



An Overview of the Department of Defense (DoD) Historically Black Colleges/Universities & Minority-Serving Institutions (HBCU/MI) Program for The National Academies of Sciences, Engineering, and Medicine

Mrs. Evelyn Kent

Director, DoD HBCU/MI Program and Outreach

Office of the Under Secretary of Defense for
Research and Engineering (OUSD(R&E))

Research, Technologies & Laboratories

June 15, 2021



Historically Black Colleges and Universities and Minority-Serving Institutions (HBCU/MI) Program



DoD's HBCU/MI Program increases the research and educational capacity of HBCUs/MIs and fosters workforce diversity and entry of underrepresented minorities into STEM disciplines. The DoD HBCU/MI Program is authorized by 10 U.S.C. § 2362.



Enhance participation of HBCUs/MIs in DoD research

- Categories within the HBCU/MI designation include:
 - Historically Black Colleges/Universities, Tribal Colleges/Universities, Hispanic Serving Institutions, Asian American Native American Pacific Islander Serving Institutions, American Indian Alaskan Native Serving Institutions, and Predominately Black Institutions
- 700+ institutions



Strengthen research and educational opportunities at HBCUs/MIs and increase number of minority graduates in STEM disciplines



Build a more diverse pool of scientists and engineers to meet the future needs of defense-related programs



HBCU/MI Program: Research, Education and Outreach



Research, Equipment and Instrumentation Grants

- Research project grants, including student support, are fully funded for 3 years and range from \$300K – \$660K
- Equipment/instrumentation grants are fully funded for 1 year and range from \$100K - \$600K

Summer Internships, Faculty Fellowships and Outreach

- 10-week summer researcher program for undergraduate and graduate students in STEM disciplines
- Students placed at DoD laboratories and facilities across the nation to conduct research relevant to the defense mission



Pictured, Above: Summer interns presenting their research during the July 2019 DoD Summer Research Symposium.

- Virtually placed 108 interns and 19 Faculty Fellows at 13 defense laboratories as well as OSD organizations.
- Outreach through technical assistance workshops, webinars, conferences, town halls, and campus visits.

Partnering with academia: Centers of Excellence

- Centers conduct multidisciplinary, collaborative research that attracts early-career researchers
- Provides opportunities for student participation leading to the next generation of scientists and engineers
- Nine Centers established by cooperative agreements with HBCUs/MIs:



NORFOLK STATE
UNIVERSITY

Cyber Security



Autonomy



Research Data Analytics



STEM Scholars



Minority Women in STEM



Aerospace Education, Research & Innovation



HOWARD
UNIVERSITY

Artificial Intelligence and Machine Learning



Networked Configurable Command, Control, and Communications



Advanced Quantum Sensing



HBCU/MI Program: Research, Education and Outreach contd.



University Affiliated Research Center (UARC) HBCU Pilot Program

- Established an HBCU Pilot Program with the University of Maryland-College Park Applied Research Laboratory for Intelligence and Security (ARLIS) UARC.
- Three regional HBCUs (Howard University, Morgan State University, and University of the District of Columbia) have partnered in support of research projects involving: 5G, AI/ML, Cyber Assessment, and Chatbot Testbed.
- Partnership supports the Intelligence Universities for Security (IntelUS) academic research consortium in further support of ARLIS mission as a UARC. HBCU partners will work as subcontractors to accomplish research priorities.
- **Goals:** help elevate the research profile of HBCUs through exposure to higher levels of defense research; facilitate collaboration with HBCUs for higher impact responses to S&T challenges as well as rapid contracting to accommodate DoD sponsor needs.



APPLIED RESEARCH LABORATORY FOR
**INTELLIGENCE
AND SECURITY**



**HOWARD
UNIVERSITY**



DoD Research Opportunities: HBCU/MI



Department of Defense FY 2022 Research and Education Program for HBCU/MI: Equipment/Instrumentation

The purpose of funding under this Funding Opportunity Announcement (FOA) is to (1) support the acquisition of equipment/instrumentation to augment existing capabilities or to develop new capabilities in research areas of interest to DoD, and (2) attract students to pursue studies leading to STEM careers. FOA closes August 16, 2021.

Funding Opportunity Number: W911NF-21-S-0011

<https://www.grants.gov/web/grants/view-opportunity.html?oppld=333481>

Department of Defense Research and Education Program for HBCU/MI: Long Range

The Combat Capabilities Development Command – Army Research Laboratory invites applications/proposals from covered educational institutions for research and education programs that will meet the following objectives: (1) Enhance research and engineering capabilities in areas important to national defense; (2) Increase the number of graduates in STEM disciplines; and (3) Encourage research and education collaborations with other institutions of higher education and with defense organizations. FOA closes April 30, 2024.

Funding Opportunity Number: W911NF-19-S-0013

<https://www.grants.gov/web/grants/view-opportunity.html?oppld=316548>

Since FY 2010, the HBCU/MI Program has awarded 532 grants and 9 cooperative agreements to HBCUs/MIs totaling over \$316 million.



OUSD(R&E) Research Opportunities



Basic Research Programs Overview

Vannevar Bush Faculty Fellow (VBFF)

The VBFF supports world-class researchers in scientific areas of critical importance to DoD and ensures the cultivation of exceptional talent. Fellows provide DoD with deep scientific expertise of today's leading research universities and collaborate with DoD scientists/engineers to enhance in-house research capabilities.

Laboratory University Collaboration Initiative (LUCI)

Identify and competitively fund three-year basic research collaborations between leading scientists at the DoD laboratories and the Vannevar Bush fellows and MURI PIs at US universities, in fields of critical interest to the Department.

The MINERVA Research Initiative

Minerva Research Initiative supports methodologically innovative social science research and builds a cadre of experts who can advise DoD-Policy and Combatant Commands (CCMDs) on the security challenges in which they operate.

Defense Established Program to Stimulate Competitive Research (DEPSCoR)

DEPSCoR seeks to build national infrastructure for research by funding activities in science and engineering fields important to national defense.



DoD Services' Research Opportunities



Basic Research Programs Overview

Multidisciplinary University Research Initiative (MURI)

The tri-Service MURI program is a five-year grant that convene teams of investigators with the hope that collective insights drawn from research across multiple disciplines could facilitate the advancement of newly emerging technologies and address the Department's unique problem sets.

Defense University Research Instrumentation Program (DURIP)

DURIP augments research capabilities at universities conducting cutting edge research for DoD, through the procurement of state-of-the-art equipment. Awards are administered through a merit competition jointly conducted by the Army Research Office, Office of Naval Research, and Air Force Office of Scientific Research. Solicited proposals target university investigators conducting foundational science and engineering research of importance to national defense.

The OUSD(R&E) and the Services' Research Offices post their own FOAs on Grants.gov that are fully-competitive and HBCUs/MIs can compete for those as well.



Recent Grant Award Press Releases



- **HBCU/MI:**
 - <https://www.cto.mil/investing-in-msi-scientific-research/>
- **MURI:**
 - <https://www.cto.mil/2021-muri/>
- **DEPSCOR:**
 - <https://www.cto.mil/depscor-awards-fy2020/>
- **DURIP:**
 - <https://www.defense.gov/Newsroom/Releases/Release/Article/2430566/dod-awards-50-million-in-university-research-equipment-awards/>
- **VBFF:**
 - <https://www.cto.mil/news/2021-class-of-vannevar-bush-faculty-fellowship/>
- **Minerva:**
 - <https://www.cto.mil/dod-awards-grants-minerva-research-social-behavioral-sciences/>
- **LUCI:**
 - <https://basicresearch.defense.gov/Pilots/Laboratory-University-Collaboration-Initiative/>



Thank You!