in the past few months.

Mathematical Moments

The Public Awareness Office will produce a steady supply of one-page promotions called Mathematical Moments. These are intended to illustrate the importance of research mathematics in



Attachment 25 Page 8 of 16 May 2001 ECBT

everyday life, and the material can be used in written or oral presentations by mathematicians and non-mathematicians alike. Fifteen have been produced and more are on the way. The Moments are available to download from the AMS website (http://www.ams.org/ams/mathmoments.html). Hard copies have been sent to key NSF officials, and plans are underway to print and distribute sets to math departments across the country.

Discoveries and Breakthroughs in Science (DBIS)

The American Institute of Physics (AIP) produces a syndicated series of science stories (90 seconds long) for local news programs. There are about three stories per week, and the syndication is professionally marketed to television segments across the country. The Society is now contributing a small portion of the substantial funding for the program, and joining with several other societies to assist AIP. The Public Awareness Office offers ideas for shows, makes suggestions on the portions of scripts that deal with mathematics, and reviews the shows each month. (A story



that was suggested on the mathematics of scheduling has already been produced.)

Who Wants To Be A Mathematician

A mathematical version of the popular TV game show was a success in New Orleans, attracting groups of high school students both as contestants and as members of the audience. Another show is scheduled for April 25th in Rhode Island as part of Math Awareness Month. Our Public Awareness Officers write questions, search for contestants, arrange sponsorship and host the show. A story on the show done at the Joint Meetings aired on the New Orleans news.

Arnold Ross Lectures

The Arnold Ross Lectures are given each year at a science museum and are partially funded by an endowment from Paul Sally. Traditionally, the lectures are given by two distinguished mathematicians, aimed at talented high school students, and concentrate on an aspect of mathematics that will help to attract such students into mathematics. There is also an opportunity for the students to interact with the speakers on a personal level. For the most recent lectures (held in St. Louis) the Public Awareness Office worked with the Meetings Department on the production (content and presentation) of both the Invitation and the Program for the event, attended the lectures, and posted a write-up about the event on the web. Starting in 2002, the Public Awareness Office will work more closely with the host site and organizer to publicize the event, incorporating more innovative elements.

April 2001 Council

Attachment 25 Page 9 of 16 May 2001 ECBT

Publicity for Sectional Meetings

Beginning this year, the Public Awareness Office has emailed news releases of upcoming sectional meetings to the information office of the host institution. The releases contain some broad details about the meeting, the participation of the hosting department's faculty, and the AMS.

Math Medley

The Public Awareness Officers have worked with Pat Kenschaft to suggest guests for her weekly radio show and to post updates about the show on the AMS website. Chris Jones will appear in April to promote Math Awareness Month. Mike Breen, one of the two Public Awareness Officers, will be a guest host in May. His guest will be Donald Saari.

Math Awareness Month

The Office acted as the primary liaison with the 2001 Committee Chair to set guidelines and deadlines for the announcements and website; wrote or revised the announcement and sample news release; scheduled and handled the bulk mailing; provided wording, layout and related resources suggestions for the website. This is one of the strengths of having full-time staff working on public awareness, making it possible to coordinate efforts such as this.



AMS Member Newsletter

The Public Awareness Office is producing the first in a regular series of Member Newsletters—brief communications on subjects or more in-depth coverage not published in *Notices*. The first issue is focusing on the current activities of the Public Awareness Office, Washington D.C. Office, and the Epsilon Fund.

Programs and Services

For many years, the Society has carried out a variety of ongoing activities that are connected to employment, either helping young mathematicians secure jobs or helping not-so-young mathematicians understand the situation. More recently, the Department has extended its work to include outreach to the international community and support of other organizations. Its projects now include a wide variety of activities. While some of this work is supported by grants, the Society has a policy of either accepting minimal overhead or forgoing overhead altogether. *Every* grant therefore costs the Society money, and often substantial amounts.

Annual Survey

The Annual Survey effort consists of three surveys sent annually to over 1,500 mathematics, applied mathematics, and statistics departments in the U.S. together with occasional surveys addressing topics of concern. The annual surveys include 1) a census of doctoral recipients with a focus on their employment status following the receipt of their degree, 2) a survey of faculty salaries, and 3) a survey of key departmental data such as faculty counts, graduate student counts, course enrollments and faculty hiring. Results

of the surveys are reported in the *Notices* and the AMS website. The Annual Survey is cosponsored with the American Statistical Association, the Institute for Mathematical Statistics, and the Mathematical Association of America, but the Society bears most of the cost and carries out all administrative work.

Assistantships and Graduate Fellowships in the Mathematical Sciences

This annual publication contains information on the graduate programs of mathematics and statistics departments in the U.S. Its purpose is to provide prospective graduate students with a current and reliable source of basic information on graduate programs as a first step in their exploration of programs to which they might apply. The information is updated annually, and the publication is provided free to AMS members upon request. A copy is provided free to every department of mathematics and statistics listed in the AMS's Professional Directory. It is also available on the AMS web site.

CBMS Survey

This detailed investigation of undergraduate programs in the mathematical sciences in the U.S. has been conducted every five years since 1965 under the auspices of the Conference Board on the Mathematical Sciences (CBMS), with funding provided by the NSF. The AMS became a partner in the actual conduct of this survey in 1990, held the NSF grant and provided survey infrastructure support for the 1995 survey, and is doing the same for the ongoing 2000 survey. The AMS will publish the report of the current survey in early 2002.

Employment Information in the Mathematical Sciences (EIMS)

EIMS has become a standard location for advertising academic, and some industrial, positions in mathematics. While the traditional yellow print publication still exists, most job seekers access the ads over the web. The ads are heavily browsed by mathematicians from all over the world.

Employment Center

The Employment Center at the Annual Meetings is a centralized site for employers and job applicants to meet while at the January meetings. Complete listings are printed and mailed in advance. A sophisticated message center and optional scheduling system help with appointments. This project is jointly "sponsored" by the American Mathematical Society, the Mathematical Association of America, and the Society for Industrial and Applied Mathematics, but it is carried out entirely by AMS staff. The Employment Center will mark its 50th anniversary in January, 2002.

AMS Coversheet Service

AMS Coversheet Service was launched in 2000 to help departments download "AMS Coversheets" submitted by applicants, to use in their own databases of applications. Applicants also add the paper form - as usual - to each application packet that they send. This service may serve as a step, for the AMS, on the way to electronic centralization of some of the job applications in mathematics. The service also serves as a substitute for the old "Job Seekers List", which provides names of candidates still on the market in the spring of each year.

Young Scholars Program

The Epsilon Fund, established in 1999, offers small grants to summer "young scholars" programs aimed at mathematically talented high school students. During its first two years, the Society awarded \$155,000 in grants to a variety of programs, all paid from the Program Development Fund. The AMS is working to build an endowment, which will provide the funds for these grants in the future. To further help all such programs with the expensive task of publicity, the AMS keeps a central list of such programs on the web, and has developed a small poster, and plans for wide dissemination.



REU Conference

The "Research Experience for Undergraduates" conference took place in 1999, with funding from the National Security Agency. In addition to a valuable proceedings volume (http://www.ams.org/employment/REUproceedings.html), the conference resulted in an AMS effort to increase the available data on REU programs. This project involves tracking the location of participants from summer 1999 and summer 2000 REU programs, in order to be able to conduct a study 5 or 6 years in the future on the impact of the REU experience on career paths. Also, the AMS maintains a central list of all REU programs on its website.

Math in Moscow Semester for Undergraduates

The Independent University in Moscow approached the AMS for support of their semester-long study program for undergraduates in Moscow. This is a unique opportunity for intensive mathematical study and research, as well as a chance for U.S. students to experience life in Moscow. It is an REU-like experience for students with talent and interest in mathematics. The NSF agreed to a three year grant in support of 10 students per year. The first students will be supported in fall 2001.

Evaluation Panel for NSA Public Grants Program

The AMS assists the National Security Agency (NSA) in its annual evaluation of the research proposals submitted to its non-classified grants program. The AMS President appoints individuals to a panel of twelve mathematical scientists who are experts in the mathematical areas eligible for NSA support. AMS staff handle all the logistics associated with soliciting reviews of the proposals based on reviewers selected by the panel of experts and convening a panel meeting to make final funding recommendations to the NSA.

NSF Postdoc Administration

The AMS has administered the selection process for the NSF Postdoctoral Fellowships each year since the program began 20 years ago. The AMS assembles a highly qualified panel of researchers appointed by the AMS, the Institute for Mathematical Statistics, and the Society for Industrial and Applied Mathematics each year. Even (or perhaps Attachment 25 Page 12 of 16 May 2001 ECBT

especially) in these days of Fastlane, young applicants often have questions or problems as they go through their first application process, which are handled by the AMS staff.

Minority Database (Mathematics/Math Education Interest data collection)

This project attempts to collect areas of research interest on a variety of professionals in mathematics and mathematics education who are from groups underrepresented in mathematics. This is a collaborative effort among the AMS, the Mathematical Association of America, the National Association of Mathematicians, the National Council of Teachers of Mathematics, and the Mathematical Sciences Research Institute, and it has gotten off to a rather slow start. Over time, the goal is to have enough data in order to fill requests from conference organizers for appropriate invitation lists.

SACNAS Annual Meeting

The AMS provides partial financial support of the mathematics program at the annual meeting of the Society for the Advancement of Chicanos and Native Americans in Science (SACNAS). A central goal for this annual meeting is supporting outstanding undergraduates who show an interest in pursuing advanced degrees in science and mathematics. The major portion of AMS support provides travel grants for talented undergraduate mathematics. The AMS also provides an exhibit with materials of interest to the undergraduate math majors attending the meeting and acquaints general meeting attendees with our programs and services.

Ky Fan China Program

Thanks to the generosity of Ky and Yu-fen Fan, the AMS has embarked on a plan to facilitate collaboration between Chinese and U.S./Canadian researchers. The Ky and Yu-fen Fan Endowment provides funds for program grants, and all administrative costs are borne by the Society. The portion of this program currently underway is travel support for U.S./Canadian-based mathematicians to visit colleagues in China, and for Chinese mathematicians to visit institutions in the U.S. and Canada. The other two components are support for the purchase of mathematical books and journals by Chinese departments, and support for conferences to be held in China.

Book & Journal Donation Program

This program matches individual donations of research-level mathematics books and journals with libraries and mathematics departments at educational institutions located in the developing world, including the former Soviet Union and Eastern Europe, for which there is a mathematics research "heartbeat." Donors are reimbursed for the cost of shipping their donation to the receiving institution. Funding for this program is provided by the Stroock Family Foundation. Work is currently underway to expand the visibility of this program.

ICM Travel Grants

The AMS has administered NSF funding in 1990, 1994, and 1998 for travel support of U.S. mathematicians attending, or speaking at, the International Congress of Mathematicians (ICM). Approximately \$250,000 in travel grants have been awarded each

time through the program. The same effort is planned for ICM 2002 in Beijing, China. Approximately 125 - 150 awards are administered, with a portion going to recent PhDs.

European Mathematical Society Summer School

The European Summer School in St. Petersburg will concentrate on Asymptotic Combinatorics with applications to mathematical physics and will be held at the Euler Mathematical Institute in July, 2001. The AMS has obtained a travel grant from NSF to support two U.S. invited speakers and more than a dozen U.S. graduate students who will attend the summer school.

Fellowships and Prizes

Everyone is aware of the major research prizes awarded by the Society. Most recently, the frequency and amounts of such prizes have been increased to reflect the growth of the endowments. In addition to the well-known prizes, the Society makes annual awards to undergraduates and young mathematicians.

Trjitzinsky Fellowships

Each year, the Society awards eight scholarships of \$4000 each to undergraduates named by eight institutional member departments. These are funded by a bequest of Waldemar J. Trjitzinsky in 1988. Over the past several years, the Trjitzinsky endowment has grown considerably, and we have been able to increase the size and number of these awards. The awards are made to outstanding undergraduate mathematics students with demonstrated need. The recipients are selected by the departments themselves.

Intel International Science and Engineering Fair

The AMS provides \$3,000 in prizes for the outstanding mathematics-related projects presented at the annual Intel Science Fair. The Karl Menger Fund helps support this activity, and the Menger Prize Committee forms the core of a panel of judges that evaluates over fifty mathematics projects at each year's fair.

Centennial Fellowships

The Centennial Fellowships have been awarded for a number years, most recently to 3-4 young mathematicians each year. The goals have changed slightly over time, shifting from young mathematicians to mid-career and back again. Most recently, these fellowships have been made more flexible, aimed at mathematicians from 3-12 years past the Ph.D. The program is supported directly by contributions from members, matched up to \$50,000 each year using income from our endowment.

Miscellaneous Projects

There are many other projects, large and small, that are carried out from time to time by various parts of the Society. Here are a few examples.

Task Force for Excellence

Attachment 25 Page 14 of 16 May 2001 ECBT

This was funded by major grants from Exxon and NSF, but as with all such grantsupported projects required a substantial investment of time and money from the AMS. The Task Force worked for seven years, carrying out focus groups and making site visits. The resulting book, *Towards Excellence*, has been widely distributed throughout the academic community. University administrators have praised the book along with the mathematics community for producing it. Mathematicians are still evaluating the message. Several other important efforts came from this project, however, including the Chairs Workshops, continuing focus groups, and increased survey work.

Website hosting for AWM/YMN

Web hosting is a good example of the day-to-day, relatively small outreach activity of the AMS. Because we have the infrastructure, hosting websites for organizations like the Association for Women in Mathematics (AWM) and the Young Mathematicians Network (YMN) is a natural service we can provide. We do this at no charge to the organizations.

UCLA Symposium "Mathematical Challenges"

This six-day meeting held during the summer of 2000 was the AMS's contribution to World Mathematical Year 2000 activities of the International Mathematical Union. The program consisted of 31 plenary lectures by a selection of the worlds leading

mathematicians. Approximately 1,000 mathematicians from the U.S. and other countries attended the meeting, including 143 U.S.-based mathematicians in the early stages of their career whose attendance was supported by an NSF grant administered by the AMS. While the meeting was expensive (costing the Society nearly \$100,000), it was viewed as a great success by everyone involved.



Summer Research Conferences

These conferences are sponsored jointly with the Society for Industrial and Applied Mathematics as well as the Institute for Mathematical Statistics. They are funded by a grant from the National Science Foundation, but carried out by AMS staff. These are the most recent version of a program that has been held for many years, including summer institutes and seminars. The conferences are normally a week long (but can be flexible), attract a group of 40-60 mathematicians in a particular area, and often produce a proceedings or other written material. Approximately 4-7 conferences are held each summer.

What's Happening in Math



In general, publications of the Society are viewed as revenueproducing activities. The series of What's Happening books (there are now four of them and a fifth is underway) are not designed to make money for the Society, however. These are aimed at the scientifically literate public, and they have been praised by the science community as excellent examples of awareness of science *for* scientists. While the books are sold to the public, the project loses a substantial amount of money with each book.

Mathematical Sciences Professional Directory

This annual publication of the AMS provides detailed governance information on the AMS and other professional societies in the mathematical sciences. It includes a comprehensive list of mathematical sciences departments in the U.S. and Canada. The

Attachment 25 Page 16 of 16 May 2001 ECBT

publication is provided free to AMS institutional members and is offered free to all departments listed in the publication.

Viewing the operations of the Society as a balance sheet can be misleading, of course, and the AMS does much more than merely earn money and spend it. But making lists of the programs that produce revenue, and the programs that consume it, is a useful exercise. It helps the membership, the leadership, and the staff gain perspective by reminding us all of the breadth and the interdependence of our activities.

I have observed on several occasions that many people involved in the AMS have special interests—meetings, publications, advocacy, professional development—and most view their special interests as *most* important, that is, as things that should be supported by the rest of the Society's operations. But we cannot sustain a society in which all activities lose money (at least for long), and the notion that *important* things are supported by *unimportant* ones is flawed. All activities of a professional society are connected: Those that generate revenue are important both because they support operations and because they have intrinsic value; those that require revenue are important because they define the mission of the organization. A healthy society consists of many parts, all of them woven together in a connected web—and all of them important.

Sometimes, it's easy to forget that essential idea in a balance sheet.

John Ewing
ATTACHMENT 26 - REPORT FROM THE PRESIDENT MAY 2001 AMS ECBT

Report from the AMS President

May 2001

The AMS presidency carries a lot of regular institutional responsibility, some ceremonial and symbolic, other more substantive. In addition, each incumbent brings certain personal priorities that can define special emphases of his/her administration.

Regular functions of the president include chairing the Council and Executive Committee, working closely (on a variety of issues, from management to policy) with the Executive Director (John), Secretary (Bob), and Head of the Washington Office (Sam), making numerous committee and editorial board appointments, and participating to the extent possible in the work of the policy committees.

Ceremonial and symbolic activities include such things as presentation of public service awards, representing the Society at functions like the Math Olympiads (USA and International), attending joint international meetings, introductions of major invited speakers, etc.

Substantive functions involve moderating discussions of policy, communications to the society (through interviews, or reports to the membership or to society units), testimony to congress or other DC institutions, etc.

My own personal priorities, in addition to support of mathematical research, are primarily concerned with mathematics education.

The calendar of activities below illustrates activities of all of the above kinds.

As I currently perceive conditions, the major areas of policy concern for the AMS are the following.

1. Improved resources for the mathematics research enterprise.

Currently we have a now somewhat precarious opportunity with the Mathematics Initiative advanced by Rita Colwell, and our immediate concern is to foster the stable implementation of this initiative, which corrects effects of many years of neglect. At the same time, this must be done, as John has emphasized, without undermining the effective coalition with the other disciplines that was cultivated earlier by Arthur and Felix. We must preserve our case for broad based support of basic research, as an integrated enterprise in which all disciplines need proportionate attention.

2. Mathematics education.

This is a new arena for active participation by the AMS, but it is increasingly acknowledged that the AMS has a stake, and important, but still to be clearly defined, roles to play here. This is a domain of major professional concern on my part, both at the scholarly level, and with

institutions. Through chairing the MSEB, formerly chairing the AMS COE, and now being president of ICMI (the International Commission on Mathematics Instruction, the educational counterpart of the IMU), I have been able to network with the communities of educational policy, research and practice, and to identify opportunities for high level participation by mathematicians in educational work, on both policy and development of materials and programs. Though not always highly visible, as the "math wars" are, and are designed to be by its protagonists, there has been very substantial and continuing progress in the constructive engagement of mathematicians in educational work.

3. Outreach and public image.

In every arena there is a great need to give mathematics more prominence and a better image outside our own professional community. A number of important measures have been taken to address this concern. These include the creation of the outreach office at AMS, the very effective networking of Sam in the DC environment, the very constructive alliances of mathematics with the other disciplines that have been cultivated by Arthur, Felix, and Sam, the embracing of applied and interdisciplinary mathematics as well as education in the public rhetoric of our society, the nurturing and encouragement of more expository and popularization writing about mathematics, etc. All of these efforts must continue.

4. The AMS as major publisher

It is clear (e.g. from the Exec. Director reports) that the very healthy fiscal base of the AMS derives principally from its role as a scholarly publisher. This has had important benefits to our community, both culturally and commercially in the publishing marketplace. Moreover it helps subsidize many important professional services that the AMS provides, particularly in niches that become neglected by other public institutions. From a purely business perspective, this has been an exemplary operation of the AMS; it has pioneered important innovations in this very rapidly changing and challenging field. The AMS is privileged to have extraordinarily able management leadership and professionals in charge of this work. Though most of the details of this are not visible to the membership, we have a great stake in investing well in the continued stability and quality of this enterprise.

Hyman Bass

Hyman Bass May 2001

Calendar of Activities of Hyman Bass

While President Elect (Feb, 2000 - Jan. 2001)

Long term: Member of the NRC Committee to produce the Mathematics Learning Study, "Adding It Up."

Consultant to VideoCase Study Group for Professional Development of Teachers Work on a Panel of RAND/OERI on planning for programmatic research in mathematics education.

Chair of the Mathematical Sciences Education Board at the NRC, until June, 2000.

Review panel for the U Wisconsin project on Cognitively Guided Instruction. President of ICMI (International Commission on Mathematics Instruction, the mathematics education analogue of the IMU, which organizes quadrennial international congress es, among other things.)

Consultant on the revision of the CMP curriculum, at Michigan State U.

Feb. 25, 2000: Kolchin Lecture at Columbia University

Mar. 11-15, 2000, Evaluator of the Southwest Winter School on Arithmetic Algebraic Geometry, U Arizona.

April 11-16, 2000: NCTM in Chicago. Presentation with D. Ball on Mathematical Reasoning. April 19-21, 2000: Myhill Lectures, SUNY Buffalo

April 23-29, 2000: AERA (Amer. Assn. of Educ. Research), New Orleans. Participant in a symposium on analysis of mathematics teaching.

May 6-8, 2000: CSSP in DC.

May 8-9, 2000: Attended Glenn Commission in DC.

May 13-17, 2000: Met with IMU Exec. Comm. in Madrid to discuss relations with ICMI. May 17-July 8: Visiting Professor at the Institute for Advanced Study of the Hebrew University of Jerusalem, for its program on asymptotic group theory. This period included a weeklong conference also at the Technion in Haifa.

July 8-12, 2000: Attended European Math Congress in Barcelona

July 13-14, 2000: Attended Glenn Commission in DC.

July 19-21, 2000: Presented at a Purdue U conference in hornor of S. Abhyankar.

July 25-Aug. 6: International Congress on Mathematics Education (ICME 9), and meeting of ICMI EC, at Makuhari, Japan. I was heavily involved with many aspects of this event.

Aug. 6-8, 2000: US/Japan Workshop on Teacher Professional Development. This joint project, sponsored by the NRC on the US side, was implementation of an idea I had for using the ICME as an opportunity for US educators to directly observe the Japanese practice of lesson study. A report of this workshop, including video materials, will soon be released.

Aug. 9-13, 2000: Attended "Mathematical Challenges of the 21st Century," at UCLA. Sept. 9, 2000: Cpub @ Chicago.

Sept. 22-23, 2000: Exxon/Mobil Teacher Education Project, Fairfax, VA. Presentations with D. Ball

Oct. 20-22, 2000: Hundredth anniversary of L'Enseignment Mathematique, Geneva. Respondent to the overall program.

Oct. 27-28, 2000: AMS COE @ DC.

Nov. 1-2, 2000: Speaker with D. Ball at CUPM/CRAFTY Conference at MSU.

Nov. 9, 2000: Presenter w. D. Ball of half day session at AMATYC Annual Meeting in Chicago Nov. 13-14, 2000: Workshop on Lesson Study at the Japanese School in Grenwich, CT

Nov. 17-18, 2000: AMS ECBT, Providence. This included an interview with Allyn Jackson for the Notices.

Dec. 1-2, 2000: Presentation w. D. Ball at the California Mathematics Teachers Council, Asilomar, CA.

Jan. 9-13, 2001, AMS/MAA Joint Meetings, New Orleans. MAA Invited address, w. D. Ball.

Jan 19-20, 2001: Attended meeting of Assn of Mathematics Teacher Educators, Costa Mesa, CA

As AMS President (Starting Feb. 1, 2001)

Feb. 9-11, 2001: CUPM/CRAFTY Workshop at MSRI, on the mathematics major. Presenter. Feb. 15-17, 2001: Erdos Lecturer, U Florida, Gainesville, FA

Mar. 6, 2001: Gave Vigre Post Doc Seminar on "The world of AMS."

Mar. 21, 2001: VA-HUD Testimony on the NSF Budget, with presidents of APS, ACS, and FASEB.

Mar. 23-24, 2001: Meeting of mathematicians at U. Chicago, organized by P. Sally, to try to pacify the involvement of mathematicians in mathematics education.

Mar. 27, 2001: Gave innaugural lecture of my Roger Lyndon Collgiate Chair in Mathematics and Mathematics Education, on "Mapping the Borderlands between Mathematics and Mathematics Education."

Mar. 30, 2001: AMS-ABC, Providence. This included an interview by the staff of the Outreach Office (Mike and Annette).

Apr. 2-6, 2001: NCTM Orlando, Presenter in three sessions, one on my work with D. Ball, one on the Math Learning Study, and one on the US/Japan Workshop.

Apr. 20-21: AMS CSP and Council, DC. I chaired this session in Felix Browder's absence. Apr. 22-30, 2001: ICMI EC, and Math Educ workshop, at East China Normal University in Shanghai, hosted by Jianpan Wang, member of ICMI EC and President of ECNU.

May 5-6, 2001: CBMS and CSSP @ DC.

May 16, 2001: Public Service Awards to Vernon Ehlers and Neal Lane, by AMS, AAS, and APS, @ DC.

May 17-20, 2001: AMS ECBT @ Providence.

May 21, 2001: JPBM @ DC, chaired by HB

May 22-24, 2001: AMS/Mexican Math Soc. Joint international meeting, in Morelia, Mexico. June 3-4, 2001: Ceremonies of celebration of USA Math Olympiad @ DC.

June 16-23, 2001: Meeting of the international program committee for the International Congress on Mathematics Education (ICME 10), @ Copenhagen.

ATTACHMENT 27 - VANGUARD GROUP CORPORATE/ORGANIZATION RESOLUTION MAY 2001 AMS ECBT

note: this attachment is not available electronically, but you can contact ellen heiser (*ehh@ams.org*) *if you need a copy.*

Financial Statements

Years Ended December 31, 2000 and 1999

(With Independent Auditors' Report Thereon)

Independent Auditors' Report

The Board of Trustees American Mathematical Society:

We have audited the accompanying balance sheets of American Mathematical Society (the "Society") as of December 31, 2000 and 1999, and the related statements of activities and cash flows for the years then ended. These financial statements are the responsibility of the Society's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Society as of December 31, 2000 and 1999, and its changes in net assets and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

KPMG LLP

April 16, 2001

Balance Sheets

December 31, 2000 and 1999

Assets	-	2000	1999
Cash and cash equivalents (note 2)	\$	511 733	600 138
Short-term investments (note 3)	ψ	12 348 162	12 369 218
Accounts receivable net (allowances of \$225,006		12,340,102	12,509,210
and \$207.874, respectively)		1.644.914	1.430.152
Deferred pre-publication costs		557.469	654.015
Completed books		1.312.616	1.225.881
Prepaid expenses and deposits		978,627	1,038,070
Land, buildings and equipment, net (note 4)		5,109,451	5,403,831
Long-term investments (note 5)	-	45,619,867	45,541,088
Total assets	\$	68,082,839	68,361,393
Liabilities and Net Assets			
Liabilities:			
Accounts payable	\$	1,184,407	1,284,514
Accrued expenses:			
Severance and study leave pay (note 6)		1,201,485	1,310,192
Payroll, benefits and other		2,312,014	1,531,264
Deferred revenue		10,542,898	11,381,639
Post-retirement benefit obligation (note 7)	-	2,144,990	1,904,990
Total liabilities	-	17,385,794	17,412,599
Net assets:			
Unrestricted:			
Undesignated		4,163,022	4,550,682
Designated (note 8)		36,951,344	36,626,593
Invested in fixed assets	-	5,109,451	5,403,831
		46,223,817	46,581,106
Temporarily restricted (note 9)		2.209.840	2.370.442
Permanently restricted	-	2,263,388	1,997,246
Total net assets	-	50,697,045	50,948,794
Total liabilities and net assets	\$	68,082,839	68,361,393

See accompanying notes to financial statements.

Statements of Activities

Years Ended December 31, 2000 and 1999

	2000	1999
Changes in unrestricted net assets:		
Operating revenue:		
Publication:		
Mathematical Reviews and related activities \$	8,164,037	8.315.837
Journals (excluding Mathematical Reviews)	3.572.020	3.548.819
Books	3,189,452	3.195.422
Sale of services	417,993	388.305
Other	102,448	96,899
Total publication revenue	15,445,950	15,545,282
Membership and professional services, including assets released		
from restrictions (note 9):		
Meetings	914,959	791,625
Dues and membership services	3,537,191	3,375,669
Grants, prizes and awards	732,508	927,124
Total membership and professional services revenue	5,184,658	5,094,418
Short-term investment income	611.478	451.690
Other	262,020	270,940
Total operating revenue	21,504,106	21,362,330
Operating expenses:		
Publication:		
Mathematical Reviews and related activities	5,155,811	5,604,184
Journals (excluding Mathematical Reviews)	1,142,677	1,289,722
Books	2,477,906	2,317,998
Divisional indirect	1,241,856	1,060,489
Warehousing and distribution	640,838	646,450
Marketing director	271,082	275,508
Sale of services	260,408	260,105
Total publication expense	11,190,578	11,454,456
Membership and professional services:		
Dues and member services	2,499,926	2,168,147
Grants, prizes and awards	815,040	951,931
Meetings	878,310	752,803
Governance	378,653	475,768
Divisional indirect	144,977	213,438
Total membership and professional services expense	4,716,906	4,562,087

(Continued)

Statements of Activities

Years Ended December 31, 2000 and 1999

		2000	_	1999
Interest portion of post-retirement obligation (note 7)		125,000		120,000
Other		361,444		212,853
Membership and customer services		1,123,440		920,983
General and administrative	_	2,318,674	-	2,622,253
Total operating expenses		19,836,042	_	19,892,632
Excess of operating revenue over operating expenses		1,668,064		1,469,698
Long-term investment (loss) income in excess of amounts				
designated for operations (note 5)	_	(2,025,353)	_	6,626,224
(Decrease) increase in unrestricted net assets		(357,289)	_	8,095,922
Changes in temporarily restricted net assets:				
Contributions and grants		206.939		328.340
Long-term investment (loss) income (note 5)		(29,546)		442,228
Net assets released from restrictions (note 9)		(337,995)		(325,587)
(Decrease) increase in temporarily restricted net assets		(160.602)		444,981
		(100,002)	_	
Change in permanently restricted net assets:				
Contributions		266,142	_	579,027
Increase in permanently restricted net assets		266,142	_	579,027
Change in net assets		(251,749)		9,119,930
Net assets as of beginning of year		50,948,794	_	41,828,864
Net assets as of end of year	\$	50,697,045	_	50,948,794

See accompanying notes to financial statements.

Statements of Cash Flows

Years Ended December 31, 2000 and 1999

	2000	1999
Cash flows from operating activities:		
Change in not assets	(251, 740)	0 110 030
A diustments to reconcile change in net assets to net cash	(231,749)	9,119,930
and cash equivalents provided by operating activities:		
Depreciation	676 208	666 704
Loss on dispositions of againment	7 370	171
Not realized and unrealized lasses (gains) on long term	7,570	1/1
investments	2 047 444	(6 174 600)
Investments Contributions restricted for normanent investment	5,047,444	(0,174,090)
Contributions restricted for permanent investment	(200,142)	(579,027)
Changes in assets and nadifiles:	(214.7(2))	(227.021)
Accounts receivable, net	(214,702)	(337,031)
Deterred pre-publication costs	96,546	(93,014)
Completed books	(86,735)	(163,792)
Prepaid expenses and deposits	59,443	(82,723)
Accounts payable	(100, 107)	27,575
Accrued expenses	672,043	539,608
Deferred revenue	(838,741)	113,147
Post-retirement benefit obligation	240,000	189,960
Net cash and cash equivalents provided by		
operating activities	2,990,908	3,226,818
Cash flows from investing activities:		
Change in short-term investments	21.056	(1.083.771)
Purchases of property and equipment	(339,288)	(403,244)
Proceeds from sales of long-term investments	11 865 693	22 131 269
Purchases of long-term investments	(14.991.916)	(24.162.857)
	(11,771,710)	(21,102,007)
Net cash and cash equivalents used in		
investing activities	(3,444,455)	(3,518,603)
Cash flows from financing activities:		
Contributions restricted for permanent investment	266.142	579.027
Conditionality resulted for permanent in resultent	200,112	
Net change in cash and cash equivalents	(187,405)	287,242
Cash and cash equivalents as of beginning of year	699,138	411,896
Cash and cash equivalents as of end of year \$	511,733	699,138

See accompanying notes to financial statements.

Notes to Financial Statements

Years Ended December 31, 2000 and 1999

(1) Description of Business and Summary of Significant Accounting Policies

(a) Description of Business

The American Mathematical Society (the "Society") was created in 1888 to further mathematical research and scholarship. It is an international membership organization, currently with over 30,000 members. The Society fulfills its mission with publications and professional programs that promote mathematical research, increase the awareness of the value of mathematical research to society and foster excellence in mathematics education.

(b) Basis of Financial Statement Presentation

The accompanying financial statements are presented on the accrual basis of accounting and have been prepared to focus on the Society as a whole and to present balances and transactions according to the existence or absence of donor-imposed restrictions.

The preparation of the financial statements in conformity with accounting principles generally accepted in the United States of America, requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities as of the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

(c) Classifications of Net Assets

The Society's net assets and activities that increase or decrease net assets are classified as unrestricted, temporarily restricted or permanently restricted.

Unrestricted net assets are those without any donor-imposed or other restrictions as to their use which are available for the general operations of the Society. The Society defines operating income as the net increase in unrestricted net assets derived from the activities related to the accomplishment of its mission, such as publications, programs, meetings and conferences and member services. In 2000 and 1999, only the unrestricted investment return from long-term investments is excluded from operating income.

Temporarily restricted net assets are those whose use is restricted by some donor-imposed limitation, which will lapse upon the passage of time, use of the asset for its intended purpose or the meeting of other donor-imposed stipulations.

Permanently restricted net assets are those which must be permanently invested to provide a source of support for the activities of the Society and which are commonly referred to as endowments.

Notes to Financial Statements

Years Ended December 31, 2000 and 1999

The Society is incorporated under the laws of the District of Columbia, and is therefore subject to the provisions of the Uniform Management of Institutional Funds Act (the "Act"). Under the Act, the accumulated realized and unrealized gains related to the investment of an endowment gift may legally be appropriated for expenditure by the governing body of an organization, unless the applicable gift instrument indicates the donor's intention that such gains may not be expended. None of the Society's endowment gift instruments executed by donors contains such a restriction. Accordingly, the net gains on endowment gifts which contain no donor restrictions as to the use of income derived therefrom have been included in unrestricted net assets. The net gains on endowment gifts which contain donor restrictions as to the use of income derived therefrom have been included in temporarily restricted net assets. Only the original amount of endowment gifts has been included in permanently restricted net assets.

Permanently restricted net assets are supported by the long-term investment portfolio. The Society has two types of endowment: gifts with no donor designations as to the use of income derived therefrom (\$991,454 and \$802,145 as of December 31, 2000 and 1999, respectively) and gifts whose donors have designated a specific purpose in the gift instrument (\$1,271,934 and \$1,195,101 as of December 31, 2000 and 1999, respectively).

(d) Contributions and Net Assets Released from Restrictions

The Society records as contribution revenue unconditional promises to give. All other contribution revenue is recorded as received. If the contribution is made in assets other than cash, the amount of the contribution is measured at the fair value of the asset contributed at the date the contribution or unconditional promise to give is made by the donor.

Contributions of cash and other assets are reported as temporarily restricted support if they are received with donor stipulations that limit the use of the donated asset for some specific purpose or time period and as permanently restricted support if the donated asset must be invested in perpetuity.

When a donor restriction expires, that is, when a stipulated time restriction ends or purpose restriction is accomplished, temporarily restricted net assets are reclassified to unrestricted net assets and reported in the accompanying statements of activities as net assets released from restrictions.

If a donor-imposed restriction is met for the full amount of the contribution within the year, the related revenues and expenses are recorded solely in the unrestricted net assets category in the accompanying statements of activities.

Notes to Financial Statements

Years Ended December 31, 2000 and 1999

The Society receives contributed services from its members, principally as volunteer leaders in the governance structure of the Society and as volunteer members of editorial committees for the Society's various publications. The latter category of contributed services qualifies for recognition as income and expense under accounting principles, as the members of the editorial committees must possess specialized skills. However, the Society has no practical way of measuring the market value of the services received from its volunteer editorial committee members and, accordingly, no such estimate is included as revenue or expense in the accompanying financial statements.

(e) Investments and Related Income

Substantially all of the Society's investments, both short-term and long-term, are carried at fair value, as determined by quoted market prices. Investments in mutual funds are carried at the quoted net asset value of the fund, which approximates market value. Certain investments, such as money market funds and certificates of deposit, are carried at cost, which approximates market value.

The total return (interest, dividends, realized and unrealized gains or losses) derived from permanently restricted net assets whose use of income is restricted for a specific purpose is recorded as long-term investment income in the temporarily restricted net asset category. As the purpose restriction is met, the income is reclassified to the unrestricted net assets category via net assets released from restrictions.

(f) Deferred Pre-Publication Costs

Pre-publication costs, consisting of translation, editorial, composition and proofreading costs, are deferred until publication. Upon publication, pre-publication costs related to books are transferred into completed books inventory and pre-publication costs related to journals are expensed to offset subscription revenue for the journals.

(g) Completed Books

Publication costs of books, consisting of paper, printing and pre-publication costs, are deferred and charged to expense as the books are sold. Completed books are recorded in the accompanying balance sheets at the lower of average cost or market.

(h) Land, Buildings, Equipment and Accumulated Depreciation

Land, buildings and equipment are recorded at cost less accumulated depreciation. Depreciation is provided over the estimated useful lives of the assets using straight-line or accelerated methods.

Notes to Financial Statements

Years Ended December 31, 2000 and 1999

(i) Membership Journals

Members are provided certain journals at no charge, as these journals are considered to be benefits of membership in the Society.

(j) Revenue Recognition

Advance collections for dues, subscriptions and publications are deferred and generally recognized as income when the services are rendered or the publications shipped. For subscriptions to current year journals for which all of the issues have not yet been published but for which substantially all of the costs have been incurred, the Society accrues estimated completion costs and recognizes the related revenues. For sales of books and journals, revenue is recognized upon shipment. In addition, the Society reserves for its estimate of book returns.

(k) Income Taxes

The Society is a tax-exempt organization as described in Section 501(c)(3) of the Internal Revenue Code (the "Code"), and is generally exempt from income taxes pursuant to Section 501(a) of the Code. Rules and regulations regarding unrelated business income tax apply to the Society, but no activities resulting in a material amount of taxes due occurred in 2000 or 1999.

(*l*) Grant Income

The Society receives various grants, which are subject to audit by the grantors or their representatives. Such audits could result in requests for reimbursement for expenditures disallowed under the terms of the grant; however, management believes that these disallowances, if any, would be immaterial.

(m) Reclassifications

Certain reclassifications have been made to the 1999 financial statements to conform to the 2000 presentation.

(2) Cash and Cash Equivalents

Bank accounts and petty cash comprise the entire cash and cash equivalents balance as of December 31, 2000 and 1999. The Society's bank accounts are federally insured to a maximum of \$100,000 each.

Notes to Financial Statements

Years Ended December 31, 2000 and 1999

(3) **Short-Term Investments**

Short-term investments consist of the following as of December 31:

	2000	1999
Certificates of deposit	\$ 5,398,000	4,998,000
Fixed income mutual funds	2,306,931	2,028,328
Convertible securities mutual fund	787,369	755,568
High-yield bond mutual funds	870,093	936,814
Domestic corporate stock	32,838	8,775
Money market mutual funds	2,952,931	3,641,733
Total	\$ 12,348,162	12,369,218

It is the Society's policy to invest no more than the federal insured limit of \$100,000 in each financial institution's certificate of deposit. The income derived from these investments is unrestricted and used to support operations.

(4) Land, Buildings and Equipment

The following comprise the Society's investment in land, buildings and equipment as of December 31:

	2000	1999
Land and improvements	\$ 369,800	369,800
Buildings and improvements	6,023,485	5,966,035
Furniture, equipment and software	5,534,133	5,309,349
Transportation equipment	78,334	52,384
	12,005,752	11,697,568
Less: accumulated depreciation	(6,896,301)	(6,293,737)
	\$ 5,109,451	5,403,831

Notes to Financial Statements

Years Ended December 31, 2000 and 1999

(5) Long-Term Investments

The Society's long-term investments are segregated into eight separate portfolios (including mutual funds), each with its own investment manager and investment objective. The overall investment strategy is determined by the Investment Committee of the Board of Trustees, and is approved by the Board of Trustees annually. The primary investment objective of the long-term investment portfolio is an average real total return (net of investment fees and the effects of consumer inflation) of at least 6% over the long term. To achieve this result, the investment portfolio is allocated approximately 80% to equity investments and 20% to fixed income investments. The equity investments are further diversified into domestic, international and real estate holdings. Additionally, the entire portfolio is diversified across economic sectors, geographic locations, industries and size of investees.

The following comprise the Society's total long-term investment portfolio as of December 31:

	2000		19	99
	Value	Cost	Value	Cost
Cash and cash equivalents	\$ 987,601	987,601	724,055	724,055
Domestic common stocks	9,458,237	6,465,804	8,991,230	4,701,483
Fixed income mutual funds	9,864,433	9,969,318	8,317,957	8,870,056
Equity mutual funds:				
Domestic common stocks	20,156,980	17,107,344	21,145,387	15,567,503
Domestic real estate				
investment trusts	1,390,206	1,343,682	1,099,028	1,263,214
International common stocks	3,762,410	4,321,561	5,263,431	3,273,416
Total	\$ 45,619,867	40,195,310	45,541,088	34,399,727

Notes to Financial Statements

Years Ended December 31, 2000 and 1999

The investment portfolio is allocated among the three categories of net assets as of December 31 as follows:

	2000	1999
Unrestricted net assets:		
Board-designated purposes (note 8)	\$ 36,951,344	36,626,593
Undesignated	4,576,583	4,929,594
Total allocated to unrestricted net assets	41,527,927	41,556,187
Total allocated to temporarily restricted net assets	1,833,652	2,025,655
Permanently restricted net assets:		
Unrestricted use of income	991,454	802,145
Restricted use of income	1,266,834	1,157,101
Total allocated to permanently restricted		
net assets	2,258,288	1,959,246
Total long-term investments, at value	\$ 45,619,867	45,541,088

The following schedule summarizes the investment return and its classification in the accompanying statements of activities for the years ended 2000 and 1999:

	2000	1999
Dividends and interest, net of management fees of \$76,273 and \$153,662, respectively	\$ 992,545	893,762
Net realized and unrealized (losses) gains	(3,047,444)	6,174,690
Total (loss) return on long-term investments Less amounts classified as temporarily restricted	(2,054,899) 29,546	7,068,452 (442,228)
Investment (loss) return in excess of amounts designated for current unrestricted operations	\$ (2,025,353)	6,626,224

Notes to Financial Statements

Years Ended December 31, 2000 and 1999

(6) Severance and Study Leave Pay

Certain employees of the Society receive vested rights to severance and study leave pay based upon salary and years of service. The Society provides for this obligation over the related years of the employees' service. The provision for severance and study leave pay charged to expense totaled \$175,046 and \$346,797 in 2000 and 1999, respectively.

(7) Pension and Retirement Benefits

- (a) The Society has contributory retirement plans (the "Plans") covering substantially all full-time employees. The Plans are administered by and related assets are maintained with Teachers Insurance and Annuity Association and College Retirement Equities Fund. The Society's retirement expenses for these Plans totaled \$902,156 and \$829,713 in 2000 and 1999, respectively.
- (b) The Society sponsors a defined benefit post-retirement medical plan that covers substantially all full time employees. Under the plan provisions, employees who retire from the Society at age 62 or older with at least 12 years of service are eligible for benefits under the plan. Plan benefits consist of health insurance coverage under a Medicare Supplement Plan and reimbursement of Medicare Part B premiums. Employees who retire before age 62 may qualify for coverage under the plan according to a longer service requirement schedule established by the Society. Spouses of eligible retirees are not covered. The plan is noncontributory and is unfunded.

In 1998, this plan was amended to include the prior service of employees previously leased from the University of Michigan as eligible service when such persons become Society employees. The resulting prior service cost of these employees is being amortized over the estimated average future service period until retirement.

The following table presents information relating to the plan for the years ended December 31:

	2000	1999
Benefit obligation Fair value of plan assets	\$ 2,144,990 	1,904,990
Accrued benefit cost	\$2,144,990	1,904,990
Benefits paid	\$24,000	28,000

Notes to Financial Statements

Years Ended December 31, 2000 and 1999

The weighted-average discount rate used in determining the accumulated post-retirement benefit obligation was 7.75% and 7.50% as of December 31, 2000 and 1999, respectively.

The weighted-average assumed rated of increase in the per capita cost of covered benefits (i.e., health care cost trend) for this plan was assumed to be 5.0% for 2000 and to remain at that level thereafter. Increasing the health care cost trend rate by one percentage point in each year would increase the accumulated post-retirement benefit obligation by approximately \$448,000.

(8) Designated Unrestricted Net Assets

The Board of Trustees of the Society has designated components of unrestricted net assets to support certain purposes. All such designated funds within unrestricted net assets are supported by the unrestricted portion of the long-term investment portfolio. The Economic Stabilization Fund is designated to provide support for the Society in future years should the need arise. The Friends of Mathematics Fund is designated to accumulate unrestricted gifts to the Society whose current use is not needed to support the operations of the Society. The Journal Archive Fund is designated to accumulate funds to support changes that may be necessary for electronic files to be available for future use, due to as yet unforeseen technological changes. The Epsilon Fund for Young Scholars was created by the Board in 2000 to augment the funds in a true endowment fund that supports programs for high school mathematics students. The Russian Royalties Fund is designated to support the payment of royalties to Russian authors for work originally published in years prior to the creation of certain copyright agreements.

The following comprise the balances in these designated funds within unrestricted net assets as of December 31:

	2000	1999
Economic Stabilization Fund	\$ 36,055,883	36,259,273
Friends of Mathematics Fund	123,572	123,572
Journal Archive Fund	206,528	176,218
Epsilon Fund for Young Scholars	500,000	_
Russian Royalties Fund and other	65,361	67,530
Total	\$ 36,951,344	36,626,593

Notes to Financial Statements

Years Ended December 31, 2000 and 1999

(9) Temporarily Restricted Net Assets

Temporarily restricted net assets consist of amounts restricted by donors for the following purposes as of December 31:

	2000	1999
Restricted nurnose		
Prizes and scholarships Lectures Fellowships Special programs	\$ 202,979 19,666 204,949 216,287	136,272 9,160 193,403 270,114
Charitable gift annuities Grant supported projects Other miscellaneous Accumulated gains on purpose-restricted	189,458 94,387 21,077	183,053 121,058 8,909
endowment gifts, principally related to the prize funds	1,261,037	1,448,473
Total	\$ 2,209,840	2,370,442

Assets released from restrictions totaled and \$337,995 and \$325,587 in 2000 and 1999, respectively, entirely due to the accomplishment of the designated purposes.