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# Making the Change

## GRADUATE PROGRAMS CAN TAKE STEPS TO HELP UNDERREPRESENTED STUDENTS SUCCEED

By Soraida Garcia



◀ Soraida Garcia attends her first conference as a graduate student, the 2019 Esri User Conference in San Diego, California.

Courtesy Soraida Garcia

Graduate school is a challenging experience for most students. For those from populations underrepresented in academia, it can be even harder. That is what I found as a Chicagoan of Puerto Rican heritage studying as a graduate student in a STEM field at a research university. By sharing my experience, I hope others from similar backgrounds can avoid some of the pitfalls that made it harder for me to succeed. I also hope institutions will take some key steps to help other underrepresented students advance.

Growing up in Chicago in the 1980s, I had few opportunities to achieve my dreams. Going to the park was considered a danger, not a recreational activity. With little access to nature, my awareness of career options in wildlife biology was limited. People around me faced similar constraints on achieving

their dreams. For students like me, a suite of fundamental barriers can constrain our ability to succeed at pursuing careers in academia. We may not even be aware that those careers could be viable options. For those of us who come from segregated communities, in many cases speaking two broken languages and having limited access to resources for improvement, those barriers are even stronger.

When I read the May/June 2021 issue of *The Wildlife Professional*—with its focus on diversity, equity and inclusion—it spoke to me in powerful ways, and it echoed the experiences I faced in graduate school. One article in particular resonated with me. It described the experience of Janel Ortiz, a “city girl” in the natural world, whose experience was disregarded because she was underrepresented in her field. Another article, the cover story, shared



Courtesy Soraida Garcia

▲ Finishing graduate school is not easy for anyone. For students from backgrounds underrepresented in academia, it can be even more difficult. Soraida Garcia found it took more time and effort, but she succeeded.

a program by Gillian Bowser that takes underrepresented students to parks such as Yellowstone.

Our field needs more programs like this to open doors for more underrepresented students who have limited awareness about the profession of wildlife biology. At the graduate level, these students face very real barriers for advancement. To overcome them, underrepresented students require good allies who are aware of the potential pitfalls they may face and can help navigate them.

### A difficult beginning

Those challenges can begin even before graduate school. Growing up in a household where no one has attended college can make the application process daunting. Developing research experience as an undergraduate can be an important step, but these students may not be aware of its importance and often lack the opportunity. Standardized tests such as the GRE, which are often important admission criteria, have been [found](#) to be biased against underrepresented minority populations.

I faced both of these challenges while applying for graduate school. To address them, I applied for internships and volunteered at science labs. Seeking out and completing these experiences made me a more competitive applicant, but doing so added three more years before I was accepted. That time, along with other disadvantages I faced, resulted in a 10-year gap between receiving my bachelor's degree and being admitted to graduate school.

I want to warn students with backgrounds similar to mine to seek out opportunities for research experience earlier in their academic career. Avoiding long gaps in education can expedite opportunities to become a professional wildlife biologist. The special issue of *The Wildlife Professional* emphasized the importance of recruiting workforce diversity, and several of the articles called for developing pipelines to accomplish this goal. Admission barriers like those I experienced create bottlenecks in those pipelines.

Challenges continue for underrepresented students once they are accepted. One of the greatest risks is the possibility of being admitted without financial support from a lab, requiring students to get a job to pay for tuition. Working while attending graduate school is not just a distraction. It can be a recipe for failure. Given the unique challenges they face with graduate school, underrepresented students are far more likely to fall into this trap.

### Continuing hurdles

The challenges are even greater when students differ from standardized expectations. During my second year, I found that I had a cognitive disability that required more time for me to comprehend class material. Holding down a job while also needing to invest more time in coursework because of my disability did not leave me enough time to conduct research. At least I knew I had a disability, though. Other students may be unaware they have conditions—including attention deficit hyperactivity disorder or other cognitive disabilities—that they could manage, leaving them to believe their program is too difficult for them to continue. Overcoming such limitations requires good allies. As Michelle Kissling pointed out in her article in *The Wildlife Professional*, being a good ally means being supportive not just in private but in public.

Finding a welcoming and inclusive lab can offer a further challenge. Labs often lack diversity, leaving underrepresented students feeling uncomfortable within their department and sometimes dropping out. Coming from a large city, I was shocked at how many graduate labs lacked the diversity I had grown up with. As I pursued my graduate work, I often felt lost, isolated and uncomfortable. I switched departments and labs several times before I found one where I could work effectively. Partially due to that, my graduate experience took many more years and cost much more money than it should have. Persistence required deep conviction and a lot of patience on my part. Graduate students can prepare themselves to meet these challenges, but if our profession is going to achieve its true potential, we have a collective responsibility to provide safe spaces so underrepresented students will have fewer challenges to manage.

Underrepresented students may also find that traditional advising may not be suitable for them. In graduate school, success or failure often hinges on your ability to work well with your adviser. For underrepresented students, though, traditional





academic structures can make it hard to find and cultivate mentor relationships. I found out the hard way that advisers with limited cross-cultural experience may be less successful at communicating with diverse students. Without strong mentorships, underrepresented students may take longer to obtain their degrees or fail to graduate at all, and they may lack access to advocates within the institution who can help address barriers to their progress.

I needed a seasoned adviser that understood my background and the challenges I was facing. By the time I found a mentor who worked well for me, my path through graduate school had completely changed. Had I been familiar with my rights and resources available to me as a student, I might have spent less time in labs that were poor fits and had a more successful academic career. Underrepresented students need to be familiar with university resources available to support student success.

Those resources are key, and there are important steps that graduate schools can take to support underrepresented students. Peer mentors—graduate students with similar backgrounds who are in at least the second year of the program—can help guide

students through their academic career. Advisers skilled at working with underrepresented students—and who set aside the time to support students from different backgrounds in their labs—are critical. Engaged and effective chief diversity officers demonstrate that the university takes seriously the creation of a supportive environment. So do programs that train faculty in mentoring underrepresented students and diversifying their labs.

As Roel Lopez pointed out in the May/June 2021 issue of *The Wildlife Professional* article on professional development, gatekeepers can make the changes necessary to improve the future of underrepresented students in graduate school. Those changes can impact students' lives and careers and reverberate throughout the wildlife profession. ■



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