Attracting and Retaining Undergraduate Students in the Geosciences: A Multipronged Approach

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The geosciences are taught at relatively few colleges and universities in the United States. Furthermore, fewer students are selecting the geosciences as careers and where the loss of retired scientists is significant. Thus, new approaches and strategies are needed to attract and retain students in the geosciences. The aim of this project is to both increase the diversity and visibility of the geosciences at the undergraduate level. Using both an interdisciplinary and inter-institutional approach, the Queensborough Community College (QCC) of the City University of New York (CUNY) has been very successful at engaging students in educational activities and applied research in solar, geospace, and atmospheric physics, under the umbrella discipline of space weather. As an interdisciplinary field, space weather offers students a great opportunity to study the Sun-Earth connection. Additionally, students also receive support through several partner institutions including the NASA Goddard Spaceflight Center (GSFC) Community Coordinated Modeling Center (CCMC), four-year colleges and universities, and other summer research programs. With its institutional partners, QCC has implemented a year-long program with two components: 1) during the academic year, students are enrolled in a course-based introductory research (CURE) where they conduct research on real-world problems; and 2) during the summer, students are placed in research internships at partner institutions. This poster will describe these approaches, as well as present best strategies that are used to attract and retain students in the geosciences.