IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
Space for All: Promoting Inclusive Practices in Space Exploration (2)

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HOW A GOVERNMENT AGENCY SUPPORTS THE RESEARCH, EDUCATION, AND WORKFORCE DEVELOPMENT OF A MINORITY SERVING INSTITUTION IN THE UNITED STATES: DATA RESULTS FROM A YEAR ONE EVALUATION

Abstract

In the United States (U.S.), Minority Serving Institutions (MSIs) play a pivotal role in increasing underrepresented groups in the workforce that could contribute to space exploration and discovery. One such institution type is Historically Black Colleges and Universities (HBCUs), who educate a disproportionate number of African Americans, an underrepresented group in space-related fields (Johnson et al., 2017). Though HBCUs represent 3% of higher education institutions in the U.S. (Owens et al., 2012), they produce 50% of the African Americans who hold engineering degrees (American Association of University Professors, 2006). HBCUs are also a leading institution in awarding baccalaureate degrees to African American students in life sciences, physical sciences, and mathematics (U.S. Department of Education Office of Civil Rights, 1991), and 75% of African American doctorate holders earned an undergraduate degree at an HBCU (U.S. Department of Education Office of Civil Rights, 1991). Despite the contribution of HBCUs to expanding the representation of science and engineering degree holders and professionals, no current HBCUs are designated as an R1 university. This level of distinction is determined by the Carnegie Classification of Institutions of Higher Education, a U.S.-based framework that describes institutional diversity for the purposes of research and policy analysis (The Carnegie Classification of Institutions of Higher Education, n.d.). In the U.S., R1 universities receive substantial external funding, attract prominent researchers and faculty, and engage in cutting-edge research that advances knowledge and scientific progress (National Science Board, 2012). Government agencies play a critical role in supporting the research capacity and infrastructure of HBCUs. Their grant awards can be instrumental in enhancing laboratories and departmental curriculum, creating opportunities for undergraduate students to engage in research and internships, and contributing to seed money for faculty to pilot their research and pursue larger external grants (Wilson & Chavela Guerra, 2021). To this end, this paper will share evaluation results from a project funded by a government agency. Using quantitative and qualitative data, the paper will highlight the impacts and outcomes of the first year of funding including project leaders cultivating strategic partnerships with other university researchers and industry partners, seeking out additional external funding, supporting underrepresented and underserved groups to pursue degrees in space-related careers, and increasing the mentoring and research capacity of early-career faculty in space-related research. The paper will conclude with recommendations for governmental organizations seeking to use grant funding to increase underrepresented and underserved populations in their space agendas.