Professional Mentoring of URM Students in the Department of Statistics

--- Howard Bondell ---

The Department of Statistics at North Carolina State University grants more PhDs in Statistics than any other department in the United States, with 219 awarded from 2003-2015. However, we have struggled to recruit and retain under-represented minority (URM) students from within the United States. Of our 183 graduate students, only seven are non-international URM students. In our undergraduate program, 10 of 175 are URM students. In addition, of forty faculty members, three are URM.

The aim of this project is to improve the retention, professional development, and graduation of URM students in our department through creating a welcoming and inclusive work and learning environment that offers opportunities for and supports the success of all students, staff, and faculty. To accomplish these goals we are providing social, academic, and professional mentoring and support for our URM students without placing the responsibility solely on our URM faculty members.

While the main target is URM students, the department has also had difficulty in retention of female PhD students. Although we tend to recruit a balance of approximately 50% female students, the attrition rate has been significantly higher than their male counterparts.

In collaboration with Emily Griffith, Herle McGowen, and Alyson Wilson, the department has recently started a Professional Strategies Reading Group focused on URM students and women, but open to all. The group has been meeting monthly to discuss articles and books about student success, as well as early career success. Topics that are covered include recognizing and understanding professional norms, finding sponsorship and mentoring, giving talks, and using conferences to learn and network.

A limited number of travel awards (5) have been given to students to present their research at regional meetings. Each of these travel awards also consists of a full-scale mentoring and planning period prior to the meeting. This includes perusing the schedule to optimize the student’s experience, and a detailed plan for each student based on their individual needs and wants. After the conference, this also includes a debriefing session to discuss the good and bad points of the student’s experience.

An interactive Moodle site has been set up to discuss these topics on an ongoing basis between meetings. Approximately, 10 students have been participating regularly. This pilot semester is paving the way for development of a 1-credit course that is being developed based on these readings and discussions. This will enable the department to offer this opportunity to students on a regular basis going forward.

The students that have participated have become significantly more prepared to attend and interact at the professional meetings that they have been attending. This preparation has led to greater confidence and more successful interactions.