

## Political and Social Questions

The Society has been involved in political or social issues that, according to some, fall outside the stated business of the Society of “the furtherance of the interests of mathematical scholarship and research.” When these issues arise, there is a recurring difference of opinion whether their pursuit is proper business of the Society.

The situation was poorly defined prior to 1954 in that the matter of non-scientific questions was not considered at all in the bylaws. When Article IV, Section 8 was written the situation improved. The first paragraph of that section is as follows:

The Council shall also have power to speak in the name of the Society with respect to matters affecting the status of mathematics or mathematicians, such as proposed or enacted federal or state legislation; conditions of employment in universities, colleges, or business, research or industrial organizations; regulations, policies, or acts of governmental agencies or instrumentalities; and other items which tend to affect the dignity and effective position of mathematics.

The remainder of the section is devoted to procedures. The section does not resolve the conflict in the minds of some, who continue to think that although the Council is now explicitly permitted to speak in certain situations it should nonetheless refrain.

The division of opinion was pointed up in the case of the loyalty oath at the University of California. It is not intended to rehearse the issues involved in this or other cases considered by the Society. Briefly, the Board of Regents of the University of California, acting under pressure, attempted to require a special oath of all employees. When this was protested, in 1950 an affirmation was added to contracts disclaiming membership in the Communist Party and other organizations as a condition of employment.

The Council of 1 September 1950 passed a resolution deploring this situation and asking the Regents to reconsider. The Council of 28 December 1950

passed a resolution saying that the Society would not meet at the University of California until the conditions previously condemned were alleviated. However, the Business Meeting of 29 December 1950 disapproved the action of the Council and instructed the Secretary not to release it beyond the membership. The disapproval concerned both substantive matters and Council authority. At this point the Council authorized a committee, which turned out to be M. H. Stone, chairman, T. H. Hildebrandt, and D. C. Spencer, to look into both the California situation and its implications with respect to Society policy. It is the latter aspect of the charge that is explored here. Stone and Spencer filed the report of the committee and Hildebrandt wrote a dissenting opinion for the Council of 4 September 1951.

Hildebrandt cited the declared purpose of the Society from its articles of incorporation, noted that the Society did not concern itself with conditions of employment of individual members, and stated that the proposed course of action meant taking over the functions of the American Association of University Professors or of a labor union. He further stated that if the Council wished to include questions about professional environment along with the stated duty to "formulate and administer the scientific policies of the Society" then there should be an amendment of the bylaws. The entire membership has no opportunity to approve or disapprove decisions of the Council. He went on to more substantive matters concerned with the current dispute, stating in particular that to bar meetings on the campuses of the University of California was childish and inquired in what way it furthers research. He recommended no further action.

The majority report examined both the situation in California and the general policy question, beginning with a historical summary of the state of affairs and the policy matters. It stated that the Society had never interpreted the statement in the Articles of Incorporation narrowly and cited education, the operation of selective service, the utilization of mathematicians in national security, and the maintenance of professional standards as examples. The Policy Committee was authorized to speak for the Society "on matters which concern the position of mathematics in such matters as proposed or enacted legislation concerned with science, problems concerning the effective use of mathematicians or potential members of our profession, and other questions which tend to affect the dignity and effective position of mathematics and related sciences, both nationally and internationally." (Similar wording was to be incorporated in Article IV, Section 5 of the bylaws.)

The report called for working to maintain appropriate conditions of professional activity and noted the value of the opportunity for free inquiry. The transfer of the costs of research to the federal budget points up the need for organized professional attention to the conditions of professional activity. The Society is the most natural and effective instrument.

The majority report interprets the bylaw authorizing the Council to "formulate and administer scientific policies of the Society" as lodging in the Council "the authority to decide when and how to act in carrying out the purposes for which the Society was incorporated." The report cited recent actions of the Council including the resolution of support for the National Science Foundation bill, which expressed concern over the loyalty oath in that bill, as examples of the interpretation being advanced.

The report supported the principle of representative government for the Society, spoke to the conditions that insure that the Council be representative, and delineated sound procedures, including recorded mail ballots of the Council on controversial or particularly important issues.

The report then went on to the specifics of the situation at the University of California, ending with a recommendation of a bar to meetings at the University of California for a three year period if conditions were not alleviated in the meantime. The report, with the exception of the section on procedures mentioned in the preceding paragraph, was approved.

This action of the Council did not settle the matter. In particular a committee to study questions of procedure in controversial matters and of Council membership was authorized by the Council of 27 December 1951. The latter issue rose over the fact that a number of Council members held their membership as editors and not as representatives.

The Council of 27 December 1951 passed a resolution directing the Secretary "to obtain, as a condition of holding a meeting, assurances that at any event scheduled in the program there will be no discrimination as to race, color, religion, or nationality, and that when accommodations and other facilities are provided these shall be provided to all attending the meeting." The issue arose concerning a prospective meeting at Auburn, AL, where the president of Alabama Polytechnic Institute had given appropriate assurances to Secretary J. R. Kline.

At about the same time as the loyalty oath was put in place by the Regents of the University of California, there was one ordered for all employees of the state of Oklahoma. On 1 October 1951 a joint committee with the Mathematical Association of America consisting of W. L. Duren, chairman, G. M. Ewing, and J. F. Randolph was authorized "to determine the facts concerning the loyalty oath at the Oklahoma Agricultural and Mechanical College and the University of Oklahoma and their effects on mathematics and mathematicians." In particular, there were dismissals or unplanned departures at Oklahoma A. and M. Again, it is not intended to review the facts and the arguments in the detailed and extensive report of the committee. The Council of 2 September 1952 issued a statement short of censure explaining briefly the unfortunate effects of a loyalty oath.

With this background the amendment now constituting Article IV, Section 8 was approved by the Council in 1953 and was presented in summary form to the Business Meeting in Kingston on 1 September 1953. In response to a motion by T. Radó, the Business Meeting requested that the full text of the amendment be circulated with a request for written comments from the membership. This was done in November, eliciting 32 letters, 18 expressing approval and 13 disapproval. Having viewed these letters the Council again recommended the amendment with the following statement:

In presenting these amendments, The Council is not asking for broader powers, nor that it be made easier for the Council to speak with respect to matters which affect the dignity and effective position of mathematics.

The Council believes, the world around us being what it is, that the Council will most probably have to consider such matters in the future.

The Council therefore wishes an orderly procedure to be established to ensure that action will be taken only after careful study and only with due deliberation.

The Council believes that these amendments guarantee such study and deliberation, and they are presented to you in this spirit.

A second amendment was presented at the same time, limiting the freedom of action of a Business Meeting. The last sentence of Article X, Section 1 had stated that:

No matter of general business shall be considered at any meeting of the Society except the Annual Meeting, without the recommendation of the Council.

This was replaced by the current version, which reads:

There shall be a business meeting of the Society at the Annual Meeting and at the Summer Meeting. A business meeting of the Society shall take final action only on business accepted by unanimous consent, or business notified to the full membership of the Society in the call for the meeting. Such notification shall be made only when so directed by a previous business meeting of the Society or by the Council.

Several issues have arisen subsequently that depended heavily on the use of these two amendments.

The Business Meeting on 25 January 1969 in New Orleans had unusually large attendance, estimated as being nearly one thousand late in the meeting.

Lee Lorch offered a motion requesting the Executive Committee to take steps to remove the meeting of the Western (now called Central) Section scheduled for 18-19 April in Chicago from that city. No reason was presented as part of the motion. However, it was the attribution to Mayor Richard Joseph Daley of repressive management of the Democratic National Convention recently held in Chicago that appeared to be in the minds of some of the supporters of the motion, which was passed.

The Executive Committee, which had earlier declined to move the meeting, did in fact move the meeting to Cincinnati, to the distress of some Society members who complained that politics was intruding into scientific activity. Six of the seven members of the Executive Committee were in attendance, with four votes in favor, one opposed, and one abstaining.

Parenthetically, one notes that there have been subsequent difficulties with Chicago. It may be the most central and readily accessible place in the Central Section for a meeting but in the turmoil over the Equal Rights Amendment the state of Illinois was one that did not ratify the amendment and so was out of favor as a meeting location until the time limit for ratification expired.

The Executive Committee was concerned how many of those in attendance and voting at the New Orleans Business Meeting were in fact members of the Society and considered restricting Business Meetings to members. This issue was resolved by the Council in April 1973, which adopted the following resolution:

Each person who attends a Business Meeting of the Society shall be willing and able to identify himself as a member of the Society.

In explanation it was noted that:

each person who is to vote at a meeting is thereby identifying himself as and claiming to be a member of the American Mathematical Society.

At the same New Orleans Business Meeting, Ed Dubinsky offered five resolutions with the following text:

As a professional organization of academicians the members of the American Mathematical Society have the right and duty to take corporate action expressing their proper concern with conditions which affect the quality of civilized living and the evolving development of higher education. Specifically, the Society should adopt and support the following five resolutions which we respectfully propose for consideration at the next business meeting.

1. Resolved, that since scientific discovery by its nature requires complete open channels of information, it follows that classified

research is a contradiction in terms. Members should consider most seriously participation in any investigation under a contract restricting full exchange of information with learned men everywhere, and as a society we recommend that members seek to disengage themselves from such activity.

2. Resolved, that the American Mathematical Society urges each of its members to use his talents in ways that promote peace and to refrain from activities whose primary purpose is to promote warlike efforts.

3. Resolved, that a committee be appointed to study the causes and course of the current worldwide upheaval in relationships among faculty, students, and administration in higher education, with particular reference to the situation at San Francisco State College. This committee shall report to the members with recommendations for suitable action, in the *Notices* of the Society.

4. Resolved, that the *Notices* shall be open for letters and articles discussing issues which concern the members as scholars and citizens generally as well as mathematicians particularly.

5. Whereas the shortage of mathematicians in North American universities is different and greater among black and brown Americans than among whites, and whereas this situation is not improving, be it resolved that the AMS appoint a committee composed of black and third world mathematicians to study this problem and other problems concerning black and third world mathematicians, and report their conclusions and recommendations to the Society.

The Executive Committee and then the Council considered them in anticipation of their being formally offered to a Business Meeting. In the course of so doing, the Executive Committee formulated an additional resolution:

B. Whereas the American Mathematical Society encourages all persons interested in mathematical research to be members of the Society and whereas these members hold a wide variety of political and social views and have been welcomed to membership without regard to these views, resolved that the Society shall not attempt to speak with one voice for the membership on political and social issues not of direct professional concern and shall adhere closely to the purpose stated in its Articles of Incorporation of "furtherance of the interests of mathematical scholarship and research."

The Council voted to present resolution B to the membership by referendum with a favorable recommendation. The Council voted to present the five resolutions by Dubinsky by referendum with a statement that in view

of its recommendation of resolution B it recommended a vote against each of the five. The referendum was conducted in May 1969. With about 7300 ballots, the votes were more than twelve to one in favor of resolution B and almost three to one opposed to resolutions 1, 2, 4, 5. The vote was more than five to one opposed to resolution 3. The secretary recalls being criticized for juxtaposition of the Council recommendations and the questions on the ballot.

In 1987, two resolutions were advanced by a group consisting of William P. Thurston, Michael Shub, Irwin Kra, Lipman Bers, Lee D. Mosher, Lucy J. Garnett, Linda Keen, and Jean E. Taylor. They were supported later by a petition with about 400 signatures. The text of the resolutions was as follows:

Motion 1. Many scientists consider SDI (commonly referred to as Star Wars) incapable of achieving its stated goals and dangerously destabilizing. Participation by universities and professional organizations lends a spurious scientific legitimacy to it. Therefore the AMS will lend no support to the Star Wars program. In particular, no one acting as a representative of the AMS shall participate in efforts to obtain funding for Star Wars research or to mediate between agencies granting Star Wars research money and those seeking to apply for it.

Motion 2. The AMS is concerned about the increasing militarization of support for mathematics research. There is a tendency to distribute this support through narrowly focussed (mission-oriented) programs which circumvent normal peer review procedures. This tendency, unless checked, may skew and ultimately injure mathematics in the United States. Therefore those representing the AMS are requested to direct their efforts towards increasing the fraction of non-military funding for mathematics research, as well as towards increasing total research support.

The Business Meeting of 22 January 1987 in San Antonio agreed to place these on the agenda of the Salt Lake City Business Meeting on 7 August 1987.

On the recommendation of the Committee on Science Policy (CSP), the Council of 25 April 1987 passed the following recommendations:

1. The Council instructs the Managing Editor of the *Notices* and the chairman of the *Notices* Editorial Committee to open its pages for comment related to two motions considered at the Business Meeting of 22 January, 1987.

2. The Council instructs the officers of the AMS to hold a mail ballot of the membership, after the January 1988 annual meeting

but before February 1988, on the substance of the two motions concerning issues of federal funding of research in mathematics.

In order to formulate the substance of the motions, the CSP offered recommendations that were modified by the Executive Committee and by the Council of 4 August 1987. This procedure resulted in five motions advanced by the Council as the text for the referendum. In setting the text, the Council neither approved nor disapproved any of the substance. This left the Society with two sets of resolutions, one for the Business Meeting of 7 August 1987 and the other for a referendum early in 1988. The Council requested that the motions at the Business Meeting be withdrawn in favor of the referendum and this was done.

The text of the five motions of the referendum was as follows:

Motion I. Many scientists consider SDI (commonly referred to as Star Wars) incapable of achieving its stated goals and dangerously destabilizing. Participation by universities and professional organizations lends a spurious scientific legitimacy to it. Therefore the AMS will lend no support to the Star Wars program. In particular, persons representing the AMS shall make no efforts to obtain funding for Star Wars research or to mediate between agencies granting Star Wars funds and people seeking these funds.

Note: SDI is an abbreviation for Strategic Defense Initiative.

Motion II. The AMS is concerned about the large proportion of military funding of mathematics research. There is a tendency to distribute this support through narrowly focussed (mission-oriented) programs and to circumvent peer review procedures. This situation may skew and ultimately injure mathematics in the United States. Therefore those representing the AMS are requested to direct their efforts towards increasing the fraction of non-military funding for mathematics research, as well as towards increasing total research support.

Motion III. Most seminal research in mathematics comes from individuals and small informal collaborations, not from large teams. The seriously low level of Federal funding for individual investigators documented in the 1984 David Report has recovered only slightly, and many of our best mathematicians are currently unable to find funding for research. Therefore, we urge that the Federal funding agencies not allow the recent trend toward large teams and big projects to compromise the strength through diversity of mathematics. We urge that in their continued attempts to bring mathematics funding into balance with that for related



fields these agencies make every effort to increase the numbers of individual investigators to the levels recommended in the David Report.

Motion IV. Many advances in science and technology come from fundamental mathematics which has been developed without applications in mind. In recognition of the U.S. stake in the general excellence of mathematics, we urge agencies which fund research in mathematics to also fund a balanced proportion of basic research.

Motion V. We urge funding agencies in the mathematical sciences to solicit proposals openly and broadly and to assure that reviews of scientific merit are conducted by a diversified group of expert scientists.

The result at the close of the voting on 18 March 1988 was this:

MOTION	<i>I</i>	<i>II</i>	<i>III</i>	<i>IV</i>	<i>V</i>
Approve	4034	5193	6278	6355	6192
Do not approve	2293	1317	298	304	257
Abstain	719	539	469	385	590

The vote was evaluated on the basis of plurality. All five motions were approved.

With the result in hand, President G. D. Mostow made the following statement:

The first resolution, which was passed by 57% of those members who voted, reflects widespread skepticism in the mathematical community about the ability of the SDI program to achieve its stated objectives. It also reflects concern about SDI's incalculable cost and the waste incurred by premature deployment.

The second resolution, passed by 74% of those who voted, addresses the desirable norms for funding mathematical research. Resolution II also points out that the mission of the National Science Foundation is more closely matched to the aims of basic research than that of other agencies with more narrowly-focussed objectives.

The intent of the Society can best be read from the overwhelming approval of resolutions III, IV, and V which call for the support of diversity in mathematics through individuals and small groups, for the support of basic research by all agencies, and for reviews of scientific merit by competent scientists. It is clear from the last three resolutions that members of the Society seek support from all agencies that use mathematics.