The Mathematical Association of America

(Incorporated)

Henry L. Alder Secretary



University of California Davis, California 95616 (916) 752-1073

October 9, 1973

To Section Officers and Governors of the MAA:

Dear Colleagues:

Enclosed are the minutes of the meeting of Section Officers held on August 20, 1973, at the University of Montana.

Sincerely yours,

HLA: TW

Enc.

Henry L. Alder

Secretary

MATHEMATICAL ASSOCIATION OF AMERICA

MEETING OF SECTION OFFICERS

Monday, August 20, 1973 University of Montana

The annual meeting of officers of the Sections of the Mathematical Association of America was held on Monday, August 20, 1973, at 7:00 p.m. in room 361 of the University Center of the University of Montana, Missoula, Montana. Professor L. E. Mehlenbacher, Chairman of the Committee on Sections, presided. Forty-nine persons were present.

A. <u>List of Official Representatives and Others Present</u>. Twenty-seven of the twenty-eight Sections were officially represented as indicated below:

Allegheny Mountain

Florida

Illinois

Indiana

Iowa

Kansas

Kentucky

Louisiana-Mississippi

Maryland-D.C.-Virginia

Metropolitan New York

Michigan

Missouri

Nebraska

New Jersey

North Central

Northeastern

Northern California

Ohio

Oklahoma-Arkansas

Pacific-Northwest

Philadelphia

Rocky Mountain

Seaway

Southeastern

Southern California

Southwestern

Texas

Wisconsin

Others present included:

Illinois

Kansas

Louisiana-Mississippi

Maryland-D.C.- Virginia

C. A. Cable

Herman Meyer

L. C. Eggan

P. T. Mielke

D. F. Bailey

J. M. Marr

J. E. Mack

Eleanor Walters

Dorothy L. Bernstein

Erwin Just

A. B. Clarke

E. Z. Andalafte

W. N. Gutzman

Eileen L. Poiani

Sister Carol Ann Tauer

D. B. Small

Craig Comstock

J. F. Leetch

R. D. Reynolds

J. R. Reay

J. W. P. Mayer

not represented

E. C. Stopher

H. V. Park

n. v. Park

D. L. Outcalt

E. D. Gaughan

J. D. Bradford

P. R. Bender

Arnold Wendt

G. B. Price

D. P. Roselle

A. B. Willcox

Metropolitan New York

Michigan Missouri Nebraska

North Central

Northern California

Seaway Southern California Texas

Foreign

A. M. Gaglione

P. D. Lax

Niel Shilkret

L. E. Mehlenbacher

T. L. Hicks

H. M. Cox

P. A. Haeder

Alfred Aeppli

W. S. Loud

H. L. Alder

R. E. Gaskell

L. H. Lange

D. W. Lick

John Greever

D. E. Edmondson Leonard Gillman

C. J. Pipes

Harley Flanders

B. Welcome by the First Vice-President

In the absence of President Boas, First Vice-President Bernstein welcomed Section Officers and guests to the meeting. She continued as follows:

"The Sections are the lifeblood of the Association, and we hope that the meeting tonight will provide an interchange of ideas between the national officers and the officers of the Sections. I know that you have been told before that the Sections are the lifeblood of the Association, but I would like to emphasize their particular importance at this time. Many of the problems you are already attacking vigorously, as is reflected in the program tonight: How to make programs of Sections interesting; how can contact with high schools be made more effective, and so on. I should like to suggest other problems Sections might address themselves to: these are the important and related questions of (a) the public image of mathematics and mathematicians, which is not a correct one and by and large, not a good one; and (b) generating support, financial and otherwise, for mathematics. The national officers and several of the committees are working on this, but I suggest that these questions can best be attacked at the <u>local</u> level. You in your Sections know best what is wrong with the image of mathematics in your part of the country, who the people at the radio and television stations are, who in the area might be approached as a source of financial and intellectual support, what precise issues bother persons in your state. When you have made some progress on these problems, as I am sure you will, let the rest of us know, hopefully by the time of the next Section Officers' meeting, which is eighteen months away."

C. Reports and Messages from the National Office, Dr. A. B. Willcox, Executive Director

The Executive Director reported the preliminary results of the membership drive last fall, when each Section was sent application blanks for membership equal to ten per cent of the total membership of the Section. This personalized membership campaign had been somewhat disappointing; however, the national office still feels that a personal invitation from one man or woman to another is the best recruiting device, and hopefully there may be additional results from last fall's drive. He

stated that suggestions for methods of mounting membership campaigns would be most welcome; also any kind of publicity Section Officers could give to the membership drive will be helpful.

The Executive Director also announced that the Committee on Visiting Lecturers and Consultants will make available, beginning this year, anyone on their list to speak at Section meetings at the expense of the Sections. The brochure of the Program on Visiting Lecturers and Consultants will be sent to Section Chairmen in the hope that it might be helpful in planning Section programs.

Professor Irwin Just, New York Metropolitan Section, noted the difficulty of contact with other Sections, since the current COMBINED MEMBERSHIP LIST (CML) does not contain a geographical listing. It was explained that the geographical listing had been deleted for economic reasons; however, such listings will be contained in all future editions of the CML.

D. The Work of the Committee on Corporate Members, and the Problems Its Faces, Professor R. E. Gaskell, Chairman of the Committee on Corporate Members

In reporting on the work of the Committee on Corporate Members, Professor Gaskell requested that serious consideration be given to the comments of Heads of non-academic mathematics groups. This is important in establishing and maintaining communication with non-academic members, and in attracting and meeting the needs of Corporate Members.

E. Appointment of Section Officers and Committees, Professor H. L. Alder, Secretary

The Secretary made some suggestions concerning the appointment of Section Officers and committees, using the following guidelines to assure that those most qualified are appointed to these positions:

- 1. Nomination of Section Officers including Governors should be made by a Nominating Committee consisting of at least three people.
- 2. Such a Nominating Committee should be appointed at least six months prior to the time that it is to make its report.
- 3. The Nominating Committee should be as representative as possible of the constituency of the Section, that is, in particular, it should include representation from both the larger and the smaller schools, the public and private schools, four and two-year colleges, etc.
- 4. In nominating officers, the prime consideration should be to find those most able to give leadership to the Section, that is, to find those most likely to be able and willing to carry out the continuing and new activities of the Section in an effective, efficient and imaginative way.
- 5. The Nominating Committee should be encouraged to consult as widely as possible within its Section to find such qualified nominees. It may well be that the most qualified nominee for a particular position is not known to any member of the Nominating Committee.

- 6. If a potential nominee is not known to any member of the Nominating Committee, recommendations should be obtained from two or more persons who know the nominee well, at least one of whom should be from the institution of the nominee.
- 7. As a secondary consideration, it is desirable that officers and governors over a period of time represent the various types of institutions within a Section, that is, large public universities, private universities, small colleges, two-year colleges, private corporations, other types of institutions, etc.
- 8. In selecting nominees, it should not be assumed that well-known mathematicians from the major universities of the Section are too buy or unwilling to serve as Section Officers, Governors, or on Section committees. The evidence indicates the opposite Indeed, there is some concern in a number of Sections that, at the present time, there is underrepresentation of the large and well-known universities among the officers and governors of the Sections. It is true that the only complaints received by the Secretary concerning nomination of officers and governors are of this nature.

The Secretary felt it is just as bad for a Section to have all of its officers from the small institutions as from the large institutions. What is needed is the proper mix.

F. The American Mathematical Monthly, Professor Harley Flanders, Editor

Professor Flanders recalled that he had been at every one of the meetings of the Sections Officers since August 1968 with the exception of 1970, when he was enroute to Israel. He emphasized how much he had enjoyed these meetings, and even more, his visits to many of the Section meetings over the last five years. He had always considered communication between the Editor of the MONTHLY and the rank and file membership most important, and expressed the hope that the Section Officers would treat the next Editor as well as they had treated him.

He continued as follows: "At past meetings I have asked for suggestions, questions, and critcisms of the MONTHLY. It is a bit late in my career for that now. Anyhow I can assure you that the last four issues of the MONTHLY I and my Associate Editors are responsible for, will appear more or less on time, and more or less up to the standard we have tried to maintain. At your 1968 or 1969 meeting, I said my main principle in editing the MONTHLY was that the MONTHLY serve its readers, not its authors, exactly the opposite of a research journal. In retrospect, I am satisfied with this approach, and I hope you and your constituents are also. This does not mean any of us think the MONTHLY is now perfect. Every single issue we put out could have been better (as I know better than anyone), and room for improvement there always is. I am confident the next staff of Editors will do better than we did, and I hope you will join me in wishing them success."

Professor T. L. Hicks of the University of Missouri, Rolla, stated that he thoroughly enjoyed the expository articles which had been extensively published in the MONTHLY, that he had been using these articles and found them very valuable. He felt that the MONTHLY had improved remarkably during the past several years.

G. The Illinois Section Makes Contact at the State Level With the Two-Year Colleges in Illinois, Professor Arnold Wendt, Governor of the Illinois Section

Professor Wendt reported that, in Illinois, State law restricts the program of courses which a public two-year college may offer, and, if a college wants to participate in the State funding available for offering a course, the course must first have been "approved". The Illinois Junior College Board, through one of its associate secretaries, Dr. G. Robert Darnes, acts as the approving agency.

The Junior College Committee of the Illinois Section, MAA, is pleased to have been designated as the advisory group to Dr. Darnes in the area of mathematics. This committee, enlarged for this project, has just produced at the invitation of Dr. Darnes, the "Curriculum Guide for Baccalaureate Oriented Courses in Mathematics". Copies of this Guide may be obtained free of charge by addressing a request to:

Dr. G. Robert Darnes Illinois Junior College Board 544 Iles Park Place Springfield, Illinois 62718

H. <u>Planning of the Annual Meeting of the Missouri Section</u>, Professor E. Z. Andalafte, Chairman of the Missouri Section

Professor Andalafte reported that, since 1971, the Section has held an annual two-day meeting in the Spring. The 1973 meeting, on March 23-24, consisted of a Friday afternoon session of half-hour expository talks and twenty-minute student papers, a banquet and speaker, and a Saturday morning session consisting of two invited hour addresses and the business meeting. Planning began in late September with selection of date and initial contact with principal speakers. Preliminary announcement was made in late November to Chairmen and MAA Representatives, with a request for abstracts of expository papers and student papers. In late January the final selection of papers was made and the schedule arranged. Costs have been minimized by selecting as principal speakers national officers or mathematicians from Missouri or surrounding states. Local arrangements are facilitated by arranging that some elected officer of the Section be a staff member of the host institution.

In answer to a question whether there had been a great difference in attendance at the Friday afternoon sessions vs. those on Saturday, Professor Andalafte replied there had been no marked difference. In answer to question as to what had been in the program of interest to two-year college mathematicians, Professor Andalafte replied that there had been no talks specifically designed for two-year college mathematicians, but those on topics in mathematical education had been of great interest to them.

In reference to the visits by national officers to the Missouri Section, the Secretary reported that many Sections make use of the "Program of Visits by National Officers to Section Meetings", and urged those Section Officers desiring to avail themselves of this program to make arrangements for such visits as early as possible, so that proper schedules can be worked out for the national officers.

I. A Local Visiting Lecturer Program in Iowa, Professor D. F. Bailey

Professor Bailey reported that at the 1972 Spring Meeting of the Iowa Section, the possibility of having a visiting lecturer program within the Section was proposed, and those members in attendance voted to initiate such a program. It is fair to say that the motive for the proposal was mainly fear that the national visiting lecturer program would vanish in the wake of withdrawn NSF support. Other motives did exist, however. It was felt that perhaps the smaller colleges and the junior colleges in the State would make more use of a local visiting lecturer program than they had made of the national program. Also, it was hoped that a local visiting lecturer program would improve communication between the various Iowa colleges and universities.

In May, Chairman Hoffert sent a questionnaire to all colleges and universities in Iowa, asking for an indication of the number of lecturers available and/or the expected use of lecturers. If a school wished to invite a lecturer, the question of availability of funds for expense money was raised. Twenty-four of the 42 schools responded. Thirty-eight lecturers indicated they would offer lectures on a total of 65 topics. The number of lecturers who might be asked to make visits was determined to be in the range of 21-27, and funds available per lecture averaged \$37. Only two of the schools responding indicated no interest.

The program presupposed that lecturers would receive only expenses (10 cents per mile for travel, food, and in rare cases only, lodging). Still it was felt that funds might be needed to make up the difference, if any, between expenses of a visiting lecturer and the amount the visited college could pay. Consequently a proposal was submitted for a grant of \$100 from the Fund for Aid to Sections for partial support of the local visiting lecturer program. The Committee on Awards for the Fund for Aid to Sections voted to award the \$100 grant.

At the end of the first year of operation of the program it is difficult to determine whether the program has been a success or a failure. On the positive side are the facts that members in attendance at the 1973 Spring Meeting of the Section voted to continue the program, there has been exalted praise for the program from some colleges visited, and all colleges visited were able to cover all expenses incurred by lecturers. On the negative side is the fact that only between 5 and 10 lecturers gave a total of only 7 to 15 lectures. (Written reports by schools visited are hard to come by, and the upper bound in each case is educated guesswork.) Attempts are underway to get the program rolling early in the 1973-74 academic year, and it is hoped the program will enjoy wider usage in the forthcoming year.

J. A Visiting Lecturer Program in Mathematics for Secondary Schools, Professor D. B. Small

Professor Small reported that a visiting lecturer program in mathematics for secondary schools in Maine had been in operation during the spring semester of the last two years. His primary purpose in establishing the program was to develop channels of communication between secondary schools and colleges—communication which would encourage and stimulate students to continue their education while at the same time provide opportunities for college and secondary school teachers to better acquaint themselves with each other's programs.

The development of the program was described in terms of the three major stages that took place. The first was to enlist the aid and advice of Arnold Johnson, a Curriculum Consultant in Mathematics for the Maine State Department of Education. The second was to solicit volunteers from the college and university mathematics departments who were interested in lecturing within a fifty-mile neighborhood of their school and who would also be willing to absorb their own expenses. The third stage was to compile a brochure to be distributed to all the secondary schools in Maine. Arnold Johnson had the brochure printed at the State Printing Office and distributed through his office. The brochure lists the aims of the program, emphasizes the State nature of the program, encourages all schools to participate regardless of the size of potential audience, assures that there is no cost to the school, describes the procedure for obtaining a lecturer, and lists the lecturers and their topics.

To obtain a lecturer, the secondary school teacher sends a request form to Professor Small at Colby College, who calls the requested lecturer and then replies to the teacher by return mail. The ease and quickness of obtaining a lecturer is considered an asset to the program. Both the teacher and the lecturer are asked to submit report forms to Professor Small after the lecture is presented.

During the last two years, 4,230 students and 160 teachers attended lectures under this program. The audience size ranged from 5 to 350. After the program had become established the first year, the Maine State Department of Education provided travel money. The second year the Waterville Savings Bank and the Portland Savings Bank contributed funds for travel.

The success of the program depends on three aspects. The first is the involvement of a liaison person in the State Department of Education. The second is the State nature of the program. The third is, and this is of major importance, the personal involvement on a voluntary basis of college and university teachers in enriching the educational programs within nearby communities as well as within their own discipline.

Two suggestions were presented to the Sections: The first was that they encourage local or State lecture programs rather than Sectional programs. The second was that the Sections could salvage some of the national or regional programs that are having financial difficulties by operating them on a local or State basis.

In answer to a question as to whether there had been any trend in subjects which the teachers chose, Professor Small replied that 118 topics had been listed, but felt that the lecturer was chosen more for personality than for subject. Professor Alder wondered whether there should be some restriction on the size of the audience, suggesting that better results might be achieved with smaller audiences. Professor Small felt that this had been true, but the size of the audience was nevertheless left up to the school.

Professor Arnold Wendt felt that it was much more effective for a lecturer to give several talks in one day to small groups, and felt that it does not do any harm to suggest this to the schools. Professor Alder added that the lecturer could be given some guidance that talks are more effective in groups of limited size. Profess Small noted that this is usually worked out between the lecturer and the high school teacher.

First Vice-President Bernstein asked to what extent the Section had been involved in this program; Professor Small replied that there had been no direct Section involvement. Prior to the development of the program, the Section had looked into the possibility of developing Sectional programs, but had been unsuccessful in raising funds. He suggested that Sections could be helpful by providing \$100 to get the program started. Once it is established and successful, it is relatively easy to find institutions to fund it.

K. A Liaison Committee on Teacher Certification in the Texas Section, Professor J. C. Bradford

Professor Bradford reported that the Texas Section had appointed a Liaison Committee to monitor the activities of the State agencies in Texas dealing with training and certification of teachers. This committee is to keep the Section informed of developments and is empowered to represent the interests of the Section on approval of the Executive Committee of the Section. The speaker asked for information from other Sections having such committees. He expressed the desirability of such committees being in communication.

Professor J. F. Leetch, Chairman of the Ohio Section, reported that his Section had been successful in supporting the establishment of a State Supervisor of Mathematics in the Ohio Department of Education. The newly-designated supervisor was present and introduced at the Spring Meeting of the Section.

He took this opportunity to call attention to other activities of the Ohio Section during 1972-73 and distributed copies of the newly established OHIO SECTION NEWSLETTER, to be issued three times annually.

L. The Annual High School Mathematics Contest, Professor Niel Shilkret, Chairman of the Committee on High School Contests

Professor Shilkret reported that the possibility of using centralized scoring had been considered and found to be too slow and expensive to be feasible at the national level. The Committee will consider giving all questions on future examinations equal weight in order to increase the accuracy of scoring. Plans for sending a U.S. team to the International Olympiad, possibly as early as 1974, are being made. The 1974 Annual High School Mathematics Examination will be held on March 12, 1974.

M. Committee on the Exchange of Information on Mathematics, Professor D. W. Lick,

Professor Lick recalled that in January 1970 the Board of Governors authorized appointment of a standing Committee on Publicity which later became the Committee on the Exchange of Information on Mathematics. The action was taken because members of the Board felt that mathematics was not receiving enough recognition in the news media. The Committee was appointed the following March, with Professor J. W. Brace as Chairman.

The Board of Governors endorsed the following committee recommendation in January 1972:

"We regard the exchange of information on mathematics as a major and continuing task far transcending the interests of the Association and one that is more appropriately undertaken by CBMS. We request CBMS to continue to take the initiative and responsibility for effective communication efforts in behalf of the mathematical profession.

If it is not possible for CBMS to carry out an effective communications program, we recommend the Committee on the Exchange of Information on Mathematics be requested to consider other means of achieving these objectives, including the creation of a Communications Director as part of the staff of the Washington office."

Recently Professor D. W. Lick replaced Professor J. W. Brace as Chairman of the Committee. Since that time the Committee has initiated new contacts with the MAA, CBMS, Science Magazine, the Committee on Applications of Mathematics of the National Academy of Science, and others in an effort to formulate its future commitments. Under tentative consideration are: Plans for some form of a Director of Communications, as discussed earlier; development of a magazine for mathematics, something on the order of Physics Today; and development of other forms of communication such as more expository articles, news coverage and radio or television presentations. Each of these is only under tentative consideration, and no further action will be taken before the January 1974 meetings in San Francisco. Any suggestions or ideas relative to the Committee's activities would be most welcome.

N. Is the MAA Doing Everything It Should be Doing? Professor J. W. P. Mayer

Professor Mayer spoke on this topic as follows:

During the last 15 years important and even revolutionary changes have occured which affect my professional life more than is comfortable. Obviously, I am not the first one to make that observation and not the only one who feels that as a college mathematics teacher (here and below, the term "college" stands for "institution of higher learning" with special emphasis on the first four years of college education) I am foundering under the pressure of these changes. At present there is only the MAA which has the organizational structure to reach most college teachers and the manpower to develop some means to help us to adjust to the new realities of college mathematics education, but little has been done. It is unlikely that there is, at present, a better forum than this meeting to once more attempt to shake the established order into a more responsive attitude towards the college mathematics teacher. Therefore, I am very happy to be a section officer and hence to be able to propound my views.

Among the changes that have occurred during the past 15 years the following seem to me to have had and to still have the greatest impact on the college mathematics teacher:

- 1. The arrival of the computer and its increasing use in all phases of our life;
- The increasing need for mathematical expertise in the behavioral and social sciences;

- 3. The increasing insistence of the employers of our graduates that they have a good, often specific, background in applied and applicable mathematics;
- 4. The arrival and failure of the New Math;
- 5. The arrival of the two-year college and its continued growth;
- 6. The Ph.D. glut.

Whatever the MAA has done in these problem areas remains largely ineffective.

For instance, one of its very few efforts to help the members of the MAA with the problems arising out of the computer has been the publication of RECOMMENDATIONS ON UNDERGRADUATE COURSES INVOLVING COMPUTING. While not quite as unrealistic as many of its predecessors, the report does little to help the teacher who has limited knowledge of computers and who has to make do with one terminal for 100 students. I guess one cannot blame the members of the panel who wrote the report since they are all research mathematicians at big universities. But I do blame the brass of the MAA to have appointed such a panel. Would it not have been reasonable to put a few lightweights on it, who know the problems of the college teacher? As it is, that report is useless for the majority of MAA members.

Or, take the Committee on Two-Year Colleges. It does exist and it "reported on the work of the committee" to the section officers in 1972. That is all that I am told. It reported. What did it report? Only the chosen few know. Those who have to work with or in our two-year colleges read no more than that "the committee reported its work." This is Establishment at its worst.

And then there is a Committee On New Priorities For Undergraduate Education In The Mathematical Sciences. It did not report. I do not know who is on it, who the chairman is, what its mandate is.

These last two examples make me wonder just why some of the committees which abound in the MAA even exist. If they do report, it happens in a closed circle such as this, and the report is never printed for general distribution. Since it is impossible for the section officers to fully report on these closed meetings to their sections and since that is well known, one must get the feeling that these various committees work not so much for the average MAA member as for some small group somewhere at the top of the MAA which will then appoint some blueribbon panel to write another condescending CUPM report.

To be fair, however, I should mention the efforts of the MAA to concern itself with the problem areas 3 and 4. Summer Seminars were held on those fields for the past few years. Unfortunately, the ratio of applicants to participants was greater than 10:1 and the proceedings were apparently not published for general distribution. This could stand improvement.

Also, some of the problems I mentioned get the once-over at the national meetings. But it does not seem to be clear to the leaders of the MAA that the average member of the Association never gets to attend a national meeting, rarely a section meeting. For any information about the activities of the MAA he relies entirely on the MONTHLY. And yet, the proceedings of the whole Summer Meeting 1972 were compressed into ten pages. Report of the meetings of the Board of Governors: I page, report on the meeting of the Section Officers: 3 pages, reports on the various panel discussions: 1/2 page each. Some of the invited lectures never saw print in the MONTHLY. This is deplorable. Therefore, I suggest that:

The MAA make all efforts to provide at minimal cost the proceedings of its national meetings.

To return to the main subject let me make one more commonplace observation. Today's average college teacher was educated in an atmosphere of "pure math above all." He never touched a computer, he never fitted a curve, he never even heard of Operations Research, he was told that at the upper end of the scale of values was research and at the lower end was service to other departments. And yet, if he is honest with himself, his profession and his students he should use the computer in many or most of his courses, he should teach many courses in applied mathematics, and he should help his colleagues in other departments with the newly found aspects of mathematics in their respective fields. The MAA would be the logical, indeed the only national society which should help him. But there are precious few visible efforts by the MAA to look after the interest of him and his fellow members.

I shall now mention some of the things which the MAA could do and perhaps should do. Of course, they need more thought, they need discussion and modification and perhaps some need to be eliminated from this list. But I hope that all of them point in the right direction.

1. Complement the predominantly theoretical SLAUGHT MEMORIAL PAPERS with a series on the new problems we face as teachers. Subjects would include the computer and its mathematical uses, Operations Research (as a course on the undergraduate level), Mathematics for the the Social Sciences, etc.

The issue on computers, for instance, would describe computers in general, micro-, mini, midi- and maxicomputers in some detail, it would compare the various available computer families and services, it would provide guidelines for those who have to make a choice between various computers and computer services. It could also include various, and perhaps contradictory suggestions for computer courses.

In the issue on Mathematics for the Social Sciences one might find a short history of this combination, a detailed description of the present state of the art, some critical and prophetic articles by social scientists, a bibliography with critical evaluations (Possibly copies of reviews) and again a variety of course outlines.

- 2. Establish traveling resource teams in these areas and others. These would consist of persons knowledgeable in the respective fields who would conduct workshops of varying lengths for those sections that request them. Renumeration would come from the participants (or their colleges).
- 3. Establish a clearly visible group which works with all possible employers of our graduates (industry, government, etc.) to determine the expectations of these employers as far as the mathematical background of these graduates is concerned. Also this group could make educated guesses as to the trends.

By "clearly visible" I mean here, and below, that the group periodically and fully reports its findings in the MONTHLY and that it announces its existence to the societies of the professions with whom it cooperates.

- 4. Establish a clearly visible group which continuously monitors the market for mathematics graduates and its regional and national trends.
- 5. Establish a clearly visible group that cooperates with the NCTM to determine remedies to the New Math disaster.
- 6. Establish a clearly visible group to start discussions with the mathematicians in two year colleges to determine necessary common efforts.

I know that there is the Committee ontwo year Colleges but it is anything but clearly visible.

7. Start clearly visible efforts to open the two year college market to Ph.D.'s and to educate new and future Ph.D.'s in the possibilities and responsibilities of the two year college teacher.

It is rather disappointing that the leaders of both the AMS and the MAA have for years described the unemployment situation of our Ph.D.'s and that until now they have not made enough of an effort to open the two year college market and the high school market to even brag about it.

8. Use the space in the MONTHLY devoted to research for articles on the problems mentioned above, for letters, for communications from the sections, etc.

Much has been made of the changes which occured in the MONTHLY under the new editor and these changes are welcome, if long overdue. But the assumption seems to linger on that the average member of the MAA should be fed a modicum of not-too-hard research papers as if he did not know about the Proc.AMS. Whatever the reasons may be, the MONTHLY must be one of the most schizoid journals ever published. It is directed neither at the researcher nor at the teacher and it apologizes to both of them. Why not take the jump and admit that there are enough research journals around and that there is not one journal directed solely at the college teacher of mathematics. Perhaps one should alter the composition of the Editorial Board where the university professors outnumber the college professors 12:4 (3 at St. Olaf).

All that the MAA has done and not done indicates to me that its leaders do not fully understand the problems of the average member of the MAA. Just look at the names in the listings of officers. How can these giants of research understand the problems of those mathematicians who teach only undergraduates, for 12 hours a week at least, with a dedication to teaching that would be suspect in most big, ambitious departments? I know that there are exceptions but in my years as a graduate professor I have seen enough professors dedicated to research (and, mind you, I admire most of them) to know that most serious researchers if given the choice between research and undergraduate teaching will pick research. Therefore I do not think that the majority of the officers of the MAA can give enough energy to the task of providing "assistance in the improvement of education in the mathematical sciences at the collegiate (sic) level."

I strongly suggest that we move immediately to improve matters by establishing the written or unwritten rule that:

9. No major officer in the MAA may at the same time hold a major office in the AMS.

continue this meeting by correspondence. Therefore I suggest:

10. That the national office in Washington immediately start acting as a distribution center for all communications by the sections.

By this I mean that a section may at any time send a communication to the national office for immediate distribution to the chairmen and vice-chairmen of the other sections (I am certain that the sections would gladly reimburse the national office for some of the extra expenses it will incur). There can be no doubt that unless this group here acts, and acts continuously and decisively in the matters described above, very little will happen to improve the situation.

Professor Shilkret felt elimination from the MONTHLY of expository articles on recent research would be a very poor idea. The reason many members join the MAA is the existence of these expository articles in the MONTHLY.

First Vice-President Bernstein suggested that the MAA is not the equivalent of the MONTHLY; membership should mean more than reading the MONTHLY. If a person relies solely on the MONTHLY for all information, he or she is not fulfilling his or her role as a member. The national officers are here to carry out the wishes of the membership. She felt that many of the suggestions made by Professor Mayer were good ones, but many have been covered at panel discussions at national meetings; for example, two-year colleges, how computers are used, the relationship with high schools, etc. She suggested, however, that the fact that reports are published does not mean that they will be read.

Professor Mayer cited his experiences in three different Sections. Comparing the number of members in a Section with the number attending meetings, one finds that something like 20 per cent go to Section meetings. He felt that things do happen at the Annual and Summer Meetings, but most members do not have the funds to attend these meetings. He asked that the proceedings of these meetings be published; if not distributed to every member, then to those who will buy them.

Professor Leonard Gillman, Treasurer, found the remarks of the speaker fascinating and applauded this discussion. If it is true that a large number of members do not attend meetings but get their information from the MONTHLY, then we should adapt the MONTHLY to their needs.

The Secretary also welcomed these criticisms, noting that his office receives many suggestions from individual members and that most are implemented. He promised that he would make a careful study of each of the suggestions made by Professor Mayer to see which ones could be implemented in cases where they have not already. He noted that most of them have already been put into effect, which understandably could not have been known to Professor Mayer because their implementation had occurred so recently, in some cases only the day before at the meeting of the Board of Governors. He cited as examples the following:

- 1. In reference to Professor Mayer's comment that the Committee on New Priorities for Undergraduate Education in the Mathematical Sciences had not reported, the Secretary announced that this Committee had made a very detailed report to the Board at its meeting the previous day and that the Board had endorsed this report with some modifications. It will appear in a slightly condensed version in the MONTHLY.
- 2. In reference to suggestion 3, that the MAA establish a clearly visible group which works with all possible employers of our graduates (industry, government, etc.) to determine the expectations of these employers as far as the mathematical background of these graduates is concerned, the Secretary noted that the MAA has a Committee on Corporate Members, whose Chairman had reported earlier at this meeting. This Committee has made a very thorough survey of Heads of non-academic mathematics groups to learn their views on many aspects of their employment of mathematicians and that a detailed report on this survey will appear in the MONTHLY.

The Secretary added that he did not want to take the time to report on the specific steps already taken by the MAA to implement most of the other suggestions made by Professor Mayer, since this will be apparent from various reports in the MONTHLY.

In reference to the suggestion that "the MAA make all efforts to provide at minimal cost the proceedings of its national meetings", the Secretary noted that reports of national meetings are printed in the MONTHLY, that the proceedings of the business meetings appear in their entirety and that abstracts of all presentations made at these meetings are included. He pointed out the difficulties he has experienced in obtaining abstracts from speakers and that it would be much more difficult—and, in many cases, clearly impossible—to obtain the complete texts of the presentations.

Professor Mayer, in reply, suggested that a specific number of pages in the MONTHLY be allotted to the proceedings of national meetings.

Professor Alfred Aeppli observed that so far the discussion had been devoted to internal questions, but he felt that the important thing at the moment facing the world is the job market. He suggested that the MAA should increase its concern in this area, adding that in this area as well as others, the mathematical community would benefit if forces and energies in the AMS and MAA could be united. He favored a unified mathematics organization and suggested that a serious effort be made to explore this possibility.

Professor D. L. Outcalt observed that some Sections are so large that personal contacts are impossible. He cited as an example Hawaii, which is part of the Northern California Section, and urged that the Committee on Sections look into this matter.

Professor Mehlenbacher replied that a mechanism is available by which a new Section may be formed. A request for the creation of a new Section is initiated by a petition signed by at least 25 members of the Association. He felt that the initiative for formation of a Section should come from the membership in the region desiring a Section, rather than from the national office or from the Committee on Sections.

Professor Small suggested that a section in the MONTHLY be established devoted to curriculum problems of individual colleges. In reply, Professor D. P. Roselle reported that the Editor-Elect of the MONTHLY is instituting a new section which will be entitled "Queries" and designed to include questions on any problems appropriate to the concerns of the Association. The Editor-Elect welcomes material for this new section. The Secretary reported that establishment of the "Queries" department in the MONTHLY had been one of the recommendations of the Committee on New Priorities for Undergraduate Education in the Mathematical Sciences.

Professor Mayer urged that those who make decisions in the Association try to see to it that more members from small colleges are elected to the Executive Committee and the Board of Governors.

O. Pacific Northwest Section Meeting in August 1974

Professor J. R. Reay, Chairman of the Pacific Northwest Section, announced that this Section would hold its annual Section meeting in August 1974 at Vancouver City College, Vancouver, B.C., Canada, during the International Congress of Mathematicians, and would like to invite the MAA membership, particularly through the Section representatives, to attend and/or participate in this meeting. Information for those wishing to attend will be available at the Congress registration. Persons from outside the Pacific Northwest Section who wish to participate should contact an officer of that Section before the end of the year.

P. Remarks by the Chairman of the Committee on Sections, Professor L. E. Mehlenbacher

Professor Mehlenbacher reminded Section Officers in attendance that it was their responsibility to take back to their Sections the discussions at this meeting.

He announced that the next meeting of Section Officers would be held in 18 months at the January 1975 meeting in Washington, D. C. rather than next summer, due to the fact that no MAA summer meeting will be held in 1974 because of the International Congress of Mathematicians in Vancouver, B.C.

The meeting adjourned at 9:37 p.m.