

# CrossSections

A NEWSLETTER FOR THE SECTION OFFICERS OF THE MAA

Edited by: David Ballew, Chairman, Committee on Sections, September, 1989

## THE 75th ANNIVERSARY OF THE MAA

Next Summer in Columbus, Ohio the MAA will celebrate its 75th Anniversary at the location where it was founded in 1915. This is our big event, and there will be a number of exceptional invited expository addresses by the people we most like to hear (Roselle, Price, Grabiner, Ellis, Halmos, Hilton, and Morawetz) plus a number of jointly sponsored speakers yet to be named. We strongly recommend that the Sections give full publicity to this event and bring it to the members' attention through the newsletters and the Annual Meetings. This promises to be the best MAA program in years.

The Sections are going to be involved in the Opening Ceremonies (on August 8) in a startling and novel way. We plan to have a Parade of Sections with each Section having a representative carrying a 3'x5' banner on an 8' staff; the banner will designate the section and the date of its founding. You will be asked to designate a representative. Please keep in mind that the organizers tell us it is a long walk and these are large banners, therefore somewhat heavy; so choose someone that can carry it without having a heart attack - It is hard enough to recruit members without losing them this way.

By the way, the cost to you of this banner is NOTHING, and you will get to keep it for use by the Section!

## OTHER THINGS YOU MIGHT DO

In this Anniversary Year, you might have a theme or special part of your Annual Meeting devoted to a historical topic. Several Sections have written or are writing histories; we know of Seaway, Texas, Kansas, Oklahoma-Arkansas, Ohio, Southeastern, Northern California, Pacific Northwest, Metro New York, Louisiana-Mississippi, Michigan, and there are probably others. Several sections have had very interesting talks on the history and evolution of calculus books; this seems very appropriate with the revolution occurring in calculus instruction. The National Officers visiting your Sections will have some historical talks prepared. Other things like "What has happened since 1915?", "Where is Topology (Analysis, Geometry, Algebra, Category Theory?) going?" etc. might be popular.

## ELECTRONIC MAIL

Last year I surveyed the Section Officers on who might have electronic mail addresses; less than 50% of the Section Officers had ready access to electronic mail at that time. I expect that this percentage will increase as the electronic mail technology becomes more widespread on our campuses, so we will do this again in a year or so with the promise of publishing a directory. You can put your electronic mail address in the Combined Membership Listing now.

## THE FUTURE OF SUMMER MEETINGS

Starting in 1992, there will probably not be Summer Meetings as we have known them with the AMS in the even numbered years; this does not mean that there will not be Summer Meetings. Ken Ross tells me that "We will do SOMETHING!" We might meet on our own, meet with SIAM or AMATYC or some other organization, or something else; but we will probably have a meeting of some type. Of course, in the odd years, we will still meet with AMS.

The reasons for the discontinuance of the AMS/MAA Joint Summer Meetings are many and complex. In the even years, there are International Meetings; many attend these and find it difficult to attend both. The complexion of the Summer Meetings has changed; it used to be a family affair and always held on a campus. There are costs and the attendance is down. There are other reasons, but this is enough to give you the idea.

## THE SUMMER SECTION OFFICER'S MEETING

The Annual Summer Section Officer's Meeting had three primary topics of discussion: attracting membership, short courses, and how to handle the newly created Student Sections.

On the first topic, Michigan noted that it was important to get (and keep) people involved. They do this through their Institutional Representatives and especially through the Michigan Mathematics Prize Contest for High School Students; this contest needs lots of people to help administer, create the exams, and GRADE. There are many opportunities for involvement. They noted that when people are involved in the Section, they identify with it and even

start to "own" it. Louisiana/Mississippi supports students to come to their meetings; they have been able to get grants from industry and publishers. Several Sections noted that the current interest in curriculum and teacher education has gotten people involved from many areas of their membership; people are interested in calculus, the impact of computing, the high schools, etc. They all recommended that the Section's programming reflect these interests.

There was a brief discussion on the NSF Summer Short Courses, and it was noted that some of those who had traditionally given the Section's Short Courses now got paid (and the participants got support). There was concern that when the "well dries up" these Directors and participants won't want to participate for free or for minimal support; will we have to recreate the successful programs we have had? Others noted that the present support was nice, and we should take advantage of it while it existed.

There was a question about the offering of credit (recertification, etc.) for Short Courses. Several have done this, and others are considering it. It is a good way to attract high school and community college teachers.

The BIGGEST portion of the discussion focused on how the Sections might best handle their responsibilities with the newly forming Student Chapters and Student Sections. Howard Anton, the Chair of the MAA Student Chapter Committee lead the discussion and answered questions.

All of the MAA have been overwhelmed with the response of the Student Chapters. We expected 40 or 50 inquires by this time, but we have over 120 chapters with over 1,300 members already formed with more being formed as you read this. The Committee has sent material to the Chapter Sponsors, but there has not been any information prepared for the Section Coordinators as yet; there just hasn't been time! It will come as soon as possible.

The immediate concerns were two: What can Section Coordinators do to help the Chapters? and What will be the effect on Honorary Societies like Pi Mu Epsilon?

How can the Section Coordinators help? Some ideas --

Help arrange expository talks for them (and the rest of the membership); they should be part of the regular program.

Have math contests/College Bowl/Jeopardy/Trivial Pursuit/etc. The local chapter could do this.

Have talks on career opportunities and Job Fairs; this

was the most requested item on a recent survey of the presently formed chapters.

Have representatives from industry and graduate schools there to talk to the students.

Films, videos, book sales (students like to buy books!)

Paper sessions - the Guidelines for Section Officers has a section on how to put together a Student Paper Session. Over 250 student papers were given last year.

Social activities - pizza parties - Coke breaks - etc.

Put them up in the Dorms in sleeping bags with your students; this saves money and creates good will.

Involve the Host Chapter in the planning, registration, etc. They might take "ownership".

Meeting of the chapter advisors, perhaps a breakfast.

Have mini-courses open to the students; advertise them; perhaps special mini-courses for the students?

Get special T-shirts for the host students; they are then identified, involved and can act as guides and hosts for all of your membership.

See the Student Chapter Advisor Guidelines; some of the ideas there will work.

Howard Anton tells me that the Student Chapter Committee will be creating a long list of ideas which will be sent to the Section Coordinators as soon as possible.

There is a good deal of concern about the impact of the Student Chapters on honorary organizations like Pi Mu Epsilon. This was discussed when the original idea of student chapters was initiated, and there were a number of discussions with the officers of those organizations. In fact several of the officers of Pi Mu Epsilon are presently sitting on the Student Chapter Committee. NO ONE ON THE COMMITTEE SEES ANY REAL CONFLICT AT ALL!

The two organizations can work together and in harmony. Pi Mu Epsilon and the other honoraries are for the students with the best GPA's; the MAA Student Chapter is for everyone. In many of the present instances, the two organizations meet together with common programs. There are many instances where the same person is the President of both. In at least one case, the President of Pi Mu Epsilon is automatically a Vice-President of the MAA Chapter. There are many models available where the two

organizations can work together well. There doesn't seem to be any built-in conflict.

At the National level, Pi Mu Epsilon has its Annual Summer Meeting and Program in conjunction with the National MAA-AMS Meeting; for the past two years Pi Mu Epsilon has worked with the MAA to help with the MAA Student Paper Sessions and coordinate them with the Pi Mu Epsilon Papers. All has worked very smoothly and very well.

It turns out that your Editor, the present Chairman of the Committee on Sections, is also the President Elect of Pi Mu Epsilon and will be president in 1990-93. I promise that my first priority will be the smooth and efficient cooperation of the two organizations; I see no reason that this cannot be beneficial to both organizations and mathematics as a whole.

#### YEAR OF NATIONAL DIALOGUE

Next year is designated the Year of National Dialogue by the MSEB (Mathematical Sciences Education Board) which will feature outreaches to the National Higher Education Organizations of all kinds. It has been proposed that the MAA Sections be involved in a number of activities to encourage dialogue not only among Section members, but in a wider community in its geographical area. Obvious topics would be Everybody Counts and the NCTM Standards, both just published. You will be receiving more information on this activity throughout the Fall and the Spring. It might appear that this Year will only last a "year", but its impact should be much longer than that.

#### THE JANUARY SECTION OFFICER'S MEETING

The January Section Officer's Meeting will be held in Louisville immediately after the Board of Governor's Meeting. One portion of this meeting will focus on the Year of National Dialogue and how the Sections can participate. Other topics will be the 75th Anniversary, Student Chapters, the inclusion of minorities and under-represented groups in Section Meetings, and other topics from the floor. All Section Officers should plan to attend. The room will be published in the Preliminary Program.

#### SOME INTERESTING STATISTICS THAT SHOW THE IMPACT OF WOMEN ON SECTION MEETINGS

The following chart shows an interesting comparison of the number of women that participate in the contributed papers of the Sections as compared with the number of female students in the Student Paper sessions. Approximately 22 or 23% of the total MAA membership is female.

YEAR	TOTAL PAPERS	STUDENT PAPERS
1982	643 22.5% by females	83 41% by females
1983	725 14.8% by females	113 43.8% by females
1984	713 21.8% by females	113 51.3% by females
1985	687 16.7% by females	153 36.7% by females
1986	720 18.2% by females	148 41.2% by females
1987	753 17.4% by females	175 45% by females
1988	803 18.6% by females	182 48% by females
1989	912 18.4% by females	247 42% by females

  

YEAR	PERCENTAGE OF PAPERS BY FEMALES AT	
	NATIONAL MEETINGS	CHAPTER MEETINGS
1980	35%	28%
1981	26%	32%
1982	29%	31%
1983	44%	30%
1984	54%	34%
1985	38%	29%
1986	38%	34%
1987	17%	37%
1988	42%	38%
1989	55%	not yet available

Pi Mu Epsilon, the National Honorary Mathematics Honorary, has a National Summer Meeting jointly with the Summer Mathematics Meetings each year. Also most Pi Mu Epsilon Chapters have programs within their Departments where students give presentations. The following table gives the percentage of females giving presentations at both the Pi Mu Epsilon National Meetings and the Chapter Meetings.

REPORT OF SPECIAL MEETING OF THE COMMITTEE ON SECTIONS  
CONCERNING THE ATTRACTION AND RETENTION OF UNDERREPRESENTED  
GROUPS AT SECTION MEETINGS

Saturday, August 5, 1989

On Saturday, August 5, 1989, the Committee on Sections met in a special session to discuss ways and means to attract to section meetings members from those groups that have traditionally not attended section meetings and may be considered "underrepresented" for the purposes of this report.

We noted that last year over 4,500 MAA members attended a section meeting; this is more than attended the two national meetings! However, on a more disturbing note, this also means that, of the more than 29,000 MAA members, over 80% didn't attend a section meeting. We also noted that traditionally, in most sections, the average attendee is a white male in his 40's or 50's who teaches at a four-year university or liberal arts college. Our challenge is to determine methods to attract members from that 80% and to retain them by keeping their interest.

Not all should be viewed as negative; we have many successes of which we can be very proud. First of all it is not insignificant that we have 4,500 attending our section meetings. This past year several sections reported the largest attendances in their history, and at least two sections (LA/MS and OK/AK) had over 50% of their membership at their meetings. Further if one compares today with ten years ago, many sections have made enormous strides in attracting students as participants, paper presentors, and as part of the audience; student sessions are increasingly popular and will become more so as the student MAA chapters begin to grow. Over half of the sections have formal ties with their local two-year college groups or AMATYC and have joint meetings, special presentations, panels, etc., etc.; many section officers teach at two-year institutions.

Our sections are healthy, they are growing, and we have several positives under our belts. However, we can do more! There are groups whom most sections have not been able to attract. The purpose of this report is to give suggestions and show what some other sections have done to attract these "underrepresented" groups. We know that the sections are different, vastly different, and what works for one may not work for another. We only present ideas which we hope that the sections will consider and adopt those which seem appropriate for their situation.

#### THE TARGETED GROUPS

In our discussions we focused on six groups; there are

others but these are the ones we chose to target with the time available. The groups are:

Ph. D. Institution Faculty	Minorities and Females
Two-Year Institution Faculty	Non-Academic Employees
High School Teachers	Students

We quickly noted that Programming and the 'Personal Touch' are both critical in attracting and retaining section attendance; programming is most important in attracting, and the personal touch appears most critical in retention.

Secondly we noted that many of the ideas that we considered were universal in that they applied to all of the groups. We have grouped as many of these universal suggestions into a new category called "new faces". A "new face" is not just new members; this is a person who has not attended your section meeting previously or for several years. This is a person who has come to see what the section meeting is all about and is a prime prospect to be a long term member. A "new face" is a member of the 80% we want to attract and retain.

This next year, 1990, has been designated as the "Year of National Dialogue", and we can use this to form joint panels and programs involving faculty from all types of institutions and from the non-academic sector. Further, MSEB (Mathematical Science Education Board) is forming coalitions for the purpose of working on common problems. These are opportunities to get people who don't ordinarily talk to each other discussing problems of common interest.

Well enough preamble; let's get to the meat of the report.

#### THE IDEAS AND THE SUGGESTIONS

**NEW FACES:** Our first suggestion is that every section have a hospitality committee. The primary duty of these members will be to note the new faces showing up at registration, to meet them, to introduce them around, and to make sure they have someone to talk to at coffee and at lunch. Any meeting can be very lonely if you are just standing there while everyone else is happily talking to their friends.

Every MAA Section meeting has proven to be a warm friendly place; most of us attend to talk to our friends, to compare notes, to discuss the situation at our institution, etc. Indeed a goodly number of us attend primarily for the social contact and to see old friends. Without the positive initiative of a few, new faces will feel left out and probably will not return. The members of the hospitality committee should be old-time members who know everyone

and can insure that the new faces are included in the groups. This can work wonders with your retention.

Our second important suggestion is that each new face be contacted after the meeting by an officer with a word of thanks for attending and be given an assignment. This assignment can be the collection of data from the institution, a committee appointment, or anything. Too, too often we go back to the same people for help and for committees. If we include the new people they will start to identify with the section and become not only new members but our ambassadors.

The Section Secretaries and Governors are given a list of the new MAA members for their sections, and some sections publish a list of their new people in the newsletter; this is a good idea and if room exists, you could publish mini-biographies. Another good idea is to publish that list in your meeting program; then all at the meeting would know who the new MAA members are. This doesn't identify all of the new faces, but it will help.

Some Sections have given new members of the MAA a free registration at their first Section Meeting.

You might consider having your first coffee break a "Welcome" for the new faces. One section asks on the registration form if the person has attended a section meeting recently; then at the wine and cheese party, they make sure that these new faces are recognized and made welcome.

FACULTY FROM PH.D. INSTITUTIONS: This has traditionally been a tough nut to crack. The Northern California Section has probably been the most successful in attracting this group by having meetings that consist solely of four or five one-hour addresses by noted mathematicians. Most other sections report that attendance from this group is low or non-existent.

The conventional wisdom has been that we can attract and retain faculty from Ph. D. institutions by making them section officers or having meetings at their location. In most cases these have not worked although there have been enough successes that we keep trying.

However, we believe that events are perfect to make a strong effort to involve this group. There is currently an enormous interest among the Ph. D. institutions in curriculum reform and in attracting undergraduate students into graduate programs. The AMS has shown significant interest in curriculum and is giving considerable support to undergraduate students in research projects. Further there is grant money available in curriculum reform, and this does attract interest. We should contact the research institut-

ions and get them involved in our programs, panels, paper sessions, and curriculum committees; the interest is there. Let's capitalize on it.

The Southeastern Section and the Ohio Section have been successful in attracting faculty from research institutions by having a "TA Rush". This is accomplished by inviting representatives from the graduate faculties to come to the meetings to talk to the students about their programs. This is of benefit to both the research institutions and the students.

One idea that has long been successful is to invite a well known research mathematician to give an expository talk on their area of interest. This attracts people from all institutions and backgrounds. We all recognize that programming is critical for the success of our meetings, and this type of talk is always popular.

NON-ACADEMIC: It seems that most mathematicians who become part of industry seem to lose interest in the MAA and the topics that are traditionally a part of our section meetings; of course there are some notable exceptions to this statement. But in general, it is important to note that we in the academic areas get far more from the non-academic groups than we give to them. However, they can add so much to our meetings that it is definitely worth the effort to attract them.

Programs like "What does a mathematician do all day" or "What does industry (or government) expect" or "Professional opportunities in -----" will not only get a non-academic type to your meeting, but these have proven very successful in attracting students and members of various minority groups. If your meeting is close to an industrial facility, a tour or site visit can be very popular. At least three sections have had very popular programs with visits to supercomputer sites or nuclear reactors.

We mentioned the "TA Rush" above; a related activity could be a "Job Fair" with local industrial representatives which could include interviewing.

Joint meetings with SIAM, AMS, ASA or other such groups might also attract non-academic types. You might also have special sessions or "theme" meetings on topics that would be of particular interest.

The non-academic mathematicians have often shown considerable interest in students, so you might capitalize on this by involving them with your student activities and even your student chapter programs.

You might publicize the MAA to State Department Education people. Many of these belong to NCTM and are inter-

ested in helping teachers learn new and more mathematics. Several sections have already made considerable impact with their state agencies.

MINORITIES AND FEMALES: Perhaps the most important recommendation that came from our discussions was that the sections should ask the members of these groups what kinds of programs and activities should be offered to attract (and retain) membership from that minority. Thus sections should ask faculty from the traditionally black or hispanic institutions what types of offerings would be effective in meeting their needs. We were surprised to learn that there haven't been many discussions of this nature, and we believe that they could be very valuable. Section meetings at these traditionally minority institutions have proven to be very successful at the time and in attracting membership:

We do suggest that every section have an evaluation form distributed to the membership at the meeting or through the newsletter asking what types of programs prove to be valuable, are important in attracting attendance, and what should be offered to make the meeting even more viable. No one, especially faculty, like to be evaluated, but sometimes it is important to learn what perceptions are among our peers.

We do believe that the personal contact is especially important in the recruitment and retention of minorities. It is critical that all feel welcome and part of our meetings.

It is worth mentioning that there is a minority that is often missed when we discuss such groups. A sizable number of mathematicians and MAA members are of Asian extraction; but we have very few attending our meetings. Certainly, there are cultural reasons and there are often language problems, but this is a group of productive mathematicians that we often forget and that we should work to include.

Patricia Kenshaft reports that about 22% of the MAA membership is female; however only about 18 or 19% of the papers given are by females. The number of Section and National officers that are female has been increasing but does not yet represent a fair relative percentage. Curiously over 40% of the student papers are by females. There is much to do in this area and most of the suggestions we are making can be applied to this group as well as any other.

TWO-YEAR COLLEGE FACULTY: A good many sections have had success in attracting faculty from two-year institutions by having joint meetings with two-year organizations and, most importantly, actively involving these faculty in the section organization.

If you have a joint meeting, it is important that it be really joint, not just two organizations meeting at the same time -- papers, invited addresses, and panels that are of interest to both groups. Articulation sessions have proven popular - topics like transfer credit, texts, emphasis, past problems, etc. Talks on math education, "New things to try in the 1st course", "Bridging the gap from the TYC to the FYC", and so forth attract large audiences from both camps.

Meetings scheduled at the TYC campuses are important (hosting may be a key to involvement). Also important is the nomination of TYC faculty for section offices; some sections have a vice-chair for TYC. Most of the successful joint meetings have had a strong involvement of the TYC faculty on the program committees.

We can push the College Math Journal; and, in particular, we could clean out the warehouses of past issues by sending them to prospective members along with an invitation (by a section officer) to get involved.

We should encourage the Section Governors to appoint a MAA Representative at each of the Two-Year Colleges; then it is important to keep them involved in the Section. Many sections have special meetings, breakfasts, or lunches where the MAA Reps can get together. These sessions have proven hot beds of ideas and suggestions for the betterment of the section.

HIGH SCHOOL TEACHERS: Over 10% of the MAA membership are high school teachers, but I wager that most sections don't have a single member from this group at their meetings. Why not?

The Kansas Section has met with the Kansas High School teachers for several years; this has been very successful and attracts over 100 high school teachers to every meeting. The Wisconsin Section gave awards to high school teachers and made efforts to invite local teachers from the area of their meeting to attend. Many sections have worked with their state agencies on teacher training and qualifications, and these sections have had programs, panels and invited addresses on these issues. It can be done; we can attract high school teachers to our meetings!

One excellent suggestion to attract high school teachers is to offer minicourses that they could take. Over half of the sections are reporting that minicourses have proven to be very successful (and even fund raisers), and some sections are already working with state groups to offer extended sessions in the summer. With a little advertisement and promotion, we could have a strong positive impact on teacher training and the improvement of high school education. High school teachers need such programs

for recertification; and, with a little creativity and the assistance of the education colleges, we could probably offer some sort of credit for these workshops when appropriate.

MSEB (the Math Science Education Board) is actively working to create coalitions involving university faculty, high school teachers, and others to work on common problems. The sections can take the lead, and I can't think of a better place than a section meeting to open discussions and find some solutions.

STUDENTS: Last but not least are the students.

As was mentioned earlier, the involvement of students has been one of our shining successes. Ten or fifteen years ago, it was very unusual to find a student at a section meeting, and it was a shock to find one presenting a paper. Last year over 200 papers were given by students at section meetings.

Now the MAA is chartering Student Chapters - over 110 have been created at this writing, and more are applying for charter status. We have a real opportunity to work with students and involve them in our professional organization that we cannot let pass by. The Committee on Student Chapters is preparing materials for the Section Coordinators to help them prepare programs and sessions for students at section meetings. We would have to work hard to fowl this up; we have a flood of students, enthusiastic students, about to break on us and the success we have had in the past is only a taste of what we can forecast for the future.

Many of the ideas mentioned under previous headings - Job Fairs, TA Rushes, talks by non-academics, tours, site visits, and others - will attract students to our meetings. The list of ideas for students is really endless; we know they want information on job opportunities, placement, mock interviews, graduate schools, and we know they always want good expository talks of all types - but then so does everyone else.

In conclusion, we hope that we have given you some useful ideas that might work in your section. We are sure that there are others that we have missed or just didn't get written down. If you have a successful idea or would like to extend this report to other groups, please send any materials to David Ballew, 125 Fawn Ridge, Macomb, IL 61455.

## SUMMARY OF IDEAS BY GROUPS

### NEW FACES:

- Use the 'Personal' Touch
- Have welcomed by the Hospitality Committee
- Get them involved in activities/committees other assignments
- Publish list of new people in newsletter and in the Meeting program
- Follow up with letter after meeting
- Make your first coffee break a 'Welcoming' activity

### RESEARCH FACULTY:

- Attract with programming
- Involve in curriculum discussions/reform
- Involve in the Calculus debate
- "TA Rush"
- Use as expository lecturers
- Meet at their institutions
- Joint meetings with AMS/SIAM/ASA etc.

### NON-ACADEMIC:

- Have give presentations on careers, non-academic life, and responsibilities
- Involve in curriculum discussion/reform
- Involve with students
- "Job Fair"
- Joint meetings with SIAM/ASA etc.

### MINORITIES AND FEMALES:

- Contact them to determine their interests
- Personal contact
- Don't forget those of Asian heritage
- Get them involve in Section activities
- Meet on minority campuses

### TWO YEAR FACULTY:

- Joint meetings with their organizations
- Strong programming of interest to both groups
- Meet on their campuses
- Locate MAA representatives on their campuses and get them involved

### HIGH SCHOOL TEACHERS:

- Joint meetings with their organizations
- Invite local teachers to meetings
- Give "Outstanding Teacher" Awards
- Tailor and advertise minicourses
- Use the MSEB coalitions

### STUDENTS:

- Paper sessions
- Expository talks
- TA Rush and/or Job Fair
- Career Information and talks

TWELFTH ANNUAL REPORT OF THE MAA SECTIONS  
Year Ending June 30, 1989

Section #Sec Membs	#Mtgs	Attend	MAA Reps Mtg	Dpt Chairs Mtg	Banquet	Social Activity	Sell Vnd Space	Book Sale	Reg Fee	#News Itms	Invited Paps	Contr Paps	Stud Paps	Panel Discs	
Allegheny-595	1	107	yes	no	yes	yes	\$50	yes	\$10	2	3	9	2	0	
DC/Mary/VA 2,104	2	252 146	no	no	yes	no	\$50	yes	\$2	4	2 2	24 18	3 3	0 0	
EPenn/Del 1,041	2	**** NO REPORT AS OF JULY 11, 1989				****					3	4 3	0 0	0 0	0 1
Florida-973	1	225	yes	yes	yes	yes	\$75	yes	\$7	3	5	27	11	0	
Illinois 1,320	1	125	no	yes	yes	no	none	yes	\$7	2	6	3	4	0	
Indiana-546	2	**** NO REPORT AS OF JULY 11, 1989				****					2	7 5	? ?	? ?	? ?
Intermtn-189	1	75	no	no	yes	no	none	yes	\$5	1	4	7	7	1	
Iowa-308	1	103	no	no	no	yes	\$25	yes	\$5	2	3	17	11	1	
Kansas-272	1	90HAA 87KATH	no	yes	yes	yes	\$15 per tbl	yes	\$6	0	3	10	3	0	
Kentucky-307	1	92	yes	yes	yes	yes	\$25-\$100	yes	\$5	3	2	8	0	0	
LA/Miss-541	1	240	no	yes	no	yes	no	no	\$7	3	3	20	17	1	
Metro NY 1,564	1	75	yes	no	yes	no	\$150	yes	\$3	1	9	0	1	0	
Michigan-911	1	180	no	no	yes	yes	\$50	yes	\$5	2	16	12	11	0	
Missouri-495	1	120	yes	yes	yes	5k Run/ Walk	no	yes	\$5	2	6	19	4	1	
Neb/SD-174	1	60	no	no	yes	yes	no	yes	\$0	2	3	12	2	0	
New Jersey 980	2	70 60	no	no	yes	no	no	yes	\$0	2	3 3	0 0	0 0	1 1	
North Cent 775	2	115 117	no	no	yes	yes	no	yes	\$5	2	2 2	10 14	1.67 2	0 0	
North Calif 1,650	1	240	yes	yes	yes	no	no	-	\$7	1	5	0	0	0	
Northeast 2,307	2	219 137	no	no	yes	yes	\$100	yes	\$10	2	5 5	13 5	10 4	0 1	



Section #Sec Membs	#Mtgs	Attend	MAA Reps Mtg	Dpt Chairs Mtg	Banquet	Social Activity	Sell Vnd Space	Book Sale	Reg Fee	#News ltrs	Invited Paps	Contr Paps	Stud Paps	Panel Discs	
Ohio 1,128	2	97	yes 104+60stds	rarely	yes	yes	\$75	yes	\$5	3	3 2	12 11	0 22	0 0	
Okla/Ark 410	1	230	no	yes	yes	yes	\$25->\$100	yes	\$5 \$25vol	1	2	59	12	0	
Pac NW 1,139	1	100	no	no	yes	yes	\$100	yes	\$15	2	6	12	12	1	
Rocky Mtn-533	**** NO REPORT AS OF JULY 11, 1989 ****														
South Calif 1,780	2	236 55	no	no	yes	no	no	yes	\$15	2	5 5	12 0	0 0	0 0	
Seaway 1,446	2	125 85	no	not success- ful	yes	no	no	yes	\$6	2	3 2	9 11	0 4	0 1	
Southeast 2,382	1	361	yes	yes	no	yes	contri- bute to party	yes	\$7	2	3	46	17	0	
Southwest-516	1	33	no	no	yes	no	no	yes	\$5	2	2	12	0	2	
Texas-1,347	1	***** No Report Received as of July 4, 1989 *****													
Wisconsin 539	1	231	no	no	yes	no	\$50	yes	\$6	2	4	30	17	0	

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Section	Short Course at Meeting	Summer Sht Course	PhD	Participation				# Student Chapters	Organized Student Activities	Public Awareness Activities
				4-yr	2-yr	HS	Inds			
Allegheny	yes - \$25	yes	pr	gd	gd	pr	pr	1	None at the moment	None at the moment
DC/Mary/VA	F1 - \$20 Sp - \$15 for 1 \$20 for both	2 - \$235	ok	gd	gd	fr	fr	1 or more	Student speakers and encourage advisors; waive fees for stud speakers	Not much
E Penn/Del										
Florida	no	no	gd	gd	gd	fr	fr	4	Provides financial assistance for hotel up to 10 stud paps	Gov of State gave proclamation on math awareness
Illinois	yes - \$15	Joint Spons wks with NIU	pr	gd	fr	pr	pr	3-5	Student papers	Committee working
Indiana										
Intermtn	yes - \$20	1 -- Free	fr	gd	gd	fr	pr	0	-----	-----

Section	Short Course at Meeting	Summer Sht Course	PhD	Participation				# Student Chapters	Organized Student Activities	Public Awareness Activities
				4-yr	2-yr	HS	Inds			
Iowa	no	no	gd	gd	gd	pr	0	3	-----	-----
Kansas	none	none	gd	gd	fr	gd	pr	1	None as yet	Newspap and radio intvs wth Shirley Fry of NCTM; Video of invited address
Kentucky	yes	no	pr	gd	gd	pr	pr	0		
LA/Miss	no	no	fr	gd	fr	0	0	?	Many Student Paps	-----
Metro NY	no	no	pr	gd	gd	gd	pr	-	Held meeting for student Chapters	Provided info on math reqs for tch
Michigan	no	yes	fr	gd	fr	fr	fr	-----		-----
Missouri	no	no	gd	gd	pr	pr	pr	3?	Student papers	-----
Neb/SD	no	no	gd	gd	pr	pr	fr	2	Some student paps	-----
New Jersey	no	no	fr->gd	gd	gd	pr	fr	0		Gov proclamation for 3rd year
North Cent	no	2 - \$100 each	-	-	-	-	-	3	Paper presentations	Gov. made math awareness proclamation; major article in <u>Tribune</u> on calc.
North Calif	no	-	gd	gd	gd	pr	pr	-	-----	-----
Northeast	no	yes - \$250	fr	gd	gd	fr	fr	6+	-----	-----
Ohio	yes Fl & Spr	yes - \$65	fr	gd	pr	pr	pr	4est	Paper pres; free rooms in dorms; grad sch reps; maybe intercoll math contest	Articles in Newspaper prize at State Sci Fair, but gets little publicity
Oklia/Ark	yes - \$35	no	gd	gd	pr	pr	pr	few	Paper presentations	-----
Pac NW	yes - \$20	no	pr	gd	fr	pr	pr	some	Paper presentations movies	-----
South Calif	no	no	gd	fr	pr	pr	pr	--	-----	-----
Seaway	no	no	fr	gd	fr	pr	pr	3	Working on it.	Joint work with Metro NY with NY NY Regents on prep of HS Teacher
Southeast	yes - \$20	no	gd	gd	gd	pr	pr	8	Stud. paps and TA Rush	Several Governors gave proclamations

Section	Short Course at Meeting	Summer Sht Course	PhD	Participation				# Student Chapters	Organized Student Activities	Public Awareness Activities
				4-yr	2-yr	HS	Inds			
Southwest	no	no	fr	fr	fr	pr	pr	0	-----	-----
Wisconsin	no	no	gd	gd	gd	gd	pr	don't know	Stud. papers	Press releases on Annual Mtg.

#### WHAT MADE YOUR MEETING SUCCESSFUL?

- FLORIDA** Good organization; the Program Committee was representative of the various constituencies of the Section (e.g. one member was the President of the State's Junior College Association and another was from one of the Ph. D. institutions; excellent in-state and out-of-state invited speakers; always have meetings of "related" groups such as the Association of Junior College Math Instructors and the Florida Association of Mathematics Educators; panel meetings on section timely issues with plenty of time for discussion.
- ILLINOIS** Variety of topics and programming
- KANSAS** Always have a joint meeting with the Kansas Association of Teachers of Mathematics
- KENTUCKY** This was our first meeting at a State Park, instead of a school, and it was an excellent location. We will try it again and others may find it successful also; other things were the social, the short course, and the group dinner.
- LA/MISS** We encourage more student papers, particularly from the non-PhD institutions and the two year colleges; we find that the students "bring the faculty".
- MARY/VA/DC** Having Paul Halmos for the main speaker and Fred Rickey for the minicourse pushed our Fall attendance to an all time high; in the Spring, we had a joint meeting with the Virginia Mathematical Association of Two-Year Colleges - recommend a joint meeting occasionally; the minicourses have been one of our most successful ventures - they bring people to meetings, provide income to the section and help educate mathematicians on current topics of interest.
- MISSOURI** Our Annual 5K run-walk has created good fellowship for the runners and walkers.
- NEW JERSEY** In order to encourage communication and the exchange of ideas among participants, we had several open discussions and discussions in groups as part of the meetings - very successful.
- NORTH CENTRAL** The Summer Short Courses have been very successful; we find that a one-week, in-residence, arrangement works very well; we also cooperate with our neighbors in Wisconsin, one section offering short courses in odd years, and the other in the even years; we follow the guiding principle of selecting good people to run the program and then supporting them in doing what they want to do.
- NORTHEAST** A variety of good speakers
- OHIO** Excellent speakers and a very successful student paper session - 22 papers; both microcourses were popular; there was a special tour of the Ohio Supercomputer Center at Ohio State; we recommend microcourses and student papers highly.
- OKLA/ARK** Our Section meeting begins on Friday at 1 pm and ends on Saturday at 12 noon; we frame our meeting (Friday 8:30 to 12 noon and Saturday 1 pm to 4 pm) with a workshop; we have done this for 2 years; it has enhanced our attendance at the meetings and the workshops have paid their own way and made a little money.

- PACIFIC NW Rich and varied program; short courses; nationally known speakers.
- SEAWAY Friday evening banquet and speaker provide a good kick-off to the meetings; panel discussions, the Gehman Lecture feature the Spring meetings with talks by MAA officers in the Fall; student talks are at both the Fall and Spring meetings and these provide diversification; contributed papers provide stimulation and encourage participation.
- SOUTHEASTERN Excellent invited addresses, a large number of contributed papers, one or more "short courses"; the TA RUSH has increased the number of PhD institution participation and the number of student papers and attendees.
- WISCONSIN The meeting near Chicago made travel convenient for many people; enormous effort to encourage HS teachers to attend (successful); four awards for teaching excellence to HS teachers.

SHORT COURSES AND WORKSHOPS BY SECTION  
1988-89

- ALLEGHENY At meeting - "Classroom Experiments in Applied Mathematics", Herbert Bailey, \$25  
Summer - "Teaching Math Modeling", Tuition = \$115, Room/Board = \$80
- ILLINOIS At meeting - "Mathematical Experiments and the Teaching/Learning of Mathematics with the Computer Algebra System, MACSYMA", Abdi Darai, \$15  
Summer - Joint Sponsorship with Northern Ill. Univ. of: "Mathematical Modeling", Frank Giordano & Maurice Weir, \$130
- INTERMOUNTAIN At meeting - "How to use the HP 28S", Lynn Garner, \$20  
and "Using Computer Spreadsheets in Calculus, Differential Equations, and Combinatorics", Don Snow, \$20
- KENTUCKY At meeting - "Calculators, Computers, and Teaching", Franklin Demana
- MARYLD/VA/DC At meeting - "Using History in the Teaching of Calculus", Fred Rickey; and "Software for the Teaching of Calculus and Differential Equations", Howard Penn and Jim Buchanan, \$15 for one, \$25 for both.  
Summer - "Chaos and the Microcomputer" and "Decision Making and the Microcomputer"
- NORTH CENTRAL Summer - "Mathematics of Computer Graphics" -
- NORTHEAST Summer - "Chaos and Dynamical Systems", Robert Devanney, \$250
- OHIO At meeting (Fall) - "Grant Preparation", Florence Fasanelli, NSF, \$0;  
At meeting (Spring) - "Using CASIO Graphing Calculators to Teach Precalculus Mathematics", F. Demana and B. Waits, \$0  
Summer - "Topics in Additive Number Theory", George Andrews, \$65 plus room and board.
- OKLA/ARK At meeting - "Teaching Math Modeling", Maurice Weir, \$35
- PACIFIC NW "Error Correcting Codes and Sphere Packings", Tom Thompson, \$20
- SOUTHEASTERN "Microcomputer Use in the Mathematics Curriculum", Larry Husch, \$20
- TEXAS "Great Theorems From Mathematical Analysis: 1689 - 1881", William Durham

SPEAKERS AT SECTIONAL MEETINGS RECOMMENDED TO OTHER SECTIONS AND THE NATIONAL PROGRAM COMMITTEES

Roman Maeder, Woffram Research, "Mathematica"  
 Carl Lee, "Shaping Space"  
 David Moore, "Teaching Statistics as a Respectable Discipline"  
 Alan Tucker, "Mathematics of Fair Representation"  
 Michael Barnsley, "The Mathematics and Graphics of Fractals"  
 Beverly Brechner, "Transitive Maps in Manifolds"  
 John Kenelly, "Geometry - A Lot New and a Lot Renewed"  
 Paul Halmos - anything he will talk about  
 Fred Rickey, "Using History in the Teaching of Calculus"  
 Gary Meisters, "Mean Value Theorems from Rolle to McLeod and Beyond"  
 Harold Hastings, "Fractal Models in Ecology"  
 Dale Mesner and Lester Brandt, "The Mathematics and Art of Tiling Regular Polygons", (Mr. Brandt, a retired postman and non-mathematician, has through trial and error developed numerous tilings which he used to construct artistic designs in inlaid wood; he exhibited a number of these -- contact Dale Mesner at the Univ. of Nebraska)  
 Joan Birman, "Knots and Links"  
 Joe Gallian, "On Code Numbers -- UPC codes, Driver's Licenses, etc."  
 Hubert Walczak, "The Ten Greatest Theorems of All Time", (Outburst style of presentation)  
 Thomas Sibley, "How Fractal is Nature? How Natural are Fractals?"  
 Harold Edwards, "Kronecker's Views of the Foundations of Mathematics"  
 Bill Dunham, "Vito Volterra and the Limits of Pathology"  
 Gerald Alexanderson, "Gaussian Binomial Coefficients"  
 Ivan Niven (as always)  
 Peter Castro, Eastman Kokak, "Industrial Mathematics is More than Applied Mathematics"  
 Clarence Stephens, "A Humanistic Academic Environment for Learning Undergraduate Mathematics"  
 Mario Martelli, "Minimum Periods of Periodic Orbits"  
 Curt Lindner, "Graph Decompositions and Quasigroup Identities"  
 Harold Reiter, "In Search of Mathematical Meaning; Some Successes and a Failure"  
 Margret Hoft, "Computers in Calculus"  
 Sheldon Axler, "The Ubiquitous Block Space"  
 Joseph Dauben, "The Role of Charles S. Pierce in the Early Development of American Mathematics"  
 Persi Diaconis, "A Roll of the Dice"

WHAT CAN WE DO TO HELP YOU?  
 WHAT SERVICES SHOULD WE PROVIDE TO YOU OR YOUR SECTION?

Seminars on the Governance of Sections.  
 More activities which allow interaction of Section Officers where the Officers can discuss the operation of the Sections.  
 Creation of software providing standard bookkeeping system for the Sections.  
 Creation of software providing standard bookkeeping system for the Section meetings.  
 Electronic mail in the Section; E-mail addresses in the Combined Membership List and on the printout coming from Washington.  
 More financial incentive for already strong programs and outright grants for exeKnots and Links"  
 Help with recruiting members.  
 We had difficulty locating a speaker for our meeting; perhaps a bigger list of approved speakers; can you assign someone if we get into a bind?  
 Newsletters are costly; we are going to drop from three newsletters per year to two; is their help?  
 Help with ideas for student chapters.  
 Provide us with names of good speakers.  
 Share good ideas from other Sections.  
 Time at the National Meeting where Section Officers can talk to other Section Officers about meetings and common problems.  
 Financial aid with the publication of the 50 year history of the Section.  
 Thanks for the 10% rebate for the book sale; we sold \$1,082.  
 Keep up awarding free one year memberships to students who present papers at the annual meetings.