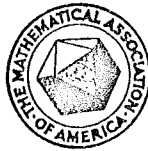


The Mathematical Association of America
(Incorporated)

Henry L. Alder
Secretary



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

February 26, 1975

To Section Officers and Governors of the MAA:

Dear Colleagues:

Enclosed are the minutes of the meeting of Section Officers held on January 25, 1975, in Washington, D. C.

Sincerely yours,

A handwritten signature in cursive script that reads "Henry L. Alder".

Henry L. Alder
Secretary-Emeritus

HLA:TW

Enc.

MATHEMATICAL ASSOCIATION OF AMERICA

MEETING OF SECTION OFFICERS

Saturday, January 25, 1975

Washington, D.C.

A meeting of officers of the Sections was held on Saturday, January 25, 1975, at 7:00 p.m. in the Tudor Room of the Shoreham-Americana Hotel in Washington, D.C. Professor L. E. Mehlenbacher, Chairman of the Committee on Sections, presided for the first part of the meeting. Fifty-seven persons were present.

A. List of Official Representatives and Others Present. Twenty-six of the twenty-eight Sections were officially represented as indicated below:

Allegheny Mountain	C. A. Cable
Florida	R. D. McWilliams
Illinois	N. E. Foland
Indiana	M. D. Thompson
Iowa	D. H. Pilgrim
Kansas	H. L. Thomas
Kentucky	J. E. Mack
Louisiana-Mississippi	R. A. Stokes
Maryland-D.C.-Virginia	Geraldine A. Coon
Metropolitan New York	I. H. Rose
Michigan	Yousef Alavi
Missouri	H. K. Stumpff
Nebraska	G. W. Johnson
New Jersey	not represented
North Central	Sylvan Burgsthaler
Northern California	D. J. Albers
Northeastern	Anne F. O'Neill
Ohio	R. H. Rolwing
Oklahoma-Arkansas	E. K. McLachlan
Pacific Northwest	Theodore White
Philadelphia	J. W. P. Mayer
Rocky Mountain	A. D. Porter
Seaway	P. A. Lindstrom
Southeastern	not represented
Southern California	D. H. Potts
Southwestern	E. L. Walter
Texas	D. E. Edmondson
Wisconsin	C. H. Johnson

Others present included

Florida	R. C. Meacham
Illinois	R. P. Boas
	J. A. Schumaker
	Arnold Wendt
Kansas	G. B. Price
Kentucky	Mrs. Jacqueline C. Moss

Louisiana-Mississippi
Maryland-D.C.-Virginia

S. H. Douglas
R. M. Davis
Hewitt Kenyon
R. H. Owens
D. P. Roselle
J. M. Smith
A. B. Willcox
L. E. Mehlenbacher
E. Z. Andalafte
H. M. Cox
H. O. Pollak
L. A. Guillou
Sister Carol Ann Tauer
H. L. Alder
L. H. Lange
S. W. Hahn
Marta F. Levine
D. W. Bushaw
Alex Rosenberg
E. F. Beckenbach
T. N. Robertson
Betty J. Hinman
C. R. Deeter
Leonard Gillman
June P. Wood

Michigan
Missouri
Nebraska
New Jersey
North Central

Northern California

Ohio

Pacific Northwest
Seaway
Southern California

Texas

B. Welcome by the President

President Boas welcomed the officers and representatives of the Sections, emphasizing that to a large extent the Sections are the Association. He observed that the Section Governors constitute the majority of the Board of Governors and they do what the Sections tell them. They, thereby, are the mechanism through which the wishes of the membership are made known. He urged the Sections to avail themselves of this opportunity. He suggested that if the Sections wish to increase the input into the Association from two-year colleges, applied mathematics, etc., it is pretty much up to them to do so.

C. Welcome by the President-Elect

President-Elect Pollak also welcomed those in attendance and expressed a wish to visit every Section in the next two years, observing that he had already visited several. It was his desire to find out at these Section meetings what the interests and concerns of the Sections are.

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

The Executive Director reported on three developments designed to improve the services the MAA performs for its members and the collegiate mathematics community:

1. Beginning in 1976, each member will be offered the privilege of selecting any combination of the three MAA journals, the AMERICAN MATHEMATICAL MONTHLY, MATHEMATICS MAGAZINE, and the TWO-YEAR COLLEGE MATHEMATICS JOURNAL (TYCMJ), with his dues tailored to his selection of journals. The only restriction on a member's freedom to select journals according to his individual tastes and needs will be that he or she must receive either the MONTHLY or TYCMJ or both. TYCMJ will become a second "official journal" of the MAA, containing essential official news and notices about MAA affairs. It is hoped that this new freedom of choice will, among other things, make membership in the MAA more attractive to TYC faculty and that Section Officers will make use of this information in their efforts to involve TYCM faculty more regularly in Section activities.

2. Beginning in 1976, the tangible benefits of academic membership (institutional membership for departments in the mathematical sciences) will be changed and increased. It is hoped that the officers of the Sections call these improved benefits to the attention of members of the Sections, at meetings and on other occasions, in an effort to attract more academic members to the Association. We are pleased that a special drive to increase academic membership, sponsored by the Committee on the Membership of the Association, has increased the number of academic members by 41 during 1974 to a total of about 375. But we are also aware that there are nearly 2,500 departments in the mathematical sciences in the U.S., so the ground is still fertile.

Beginning in 1976, each academic member will receive the following benefits in return for the annual dues of \$60:

1. One subscription to each MAA journal.
2. One copy of the COMBINED MEMBERSHIP LIST.
3. The privilege of naming one institutional nominee (student or faculty) to free membership in the MAA.
4. The privilege of purchasing MAA books, for student awards only, at members' discount prices.
5. The privilege of naming additional/nominees for a payment of \$10 for each student.

Benefits 1 - 3 above have a dollar value of at least \$73 at regular dues and publication rates effective in 1976.

3. Very shortly the Association will announce that it has become the publisher of the NEW MATHEMATICAL LIBRARY (NML), the series of expository books started by SMSG and most recently published by Random House, Inc. The NML series contains 25 individual books aimed at a broad audience ranging from able high school students to college faculty. The three High School Contests' Problems Books are volumes in the NML series. We are delighted to add the NML series to our publications list, not only because it nearly doubles our list of excellent books, but because this series beautifully compliments and fills out our present publications program. Like the TYCMJ^{and} the new journal options, the NML should make the MAA significantly more attractive to the TYC community.

In answer to a question concerning the prices of volumes in the NML series, the Executive Director replied that they will continue to be paperback books and sell at a list price of \$4.00 and at \$3.00 to MAA members.

E. Some Thoughts of the Retiring Secretary, Professor H. L. Alder, Secretary

The Secretary made the following remarks:

If I were to single out the most important thing I have learned during my fifteen years as Secretary, it is something you have heard many times, namely that the Sections are the lifeblood of the Association, that is, the overall vitality of the Sections determines the effectiveness of the MAA as an organization.

For this reason, I have always attached special importance to these meetings of Section Officers and have found particularly valuable my visits to the various Sections. It is with some regret that I have not been able to carry out my intention to visit all Sections of the MAA, but I have visited (and am scheduled to visit more) enough Sections to realize the great benefit of these contacts to the officers and hopefully vice versa.

Coming back now to the meetings of Section Officers, I recall that my own involvement in the affairs of the Association began after I had attended a particularly fruitful meeting of Section Officers as Chairman of the Northern California Section, where many worthwhile activities were discussed of which I had never heard before. Most of these were adopted in our Section and have been carried on ever since.

After having become a national officer, one of my most valuable sources for ideas for national activities was the set of suggestions made at meetings of Section Officers. For example, I have repeatedly reviewed the minutes of the last meeting of Section Officers held on August 20, 1973, at the University of Montana to make sure that as many of the ideas as possible presented there are implemented. The result is that many--or perhaps most of them--have become concrete actions. Just to cite a few examples: we publicized widely the newly established OHIO SECTION NEWSLETTER as an excellent idea to be followed by other Sections; an excerpt from that NEWSLETTER was reprinted in the newly established MATH CLIPS, the latter being established as a result of the suggestions for more direct communications between the national office and the Sections and among the Sections themselves.

As a consequence of the recommendation for more coverage of the meetings of Sections officers in the MONTHLY, the length of the reports on this meeting in the MONTHLY was doubled (from three to six pages). Also, reports of various committees were published separately in the MONTHLY, for example, the report of the Committee on Corporate Members in the August-September issue of the MONTHLY and the Report of the Committee on New Priorities for Undergraduate Education in the Mathematical Sciences in the November 1974 issue. Also, the list of all Section Officers is now published in each April issue of the MONTHLY, beginning with the one for 1974.

As a result of the desire for the MAA to be of much greater service to its two-year college members, several new projects have been initiated including the publication of the TWO-YEAR COLLEGE MATHEMATICS JOURNAL, which incidentally will become an official journal of the MAA as of January 1 of next year. Arrangements have been made assuring two-year college representation on all national program committees henceforth, so that national programs will contain at least some parts of special interest to two-year college mathematicians.

This is only a small selection from among the many things which have been done by the Association since the last meeting of Section Officers. I hope very much that you, the Section Officers, will continue to let us have the benefit of your advice and, at the same time, that you will implement whatever worthwhile suggestions you hear at these meetings. Only in this way will the Association continue to be able to play so effectively the vital role in American collegiate mathematical education which it does today.

F. Report of the MONTHLY Editor, Professor Alex Rosenberg

Professor Rosenberg reported that the first six issues of 1975 will carry main articles dealing with Computer Image Enhancing, History of Mathematics, Mathematical Physics, Logic, and more standard kind of mathematics. Among articles already accepted or being revised are some dealing with Neurobiology, Control Theory, Mathematical Psychology, Operations Research, and Mathematical Political Science. Thus, Professor Flanders' efforts for broad coverage are being continued.

Some slight cosmetic changes designed to save money will gradually come into effect during 1975. For the same reason, beginning with the 1975 volume, authors are being charged for reprints.

Two changes in the Editorial Board will occur early in 1975: Professor R. A. Brualdi of the University of Wisconsin, Madison, will replace Professor D. P. Roselle as Editor of the Notes Sections and the Maine Problems Group under the direction of Professor Eric Langford, will be replaced by a Problems Group at the University of Waterloo, directed by Professor D. Z. Djokovic of the University of Waterloo.

Professor Rosenberg reported that he rejects about 80% of the material that comes to him for main articles, and the rejection rate for the other Sections is at least this high. Even so, the backlog for all Sections runs from a year and a half to two years.

G. Report from CUPM, Professor D. W. Bushaw, Chiarman

Professor Bushaw briefly discussed present and projected CUPM projects. Among the former are several collections of materials (fresh and realistic applications of precollege mathematics; applications of undergraduate mathematics in the social sciences; and instructional materials in applied mathematics for advanced undergraduates). A CUPM group has just been formed to bring up to date the Basic Library List.

Possible future projects now in various stages of consideration include: activities related to continuing education (especially for elementary teachers and for scientists and engineers in industry); a compilation of applications of undergraduate mathematics in biology; and a curriculum in the mathematics of energy systems.

The forthcoming appearance of a Compendium of earlier CUPM documents was announced.

The Section Officers were reminded that questions, suggestions, and comments about CUPM activities in general or in particular are always welcome.

H. Report on the CUPM Project on Instructional Materials in Applied Mathematics,
Professor M. D. Thompson

Professor Thompson reported that the CUPM project to prepare instructional materials for use in teaching applied mathematics at the undergraduate level is nearing completion. The objectives of the project were to prepare materials which illustrate the entire process of applied mathematics and to test these materials in both the traditional lecture format and in a very open-ended instructional setting. The materials consist of nine modules (a list appears below). Eight of the ten units (all but those by Clark and Tucker and Bodin) were tested during the second half of the 1973-74 academic year by seven instructors.* Most instructors tested two or three units. In June, 1974, a conference was held to review the results of the tests. The materials, together with a commentary on the experiences of the preliminary tests will be published by CUPM in late 1975.

*Thomas S. Angell, University of Delaware
Charles A. Hall, University at Pittsburg
Benjamin Haytock, Allegheny College
Henry E. Heatherly, University of Southwestern Louisiana
Roger H. Pitasky, Marietta College
Kenneth R. Rebman, California State University at Hayward
Kenneth L. Stofflet, University of Evansville

Introduction: The Process of Applied Mathematics, Maynard
Thompson, Indiana University.

A Mathematical Model of Renewable Resource Conservation, Colin
W. Clark, University of British Columbia.

Measuring Power in Weighted Voting Systems, William F. Lucas,
Cornell University.

A Model for Municipal Street Sweeping Operations, Alan Tucker
and L. Bodin, SUNY, Stony Brook.

MacDonald's Work on Helminth Infections, Donald Ludwig and
Benjamin Haytock, University of British Columbia and
Allegheny College.

Population Mathematics, Frank Hoppensteadt, Courant Institute,
New York University.

Dynamics of Several Species Ecosystems, H. R. vander Vaart.
North Carolina State University.

Heat Transfer in Frozen Soil, Gunter H. Meyer, Georgia Institute
of Technology.

Network Analysis in Steam Generator Flow, Thomas A. Porsching,
University of Pittsburgh.

Modeling Linear Systems by Frequency Response Methods, William
F. Powers, University of Michigan.

I. The Annual High School Mathematics Examination, Dr. H.M. Cox, Executive Director

Dr. Cox presented the following report:

I. The 1975 Examination. Date: Tuesday, March 11. The front line work is done by sixty men and women who serve as Contest Chairmen throughout the U.S. and Canada. These Contest Chairmen are selected by you, or they are confirmed by you. Thanks to you and to them for a continuing fine job.

II. The 1974 Examination was edited so as to be somewhat easier than other recent examinations, and the scoring formula was simplified. As a result, there were some 850 contestants listed on the Committee Honor Roll, a larger number than in any previous examination. You received last August a report on the 1974 Examination together with a copy of the test and other material. Additional copies are available upon request.

III. The Annual High School Mathematics Examination represented the cooperation which exists and which is essential between the mathematical and the actuarial societies, namely The Society of Actuaries, Mu Alpha Theta, The National Council of Teachers of Mathematics, and the Casualty Actuarial Society.

IV. It was possible for us to prepare from the 1974 Examination an anecdotal/statistical study on honor roll students. This report will be read at the Denver meeting of the NCTM in April.

Dr. Cox announced that, as of January 24, 1975, 331,000 copies of the 1975 Examination had been shipped.

J. Current Publication Activities of the Association, Professor E. F. Beckenbach, Chairman, Committee on Publications

Professor Beckenbach observed that the Committee on Publications is striving to produce usable materials for all segments of the membership. He reviewed the journals, serial publications and miscellaneous publications now published by the MAA. He sought the cooperation of the Sections in the distribution of these publications and in the formulation of their content. He urged that Section Officers write him if they feel that the publication program should be redirected. He suggested that the entire set of MAA publications be available in each Section and someone be put in charge of displaying this set at each Section meeting.

Professor Mehlenbacher then announced that his term as Chairman of the Committee on Sections expires at the end of this meeting and introduced Dean L. H. Lange, his successor. Dean Lange presided for the remainder of the meeting.

K. An Alternative Program for Undergraduates at Section Meetings, Professor C. A. Cable, Chairman of the Allegheny Mountain Section

An alternative sectional program was designed primarily by and for undergraduates for the May, 1974 Section meetings at Allegheny College. This consisted of two main sessions and a section for fifteen minute student papers for the Friday night part of the program. On Saturday morning the students attended the regular sessions of the program along with the faculty members of the MAA.

Their first session was a panel discussion which was entitled "Job Opportunities for Mathematics and Computer Science Majors". The panel participants were an applied mathematician from Westinghouse Electric Corporation in Pittsburgh, an accountant discussing recent computer uses in bank accounting from the Mellon Bank in Pittsburgh, and a person in charge of research in IBM. The panel participants were most enthusiastic and did an extremely good job. This session was concluded by a very spirited question and answer period. The only cost for these speakers was room and lodging for one night.

The second event of the student schedule was a panel discussion entitled "Graduate School Programs in the Allegheny Mountain Section". Each university having a graduate school program within our Sectional boundaries was invited to send a representative to participate on this panel. Each of these panelists discussed items from a questionnaire which they had received about two weeks earlier. This session also concluded with a stimulating question and answer period.

In addition to planning and organizing the student schedule part of the program, the student committee also accepted the responsibility for arranging for dormitory accommodations for all students who desired them. Students from other institutions desiring accommodations were asked to notify this committee a couple of weeks before the meetings and to bring their own sleeping bags.

All in all, the students have done a very commendable job in organizing and carrying out a very worthwhile alternative program, and they are being encouraged to continue.

L. Special Projects of the Metropolitan New York Section, Professor I. H. Rose, Chairman of the Metropolitan New York Section

Three special projects of the Metropolitan New York Section are:

1. The Speakers' Bureau, in its fifteenth year of supplying speakers (mainly to high school student and teacher groups). For many years successful, the program is now in trouble. Economic and social changes have cut deeply into both the supply of willing lecturers and the demand for their services. Attempts are now being made to revive interest and support by placing greater emphasis on talks having to do with applications and careers.

2. The Math Fair, now in its seventh year. The Fair awards medals for mathematical papers presented by high school students in two all-day sessions. In all its aspects, this project is highly successful.

3. The Math Services Committee, just getting off the group (with the help of a \$300 grant from the MAA). The Committee plans to act as a clearinghouse and information service for the dissemination of information regarding remedial and other types of collegiate mathematics programs. Specific projects will include a periodic newsletter, and a local visiting lecturer program for colleges. Preliminary meetings, attended by representatives of more than twenty junior and senior colleges, have been held.

M. The Missouri Section Program of Visiting Lecturers to Secondary Schools,
Professor H. K. Stumpff, Secretary-Treasurer of the Missouri Section

This program remains in the embryonic stages having just emerged at the beginning of 1974.

One of the purposes of the program is to give high school students and their teachers opportunities to hear and talk with creative and productive mathematicians who demonstrate enthusiasm for mathematics. Hopefully, this encounter will also

- 1) serve to stimulate their interest in subjects which may be new to them,
- 2) assist in increasing dialogue and mutual cooperation between high school and college mathematics teachers, and
- 3) aid in motivating serious and able students to consider a career in mathematics.

The entire activity is coordinated by one person, Professor Charles J. Stuth of Stephens College, Columbia, Missouri. At the beginning of the fall semester each year, he contacts professors in all colleges and universities in Missouri requesting volunteers to serve as possible lecturers. At the time they volunteer, each professor is asked to list the titles of the talks he or she is willing to give. A brochure is then prepared and mailed to all Missouri high schools. The coordinator receives all requests for speakers (by name and title of talk) and subsequently screens these requests according to the distance to be traveled and the frequency with which a lecturer has been requested. (Hopefully, no lecturer will find it necessary to respond more than twice in any one semester.) Schools are asked to submit second choices for lecturers along with several alternate dates to facilitate planning.

Since the lecturer and his institution pay the travel expenses, high schools are asked to request speakers from nearby institutions. The high schools pay no fees of any kind other than providing a meal or other appropriate hospitality. The length of the visit may vary from a short one-hour talk to a full day visit which may include lectures and discussions with various groups in the school system.

The entire program operates on a meager budget provided by the Missouri Section through its accumulated State Contest funds.

A few problems are already known to exist:

1. There is a need for additional funds for preparing and circulating a more extensive and more informative brochure.
2. There is a need for some means by which to evaluate these visits--from several points of view.
3. On occasion schools fail to direct their requests to the coordinator and contact speakers directly.
4. There are other existing regional programs providing speakers which overlap the MAA program. There is a need for coordination in this area.

Although still in its infancy, the program is growing. During the two semesters of operation, a total of 18 lecturers have filled 21 of the 29 requests received. The program seems successful enough to warrant continued support by the Missouri Section.

N. The Ohio Section's Summer 1974 Mathematical Conferences, Professor R. H. Rolwing, Secretary-Treasurer of the Ohio Section

Two one-week conferences for faculty members in the Ohio Section were held last summer at Ohio State University and Kent State University. They were variously referred to as "short courses", "conferences", "workshops", and "seminars". Both were well received and highly successful. A total of some sixty persons attended one or the other of the sessions with the greater number, some 40 participants, at Ohio State. The range of participants was from high school teachers (two) to Ph.D. granting institutions. Most, however, were from 2- and 4-year colleges. One person from the Detroit area which is outside the Section attended both conferences.

The conferences were planned in response to a number of requests from Ohio Section members for the Committee on Cooperation between Colleges and Universities to encourage and/or organize this type of conference. In January of 1974, the OHIO SECTION NEWSLETTER included a questionnaire designed to determine what kinds of conferences or workshops would best meet the needs of the members. There were 36 replies, including suggestions for a seminar on applications of elementary mathematics and a two-week algebra or analysis course, with problem seminars, at the master's degree level.

The first conference on Combinatorics was held June 10-14 at Ohio State University and the second, June 17-26 on Numerical Analysis at Kent State University. The purpose of these seminars was to provide undergraduate teachers with an introduction to the basic ideas of combinatorial theory and numerical analysis. No previous experience was assumed. The only expense to the participants was for room, board, and travel. Dormitory space was made available by the two universities at \$5-6 per day per person, double occupancy.

Professor Norman Levine of Ohio State and Professor Donald Koehler of Miami University were in charge of arrangements. The lectures on Combinatorics were given by Professors D. K. Ray-Chaudhuri, Richard Wilson, Thomas Dowling, and Neil Robertson all of Ohio State, while the entire conference on Numerical Analysis was conducted by Professor James Dailey of Kent State. These Section members generously donated their time and expertise and a vote of thanks is certainly in order. There were many fine complimentary remarks by the participants about the quality of the presentation and the anticipated value for undergraduate courses.

Combinatorics was the topic chosen for the conference at Ohio State because the past several decades have witnessed an explosion in modern combinatorial theory. Lectures included:

Series I. Enumeration Theory - Elementary counting principles, inclusion-exclusion, Polya theory of counting

Series II. Matching Theory, Network Flows, and Optimization

- Series III. Topics in Graph Theory - Path problems and colorability
- Series IV. Latin Squares and Combinatorial Designs - Euler's conjecture, design of experiments, and tournaments
- Series V. Coding Theory
- Series VI. The Pigeon-Hole Principle and Ramsey's Theorem

Numerical Analysis was selected as the topic at Kent State University because the development of computers and their extensive application to mathematics and applied sciences have generated a need to offer courses in computer science and numerical analysis at the undergraduate level. The Numerical Analysis Conference consisted of the following topics:

- Chap. I. Introduction
- Chap. II. Roots of Equations
- Chap. III. Linear Algebra
- Chap. IV. Interpolation Theory
- Chap. V. Quadrature Formulae
- Chap. VI. Approximation Theory
- Chap. VII. Initial Value Problems
- Chap. VIII. Boundary Value Problems

The Committee on Cooperation between Colleges and Universities carried out an evaluation of the conferences to aid in planning future conferences. Among the goals of the program which were successfully achieved was an increased cooperation between large schools and small schools.

The success of last summer's conferences encouraged the Committee on Cooperation between Colleges and Universities to plan a similar workshop for the coming summer. It will be held in northeast Ohio in June. The topic will be Operations Research/Mathematical Programming.

O. Report of the Pacific Northwest Section, Professor Theodore White, Chairman

The two-year college program started in the Pacific Northwest Section in 1966 with special sessions of interest to community college teachers. In 1967, a Vice-Chairman for two-year colleges was appointed. His prime responsibility is the two-year college program at Sectional meetings. These meetings last for two days, one of which is devoted to four-year college interests, the other to community college interests. Two-year college participation has increased since 1966. There is a good representation of four-year college persons at the two-year sessions. The Section financially supports the two-year college sessions at the Northwest Mathematics Conference held each fall. This is done because much of the curriculum of the community colleges is elementary and secondary in nature, and this conference is primarily designed for such people. The Section has been moderately successful in its programs. Participation at the annual meetings has increased. However, it appears that the two-year membership has not risen proportionately.

Impression of the MAA by many two-year college teachers must be prefaced by a statement that the community college movement is comparatively new. Traditions for professional organizations have not been established, and two-year college

teachers are trying very hard to have some identity of their own. Many find it very difficult to get the recognition in the MAA which is so rich in four-year college tradition. It is understandable then one hears these comments:

1. CUPM has not concerned itself with the community college curriculum.
2. MAA is dominated by the four-year college people who do not care about the two-year colleges.
3. Too much emphasis is put on rank.
4. Many members are more interested in research than in the undergraduate curriculum.

These preceptions may not be altogether true; however, if MAA is perceived in this way, then it must be dealt with. Professor White emphasized that he has found by working with the four-year college people in the Section, the above comments are not generally true.

In response to a question by Professor D. J. Albers regarding what the impact of the TYCMJ had been on two-year college teachers in the Pacific Northwest, Professor White replied that several colleagues who were not members of the MAA had stated their intent to join if the motion to make the TYCMJ an official journal were approved by the Board of Governors the previous day.

P. Priorities of Our Members, Professor J. W. P. Mayer, Chairman of the Philadelphia Section

Professor Mayer distributed the following results of a questionnaire:

When I was program chairman of the 1973 meeting of our section, I decided to put my convictions to the test and to put more than usual weight on the applied side of mathematics. Thus we heard Dr. Goldman on "Some Mathematical OR in Government", Prof. Rosen on "Mathematics and the Social Sciences", Prof. McAllister on "The Use of the Computer in Undergraduate Mathematics Teaching" and Prof. Davis on "Non-Standard Analysis". Since this represented a departure from the conventional fare at such meetings, I hoped to test the reaction of the attending members by way of a questionnaire which was expanded to include related areas. The sheet was distributed during the lunch break to be completed and deposited before the end of the meeting. The social scientist tells me that for this sort of sampling, the 25% return rate indicates a representative sample. Yet, I was dismayed by the apparent unwillingness of the remaining 75% to participate in the planning of future meetings.

68% found the talks stimulating, the others considered them a mixed bag. 48% favored a second annual meeting, 36% did not. However, if the spring activity were a workshop, 72% would attend. For this workshop 67% of those planning to attend favored one on Mathematics in the Social Sciences, 50% one on Computers, 40% one on OR. A surprising 76% were willing to serve on resource teams in these and other areas.

These responses indicated to us, the Executive Committee, that the majority of those who were willing to fill out a questionnaire, were interested in extending our activities to include the new applications of mathematics.

While we were encouraged by these results, the low response ratio left us uncertain. Therefore, Prof. Klotz, our Vice-chairman, designed an extensive questionnaire directed at the chairmen of the Mathematics Departments in our section. I wish to thank him here for the work he did. There may be a message in the return ratios. 53% of the four-year colleges responded - excellent; 37% of the universities - average; 28% of the two-year colleges - poor.

The questions concerned the number of faculty, students, mathematics majors graduating, % of minority students, number of MAA members, number of faculty attending meetings, special features of programs, existence and activities of student math clubs, problem areas, possible activities of our section.

71% of the four-year faculty are members of the MAA, 51% of the two-year faculty and 47% of the university faculty. Percentages of faculty attending our meetings are 50, 50, 23, respectively.

20% of their graduating students went on to graduate school, 40% into teaching, 40% into industry and government. Of course, the problem areas are as varied as the schools. However, certain trends are evident.

First on the list of courses for disquiet was the question of Applied Mathematics with 20 departments reporting problems in this area. Some were unsure about the type of courses most needed, others about the proper balance between pure and applied courses. Of course, the service courses were on the list as was the difficulty in finding stimulating faculty to teach relevant mathematics.

Next in line (17) was the computer and its influence, its use, its proper place in the mathematics curriculum, its selection, etc.

The uneven preparation of entering freshmen and the adjustment difficulties of two-year transfers were of concern to a significant number of departments (13).

An equal number were faced by declining enrollments and by similar worries such as how to maintain a solid major program, how to rekindle the interest of mathematics majors in the upper division courses.

Other responses referred to the difficulties in getting jobs for the graduates (5) and to the various consequences of the tenure system and/or unionization of the faculty (3). Of possible activities of our section, the most popular (in descending order) were:

To publish a list of the courses offered and the texts used at the various institutions;

To revitalize our local visiting lecturers program;

To conduct week-long seminars on recent developments in such areas as numerical analysis, social science mathematics, computer science;

To work for a better understanding with local industry as to what training we should offer their future employees;

To encourage and help plan special meetings devoted to the discussion of common problems;

To arrange a discussion by the Community Colleges of their programs and problems.

As a result of this survey, we will hold a computer workshop during this semester. We also plan to breath new life into our visiting lecturers program. In future years, we hope to have annual spring workshops on many of the problems that face us.

Q. Two Activities of the Seaway Section, Professor P. A. Lindstrom, Second Vice-Chairman of the Seaway Section

The fall 1974 Section meeting dealt with a single topic, Linear Algebra, including its history, research in the area, applications, the computer, and a first course in linear algebra. Although other Sections have tried the one topic theme for a Section meeting, this was the Seaway Section's first such meeting. He also reported on the results of two questionnaires he sent out in 1974. One was sent to the two-year college members of the MAA in the Seaway Section asking them what they would like to contribute to the Seaway Section and the MAA and what they would like the Seaway Section and the MAA to do for them. The other questionnaire was sent to at least one officer of all Sections asking in what ways their Section has helped the two-year college people and what support their Section had received from the two-year college people.

Copies of two questionnaires and a summary of the response received are available from Professor Lindstrom.

R. Better Section Coverage in the MONTHLY, Professor R. H. Owens, Governor of the Maryland-D.C.-Virginia Section

Professor Owens felt that announcements of Section meetings in the MONTHLY are unnecessarily succinct, at least for their Section. Normally they meet in April and November, but details rarely reach the membership early enough. Often these details are not worked out until a few weeks prior to the meeting for a variety of very good reasons. However, meeting notification does not require details (national meetings are always known long before the program is distributed!). Consequently, the MONTHLY could be of genuine service to the Sections by including items similar to the following:

Va-Md.-D.C.: Meetings are held normally on the last Saturday in April and the Saturday before Thanksgiving. Deadline for contributed papers - three weeks before the meeting. Time and place of meeting to be announced.

For many educators, the Section meetings are as important as the national meetings. For young college teachers and even graduate students, these meetings often provide the only forum for presenting a paper on their current interests, and they need a long lead time for preparing a paper. Detailed information which reaches the recipients two or even one week prior to the meeting simply does not permit the necessary planning.

The Secretary thought Professor Owens' suggestion an excellent one and urged all Sections to inform Dr. Raoul Hailpern, Editorial Director, as soon as possible when their meetings are normally held, so that he can use this information in the MONTHLY when he has no specific date for the next Section meeting.

Professor E. K. McLachlin, Secretary-Treasurer of the Oklahoma-Arkansas Section, reported that his Section plans meetings three years in advance and suggested that other Sections may wish to consider planning meetings for more than one year in advance.

S. Activities of the Michigan Section, Professor Yousef Alavi, Chairman of the Michigan Section

Professor Alavi reported on that Section's visiting high school lecturers' program, which now involves 20 lecturers and last year reached 1,200 students. The Section was selected to undertake an Oxford seminar type workshop to acquaint mathematicians and mathematics students with problems from industry. This workshop will be held at General Motors Corporation in Flint, Michigan. A summer seminar was held at Lake Superior with fifty people participating. This will become an annual event. The idea for this seminar originated from the Ohio Section summer conferences. Lecture notes will be available.

The Section has introduced a small undergraduate activity at Section meetings. They have found MATH CLIPS very informative and now have a MICHIGAN SECTION NEWSLETTER.

The Secretary urged that the officers and the central office of the MAA be placed on the mailing list for Section newsletters. Professor Leonard Gillman, Treasurer, suggested that these newsletters be sent also to all other Section Officers. This will be particularly helpful now that Section Officers' meetings are held only every eighteen months.

T. Attitudes Towards the MAA, Professor J. W. P. Mayer

Professor Mayer presented a series of suggestions to the MAA, in particular that

- 1) the Nominating Committee actively solicit suggestions for nominations;
- 2) more non-university mathematicians be on all national committees;
- 3) more attention be given to applied mathematics (computer science, operations research, etc.) when planning national meetings;
- 4) the national meetings of the MAA be held alone, or together with ORSA, SIAM, AMS, etc. in rotation;
- 5) the MONTHLY more clearly reflect the needs of the undergraduate teacher of mathematics by having many more articles on applied mathematics, bibliographies of new areas of mathematics, etc.
- 6) the MONTHLY periodically publish a list of all the reports to the various bodies of the MAA, together with the addresses of the authors.

President Boas responded by noting that the membership of the Nominating Committee is always made known, and anyone can make suggestions to that Committee.

Professor Albers expressed the belief that the MONTHLY had made enormous strides in serving the membership of the MAA.

U. MATH CLIPS, Dr. A. B. Willcox

The Executive Director called attention to the MATH CLIPS, which are produced by the Washington office. They are designed to get information to Section Officers, Governors, Officers of the MAA, chairmen of standing committees, a total of about 250 people. These clips come from newspapers, Section newsletters, and other publications which cross the desk of the Executive Director. He requested Section Officers to send him items of particular interest to Sections for inclusion in MATH CLIPS.

V. The Northern California Section's Summer Conference for Two-Year College Faculty, Professor D. J. Albers, Chairman of the Northern California Section

The Northern California Section proposes to sponsor a week-long meeting for two-year college faculty, June 16-20, 1975. An arrangement has been worked out with the Continuing Education Office of the University of Santa Clara to have the meeting on the campus of the University and to award two quarter units of credit through the Continuing Education Office. Fees will be charged for room and board of participants planning to live on the campus and for the processing of credit by the University. The University will also provide publicity for the conference.

The formal part of the week's activities will include two short courses, each course meeting daily for one hour during the five mornings of the conference. One of these courses, taught by Professor K. R. Rebman of California State University, Hayward, will be on the applications of mathematics in the biological and social sciences. The second, taught by Professor G. L. Alexanderson of the University of Santa Clara, will cover special problems drawn from number theory, geometry, and combinatorics. In addition to these short courses, there will be special lectures, a minimum of four, in the afternoon by prominent mathematicians including Professor G. Polya, on a variety of topics. Funds to cover some of the special lectures and incidental expenses for social events during the conference are expected from University or Section sources.

W. Financial Condition of Sections

Professor E. K. McLachlan, Secretary-Treasurer of the Oklahoma-Arkansas Section, felt that Sections were in a poor financial condition and wondered whether any thought had been given to enlarging the amount contributed by the national office to the Sections. He reported that his Section has about 300 members and receives \$60-80 per year from the national office, which amounts to about 30 cents per member.

The Secretary reported that, in a meeting with the new Sectional Governors the previous day, when the question of Section finances was brought up, no comments

were received from them. Professor McLachlan replied that Sectional Governors are not the ones acquainted with the financial situation of the Section; it is the responsibility of the Secretary-Treasurer. He suggested that the contribution to the Sections be increased, noting that dues have been increased, but the contributions to the Sections had remained the same. Professor D. J. Albers, Chairman of the Northern California Section, reported that the Secretary-Treasurer of his Section had asked him to relate the same concern to this group. Professor Cable, Chairman of the Allegheny Mountain Section, reported the same problem in his Section. The Section has now instituted yearly Section dues of \$1.00, which are not mandatory, but most members pay them. Professor L. A. Guillou, Secretary-Treasurer of the North Central Section, suggested that mailings to members of the Section be made in bulk to departments in order to save money on postage.

There was a discussion on registration fees for Section meetings, in which Professor H. K. Stumpff, Secretary-Treasurer of the Missouri Section, reported that his Section charges dues to defray expenses of meetings, but that this does not cover all expenses.

The Executive Director urged that Section Officers write him their comments. He offered to conduct a review of the formula for payments to Sections and prepare a recommendation to the Finance Committee. He also reminded the Section Officers that the MAA is continually asking Sections to promote membership; his office will be glad to assist in printing copies of letters soliciting new members.

Professor T. N. Robertson, Governor of the Southern California Section, suggested that the Committee on Sections be asked to apprise Sections of financial tricks to improve their finances and that this information be distributed.

Professor N. E. Foland of the Illinois Section suggested setting a maximum payment for speakers, which is the practice in his Section.

Professor Sylvan Burgstahler, Chairman of the North Central Section, reported that his Section has invited national officers as speakers each year for many years and wondered whether they were abusing this privilege. The Secretary replied that Sections are entitled to have one national officer visit their Section each year and that funds for this purpose are available from the national office, in particular, from the James M. Earl Fund for Aid to Sections.

X. Mathematics Enrollment in Four-Year Colleges

Professor D. E. Edmondson, Chairman of the Texas Section, reported that his Section was undertaking a study to see what is happening to mathematics enrollments in four-year colleges. He noted that his institution has been losing mathematics majors at a rate of 10 to 15 per cent a year for the past four years, which, however, has been counterbalanced by a growth in enrollments of business and biological science students.

Professor Rosenberg cited the report of the Office of Education which came out in April and reported a reduction of only 2 to 3 per cent in the number of mathematics majors.

Professor Mayer reported on the results of his survey, which showed that one out of five institutions reported a decline in enrollment in mathematics majors. He suggested a survey be made by the MAA. Professor G. B. Price agreed that such

a survey would be very useful. After further discussion, the Executive Director suggested that this survey be incorporated into the questionnaire sent to departments for the purpose of gathering information for the GUIDEBOOK TO DEPARTMENTS IN THE MATHEMATICAL SCIENCES. Since a new edition has just been prepared, the next opportunity to gather this information will not arise until two years hence. He promised, however, to convey the suggestion for such a survey to the Committee on Advisement and Personnel.

The meeting adjourned at 10:15 p.m.