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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Office of the Secretary Of Defense	Date: May 2017
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Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
0400: Research, Development, Test & Evaluation, Defense-Wide I BA 1: Basic Research					PE 0601228D8Z I Historically Black Colleges and Universities and Minority-Serving Institutions							
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	-	34.943	23.572	25.865	-	25.865	30.626	30.972	31.578	32.227	Continuing	Continuing
P448: Historically Black Colleges and Universities and Minority-Serving Institutions	-	34.943	23.572	25.865	-	25.865	30.626	30.972	31.578	32.227	Continuing	Continuing

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) program in the 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 HBCU/MI 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, including 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 important to the national defense; 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). Currently funded centers through cooperative agreements include COE in Autonomy, Cyber Security, and Research Data Analysis.

B. Program Change Summary (\$ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget	35.834	23.572	25.888	-	25.888
Current President's Budget	34.943	23.572	25.865	-	25.865
Total Adjustments	-0.891	0.000	-0.023	-	-0.023
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.891	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-0.023	-	-0.023

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Office of the Secretary Of Defense										Date: May 2017		
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) P448 / <i>Historically Black Colleges and Universities and Minority-Serving Institutions</i>			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
P448: <i>Historically Black Colleges and Universities and Minority-Serving Institutions</i>	-	34.943	23.572	25.865	-	25.865	30.626	30.972	31.578	32.227	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project funds the Historically Black Colleges and Universities and Minority-Serving Institutions (HBCU/MI) program which 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 as well as 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 are to further the 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 intern 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 for research and education program enhancements to essential research instruments, such as lasers and spectrometers.
- Technical assistance. The funds are used to design programs that enhance the ability of minority institutions to successfully compete for future Defense funding. The objective is to assist the HBCU/MI community in areas such as proposal writing and administration of grants and contracts.

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

	FY 2016	FY 2017	FY 2018
Title: Historically Black Colleges and Universities and Minority-Serving Institutions (HBCU/MI)	34.943	23.572	25.865
Description: The HBCU/MI program provides support for research and collaboration with DoD facilities and personnel. The research grants further knowledge in the basic physical scientific and engineering disciplines through theoretical and empirical activities. Collaborative research allows university professors to work directly with DoD laboratories or other universities.			
FY 2016 Accomplishments:			

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2016	FY 2017	FY 2018
<p>Conducted annual competition of the HBCU/MI program for equipment. The competition resulted in 75 equipment grant awards totaling \$28.500 million. Recipients included: 29 HBCUs, one Tribal College, and 45 in other categories of MIs. Initiated a special leadership project with the Thurgood Marshall College Fund (TMCf) under which TMCf, a non-profit organization, assists in the selection of HBCU/MI students for scholarships and internships in pursuit of STEM careers. Under the newly established Centers of Excellence (COEs) in support of the ASD(R&E) Science and Technology priorities in the areas of Cyber Security, Research Data Analysis, and Autonomy, supported 12 students in the summer of 2016 at the Air Force Research Laboratory in Rome, NY. Under the TMCf and the COEs, increased the number of FY 2016 summer interns from 79 (in FY 2015) to 85 participants in the DoD laboratories. The students received stipends for participating in the research at the DoD laboratories. Established an OSD and Department of the Navy (DoN) Cyber Security Information Assurance Program Partnership, which provided internship/co-op opportunities for four HBCU/MI students in the area of information assurance/cyber security. Conducted two outreach webinars to expose HBCUs/MIs to opportunities in DoD totaling \$0.230 million. Nearly 250 individuals representing over 50 HBCUs/MIs attended the webinars. Co-hosted two technical workshops (October 2015 and January 2016) with the Office of Naval Research in which representatives from seven local HBCUs and three other institutions of higher education participated.</p> <p>FY 2017 Plans: Continue efforts from FY 2016. Conduct annual competition of the HBCU/MI program for basic research and student support. Continue the research and educational collaboration with the TMCf Leadership Project. The goal is to maintain the number of FY 2017 summer interns at 85 participants. Issue a funding opportunity announcement to establish a new Center of Excellence for STEM Scholarships in response to H.R. 114-139 (accompanying H.R. 2685, the FY 2016 DoD Appropriations act), which required DoD to expand STEM opportunities for underrepresented minorities. Conduct annual review of the existing Centers in Cyber Security, Research Data Analysis, and Autonomy. Continue the OSD and DoN Cyber Security Information Assurance Program Partnership. Host one webinar and two technical assistance workshops. The first FY 2017 workshop was held on October 26, 2016. More than 150 individuals attended.</p> <p>FY 2018 Plans: Continue efforts from FY 2017. Conduct annual competition of the HBCU/MI program for basic research, student support, and/or equipment/instrumentation. Continue the research and educational collaboration with the TMCf. The goal is to increase the number of FY 2018 summer interns from 85 to 90 participants. Monitor established Centers of Excellence in support of the ASD(R&E) Science and Technology priorities in the areas of Cyber Security, Research Data Analysis, Autonomy, Nanotechnology, and Materials Science. Conduct annual review of the Centers. Host one webinar and two technical assistance workshops.</p>			
Accomplishments/Planned Programs Subtotals	34.943	23.572	25.865

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C. Other Program Funding Summary (\$ in Millions) N/A Remarks D. Acquisition Strategy N/A E. Performance Metrics <ul style="list-style-type: none"> • Number of students funded other than undergraduates • Number of undergraduate students funded • Number of undergraduates funded who graduated • Number of students participating in the Centers of Excellence for Research and Education • Number of students working in Defense Laboratories • Number of undergraduates funded who graduated with degrees in STEM • Number of graduates who will continue to pursue graduate or Ph.D. degrees in STEM • Number of graduates who intend to work for DoD • Number of undergraduates who will receive scholarships and fellowships for further studies in STEM 		