

Civics 520: The culture of volunteerism

Diane Nutbrown knew when she was a junior in college that she wanted to devote a year to community service before pursuing her goal of earning a Ph.D. in chemistry. "I was heavily involved in community service efforts during college," she says. "When I learned about AmeriCorps, I thought it was the perfect opportunity for me to make a significant positive contribution to the world. This was a chance to make a difference in other people's lives beyond what I'd been able to do as a part-time volunteer."

As a participant in Volunteers in Service to America (VISTA), Nutbrown served as the technology coordinator for the Boys & Girls Clubs of Spartanburg, South Carolina. She set up and maintained computer labs at two elementary and junior high school sites. She also developed an after-school computer literacy program featuring multimedia electives including digital photography, animation, and video production. Not wanting to lose momentum, she stayed in the community a second year.



Diane Nutbrown taught computer skills to 2nd graders at the Boys & Girls Club of Metro Spartanburg, South Carolina.

COURTESY OF BOYS & GIRLS CLUB

After delaying her graduate school acceptance, Nutbrown found the transition back into school challenging. "I had basically spent two years not thinking about chemistry, and suddenly chemistry became my entire life," she says. But she knows she did the right thing, commenting, "I have absolutely no regrets."

Besides the opportunity to give back through AmeriCorps, Diane's experience prepared her for a successful graduate school career. "I encountered challenges that were different from what I'd seen in school, and I think my success during my 'time off' gave me the self-confidence necessary to persevere in grad school." She adds, "I felt much more mature, responsible, and centered as a graduate student compared to others in my cohort."

Philosophy 504: Evolution of self

When Greg Scott signed up for Teach for America, he planned on attending graduate school in chemistry when his two-year commitment was over. But he didn't plan on being so affected by the students whom he taught.

Scott taught in Texas' Rio Grande Valley, where he hoped to make a difference in low-income students' lives.



Greg Scott demonstrates the catalytic decomposition of hydrogen peroxide for his integrated physics and chemistry class in Rio Grande Valley, Texas.

COURTESY OF GREG SCOTT

Taking a Detour to Graduate School

According to the National Science Foundation (NSF) report, "Time to Degree of U.S. Research Doctorate Recipients," postponing graduate school appears to be becoming more common. "Over the course of the 20th century, there was a gradual increase in the time it took students to earn their doctorates," the NSF report says. "The fact that the [total time from bachelor's to doctorate degree] rose more sharply... in recent decades means that Ph.D.s were spending more time out of school before completing their doctorates." Chemistry students were reported to spend an average of almost a year in activities other than doctorate-related classes.

Regardless of when you apply, your acceptance to graduate school will be based on your full application: GRE scores, GPA, let-

ters of recommendation, research experience, and research interest statement. If you are taking a detour, there are a few things that can help strengthen your application in the eyes of admission committees.

Explain your timing

"Why are they seeking to come to graduate school now?" asks James Batteas, coordinator of graduate student recruiting at Texas A&M University.

Explain your reasons

"I would much rather see students take a year off to really get themselves together and make a better informed decision than those who go straight into graduate school and find out a year later that this isn't what they really want to do," says George Garcia, coordinator of recruitment and admissions for the Department of Medicinal Chemistry at the University of Michigan.

Stay connected to science

There is a concern that students who spend much more than a year doing something other than science risk falling behind. "Significant time off could disadvantage stu-

dents, particularly in the first year of graduate studies where they will be in fast-paced advanced courses," says Batteas. "The students who chose to conduct research or to teach are those who have been particularly successful," notes Mary Beth Williams, chair of the Graduate Student Admissions Committee for the Department of Chemistry at Penn State.

Highlight research experience

"Ability to succeed in research is a good indicator of long-term ability to succeed in graduate school," says Batteas.

All three admissions officers stress how important it is for students to carefully consider their decision to pursue graduate school. "Graduate school is a long haul with lots of ups and downs, so coming with internal motivation and drive are keys to success," Williams says. "If a student gains that clarity of purpose by taking time away from school, and applies with renewed interest, focus, and scientific maturity, it will always be a good thing."

"I was able to use my knowledge of science to directly impact my students," he recalls, adding that he was impacted by his students as well. As a result, Scott added a specialization in chemical education to his Ph.D. work.

Scott also found his teaching experience handy as he transitioned back into the role of student from teacher. "While study-

ing for my entrance exams, I was pleasantly surprised at how quickly and easily most of the concepts and procedures came back to me," he says. "In addition, I was much better organized and already knew how to teach effectively when it came time to be a teaching assistant."

Pursuing Service Opportunities

Although the programs described below aren't the only options for using the time between undergraduate and graduate school, they do offer strong opportunities for community service and leadership before graduate school.

Teach for America (www.teachforamerica.org) placed members in 25 regions across the U.S. in 2006. From 18,000 applicants, the program accepted 2,500 teachers, of whom 98% had majors outside of education — including 16% who were math, science, or engineering majors.

Teach for America is a two-year commitment. Formal relationships with various graduate programs allow admitted students to defer graduate school for two years while teaching, including chemistry and biochemistry graduate programs at Cornell University, Johns Hopkins University, MIT, Yale University, Washington University, University of California-Berkeley, and University of Wisconsin-Madison.

AmeriCorps (www.americorps.org) has two national programs for graduates to consider. Both offer eligible corps members the Segal AmeriCorps Education Award after successfully completing a term of service. Currently 70 colleges and universities match the Segal Award for their students.

- AmeriCorps*National Civilian Community Corps (NCCC) is a 10-month, full-time residential program for men and women between the ages of 18 and 24. NCCC combines the best practices of civilian service with the best aspects of military service, including leadership and team building. Corps members and team leaders live and work on one of three regional campuses — in Perry Point, Maryland; Denver, Colorado; and Sacramento, California — for the duration of their training.
- AmeriCorps*Volunteers in Service to America (VISTA) is dedicated to eliminating poverty by helping individuals and low-income neighborhoods make positive changes for themselves. Through the VISTA program, ordinary people provide extraordinary service in more than 1,200 projects nationwide.



COURTESY OF MALA RADHAKRISHNAN

Teach for America alumni Mala Radhakrishnan taught integrated science and chemistry to high school students in California.

There is nothing Scott regrets about his choice. "There is little likelihood that I would be pursuing an education-focused career path (particularly with the same passion) had I gone straight to graduation school," he says.

Other Teach for America alumni say the same thing. Mala Radhakrishnan taught chemistry and science in California between undergraduate and graduate school. "I wanted to make sure I wasn't choosing graduate school just because it was 'the next thing to do,'" she says.

"I also wanted to challenge myself in new ways."

Radhakrishnan wasn't sold on graduate school in science when she began her Teach for America experience. "I considered and investigated all sorts of other options — law school, education school, and public policy." When she did choose a chemistry graduate program, she had more direction than before. "I learned that I love teaching, and whatever I ultimately did would need to involve teaching in some major capacity. My Teach for America experience gave me focus," Radhakrishnan observes.

Take-home lessons

The common theme in these stories is that none of the students regrets his or her decision to delay entry into graduate school. Whether they were sure of their path or exploring their options, each of them found that doing something between undergraduate and graduate school was crucial to shaping their futures.

These students realized that the classroom isn't the only place to learn important lessons. Whether you are working, exploring, serving, or learning more about yourself, educational opportunities outside of the lab can be just as valuable as what you'll learn in graduate school. **IC**



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