

CAREER PROFILES Options and Insights



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

Having completed a bachelor's degree in geology at Franklin & Marshall College in 1983, I proceeded straight to graduate school at Brown University, where I finished a master's degree in 1986 and a PhD in 1991, both in geological sciences, with an emphasis on marine geology (paleoceanography, paleoclimatology, isotope geochemistry). Given his patience, understanding, and generosity, I couldn't have been more fortunate than to have Warren Prell as my thesis advisor.

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

While a graduate student, I participated in two scientific ocean drilling expeditions (Legs 121 and 138) of the Ocean Drilling Program. Those experiences connected me to an incredible cross section of international scientists, many of whom became colleagues and friends after 60-day stints at sea. I also learned how to write proposals, initially to the Joint Oceanographic Institutions – US Science Support Program, funded by the US National Science Foundation (NSF), and how to manage the resulting grants. I parlayed that experience into writing proposals directly to NSF and was fortunate to receive grants as a graduate student (although technically submitted by

more senior departmental personnel). While these grants extended my tenure as a student, they also set the stage for a self-funded postdoc at Brown in a different subdiscipline (strontium isotope geochemistry). I loved the research, learning new subdisciplines, generating data with sophisticated equipment, writing papers, giving talks, meeting new colleagues, and doing laboratory and field work.

I applied for a number of faculty positions and accepted a position as a Senior Research Associate at the University of British Columbia, in Vancouver, to work on the Joint Global Ocean Flux Study (JGOFS). This was a transition for me, from a department of geological sciences to oceanography. Again, jumping into new research areas was exciting, and I loved it. There was so much to learn and do, and my Canadian sponsors, Tom Pedersen and Steve Calvert, were wonderful. The perspective of working as a scientist, outside the United States, was also enlightening as I came to appreciate the global perspective of US scientific research.

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

While in Canada, I continued to apply for faculty positions, but, because I had interests in addition to research, I also looked at a wide range of job opportunities outside of academia, such as at the National Academy of Sciences, as a Congressional Fellow, at philanthropic foundations, in the federal government, and at nonprofit science organizations. In early 1995, I had a tenure-track offer at a state university and another offer to work as an Assistant Program Director at Joint Oceanographic Institutions Inc. (JOI). It was a difficult choice. I loved research (more than

teaching), had some early successes with it, and most of my colleagues were from the “Ivory Tower” and expected me to remain in it. Nevertheless, I was concerned about what appeared to be a glut of Earth science PhDs on the job market, the lower success rates of proposals, the less-than-transparent process by which proposals were selected for funding, the endless appetite of university administrators for more tuition-paying students, and the high start-up costs for the kind of research I was most interested in pursuing as a faculty member. At the same time, while I never envisioned working as a geologist in Washington, DC, at a desk, let alone wearing a suit. I was attracted to the Assistant Program Director job because I really liked the Ocean Drilling Program and hoped that I could somehow help contribute to its success. I was also most fortunate to be selected by Ellen Kappel, who taught me how to be a program manager and who has remained a valued colleague and friend for over 25 years.

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

Ironically, after nine years at JOI, I accepted a job back in academia, as Associate Dean of Research and Administration at the University of Rhode Island's Graduate School of Oceanography. I bypassed the tenure track route and went straight to university administration. Given my experience as a program manager, it was easy to return to academia in such a position, and I enjoyed it immensely. But another great opportunity arose in Washington, DC, in the federal government, and for family and professional reasons, I applied.

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

Since 2006, I have held a US Federal Government Senior Executive Service position as Executive Director of the US Arctic Research Commission, a small, independent federal agency (www.arctic.gov). The immediate path to this position was an announcement about the job opportunity from Garry Brass, the previous director, whom I knew through association with the Ocean Drilling Program (again, emphasizing the value of an extensive network of colleagues). But I would be the first to admit that the true “path” to this position was more like a “drunken sailor’s random walk.” My only prior experience with Arctic research had been a challenging effort to plan and execute the first high-Arctic scientific drilling expedition in 2004 with the Integrated Ocean Drilling Program (ACEX, Expedition 302: Arctic Coring Expedition). So, despite limited Arctic knowledge and experience, and no prior federal service, I applied, hoping that I’d get a shot, because the job looked interesting. Fortunately, I got the nod.

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

An extended period of formal training in any natural science is excellent preparation for life in general. I credit that education with nurturing my inherent curiosity and developing an ability to apply the scientific method to all sorts of challenges: observing keenly and reasoning rigorously, seeking empirical evidence, verifying and proving thinking critically, maintaining impartiality, and developing theories while regarding them with caution. I find this quote from Brian Deer to be apt: “Courage in science isn’t proving yourself right. It’s in your efforts to prove yourself wrong.”

For two reasons I think that, compared to other disciplines, being a geological oceanographer is interesting. First, we tend to develop a knack for coming up with explanations and hypotheses despite

having sparse data sets. So, either we’re comfortable with uncertainty, or we love arm waving. Second, we often tend to be generalists, drawing on a number of sub-disciplines (such as geochemistry, geology, geophysics, physical oceanography, biology, ecology, statistics) to address questions. I have found this approach to be rewarding, given my broad range of interests. I’m not an expert in any one of them, yet there’s strength and value in being minimally facile in all. This has taught me to not fear diving head-first into new and often completely unfamiliar issues. I’ve found it an advantage to be a generalist in a world where others are encouraged to specialize, often to extremes, which, admittedly, is also necessary to advance science.

Is there any course or other training you would have liked to have had as part of your graduate education to meet the demands of the job market?

If there is a course or training on how to effectively and legally circumvent mindless bureaucracy, sign me up. I’ve had to learn that on the job, and it’s “life-long learning.” It’s always helpful to understand how money flows, is budgeted and accounted for, but I’d have dreaded sitting through a formal course on that. Similarly, deeply understanding people, including yourself, and how to communicate, motivate, and work with others is key, but I imagine the only way to learn that is on the fly, in your day-to-day life. The best thing you can do is continue to expose yourself to new and sometimes uncomfortable situations. Take risks. You’ll learn from them.

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

After early employment doing yardwork, newspaper delivery, busboy gigs, and construction (day laborer), I’ve had the great fortune and privilege of having wonderful jobs. They have enabled me to live in beautiful and exciting places and to travel a good portion of the world, many times over; to work at sea in the Arctic,

Indian, Atlantic, and Pacific Oceans; and to meet an amazing array of professionals, not just scientists, but also diplomats, military personnel, technologists, doctors and veterinarians, engineers, analysts, agents, politicians, journalists, pilots, artists, and yes, even attorneys (along with a few charlatans). Currently, I like being the head of a small organization. It provides great freedom and opportunity. You can fly below the radar when necessary, but if lucky and plucky, punch above your weight class because of your flexibility and autonomy.

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

Feed and foster your curiosity. Read broadly. Be open, even if it feels unnatural. When given the option, meet and work together in person (as opposed to virtually) in challenging situations and environments to forge strong and lasting relationships. Don’t be reluctant to apply for jobs for which you are not fully qualified. Prepare well for job interviews, read up, know your stuff, listen carefully, and ask questions. Learn how to negotiate an offer. Don’t give up. 📧