



DEPARTMENT OF DEFENSE

Research and Education Program for Historically Black Colleges and Universities and Minority-Serving Institutions (HBCU/MSI)

30 May 2019 – 30 April 2024

**Funding Opportunity
Announcement W911NF-19-S-0013
Amendment 01
19 January 2021**

**Issued by
U.S. Army Contracting Command-Aberdeen Proving Ground
Research Triangle Park Division on behalf of the
U.S. Army Combat Capabilities Development Command-Army Research Laboratory
(CCDC-ARL) and
The Office of the Under Secretary of Defense for Research and Engineering
(Research, Technology and Laboratories)
(OUSD(R&E)/RTL)**

Amendment Issued: January 2021

Applications Due: Open Continuously until 30 April 2024

TABLE OF CONTENTS

I. OVERVIEW OF THE FUNDING OPPORTUNITY	3
A. Required Overview Content	3
B. Additional Overview Information	3
II. DETAILED INFORMATION ABOUT THE FUNDING OPPORTUNITY	5
A. Program Description.....	5
B. Award Information	5
C. Eligibility Information	6
1. Eligible Applicants.....	6
2. Cost Sharing or Matching	7
3. Other.....	7
D. Application and Submission Information.....	7
E. Whitepaper Preparation.....	8
F. Whitepaper Submission.....	9
G. Full Proposal Preparation and Submission.....	9
1. How to Register in Grants.gov	10
2. How to Submit an Application in Grants.gov	11
3. Content of Application.....	12
H. Submission Dates and Time	17
I. Funding Restrictions	17
J. Other Submission Information.....	17
K. Evaluation Criteria for Full Proposals	17
L. Review and Selection Process.....	18
M. Recipient Qualifications.....	18
N. Award Administration Information.....	19
1. Award Notices.....	19
2. Administrative and National Policy Requirements.....	19
O. Agency Contacts.....	22
P. Other Information.....	22

I. OVERVIEW OF THE FUNDING OPPORTUNITY

A. Required Overview Content

1. Federal Agency Name(s)

The Research and Education Program for Historically Black Colleges and Universities/Minority-Serving Institutions (HBCU/MSI), funded by the Office of the Under Secretary of Defense for Research and Engineering (Research, Technology, and Laboratories) (OUSD(R&E)/RT&L), will be administered through the U.S. Army Combat Capabilities Development Command (CCDC) Army Research Laboratory (ARL)

2. Funding Opportunity Title

Department of Defense Research and Education Program for Historically Black Colleges and Universities and Minority-Serving Institutions (HBCU/MSI)

3. Announcement Type

This is an amended announcement.

4. Funding Opportunity Number

W911NF-19-S-0013

5. Catalog of Federal Domestic Assistance (CFDA) Number

12.630, Basic, Applied, and Advanced Research in Science and Engineering

6. Key Dates

This amended FOA is open from the date of issuance through 30 April 2024, unless otherwise amended.

B. Additional Overview Information

1. Under the authority of 10 U.S.C. § 2362 the Department of Defense (DoD) announces this Research and Education Program for Historically Black Colleges and Universities and Minority-Serving Institutions. The program is executed under policy and guidance of the OUSD(R&E)/RT&L and administered through the CCDC ARL.
2. The Army has a long history of supporting research and education at Historically Black Colleges and Universities and Minority-Serving Institutions. The DoD, in cooperation with the CCDC ARL, is leading new initiatives based on 10 U.S.C. § 2362, which directs DoD to provide assistance to HBCUs and MSIs (hereafter ‘covered educational institutions’) to enhance their participation in defense-related research, development, testing and evaluation activities. Also informing these initiatives are the National Defense Strategy and the DoD-wide and Army Strategies for Engagement with HBCUs/MSIs based on section 233 of the FY 2016 National Defense Authorization Act, P.L. 114-92.
3. The DoD and the Nation need the best scientists and engineers to sustain defense capabilities. This can be accomplished through partnerships with, and support of, Institutions of Higher Education (IHE). The DoD will address this need by supporting

innovative research and education programs that encourage students to pursue careers in science, technology, engineering and mathematics (STEM), particularly at covered educational institutions.

4. The CCDC ARL invites applications from covered educational institutions for research and education programs that will meet the following objectives:
 - Enhance research and education capabilities in areas important to national defense;
 - Increase the number of graduates in STEM disciplines; and
 - Encourage research and education collaborations with other institutions of higher education.
5. Support for research and research-related educational enhancements will be achieved through competitively awarded grants and cooperative agreements. Applications should reflect the unique needs and capabilities of the applicant institution and explain how the proposed project will support the above objectives. Applications are requested in areas of scientific interest to the CCDC ARL as defined in their FOA:
https://www.arl.army.mil/wp-content/uploads/2020/06/arl-baa-W911NF-17-S-0003_Amendment_9.pdf.
6. The scope of an application must align with the DoD priorities set forth in the National Defense Strategy (NDS) summary prepared by the Secretary of Defense and published in early 2018 (<https://www.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf>). The priorities discussed in the NDS have important components that rely on innovation and workforce talent. The research and engineering areas with highest priority to modernize DoD capabilities and support the NDS are:
 - a. Artificial Intelligence/ Machine Learning
 - b. Autonomy
 - c. Bioscience
 - d. Biotechnology
 - e. Cyber
 - f. Data Analytics
 - g. Directed Energy
 - h. Fully Networked Command, Control and Communications (FNC3)
 - i. Hypersonics
 - j. Materials Science and Engineering
 - k. Microelectronics
 - l. Quantum Science
 - m. Space (to include aerospace)

Information about the modernization areas is available at <https://www.cto.mil/modernization-priorities>. Questions should be directed to Agency Contacts in Section II.O. of this FOA.

II. DETAILED INFORMATION ABOUT THE FUNDING OPPORTUNITY

A. Program Description

1. Projects proposed for funding under this FOA must correlate with the CCDC ARL FOA research interests. As defined by DoD, “basic research” is systematic study directed toward greater knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications towards processes or products in mind. It includes all scientific study and experimentation directed toward increasing fundamental knowledge and understanding in those fields of the physical, engineering, environmental, life sciences, and information sciences related to long-term national security needs. “Applied research” is systematic study to understand the means to meet a recognized and specific need. It is a systematic expansion and application of knowledge to develop useful materials, devices, and systems or methods. Expanded definitions are available at: <https://fas.org/sgp/crs/natsec/R44711.pdf>.
2. Applications should describe how the proposed project will enhance defense-related research and research-related education pursuant to objectives defined by 10 U.S.C § 2362 and should demonstrate alignment with the DoD modernization priorities. Applicants are encouraged to consider innovative approaches that will enhance their institution’s science and engineering programs, strengthen the institution’s competitiveness in a variety of defense research programs, attract serious students by exposing them to state-of-the-art research, and encourage careers in STEM disciplines.
3. The DoD will not prescribe an approach for an application; instead, it expects applicants to reflect the unique needs and capabilities of their institution. Methods through which the statutory objectives can be achieved are as varied as the institutions. Factors such as research capabilities and facilities are unique to each institution and should be considered when preparing an application.

B. Award Information

1. The Government reserves the right to select for award all, some, or none of the proposals submitted in response to this announcement. Due to Government budget uncertainties, no specific dollars have been reserved for awards under this FOA. If an Applicant is interested in submitting a proposal under this FOA and has not previously submitted a preliminary inquiry under Section D. below, it is highly recommended they first contact Ms. Evelyn Kent, Evelyn.W.Kent.civ@mail.mil, Office of the Under Secretary of Defense for Research and Engineering, before preparing a whitepaper or submitting a full proposal.
2. **Authority:** The ACC-APG RTP Division has the authority to award a variety of instruments on behalf of CCDC ARL. Anticipated awards under this FOA include grants and cooperative agreements. Applicants may propose

scholarships or fellowships that they will issue through the grant or cooperative agreement award. Applicants may also propose the acquisition of research equipment or instrumentation under the grant or cooperative agreement award. The ACC- APG RTP Division reserves the right to select the type of instrument most appropriate for the effort proposed. Applicants should familiarize themselves with these instrument types and the applicable regulations before submitting a proposal.

3. **Grant:** A legal instrument that, consistent with 31 U.S.C. § 6304, is used to enter into a relationship:

- The principal purpose of which is to transfer a thing of value to the recipient to carry out a public purpose of support or stimulation authorized by a law of the United States, rather than to acquire property or services for the Federal Government's direct benefit or use.
- In which substantial involvement is not expected between the Federal Government and the recipient when carrying out the activity contemplated by the grant.
- No fee or profit is allowed.

4. **Cooperative Agreement:** A legal instrument which, consistent with 31 U.S.C. § 6305, is used to enter into the same kind of relationship as a grant except that substantial involvement is expected between the Federal Government and the recipient when carrying out the activity contemplated by the cooperative agreement. The term does not include "cooperative research and development agreements" as defined in 15 U.S.C. § 3710a. No fee or profit is allowed.

Grants and cooperative agreements are governed by the following:

- Federal statutes
- Federal regulations
- 2 CFR Part 200, as modified and supplemented by DoD's interim implementation (see 2 CFR Part 1103)
- 32 CFR Parts 21, 22, 26 and 28
- DoD Research and Development General Terms and Conditions
- Agency-specific Research Terms and Conditions

The Government reserves the right to select for award all, some, or none of the applications submitted in response to this announcement. Due to Government budget uncertainties, no specific dollars have been reserved for awards under this FOA.

C. Eligibility Information

1. Eligible Applicants

- a. As provided in 10 U.S.C. § 2362, eligibility for this competition is open only to “covered educational institutions,” which are defined as:
- b. Institutions of higher education eligible for assistance under Title III or V of the Higher Education Act of 1965 (20 U.S.C. 1051 *et seq.*); or
- c. Accredited post-secondary minority institutions.
- d. Eligible applicants include community colleges or other 2-year degree granting institutions meeting the definition of a “covered educational institution.”
- e. Enrollments, accreditation, and other factors may affect an institution’s eligibility in any given year. With the exception of HBCUs and Tribal Colleges and Universities (TCUs), an institution must apply to the Department of Education (DoEd) each year for Title III or Title V eligibility in order to meet the eligibility criteria above. A recent copy of the DoEd letter that certifies the institution’s eligibility for Title III or Title V assistance must be included with each application submitted under this FOA. The eligibility letter will not be included in the page count (see Section II.G.3. below).

2. Cost Sharing or Matching - Cost sharing or matching is not required and is not an evaluation factor.

3. Other - Faculty and/or post-doctoral associates at the applicant institution may participate in the project and assist the PI as co-PI or in another capacity. HBCUs/MSIs applying under this FOA may propose collaborations with up to two degree-granting Institutions of Higher Education (IHE). Collaborations with entities other than degree-granting IHEs are not permitted. All proposed collaborations should be explained in the narrative and in the budget justification.

D. Application and Submission Information

1. Preliminary Inquiries: Applicants are encouraged to make preliminary inquiries to the Technical Point of Contact (TPOC) for this FOA, Ms. Evelyn Kent, at Evelyn.W.Kent.civ@mail.mil to discuss the type of research effort being contemplated. A whitepaper may be requested; if so, please follow the instructions below. *Note: the Government will not be obligated by discussions arising out of preliminary inquiries.*
2. *NOTE: The Government will not be obligated by any discussion that arises out of preliminary inquiries.
3. Classified Submissions: Classified proposals are not accepted under this FOA.

E. Whitepaper Preparation

1. Whitepapers should outline the proposed research, including how it is innovative, how it will increase state-of-the-art knowledge in the proposed research area, and how the project will impact STEM education at the applicant institution. If collaborators are anticipated, describe their participation and the anticipated impact on those institutions and their students as well. Describe the project's relevance to DoD modernization areas and potential impact on the defense mission, if known.
2. Whitepapers are limited to seven (7) pages; five (5) pages for technical content, one (1) cover page and a one (1) page addendum as described below. Pages exceeding these limits will not be reviewed or considered.
3. Whitepapers must comply with the guidelines below. No forms are required for whitepaper submission.
 - Page Size: 8 ½ x 11 inches
 - Margins – 1 inch
 - Spacing – single
 - Font – Times New Roman, 12 point
 - PDF document as attachment to email directed to TPOC at above address.
4. Format and content of whitepapers:
 - a. Cover Page (not to exceed one page): The whitepaper cover page must include: Title of the whitepaper; name of the Principal Investigator (PI) and the institution submitting the whitepaper; the research area from the CCDC ARL FOA against which the whitepaper is submitted (see page 4 of this FOA).
 - b. Technical Content (not to exceed five pages):
 - i. Provide a detailed discussion of the proposed effort including the research objective, approach, relationship to similar research, and student involvement. Also include the nature and extent of the anticipated results and, if known, the manner in which the project will align with DoD priorities set forth in the National Defense Strategy.
 - ii. The type of support, if any, the applicant requests of the Government, such as facilities, equipment, demonstration sites, test ranges, software, personnel or materials, shall be identified as Government Furnished Equipment (GFE), Government Furnished Information (GFI), Government Furnished Property (GFP), or Government Furnished Data (GFD). Applicants shall indicate any Government coordination that may be required for obtaining equipment or facilities necessary to perform any simulations or exercises that would demonstrate the proposed capability.

- iii. The cost portion of the whitepaper shall contain a brief cost estimate including personnel hours, materials and supplies, travel, scholarships, stipends, and other anticipated expenses.
- 5. Addendum (not to exceed one page): Provide biographical sketches of key personnel, highlighting qualifications and experience in the proposed research area.
- 6. Restrictive Markings on Whitepapers: Proprietary data that the applicant intends to be used only for evaluation purposes must be clearly marked. Also identify any components of the whitepaper that are to be treated by the Government as limited rights in technical data and/or restricted rights in computer software. In the absence of such markings, the Government will conclude that there are no restrictions. All whitepapers will be treated as procurement sensitive and contents will be disclosed only for evaluation purposes. Applicants are cautioned, however, that whitepapers may be subject to release under terms of the Freedom of Information Act, 5 U.S.C. 552, as amended.
- 7. Evaluation and Disposition of Whitepapers:
 - a. Evaluation Process: The whitepaper will be evaluated for the concept's scientific merit, potential contributions to the DoD mission and priority areas, and how the proposed effort will facilitate increasing the number the graduates in STEM disciplines. Applicants whose whitepapers are evaluated as having significant scientific merit and strong student participation in STEM disciplines may be invited to submit a full proposal. Note, however, that an applicant may submit a proposal despite having not submitted a whitepaper or receiving a proposal invite.
 - b. Disposition Process: The applicant will be notified in writing upon completion of the whitepaper evaluation. Whitepapers will not be returned to applicants. Applicants may request a summary of their whitepaper evaluation from the Grants Officer.

F. Whitepaper Submission: All whitepapers must be emailed directly to the TPOC, Ms. Evelyn Kent, Evelyn.W.Kent.civ@mail.mil. In the email subject line, include the phrase “Whitepaper Submission” and the FOA number W911NF-19-S-0013. Whitepapers must be a single PDF file attached to the email.

G. Full Proposal Preparation and Submission (*Read the following instructions carefully*):

The DoD is participating in the Grants.gov initiative to provide a single site to find and apply for funding opportunities. Applications to this FOA must be submitted through Grants.gov. Registration at the web site is required, as described below. This funding opportunity may be found on Grants.gov by going to ‘Search Grants’ screen and entering the funding opportunity number for this FOA, W911NF-19-S-0013, in the Funding Opportunity search box.

1. How to Register in Grants.gov:

Instructions: Applicants should read the registration instructions carefully and assemble required information specific to the applicant institution before beginning the registration process. Organizations must have a Data Universal Numbering System (DUNS) Number, active registration in the System for Award Management (SAM), and a Grants.gov account.

Creating a Grants.gov account can be completed online in minutes, but DUNS and SAM registrations may take several weeks. Complete instructions can be found here:

<https://www.grants.gov/web/grants/applicants/organization-registration.html>

a. *Obtain a DUNS Number:* All entities applying for funding must have a DUNS Number from Dun & Bradstreet (D&B). Applicants must enter the DUNS Number in the data entry field labeled "Organizational DUNS" on the Standard Form (SF) 424 form. Instructions to obtain a DUNS Number are available at:

<https://www.grants.gov/web/grants/applicants/organization-registration/step-1-obtain-duns-number.html>

b. *Register with SAM:* Organizations applying through Grants.gov must register with the System for Award Management (SAM). SAM registration must be renewed annually. Instructions for registering with SAM are available at:

<https://www.grants.gov/web/grants/applicants/organization-registration/step-2-register-with-sam.html>

c. *Create a Grants.gov Account:* The next step is to register an account with Grants.gov. Follow the on-screen instructions or refer to the instructions at:

<https://www.grants.gov/web/grants/applicants/registration.html>

d. *Add a Profile to a Grants.gov Account:* A profile in Grants.gov corresponds to a single applicant organization the user represents (i.e., an applicant) or an individual applicant. If you work for or consult with multiple organizations and have a profile for each, you may log in to one Grants.gov account to access all of your grant applications. To add an organizational profile to your Grants.gov account, enter the DUNS Number for the organization in the DUNS field while adding a profile. Instructions for creating a profile on Grants.gov are available here:

<https://www.grants.gov/web/grants/applicants/registration/add-profile.html>

e. *EBiz POC Authorized Profile Roles:* After registering with Grants.gov and creating an Organization Applicant Profile, the organization applicant's request for Grants.gov roles and access is sent to the EBiz POC. The EBiz POC will then log in to Grants.gov and authorize the appropriate roles, which may include the Authorized Organization Representative (AOR) role, thereby giving permission to complete and submit applications on behalf of the organization. Applications may be submitted online at any time after establishing an AOR at the applicant institution. Instructions for creating a profile on Grants.gov are available at:

<https://www.grants.gov/web/grants/applicants/registration/authorize-roles.html>

f. *Track Role Status:* To track your role request, refer to:

<https://www.grants.gov/web/grants/applicants/registration/track-rolestatus>.

[Html](#)

g. Electronic Signature: When applications are submitted through Grants.gov, the name of the organization applicant with the AOR role (Block #19 on the SF-424) is inserted into the signature line of the application; this is the electronic signature. The EBiz POC **must** authorize people who are able to make legally binding commitments on behalf of the organization as a user with the AOR role; **this step is often missed, and it is crucial for valid and timely submissions.**

2. How to Submit an Application in Grants.gov

Applicants can apply online using Workspace, which is a shared, online environment where members of an institution's grant team may simultaneously access and edit different web forms within an application. For each funding opportunity announcement (FOA), individual instances of a workspace can be created. Below is an overview of applying on Grants.gov. Complete instructions are available at:

<https://www.grants.gov/web/grants/applicants/workspace-overview.html>

a. *Create a Workspace:* Creating a workspace allows the user to complete the application online and route it through the organization for review before submitting.

b. *Complete a Workspace:* Add participants to the workspace to work on the application together, complete the required forms online or download PDF versions, and check for errors before submission. The Workspace progress bar will display the state of your application process as you apply. As you apply using Workspace, you may click the blue question mark icon near the upper-right corner of each page to access context-sensitive help.

1) *Adobe Reader:* If you decide not to apply by filling out web forms you can download individual PDF forms in Workspace. The individual PDF forms can be downloaded and saved to your local device storage, network drive(s), or external drives, then accessed through Adobe Reader. NOTE: Visit the Adobe Software Compatibility page on Grants.gov to download the appropriate version of the software at:

<https://www.grants.gov/web/grants/applicants/adobe-softwarecompatibility>.

[Html](#)

2) *Mandatory Fields in Forms:* In the forms, you will note fields marked with an asterisk and a background color. These fields are mandatory and must be completed to submit your application.

3) *Complete SF-424 Fields First:* The forms are designed to fill in other required fields in other forms, such as the applicant name, address, and DUNS Number. Once completed, the information will transfer automatically to the other forms.

c. *Submit a Workspace:* An application may be submitted through workspace by clicking the Sign and Submit button on the Manage Workspace page, under the Forms tab.

d. *Track a Workspace Submission:* After successfully submitting a workspace application, a Grants.gov Tracking Number (GRANT XXXXXXXX) is assigned to the application. The

number will be listed on the Confirmation page that is generated after submission. Using the tracking number, access the Track My Application page under the Applicants tab or the Details tab in the submitted workspace. For additional training resources, including video tutorials, refer to: <https://www.grants.gov/web/grants/applicants/applicant-training.html>

e. *Applicant Support*: Grants.gov provides applicants 24/7 support via the toll-free number 1-800-518-4726 and email at support@grants.gov. If you are experiencing difficulties with your submission, it is best to call the Grants.gov Support Center and get a ticket number. The Support Center ticket number will assist the DoD with tracking your issue and understanding background information on the issue.

3. Content of Application

Applicants must complete all forms and attachments. Follow the instructions on the forms and additional instructions below. To activate the “pop up” instructions on the forms, turn on the “Help Mode” (icon with the pointer and question mark at the top of the form). All attachments to Grants.gov forms must be in PDF format. **Note:** Ensure that attachments are not password protected. The following formatting rules apply for attachments:

- Paper size when printed – 8.5 x 11-inch paper, one-sided
- Margins – 1 inch
- Spacing – single
- Font – Times New Roman, 12-point (excluding mandatory forms)
- Number of pages – 25

The 25-page limit applies to the technical portion of the application, which includes the following: Project Summary/Abstract; Project Narrative; and Facilities and Other Resources. Pages exceeding this limit will not be considered in the application evaluation. Letters of support, if any, should be addressed to the PI; these will not be included in the page count.

The following SF 424 (R&R) forms and attachments, as applicable, are required:

FORM: The SF 424 (R&R) Application for Federal Assistance - The SF 424 (R&R) form is the cover page for all applications. Complete this form first to populate data in other forms. By submitting an application through Grants.gov, the AOR (Block #19 on the form and identified by username and password) is providing an “electronic signature.”

To be compliant with Title IX of the Education Amendments of 1972 (20 U.S.C. A§ 1681 *Et. Seq.*), the Department of Defense is collecting certain demographic and career information to assess the success rates of women who are proposed for key roles in applications in STEM disciplines. To enable this assessment, each application must include the following two forms completed as indicated below.

FORM: Research & Related Senior/Key Person Profile (Expanded) – The ‘Degree Type’ and ‘Degree Year’ fields on the Research and Related Senior/Key Person Profile form will be used by DoD as the source for career information. In addition to the required fields on the form, applicants must complete these fields for all individuals identified as

having the project role of PD/PI or Co-PD/PI on the form. Additional senior/key persons can be added by selecting the “Next Person” button.

Biographical sketches are required for the PI and key personnel (not to exceed three pages each). These will not be included in the page count. Please include education and the year in which each degree was completed.

FORM: Research & Related Personal Data - This form will be used by DoD as the source of demographic information, such as gender, race, ethnicity, and disability information for the PD/PI and all other persons identified as Co-PD/Co-PI. Each application must include this form. Note, however, that provision of the demographic information is voluntary. If completing the form for multiple individuals, each one can be added by selecting the “Next Person” button. The demographic information will be used for statistical purposes only and will not be available to merit reviewers. Applicants who do not wish to provide some or all of the information should select the “Do not wish to provide” option.

FORM: Research & Related Other Project Information – Complete questions 1 through 6 and attach files for items 7 through 12. The files must comply with the following:

Project Summary/Abstract (Field 7 on the form) – The Project Summary/Abstract must be no longer than a single page. It must be marked to indicate that it is publicly releasable, as abstracts for all awarded applications will be placed on a DoD website searchable by the public. The abstract should provide a concise description of the proposed project and associated research-related education, including a statement of objectives and methods to be employed. It should be informative to other persons working in the same or related research fields and insofar as possible understandable to a technically literate lay reader. The header of the abstract should identify the PI, the institution, and the application title.

Project Narrative (Field 8 on the form) - At the beginning of the project narrative, indicate the research topic area to which the proposed project is relevant and the technical program manager, if known. (See link to CCDC ARL FOA on page 4). The project narrative must describe the following to enable technical evaluation of the proposed project:

- The research to be undertaken in a level of detail that fully addresses the objectives of the research, approaches to be used, the relationship of the project to the state of knowledge in the field and to any related work at the institution or elsewhere.
- The anticipated results and how the project relates to the DoD mission and the NDS.
- The facilities and equipment available for performing the proposed research.
- The involvement of undergraduate and/or graduate students in the research project and associated research-related education. Program funds may be requested for scholarships and fellowships pursuant to 10 U.S.C. 2362. The involvement of students in the research project is critical to achieving program objectives.

Bibliography & References Cited (Field 9 on the form) – Include a bibliography and list of literature citations, if applicable.

Facilities and Other Resources (Field 10 on the form) – Include a list of existing facilities and available resources including equipment and instruments to be used in the project.

Equipment (Field 11 on the form) – Not applicable.

Other Attachments (Field 12 on the form) – Provide other documents relevant to the proposed project.

FORM: (R&R) Research & Related Budget – Complete Sections A through H and attach a budget justification in Section L. The budget justification should explain with clarity all entries in Sections A through H and enable meaningful evaluation. Note that Section J should not be completed, as no fee will be paid to a recipient.

The total project costs, i.e., the amount requested from DoD under this FOA, must be shown in total as well as broken down by cost element for each year of the performance period. Additional budget periods may be added to the Research & Related Budget form by clicking the “Add Period” button at the end of the first budget period. The cumulative Research & Related Budget is automatically calculated and the last page of the budget form will reflect the total costs for all budget periods. *Note: the total calculated amount on the last page of the budget form must agree with the amount entered in Block #15 of the Cover Page, SF424.*

The following additional guidance is provided:

Direct Labor: Show the current and projected salary amounts in terms of man-hours, man-months, or annual salary to be charged by the PI(s), faculty, research associates, post-doctoral associates, graduate and undergraduate students, secretarial, clerical, and other technical personnel either by personnel or position. State the number of man-hours used to calculate a man-month or man-year. Research during the academic term is deemed part of regular academic duties, not an extra function for which additional compensation or compensation at a higher rate is warranted. Consequently, academic term salaries shall not be augmented either in rate or in total amount for research performed during the academic term. Rates of compensation for research conducted during non-academic (summer) terms shall not exceed the rate for the academic terms. When part or all of a person's services are to be charged as project costs, it is expected that the person will be relieved of an equal part or all of his or her regular teaching or other obligations.

For each person or position, provide the following information:

- a. The basis for the direct labor hours or percentage of effort, e.g., historical hours or estimates;
- b. The basis for the direct labor rates or salaries. Labor costs should be predicated upon current labor rates or salaries. These rates may be adjusted upward for forecast salary or wage cost-of-living increases that will occur during the agreement period. The cost proposal should separately identify the rationale applied to base salary/wage for cost-of-living adjustments and merit increases. Each must be fully explained;

- c. The portion of time to be devoted to the proposed research, divided between academic and non-academic (summer) terms, when applicable;
- d. The total annual salary charged to the research project; and
- e. Any details that may affect the salary during the project, such as plans for leave and/or remuneration while on leave.
- f. Fringe Benefits and Indirect Costs (Overhead, G&A, and Other): The most recent rates, dates of negotiation, the base(s) and periods to which the rates apply must be disclosed and a statement included identifying whether the proposed rates are provisional or fixed. If the rates have been negotiated by a Government agency, state when and by which agency. A copy of the negotiation memorandum should be provided. If negotiated forecast rates do not exist, applicants must provide sufficient detail to enable a determination to be made that the costs included in the forecast rate are allocable according to applicable cost provisions. Applicants' disclosure should be sufficient to permit a full understanding of the content of the rate(s) and how it was established. As a minimum, the submission should identify:
 - g. All individual cost elements included in the forecast rate(s);
 - h. Basis used to prorate indirect expenses to cost pools, if any;
 - i. How the rate(s) was calculated;
 - j. Distribution basis of the developed rate(s);
 - k. Basis on which the overhead rate is calculated, such as "salaries and wages" or "total costs;" and
 - l. The period of the applicant's Fiscal Year.

Travel: Forecasts of travel expenditures (domestic and foreign) that identify the destination, duration, and purpose of trip are required, as well as itemized cost elements of airfare, mileage, per diem rates, and other associated costs. These should be in sufficient detail to determine the reasonableness of such costs. Allowance for air travel normally will not exceed the cost of round-trip, economy air accommodations. Costs for domestic travel must not exceed \$3,000 per year per PI. Separate, prior approval by the ARL is required for foreign travel (i.e., travel outside the continental U.S., its possessions and Canada). Foreign travel requests must not exceed \$1,800 each per year per PI. Special justification will be required for travel requests in excess of the amounts stated above and for travel by individuals other than the PI(s). Individuals other than the PI(s) are: post-doctoral associates, research associates, graduate and undergraduate students, secretarial, clerical, and other technical personnel.

Materials and Supplies: Estimate costs of materials and supplies. Provide basis for developing the cost estimate (e.g., vendor quotes or vendor websites).

Publication: Estimate the costs of publishing and reporting research results.

Consultants: Consultant costs are not allowable under this FOA.

Computer Services: Funds under this FOA may not be used for computer services (e.g., retrieval of scientific, technical, and educational information, or leasing of data processing equipment).

Equipment or Facility Rental/User Fees: Funds under this FOA may not be used for equipment or facility rental/user fees.

Subawards: An application may propose research collaborations with no more than two Institutions of Higher Education (IHE). Students from each participating institution must be involved in the research. The budget for a research collaboration must show that at least 60 percent of the total direct costs will be attributable to activities performed by the applicant HBCU/MSI, both in the conduct of research and in the management responsibilities of such an arrangement. For subawards totaling \$10,000 or more, provide the following information for each proposed collaborator:

- A description of the work to be performed;
- Identification of the proposed subawardee (Institution and PI(s)) and an explanation of why and how the subawardee was selected for the project;
- Type of award to be used (i.e., cost reimbursement or fixed price);
- A detailed budget and budget justification.

Student/Trainee Support Costs: Funds awarded under this FOA may be used for scholarships and fellowships (10 U.S.C. 2362). Applications must provide details about the scholarships or fellowships including levels of effort, levels of support, and how they correlate with objectives of this FOA.

Other Direct Costs: Itemize and provide the basis for other direct costs.

FORM: (R&R) Research & Related Subaward Budget Attachment(s) – If the applicant is proposing research collaborations with one or two other IHEs, use this form for the subaward budget(s).

FORM: Disclosure of Lobbying Activities (SF-LLL) – If the applicant has lobbying to report per 31 U.S.C. 1352, complete this optional form in the application package and include it with the other forms being submitted.

H. Submission Dates and Times

Applications will be considered until 4:00pm Eastern Time on 30 April 2024. All applicants will receive an electronic acknowledgement of receipt via email to the individual who serves as the institution's AOR (Block #19 of the SF 424).

I. Funding Restrictions

The following will not be funded under this FOA:

- Alteration or renovation of facilities
- Projects involving classified information.
- Equipment
- Consultant Services
- Computer Services

J. Other Submission Requirements

An applicant may withdraw an application at any time before award by written notice or by e-mail. The AOR must send the notice of withdrawal to the Grants Officer of this FOA. Withdrawals are effective upon receipt by the Grants Officer.

K. Evaluation Criteria for Full Proposals

1. Primary Evaluation Criteria (of equal importance to each other) are:

- a. Scientific and technical merit of the proposed research.
- b. Relevance of the proposed research to the DoD modernization areas and potential contributions of the proposed research to the DoD mission.
- c. Potential of the proposed project to develop new research capabilities or enhance existing research capabilities and to broaden the research base in support of national defense.
- d. Potential of the project to enhance research and research education capabilities in STEM disciplines and increase the number of students engaged in STEM disciplines.
- e. Qualifications of the PI to achieve the objectives of the project.

2. Secondary evaluation criteria, of less importance than primary criteria but of equal importance to each other, are:

- a. Potential of the project to foster collaborations with other institutions of higher education.
- b. Budgetary realism and cost effectiveness of the proposed research project.

L. Review and Selection Process

Applications will be evaluated by DoD subject matter experts using the above criteria. The most meritorious applications will be recommended for award commensurate with available funding. Approval of an award recommendation is the authority of the Research Director of the USD(R&E) Research, Technology and Laboratories Office. Proposals may be handled for administrative purposes by support contractors. These support contractors are prohibited from submitting proposals under this FOA and are bound by non-disclosure and/or conflict of interest requirements.

M. Recipient Qualification

1. The Grants Officer is responsible for determining a recipient's qualification prior to award. In general, the Grants Officer will award grants or cooperative agreements only to qualified recipients that meet the standards at 32 CFR 22.415. To be qualified, a potential recipient must:

- a. Have the management capability and adequate financial and technical resources, including those that would be made available through the grant or cooperative agreement, to execute the program of activities envisioned under the grant or cooperative agreement;
- b. Have a satisfactory record of executing such programs or activities (if applicant is a previous recipient of a DoD-funded award);
- c. Have a satisfactory record of integrity and business ethics; and
- d. Be otherwise qualified and eligible to receive a grant or cooperative agreement under applicable laws and regulations.

2. Applicants are requested to provide information to assist the Army Grants Officer's evaluation of recipient qualifications. In accordance with Office of Management and Budget (OMB) guidance in parts 180 and 200 of Title 2, CFR, it is DoD policy that DoD Components must report and use integrity and performance information in the Federal Awardee Performance and Integrity Information System (FAPIIS), or any successor system designated by OMB.

3. If the total Federal share of a grant or cooperative agreement will be greater than the simplified acquisition threshold (currently \$250,000), then:

- a. The Army Grants Officer, prior to making an award, will review and consider any information about the applicant that is in the designated integrity and performance system accessible through SAM (currently FAPIIS) (see 41 U.S.C. 2313);
- b. An applicant, at its option, may review information in the designated integrity and performance systems accessible through SAM and comment on any information about

itself that a federal awarding agency previously entered and is currently in the designated integrity and performance system accessible through SAM.

- c. The Army Grants Officer will consider any comments by the applicant, in addition to the other information in the designated integrity and performance system, in making a judgment about the applicant's integrity, business ethics, and record of performance under Federal awards when completing the review of risk posed by applicants as described in 2 CFR 200.205, Federal awarding agency review of risk posed by applicants.

N. Award Administration Information

1. Award Notices

- a. Applicants, both successful and unsuccessful, will be notified via e-mail. Unsuccessful applicants may contact the Grants Officer for a summary of the technical evaluations of their application.
- b. The notification e-mail to successful applicants must not be regarded as a formal authorization to commit or expend funds. The Government is not obligated to provide any funding until the award document is signed by an Army Grants Officer.
- c. Successful applicants may be contacted by the Army Grants Officer if supplemental information is necessary to finalize an award. This may involve representations, certifications, revised budgets or budget explanations, or other information required for award execution. The award start date will be determined at that time.

2. Administrative and National Policy Requirements

- a. An award issued under this FOA will be governed by the general terms and conditions in effect at the time of the award that conform to DoD's implementation of OMB guidance applicable to financial assistance in 2 CFR part 200, "Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards." The DoD Research and Development General Terms and Conditions (latest version, September 2020) are available at <https://www.onr.navy.mil/Contracts-Grants/submit-proposal/grants-proposal/grants-terms-conditions>.
- b. A recipient must comply with all applicable national policy requirements. The key national policy requirements that may relate to an award under this FOA are included in the terms and conditions specified in paragraph 2.a. above.

3. The following representations are required for grant awards: *NOTE: The page for these representations is available for download under the 'Related Documents' section of this funding opportunity (W911NF-19-S-0013) posted on Grants.gov*

Appropriations Provisions on Tax Delinquency and Felony Convictions

- i. Check either “is” or “is not” for the following representations, as appropriate for the proposing institution. Include the AOR signature and point of contact information and attach the representations page to Field 12 of the SF-424(R&R) Other Project Information form.
- ii. The applicant is () is not () a “Corporation” meaning any entity, including any institution of higher education, other nonprofit organization, or for-profit entity that has filed articles of incorporation. If the applicant is a “Corporation” please complete the following representations:
- iii. The applicant represents that it is () is not () a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.
- iv. The applicant represents that it is () is not () is not a corporation that was convicted of a criminal violation under any Federal law within the preceding 24 months.

OMB CONTROL NUMBER: 0704-0494
OMB EXPIRATION DATE: 11/30/2019

Agency Disclosure Notice

The public reporting burden for this collection of information is estimated to average 5 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Washington Headquarters Services, Executive Services Directorate, Directives Division, 4800 Mark Center Drive, East Tower, Suite 02G09, Alexandria, VA 22350-3100 [0704-0494].

Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

Prohibition on Contracting with Entities that Require Certain Internal Confidentiality Agreements

Agreement with the representation below will be affirmed by checking the “I agree” box in block 17 of the SF424 (R&R) as part of the electronic proposal submitted via Grants.gov. The representation reads as follows:

By submission of its proposal or application, the applicant represents that it does not require any of its employees, contractors, or subrecipients seeking to report fraud, waste, or abuse to sign or comply with internal confidentiality agreements or statements prohibiting or otherwise restricting those employees, contractors, subrecipients from lawfully reporting that waste, fraud, or abuse to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information.

Note that: (1) the basis for this representation is a prohibition in Section 743 of the Financial Services and General Government Appropriations Act, 2015, Pub. L. 113-235) on provision of funds through grants and cooperative agreements to entities with certain internal confidentiality agreements or statements; and (2) Section 743 states that it does not contravene requirements applicable to Standard Form 312, Form 4414, or any other form issued by a Federal department or agency governing the nondisclosure of classified information.

NOTE: If an applicant responds in the affirmative to either of the above representations, the applicant is ineligible to receive an award unless the agency suspension and debarment official (SDO) has considered suspension or debarment and determined that further action is not required to protect the Government’s interests. The applicant therefore should provide information about its tax liability or conviction to the agency’s SDO as soon as it can do so, to facilitate completion of the required considerations before award decisions are made.

O. Agency Contacts

For questions of a technical or programmatic nature, contact:

Evelyn Kent
Office of the Under Secretary of Defense for Research and Engineering (OUSD(R&E))
Evelyn.W.Kent.civ@mail.mil

Tamika Carey
OUSD(R&E) HBCU/MSI Program Analyst
Tamika.A.Carey.ctr@mail.mil

Questions regarding program execution and administration should be directed to:

Vallen L. Emery, Jr., Ph.D. HBCU/MSI Programs
US Army Combat Capabilities Development Command (CCDC) - Army Research
Laboratory (ARL)
Vallen.L.Emery.civ@mail.mil

Pablo E. Guzman, Ph.D.
Technical Assistant to the Director CCDC ARL Vehicle Technology Directorate
Pablo.E.Guzman2.civ@mail.mil

Tywanki Q. Seegars
CCDC ARL HBCU/MSI Program Specialist
Tywanki.Q.Seegars.ctr@mail.mil

The Grants Officer is:

Leroy R. Hardy
US Army Contracting Command-Aberdeen Proving Ground RTP Division
Leroy.R.Hardy.civ@mail.mil

P. Other Information

Applications must not include any information that has been identified as classified national security information under authorities established in Executive Order 12958, Classified National Security Information.

Applicants are advised that employees of commercial firms under contract to the government may be involved in administrative processing of applications. By submitting an application, an applicant consents to allowing access to its application(s) by these support contractors. All support contracts include nondisclosure agreements prohibiting their contractor employees from disclosing any information submitted by applicants.