DAN GOLDNER | Math Teacher, Boston Public Schools (goldner@alum.mit.edu)

Degree: When, where, what, and what in?

I earned my PhD in physical oceanography in 1998 from the Massachusetts Institute of Technology/Woods Hole Oceanographic Institution Joint Program.

Did you stay in academia at all, and if so, for how long?

Nope.

How did you go about searching for a job outside of the university setting?

I would get curious about something and try to find someone in that field to write to. I talked to anyone and everyone, asking what they did, if they liked it, how to get involved. If they recommended other people to call, I called. If they recommended a book, I read it, then tried to get an appointment with the author.

Is this the only job (post-academia) that you've had? If not, what else did you do?

Right after graduate school, I joined Ventana Systems Inc., a consulting firm that does simulation modeling and data assimilation (they don't call it that) for businesses and government agencies. I got to learn a ton about dozens of industries and government services.

What is your current job? What path did you take to get there?

I teach high school mathematics in a public school in Dorchester, MA. After 10 years with Ventana, I started to miss working with students. I had taught high school prior to getting my PhD and decided to return. I did a year of training with the Boston Teacher Residency and am now in my fourth year as a classroom teacher.

What did your oceanographic education (or academic career) give you that is useful in your current job?

My oceanographic training was directly useful in my consulting career, as I was using the simulation and inference techniques that I had learned in graduate school daily. Now that I'm teaching, the links are less clear. It's difficult to translate scientific applications to students who are just learning algebra or even introductory calculus. I did find that the graduate school experience of managing my own research, getting papers written, and presenting my work concisely and thoroughly were also directly useful while consulting, and in my teaching I am trying to give high school students some experience in learning those skills.

Is the job satisfying? What aspects of the job do you like best/least?

Consulting was great fun: occasionally stressful, but always fascinating, and I was lucky to be in a situation that gave me a lot of autonomy. Now that I am teaching, the opportunities to accompany students as they discover themselves are magical. I find the most difficult part to be physical, as the daily schedule is relentless.

Photo credit: Don Orth

Do you have any recommendations for new grads looking for jobs?

Postpone filtering as long as possible. I was given so many suggestions regarding people to write to and talk with that I felt overwhelmed, so I organized the leads into groups by priority, and then pursued one group at a time. That was an error. I had so little information about each lead that I misjudged which ones should be high priorities. Consequently, I wasted a lot of time before starting to talk with the groups that turned out to be the best prospects. So don't be afraid to start a million conversations at once. The responses you get (and don't get) will provide a solid basis for setting effective priorities.