CrossSections

Edited by: David Ballew, Chairman of the MAA Committee on Sections

CrossSections is an attempt to establish communication between the Section Officers and the National Organization. If you have any questions, concerns, or suggestions, please write David Ballew, Department of Computer Science, Western Illinois University, Macomb, Ill 61455.

SUMMARY OF SECTION OFFICERS MEETING

January 10, 1989
Phoenix, AZ

At each National Meeting, the Committee on Sections sponsors a meeting of the Section Officers where common concerns can be discussed, problems identified and solved, and suggestions can be made for the general benefit of all. That which follows is a summary of the discussions at the Phoenix Meeting.

QUESTION CONCERNING EFFECTIVENESS OF SECTIONS IN THE POLITICAL ARENA:

New York is trying to influence state legislators on teacher certification -- Joint project with the Seaway Section and the Metro New York Section.

Texas noted that one must "get inside" the political arena: this takes time. They recommended that each Section have a Sub-committee to give presence in the political arena over time. Must work with staff people and cannot only be there when there is a hot issue over money; must develop trust.

Florida noted that must work with legislative staff members; it is best if your efforts are not seen as "for you or your institution" but "for betterment of all education".

Incoming MAA President Lida Barrett noted that the Mathematical Science Education Board has recently received a grant from the Exxon Education Foundation to launch a series of pilot state coalitions. The coalitions will be affiliated with MSEB and will be "MSEB-like" in their composition and missions. Since their focus will be on state-level action, it will be necessary for them to make strong working connections with state education agencies, the governor's offices, the state legislatures, as well as the mathematical and educational organizations in their states.

COMMENT ON TEACHER EDUCATION:

Eastern Penn and Delaware recommended that each individual and the sections get involved with the classroom visitations of secondary teachers.

QUESTION ON SECTION'S TAX EXEMPT STATUS:

Al Wilcox, the MAA's Executive Director noted that each Section inherits the tax exempt status of the parent organization and Sections do not have to file the 990 form unless they make more than ?? (it's either $5,000 or $10,000. You can call the MAA at 800-331-1622 for clarification if you are making over $5,000).

Sections are encouraged to get local contributions, institutional members, grants, etc., and in fact many do. Please notify (for informational purposes only) the National MAA when you get a sizable grant or funding.

Sections can raise money from vendors, minicourses, and the Membership Incentive Program -- that is the program where the Section sponsors new members and receives $10 for each new member sponsored by the Section -- you must use the proper form provided by National MAA.

Pacific Northwest allows book representatives to copy their business card into the newsletter for $25.

RESEARCH INSTITUTION PARTICIPATION:

It was noted that very few Sections receive much participation by the research institutions; only Northern California seems to be the exception. This is a long standing problem with no easy solution.

TA RUSH:

Both Southeastern and Ohio have had prospective graduate students meet with prospective graduate schools at the section meetings. Somewhat successful. Ohio notes that this should be done in the Fall as the Spring is too late. Both sections noted that this might be a way to get the research institutions to attend the meetings.

PARTICIPATION BY UNDER-REPRESENTED GROUPS:

It was noted that the Task Force on Minorities has filed its report and recommendations; several of these impact the Sections and more will be provided to the Sections on this matter. Several sections are already working to increase participation by minorities; Southwestern, Texas, Florida. New Jersey has been particularly successful in increasing the participation by females.

Kansas noted that they often meet with the Kansas High School Teachers.

Numerous Sections noted that they meet with the two-year groups and involve them in the planning of meetings and as officers.

MATH AWARENESS:

It is nice to have a focus, but we need something that is more permanent.

One college adopted a grade school and helped teach classes; it was exhausting!

Many articles are being published; help your colleagues to see these by placing them on a bulletin board; why not put the bulletin board out for students too; many will read them. The articles can be referenced or reprinted (if important) in the Section Newsletter.

THE FUTURE OF SUMMER MAA MEETINGS:

Because they lose money the MAA and the AMS are looking at some changes in the Summer Meetings; for example they might only meet in odd numbered years with the International Meetings held in the even numbered years.

The idea of "SuperSection" Meetings has arisen; what do people think? (The following are comments from the Section Officers at the Meeting.)

They would conflict with Summer Short Courses.

They would conflict and degrade Section Meetings.

Too much organization would be needed; it would be hard to get the volunteer labor.

Geography is a problem; travel funds; conflicts with special meetings.

People just want to take a vacation.

Would cost too much!!

WHAT IS THE STATUS OF THE STUDENT CHAPTERS?

There are 33 student chapters in 18 sections: 3 from Ohio, 3 from Seaway, and 8 from Southeastern.

There have been over 200 inquiries, but the information has not been finalized; preliminary and draft information has been provided.

The Committee on Student Chapters will have final material sent to Section Coordinators and Chapter Advisors in February.

Sections that have not yet named their Section Coordinators should do so this Spring and notify National MAA.

It was recommended that each Section create a list of local speakers for the Student Chapters: the National Lectureships still exist but with minimal funding.

THE NEXT SECTION OFFICER'S MEETING IN BOULDER, COLORADO

The next Section Officer's meeting will be at the Summer, 1989 National Meeting in Boulder, Colorado on (probably) August 6. You will be given specific details by letter later this Spring. The meeting will last about two hours with the first hour dedicated to general problems and solutions, and the second hour devoted to Student Chapters. We ask that each Section strongly encourage their Student Chapter Coordinator to attend. As you may know, the MAA provides partial funding for one officer from each Section to attend the Summer Section Officer's Meeting. You might want to use this funding to help the Student Chapter Coordinator.

SOME VERY INTERESTING STATISTICS

On this page and the next are some statistics provided by the National Office on the demographic distribution of the membership of the Sections both in raw numbers and by percentages. We thought you might be interested.

	Stud	Tchrs	TYC	FYC	Univ	Non-Acad	Ret/Unemp	Other	Total
Allegheny Mountain	81	43	11	92	203	40	44	23	537
Eastern Pa. & Del.	142	121	42	153	293	89	81	54	975
Florida	121	98	136	48	257	68	114	62	904
Illinois	182	170	98	132	339	147	88	82	1238
Indiana	76	49	5	56	237	28	36	19	506
Intermountain	42	14	6	20	64	20	10	2	178
Iowa	55	21	17	66	85	12	19	9	284
Kansas	41	18	22	20	99	25	17	16	258
Kentucky	41	24	37	33	121	10	17	9	292
Louisiana-Missippi	95	43	22	22	219	22	39	24	486
Maryland-DC-Virginia	232	151	151	172	426	551	165	139	1987
Metro. New York	202	214	111	221	276	206	112	137	1479
Michigan	147	72	62	122	271	69	64	49	856
Missouri	74	49	23	57	159	29	24	20	435
Nebraska	27	15	7	16	47	16	13	6	147
New Jersey	91	119	60	134	132	220	60	95	911
North Central	143	52	41	115	243	72	47	28	741
Northeastern	307	245	78	368	520	326	157	148	2149
Northern California	268	121	142	69	391	300	139	120	1550
Ohio	179	112	41	109	415	84	87	50	1077
Oklahoma-Arkansas	71	43	13	19	158	21	31	19	375
Pacific North West	193	71	94	101	347	120	82	60	1068
Rocky Mountain	100	33	27	89	96	85	45	26	501
Seaway	322	68	96	204	440	107	95	68	1400
Southeastern	377	192	121	378	718	172	136	85	2179
Southern California	287	146	127	95	383	366	134	130	1668
Southwestern	85	47	47	15	139	70	47	34	484
Texas	168	147	128	74	426	163	76	65	1247
Wisconsin	68	40	16	55	255	28	38	25	525
TOTAL	**4217**	**2538**	**1781**	**3055**	**7759**	**3466**	**2017**	**1604**	**26437**

	Stud	Tchrs	TYC	FYC	Univ	Non-Acad	Ret/Unemp	Other
Allegheny Mountain	15.1%	8.0%	2.0%	17.1%	37.8%	7.4%	8.2%	4.3%
Eastern Pa. & Del.	14.6%	12.4%	4.3%	15.7%	30.1%	9.1%	8.3%	5.5%
Florida	13.4%	10.8%	15.0%	5.3%	28.4%	7.5%	12.6%	6.9%
Illinois	14.7%	13.7%	7.9%	10.7%	27.4%	11.9%	7.1%	6.6%
Indiana	15.0%	9.7%	1.0%	11.1%	46.8%	5.5%	7.1%	3.8%
Intermountain	23.6%	7.9%	3.4%	11.2%	36.0%	11.2%	5.6%	1.1%
Iowa	19.4%	7.4%	6.0%	23.2%	29.9%	4.2%	6.7%	3.2%
Kansas	15.9%	7.0%	8.5%	7.8%	38.4%	9.7%	6.6%	6.2%
Kentucky	14.0%	8.2%	12.7%	11.3%	41.4%	3.4%	5.8%	3.1%
Louisiana-Missippi	19.5%	8.8%	4.5%	4.5%	45.1%	4.5%	8.0%	4.9%
Maryland-DC-Virginia	11.7%	7.6%	7.6%	8.7%	21.4%	27.7%	8.3%	7.0%
Metro. New York	13.7%	14.5%	7.5%	14.9%	18.7%	13.9%	7.6%	9.3%
Michigan	17.2%	8.4%	7.2%	14.3%	31.7%	8.1%	7.5%	5.7%
Missouri	17.0%	11.3%	5.3%	13.1%	36.6%	6.7%	5.5%	4.6%
Nebraska	18.4%	10.2%	4.8%	10.9%	32.0%	10.9%	8.8%	4.1%
New Jersey	10.0%	13.1%	6.6%	14.7%	14.5%	24.1%	6.6%	10.4%
North Central	19.3%	7.0%	5.5%	15.5%	32.8%	9.7%	6.3%	3.8%
Northeastern	14.3%	11.4%	3.6%	17.1%	24.2%	15.2%	7.3%	6.9%
Northern California	17.3%	7.8%	9.2%	4.5%	25.2%	19.4%	9.0%	7.7%
Ohio	16.6%	10.4%	3.8%	10.1%	38.5%	7.8%	8.1%	4.6%
Oklahoma-Arkansas	18.9%	11.5%	3.5%	5.1%	42.1%	5.6%	8.3%	5.1%
Pacific North West	18.1%	6.6%	8.8%	9.5%	32.5%	11.2%	7.7%	5.6%
Rocky Mountain	20.0%	6.6%	5.4%	17.8%	19.2%	17.0%	9.0%	5.2%
Seaway	23.0%	4.9%	6.9%	14.6%	31.4%	7.6%	6.8%	4.9%
Southeastern	17.3%	8.8%	5.6%	17.3%	33.0%	7.9%	6.2%	3.9%
Southern California	17.2%	8.8%	7.6%	5.7%	23.0%	21.9%	8.0%	7.8%
Southwestern	17.6%	9.7%	9.7%	3.1%	28.7%	14.5%	9.7%	7.0%
Texas	13.5%	11.8%	10.3%	5.9%	34.2%	13.1%	6.1%	5.2%
Wisconsin	13.0%	7.6%	3.0%	10.5%	48.6%	5.3%	7.2%	4.8%

UNDER-REPRESENTED GROUPS

The Committee on Sections will have a Special All-Day Committee Meeting on August 5 to discuss how we can encourage the participation of those groups that are under-represented at many Section Meetings. These include minorities, females, two-year institution faculty, high school faculty, Ph. D. and research institution faculty, industry, and others. (Before I get into trouble, let me state that I know that some Sections have been successful in attracting participation from some or several of these groups; the problem is that not all Sections have had success.)

The outcome of this workshop is to create some concrete suggestions that can be used by most Sections to help them increase attendance and participation.

If you have suggestions or comments, please send them to David Ballew, Department of Computer Science, Western Illinois University, Macomb, Ill 61455

A BIT OF CONFUSION ON THE LOUISVILLE MEETING DATES

Ken Ross writes that there has been a "Comedy of Errors" with respect to the published dates of the Louisville Meeting in January of 1990. The correct dates are January 17-20, 1990. Pay thee no attention to any other dates you may have seen.

TWO PROGRAM SUGGESTIONS

The CUPM Subcommittee on Calculus Reform and the First Two Years (CRAFTY) has asked that the Sections be encouraged to schedule contributed paper sessions on the various calculus initiatives. These have been very successful at the National Meetings. We know that much is going on at the local level, so you may find this an interesting and valuable part of your meeting.

For the same reasons, you might consider a session on "Writing Across the Mathematics Curriculum". Contributed paper sessions on this topic at the National Meetings surprised many people when the number of contributions

overwhelmed the time available, and the audiences needed larger rooms. At the Phoenix Meeting, there were three contributed paper sessions on this topic alone. More importantly, it is very interesting to see the innovative ways that we are attacking this problem.

A LETTER FROM THE NATIONAL SCIENCE FOUNDATION

Ms. T. Christine Stevens, the Associate Program Director, Teacher Enhancement Program, Directorate for Science and Engineering Education, National Science Foundation, contacted me and asked that the following be provided to the Section Officers:

"The NSF's Directorate for Science and Engineering Education supports a wide range of activities in mathematics education from kindergarten through graduate school. The program officers are anxious to encourage more proposals in mathematics, which tends to be under-represented in several programs, and to involve more mathematicians in the projects we support. We believe that the MAA Section Officers can be of help in two ways:

(1) Organize a panel at your Section Meeting on exemplary mathematics education projects in your region. Such projects should combine a deep and broad understanding of how schools work. The NSF staff can assist you in identifying possible speakers.

(2) Invite a member of the NSF program staff to offer a workshop or minicourse on how to write successful education proposals. Although the travel expenses would have to be paid by the Section (perhaps out of fees charged for the minicourse), no honorarium would be needed.

If you would like further information about these ideas, or if you would like to discuss others of your own, please contact us: Christine Stevens (Teacher Enhancement 202-357-7074), Thomas Berger (Materials Development. 202-357-7074), John Bradley (Calculus, 202-357-7051), or Florence Fasanelli (Young Scholars, 202-357-7536)."

THE MAA'S TWENTY-FIFTH ANNIVERSARY IN 1990

The MAA will celebrate it's 25th Anniversary at the Columbus Meeting in August of 1990. (Columbus is where it all started!) The Sections will be involved in the opening ceremonies and in the opening procession. We are recommending that the National Officers who will be speaking at the Section Meetings in the Anniversary Year prepare at least one of their possible topics on a subject of historical interest. You might be looking for these, request them, and use them as a valuable addition to your programs.

THE MAN WHO LOVED NUMBERS

The MAA has bought the NOVA film "The Man Who Loved Numbers" on a video tape. This is an interesting film about the famous Indian mathematician Ramanujan and is available for use at Sectional meetings from Alicia Bennett, MAA, 1529 Eighteenth Street, NW, Washington DC 20036. It should be ordered 30 days prior to the date you will need it and returned within a week after your meeting.

Sections and the MAA Placement Program

As this issue of CROSSECTIONS was going to press I spoke to David Ballew to get his suggestions as to how to best bring this MAA program to the particular attention of the Sections. The result is this page with John Harvey's article, written as Chair of the Committee on Placement Examinations (COPE). I hope that you will read it and find it useful. It can be the basis for articles in Section newsletters and COPE members are always ready to speak on many aspects of testing (a subject of perennial concern) at Sectional or other regional meetings.

Section Officers should feel free to call upon those of us (Susan Wilderson and myself) who work on PTP and COPE material at MAA Headquarters, and to raise any questions about testing with John Harvey (Chair) or other COPE members. The Placement Testing Program is well in place, and John describes new initiatives in his article, but there will be new schools to be brought into the program and new needs to meet. We need your help in bringing PTP to the attention of those new schools and to bring new needs to the attention of COPE.

Peter Renz

Peter L. Renz
Associate Director

Every Student Belongs, but Exactly Where?

John G. Harvey, COPE Chair

Today placing students in courses using only their high school records is difficult and risky because today entering college-level students are more diverse in academic background, age, and work experience than ever before. Many schools are turning to placement tests to solve this problem. Such tests provide a common solution to a common problem for a diverse group of institutions: two-year colleges, four-year colleges, and universities. In 1977, the MAA Placement Testing (PT) Program was started to provide subscribers with high-quality, valid placement tests at moderate cost. The MAA Committee on Placement Examinations (COPE) develops, revises, and maintains the materials that make up the PT Program.

The MAA PT Program includes a set of six placement tests and two high school level prognostic tests. These are paper-and-pencil, multiple-choice tests briefly described as:

□ The *Arithmetic and Basic Skills Tests* consists of 32 questions in two parts: Part I is 20 questions on arithmetic and Part II is 12 questions on pre-algebra, word problems, graphs, and figures. Part I can be administered alone in 25 minutes; the whole test takes 40 minutes.

□ There are three algebra placement tests; they are the *Basic Algebra Test*, the *Algebra Test*, and the *Advanced Algebra Test*. The Basic Algebra Test consists of 25 questions from elementary and intermediate algebra and can be given in 30 minutes. The Algebra Test includes 32 items from elementary, intermediate, and college algebra; it takes 45 minutes. The highest level algebra test, the Advanced Algebra Test, consists of 25 questions drawn from intermediate and college algebra; the recommended administration time for this test is 30 minutes.

□ The *Trigonometry and Elementary Functions Test* covers basic skills from trigonometry and elementary functions and consists of two parts. Part I contains 15 questions from plane trigonometry; part II contains 15 questions from elementary functions topics. The two parts of the test are independent and can be administered alone or together. If given separately each part takes 25 minutes; when combined the administration time for the test is 45 minutes.

□ The *Calculus Readiness Test* was designed to show student potential for all of the various sorts of introductory calculus courses presently being offered. The Calculus Readiness Test focuses on word problems, interpretation of graphical information, numeric awareness, and problem solving. Part I of the Test consists of 20 questions that can be correctly answered without knowledge of trigonometry; Part II is a test of minimal competence in trigonometry. Part I can be given in 25 minutes; the time for administration of both parts together is 30 minutes.

The two prognostic tests are for use by institutions of higher learning working with high schools to test high school juniors and let them know what course they would be placed into upon entering college if they take no additional high school mathematics courses. This serves as a guide for both students and teachers and is an aid in dealing with high school-college articulation.

In addition to the tests, the PT Program includes the *PTP User's Guide*. This *Guide* helps subscribers to the PT Program get "up and running." Subscribers also receive the *Placement Testing Newsletter* twice annually. The Newsletter carries reports on testing programs from PTP users, on other changes and improvements in the PT Program, and on trends in placement testing. Subscribers annually pay a fee that permits them, during a twelve month period, to copy and use any or all of the PT Program tests, to cut-and-paste the tests tailoring them to their needs, and to consult with members of COPE on setting up, administering, or maintaining their program. The present new subscriber fee is $150.00; renewing subscribers pay a fee of $100 annually. In February 1989, there were nearly 400 PT Program subscribers; about 20% of the present subscribers are two-year colleges, 40% are bachelor's degree institutions, and 40% are colleges and universities that offer master's and PhD degrees. There are PT Program subscribers in each of the MAA Sections.

The present PT Program tests are designed to be taken without calculators. However, since 1986, COPE test panels have been developing new placement tests that *require* the use of scientific calculators; the first two of those tests, the *Calculator-Arithmetic and Skills Test* and the *Calculator-Calculus Readiness Test*, will be included in the 1989 PTP test packet. Two more of the calculator-based placement tests will be added to the 1990 test packet; in 1991, the remaining two calculator-based tests will become part of the test packet. In addition, COPE has a project for computer generation of parallel forms of tests. This project will give additional data about the validity and reliability of COPE tests. Finally, COPE has started the MAA Prognostic and Diagnostic Testing Network; this is a network of states, colleges and universities, and individuals who are engaged in or are interested in prognostic and diagnostic testing.

Additional information about the MAA Placement Testing Program or the activities of the Committee on Placement Examinations can be obtained by writing to: Ms. Susan Wilderson, Mathematical Association of American, 1529 Eighteenth Street NW, Washington, DC 20036, or John G. Harvey, Chair, Committee on Placement Examinations, Department of Mathematics, University of Wisconsin, 480 Lincoln Drive, Madison, Wisconsin 53706.