

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2022 Office of the Secretary Of Defense **Date:** May 2021

Appropriation/Budget Activity 0400: Research, Development, Test & Evaluation, Defense-Wide I BA 1: Basic Research	R-1 Program Element (Number/Name) PE 0601228D8Z I Historically Black Colleges and Universities and Minority-Serving Institutions
-----------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------

COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
Total Program Element	-	50.775	81.280	31.136	-	31.136	-	-	-	-	-	-
448: Historically Black Colleges and Universities and Minority-Serving Institutions	-	50.775	81.280	31.136	-	31.136	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

This program element (PE) provides support for Historically Black Colleges and Universities and Minority-Serving Institutions (HBCU/MI) in fields of science and engineering that are important to national defense. The Department of Defense (DoD) HBCU/MI program encourages participation of small minority schools as well as large minority research institutions. The program is authorized by 10 U.S.C. § 2362 and is funded by annual appropriations. This competitive program provides support through grants, cooperative agreements, or contracts for research, education assistance, and instrumentation purchases.

Work in this PE provides a foundation to enhance participation of HBCUs/MIs in DoD research. Programs are structured to: build infrastructure; strengthen research and educational opportunities at HBCUs/MIs and increase the number of minority graduates in the science, technology, engineering, and mathematics (STEM) disciplines; and build a more diverse pool of scientists and engineers to meet future workforce needs.

Work in this PE is performed by the Services' Research Offices and DoD Laboratories (includes the Army Research Laboratory and the Air Force Research Laboratory) for Centers of Excellence (COE). Centers currently funded through cooperative agreements include Autonomy, Cyber Security, Research Data Analysis, STEM Scholars, and Minority Women in STEM.

B. Program Change Summary (\$ in Millions)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Previous President's Budget	52.708	30.975	31.637	-	31.637
Current President's Budget	50.775	81.280	31.136	-	31.136
Total Adjustments	-1.933	50.305	-0.501	-	-0.501
• Congressional General Reductions	-	-0.020			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	50.325			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.933	-			
• Program Adjustment	-	-	-0.501	-	-0.501

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2022 Office of the Secretary Of Defense **Date:** May 2021

Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 1: Basic Research</i>	R-1 Program Element (Number/Name) PE 0601228D8Z I <i>Historically Black Colleges and Universities and Minority-Serving Institutions</i>
----------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------

Congressional Add Details (\$ in Millions, and Includes General Reductions)	FY 2020	FY 2021
Project: 448: <i>Historically Black Colleges and Universities and Minority-Serving Institutions</i>		
Congressional Add: <i>HBCU/MI Program Increase</i>	22.000	46.325
Congressional Add: <i>Minority STEM Recruitment and Research</i>	-	4.000
Congressional Add Subtotals for Project: 448	22.000	50.325
Congressional Add Totals for all Projects	22.000	50.325

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2022 Office of the Secretary Of Defense										Date: May 2021		
Appropriation/Budget Activity 0400 / 1					R-1 Program Element (Number/Name) PE 0601228D8Z / <i>Historically Black Colleges and Universities and Minority-Serving Institutions</i>				Project (Number/Name) 448 / <i>Historically Black Colleges and Universities and Minority-Serving Institutions</i>			
COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
<i>448: Historically Black Colleges and Universities and Minority-Serving Institutions</i>	-	50.775	81.280	31.136	-	31.136	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

The Historically Black Colleges and Universities and Minority-Serving Institutions (HBCU/MI) program provides support in fields of science and engineering that are important to national defense. The Department of Defense (DoD) HBCU/MI Program encourages participation of small minority schools and large minority research institutions. This competitive program provides support through grants or contracts for research, education assistance, instrumentation purchases, and technical assistance as described below.

- Research. The research grants further knowledge in the basic scientific disciplines through theoretical and experimental activities. Collaborative research allows university professors to work directly with military laboratories or other universities.
- Education. Education assistance funds are used by minority institutions to strengthen their academic programs in science, technology, engineering, and mathematics (STEM), thereby increasing the number of under-represented minorities obtaining undergraduate and graduate degrees in these fields. These grants provide equipment, scholarships, cooperative work/study opportunities, visiting faculty programs, summer internship programs, and a variety of other enhancements designed to support students and to encourage them to pursue careers in STEM.
- Instrumentation purchases. The program allows universities to purchase basic laboratory equipment, such as lasers and spectrometers, for enhancements to the basic research efforts.
- Technical assistance. The funds are used to design programs that enhance the ability of minority institutions to successfully compete for future Defense funding by assisting the HBCU/MI community in areas such as proposal writing and administration of grants and contracts.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2020	FY 2021	FY 2022
Title: Historically Black Colleges and Universities and Minority-Serving Institutions (HBCU/MI)	28.775	30.955	31.136
Description: The HBCU/MI program provides support for research and collaboration with DoD facilities and personnel. The research grants further knowledge in the basic scientific and engineering disciplines through theoretical and empirical activities. Collaborative research allows university professors to work directly with DoD laboratories or other universities.			
FY 2021 Plans:			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2022 Office of the Secretary Of Defense		Date: May 2021
Appropriation/Budget Activity 0400 / 1	R-1 Program Element (Number/Name) PE 0601228D8Z / <i>Historically Black Colleges and Universities and Minority-Serving Institutions</i>	Project (Number/Name) 448 / <i>Historically Black Colleges and Universities and Minority-Serving Institutions</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2020	FY 2021	FY 2022
<p>Conduct annual competition of the HBCU/MI program for basic research, student support, and/or equipment/instrumentation. Continue research and educational collaboration with the DoD laboratories. Continue the summer interns and faculty fellows program. Continue Centers of Excellence in support of the Under Secretary of Defense for Research and Engineering (USD(R&E)) priorities in the areas of Cyber Security, Research Data Analytics, Autonomy, Artificial Intelligence/Machine Learning, Quantum Science, and Fully-Networked Command, Control, and Communication. Continue STEM Centers of Excellence at the Center for STEM Scholars, and the Center for Minority Women in STEM, needed to expand STEM opportunities for underrepresented minorities. Conduct annual review of the Centers. Expand the HBCU/MI Program to develop new Centers of Excellence to address USD(R&E) priorities in the areas of Biotechnology, Materials Science, and Aerospace Research and Education. Conduct outreach activities, to include one webinar and two technical assistance workshops to expose HBCUs/MIs to opportunities in DoD. Maintain collaboration with the National Academies of Science, Engineering, and Medicine for the Minority-Serving Institutions Town Hall Series to examine strategies to expand STEM education and research activities at HBCU/MIs.</p> <p>FY 2022 Plans: Continue efforts from FY 2021. Conduct annual competition of the HBCU/MI program for basic research, student support, and/or equipment/instrumentation. Continue research and educational collaboration with the DoD laboratories. Continue the summer interns and faculty fellows program. Continue Centers of Excellence in support of the USD(R&E) priorities and the National Defense Strategy in the areas needed to expand STEM opportunities for underrepresented minorities. Conduct annual review of the Centers. Conduct outreach activities, to include one webinar and two technical assistance workshops to expose HBCUs/MIs to opportunities in the DoD.</p> <p>FY 2021 to FY 2022 Increase/Decrease Statement: Changes reflect minor budget fluctuations.</p>			
Accomplishments/Planned Programs Subtotals	28.775	30.955	31.136

	FY 2020	FY 2021
Congressional Add: HBCU/MI Program Increase	22.000	46.325
FY 2020 Accomplishments: The FY 2020 congressional increase of \$22.000 million supported HBCU/MI program expansion to develop three new Centers of Excellence. The first Center is an Aerospace Research and Education Innovation Center as directed by Congress (\$2.000 million congressional add). Additional program increase funding was used to establish two new Centers to address USD(R&E) priority areas to include Materials Science and Biotechnology. Program funding was also used to conduct increased outreach activities, additional student opportunities, and to conduct the mandated National Academies of Science, Engineering, and Medicine study on defense research conducted at HBCUs/MIs.		

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2022 Office of the Secretary Of Defense		Date: May 2021
Appropriation/Budget Activity 0400 / 1	R-1 Program Element (Number/Name) PE 0601228D8Z / <i>Historically Black Colleges and Universities and Minority-Serving Institutions</i>	Project (Number/Name) 448 / <i>Historically Black Colleges and Universities and Minority-Serving Institutions</i>

	FY 2020	FY 2021
FY 2021 Plans: Conduct minority STEM recruitment in partnership with the Science, Mathematics & Research for Transformation (SMART) Scholarship for Service Program as encouraged by Section 250 in the FY 2021 NDAA. Support HBCU/MI Pilot Program with the SMART Scholarship Program to develop and train the next generation of STEM leaders. Encourage HBCU/MI students to apply for SMART scholarships through targeted outreach including joint webinars focused on fostering a community of diversity and the STEM workforce. Collaborate with the Air Force Research Laboratory Minority Leaders Program to enhance STEM training for underrepresented populations in support of national security needs and the defense mission. We will host a brainstorming meeting with stakeholders in the community to identify any new programming needed to round out the portfolio.		
Congressional Adds Subtotals	22.000	50.325

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A