

## From the Executive Director

### Some Advice for Young Mathematicians

These are tough times for young mathematicians, and you are likely asking yourself:

“What are professional societies doing to help?  
What good are professional societies anyway?”

I can give a partial answer to the first question, but my answer may not be entirely satisfying. What is the AMS doing? Employment registers, interview facilities at meetings, job-seekers lists (in late spring), statements on good hiring practices, surveys about our changing environment, Centennial Fellowships, the nonacademic employment project --- the list is much longer. Each of these is a small step, however, and a longer list may not impress you. The problems young mathematicians face are deep, serious, and complex. These problems won't be solved by resolutions of outrage, but rather by many small, steady, deliberate steps over long periods of time.

I can give you a better answer to the second question. I am often asked about the value of professional societies, and I only recently realized that I was told the answer long ago. Twenty five years ago, when I arrived at Indiana University, a senior faculty member took me aside and gave me some advice. “Ewing,” he said, “Here are five things you ought to do in the next few years if you want to be a mathematician.”

- Publish . . . and do it sensibly. Get your thesis in print, but get some other things as well. Don't be intimidated: all research looks “easy” once it's done. Have confidence that other people want to know about your work. But don't be sloppy and publish wrong things, and don't be slovenly and publish trivial things either.
- Discover what's being done . . . constantly. Read Math Reviews every month, and look at Current Mathematical Publications. Get on preprint lists; pick up the phone (today he would say, send email and scan preprint servers) to find out who's doing what. You need to be a scholar.
- Travel . . . as much as possible. Got to meetings to learn about things outside your field; go to conferences to learn about new developments inside. This is the way you meet the people who will be your mathematical colleagues for the next 50 years, and 50 years from now you'll thank me for the advice.
- Talk mathematics . . . as much as possible and as widely as possible. Go to lunch with people in the department, daily or at least weekly. Talk mathematics at tea every day (and if there isn't one, organize it). Talk in the hallways; talk on the way to and from work.
- Teach your students . . . with enthusiasm and passion. They learn more that way, but so do you. Answer every question, and then ask another of yourself and your students. No matter what the level, you learn new mathematics when you teach it with enthusiasm.

Publish sensibly, discover constantly, travel extensively, talk widely, teach passionately.

Do those things, he said, and mathematics becomes a part of your life – not just a job, but a profession. That was his advice, and it was good advice.

What good are professional societies? They make it easier – in fact, they make it *possible* – to take this advice. Societies publish journals so that you can publish papers. They provide services such as Math Reviews and CMP so that you can discover. They hold meetings and conferences that build community as well as research. They sustain professional development that fosters talking and teaching. They provide news and information that connects the various mathematics communities to each other and to the public. And they provide a way to share the responsibility for these activities among many mathematicians.

What good are professional societies? They provide the framework in which mathematicians, both young and old, can be professionals.

*John Ewing*