## Council Minutes

## 18 January 2000


#### Abstract

The Council of the Society met at 1:00 p.m. on Tuesday, 18 January 2000, in Virginia Suite A/B of the Marriott Wardman Park Hotel in Washington DC.


## Contents

1. AGENDA ..... 4
2. Call to Order ..... 4
3. Minutes ..... 4
2.1. Minutes of the April 1999 Council ..... 4
2.2. Minutes of Business by Mail ..... 4
4. Consent Agenda ..... 4
3.1. Progress in Mathematics Committee. ..... 4
3.2. Summer Institutes and Special Seminars Committee ..... 5
3.3. Task Force on Excellence ..... 5
3.4. Task Force on Membership. ..... 5
5. Reports of Boards and Standing Committees ..... 5
4.1. Tellers' Report on the 1999 Elections ..... 5
4.1.1. Tellers' Report on the Elections of Officers ..... 5
4.1.2. Tellers' Report on the Elections to the Nominating Committee ..... 6
4.1.3. Tellers' Report on the Elections to the Editorial Boards Committee ..... 6
4.2. Editorial Boards Committee Report ..... 6
4.2.1. Appointment to the Notices of the AMS Editorial Board ..... 6
4.2.2. Appointment to the Mathematical Reviews Editorial Committee .....  6
4.2.3. Appointment to the Mathematical Surveys and Monographs Editorial Committee ..... 6
4.3. Notices Editor Search Committee ..... 7
4.4. Executive Committee and Board of Trustees ..... 7
4.4.1. Joint Summer Research Conferences Advisory Panel ..... 7
4.4.2. Gifts from Ky and Yu -fen Fan ..... 7
4.4.3. Appointment of Certain AMS Officers ..... 8
4.4.3.1. Associate Secretary for the Southeastern Section ..... 8
4.4.3.2. Associate Secretary for the Eastern Section ..... 8
4.4.3.3. Associate Treasurer ..... 8
4.4.3.4. Treasurer ..... 8
4.4.3.5. Secretary ..... 8
4.4.4. Support for the AMS President ..... 8
4.5. Committee on the Profession (on the Levi L. Conant Prize) ..... 9
4.6. Committee on Publications ..... 9
4.6.1. Additions to the Charge of the Book Editorial Committee ..... 9
4.6.2. Reprinted Books Committee ..... 9
4.6.3. Revising the Notices ..... 10
4.7. Committee on Education ..... 11
4.8. Committee on Meetings and Conferences ..... 11
4.9. Archives Committee. ..... 11
4.10. Mathematical Reviews Editorial Committee ..... 12
4.11. AMS Council Representative to the Canadian Mathematical Society ..... 12
4.12. AMS-MAA-SIAM Morgan Prize Committee ..... 12
6. Old Business ..... 12
7. New Business ..... 12
6.1. Reciprocity Agreement with the European Mathematical Society ..... 12
6.2. Report and Greetings from the European Mathematical Society ..... 12
6.3. Proceedings of Symposia in Pure Mathematics Editorial Committee ..... 12
6.4. Resolution on Open Science and Security ..... 13
6.5. Long-term Support for the Epsilon Program. ..... 14
Council MinutesJanuary 18, 2000
Page 3
6.6. AMS-MAA Joint Meetings Committee ..... 14
8. Announcements, Information and Record ..... 15
7.1. Budget ..... 15
7.2. Mathematical Challenges Travel Grant ..... 15
9. Adjournment ..... 15
II ATTACHMENTS
Attachment A. 1999 Council ..... 16
Attachment B. 2000 Council ..... 18
Attachment C. Minutes of Business by Mail ..... 20
Attachment D. Report of the AMS Task Force on Membership ..... 21
Attachment E. Tellers' Report on the 1999 AMS Elections ..... 41
Attachment F. A Counterproposal for Revising the Notices ..... 42
Attachment G. Proposal for Ky and Yu-fen Fan Endowment. ..... 45
Attachment H. Reciprocity with European Math Society ..... 50
Attachment I. AMS Epsilon Program ..... 55

## 1. AGENDA

## 1. Call to Order and Introductions

The meeting began promptly at 1:00 p.m. President Browder, who presided throughout, called on the members and guests to introduce themselves. The members present were James G. Arthur, Francis Bonahon, Felix E. Browder, Robert L. Bryant, Robert J. Daverman, Clifford Earle, Jr., Robert A. Fefferman, Robert M. Fossum, John M. Franks, Arthur Jaffe, Hugh Montgomery, Andrew Odlyzko, Karen H. Parshall, Gail D.L. Ratcliff, Mary Beth Ruskai, Bernard Russo, Donald G. Saari, Peter B. Shalen, Joel H. Spencer, Michael Starbird, B.A. Taylor, Tatiana Toro, Karen Vogtmann, Lars B. Wahlbin and Nolan Wallach. The voting Associate Secretary was Bernard Russo. Among the guests present were Roy Adler (AMS Trustee), Donald G. Babbitt (AMS Publisher), Thomas Banchoff (MAA President), Hyman Bass (COE chair), Jonathan Borwein (CMS President), David Eisenbud (new AMS VP), John Ewing (AMS ED), Monica Foulkes (AMS), Sandra Golden (AMS), Martin Golubitsky (2000 Council member), Allyn Jackson (AMS Notices), Rolf Jeltsch (EMS President), Linda Keen (AMS Trustee), Jane Kister (Math Reviews Executive Editor), James Maxwell (AMS AED), Everett Pitcher, Sam Rankin (AMS AED), Jonathan M. Rosenberg (2000 Council member), Martha Siegel (MAA Secretary), Tina Straley (MAA ED), Raquel Storti (AMS), Robin Wilson (EMS representative), and Graham Wright (CMS ED).

Members elect who were in attendance were given privileges of the floor. The Secretary asked for and received unanimous consent to send thanks on behalf of the Council to those members retiring from the Council for sharing their wisdom with the Council and for their service to the mathematical community.

## 2. Minutes

### 2.1. Minutes of the April 1999 Council

The Council met in Las Vegas, NV, in April 1999. Minutes of that meeting were distributed by mail. The minutes were approved as distributed.

### 2.2. Minutes of Business by Mail.

The Council conducted business by mail in the fall of 1999. A corrections to the minutes for this business by mail was noted and the minutes were approved. The corrected minutes are attached to these minutes as Attachment C.

## 3. Consent Agenda

Items on the Consent Agenda are considered, by the Secretary, to be routine, If any member of the Council so requests, an item will be moved to the regular part of the agenda.

### 3.1. Progress in Mathematics Committee

The Progress in Mathematics Committee was discharged with thanks, due to inactivity.

### 3.2. Summer Institutes and Special Seminars Committee

The Summer Institutes and Special Seminars Committee was discharged with thanks. Terms of the recently funded NSF Grant for Summer Research Conferences included no monies for summer institutes, which eliminated this committee's primary purpose.

### 3.3. Task Force on Excellence

The Task Force on Excellence was discharged with thanks. The conclusions it reached and recommendations it made appear as the book Towards Excellence: Leading a Doctoral Mathematics Department in the 21st Century, published (1999) by the AMS.

### 3.4. Task Force on Membership

The Task Force on Membership was discharged with thanks. It was established Spring 1998 by Arthur Jaffe, AMS President at that time. It met 16 October 1999 in Chicago, IL, and later that day met jointly with the Committee on the Profession. Its report, with recommendations, is attached (Attachment D).

## 4. Reports of Boards and Standing Committees

### 4.1. Tellers' Report on the 1999 AMS Elections

The Society conducted its annual elections in the fall of 1999. The Tellers reported that the following individuals were elected.

### 4.1.1. Tellers' Report on Election of Officers, Trustee and Members of Council

The newly elected officers are:

| President Elect: | Hyman Bass, University of Michigan |
| :--- | :--- |
| Vice President: | David Eisenbud, University of California, Berkeley, and Director of the <br> Mathematical Sciences Research Institute. |
| Members at Large: | Patricia Bauman, Purdue University <br> William Fulton, University of Michigan <br> Martin Golubitsky, University of Houston <br> Jonathan M. Rosenberg, University of Maryland <br> Lisa Traynor, Bryn Mawr College |
| Trustee: | Eric M. Friedlander, Northwestern University |

All of the above take office on February 1, 2000. All terms are for three years except that of the Trustee, which is a five year term, and that of the President Elect, which is a one year term, followed by a two year term as President and a subsequent one year term as Immediate Past President.

### 4.1.2. Tellers' Report on Elections to the Nominating Committee

The following were elected to the AMS Nominating Committee. Their terms of office are 01 January 2000 - 31 December 2002.

Ruth M. Charney, Ohio State University
Ramesh A. Gangolli, University of Washington
Frank Morgan, Williams College

### 4.1.3. Tellers' Report on Elections to the Editorial Boards Committee

The following were elected to the AMS Editorial Boards Committee. Their terms of office are 01 February 2000-31 January 2003.

Palle E. T. Jorgensen, University of Iowa
Gregory F. Lawler, Duke University
The Council approved the Final Tellers' Report, which can be found in Attachment E.
It was moved and seconded that Final Tellers' Reports for AMS Elections appear in the open minutes of the Council. This motion was approved.

### 4.2. Editorial Boards Committee

The Editorial Boards Committee (EBC) recommended the appointments of several editors.

### 4.2.1. Appointment to the Notices of the AMS Editorial Board

The Council approved the appointment of WILLIAM CASSELMAN (British Columbia) as an Associate Editor on the Notices Editorial Committee for a one year term, beginning 01 Jan 2000 and ending 31 Dec 2000.

### 4.2.2. Appointment to the Mathematical Reviews Editorial Committee

The Council approved the reappointment of JOYCE MCLAUGHLIN (Rennselaer Polytechnic Institute) to the Mathematical Reviews Editorial Committee for a three year term, beginning 01 February 2000 and ending 31 Jan 2003.

### 4.2.3. Appointment to the Mathematical Surveys and Monographs Editorial Committee

The Council approved the reappointment of GEORGIA BENKART (Wisconsin) to the Mathematical Surveys and Monographs Editorial Committee for a two year term, beginning 01 February 2000 and ending 31 Jan 2002.

### 4.3. Notices Editor Search Committee

Upon the recommendation of the Notices Editor Search Committee, with the endorsement of the EBC, Council approved the appointment of HAROLD P. BOAS as Editor of the AMS Notices for a three year term, starting 01 January 2001.

The report of the Notices Editor Search Committee was filed with the Council and can be found in the AMS Committee Report Book as Report Number 991208-020.

### 4.4. Executive Committee and Board of Trustees

### 4.4.1. Joint Summer Research Conferences Advisory Panel

In seeking renewed funding for the AMS-IMS-SIAM Summer Research Conferences for 2000 and beyond, the AMS and SIAM submitted a joint proposal to the Division of Mathematical Sciences (DMS) at the NSF in the fall of 1998. Formal notice of full funding of the first three years, with tentative funding for years four and five, was received in September 1999. The proposal incorporates some adjustments in the way the conferences are overseen to reflect "suggestions" from DMS following a review of an earlier SRC proposal.

The key change is the creation of a small oversight panel. Upon the recommendation of the ECBT, the Council approved the establishment of the Joint Summer Research Conferences Advisory Panel, to consist of four to six eminent mathematicians appointed by the presidents of the three sponsoring societies with the following charge:

Identify specific areas of research that would benefit from a conference and aid in recruiting proposals and pre-proposals from individuals that are leaders in these areas.

Nominate individuals for appointment to the existing Committee on Joint Summer Research Conferences. (The role of this Committee is unchanged. Its current charge states: "The task of the Committee is to solicit and to generate proposals for research conferences and to select and recommend the list of topics and the membership of the organizing committees for each summer." )

Maintain contact with the leadership of the various research institutes to insure that areas covered by conferences within the SRCs are non-overlapping with and, when appropriate, complementary to activities planned at the institutes.

Evaluate the success of the SRCs in meeting their stated goals and make adjustments in the program when needed.

### 4.4.2. Gifts from Ky and Yu-fen Fan

In late October 1999, AMS Trustee Michael Crandall was contacted by Professor Ky Fan (retired from University of California, Santa Barbara) about giving a gift to the AMS. Crandall contacted ED Ewing, who discussed the gift and its intended purposes with Professor Fan. On October 30, Ewing and Crandall visited with Professor Fan and his wife, Yu-fen Fan, to outline a proposal for creating an endowment from the gift. A slightly modified version of that proposal is included in Attachment F.

The Fans have now made two gifts of approximately $\$ 500,000$ each. The first is a direct contribution (of
stock), and the second is a gift annuity, which is used to fund an annuity for Professor Fan with the unused portion added to the Fan endowment when the annuity is no longer needed.

Funds from these gifts are to be used to fund new programs, with $75 \%$ used for a program to foster collaboration between American and Chinese mathematicians and 25\% used for the Epsilon Fund for talented young high school students. Details are contained in Attachment F.

At its November 1999 meeting the Board of Trustees voted to accept these gifts from Ky and Yu-fen Fan. The Council gave its consent to this action of the Board.

### 4.4.3. Appointment of Certain AMS Officers

Officers of the Society other than president elect, president and vice presidents are appointed by the Council upon recommendation by the ECBT. The ECBT recommended appointments of several officers of the Society, specified below.

### 4.4.3.1. Associate Secretary for the Southeastern Section

The Council reappointed JOHN L. BRYANT to a second term as Associate Secretary for the Southeastern Section. This term will begin 01 February 2001 and end 31 January 2003.

### 4.4.3.2. Associate Secretary for the Eastern Section

The Council reappointed LESLEY M. SIBNER to a fifth term as Associate Secretary for the Eastern Section. This term will begin 01 February 2001 and end 31 January 2003.

### 4.4.3.3. Associate Treasurer

The Council reappointed B. A. TAYLOR to a fifth term as Associate Treasurer. This term will begin 01 February 2001 and end 31 January 2003.

### 4.4.3.4. Treasurer

The Council reappointed JOHN M. FRANKS as a second term as Treasurer. This term will begin 01 February 2001 and end 31 January 2003.

### 4.4.3.5. Secretary

The Council reappointed ROBERT J. DAVERMAN to a second term as Secretary . This term will begin 01 February 2001 and end 31 January 2003.

### 4.4.4. Support for the AMS President

At its April 1999 meeting the Council endorsed the spirit of a report from the AMS Nominating Committee and recommended that Board of Trustees consider partial funding, as needed and appropriate, to support release time for the President.

At its November 1999 meeting the Board of Trustees considered the matter but took no action. The sense of the meeting was that these matters should be treated on a case-by-case basis. The Nominating Committee will be more fully briefed about the many kinds of support the AMS provides its Presidents.

### 4.5. Committee on the Profession (on the Levi L. Conant Prize)

The Committee on the Profession (CoProf) met in Chicago on 16 October 1999. Among the topics it discussed was the establishment of a Conant Prize.

In 1916 Levi Conant left $\$ 10,000$ to the American Mathematical Society. The funds were not transferred until 1976, however, and since then those funds have been used as part of the AMS restricted endowment, to fund prizes in general. CoProf recommended establishing a Levi L. Conant Prize that would be endowed by the Conant bequest; the prize, which would be given annually at the Prize Session during the Joint Mathematics Meetings, would be awarded for the best expository paper published in either the Notices of the AMS or the Bulletin of the AMS during the preceding five years, and currently would amount to $\$ 1000$. The Council approved the establishment of the Levi L. Conant Prize.

The annual report of the Committee on the Profession was filed with the Council. It can be found in the AMS Committee Report Book as Report Number 991207-013.

### 4.6. Committee on Publications

The Committee on Publications (CPUB) met in Chicago on 23 October 1999. Among other items on its agenda, it reviewed the AMS program and discussed possible revisions to the AMS Notices.

### 4.6.1. Additions to the Charge of the Book Editorial Committee

Upon the recommendation of CPUB and the endorsement of the ECBT, the Council approved expanding the charges of most Book Editorial committees by appending the following statement at the end of the charge:

## The Committee should also seek out very high-quality older books that are appropriate for the series, and include them in the series either by reprinting the books or publishing new editions.

This expanded charge applies to the following Book Editorial Committees: Collected Works, Colloquium Publications, Contemporary Mathematics, Graduate Studies in Mathematics, History of Mathematics, Mathematical Surveys and Monographs, Proceedings of Symposia in Pure Mathematics, Proceedings of Symposia in Applied Mathematics, Student Mathematics Library, Translations from the Chinese, Translations from the Japanese, and the University Lecture Series.

### 4.6.2. Reprinted Books Committee

In conjunction with the recommendation (4.6.1) to distribute responsibility for identifying suitable reprinted books for AMS book series to the cognizant book editorial committees, CPub recommended that the Reprinted Books Committee be discharged with thanks. The following amendment was proposed.

The Reprinted Books Committee is discharged. The Council thanks the committee for its past efforts, which have been successful both in acquiring specific books and in setting the tone for a healthy program.

Council approved both the amendment and the amended proposal.

### 4.6.3. Revising the Notices

The "enhanced" Notices came into existence nearly five years ago in January 1995. During the last several years both the staff and the leadership have had an opportunity to review the strengths and weaknesses of the current structure. When a third editor was recruited for the Notices during this past year, the Society was able to review the editor's job as well.

CPUB recommended the following proposal, with the endorsement of the ECBT, for modifying the editorial structure of the Notices. The proposed new structure would take effect when the new editor officially takes over in January 2001. A key feature is to divide the Notices into two parts, the "magazine" and the "newsletter".

The essence of the present proposal is to create an editorial structure that more clearly recognizes the dual nature of the Notices. The present structure promotes the role of the Notices as a magazine of lively exposition and opinion; that should not change. But we clearly need to define the journal's role as a newsletter - a vehicle for communicating with mathematicians about mathematical events and Society business. This will bring the Notices back into balance, serving multiple purposes with responsibilities assigned appropriately.

The proposed restructuring divides the Notices into two parts, the "magazine" and the "newsletter" (terms meant only to loosely define the content of each part). The magazine would include all articles (mathematics, education, memorial, etc.) as well as all opinion (letters, Forum, miscellaneous essays), but it would not be restricted to this material. For example, it's likely that the magazine will include book reviews of the kinds that the Notices presently publish. The goal of the enhanced Notices was to give the editor and board the opportunity to creatively expand the journal to make it attractive, and that goal should be maintained.

The newsletter would be staff-prepared, under the direction of a paid employee of the Society (for example, someone like the present Deputy Editor, Allyn Jackson). It would include material such as:
_ Official material from the Secretary (reports, election information, etc.)
_ AMS news (major appointments, presidential speeches, etc.)
_ JPBM annual article on federal budget
_ AMS annual article on NSF budget
_ Meetings announcements
_ Annual survey (twice yearly)
_ Stipends for study and travel
_ Mathematics Calendar
_ Backlog of Research Journals
_ Reciprocity agreements
_ Classified ads
_ News sections (Math People, Math Opportunities, For Your Information)

The division above is not precise, however, and deliberately leaves open a number of questions. Where do extended articles on prize winners fit into this scheme? What about short obituaries? Are there news items that can be thought of as articles? These are matters that can be worked out later between each editor and the staff, keeping in mind the principle that there are two parts to the Notices during the discourse.

The proposal only works, however, if the dual nature is obvious; this is a key element of the new structure. All material in the newsletter section of the Notices must be visually distinguished from the rest. This can be done by any one of several devices - colored paper, a distinctive border on each page, physical separation as a back (or middle) section. Whatever the technique, it must be evident at a glance which pages belong to which part.

The editor and board would have editorial control and independence exactly as they have now. Except for the usual concerns of a publisher (libel and copyright infringement), the staff would have no reason to meddle in the magazine. The newsletter would be controlled entirely by the staff, under the direction of the staff editor. While it would be essential to exchange information about upcoming material (for example, by e-mail or periodic conference calls), there would be no need for either part of the Notices to interfere in the operation of the other.

The proposal to revise the Notices was tabled, and a committee consisting of Harold Boas, Robert Daverman, and John Ewing was named to study the issues discussed, to consult with all the involved parties, and to recommend possible modifications to the proposal(s) presented.

A counter proposal, which had been circulated with the agenda for this meeting, was never place on the floor. It is included with these minutes as Attachment G.

### 4.7. Committee on Education

The annual report from the Committee on Education was filed with the Council. It can be found in the AMS Committee Report Book as Report Number 991209-014.

### 4.8. Committee on Meetings and Conferences

The annual report from the Committee on Meetings and Conferences was filed with the Council. It can be found in the AMS Committee Report Book as Report Number 991201-011.

### 4.9. Archives Committee

The annual report from the Archives Committee was filed with the Council. It can be found in the AMS Committee Report Book as Report Number 991217-015.

### 4.10. Mathematical Reviews Editorial Committee

The annual report of the Mathematical Reviews Editorial Committee was filed with the Council. It can be found in the AMS Committee Report Book as Report Number 991209-014.

### 4.11. AMS Council Representative to the Canadian Mathematical Society

Annual reports for the past two years from the AMS Representative to the Canadian Mathematical Society were filed with the Council. They can be found in the AMS Committee Report Book as Report Number 991220-022.

### 4.12. AMS-MAA-SIAM Morgan Prize Committee

The annual report of the Morgan Prize Selection Committee was filed with the Council. It can be found in the AMS Committee Report Book as Report Number 991203-012.

## 5. Old Business

There was no Old Business on this agenda.

## 6. New Business

### 6.1. Reciprocity Agreement with the European Mathematical Society

The ECBT recommended a reciprocity agreement with the European Mathematical Society (EMS) spelled out as part of Attachment H . The Council ratified the agreement.

### 6.2. Report and Greetings from the European Mathematical Society

Professor Dr. Rolf Jeltsch, of ETH Zurich and President of the European Mathematical Society (EMS), addressed the Council and commented on possible interactions between the EMS and AMS.

### 6.3. Proceedings of Symposia in Pure Mathematics Editorial Committee

To fill a role which had been played by the Summer Institutes and Special Seminars Committee, the Secretary recommended the establishment of a new editorial committee for the series called Proceedings of Symposia in Pure Mathematics (PSPM). with the following description and charge, which run parallel to those of the Proceedings of Symposia in Applied Mathematics Editorial Committee.

## General description

Type of committee: standing
Number of members: three

Term: three years
Charge: Editorial responsibility, including the authority to accept manuscripts, for new publications in the Proceedings of Symposia in Pure Mathematics Series and for the reprinting of existing publications in the series. Liaison should be maintained with the Short Course Subcommittee of the Program Committee for National Meetings, because manuscripts may be expected to arise from short courses and the Editorial Committee should be aware of these from inception.

It was moved, seconded, and approved to insert the phrase
and with the AMS-IMS-SIAM Committee on Joint Summer Research Conferences,
after "National Meetings" and to insert the phrase
and/or Summer Research Conferences
after "short courses".

Council approved the establishment of the Proceedings of Symposia in Pure Mathematics Editorial Committee, with the above general description and modified charge. The revised charge (also in light of 4.6.1) now reads:

Charge: Editorial responsibility, including the authority to accept manuscripts, for new publications in the Proceedings of Symposia in Pure Mathematics Series and for the reprinting of existing publications in the series. Liaison should be maintained with the Short Course Subcommittee of the Program Committee for National Meetings, and with the AMS-IMS-SIAM Committee on Joint Summer Research Conferences, because manuscripts may be expected to arise from short courses and/or Summer Research Conferences, and the Editorial Committee should be aware of these from inception. The Committee should also seek out very high-quality older books that are appropriate for the series, and include them in the series either by reprinting the books or publishing new editions.

### 6.4. Resolution on Open Science and Security

Council members Friedlander, Ruskai, Toro and Wallach proposed adoption of the following statement "in the name of the Society."

The AMS is deeply concerned about the consequences of potentially inappropriate restrictions on foreigners, particularly at national laboratories. Such restrictions could harm U.S. national interests by impeding scientific progress, could weaken the nation's role as a key player in the international scientific community, and could endanger international cooperative activities that bolster our national security and well-being. At the same time, the AMS clearly recognizes the importance of protecting U.S. national security interests from foreign espionage.

A 1995 report from the Academies' National Research Council, "A Review of the Department of Energy Classification Policy and Practice," urged DOE to adopt the
following principle: "Construct high fences around narrow areas." That is, it recommended that the department maintain very stringent security around sharply defined and narrowly circumscribed areas, but reduce or eliminate classification around areas of lesser sensitivity. The report endorsed the view that scientific openness in unclassified areas is key to the health of the scientific enterprise.

New restrictions on interactions with foreign scientists would be damaging in ways we cannot fully anticipate. DOE national laboratories necessarily engage, not only in classified military work but also in basic scientific research and educational programs, as well as technology transfer activities that stimulate scientific innovations and important new applications of technology. Over the course of many years, immigrant scientists as well as foreign visitors and students have contributed enormously to the American scientific enterprise. Any negative characterization of scientists on the basis of ethnic or national origins is destructive to science and American values.

Therefore, the AMS endorses the use of procedures which balance the needs of science and security in accordance with the recommendations of the National Academy of Science as described in its recent report 'Balancing Scientific Openness and National Security Controls at the Nation's Nuclear Weapons Laboratories."

The proposed AMS statement is similar to statements by other organizations expressing similar concerns, namely, on 21 May 1999, the Council of the American Physical Society passed a Statement on National Security and Open Conduct of Science; on 21 May 1999, the Presidents of the National Academy of Sciences, National Academy of Engineering, and Institute of Medicine together with the Council of the National Academy of Sciences issued a similar statement.

The matter will be treated by the Council in a future mail ballot, in order to fulfill provisions in the AMS Bylaws about "speaking in the name of the Society".

### 6.5. Long-term Support for the Epsilon Program

The (interim) Epsilon Program, mentioned in item 4.4.2 of these Minutes, is presently supported by the Program Development Fund, which can be used for the first two (or possibly three) years. In order to be truly effective, the program should have long-term support. An argument for creating an endowment to support the Epsilon Program, with flexibility to allow for future changes in the details of the program, is outlined in Attachment I. That endowment would ensure that the Society provide sustained support for talented high school students in some form.

The Council approved the concept of long term support for the Young Scholars Program. Then it endorsed proceeding with the quiet phase of a capital campaign to establish an endowment for that program.

### 6.6. AMS-MAA Joint Meetings Committee

This item was moved from the Consent Agenda to New Business, upon the request of Council member Fossum. Council approved the following modified general description of this committee. (The modification involved calling the AMS Director of Meetings a nonvoting member of the committee, rather than a nonvoting Consultant, thus changing the number of committee members from four to five.)

## General Description

Committee is standing.

Number of members is five. All members serve ex officio.

# Members consist of the Executive Directors of the AMS and MAA, the AMS Secretary, the MAA Associate Secretary, and the AMS Director of Meetings, who is a nonvoting member. 

The chair alternates on an annual basis between the AMS Secretary (evennumbered years) and the MAA Associate Secretary (odd-numbered years).

## 7. Announcements, Information and Record

### 7.1. Budget

The Board of Trustees (BT) adopted the budget for 2000 as presented at the BT meeting of 20 November 1999.

### 7.2. Mathematical Challenges Travel Grant

A special conference, Mathematical Challenges of the 21st Century, will take place at UCLA on August $6-12,2000$. At least 30 plenary lectures on future directions in mathematics will be delivered by outstanding mathematicians from the international community. The event is part of the general program for the World Mathematical Year 2000 sponsored by the International Mathematical Union, and planning for the AMS conference has been ongoing for several years.

In order to make it possible for large numbers of young mathematicians to attend the conference, the Society has applied for a travel grant from the National Science Foundation. If fully funded, this grant will allow the Society to make awards to approximately 150 young mathematicians to attend the meeting in August.

## 8. Adjournment

The meeting adjourned at $4: 15$ p.m.

## II. ATTACHMENTS

## 1999 Council

# AMERICAN MATHEMATICAL SOCIETY <br> effective 2/01/99 

| President | Felix E. Browder | Rutgers University | 2000 |
| :--- | :--- | :--- | :--- |
| Immediate Past President | Arthur Jaffe | Harvard University | 1999 |
| Vice Presidents | James G. Arthur | University of Toronto | 2001 |
|  | Jennifer Tour Chayes | Microsoft | 2000 |
|  | H. Blaine Lawson | SUNY at Stony Brook | 1999 |
| Secretary | Robert J. Daverman | University of Tennessee | 2000 |
| Former Secretary | Robert M. Fossum | University of Illinois | 2000 |
| Associate Secretaries | John L. Bryant | Florida State University | 2000 |
|  | Susan Friedlander | Univ. Illinois at Chicago | 1999 |
|  | Bernard Russo | Univ. California, Irvine | 2001 |
| Treasurer | Lesley Sibner | Polytechnic Inst. of NY | 2000 |
| Associate Treasurer | John M. Franks | Northwestern University | 2000 |
|  | B. A. Taylor | University of Michigan | 2000 |


| Bulletin Editorial Committee | Donald G. Saari, Chair | Northwestern University | 1999 |
| :--- | :--- | :--- | :--- |
| Colloquium Editorial Committee | Susan Friedlander, Chair | Univ. Illinois at Chicago | 2001 |
| Journal of the AMS | Benedict H. Gross, Chair | Harvard University | 2000 |
| Math Reviews Editorial Committee | Hugh Montgomery, Chair | University of Michigan | 1998 |
| Math Surveys Editorial Committee | Tudor Ratiu, Chair | Univ. California, Santa Cruz | 2000 |
| Mathematics of Computation Comm. | Lars B. Wahlbin, Chair | Cornell University | 2000 |
| Proceedings Editorial Committee | Clifford Earle, Chair | Cornell University | 2000 |
| Transactions and Memoirs Comm. | Peter B. Shalen, Chair | Univ. Illinois at Chicago | 1999 |
| Executive Committee | John B. Conway | University of Tennessee | 2000 |
| Executive Committee | Andrew Odlyzko | AT\&T Bell Labs | 1999 |


| Francis Bonahon | University of Southern California | 1999 |
| :--- | :--- | :--- |
| Haim Brezis | University of Paris XI/Rutgers University | 2001 |
| Robert L. Bryant | Duke University | 2000 |
| Robert A. Fefferman | University of Chicago | 2001 |
| Frederick P. Gardiner | Brooklyn College (CUNY) | 1999 |
| Jane M. Hawkins | University of North Carolina | 2000 |
| Karen H. Parshall | University of Virginia | 2000 |
| Gail D. L. Ratcliff | University of Missouri at St. Louis | 1999 |
| Mary Beth Ruskai | University of Massachusetts at Lowell | 2000 |
| Donald G. Saari | Northwestern University | 2001 |
| Joel H. Spencer | NYU-Courant Institute | 1999 |
| Michael Starbird | University of Texas at Austin | 2000 |
| Tatiana Toro | University of Washington | 2001 |
| Karen Vogtmann | Cornell University | 1999 |
| Nolan Wallach | University of California, San Diego | 2001 |


|  |  | Council <br> January |
| :--- | :--- | :---: |
|  |  |  |
|  | Executive Committee |  |
| Felix E. Browder |  |  |
| John B. Conway | Rutgers University | 2001 |
| Robert J. Daverman | University of Tennessee | 2000 |
| Arthur M. Jaffe | University of Tennessee | 2000 |
| Andrew Odlyzko | Harvard University | 1999 |
| Joel H. Spencer | AT\&T Bell Labs | 1999 |
| Karen Vogtmann | New York University | 2001 |
|  | Cornell University | 2002 |
|  |  |  |
| Roy Adler | Trustees |  |
| Felix E. Browder |  | 2002 |
| Michael G. Crandall | IBM Watson Lab | 2000 |
| John M. Franks | Rutgers University | 2000 |
| Linda Keen | University California, Santa Barbara | 2000 |
| Andy Roy Magid | Northwestern University | 2003 |
| Donald E. McClure | CUNY | 2001 |
| B. A. Taylor | University of Oklahoma |  |

## 2000 COUNCIL

## ATTACHMENT B

## AMERICAN MATHEMATICAL SOCIETY

effective 2/01/2000

| President F | Felix E. Browder | Rutgers University | 2000 |
| :---: | :---: | :---: | :---: |
| President Elect H | Hyman Bass | University of Michigan | 2000 |
| Vice Presidents J J | James G. Arthur | University of Toronto | 2001 |
|  | Jennifer Tour Chayes | Microsoft | 2000 |
|  | David Eisenbud | Univ. California, Berkeley | 2002 |
| Secretary | Robert J. Daverman | University of Tennessee | 2000 |
| Former Secretary | Robert M. Fossum | University of Illinois | 2000 |
| Associate Secretaries $\quad$ J | John L. Bryant | Florida State University | 2000 |
|  | Susan Friedlander | Univ. Illinois at Chicago | 2001 |
|  | Bernard Russo | Univ. California, Irvine | 2001 |
|  | Lesley Sibner | Polytechnic Inst. of NY | 2000 |
| Treasurer J | John M. Franks | Northwestern University | 2000 |
| Associate Treasurer B | B. A. Taylor | University of Michigan | 2000 |
|  | Representative of Committees |  |  |
| Bulletin Editorial Committee | Donald G. Saari, Chair | Northwestern University | 2001 |
| Colloquium Editorial Committee | Susan Friedlander, Chair | Univ. Illinois at Chicago | 2001 |
| Executive Committee | John B. Conway | University of Tennessee | 2000 |
| Executive Committee | Joel H. Spencer | NYC-Courant | 2001 |
| Executive Committee | Karen Vogtmann | Cornell University | 2002 |
| Journal of the AMS | Carlos E. Kenig, Chair | University of Chicago | 2002 |
| Math Reviews Editorial | Hugh Montgomery, Chair | University of Michigan | 2001 |
| Math Surveys \& Monographs | Tudor Ratiu, Chair | Univ. California, Santa Cruz | 2000 |
| Mathematics of Computation | Lars B. Wahlbin, Chair | Cornell University | 2000 |
| Proceedings Editorial | Clifford Earle, Jr., Chair | Cornell University | 2000 |
| Transactions and Memoirs | William Beckner, Chair | University of Texas | 2003 |


|  | Members at Large |  |
| :--- | :--- | :--- |
|  |  |  |
| Patricia Bauman | Purdue University | 2002 |
| Haim Brezis | University of Paris XI/Rutgers University | 2001 |
| Robert L. Bryant | Duke University | 2000 |
| Robert A. Fefferman | University of Chicago | 2001 |
| William Fulton | University of Michigan | 2002 |
| Martin Golubitsky | University of Houston | 2002 |
| Jane M. Hawkins | University of North Carolina | 2000 |
| Karen H. Parshall | University of Virginia | 2000 |
| Jonathan M. Rosenberg | University of Maryland | 2002 |
| Mary Beth Ruskai | University of Massachusetts at Lowell | 2000 |
| Donald G. Saari | Northwestern University | 2001 |
| Michael Starbird | University of Texas at Austin | 2000 |
| Tatiana Toro | University of Washington | 2001 |
| Lisa Traynor | Bryn Mawr College | 2002 |
| Nolan Wallach | University of California, San Diego | 2001 |

Council Minutes
January 18, 2000
Page 19
Executive Committee

Hyman Bass
Felix Browder
John B. Conway
Robert J. Daverman
Joel H. Spencer
Karen Vogtmann

Roy Adler
Felix E. Browder
Michael G. Crandall
John M. Franks
Eric M. Friedlander
Linda Keen
Andy Roy Magid
B. A. Taylor

| University of Michigan | ex officio |
| :--- | :--- |
| Rutgers University | ex officio |
| University of Tennessee | 2000 |
| University of Tennessee | ex officio |
| New York University | 2001 |
| Cornell University | 2002 |

Trustees
IBM Watson Lab 2002
Rutgers University
University California, Santa Barbara 2000
Northwestern University ex officio
Northwestern University 2004
CUNY 2003
University of Oklahoma 2001
University of Michigan 2000

## MINUTES OF BUSINESS BY MAIL

# AMERICAN MATHEMATICAL SOCIETY <br> MINUTES OF THE COUNCIL <br> BUSINESS BY MAIL <br> November 18, 1999 

In a mail ballot dated October 13, 1999, there were 24 ballots cast by:
James Arthur
Francis Bonahon
Felix E. Browder
John L. Bryant (voting Associate Secretary)
Robert L. Bryant
John B. Conway
Robert J. Daverman
Clifford J. Earle
Robert A. Fefferman
Robert M. Fossum
John Franks
Susan Friedlander

Benedict H. Gross
Arthur M. Jaffe
Andrew M. Odlyzko
Karen V. H. Parshall
Mary Beth Ruskai
Donald G. Saari
Peter B. Shalen
Joel Spencer
Michael Starbird
B. A. Taylor

Karen Vogtmann
Lars B. Wahlbin

Section 1. Appointments to the Journal of the AMS Editorial Committee.
By a vote of 23 in favor, 1 abstention, CARLOS E. KENIG (Chicago) was appointed chief editor of the Journal of the AMS for a two year term, beginning 01 February 2000 and ending 31 January 2002. By a vote of 22 in favor, 2 abstentions, JOHAN DE JONG (MIT) was appointed a member of the Journal of the AMS Editorial Committee for the three year term 01 Feb 2000-31 Jan 2003.

Section 2. Appointments to the Mathematical Reviews Editorial Committee.
By a vote of 22 in favor, 2 abstentions, CLARENCE W. WILKERSON (Purdue) and HUGH L. MONTGOMERY (Michigan) were re-appointed as members of the Mathematical Reviews Editorial Committee for three year terms, beginning 01 February 1999 and ending 31 Jan 2002.

Section 3. Appointment to the AMS Notices Editorial Board.
Five members of the Council asked that this appointment be deferred for discussion at the January 2000 Council Meeting. In accordance with Article IV, Section 6, of the AMS Bylaws, the item was deferred.

Section 4. Appointments to the Proceedings of the AMS Editorial Committee.
By a vote of 23 in favor, 1 abstention, ERIC D. BEDFORD (Indiana) was appointed for a four year term as Managing Editor of Proceedings of the AMS, beginning 01 Feb 2001 and ending 31 Jan 2005. By a vote of 22 in favor, two abstentions, LANCE W. SMALL (San Diego) was reappointed as Coordinating Editor (for Algebra) on the AMS Proceedings Editorial Committee for a two year term, beginning 01 February 2000 and ending 31 Jan 2002.

Section 5. Appointments to the Transactions and Memoirs Editorial Committee.
With all 24 votes cast in favor, WILLIAM BECKNER (Texas) was appointed Managing Editor for the AMS Transactions and Memoirs for a four year term, beginning 01 February 2000 and ending 31 Jan 2004. In addition, again with all 24 votes in favor, PHILIP J. HANLON (Michigan) and STEWART B. PRIDDY (Northwestern), PETER W. BATES (BYU) , KRZYSZTOF BURDZY (Washington) and MICHAEL LARSEN (Indiana) were appointed (in the first two cases, re-appointed) as editors for four year terms, beginning 01 Feb 2000 and ending 31 Jan 2004.

## ATTACHMENT D

## Report of the AMS Task Force on Membership

December, 1999

The charge to the Presidential Task Force on Membership, appointed by President Arthur Jaffe in Spring of 1998, was to investigate ways "to increase the number of members in the AMS, including the collection of relevant data, and to make concrete recommendations, in coordination with the AMS staff, on how to achieve this goal." The AMS accepts memberships from several types of entities: institutions, corporations and individuals. Since individual membership is the core of the Society's existence, the Task Force focused on issues concerning individual members, which numbered 28,700 in 1998.

Individuals can join the AMS in a variety of membership categories. It is the slow but steady decline since 1995 in Ordinary (high, low or entry-level dues paying) memberships which concerns the Task Force (see Appendix III). The AMS is not alone in noticing a trend away from professional society memberships; many other professional societies are experiencing a similar decline. The first question the Task Force asked is, should this be a concern?

Our concern is that a professional society needs to be broadly representative of the community it serves. Membership in a professional society serves to connect an individual to what's new and valuable in his or her chosen field. Belonging to a professional organization that attempts to represent the interests of its members before the public and government makes it possible for one to help define these interests. Membership provides opportunities to publicize one's own research and to keep up to date on the research of colleagues. A society provides services to those new to the profession, information on the status of the profession, and a way to share responsibility for the future of the profession among the many currently in it.

Professional good citizenship, responsibility, and solidarity are motives for AMS membership. More specifically, a mathematician should value influence in and support for the day-to-day functions of the Society, such as: what the AMS should publish, and how to publish it; what new research tools to offer; and how to encourage the most talented young people to explore our profession. These reasons, combined with more tangible and direct member benefits, should serve to attract most of the profession into membership.

So the second question was how can the AMS ensure that it will benefit from the talents and various interests of a broad range of mathematicians now and into the future, in order to fulfill these roles? What steps could be taken now to increase, or halt the decline of, individual membership levels, and thereby provide the necessary broad base from which to draw leadership, volunteers, participants and customers in the next century?

After examining many trends and issues concerning AMS membership, we submit the recommendations which follow.

## Recommendations

1. Explore an "AMS Contact" program at departments of mathematics by initiating a pilot program with a limited number of departments (25-50). Provide each contact person with reliable links to staff at the AMS in all areas where questions or problems may arise. This will ensure that questions get more immediate answers and that members, and potential members, get the assistance they need. This program, if initiated with moderation and good sense, should help individuals who may need to hear for themselves how AMS membership could serve them, and hear it from a colleague who is already a member. And conversely, the program could provide a conduit for information to the AMS about the needs of the community. The "contact person" should not be the chair of the department and may be chosen from among active volunteers. No remuneration should be offered. There are a number of highly-regarded mathematicians who are not members; perhaps a more
personal approach would convince non-members that the AMS is a good place to invest some of their talents and influence.
2. Make joining, and renewal, as easy and accessible as possible. AMS staff should continue efforts to make these transactions simpler, so that any one wishing to join is immediately able to do so. eMATH should be a primary vehicle for joining and renewing membership. Electronic renewal should be simple. We urge that this be a high priority.
3. Explain the benefits of membership in a professional society and make it clear how the AMS fulfills this role. This should be done in a print brochure and/or web page. What is intended here is something beyond the current membership brochures; something which explains in more depth why it is vital to belong to a professional society, with information on how the AMS fulfills its role of representing and serving the profession in numerous ways. For current or prospective members who would like to have the case stated to them, we should offer such a document.
4. Have a focus on attracting young members and keeping them. It was the consensus of the Task Force that young mathematicians need to be a top priority. Examination of the data shows that they are becoming less likely to be members. Clearly the future of the AMS depends on the talents and participation of its membership. The AMS should be active in recruiting and retaining young mathematicians, and should be responsive to concerns of this section of the community. Programs which assist young mathematicians now will help them to remember, as they grow older, the important impact community efforts can have. The Task Force notes that the newly established half-price introductory dues rate is an example of an effort in this direction.
5. We suggest that other committees and the ECBT keep membership clearly in mind when considering new and current programs. An example of this would be programs that address needs of younger mathematicians, as suggested in recommendation 4. While it is outside our charge to design new programs, we see clearly the importance of keeping in mind the impact that any program or service is likely to have on membership, and we ask that others make this a top consideration.
6. The Committee on the Profession should keep a standing subcommittee to consider membership issues. This is intended to include follow-up on the recommendations in this report, and also consideration in the future of membership concerns that may arise.
7. The Associate Secretaries should encourage AMS Special Section organizers to bring up the subject of membership with their session speakers. We mean by this a low-key, friendly conversation, for organizers who are comfortable with it. Some in the mathematics community may encounter very little encouragement to join, other than official AMS mail. Encouragement from a colleague could make a difference.
8. Concerning dues, recent efforts to adjust the dues structure should continue to be monitored. Promising new ideas concerning such things as multi-year or life dues-paying, and memberonly benefits, should be investigated and implemented as appropriate. We suggest that the staff and leadership continue efforts to develop a dues structure that works well for everyone, and add member benefits where this is practical and cost effective.

## Appendices

A number of documents examined by the Task Force over the last year are included in the appendices.
Appendix I. Members of the Task Force
Appendix II. 1998 Memo to the Task Force from John Ewing and Jim Maxwell
Appendix III. Five-year Trends in Membership
Appendix IV. Membership Retention for 1996 through 1998
Appendix V. Interim Report on AMS Study of Mathematics Community and Membership

## Appendix I

## Members of the Task Force on Membership

From the 1999 membership of the AMS committee on the Profession:
Dr. Jennifer Chayes, Microsoft
Prof. Salah Baouendi (Chair of Task Force), UC San Diego
Prof. Robert Daverman, Univ. of Tennessee
Dr. John Ewing, AMS
Prof. Donald McClure, Brown Univ.
Prof. Ronald Stern, UC Irvine

From outside Committee on Profession:
Prof. Richard W. Beals, Yale University
Prof. Robert Bryant, Duke University
Prof. Helen Grundman, Bryn Mawr College
Prof. Anatole Katok, Pennsylvania State Universtiy
Prof. Joseph J. Kohn, Princeton University
Prof. Donovan H. Van Osdol (Vice-Chair of Task Force), Univ. of New Hampshire
Prof. H.-T. Yau, NYU-Courant
cc on all Task Force correspondence:
Prof. Arthur Jaffe (AMS Past President) Harvard University

## Appendix II

June 29, 1988

| Memo to: | Presidential Task Force on Membership |
| :--- | :--- |
| From: | John Ewing and Jim Maxwell |
| Subj: | Some comments on AMS membership |

A professional society can do many things - publications, meetings, outreach - but without members the society if merely one more company providing some services. Membership gives a professional society its unique character, and for that reason, membership is crucial to a society's health. For complicated reasons, not well understood, professional societies are losing membership across the country.

What's behind such a broad cultural change? No one knows for sure, but people guess at everything from general estrangement in universities to the ubiquity of information on the Internet (which seems to be on every blame list). Whatever the cause, like our sister mathematics societies, we are losing ordinary duespaying members - slowly but steadily. Our attrition is less than some others, but it is serious nonetheless.

There are several ways to view the membership problem.
Senior research mathematicians: Anecdotal evidence shows that some serious, senior mathematicians at top ranked universities doe not belong to the AMS (or any professional society). It is unclear whether the number of such people has increased in recent years, but this fact remains troubling. Such senior mathematicians act as a role model for others.
College teachers: The greatest potential for growth in membership comes from universities and colleges outside these top ranked schools (since faculty in four-year, liberal arts colleges vastly outnumber those in research universities). Such faculty often complain that the AMS does not provide sufficient benefits for them, and that the AMS does not take much interest in their immediate concerns, which often involved collegiate teaching.
Young faculty: Considerable evidence shows that young mathematicians are not joining professional societies as often as they previously joined. The loss of a single young mathematician, who might have stayed a member for the next 50 years, is a serious loss for the Society. The age profile of the AMS is shifting, and the perception that this is an organization for aging mathematicians further exacerbates the problem.

Each of these is a valid way to approach the membership problem, and each requires a possibly different approach.

## What is the membership of the AMS?

The following pages are intended to give some background information on membership statistics and trends. Here is a brief summary.

Our membership has increased in the past 10 years, but most of that increase has been in categories other than ordinary members.

We now have about 28,000 members, but only about $1 / 3$ of those are ordinary.
About 12 years ago, the number of ordinary members began to increase after we instituted an annual promotion for membership. Membership is now slowly decreasing (especially in the low-ordinary category).
The number of reciprocity members has increased somewhat.
The number of Category-S members has increase substantially. (Category-S members are mathematicians in currency weak countries who can pay $\$ 16$ dues each year, or the equivalent of 2 reviewer coupons, and receive either the Notices or the Bulletin as a member benefit.)

## Why do people join a professional society?

Many view direct member benefits as the primary motivation. As dues increase and benefits remain the same (or decrease), these people resign.
The advent of e-Math has decreased the value of membership. The Bulletin, the Notices, and (most importantly) the Combined Membership List are available to everyone.
Conclusion1: We need to find suitable members benefits to enhance the value of membership in the AMS.
Conclusion 2: We need to promote the idea that membership supports the profession and that belonging to a professional society is a responsibility to the community.

## What do we presently do to promote membership?

- Each year we do 8 major promotional mailings. The most successful in recruiting ordinary members is the half-rate mailing to MAA and SIAM members.
Our promotions department has prepared and printed 60,000 "AMS Membership" brochures, which were mailed to many different constituencies and will be distributed at various meetings.
Our system of Nominee members has been extremely successful in recruiting members from new Ph..D.s.
We have a large number of reciprocity memberships because we offer a substantial reduction of $50 \%$. (SIAM has no reciprocity agreements.)
Our new half-rate for the first 5 years of membership will take effect in 1999. We expect this to improve retention of young members.
Our new program of international institutional members has the potential to increase the number of reciprocity members (from faculty members at such institutions).


## Why are mathematicians not members?

We don't know. An informal survey two years ago showed that in large university departments, the faculty who belonged to no professional society were (mainly) immigrant mathematicians who came here after they received their degree. We plan to gather further information about trends in orfer to understand such phenomena better.
A study of people who resigned during the current year shows that most belong to more than one society, suggesting that they have chosen to limit their number of memberships.

## What steps can we take to increase membership?

- We need to increase member benefits whenever possible, including services on e-Math that are available only to members, increasing the quality of the member journals, and making meetings attractive a large portion of the membership.

We need to campaign broadly to promote membership in professional societies as responsible action. In particular, we should publicize the outreach and advocacy role of the Society for the profession.
We need to find ways in which to structure dues to encourage multiple memberships, for example, in the Canadian Mathematical Society, SIAM, and the MAA. This is difficult and risky, but has potentially great benefits for us all.

## Are there other things that we can do to reverse the trend?

Here are some basic questions that ought to be asked (and answered ) by the Task Force.
How much of our decline is due to the demographics of an aging population?
Are there specific groups to target for membership?
Which benefits do (potential) members value most?
Are we taking the right approach by promoting membership in any professional society rather than the AMS specifically?
Can we promote increased membership through new dues arrangements?
Are the financial risks worth the possible increases in membership?
How much should we be willing to invest in increased membership? (That is, should we be willing to lose substantial revenue for increased membership?)
Should we have goals for membership?
Not easy questions.
John Ewing
Jim Maxwell



## Appendix III

Remarks on Membership Information
"Ordinary Entry" (or "Ord-E") is the label for the new membership category open to new ordinary members for their first five years of membership. The dues for this membership category are onehalf of Ordinary Low dues. $\$ 50$ for 1999 and again in 2000.

The drop in the Nominee \& Student category of membership is primarily the result of instituting an eligibility requirement for graduate student nominees. Beginning with the 1999 membership to be eligible for nominee membership. Without this new requirement, the drop would almost certainly have been smaller than the previous year's drop, given the small increases in first-year graduate students that were reported for fall 1997 and again in fall 1998.

Figures on the retention of 1998 members in 1999 will be available at the Task Force meeting in October.


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If you look at national origin within age groups you can easily see the effect of the large proportion of non-citizen Phos produced in the U.S. over the past twelve years. Of the faculty who were 40 years old or younger (in fall of 1998), 46 percent had U.S. national origin while for those taculty older than 4日. the figure was 70 percent. (According to the AHS-conducted Annual Survey, the percent of U.S. citizens among each year's cohort of new doctoral recipients has ranged in the midforties throughout the last twelve years.)

According to the survey, 80 percent of the faculty held a doctoral degree from a U.S. institution. This proportion varied ifttle over various age groups. Faculty without a doctoral degree constituted 5 percent of the total facuity, with most of these facutty in non-tenure track positions.

82 percent of the faculty were reported as being active in research. For the purposes of this survey "active in research" was defined to mean at least one paper in 1997: or at least 3 papers in 1993-1997; or active participation in the form of Invited Lectures at national or international meetings in 1996 or 1997.

Figure $A$ presents the age distributions of the faculty and of the AMS members within the faculty. The average age of the faculty in fall 1998 was 48.3 years while the average age of the AMS members in this faculty was 49.2 years. The average age for all ordfnary members in 1998 was 49.6 years. Note that 28 percent of the faculty were 49 years old or younger.

## Figure $A$



Section 2. Membership profile of the faculty in the PhD-granting departments.
Based on the survey. 50 percent of the faculty vere members of AMS. 35 percent were members of MAA, 15 percent were members of SIAM, and 64 percent were members of at least one of the three societies. In addition, approximately three-quarters of the MAA members were AMS members while just under three-fifths of the SIAM nembers were AMS members. Table B provides a summary of the aembership profile based on several demographic groupings of faculty.

## Table B

Membership Profile
Faculty in Group I, II, III Combined
Membership as a Percent of Faculty by Faculty Category and Society

The proportion of tacutty who were AMS members varied widcly anong the
S3 responding departments. The responding departments are listed below
in order of increasing percent of AMS members.

| Institution | Total Faculty | \% AMS members |  |
| :---: | :---: | :---: | :---: |
| Itinols Stale Univ | 55 | 16\% |  |
| Washington State Univ | 33 | 21\% |  |
| Socthem Methodist Univ | 18 | 22\% |  |
| Univ of Arizona | 61 | 26\% |  |
| Indians Univ-Purdue Unlv, Indianappoits | 30 | 27\% |  |
| Fensbelaer Polytechnic linst | 26 | 27\% |  |
| Harvard Univ | 30 | 30\% |  |
| Brigham Young Univ | 50 | 30\% |  |
| Arizona State Unlv | 90 | 31\% |  |
| Bowling Green State Univ | 24 | $33 \%$ |  |
| Camegie Molion Univ | 47 | 34\% |  |
| Colorado State Univ | 26 | 35\% |  |
| Worcester Polytochnic Inet | 24 | $38 \%$ |  |
| Univ of New Mexico - | 36 | 39\% |  |
| Contral Michigan Univ | 30 | 40\% |  |
| Case Westam Reserve Uriv | 24 | 42\% |  |
| Portland State Univ | 24 | 42\% |  |
| Unlv of New Harmpshire | 26 | 42\% |  |
| Pennoytwania Stato Univ, Univ Park | 101 | 43\% |  |
| Univ of Aukansas, Fayattevitle | 37 | 43\% |  |
| Untv of Californis, Devis | 46 | 43\% |  |
| Univ of Atabarma, Huntsville | 22 | 45\% |  |
| Michigan Stase Univ | 86 | 49\% |  |
| Univ of Celorado, Boukder | 34 | 50\% |  |
| Univ of South Carolina, Cobumbla | 39 | 61\% |  |
| Sycacusse Univ | 31 | 52\% |  |
| Univ of towa | 60 | 52\% |  |
| Erawn Univ | 19 | 53\% |  |
| Univ of Califorria, San Diogo | 56 | 54\% |  |
| Auburn Univ | 46 | 54\% |  |
| Univ of Alabama, Tuscalopsa, | 41 | 56\% |  |
| Boston Univ | 32 | 56\% |  |
| Howard Univ | 33 | 68\% |  |
| Univ of Calitemin, Santa Barbara | 38 | 59\% |  |
| Now York Univ | 55 | 60\% |  |
| Unlv of Connecticut, Storrs | 41 | 59\% |  |
| Univ of Oldahoma | 29 | 59\%\% |  |
| Oklahoma State Univ, Sillwnter | 41 | 61\% |  |
| Univ of Michigenn, Ans Artior | 91 | 62\% | - |
| Univ of Einola, Urbane-Champaign | 76 | 63\% |  |
| Univ of Calilomia, tos Angeles | 57 | 63\% |  |
| Vanderbilt Univ | 34 | 65\% |  |
| Univ of Washington | 55 | 65\% |  |
| North Dakota Stata LIniv, Fargo | 15 | $67 \%$ |  |
| Uriv of Kentucky | 43 | 67\% |  |
| Wayne State Univ | 41 | 68\% |  |
| Univ of Pennsylvanis | 38 | 68\% |  |
| Northwestern Univ | 47 | 70\% |  |
| Purdue Univ, West Lafayetie | 69 | 71\% |  |
| Lousiana State Univ, Baton Rougo | 43 | $77 \%$ |  |
| Univ of Wisconsin, Madison | 65 | 77\% |  |
| Northeastern Univ | 36 | 77\% |  |
| Putgers Univ, Newark | 13 | 82\% |  |

Filename: Phd-granting summary
Appendix V

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## Appendix V

January 1999
AMS Study of Mathematics Community and Membership

## SURVEY INSTRUCTIONS

Enclosed you will find a blank form, to be completed and returned, and a list of faculty in your department. The list is taken from your department's web page as of January 1999. AMS staff have annotated the list to indicate the society memberships of each faculty members, A for AMS, M for MAA, and S for SIAM. (Any other marks by a name should be ignored; they denote only that the name was checked in the CML.) This information about membership should be transcribed to the survey form. We leave this step for you to do so that when the form is returned, only you will know which row on the completed form corresponds to which faculty member.

## Step 1

Please check the faculty list for accuracy and completeness.
Our goal is to include all members of your faculty on OCTOBER 15, 1998. Please include all members of the department who are FULL-TIME employees in the institution and at least half-time in the department. Include all members of the faculty who are temporarily on leave. Omit visitors on leave from other institutions, teaching assistants and adjunct appointment who hold professional employment elsewhere. It may be that there are some faculty whose title includes the word "visitor" who should be included; such individuals should be included if their primary professional position is in your department and not at another institution.

If any names on the enclosed list should be deleted, simply strike them from the list and do not include any information about them on the response form.

ADDITIONS TO THE LIST: If any members of your department should be added to the list, please add their names. The AMS staff will happily help you determine membership information for any names added (send email to Diane Mack, dmm@ams.org), or such membership information can be found on the Combined Membership List at www.ams.org/cml/. Please try to assure that the list is complete.

## Step 2

Assign a sequence number to each name on the faculty list. Do this in any order you wish. Simply enumerate the list $1,2,3, \ldots$ with number corresponding to the row number on the form that contains their information. (Keep this information to yourself in case any information on the response form needs to be checked later. It will permit you but not us - to know which individual corresponds to each row.)

## Step 3

Transcribe the membership information from the faculty list to the corresponding row/column on the response form. For each individual, simply check the columns for the societies of which he/she is a member.

## Step 4

Please complete the other information requested on the response form according to the coding given in the following instructions.

## Appendix V

January 1999

## Response Coding

## Column B, Faculty Rank

1 Professor
2 Associate Professor
3 Assistant Professor
4 Instructor or Lecturer
5 Other
Column C, Tenure Status
1 Tenured
2 Untenured, but "Tenure Track" or eligible to be considered for tenure
3 Not tenure-eligible
Column D, Years in Department
Round to the nearest full year (as of October 15, 1998)
Column F, Year of Doctoral Degree

Please report "NA" (=not applicable) for faculty who do not hold a doctoral degree in the mathematical sciences.
Column G, Active in Research?
Yes At least one paper in 1997; or at least 3 papers in 1993-1997; or active participation in the form of Invited Lectures at national or international meetings in 1996 or 1997.

No If none of the three criteria above are met.
Column H, Sex
F Female
M Male

Column I, Ethnic Group
(Definitions use are the ones adopted for Federal reporting.)
1 American Indian or Alaska Native: A person having origins in any of the original peoples of North and South American (including Central America), and who maintains tribal affiliation or community attachment.
2 Asian: A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.
3 Black or African American: A person having origins in any of the black racial groups of Africa.
4 Hispanic or Latino: A person of Mexican, Puerto Rican, Cuban, South or Central American, or other Spanish culture or origin, regardless of race.
5 Native Hawaiian or Other Pacific Islander: A person having origins in any of the original peoples of Hawaii, Guam, Somoa, or other Pacific Islands.
6 White: A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

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\text { Page } 41
$$



## A Counterproposal for Revising the Notices

| To: | daverman @ novell.math.utk.edu |
| :--- | :--- |
| Copies to: | amagid @ ou.edu, bruskai@cs.uml.edu |
| From: | susan.landau @ east.sun.com |
| Date sent: | Fri, 10 Dec 1999 15:10:40-0500 |
| Subject: | amendment to Ewing's proposal on restructuring the Notices |

Friday 10 December 1999 at 15h06
Bob,
Andy Magid, Beth Ruskai, and I have a amendment to John Ewing's proposal regarding restructuring the Notices. We would like it to go to Council next month, at the same time that John's proposal is looked at. The amendment is below. There is also a brief note suggesting how adding the amendment should be handled.

Much thanks.
Best,
Susan
We support the general idea of finding a way to clearly distinguish, within the Notices, AMS material from "magazine" material. The main thrust of the proposal to restructure the Notices is sound; however, unless some minor modifications are made, it may aggravate one of the problems it is intended to resolve --- namely, the tendency of readers to falsely attribute "the editorial decisions, if not the opinion itself, to the Society."

One example may suffice to illustrate to potential difficulties. It is proposed to include prize announcements within the distinctive "newsletter" portion. Most such articles are based on news releases from private foundations and commercial enterprises and consist of two parts --a citation and/or description of the mathematical work and P.R. information (often extensive) about the organization making the award. Minor editing of the former is often needed to ensure mathematical accuracy; extensive cutting of the latter is usually necessary, taking into account several concerns. Organizations that support mathematics expect and deserve some publication recognition, and readers of the Notices are interested in knowing who supports mathematics and what types of things (prizes, fellowships, education, etc.) they support. But the Notices should neither appear to endorse nor give free advertising to commercial enterprises. Editing material to balance these concerns requires judgments about which there will be disagreement, if not occasional errors. It is far healthier for the Society if these appear as editorial mistakes rather than as part of the official business of the AMS.

Because of the proposal to make the "newsletter" portion of the Notices "visually distinguished," it is particularly important that this segment contain only material which is properly regarded as Society business. Therefore, the proposal should be modified so that this section include only the following:

* Official materials from the Secretary
* Meeting announcements
* Reciprocity agreements
* New publications from the AMS
* Other reports and information that the Council may specify
* Announcements of prizes and awards of the AMS

Because most of this material is already the responsibility the Secretary, it seems appropriate to have the Secretary, who is already an ex officio member of the editorial board, to take charge of this section, working through the Notices editor.

The following items should remain part of the magazine portion under the direct control of the editorial board. This does not preclude preparation of this material (as is done now) by AMS staff in Providence:

* Announcements of major prizes and awards from \{\em other\} organizations.
* News Sections (Math people, Math Opp, FYI)
* Annual survey reports
* Backlog of research journals (which includes many non-AMS journals). The annual survey, although a (joint) committee report is rarely edited, but it is also not usually formally approved by Council before publication. It is a major (and widely read) item which usually appears as a feature article. It might also make sense to include the AMS prizes with other awards in the magazine section, even though the information is transmitted via the secretary.

The following items are routinely prepared by staff, but are not AMS business. It might make sense to put them at the end, (on plain white pages) after the visually distinctive AMS portion.

* Mathematics Calendar
* Classified Ads

The most problematic items are what might be termed "quasi-official business", e.g., presidential speeches, Washington News, etc. This raises questions that go beyond the editorial structure of the Notices and need to be dealt with by Council. The membership needs to be informed about presidential activities and statements, AMS Washington activities, etc. However, this information needs to be distinguished from official policy statements made by the Council "In the Name of the Society". Placing such material in the visually distinctive AMS section would add to the confusion.

It may be worth mentioning (and considering) a vehicle that was adopted by the first editorial board in 1995, but never (effectively) implemented. The Notices could publish short announcements about the "availability" of such things as committee reports (even before consideration by Council), other proposals to Council, Presidential speeches, etc. The announcements would include a web site URL where the reader could obtain the full report and be worded in a way that would make
clear that these things were not "official" or endorsed by the AMS Council.
It would keep the readers informed and increase the opportunity for input from the membership to the leadership without publishing material that could be misconstrued as a Society position.

There is also a need for more and better coverage of Washington
News. Once again, placing coverage of potentially sensitive political issues in the distinctive AMS section seems problematic.
[Some comments about parliamentary procedures have been deleted.]

# Proposal for Ky and Yu-fen Fan Endowment 

## Supporting Chinese mathematics, connections with American mathematics, and young scholars

## Overview

Funds contributed to the American Mathematical Society by Professor Ky Fan and Yufen Fan will be used for two purposes. Seventy-five percent of the funds will be devoted to establishing an endowment for the purpose of supporting Chinese mathematics and encouraging cooperation between mathematicians in China and in North America. Income from this endowment will be restricted to this purpose. The program of support will be overseen by an advisory committee, and specific proposals are described below.

The remaining twenty-five percent of the contribution will be used as a major contribution to the Epsilon Fund, aimed at supporting summer programs for mathematically talented high school students. A description of the program is included below. Income from this fund is again restricted to its intended use.

In general, the Endowments of the American Mathematical Society are treated uniformly. Endowment funds are pooled, and grow annually at the same rate-the combined AMS return on investment less the spendable income (currently $4.5 \%$ of market value). In the three years prior to 1999 , the total AMS returns have been $20.6 \%, 18.7 \%$, and $13.5 \%$ respectively. Although recent years have produced higher than average returns, the Society plans for individual endowment funds to grow over time in order to increase the spendable income in future years.

While it is the intention of the Society to use restricted endowments for the purposes their donors intended, circumstances may change in unforeseen ways in the distant future. The American Mathematical Society therefore makes a commitment to use the income from restricted funds for the intended purpose, unless circumstances have so changed since the execution of the gift instrument as to render unnecessary, undesirable, impractical, or impossible a literal compliance with the terms of the instrument. Decisions of this nature are made by the Board of Trustees of the Society.

As with all scientific programs of the Society, the details of the following program will be reviewed by the Council.

## Ky and Yu-fen Fan Endowment Fund

The purpose of this endowment is to support Chinese mathematics, and additionally to promote cooperation between mathematicians in China and North America. A key resource for every mathematician is communication, which means having the ability to travel as well as having access to current publications. The aim of the endowment is to provide a flexible environment to provide funds for each, but concentrating in the beginning on travel. As the fund grows over time, more of the income may be directed to improving access to publications.

## Oversight

The Ky Fan program will be overseen by a committee of three mathematicians familiar with the needs of young mathematicians in China and appointed for staggered six-year terms. Appointments are made as usual by the President of the AMS after recommendation by the Committee on Committees and consultation with the present committee. The Chair of the oversight committee will be the most senior member of the committee.

The oversight committee will conduct most business by mail, phone, and email, although it may find a face-to-face meeting useful in its first year of existence. This first meeting will be hosted and paid for by the American Mathematical Society from its own funds.

The oversight committee may also find it necessary to create review panels for evaluating proposals. The committee will work directly with AMS staff to establish and to conduct such review panels.

Members of the oversight committee should be research mathematicians of high-standing with interest in and some knowledge of the mathematical community in China.

## A Variety of Programs

The key in creating a long-range program is to make the possible projects flexible. This allows the oversight committee to react to changing circumstances in the future, and additionally allows them to refocus funds into the programs that appear to be most effective. It is entirely possible, of course, that different committees will have different views about effectiveness-that seems to be a healthy way to conduct a program that has a long-term benefit for everyone.

The four programs listed below are designed to divide the awards between travel (most of the emphasis) and publication, as well as between travel abroad for Chinese mathematicians and travel of visitors from abroad.

## 1. Small Grants to Chinese Departments

These grants will be awarded on a competitive basis annually. Funds will be largely used to pay for travel, in order to bring eminent mathematicians from abroad, with preference for mathematicians based in North America, for visits of at least several days or longer. The visits are aimed at bringing to the department the most recent work in the field, as well as fostering collaboration in the future.

Proposals that involve multi-departmental visits or that provide matching funds from host institutions for local accommodations will be encouraged.

Associated to each such grant, the department should make one award to an outstanding undergraduate student in the department, including a monetary award of appropriate size. In addition to travel and this award, up to $25 \%$ of the grant may be used for the purchase of publications, especially for books and back issues of journals. Such use should be indicated in the proposal.

## 2. Small grants to North American Departments.

These grants will be awarded to North American mathematics departments on a competitive basis. The funds will be used primarily to support travel for one or several Chinese mathematicians based in China to visit a North American department or possibly several departments. While invitees can be eminent senior mathematicians, mid-career mathematicians, or young mathematicians at the beginning of their careers, the emphasis of this program is on young mathematicians. The essential criterion for successful proposals is the scientific benefit of such a visit to all parties from the collaborative work.

Proposals that involve multi-departmental visits or that provide matching funds from host institutions for local accommodations will be encouraged.

In addition to travel, an award of $\$ 1000$ will be made to the home institution of the visiting mathematician, in lieu of an honorarium. These funds can be used by the home department entirely at its discretion. In case of multiple visitors from different institutions, this award will be divided accordingly.

## 3. Grants for major conferences.

From time to time, the oversight committee may choose to fund a major conference at a Chinese institution. A travel grant for overseas visitors will be awarded on a competitive basis. These funds will be used to pay for travel and possibly for local accommodations for mathematicians from abroad. The conference may have a theme or be general, but part of the goal should be to foster collaboration between the Chinese mathematicians and those from abroad. This conference will be preferably sponsored jointly with the Chinese Mathematical Society to further the collaboration between Chinese and American mathematics.

These conferences may be especially appropriate when spendable income from the endowment increases to a suitable level.

Awards will be made to the host institution for the conference and administered by them.

## 4. Library enhancement awards.

In the future, the committee may decide to award small competitive grants for the enhancement of library materials in mathematics. Proposals for these awards should be specific about the intended materials, and they should generally concentrate on books and back issues of journals (rather than on current subscriptions).

Favorable discounts on AMS materials will be offered for grant recipients, and an effort will be made to negotiate favorable discounts with other publishers.

## Proposal process and reporting

In each of these programs, proposals will be necessary in order to award the grants. Calls for proposals and specific instructions will be made well in advance of the actual awards, and information about the program circulated widely. It will be especially important to publicize the opportunity for a host institution to sponsor the visit of a particular mathematician through these awards.

In all publicity about the programs, and in each distribution of funds to recipients, and acknowledgement shall be made that funds have been made possible by a grant from the Ky Fan Fund.

While every effort will be made to minimize bureaucracy in making these awards, it is essential to require a brief report at the end of the funded activities. Reports should come from the host institution and the visitors in the case of (1) and (2), and from the recipient institutions in the case of (3) and (4).

Epsild $\ddagger$ Find Program has been established to help support summer mathematics programs for mathematically talented high school students. The goal of the program is to aid and promote programs that support and nurture mathematically talented youth in North America, and to make these opportunities available to the broad pool of all mathematically talented high school students. Although the Society hopes that this will motivate students to pursue a career in mathematics, the real purpose is to help create a body of individuals who have struggled with challenging mathematics and developed an appreciation for and confidence in their ability to take on rigorous intellectual pursuits.

The Epsilon Program seeks to fund programs that follow the basic model that has proved so successful in the past: the programs should run over a period of multiple weeks during the summer, bring in at least twenty high school students with mathematical talent, and generally be directed by mathematicians. Funding is not given to individual students; rather grants are given to the program, with a substantial portion of the grant earmarked directly for tuition scholarships for students. In its first two years (2000-2001) the fund will award a maximum grant amount of $\$ 15,000$ per program for up to 5 programs. Even though this may fall far short of actually meeting the costs of these programs, the Society hopes it can provide the critical marginal funds that make it possible for these programs to survive.

In order to make this effort most effective, however, summer programs must know that the possibility of grants will continue in the future. The Society must make a commitment towards long-term funding, and the only way to accomplish that is through an
endowment.
The Society is therefore planning a major capital campaign to raise a substantial endowment for the Epsilon Program. Income from the Epsilon Fund will be restricted for use in supporting programs for talented high school students. In order to conduct a capital campaign, however, it is essential to begin with one or several large donations to attract further investment.

As recognition of the substantial gift from Professor Ky Fan used to establish this fund, one of the scholarships awarded by each program receiving a grant will be designated the Ky Fan Tuition Scholarship.

Almost everyone comments about the lack of interest in mathematics among young people these days. Not only are we failing to entice talented young students into the subject, but we are leaving many others with an impression of mathematics as a stagnant and dull area of study. Almost every student who participates in one of these summer programs comes away with a sense of the vitality and intrigue of mathematical research. Whether or not they actually become mathematicians, these participants will spend the rest of their lives promoting mathematics.

Investing in these programs is investing in the future of mathematics.

# Reciprocity with European Mathematical Society 

## Background and History

_The European Mathematical Society (EMS) was founded in 1990 in Madralin near Warsaw (Poland). Discussions to constitute such a society started in Helsinki in 1978 on the occasion of the International Mathematical Congress. The discussions were conducted within the European Mathematical Council, an initiative of Sir Michael Atiyah. Today, its membership consists of all mathematical societies in Europe and about 2000 individual members who joined through their national societies.
The purpose of the Society is to further the development of all aspects of mathematics in the countries of Europe.
_The Society aims to promote research in mathematics and its applications. It will assist and advise on problems of mathematical education. It concerns itself with the broader relation of mathematics to society. In short, it seeks to establish a sense of identity amongst European mathematicians.
_Created by and for the European mathematical community, the EMS is a privileged go-between mathematicians and those in charge with politics and economics in Brussels. The governing body of the Society is its Council which meet once every two years. Delegates to the Council represent their mathematical society and the individual members. The work of the Society is mainly done through committees set up by the Executive Committee to cover all the areas in mathematics._

## Information about membership in EMS

_Usually membership in the EMS is organized by the 46 European mathematical societies, who are members of EMS . Normally joining EMS as an individual member through an EMS member society is simple: one just pays the extra amount ( 15 euro ${ }^{4}$ ) for EMS membership when paying the regular membership fee. This is the easiest way and in most cases the most economical one, too. Please address an informal application to your national society. ... It is also possible to join EMS as an individual member directly, applying through the Secretariat of EMS. In this case the membership fee is higher ( 60 euro) due to the additional costs to EMS.
_Special regulation for reviewers of Zentralblatt für Mathematik: In the case of countries where the national mathematical society is not a member of the EMS or where there are economical reasons which make the payment of the membership fee through the national society difficult, Zentralblatt may care about this payment from the reviewer's account as far as money is available there. The rates for the fee under these special conditions for reviewers of Zentralblatt are 15 euro for persons belonging to an EMS member society; 30 euro for reviewers living in a country with no member society (reduced from 60 euro), except for persons living in Eastern Europe in an area with no member society. Their fees are reduced to 15 euro, by a temporary rule of EMS. Please address an informal application to the Editor of Zentralblatt._

## Proposed reciprocity agreement

The EMS is proposing a reciprocity agreement that for their members provides typical benefits. Here is the typical agreement for members of other societies with which we have a reciprocity agreement.

PROPOSED RECIPROCITY MEMBERSHIP AGREEMENT WITH THE $\qquad$ SOCIETY Individuals who are a member of the __ Society and who reside outside the US at the time their dues are paid are eligible for reciprocity membership in the AMS.

## RECIPROCITY MEMBERSHIP DUES

The annual dues fee for reciprocity members of the AMS who are residing outside the US at the time their dues are paid is $1 / 2$ of the higher ordinary dues amount. (Note: High dues are $\$ 132$ for 2000.)

If the reciprocity member is residing in the US at the time his/her dues are paid and, the privilege journals are going to be shipped to their US address, then that member would have to pay the appropriate ordinary dues rate for membership.

[^0]If the reciprocity member is residing in the US at the time his/her dues are paid and, the privilege journals are going to be shipped to an address outside the US (and the member plans to be residing outside the US in a short period of time) then that member would be allowed to pay the rate of $1 / 2$ of the higher ordinary dues amount (the usual rate for the reciprocity member).

## RECIPROCITY MEMBERSHIP PRIVILEGES

AMS reciprocity members

* receive at no cost the Notices and Bulletin of the American Mathematical Society,
* receive at no cost (in even-numbered years and upon request), the Combined Membership List,
* are eligible for email forwarding service for members,
* are eligible for substantial discounts off the regular list price of books and journals published by the AMS (and are also entitled to discounted prices on selected publications from some other publishers such as AK Peters, Johns Hopkins University Press, Kluwer, Oxford University Press, etc.),
* are eligible for the normal member registration fees at all AMS meetings,
* have the right to present papers at AMS meetings.


## PROPOSED RECIPROCITY AGREEMENT

An individual who is a member of the AMS and who is residing outside Europe at the time annual dues are paid, is eligible for reciprocity membership in the EMS. The annual dues fee for reciprocity members of the EMS who are residing outside Europe at the time their dues are paid is $1 / 2$ the higher ordinary dues amount. (Note: High dues are 60 euro for 2000.) EMS reciprocity members are eligible for all privileges of a normal, individual EMS member.

## Overlap with the AMS membership and reciprocity societies

The European Mathematical Society presently has 45 member societies throughout Europe. The AMS has 72 reciprocating societies, and 31 of these currently belong to the EMS. Of the remaining reciprocating societies, 8 are located in Europe (and hence might be eligible for membership in EMS at some future date.)

As of August 1999, the AMS had 2,329 reciprocity members and 616 ordinary members with European addresses. (We also had 1,876 Category-S members in Europe, but these seem to play no role in the present considerations.)

The Society presently collects a total of $\$ 47,750$ from those ordinary members. If all ordinary members were members of the EMS and reduced their dues to one-half ordinary-high dues, the Society would collect $\$ 34,748$--- a loss of approximately $\$ 13,000$. The loss of revenue (but not net income) would be offset by an additional 200 reciprocity members.

[^1]
## Some issues to consider

Because the EMS is an _overlay_ society (that is, it draws most of its members from other societies as an add-on to their membership) there are special concerns in creating a reciprocity agreement. The normal additional fee to join the EMS for members of other organizations is 15 euro. The suggested reciprocity dues of half of the _normal_ fee (equal to 30 euro) is therefore higher than the dues for most EMS members. This means that reciprocity members pay more than most ordinary members of the EMS. Second, there may be some political problems for the AMS with its current reciprocating societies. It is possible (although perhaps not likely) that members of some European societies view the reciprocal arrangements with the AMS as a member benefit. By allowing them reciprocal privileges by joining the EMS, we may irritate those reciprocating societies.

## MEMBER SOCIETIES OF THE EMS

Austrian Mathematical Society
Belarussian Mathematical Society
Belgian Mathematical Society
Bosnian Mathematical Society
Bulgarian Mathematical Society
Catlan Mathematical Society
Croatian Mathematical Society
Czech Union of Mathematics
Danish Mathematical Society
Dutch Mathematical Society
ECMI
Edinburgh Mathematical Society
Estonian Mathematical Society
European Mathematical Trust
Finnish Mathematical Society
French Mathematical Society
GAMM
Georgian Mathematical Union
German Mathematical Society
Gessellschaft fur Math. Forschung
Greek Mathematical Society
Hungarian Mathematical Society
Icelandic Mathematical Society
Inst. Non. Lon. de Nice
Institute of Mathematics \& its
Applications
Irish Mathematical Society
Israel Mathematical Union
Italian Mathematical Union

Kharkov Mathematical Society
Latvian Mathematical Society
Lithunian Mathematical Society
London Mathematical Society
Luxembourg Mathematical Society
Macedonian Society Assoc.Math./Comp. Science
Moldovian Academy of Sciences
Moscow Mathematical Society
Norwegian Mathematical Society
Polish Mathematical Society
Portuguese Mathematical Society
Romanian Mathematical Society
Serbian Academy of Science and Arts
Slovak Union of Mathematicians and Physicists
Slovenian Society of Math., Phys., Astron.
Société de Mathématiques Appliq. \& Industr.
Spanish Society for Applied Mathematics
Spanish Mathematical Society
St. Petersburg Mathematical Society
Swedish Mathematical Society
Swiss Mathematical Society
Ukrainian Mathematical Association
Ural Mathematical Society
Voronezh Mathematical Society
Reciprocity with European Math Society

# Epsilon Program (Interim Young Scholars Program) 

This is a continuation of item 7.2 from the January 1999 Council agenda. That item read:

### 7.2 Young Scholars Program.

At the recent meetings of the Committee on Education and the ECBT there was lengthy discussion about the programs for talented mathematics students at the high school level. Support for those programs has diminished in the past few years. Plans will be formulated in the coming months for the AMS to provide some (small) support from existing funds, as well as to promote longer-term support from other sources.

Those discussions led to a proposal that from an ad hoc committee (Joel Spencer, Lenore Cowen, and David Bressoud) for an interim program that would be funded by the Program Development Fund, which is intended to provide temporary support from new programs. Their proposal was brought to the May 1999 ECBT meeting and approved. The proposal is included with this attachment.

The president then appointed a committee (Joel Spencer, Lenore Cowen, Michael Sipser, and Karen Vogtmann) to oversee the program, and application materials were created during the summer. At this time, more than 14 applications for grants have been received from summer programs around the country. Awards will be made in February for the summer of 2000. A portion of the application form is included with this attachment.

The interim program was created as an experiment, but an experiment that many hope will become a permanent program of the Society. The Council is asked for its endorsement of the concept and its consent to establish a more permanent structure to accomplish the purposes of the Epsilon Program. Of course, carrying out the program requires a source of permanent funding, which in turn requires approval of the Board of Trustees. And we expect to learn a great deal about the details of running such a program during the next two years. The final form of the Epsilon Program is therefore not precisely known. Nonetheless, it seems important to make a commitment to carry out activities that are aimed at future generations of mathematicians. The Epsilon Program seems to be such a commitment.

John Ewing

# Proposal for establishment of the AMS Epsilon ${ }^{1}$ Fund ( from 5/99 ECBT) 

The March 1998 issue of the Notices contained an article entitled "The Demise of the Young Scholars Program" by Allyn Jackson, referring to the NSF program that funded 114 summer programs in science and math, roughly $15 \%$ of which were mathematics programs. Hyman Bass, chair of the AMS Committee on Education, also sounds the alarm; he writes, "Programs that nurture and support mathematically talented and motivated youth are in a state of crisis due to the collapse of supporting federal programs." He goes on to say, "Discussions of this at recent meetings of the AMS Committee on Education revealed widespread dismay over these events, and unanimous support for the AMS, representing the research community, to do whatever is reasonably within its power and resources to redress the situation. Such programs are felt to be both a vital source of renewal and to contribute to fundamental social needs." The purpose of the proposed AMS Epsilon fund is to do what we can as a society of mathematicians to help support summer mathematics programs for mathematically talented high school students. The goal of the program is to aid and promote programs that support and nurture mathematically talented youth in the United States, and to make these opportunities available to the broad pool of all mathematically talented high school students living in the US. Although we hope that this will motivate students to pursue a career in mathematics, the real purpose is to help create a body of individuals who have struggled with challenging mathematics and developed an appreciation for and confidence in their ability to take on rigorous intellectual pursuits.
THE PROPOSAL. The Epsilon fund seeks to fund programs that follow the basic model that has proved so successful in the past: the programs should run over a period of multiple weeks during the summer, bring in at least twenty high school students with mathematical talent, and generally be directed by mathematicians. The funding will not be given to individual students; rather the grants will be given to the program with a substantial portion of the grant earmarked directly for tuition scholarships for students. It is anticipated that in its first two years, the fund will have a target grant amount of $\$ 15,000$ per program and fund perhaps five programs. Even though this proposal will fall far short of actually meeting the costs of these programs, it can provide the critical marginal funds that can make it possible for these programs to survive. (The NSF scholars grant was typically $\$ 25,000-\$ 50,000$ a program. It was supplemented by tuition and substantial cost matching from the host institution.)
SELECTION CRITERIA. Within these broad guidelines, many different models of programs will be considered eligible. Programs that focus on any area of mathematics, pure or applied, are of narrow or broad focus are welcome. Programs that are specifically targeted to one high school year (i.e. $9^{\text {th }}$ graders), or to mathematically talented women or minorities are welcome to apply. Programs that center around problem solving, or mathematical research, or both are welcome to apply. Even "summer" is not a firm requirement, though it is expected that most if not all programs will take place during the summer. Programs that use undergraduates or graduate students along with mathematicians in their teaching are particularly encouraged.
We recognize that there is not one model or magic formula that makes the best math program ---though we look to some programs like the oldest of the math camps, the Ross program at Ohio State, as a program which has been hugely successful in inspiring and training young mathematicians through the years. In order to determine which programs are

[^2]funded, we propose a committee of five members be set up to supervise the AMS Epsilon Fund. The committee would work with the AMS staff to coordinate publicity, deadlines, application procedures and the like. During the first three startup years the committee would also serve as selection committee for the grants. Following that period, hopefully with the program on firm ground, these functions might be separated. We propose that this committee be administratively separate from the fundraising efforts, though the two groups should coordinate.

The application will require a statement about the structure of the program, curriculum information, example projects or problem sets, a sample student application (including information on how students will be selected for the program), and a list of alumni from the program who have gone on in mathematics, or related fields of science (new or recent programs will be exempt from this last requirement.) During the initial three year phase of the fund, it is anticipated that programs that have run successfully for at least a year will be given preference for funding over new programs.

ELITISM and DIVERSITY. It is widely believed that the demise of Young Scholars at the NSF was largely due to political issues involving elitism and affirmative action. Catering to young students with such talent in mathematics and nurturing their talent can be said to be elitist by definition, and thus subject to the political winds of governmental fashion: "How could we spend money on the students who are going to be fine anyway, when Johnny can't add?" can be a compelling argument to a National Science Foundation strapped for funds and looking to have the broadest possible impact on mathematics education.
It is natural for us at the AMS, however, to appreciate and support those who show signs of early mathematically talent. Again quoting Hyman Bass, "Mathematics shares with some other areas of human performance-such as music, dance, athletics-the fact that the talent and appetite for its practice often manifest themselves very early. And again, in common with such fields, many practicing mathematicians are inclined to recognize and nurture such early manifestations of talent and motivation. This is part of the historical culture of our profession. In countries with strong mathematical traditions, organized programs to encourage and support young mathematical talent are prominent and are publicly supported and appreciated." We do not mind being considered elitist because our programs are directed at the mathematically talented.
Regarding diversity, we will encourage all programs to make an extra effort to attract women and members of underrepresented groups. We note that while the number of women, for example, who have been alumnae of the Hampshire College Summer Studies in Mathematics over the years have been a small percentage of the total, quite a large number of those women have gone on to become mathematicians (or in several cases theoretical computer scientists), and many cite the program as being a critical factor in their becoming mathematicians. Early access for a diverse mathematically talented group could change the face of the profession.
It is our belief that true mathematical talent lives in students in rural areas as well as cities, lives in students of both genders and of all colors. Past programs have drawn primarily from metropolitan areas and science magnet schools. This was the result of the difficulty of getting the word out about the existence of these programs. The Epsilon Fund will not have a large advertising budget, but being part of the AMS will help its visibility. Also, we hope eventually to coordinate the publicizing of these programs with the NCTM. We also intend to use the application process, with the permission of applicant programs, to set up a website with information on all summer math programs, not just the ones we fund. The AMS imprimatur itself might be very helpful for these programs' visibility.
While we anticipate that the majority of the programs we fund will be committed to finding mathematically talented students of both genders and all races, we will also consider funding programs that serve an under-represented population exclusively, provided they identify and nurture mathematically talented students from within their targeted pool. Our goal is to provide opportunities for as many mathematically talented students as possible to explore challenging mathematics.
FINANCIAL PLAN. We propose that the AMS Epsilon Fund begin offering grants for the summer of 2000, using AMS project startup funds to support these grants for the first two years at what we envision to be a level that will be sustainable thereafter from contributions designated for this fund.

We propose a target of five grants per year at $\$ 15,000$ per grant, or $\$ 75,000$ per year. Under exceptional circumstances, grants might be for as little as $\$ 5,000$ or as much as $\$ 25,000$. Part of each grant would be restricted to support scholarships; the remainder would be unrestricted. It is expected that $50 \%$ of each grant would be restricted to scholarships. The percentage of scholarship money in each grant would, however, be determined by individual circumstances.

In addition, there will be costs for the members of the award committee to meet once a year to make its recommendations for the recipients of the awards. There will be the cost of a visit at each site from one member of the award committee for the purposes of oversight. And there will be associated mailing and other office costs. These costs will be born by the AMS.

Joel Spencer, Courant Institute Lenore Cowen, Johns Hopkins University

David Bressoud, Macalester College

# The AMS Epsilon Program 

Program Announcement

September, 1999

# Application Deadline: December 15, 1999 

Award Announcements: February, 2000

## PURPOSE

The AMS Epsilon Program has been established to help support summer mathematics programs for mathematically talented high school students. The goal of the program is to aid and promote programs that support and nurture mathematically talented youth in the United States, and to make these opportunities available to the broad pool of all mathematically talented high school students living in the United States. Although we hope that this will motivate students to pursue a career in mathematics, the real purpose is to help create a body of individuals who have struggled with challenging mathematics and developed an appreciation for and confidence in their ability to take on rigorous intellectual pursuits.

The Epsilon Program seeks to fund programs that follow the basic model that has proved so successful in the past: the programs should run over a period of multiple weeks during the summer, bring in at least twenty high school students with mathematical talent, and generally be directed by mathematicians. Funding will not be given to individual students; rather grants will be given to the program, with a substantial portion of the grant earmarked directly for tuition scholarships for students. In its first two years, the fund will have a maximum grant amount of $\$ 15,000$ per program and fund perhaps five programs. Even though this may fall far short of actually meeting the costs of these programs, we hope it can provide the critical marginal funds that can make it possible for these programs to survive.

Within these broad guidelines, many different models of programs will be considered eligible. Programs that focus on any area of mathematics, pure or applied, of narrow or broad focus, are welcome. Programs that are specifically targeted to one high school year (e.g. 9th graders), or to mathematically talented women or minorities are welcome to apply. Programs that center around problem solving or mathematical research or both are welcome to apply. Even "summer" is not a firm requirement, though it is expected that most if not all will take place during the summer. Programs that use undergraduates or graduate students along with mathematicians in their teaching are particularly encouraged. During this initial phase of the fund, programs that have run successfully for at least a year will be given preference for funding over new programs.
All programs are encouraged to make an extra effort to attract members of under-
represented groups. It is our belief that true mathematical talent lives in students in rural areas as well as cities, lives in students of both genders and of all colors.

## HOW TO APPLY

An application must include the following components. See the detailed instructions in this booklet.

Part 1: Application/program contact information form. Submit one copy of this form.
Part 2: Materials. Submit five sets of these, if possible.
Part 3: Program description questions. Answers to all questions in Part 3 should be on one document. Submit one copy.

Part 4: Budget information. Submit one copy.
Part 5: Letter of recommendation. Have the writer submit one copy directly to the AMS, at the program address below.

Applications must be received at the AMS office by December 15, 1999.
Send the application package to the following address:
mailing address:
Epsilon Program
Professional Services Department
American Mathematical Society
P.O. Box 6248

Providence, RI 02940
Telephone: 401-455-4105

## Epsilon Program

## Long-term support

The Epsilon Program (previously called The Interim Young Scholars Program) is described elsewhere on this agenda. Its goal is to promote summer programs for mathematically talented high school students by giving small grants to those programs for scholarships and for general support. In part, the grant funds help to ensure that a broad spectrum of talented student gain access to the programs; in part, the funds help to attract additional funds from universities and agencies. While the Epsilon Program and the summer programs themselves are modest, they have the potential to affect precisely the group of high school students who likely comprise our future research community. This is an investment by the Society in our future members.

In order to promote such programs, however, one has to assure those who run and fund them that support from the AMS will be forthcoming in the future. Grand gestures, no matter how earnest, will have little lasting effect if the enthusiasm dissipates after a few years when budgets get tight. The commitment made by those who run summer programs needs to be matched by a commitment from the Society to support programs in general, even if it's not a commitment to support theirs in particular.

We are initially paying for the Epsilon Program using donated funds from the Program Development Fund - money donated specifically for the purpose of beginning new programs of the Society. We can use such funds for two or possibly three years, but after that we are obliged to seek other sources of funding. We can use operating income, but this is never an ideal long-term solution to guarantee future support. Grants from outside agencies are even less certain. Indeed, the most effective way to guarantee future support for the program is to create our own endowment - a fund that generates sufficient money to support the program now, and that grows at a reasonable pace in order to increase funding in the future.

Capital campaigns designed to raise such endowments are carefully constructed. They begin with a quiet phase that tests both the concept and its effect on potential donors. During this phase, one hopes to raise approximately half the eventual target amount and to gain confidence the remainder can be raised in a definite period of time. It also allows those conducting the campaign to design materials and to research potential prospects. Finally, it allows the organization to scale back the effort if necessary, without publicly acknowledgment.

The Executive Committee and Board of Trustees have endorsed a quiet phase of a capital campaign to create an endowment for the Epsilon Program. We have sought appropriate opportunities to obtain commitments for the endowment in the past six months totaling between $\$ 200,000$ and $\$ 300,000$. (The difference is the gift annuity from the second Ky and Yu-fen Fan.) We are also seeking appropriate opportunities from foundations and additional donors.

To date, the entire effort is tentative, based on approval of the Council to continue with the quiet phase of the capital campaign. We are now seeking the approval of the Council to carry out a quiet phase of the capital campaign in order to judge its efficacy. That quiet phase will likely continue for some time before proceeding to a more public campaign, but it is essential to make a commitment to raise an endowment of some indeterminate size in order to accept gifts and to deal with major foundations.

The value of an endowment for supporting such a program was outlined above - it is the only secure way to provide long-term support and encouragement. There is also value in the act of raising the endowment, however: It focuses the attention of the Society on its mission and goals as well as the needs of the community. Even if the total contributions from its members is small relative to the total amount raised, the effect can be large on morale and commitment to the Society. This seems to be both a need of the community and an opportunity for the Society.


[^0]:    ${ }^{1}$ Although this is the amount stated in this document of the EMS, a recent dues notice from the London Mathematical Society indicates that the amount is 13 _ or $\$ 26$.

[^1]:    ${ }^{2}$ In this context, Europe comprises the geographical area and countries whose national societies are corporate members of the EMS.

[^2]:    ${ }^{1}$ The term "epsilon" was used by the late Paul Erdös to denote a young adult or child. Erdös's supreme dedication to mathematics made him an inspirational figure to countless young (and old) mathematicians. Erdös was always vitally interested in the development of young talent and, indeed, often visited camps such as the ones we are describing. The term also reflects the role of this fund in providing small but critical amounts of money.

