

## My First Section Meeting

Rick Gillman

Fall, 2023

I attended my first Indiana Section meeting, and thus my first MAA meeting, in the spring of 1982. Unfortunately, I am writing this essay a year too late to commemorate the fortieth anniversary of this event.

The meeting was held at Ball State University, where I was just completing a Master of Arts degree in mathematics education. I fully intended to become a high school mathematics teacher; I had done my student teaching at Muncie Southside High School a few years earlier. I was an assistant manager at a McDonald's while completing my MA before taking a fulltime teaching job. It makes sense when you know that I completed my BS degree in November; a very bad time of year to look for a high school teaching job!

You might be wondering why it took until I was nearly at the end of completing a MA degree (i.e. my sixth year since beginning my BS studies at BSU) to attend a section meeting. After all, by then, the Indiana College Mathematics Competition had been running for nearly twenty years! First, for most of those twenty years, the competition was the Indiana SMALL College Mathematics Competition and public universities were not invited to participate. Second, undergraduate research was largely unheard of at the time, so there was no natural opportunity to give a presentation. Third, and personal to me, was that I had worked almost every weekend over the prior six years.

I had wonderful professors at Ball State – I should write about them sometime – and they taught me much about mathematics and even more about understanding how students learn it, but I don't think that they thought much about involving me in the larger world of the mathematics community. We have come a long way since then.

All of which brings me to the meeting itself. It was a Friday-Saturday meeting, with the Friday program focused on mathematical history. I know that I didn't attend the whole meeting. In fact, I am pretty sure that I only attended the Saturday late morning plenary session. Fortunately, the invited speaker was a gifted mathematician and speaker, Paul Halmos, who was on the faculty at Indiana University at the time.

Paul Halmos (1916-2006) was known for work in many areas of mathematics, but most relevant to this essay is his talent for expository writing. He received the Steele Prize for exposition from the American Mathematical Society. In part, his citation read:-

*The award for a book or substantial survey or research-expository paper is made to Paul R Halmos for his many graduate texts in mathematics, dealing with finite dimensional vector spaces, measure theory, ergodic theory and Hilbert space. Many of these books were the first systematic presentations of their subjects in English. Their felicitous style and content has had a vast influence on the teaching of mathematics in North America. His articles on how to write, talk and publish mathematics have helped all mathematicians to communicate their ideas and results more effectively.*

In 1993, he received a Distinguished Teacher award from the MAA, and prior to that he had received the Chauvenet prize, the Polya prize, and two Lester R Ford awards from the Association for expository writing in the Association's various journals. (<https://mathshistory.st-andrews.ac.uk/Biographies/Halmos/>)

Paul was a strong advocate for the work of the Association. Together with his wife, he funded the rebuilding of the Carriage House Conference Center at the Association headquarters in Washington D.C.

He also funded programming at the Carriage Center, donated funds to support the MAA's Euler prize and its Halmos-Ford Prize, both for expository writing. The Halmos' also donated funds to the AMS for the JL Doob Prize for expository mathematical writing.

His autobiography, *I Want to Be a Mathematician*, was the first of many mathematical biographies that I read over the years. But more impactful on me were his books *How to Write Mathematics* and *How to Talk Mathematics* which I used to guide all of my interactions with students as I taught them to write and speak mathematically.

What did Paul talk about that day that influenced me so much and for so long? Until a few months ago, I could remember hearing him talk. I remember coming away from the talk knowing that there was more to mathematics, and my life within it, than teaching at a high school. Somehow, he brought the discipline to life in a way that my professors at Ball State hadn't quite done.

A year ago, I could not answer the question of the previous paragraph. But then, as I have written elsewhere, I came into possession of "the box" containing archival material about the section, including, as it happens, a program from the spring 1982 section meeting. In the program, the title of Paul's talk was given as "Linear Algebra Made Difficult." I remember the talk as being centered on problems and their solutions, so I assume that much of the talk was eventually incorporated into Paul's 1995 *Linear Algebra Problem Book* (published by the MAA.)

NB: In the records, I also found notes that after this meeting, the section formed a committee to consider the feasibility of student presentations at section meetings. The recommendation was for a limited number, scheduled so as not to "distract from the professional meeting" and was implemented at the fall 1982 meeting held at Wabash College.