

STATEMENT ON PROMOTING DIVERSITY & INCLUSION

A diverse Institution will benefit everyone, from new students to faculty, as a variety of backgrounds and experiences enhances education, innovation, and mutual understanding. I believe it is important to encourage diversity across all levels of the campus community. We can create and foster a more diverse campus while simultaneously fulfilling the Institution's vision and mission by following the principles of excellence, equity, and inclusion. I try to follow these principles in my research, teaching, and service and believe that I can help contribute to building diversity at the Woods Hole Oceanographic Institution.

Experience and Service

Throughout my years in graduate school and my tenure as a postdoctoral researcher I have been committed to developing a diverse student body and including students in my research. Both of my graduate institutions (Ph.D. & M.S.) were comprised of a diverse undergraduate student body and were also named Hispanic Serving Institutions by the US Department of Education. These exceptional undergraduate students gave me the opportunity to mentor them across a variety of research projects, many through the National Science Foundation Research Experience for Undergraduates program (REU). The mentees reflected the diversity of the undergraduate student body where 48% of my mentees were women and 52% identified as a racial minority. Some of my mentees continued to graduate school (e.g. UCSC, UCSB) and many went on to high quality employment in the spatial sciences (e.g. Google, Apple, CHK America). I also took advantage of the opportunity to serve as the departmental graduate representative at the W.E.B. Du Bois event. This annual event matched graduate representatives with a group of undergraduates from underserved groups in higher education, with the goal of educating these students on the graduate school experience and to inspire further study. I served as the graduate representative at the W.E.B. Du Bois event for three years from 2012 – 2014.

I am also committed to providing a fair environment for my mentees and the students in my courses. Several years ago, I was introduced to Rodabaugh's typology of fairness, which breaks down classroom fairness into three components. Both 'procedural' and 'outcome fairness' involve rules for grading and grade distribution, respectively, and I believe most courses handle these components well. However, there is much room for improvement with 'interactional fairness' which guides the interactions between the instructor and the students. I try to maintain a high level of integrity, respect, and concern for the students in my courses, and I know that the relationships with my students improved after I developed my interactional equity.

Future Directions

Recently I was struck by a paper from the [Equality of Opportunity Project](#) which showed that innovators tend to come from high-income families, and society is missing many 'lost Einsteins', since many women, minorities, and children from low-income families are not exposed to innovation before adulthood. With the recent advent of global, remote sensing time series becoming freely available (e.g. Landsat, Sentinel) and the democratization of data storage and processing (Google Earth Engine), the time is right to introduce these technologies to underserved schools. I would like to develop an externally funded program to give faculty and graduate students the opportunity to introduce basic understanding of optics, remote sensing, and simple coding to students and teachers through the completion of small independent projects. I introduced an independent research project in the Remote Sensing Techniques class (which has now been formally introduced to the curriculum) and I have found that students can remain committed to projects if they are able to develop research questions themselves. The technological needs for this program are low and many of the resources required are open access or free for educational purposes. Furthermore, skills developed from this program are valuable in our changing economic landscape. I am also a lead scientist on [FloatingForests.org](#) where the public learn about coastal ecosystems and help classify coastal kelp forests from Landsat imagery. Through this platform, we have developed classroom curricula and brought these tools into many elementary and middle school classrooms.