

Human Resources for the Energy Workforce of the Future: Finding the Best Employees Requires Addressing Diversity Now

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Resolving the need for future energy resources requires hiring the best and brightest graduates available. Beyond the extraordinary challenge of providing enough energy for an expanding population, linked economic and environmental factors conspire to limit the potential contributions of minority groups towards solving future energy problems. African Americans, Hispanic Americans, and Native Americans represent over 25% of the general population, but earn only 16% of science and engineering BS degrees. This disparity is even greater in the geosciences, e.g. African Americans comprise 12.8% of the population, but receive <<2% of geoscience Ph.D. degrees. This represents significant loss of intellectual capital and human resources. The Department of Geosciences and the Electron Microscopy Center at Mississippi State University (MSU) in partnership with Louisiana State University, Delta State University, and East Mississippi Community College is attempting to increase the number of African-American students in the geosciences using participation in research as the catalyst for cultural transformation. This multiphase project includes informing students in high schools and in introductory undergraduate classes about career paths, programs of study, and research opportunities in the geosciences. At MSU students will participate in an intensive research course in sedimentology using electron microscopy, they will be placed in geoscience-related research projects with faculty mentors, and they will attend a seminar course to learn professional skills. Students will participate in AAPG Student Expo meetings. During each phase of the project, evaluation will determine how best to establish an effective, sustainable program that will produce employees for the energy workforce of the future.