Collaboration Between Wake Tech and NC State to Increase the Number and Diversity of Geoscience Students

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I have been successful in recruiting several students into geoscience majors in recent years simply through enthusiastic teaching and identifying students who are asking the right kinds of questions. I keep an email list of interested students, and forward any relevant information regarding educational opportunities. However, I have felt that most of this work has been somewhat haphazard, so when North Carolina State University (NC State) approached our faculty regarding a collaboration to recruit and train students in geoscience fields, I was on board immediately. We are in the first year of this collaboration, whose purpose is to increase the number and diversity of students pursuing a geoscience degree through a National Science Foundation grant named Diversity in the Geosciences, Making a Pathway to Success.

How does it support or prepare students for their future degrees or careers?
Wake Tech students are provided with an opportunity for paid summer research internships at NC State. Wake Tech instructors identify students who have an aptitude for science and a possible interest in a geoscience career. We match the interests of these students with professors at NC State, where the students complete a research project under that professor's direction. The students present their projects at a poster session at the end of the summer. If these students choose to continue their studies at NC State, they will be given additional opportunities for research and mentoring. Other aspects of the program include inviting private sector and government geoscience employers to visit Wake Tech and present information on careers and research, and enhancing lab experiences with both computer- and field-based activities to increase student excitement for the geosciences.

What are the strengths of its design and the most valuable aspect?
The strongest aspect of the program is giving the students a chance to try their hands at research, which gets them excited about other opportunities in geoscience fields. In addition, Wake Tech has a highly diverse student body, our geology program teaches over 1200 students per year, and our students generally plan to transfer to a four-year school to earn a Bachelor's degree. Therefore, we can reach out to a large number of potential future geoscientists.

What are the challenges of implementation?
The biggest challenge we have encountered is effectively reaching minority students, as these students usually do not see themselves in geoscience careers no matter how much you discuss the opportunities in class. I have found that talking to minority students individually, rather than in a large group, is the best way to encourage them. Another challenge has been communication between the two schools, as sometimes our goals have not been completely aligned. However, the first year has run relatively smoothly and we look forward to continuing the collaboration.

What is the evidence of its effectiveness?
The 2011-2012 academic year is the first year that we are implementing this program and results are not final, but initial results are encouraging. Nine Wake Tech students are currently participating in the summer research program at NC State. Anecdotally, the students have been very excited about and appreciative of this opportunity. Plans are in place to continue the collaboration next year, with the expectation of recruiting more students as we go forward.