

FOCUS on Students: Why Join?

By Robert W. Vallin

Why join? That's a natural question to ask. In college one can join a fraternity/sorority, or attend the meetings of a Student MAA Chapter, or play intramural sports. In all these cases, "Why Join?" has the same answer: socialization. People desire to find like-minded persons to be with. To find them, people look to the professional organization.

Math students can become members of the MAA, the AMS (American Mathematical Society), SIAM (Society for Industrial and Applied Mathematics), AWM (Association for Women in Mathematics), NCTM (National Council of Teachers of Mathematics), and several others. The obvious reason for a student to join is the Professional Activities line of the resume. Showing that you belong to professional groups indicates a commitment to your vocation that employers like to see.

There is more, though. Joining can provide you with many benefits, some more obvious than others, that will be helpful to you as a professional and as a person. Associations provide professional development, networking opportunities, and venues for publication. They also offer many opportunities for members to make their own contributions to their profession. Getting the most out of membership is about finding out what the group can do for you and taking advantage of it.

Once, at a meeting, I heard someone remark, "Students should become members of the MAA because they should be good mathematical citizens." However nice a thought that is, the days of joining because it's the "correct" thing to do are long gone. People want to know what it is they are getting for their money. Yes, it may cost you to join, but it is worth it? To quote Mary Ellen Slater, writer for the Jobs section of the *Washington Post*, "Student and junior memberships are often available at deep discounts, so don't let cost be an obstacle. The contacts that

such a group can provide are invaluable." From the MAA, you get a lot for the cost, no matter where your interests lie.

When you join the MAA, you help to support the largest professional organization devoted to undergraduate mathematics. The Association publishes three journals (*The American Mathematical Monthly*, *The College Mathematics Journal*, and *Mathematics Magazine*), *Math Horizons* magazine, which introduces undergraduates and math enthusiasts to topics not seen inside the classroom, and the news magazine MAA FOCUS. Online there is MathDL and the *Journal of Online Mathematics*. Both *MAA Reviews*, which is a huge database of mathematics books and reviews, and the *Classroom Capsules and Notes* website, which makes available electronically years of accumulated wisdom and experience about teaching, are accessible only to members of MAA.

The MAA has 29 regional sections which hold meetings at least once a year with both student and faculty talks. Any student who gives a talk at a Sectional Meeting receives a free one-year membership in the MAA. Twice a year there are large, national meetings: MathFest in August and the Joint Mathematics Meetings in January.

Meetings are a chance for you to interact with people who have similar interests and find out the latest news and results in mathematics. MathFest has a graduate student poster session and multiple sessions in which undergraduates can give talks. At the Joint Meetings there is a huge poster session where undergraduate students speak on their work and a plethora of sessions on research and teaching topics. Students who speak at MathFest are eligible for financial support for their travel expenses.

Additional items that your MAA membership helps support the MAA include producing the brochure *We Do Math!*

Careers in the Mathematical Sciences, which contains profiles of mathematics majors who went on to successful careers in various fields. The MAA supports workshops and programs to help faculty in their professional growth. For undergraduate students there are Research Experiences for Undergraduates (REU) programs and National Research for Undergraduates Programs (NREUP), which specialize in research experiences for minorities. The latter is supported by a National Science Foundation grant administered by the MAA. The MAA and the Tensor Foundation also supply grants for Women and Mathematics Projects. Regional Undergraduate Math Conferences (RUMC) are partly funded by the MAA; these are conferences for undergraduates, with talks aimed at them and with many opportunities for them to speak on their own research.

The MAA has a lot to offer graduate students. MAA journals have many articles devoted to teaching which can help you. You may find the perfect way to present related rates or, maybe more importantly, an outlet for you to sneak Lebesgue integration into Calc I. There are journals for you to publish teaching articles, recreational math, expository works, and a new view on an undergraduate topic. Regular features such as "Proofs without Words," and the "Classroom Capsules" can be fun and important resources for you. The MAA also maintains web pages on employment opportunities for mathematicians at all levels, not just PhD mathematicians.

As many of you will discover when you get your first academic job, there is more to being faculty than teaching and research. The MAA is also the place for your continued scholarly growth. You can participate in workshops (e.g. PMET — Preparing Mathematicians to Educate Teachers, and PREP — Professional Enhancement Program) whose recent topics include *The Genius of Euler*, and *Revi-*

talizing *College Algebra*. Additionally, there are minicourses and short courses found at MAA meetings and elsewhere. At the Joint Meetings in San Diego, for example, these included an MAA Short Course on *Combinatorics: Past, Present, and Future*.

In addition, there are now eleven SIG-MAAs (Special Interest Groups within the MAA), available for you to join, running the gamut from Quantitative Literacy to Math and the Arts. And, of course, after you obtain your first academic job, there's Project NExT (New Experiences for Teachers) and Section NExT. All said, membership in the MAA helps you create and maintain connections with people who share your interests and enthusiasms. If you are in your first year after obtaining your PhD, the MAA will give you a free one-year membership. There's no reason not to take advantage of this deal.

So regardless of how far along you are on your mathematical pathway, there is something a professional organization can offer you. Being a member is more than just a line for your resume. Belonging is not an expense, but an investment. It is an important part of starting and maintaining your professional career. Whether you are an undergraduate or graduate student, a junior faculty member or more seasoned professor, joining the MAA has its benefits for you.

Why Did You Join?

If you are reading this, you are probably a member of MAA. Why did you join? Why have you renewed your membership over the years? We will publish the best "Why I joined" and "Why I am still a member" articles in future issues of MAA FOCUS. Send them to the editor at fqgouvea@colby.edu.

Professional Associations in Mathematics

There are many professional associations for mathematicians in the United States, ranging from very broad (MAA, AMS, NCTM) to very specialized (for example, the Association of Christians in the Mathematical Sciences, Psychology of Mathematics Education, or the Society for Chaos Theory in Psychology and the Life Sciences). And, of course, there are many international associations as well.

The following is only a partial list. It includes all of the associations that are members of CBMS, the Conference Board of the Mathematical Sciences, an umbrella organization whose purpose is "to promote understanding and cooperation among these national organizations so that they work together and support each other in their efforts to promote research, improve education, and expand the uses of mathematics."

AMATYC	American Mathematical Association of Two-Year Colleges
AMS	American Mathematical Society
AMTE	Association of Mathematics Teachers Educators
ASA	American Statistical Association
ASL	Association for Symbolic Logic
AWM	Association for Women in Mathematics
ASSM	Association of State Supervisors of Mathematics
BBA	Benjamin Banneker Association
INFORMS	Institute for Operations Research and the Management Sciences
IMS	Institute of Mathematical Statistics
MAA	Mathematical Association of America
NAM	National Association of Mathematicians
NCSM	National Council of Supervisors of Mathematics
NCTM	National Council of Teachers of Mathematics
SIAM	Society for Industrial and Applied Mathematics
SOA	Society of Actuaries

Descriptions of each of these associations can be found at the CBMS website at http://www.cbmsweb.org/Members/member_societies.htm.

For a much larger list of professional associations for mathematicians, visit <http://archives.math.utk.edu/societies.html>.

Correction

There was an unfortunate misprint in Wendy A. Weber's article "Asking Questions," in the December issue. The second of the sample questions starts "In response to your question of how to define $yk\dots$ " The "yk" should, of course, be " y^k ". We apologize for the error.