THE EVOLUTION OF THE RIVER BASINS RESEARCH INITIATIVE REU SITE AT FURMAN UNIVERSITY

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The River Basins Research Initiative (RBRI) is an NSF-REU site focused on the interdisciplinary study of anthropogenic effects, particularly urbanization, on the biogeochemistry and biodiversity of river systems in the piedmont of South Carolina. RBRI students engage in interdisciplinary research over 10 weeks during the summer. Research projects have evolved from an initial descriptive phase to studies examining the complex relationships between land cover, biogeochemical processes, and fish community structure, for example. Since 1999, over 160 students have participated in the RBRI summer research program, 93 of whom were supported by NSF-REU funds. Over 75% of REU participants have been non-Furman students. The class structure of the students has been 63% rising seniors, 32% rising juniors, and 5% rising sophomores. Minority participation increased from 15% of the REU students in 1999 to between 33% and 59% since 2001. The increase primarily is the result of a memorandum of understanding between the Universidad Metropolitana (UMET) in San Juan, Puerto Rico, and Furman University that assures participation of four to six UMET students each summer. Over half of the total participants have been female. Overall, more than 50% of the non-Furman students were from state institutions or research universities with limited undergraduate research opportunities. For most of the students from private PUIs, either undergraduate research opportunities were limited or the students could not engage in the type of interdisciplinary, environmental research that we offer. One of the benefits of including students from private PUIs is that the students from UMET and other comprehensive universities learn that they can hold their own with students from settings considered more “elite.” RBRI students have been coauthors on 5 peer-reviewed publications and have made over 70 presentations at regional and national professional meetings, and many of the UMET students also present at the Society for the Advancement of Chicanos and Native American Scientists annual meeting. Of the REU students who have graduated, more than 60% have continued with either professional or graduate degrees and another 10% are employed in a science-related field.