

The Department of Homeland Security (DHS)

**Notice of Funding Opportunity (NOFO)
2016 DHS Scientific Leadership Awards for Minority Serving Institutions (MSI)**

NOTE: If you are going to apply for this funding opportunity and have not obtained a Data Universal Numbering System (DUNS) number and/or are not currently registered in the System for Award Management (SAM), please take immediate action to obtain a DUNS Number, if applicable, and then to register immediately in SAM. It may take 4 weeks or more after you submit your SAM registration before your registration is active in SAM, then an additional 24 hours for Grants.gov to recognize your information. Information on obtaining a DUNS number and registering in SAM is available from Grants.gov at: <http://www.grants.gov/web/grants/register.html> Detailed information regarding DUNS and SAM is also provided in Section D of this NOFO, subsection, Content and Form of Application Submission.

A. Program Description

Issued By

**U.S. Department of Homeland Security (DHS) Science & Technology Directorate
(S&T) Office of University Programs (OUP)**

**Catalog of Federal Domestic Assistance (CFDA) Number
97.062**

CFDA Title

Scientific Leadership Awards

Notice of Funding Opportunity Title

**2016 DHS Scientific Leadership Awards for Minority Serving Institutions (MSI)
Granting Bachelor Degrees**

NOFO Number

DHS-16-ST-062-001

Authorizing Authority for Program

6 U.S.C. 188(b) and 6 U.S.C. 182(10)

The Secretary, acting through the Under Secretary for Science and Technology, shall have the responsibility for ... (B) detecting, preventing, protecting against, and responding to terrorist attacks; ...(10) supporting United States leadership in science and technology...

Appropriation Authority for Program

Department of Homeland Security (DHS) Appropriations Act, P.L. 114-113,
Division F, Title IV, Science and Technology, Research, Development,
Acquisition and Operations

Program Type

Select the applicable program type: ☐ New ☒ Continuation ☐ One-time

Date of origin for Program: 2007

Program Overview and Priorities

The Science and Technology Directorate (S&T) is DHS's primary research and development (R&D) arm. S&T manages science and technology research, from development through transition, for the department's operational components and the nation's first responders. S&T's engineers, scientists and researchers work closely with industry and academic partners to ensure R&D investments address the high-priority needs of today and the growing demands of the future.

The DHS Scientific Leadership Awards (SLA) program is one of several programs administered by the S&T Office of University Programs. Through the SLA program, OUP seeks to build a diverse, highly capable, technical workforce for the homeland security enterprise. This NOFO is soliciting applications from Minority Serving Institutions (MSIs) to establish programs that relevant to S&T's mission within their institutions or MSI networks.

A successful SLA proposal will incorporate the following elements:

- 1) Coordinated teaching of HS-STEM (Homeland Security- Science, Technology, Engineering, and Mathematics) topics
- 2) Designing innovative HS-STEM courses or curricula; supporting academic enhancement including adapting effective educational materials and practices developed elsewhere; incorporating examples of HS-STEM technology research, development, and application activities into coursework
- 3) DHS relevant research projects or initiatives with significant involvement of an early career faculty and collaboration between early career faculty and a researcher at one of the COE universities or another suitable HSE research facility
- 4) Financial support for undergraduate and or graduate students in the form of scholarships and other direct student support
- 5) Student internships and other experiential learning opportunities
- 6) Best practices for successful student mentoring and career guidance
- 7) Processes with the potential for highly successful transition of supported students to HS-STEM related careers, or admission to graduate school

- 8) Student success tracking, and identification of other metrics for evaluating the outputs, outcomes and impact of the proposed project.

Quadrennial Homeland Security Review (QHSR) missions, goals, and objectives:

(Please refer to <http://dhsconnect.dhs.gov/org/comp/plcy/sco/Documents/QHSR.pdf>)

QHSR Mission VI: Maturing and Strengthening the Homeland Security Enterprise

Goal: Foster Innovative Approaches and Solutions through Leading-Edge Science and Technology

Objective 1: **Scientifically study threats and vulnerabilities**: Pursue a rigorous scientific understanding of current and future threats to homeland security and the possible means to their prevention and mitigation.

Objective 2: **Develop innovative approaches and effective solutions**: Encourage and enable innovative approaches to critical homeland security challenges, fostering collaborative efforts involving government, academia, and the private sector.

Performance Measurements: 1) Number of awards made to academic institutions 2) Number of science, technology, engineering, and mathematics (STEM) students supported. 3) Number of early career faculty supported. 4) Number of courses developed or modified.

B. Federal Award Information

Award Amounts, Important Dates, and Extensions

Available Funding for the NOFO: \$3,600,000

Projected number of Awards: Three to six

Period of Performance: Up to five years from start date

An extension to the period of performance is permitted, please refer to Section H for additional information.

Projected Period of Performance Start Date: 1/18/2017

Projected Period of Performance End Dates: **Phase 1:** 1/18/2019
Phase 2: 1/18/2021

Only Phase 1 will be funded through this NOFO. Phase 2 is contingent upon availability of funds and satisfactory performance. Successful Phase 1 applicants will be required to reapply for Phase 2 funding in the event funds for Phase 2 become available. Successful

applicants who receive an award under this NOFO are prohibited from beginning performance on any proposed Phase 2 projects without prior written approval from DHS authorizing them to begin work on Phase 2.

Funding Instrument

Select the applicable funding instrument: ☐ Cooperative Agreement ☒ Grant

C. Eligibility Information

Eligible Applicants:

Private institutions of higher education

Public & State controlled institutions of higher education

Eligibility Criteria

The successful applicant will be a Historically Black College and University (HBCU), Hispanic Serving Institution (HSI), or Tribal College and University (TCU) that possesses the capabilities to develop an enduring program of undergraduate education and relevant Homeland Security-related Science, Technology, Engineering, and Mathematics (HS-STEM) research and development, and collaborate with our existing research Centers of Excellence (COEs), who are currently performing work related in areas critical to homeland security. Proposals may be submitted only by accredited HBCU, HSI, or TCU academic institutions in the U.S., its territories or possessions, and the Commonwealth of Puerto Rico, that award bachelor degrees in science (including social science), technology, engineering and/or mathematics (STEM) fields. Most accredited U.S. postsecondary institutions that meet the statutory criteria for these categories are listed at: <http://www.ed.gov/about/offices/list/ocr/edlite-minorityinst.html>. DHS is only accepting and funding one application per eligible institution.

Other Eligibility Criteria

Early Career Faculty Member

Proposals must include significant involvement of early-career faculty with interest in HS-STEM. They should be enabled to develop courses, curricula, or other significant education programs. Additionally, there should be opportunities for them to collaborate with other researchers at the COEs, FFRDCs or other HSE research partners that are involved in the development of technologies, research and other scientific contributions related to the homeland security mission.

Early-career faculty (also referred to as young investigators or junior faculty) should have received their Ph.D. or Master's Degree within seven years as of the application deadline, and should be no more than five years in their current position. They must be in a tenured (or equivalent) position, or accepting a position at an institution that essentially meets the criteria (see also Section III). Supported early-career faculty must commit to the grant recipient institution for the duration of the award. Institutions that do not have qualified early-career faculty, but plan to attract them must have them under contract by the time of award and submit the required letter of departmental support. Other faculty may be included in the proposal as well. However, the early career faculty must have a

significant financially compensated role in the proposal. **Since researchers are vetted employees of their respective institutions, they are not required to be US citizens.**

Specific requirements for students supported under the SLA

The recipient will be responsible for student recruitment and subsequent award administration which includes: awarding and disbursement of scholarship, stipends and other direct support; directing students toward successful degree completion; facilitating student progress to the next stage of their career, and post-award completion tracking and evaluation.

Recipients may not make individual scholarship awards greater than full tuition and mandatory nonrefundable fees. Students must also receive the equivalent of at least half of their full tuition. The undergraduate stipend may not exceed \$1,000 a month for twelve months, or ten months if a paid internship can be arranged through external means. The graduate stipend may not exceed \$2000 a month for 12 months, or ten months if paid internship can be arranged through external means. Student must receive a monthly stipend appropriate to the geographic region. **Students supported under this award must be U.S. citizens** and must have a minimum GPA of 3.3 on a 4.0 scale, which they must be maintain to remain eligible.

Recipient institutions must facilitate the placement of students in at least one summer internship. All students supported by this grant will be required to engage in one year of professional employment within the homeland security enterprise within one year after graduation. Venues may include COEs, federal research facilities, foreign partners, foreign research institutions, and industry. The institution receiving this award will be responsible for facilitating this placement and compliance with this requirement with input from S&T. Salaries for these placements cannot come from any part of the SLA funds. This requirement will be waived for any undergraduate student who attends graduate school in a HS-STEM related field immediately after receiving their bachelor's degree. The requirement will be waived for any master's degree student who has been accepted to a PhD program. The requirement will also be waived for anyone entering active duty in the armed forces, United States Coast Guard, or U.S. Public Health Service.

For the purpose of program evaluation, all students receiving support under this grant agree to share personal information with their academic institutions that will allow their institution to track their progress toward a career in HS-STEM research and development: specifically, their graduation with a bachelor's degree and their enrollment in, and graduation from, an HS-STEM related graduate degree, and their initial employment.

Maintenance of Effort (MOE) (If Applicable)

Is there a Maintenance of Effort (MOE) requirement? ☐ Yes ☒ No

Cost Share or Match

Select the applicable requirement: ☐ Cost Match ☐ Cost Share ☒ Voluntary

D. Application and Submission Information**Key Dates and Times**

**Key dates contingent upon NOFO approval*

Date Posted to Grants.gov: 08/3/2016

Application Submission Deadline: 10/5/2016

Anticipated Funding Selection Date: 12/5/2016

Anticipated Award Date: 1/18/2017

Late applications will not be reviewed nor considered.

Event	Suggested Deadline For Completion
Obtaining DUNS Number	Four weeks before actual submission deadline
Obtaining a valid EIN	Four weeks before actual submission deadline
Updating SAM registration	Four weeks before actual submission deadline
Starting application in Grants.gov	One week before actual submission deadline
Informational webinar for interested applicants	August 17, 2016, 3 PM EST Contact Stephanie Dawkins after August 10, 2016 for access information

Address to Request Application Package

Application forms and instructions are available at Grants.gov. To access these materials, go to <http://www.grants.gov>, select “Applicants” then “Apply for Grants.” In order to obtain the application package select “Download a Grant Application Package.” Enter the CFDA and/or the funding opportunity number located on the cover of this NOFO, select “Download Package,” and then follow the prompts to download the application package.

For a hardcopy of the full NOFO, please email a request to:

Stephanie Dawkins
Grants Officer
Stephanie.Dawkins@hq.dhs.gov

In addition, the following Telephone Device for the Deaf (TDD) and/or Federal Information Relay Service (FIRS) number available for this Notice is:
1-800-518-4726 (Grants.gov Help Desk).

Applications will be processed through the Grants.gov portal.

Content and Form of Application Submission

You must complete the mandatory forms for this announcement including the SF-424 (R&R Application for Federal Assistance), SF-424A (Research & Related Budget), Research & Related Senior/Key Person Profile, Research & Related Other Project Information, Research & Related Performance Site Locations, and other forms in accordance with the application instructions on Grants.gov and additional instructions below. If submitting any information that is deemed proprietary, please denote the beginning and ending of such information with asterisks (***).

All applications must be self-contained within specified page limitations. Internet web site addresses (URLs) may not be used to provide information necessary to the review because reviewers are under no obligation to view the Internet sites.

Unique Entity Identifier and System for Award Management (SAM)

DHS is participating in the Grants.gov initiative that provides the grant community a single site to find and apply for grant funding opportunities; therefore, applicants with electronic access are to submit their applications electronically through <http://www.grants.gov/web/grants/applicants/apply-for-grants.html>. Before you can apply for a DHS grant at grants.gov, you must have a DUNS number, be registered in SAM, and be approved as an Authorized Organizational Representative (AOR).

Applicants are encouraged to register early. The registration process can take four weeks or more to be completed. Therefore, registration should be done in sufficient time to ensure it does not impact your ability to meet required submission deadlines.

DUNS number. Instructions for obtaining a DUNS number can be found at the following website: <http://www.grants.gov/web/grants/applicants/organization-registration/step-1-obtain-duns-number.html>. The DUNS number must be included in the data entry field labeled "Organizational DUNS" on the Standard Forms (SF)-424 forms submitted as part of this application.

System for Award Management. In addition to having a DUNS number, applicants applying electronically through Grants.gov must register with SAM. Step-by-step instructions for registering with SAM can be found here: <http://www.grants.gov/web/grants/applicants/organization-registration/step-2-register-with-sam.html>. Failure to register with SAM will result in your application being rejected by Grants.gov during the submissions process.

Authorized Organizational Representative. The next step in the registration process is creating a username and password with Grants.gov to become an

AOR. AORs will need to know the DUNS number of the organization for which they will be submitting applications to complete this process. Applicants must register the individual who is able to make legally binding commitments for the applicant organization as the AOR; this step is often missed and it is crucial for valid submissions. To read more detailed instructions for creating a profile on Grants.gov visit:

<http://www.grants.gov/web/grants/applicants/organization-registration/step-3-username-password.html>.

AOR Authorization. After creating a profile on Grants.gov, the E-Biz Point of Contact (POC), who is a representative from your organization listed as the contact for SAM, will receive an email to grant the AOR permission to submit applications on behalf of their organization. The E-Biz POC will then log in to Grants.gov and approve an individual as the AOR, thereby giving him or her permission to submit applications. After you have been approved as an AOR you will be able to submit your application online. To learn more about AOR Authorization, visit: <http://www.grants.gov/web/grants/applicants/organization-registration/step-4-aor-authorization.html>. To track AOR status, visit: <http://www.grants.gov/web/grants/applicants/organization-registration/step-5-track-aor-status.html>.

Electronic Signature. Applications submitted through Grants.gov constitute a submission as electronically signed applications. When you submit the application through Grants.gov, the name of your AOR on file will be inserted into the signature line of the application.

If you experience difficulties accessing information or have any questions please call the grants.gov customer support hotline at (800) 518-4726 or email grants.gov at support@grants.gov.

The Federal awarding agency may not make a Federal award to an applicant until the applicant has complied with all applicable DUNS and SAM requirements and, if an applicant has not fully complied with the requirements by the time the Federal awarding agency is ready to make a Federal award, the Federal awarding agency may determine that the applicant is not qualified to receive a Federal award and use that determination as a basis for making a Federal award to another applicant.

Funding Restrictions

The applicant's initial submission must include a proposed budget for both phase 1 and phase 2 of the project. The budget may not include salaries of any other direct or indirect compensation for collaborators. Expenses that support the collaboration are acceptable (travel for visiting lectures, supplies, materials, etc.). Total collaboration support expenses cannot exceed 5 percent of the total project budget. The maximum award amount is not to exceed \$1.2 million.

Management and Administration (M&A) Costs.

M&A costs are not allowable by the recipient and sub-recipient.

Indirect Facilities & Administrative (F&A) Costs.

Indirect F&A costs are allowable by the grantee and sub-grantee. Since these costs are based on a federally approved negotiated rate, the applicant must provide a copy of an official letter confirming the negotiated rate at the time of application.

Other Submission Requirements

***IMPORTANT!** To avoid submission errors you must **ONLY CREATE, SAVE, & SUBMIT** application in an Adobe Reader version compatible with Grants.gov documents in applications packages should be prepared using the same version of Adobe Reader.

1. **Applications must be submitted electronically through Grants.gov.**
2. To submit an application through Grants.gov, applicants must use Adobe Reader. **You must use a compatible version of Adobe Reader.** Adobe Reader is available from Grants.gov at no charge.
3. The applicant must have a DUNS number to submit an application through Grants.gov. See the Grants.gov website for information on how to obtain a DUNS number. In addition, the applicant must be registered with the Central Contractor Registry (CCR) to submit an application through Grants.gov. See the Grants.gov website for information on how to register with the CCR.

The applicant must be registered, credentialed and authorized at Grants.gov to submit an application through Grants.gov. See the Grants.gov website for information on how to register, obtain a credential and become authorized.

DHS strongly encourages applicants to obtain or update all registrations, credentials and authorizations related to Grants.gov well in advance of the deadline.

If the applicant encounters difficulties, please contact the Grants.gov Help Desk at 1-800-518-4726 to report the problem and obtain assistance with the system.

4. We may request that you provide original signatures on forms at a later date.

Mandatory Files

1. **SF 424 (R&R) - Application for Federal Assistance**

Applicants must complete an SF 424 (R&R) application form. NOTE: Applications submitted through Grants.gov must use the SF 424 (R&R) provided by Grants.gov. The SF 424 (R&R) application form can only be viewed and downloaded once Adobe Reader has been installed. The SF-424 (R&R) application form on Grants.gov is formatted so applicants are only required to complete fields which are indicated with an asterisk (*) and color coded. Once the application is complete, close the document (you will then be prompted to save changes or not).

SF-424A (R&R) Budget Form:

Applicants must complete a budget for each year. Applicants must provide budgets by object class (salaries, fringe, travel, indirect, etc.). Funds may be requested as long as the item and amount are necessary to perform the proposed work and are not precluded by the cost principles or program funding restrictions. Attach your budget justification (see below) at Item K on this form.

Budget Justification File(s)

2. Budget detail is required at the Recipient level (see item b.) for the entire proposed project period (phases 1 and 2). In addition to the following cost category justifications, please provide the basis for your calculation for the required 50% for direct support of students. 1). Recipients may not make individual scholarship awards greater than full tuition and mandatory nonrefundable fees. Students must also receive the equivalent of at least half of their full tuition. The undergraduate stipend may not exceed \$1,000 a month for twelve months, or ten months if a paid internship can be arranged through external means. The graduate stipend may not exceed \$2000 a month for 12 months, or ten months if paid internship can be arranged through external means. Student must receive a monthly stipend appropriate to the geographic region. Students should receive the stipend during summer months if paid internships cannot be secured

- a. Budget detail is required for:
 - i. PERSONNEL: Costs of employee salaries and wages.

Justification: Identify the project director or principal investigator, if known. For each staff person, provide the title, time commitment to the project (in months), time commitment to the project (as a percentage or full-time equivalent), and, annual salary, grant salary, wage rates, etc. Do not include the costs of consultants in this category.

- ii. **FRINGE BENEFITS:** Costs of employee fringe benefits unless treated as part of an approved indirect cost rate. Provide the calculation method for fringe rates and amounts. If a fringe rate agreement has been negotiated with a cognizant Federal agency, provide it. If no agreement exists, provide the amounts and percentages of all items that comprise the fringe rate, and the basis for allocation.

Justification: Provide the method used to calculate the proposed rate amount. If a fringe benefit has been negotiated with, or approved by, a Federal government cognizant agency, provide a copy of the agreement. If no rate agreement exists, provide a breakdown of the amounts and percentages that comprise fringe benefit costs such as health insurance, FICA, retirement insurance, taxes, etc. Identify the base for allocating these fringe benefit expenses.

- iii. **TRAVEL:** Travel is limited to program personnel and students receiving support under this project. Provide the costs of project-related travel. Travel costs shall not include costs of subcontractor travel.

Principal Investigators will be expected to budget for and participate in the following meetings:

- An annual meeting of all participants in the DHS Summit, or an equivalent all PI meeting.
- Meetings with COE research collaborators, laboratory personnel and other Homeland Security agency representatives who may be helpful in to developing student internships, etc.

Supported students must attend at least one homeland security related conference during their tenure. Travel to other technical or scientific conferences is strongly encouraged. .

Justification: For each proposed trip, provide the purpose, number of travelers, travel origin and destination, number of days, and a breakdown of costs for airfare, lodging, meals, car rental, and incidentals. The basis for the airfare, lodging, meals, car rental, and incidentals must be provided, such as past trips, current quotations, Federal Travel Regulations, etc.

Travel required in the performance of the duties approved in the award must comply with the applicable Office of Management & Budget (OMB) Cost Principles Circular.

Foreign travel using funds obtained under this award may be allowed under special circumstances. However, foreign travel requests must be submitted at least 60 days before the event, and approved by DHS in advance and in writing.

- iv. **EQUIPMENT:** If equipment or instrumentation is necessary to complete the proposed research, it must be budgeted in the first 24 month period. Any article of nonexpendable, tangible personal property having a useful life of more than one year and an acquisition cost which equals or exceeds the capitalization level established by the organization financial statement purposes. (Note: acquisition cost means the net invoice unit price of an item of equipment, including the cost of any modifications, attachments, accessories, or auxiliary apparatus necessary to make it usable for the purpose for which it is acquired. Ancillary charges, such as taxes, duty, protective in-transit insurance, freight, and installation shall be included in or excluded from acquisition cost in accordance with the organization's regular written accounting practices.)

Justification: For each type of equipment requested, provide a description of the equipment, the cost per unit, the number of units, the total cost, and a plan for use on the project, as well as use or disposal of the equipment after the project ends. An applicant organization that uses its own definition for equipment should provide a copy of its policy or section of its policy, which includes the equipment definition.

Furthermore, provide a rationale for each item of equipment/instrumentation requested in the budget. Describe how each item will contribute to achieving the goals of the proposal and enhancing the educational and/or research capabilities of the institution. Describe how the proposed equipment/ instrumentation will interface with existing facilities or upgrade other equipment currently available. As applicable, also indicate (1) any special circumstances regarding the installation of the equipment (For example, will installation require plumbing or electrical upgrades? If so, this should be budgeted); (2) the estimated useful life of the equipment and the plan to

service and maintain it, including source(s) of funds and (3) if faculty members will require training for optimum use of the equipment (if so, this should be budgeted).

Note: All funds requested for equipment (including computers) or laboratory supplies will be subject to intense scrutiny and must be accompanied by a compelling justification stating that the expense is explicitly required for the proposed project(s) and related curriculum and cannot be used for other education and training. Equipment requests must be appropriate and reasonable.

- v. **SUPPLIES:** Costs of all tangible personal property other than that included under the Equipment category.

Justification: Specify general categories of supplies and their costs. Show computations and provide other information that supports the amount requested.

- vi. **CONTRACTUAL:** Costs of all contracts for services and goods except for those that belong under other categories such as equipment, supplies, construction, etc.

Justification: Demonstrate that all procurement transactions will be conducted in a manner to provide, to the maximum extent practical, open and free competition

Recipient may be required to make pre-award review and procurement documents available to DHS, including request for proposals or invitations for bids, independent cost estimates, etc. This may include procurements expected to exceed the simplified acquisition threshold fixed at 41 USC 403(11) (currently set at \$100,000) and expected to be awarded without competition or only one bid or offer is received in response to a solicitation.

All required flow down provisions in the award must be included in any subcontract or sub award.

- vii. **OTHER DIRECT COSTS:** For any other items proposed as direct costs, provide an itemized list with costs, and state the basis for each proposed item.
- viii. **INDIRECT COSTS:** Provide a copy of the latest rate agreement negotiated with a cognizant Federal agency. If the applicant organization is in the process of initially

developing a rate, it should immediately develop a tentative indirect cost rate proposal based on its most recently completed fiscal year. Otherwise, use the existing rate until replaced. This should be in accordance with the cognizant agency's guidelines for establishing indirect cost rates, and submit it to the cognizant agency. Applicants awaiting approval of their indirect cost proposals may also request indirect costs. When an indirect cost rate is requested, those costs included in the indirect cost pool should not also be charged as direct costs to the award. Also, if the applicant is requesting a rate that is less than what is allowed under the program, the authorized representative of the applicant organization must submit a signed acknowledgement that the applicant is accepting a lower rate than allowed.

Certifications/Assurances

- a. Applicants must submit:
 - i. SF 424B – Assurances – Non-Construction Programs, and
 - ii. Certification Regarding Lobbying Form, Attachment C. If paragraph two of the certification applies then complete and submit the SF-LLL Disclosure of Lobbying which is provided as an optional form in the application package.
- b. By signing or submitting an application under this announcement, the applicant is providing: Certification Regarding Debarment, Suspension, and Other Responsibility Matters – Primary Covered Transactions (see Attachment A); Certification Regarding Drug-Free Workplace Requirements (see Attachment B); and Certification that the applicant is not delinquent on any Federal debt.

Senior/Key Person Profile Form

Applicants must complete a profile for the Principal Investigator(s), the Program Director(s), the early-career faculty as well as other Senior Key Personnel identified for the project. The Biographical Sketch(es) for each these persons should include education activities and accomplishments and each individual's role in the proposed project. The Biographical Sketch should also include a list of publications for each person. The listing of publications should include up to five publications most closely related to the proposed program and up to five other significant publications, whether or not they are related to the proposed program. ***Each Biographical Sketch***

may not exceed two, single-spaced pages using size twelve Times New Roman font. Attach biographical sketch(es) to the Research & Related Senior/Key Person Profile.

Other Project Information

3. Applicants must complete the ***Other Project Information form***, which includes information regarding use of human subjects, use of animal subjects, and proprietary information, among other things.

- a. ***The Project Summary/Abstract.*** Provide a summary description of the projects, including its undergraduate key education and training features, in a manner that will be informative to a general technical audience. The Project Summary should include: the title of the project, the name of the PI, and the lead institution.

Page Limit: The Project Summary description is limited to one single-spaced page with 12-point font and one-inch margins. This Abstract must not include any proprietary/confidential information.

Attach the summary/abstract to Item 6 on the Other Project Information form.

- b. ***The Project Description/Narrative.*** The Project Description section should contain a well-argued and specific proposal for activities that will, over a period of up to six years, build enduring capabilities for years of contributions to integrated HS-STEM research and educational activities. The Project Description should be developed in consultation with the intended recipient of the early-career award and the relevant department head or equivalent organizational official.

The Project Description may not exceed 30 pages. This 30-page limit applies to items (1) through (6) noted below, which must be included in the Project Description portion of your application. The Project description/narrative should use this order and these subtitles. An application that does not include each required element listed in this section using the headers provided and/or is in excess of 30 pages will be deemed non-responsive and will not be considered.

- 1) **Objectives:**

Proposals should clearly articulate program objectives, planned outcomes with respect to faculty development and

research goals; student recruitment, retention, degree conferral, and career placement of trainees; program monitoring guidelines; and how outcomes will be measured. Discuss the objectives of the proposed program. Describe the conceptual basis and unifying aspects of the interdisciplinary research and educational activities to be offered. Include a discussion of what is currently missing from education and training in the HS-STEM area of interest, what could be more effective, and how the proposed program addresses these issues.

2) Education and Training:

Describe the curriculum or coursework to be developed, the number of bachelor's degree students to be supported and how the new, focus, program, module, concentration, etc. is to be integrated within the existing coursework at the institution (i.e., prerequisites required, relationship of HS-STEM program to specific majors). Describe education and training mechanisms that are central to the program, and relevant individual and institutional experience. Describe strategies for developing a community of HS-STEM students. Discuss plans for providing career development opportunities including post-graduation level placements as applicable, developing professional and personal skills, encouraging work in diverse teams, integrating instruction in ethics and conducting responsible research, and fostering a global perspective. Planned student training should include research experience opportunities, fieldwork, or other opportunities. Identify potential placements and discuss how the opportunity strengthens both a student's education and the research program. Describe the early-career faculty exchange or collaboration with details addressing the length of time, partnerships, and other details as appropriate.

3) Organization, Management, and Institutional Commitment:

Describe plans and procedures for the organization and management of the program. Discuss the institutional or departmental obstacles anticipated in implementing your program, and how the institution and program director plan to address them. Describe the institution's commitment to facilitating and furthering the plans and goals of the program and to creating a supportive environment for

integrative research and education. Describe the administrative levels involved.

4) Performance Assessment / Program Evaluation:

The proposal must include an outline of an evaluation plan that will be used by the institution to evaluate success in meeting the stated goals and objectives. The plan should include goals for students, faculty, and departments to be evaluated; measurable evaluation questions and indicators based on the program goals; and a summary design of the proposed evaluation, including proposed data collection methods, timeline, safety measures, and assignment of responsibilities. Consider the following priorities in the plan, plus any others that may be appropriate: assessing effectiveness of recruitment strategies, including efforts to recruit women, minorities, and persons with disabilities; assessing effectiveness of training and mentoring activities; examining trainee progress, achievements, skills development, and career preparation over time; identifying program impacts on participating faculty and departments or institutions, especially with respect to interdisciplinary undergraduate education; and providing formative assessment to improve the program.

5) Integration with relevant Research Centers of Excellence (COEs) or other HSE Research Collaborators

Describe the existing or proposed collaborative agreement with the COE HSE researchers, and how you will work together. Specifically describe activities, projects that might be undertaken. Include how the entities will communicate and integrate research. Other details might include plans to assure mentoring, and relevant early career faculty and student research experience opportunities. Discuss how this will fulfill the DHS primary objective which is to create an enduring capability in one specific STEM area at each awarded institution.

6) References Cited:

Provide references in support of both research and education aspects of the proposed program.

Additional required Documentation:

a. Letter or Statement of Support from COEs or HSE Research Collaborators (Three page limit- this is in addition to the 30 page narrative)

This letter should describe the confirmed and tentative ways the collaborating researchers intend to work with and support the development of the early career faculty person and students. Details should include planned research, and ways collaborators will assure mentoring of early career faculty, students and facilitate student research experience opportunities. The letter should discuss how integration of proposed research and curriculum will help fulfill the DHS primary objective of creating an enduring capability in the targeted STEM areas at each awarded institution. Letters of endorsement from an individual employee at DHS or any other federal agency are not acceptable and may constitute an ethical violation or conflict of interest. Official statements of facts detailing relevant activities or research performed as a result of previous activities are acceptable. Copies of memoranda of agreements or understanding (MOAs, MOUs) are acceptable documentation that support collaboration.

b. Departmental Letter (One page limit – this is in addition to the 30 page narrative):

DHS requires that the academic institution provide support for early-career faculty who will initiate HS-STEM education and integrate HS-STEM research and education. This integration of research and education requires close collaboration between early career faculty investigators and his or her organization throughout the award. The proposal must include one letter from the department head (or equivalent organizational official) of the intended recipient(s) of the early-career award. The letter, which will be considered as part of the overall merit of the proposal, should demonstrate an understanding of, and a commitment to the effective integration of HS-STEM research and education as a primary objective of the award. A letter that fails to acknowledge institutional commitment to the professional development and mentoring of the intended recipients of the early-career awards may disadvantage an otherwise outstanding proposal.

The departmental letter should be a maximum of one page in length, and must be signed by the head of the department of the intended recipient of the early-career award (or equivalent

organizational official). The official's name, title, email address, and date must appear in the letter. The letter should contain the following elements:

- An indication that the activities of the early-career faculty supported by the MSI through this grant are well supported by and integrated into the educational and research goals of the department and the organization with which they are affiliated;
- A description of a) the relationship between the proposed program, the early-career faculty's career goals and job responsibilities, and the goals of his or her department/organization, and b) the ways in which the department head (or equivalent) will ensure the appropriate mentoring of the intended recipient of the early-career award, in the context of their career development and his or her efforts to integrate research and education throughout the period of the award and beyond;
- Verification that the intended recipient of the early-career award is eligible for the award.

c. Institutional Commitment (One page limit – this is in addition to the 30 page narrative):

Describe the commitment that the degree granting institution will make to facilitate and advance program plans and goals to create a supportive environment for proposed HS-STEM education and research programs. Describe any existing programs ongoing at the institution to foster the development of junior faculty and students in HS-STEM areas. Describe any plans for collaborating with recruitment, retention, and professional development programs available at the institution to enhance the number of faculty and students involved in HS-STEM. Describe how these programs will be evaluated and monitored by your institution to ensure their success.

d. Other Attachments: Attach the following items at item 11 on the Research and Related Other Project Information form.

- Letter or Statement of Support Departmental Letter (refer to “Additional Required Documentation” in paragraph c above).

- Institutional Commitment (refer to “Additional Required Documentation” in paragraph c above).
- Indirect Cost Rate Agreement.
- Negotiated Fringe Benefit Agreement or, if no agreement exists, the amounts and percentages of all items that comprise the fringe rate, and the basis for allocation.
- Certificate Regarding Lobbying

e. Safety Information: Use the optional “Attachments” form to include safety requirement information requested under the “internal review criteria”. This safety requirement **must** be addressed by all applicants particularly those involving potentially high risk research (i.e. Biological Threats and Countermeasures, Food and Agricultural Security, Explosives Detection Mediation and Response). This section should include a summary of any relevant institutional laboratory and research safety requirements, as well as any other university resources available to promote research safety. This section should provide detailed information on how institutions will keep participating students safe when conducting research under the Scientific Leadership Award.

E. Application Review Information
Application Evaluation Criteria

DHS is fully committed to free and transparent competition among eligible entities. Ensuring an objective application rating system is crucial to this commitment as well as ensuring that any the Awarding Office and/or Program check any reviewer for potential conflicts of interest prior to being invited to review applications.

1. DHS Requires an objective review process, which includes a panel of technical/programmatic expertise within and external to DHS.
2. DHS requires a conflict of interest check to be documented for all external reviewers.
3. DHS does not require in-person panel reviews.
4. All reviewers will document and submit reviews to the DHS panel convener.
5. DHS makes all final funding decisions.

Prior to making a Federal award, the Federal awarding agency is required by 31 U.S.C. 3321 and 41 U.S.C. 2313 to review information available through any OMB-designated repositories of government-wide eligibility qualification or financial integrity information. Therefore application evaluation criteria may include the

following risk based considerations of the applicant: (1) financial stability; (2) quality of management systems and ability to meet management standards; (3) history of performance in managing federal award; (4) reports and findings from audits; and (5) ability to effectively implement statutory, regulatory, or other requirements.

- i. Prior to making a Federal award with a total amount of Federal share greater than the simplified acquisition threshold, DHS is required to review and consider any information about the applicant that is in the designated integrity and performance system accessible through SAM (currently FAPIIS).
- ii. 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.
- iii. DHS 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.

Review and Selection Process

The primary purpose of the External Review is to evaluate the proposals based on scientific merit. DHS will establish an external review panel to evaluate all of the proposals submitted. A qualified subpanel of reviewers may also evaluate each application. Proposal selection and award decisions are solely the responsibility of DHS Federal personnel. To determine possible conflicts of interest, potential reviewers will be required to complete and sign conflicts of interest and nondisclosure forms.

Proposals that receive a high rating are given priority consideration for funding. Proposals that receive a lower rating are considered as funds are available, with consideration of the goals of the program and DHS.

Technical and cost proposals submitted under this funding opportunity will be protected from unauthorized disclosure in accordance with applicable laws and regulations. DHS will keep the names of submitting institutions and individuals, as well as the substance of the proposals confidential except to reviewers, and will destroy any declined proposals.

DHS discourages, and will not consider any materials submitted by or on behalf of the applicant other than those materials requested in this funding opportunity announcement.

DHS will evaluate the proposals based on the following criteria and weighting:

1. Proposed research has technical merit and the potential for significant contribution to the homeland security enterprise (15%)
2. Proposed program establishes significant courses or content relevant to role of science, technology, engineering and mathematics in Homeland Security (15%)
3. Proposed program incorporates academic rigor and qualified personnel who can enrich and teach HS-STEM disciplinary courses and incorporate examples of relevant homeland security science and technology issues and areas of research (15%)
4. Well defined relationships with a DHS Center of Excellence and potential relationships with DHS laboratories, related government agency research laboratories (e.g. Department of Energy), and DHS operational offices (United States Coast Guard, Customs Border Protection, Immigration and Customs Enforcement, Citizenship and Immigration Services, Federal Emergency Management Agency, U.S. Secret Service, Transportation Security Agency), state or local labs or agencies, to develop student understanding of homeland security careers and the role of technology in defending the nation (15%)
5. Proposed program incorporates student development best practices and a plan for a successful transition of students to graduate school, or to relevant homeland security employment. Students must have access to appropriate mentors and other institutional support (15%)
6. Proposed program demonstrates a sound plan for management of financial resources with effective and appropriate financial controls, and can manage the student scholarships and stipends selection and distribution processes that will be associated with this award (15%)
7. Proposed program includes a sound approach for evaluating and reporting on program and student performance and success (10%)

The primary purpose of the Internal Review is to evaluate the selected proposals based on the DHS mission. The Program Manager (PM) convenes an Internal Review Panel of S&T Subject Matter Experts (SMEs) and senior staff to further review the proposals that received acceptable mean or median ratings in the external review. These proposals will represent the group of “finalists.” The Internal Review Panel will consider all of the evaluation criteria and will focus on the mission-related significance of the proposal and its fit with the stated needs of DHS. All members of this panel will confirm they also have no conflicts of interest with respect to the finalists. Sufficiently high Internal Review Panel ratings carry the presumption that the applicant institutions have the capabilities required to execute a successful DHS Scientific Leadership Award. One or more institutions may receive acceptable scores as a result of this process.

Phase 1 Evaluation Criteria

Prior to distribution of Phase 1 funds, the following criteria will be assessed

DHS will evaluate the proposals based on the following criteria and weighting:

1. Proposed program addresses a critical agency area of need and or has the potential to fulfill a need within the homeland security enterprise (30%)
2. Institution and/or Principal Investigator(s) (PI) has no negative past performance history with DHS S&T OUP (30%)
3. Institution key personnel present a sound plan for management of financial resources with effective and appropriate financial controls including those attributed to indirect costs. Institution and personnel can effectively manage direct student support that will be associated with this award (20%)
4. Proposed budget is reasonable and equipment requested is appropriate (10%)
5. Proposal adequately addresses safety issues and has appropriate research safety measures in place. Commitment to develop safety plan with adequate measures in place. The application includes a summary of any relevant institutional laboratory and research safety requirements, as well as any other university resources available to promote research safety (10%)

Phase 2 Evaluation Criteria

Prior to distribution of Phase 2 funds, the following criteria will be assessed during Phase

1. DHS reserves the right to conduct a site visit during phase 1 of the award if deemed necessary.

- a. Is the program demonstrating an ability to establish an enduring and comprehensive program of study in scientific and engineering fields needed for a future homeland security enterprise work force?
- b. Is the program demonstrating the ability to nurture the development of a new generation of scientists and professionals working in homeland security fields?
- c. Is the program demonstrating continuing support for innovative ways to stimulate interest in STEM education?
- d. Has the PI demonstrated that students are benefiting from the program activities?
- e. Is the Institution demonstrating commitment to establish meaningful partnerships with COE or HSE research partner to develop a quality MSI research and training program?
- f. Are key leadership and management personnel demonstrated a significant time commitment to the success of the Program and have projects been conducted within a reasonable time period?

- g. Is the program's leadership developing and implementing a meaningful long-range strategic plan, including communication and outreach goals based on best practices?
- h. Has the PI and institutional leadership established appropriate metrics to evaluate the performance and progress of their research and education activities?
- i. Has there been any significant changes in quality or quantity of personnel or scope of research in comparison to original proposal?
- j. Has the project produced any positive outputs/outcomes/impacts, or does it have the potential to do so? Examples: Publications; curricula/courses/certifications developed; external customers attracted; funds leveraged or attracted
- k. Has a fair, open and comprehensive student recruitment and selection process been established?
- l. Have potential internship and career paths for supported students been identified

F. Federal Award Administration Information

Notice of Award

DHS issues formal award notification documents following fulfillment of DHS Congressional notifications. All DHS grants and cooperative agreements are subject to the standard DHS award Terms and conditions, which are attached to this NOFO package. Program specific terms and conditions include:

A grant award will be executed by a DHS Grants Officer authorized to obligate DHS funding. Unsuccessful applicants will be contacted as well and will be encouraged to apply for future grant award programs. Announcements for future programs will be listed at <http://www.grants.gov>.

Successful applicants can expect to receive a grant executed by a DHS Grant Officer authorized to obligate DHS funding. Award notices will be sent via email.

Administrative and National Policy Requirements

A complete list of Federal Financial Requirements is available at:

http://www.whitehouse.gov/omb/grants_forms

All successful applicants for all DHS grant and cooperative agreements are required to comply with DHS Standard Administrative Terms and Conditions, which are available online at:

<https://www.dhs.gov/sites/default/files/publications/Fiscal%20Year%202016%20DHS%20General%20Terms%20and%20Conditions.pdf>

The applicable DHS Standard Administrative Terms and Conditions will be for the current year specified at that URL, unless the application is to continue an award first awarded in an earlier year. In that event, the terms and conditions that apply will be those in effect for the year in which the award was originally made.

Before accepting the award the AOR should carefully read the award package for instructions on administering the grant award and the terms and conditions associated with responsibilities under Federal Awards. Recipients must accept all conditions in this NOFO as well as any Special Terms and Conditions in the Notice of Award to receive an award under this program.

Reporting

Annual Federal Financial Report. The Recipient shall submit annual financial reports (SF 425, Federal Financial Report) to the DHS Grants officer within 30 days following the end of the reporting period.

Reports may be emailed to DHS-GrantReports@hq.dhs.gov and include the grant program name and number in the subject line.

Federal Financial Reporting Requirements. The Recipient shall submit the final Federal Financial Report (SF 425) to the DHS Grants Officer no later than 90 days after the Project Period end date. The FFR shall be emailed to DHS-GrantReports@hq.dhs.gov and include the grant program name and number in the subject line.

1. **Quarterly Federal Financial Reports (Cash Transaction).** The Recipient shall submit the FFR (SF 425) Federal Cash Transaction Report to the Department of Health and Human Services, Payment Management System, SMARTLINK. Quarterly Cash Transaction reports shall be submitted no later than 1/30, 4/30, 7/30, 10/30 each year.

Federal Financial Reporting Requirements. The Federal Financial Reporting Form (FFR) is available online at:

http://www.whitehouse.gov/sites/default/files/omb/grants/approved_forms/SF-425.pdf, SF-425 OMB #00348-0061

Program Performance Reporting Requirements.

The Recipient shall submit performance reports to the DHS Grants Officer. Reports may be emailed to DHS-GrantReports@hq.dhs.gov.

1. Annual performance reports are due within 30 days of the end of the reporting period.
2. Performance reports must provide information on the overall progress. These reports shall:
 - a. Consist of summary reports on the grant as a whole and on each funded sub-project, along with explanations of any changes from the initially approved work plan, budget expenditures and changes, and unanticipated problems.
3. If the performance report contains any information that is deemed proprietary, the Recipient will denote the beginning and ending of such information with asterisks (***).
4. Final Performance Report. The Recipient shall submit the Final Performance Report to the DHS Grants Officer within 90 days after the expiration date of the Project period. The Final Performance Report may be emailed to DHS-GrantReports@hq.dhs.gov.

Program Performance Reporting Requirements

All successful applicants for this award are required to comply with DHS S&T Project/Program Specific Terms and Conditions as stated below.

Student Reports

The recipient institution shall submit an annual report and final report on each supported student. The report should be no more than five pages, single-spaced, and should summarize each student's experience under the funding received. The report should include:

- A summary of academic progress, accomplishments and contributions
- Any new skills and/or knowledge acquired
- Relevant conferences, seminars and/or lectures attended
- Publications, presentations, poster sessions, and/or accomplishment of project milestones, if any
- Details of internship placement and experience
- Information on issues or barriers that may be impeding student success and interventions incorporated to improve student success
- Degree received and date
- Resume' upon completion of program
- Post-award activity and post-graduation placement
- The academic institutions will track and report whether the initial employment occurred specifically within the Department of Homeland Security, or within other entities in the HSE. The academic institutions will

also track and report on which HSE discipline area (see appendix A) the initial employment occurred.

For the purpose of program evaluation, all students receiving support under this grant agree to share personal information with their academic institutions that would allow their institution to track their progress toward a career in HS-STEM research and development: specifically, their graduation with a bachelor's degree and their enrollment in, and graduation from, an HS-STEM related graduate degree, and their initial employment.

Close Out Reporting Requirements. Within 90 days after the end of the period of performance, or after an amendment has been issued to close out a grant, whichever comes first, recipients must submit a final FFR and final progress report detailing all accomplishments and a qualitative summary of the impact of those accomplishments throughout the period of performance. If applicable, an inventory of all construction projects that used funds from this program has to be reported using the Real Property Status Report (Standard Form SF 429) available at http://www.whitehouse.gov/sites/default/files/omb/grants/approved_forms/sf-429.pdf.

After these reports have been reviewed and approved by S&T, a close-out notice will be completed to close out the grant. The notice will indicate the period of performance as closed, list any remaining funds that will be de-obligated, and address the requirement of maintaining the grant records for three years from the date of the final FFR.

The recipient is responsible for returning any funds that have been drawn down but remain as unliquidated on recipient financial records.

G. DHS Awarding Agency Contact Information

Contact and Resource Information

Applicants will obtain NOFO Overviews and Full Announcement information from the Grants.gov website where the full NOFO is posted.

For a hardcopy of the full announcement, please email (preferred) a request to:
Stephanie Dawkins
Grants Officer
Stephanie.Dawkins@hq.dhs.gov
Desk: (202) 447-0495

Applications will be processed through the Grants.gov portal.

S&T Office of University Programs, Technical Contact:
Stephanie Willett
Program Manager

Stephanie.Willett@hq.dhs.gov
Desk: (202) 254 6679

H. Additional Information

Extensions

Extensions to this program are allowed.

1. Extensions to the Period of Performance can only be authorized in writing by the DHS Grants Officer.
 2. The extension request shall be submitted to the DHS Grants Officer sixty (60) days prior to the expiration date of the performance period.
 3. Requests for time extensions to the Period of Performance will be considered, but will not be granted automatically, and must be supported by adequate justification to be processed. The justification is a written explanation of the reason or reasons for the delay; an outline of remaining resources/funds available to support the extended period of performance; and a description of performance measures necessary to complete the project. Without performance and financial status reports current and justification submitted, extension requests shall not be processed.
 4. DHS has no obligation to provide additional resources/funding as a result of an extension.
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APPENDIX A
2016 DHS SCIENTIFIC LEADERSHIP AWARDS
FOR MINORITY SERVING INSTITUTIONS (MSIs)
ADDITIONAL DETAILS FOR APPLICANTS

REQUIREMENTS FOR THE SLA PROGRAM

Subject to the availability of funds, DHS plans to provide funding for up to five years through this opportunity to any eligible Minority Serving Institution (MSI) with an HS-STEM program of study. DHS will award funds in two phases. The Phase 1 award will average \$400,000 with a maximum of \$600,000. The average award for Phase 2 will be \$400,000 with a maximum of \$600,000. The maximum award for the five year period will be \$1,200,000.

Phase 1, the initial phase, will provide the opportunity to enhance internal capabilities at the recipient institution. Phase 1 activities may include, but are not limited to, refinement of the initially proposed project, extended visits by MSI early career faculty to collaborating partner institutions, essential equipment purchase, validation and testing of incorporated technologies or methodologies; and student recruitment. Phase 2 will begin no more than two years after phase 1 begins, and will include full research project implementation and student participation. The total award amount of Phase 1 and Phase 2 combined must include at least 50% of direct support to students. Direct student support includes scholarships, tuition assistance, stipends, traineeships, research, or internship experiences relevant to DHS. All major equipment purchases must occur during phase 1 of the award. Additional requirements may apply. See “DHS Standard Terms and Conditions” which were previously referenced in this Notice of Funding Opportunity.

Proposals should be relevant to the interests and goals of DHS S&T. Due to the multidisciplinary nature of homeland security related research, several academic disciplines may be incorporated into a proposed program, but one established academic department or center must integrate these disciplines into a coherent program. This program should promote student interest and the development of HS-STEM relevant careers in research and development. To help determine the appropriateness of the proposed HS-STEM education program for DHS, and to identify appropriate collaborative opportunities, please review the reference section of this funding opportunity.

The proposal must include a letter of support from a DHS COE Director or other suitable HSE research collaborator detailing how the MSI will work with the collaborator. Relationships with an existing research collaborator will facilitate mentoring, assure relevant student research experience opportunities, and expand the professional networks of the applicants. Moreover, this will fulfill the DHS primary objective, which is to create enduring capabilities in a specific HS-STEM area of interest, as well as identify potential employment opportunities for supported students.

International dimensions may be permitted where appropriate such as visits to foreign research facilities, collaborations with foreign educational partners, and development of international educational activities. Additional requirements may apply. See “DHS Standard Terms and Conditions” which were previously referenced in this Notice of Funding Opportunity.

ADMINISTRATIVE SUMMARY

A potentially successful application will include the following elements, aspects, and forms:

- Coordinated teaching of HS-STEM (Homeland Security- Science, Technology, Engineering, and Mathematics) topics
- Design of innovative HS-STEM courses or curricula; supporting academic enhancement including adapting effective educational materials and practices developed elsewhere; incorporating examples of HS-STEM technology research, development, and application activities into coursework
- DHS relevant research projects or initiatives with significant involvement of an early career faculty and collaboration between early career faculty and a researcher at one of the COE universities or another suitable HSE research facility
- Financial support for undergraduate and or graduate students in the form of scholarships and other direct student support
- Student internships and other experiential learning opportunities
- Best practices for successful student mentoring and career guidance
- Processes with the potential for highly successful transition of supported students to HS-STEM related careers, or admission to graduate school
- Student success tracking, and identification of other metrics for evaluating the outputs, outcomes and impact of the proposed project.
- Standard forms (budget, key personnel) that have been completed correctly and approved through institution’s appropriate chain of command
- Budget narrative
- A one page project abstract
- Project narrative of not more than 30 pages
- The specified additional attachments (in addition to 30 page narrative)
 - Research references identified in the narrative
 - Letter or statement of support from COE or other HSE research collaborators
 - Letters of endorsement from an individual employee at DHS or any other federal agency are not acceptable references and may constitute an ethical violation.
 - Departmental Letter of Support
 - Institutional Commitment Letter of Support
 - Safety Information for research involving high risk research (explosives detection and mitigation, biological threats and countermeasures, food and agricultural security, IRB approvals if applicable)
 - Indirect cost rate sheet, negotiated fringe benefit agreement, certificate regarding lobbying

- Total budget for both phases one and two must not exceed \$1.2M (see funding requirements for students, equipment purchases, and funding restrictions for collaborators, partners, etc. as detailed in the NOFO)
- Total period of performance for both phase one and phase two must not exceed five years

CRITICAL HS-STEM DISCIPLINES AND RESEARCH AREAS

DHS employs a significant number of people with backgrounds and expertise in the areas listed in the table below. State and local governments, contractors, academia, federally- funded research and development centers (FFRDCs), and other Homeland Security Enterprise (HSE) stakeholders have a need for persons with HS-STEM backgrounds and experience as well. The demand is expected to increase in the coming years (see reference section below).

Description	Where are they in DHS?
Information Technology Management	DHS-wide
General Natural Science Management and Biology; Microbiology	CBP, S&T, FEMA, USCG
Social Sciences, Economics, Intelligence Analysis, Geography, Psychology	DHS-wide
Engineers – General, Technical, Fire, Materials, Architecture, Construction, Civil, Environmental, Mechanical, Nuclear, Electrical, Electronics, Aerospace, Naval Architecture, Chemical, Industrial	DHS - wide

General Physical Science, Physics, Geophysics, Chemistry, Meteorology, Oceanography, Cartography, Navigational Information, Textile Technology	CBP, FEMA, USCG, S&T, TSA, NPPD, USSS, DNDO
General Math/Statistics, Actuarial Science, Operations Research, Computer Science	DHS-wide

Proposals should be relevant to the interests and goals of DHS S&T (see references section below). More broadly, research and other proposal activities, outputs and outcomes should intersect the STEM disciplines identified above and incorporate research in the areas of 1) counterterrorism; 2) transportation security and screening (includes explosives); 3) maritime domain awareness; 4) arctic domain awareness; 5) border security, trade and immigration; 6) infrastructure protection and resilience; 7) natural hazards and resilience; 8) applied quantitative analyses in homeland security; and 9) criminal investigation science in homeland security. Due to the multidisciplinary nature of homeland security related research, several academic disciplines may be incorporated into a proposed program, but one established academic department or center must integrate these disciplines into a coherent program. This program should promote student interest and the development of HS-STEM relevant careers in research and development.

Only the following DHS Centers of Excellence are potential 2016 SLA MSI collaborators (See funding restrictions section of this NOFO):

1. Awareness & Localization of Explosives-Related Threats (ALERT)

ALERT's mission is to conduct transformational research, develop technology, and provide educational development to improve effective characterization, detection, mitigation and response to explosives-related threats facing the country and the world. Researchers in this partnership bring strengths in advanced sensor design, standoff weak-target detection, signal processing, sensor integration, explosives characterization, improvised explosive device (IED) detonator signatures, shock physics, and material science. ALERT is led by Northeastern University.

Research and Education Focus Areas:

- Characterization & Elimination of Illicit Explosives
- Trace & Vapor Sensors

- Bulk Sensors & Sensor Systems
- Video Analytics & Signature Analysis
- Engineering Leadership Program

ALERT Website: <http://www.northeastern.edu/alert/>

Primary HSE Customers: DHS S&T, DHS TSA, state and local homeland security agencies

2. Coastal Resilience Center (CRC)

CRC's mission is to enhance the nation's ability to safeguard people, infrastructure, and economies from coastal natural hazards such as floods and hurricanes. CRC research also considers the impact of future climate trends on coastal resilience. CRC is led by University of North Carolina.

Research and Education Focus Areas:

- Conducting research that directly addresses key challenges associated with coastal vulnerability and enhancing resilience.
- Developing more refined storm surge models and delivering accurate, timely predictions of storm surge prior to land-falling storms.
- Assisting FEMA, states, and local governments in developing better predictions of coastal hazards and pre-disaster plans that help reduce vulnerability and improve the speed and quality of recovery and reconstruction after a disaster occurs.
- Improving our understanding of why individuals choose to implement risk-reduction measures at the household level.
- Improving our ability to communicate risk to multiple audiences and take action based on that understanding.
- Educating the next generation of students who will become hazards researchers, educators and practitioners, emphasizing the development of certificate and degree programs.

CRC Website: www.coastalhazardscenter.org

Primary HSE Customers: DHS Federal Emergency Management Agency, U.S. Army Corps of Engineers, National Oceanic and Atmospheric Administration, U.S. Coast Guard, DHS National Protection and Programs Directorate, DHS Science and Technology Directorate, State and local emergency management agencies

3. Artic Domain Awareness Center (ADAC)

ADAC's mission is to develop and transition technology solutions, innovative products, and educational programs to improve situational awareness and crisis response capabilities related to emerging maritime challenges posed by the dynamic Arctic environment. ADAC is led by University of Alaska Anchorage.

Research and Education Focus Areas:

- Systematically observe, assess, predict, and alert stakeholders of key aspects in the Arctic Domain; environmental changes, vessel movement, waterway use, incursion, Arctic sea ice movement, storm surge, and catastrophic events.
- Provide incident commanders with actionable information and decision support to respond to and prepare for events of concern.
- Create and augment educational outreach curriculum that attracts and engages students in Arctic domain operations; provide targeted courses and pedagogical framework for specialized training in Marine Ice Piloting to meet Polar Code requirements.

ADAC Website: <http://adac.uaa.alaska.edu/>

Primary HSE Customers: U.S. Coast Guard, National Oceanic and Atmospheric Administration, National Weather Service, Office of Naval Research, state and local government

4. Maritime Security Center of Excellence (MSC)

The MSC's goal is to enhance the nation's Maritime Domain Awareness (MDA), the resiliency of our Marine Transportation System (MTS), and the technical skills and leadership capabilities of our current and prospective maritime security workforce. MSC has 50 research partners nationwide. The Center will develop and apply a multi-sensor layered approach to enhance MDA and MTS resiliency. MSC will leverage established test beds in New York Harbor and the Caribbean. Stevens Institute is the research lead for MSC.

Research and Education Focus Areas:

- Maritime Risk, Threat Analysis, and Resilience Research

- Develop Port Resiliency Assessment Tools to assist MTS stakeholders in preparing for port and supply chain disruptions
- MDA Research
- Expand situational awareness for all-hazards incidents in the maritime homeland security realm for inland and coastal water applications
- Integrated Education
- Transfer research and expertise into highly relevant, innovative maritime security centric educational programs.

MSC Website: <https://www.stevens.edu/research-entrepreneurship/research-centers-labs/maritime-security-center>

Primary HSE Customers: United States Coast Guard (USCG), Customs and Border Protection (CBP), Immigration and Customs Enforcement (ICE), State/Local, Port Authorities, Area Maritime Security Committees, DHS Science & Technology

5. Critical Infrastructure Resilience Institute (CIRI)

CIRI seeks to conduct research and education to enhance the resiliency of the nation's critical infrastructures and the businesses and public entities that own and operate those assets and systems. The research lead is University of Illinois at Urbana Champaign.

Research and Education Focus Areas:

- Understanding Resilient Critical Infrastructure Systems
- Application of Critical Infrastructure in the Real World
- The Business Case for Infrastructure Resiliency
- Future of Resilience
- Education and Workforce Development

CIRI Website: <http://ciri.illinois.edu/>

Primary HSE Customers: National Protection and Programs Directorate (NPPD), Industry/Commercial, Federal Emergency Management Agency (FEMA), Department of Commerce, State and Local governments

6. Center for Borders, Trade, and Immigration Research (CBTIR)

CBTIR leads innovative research and educational initiatives to enhance the nation's ability to secure our borders, facilitate legitimate trade and travel, and ensure the integrity and effectiveness of our immigration system. Through a multi-disciplinary team of national and international experts, the Center delivers transformational technology-driven solutions, data-informed policies, and workforce development opportunities for today's Homeland Security Enterprise, and trans-disciplinary education for the next generation of homeland security experts. CBTIR is led by the University of Houston.

Research and Education Focus Areas:

- Flow of goods and people
- Analysis of facial images captured between borders
- Understanding human trafficking
- Simulation modeling
- Decision support for trade compliance
- Training and professional development for personnel

CBTIR Website: <http://www.uh.edu/cbtir/about/index.php>

Primary HSE Customers: DHS Customs and Border Protection (CBP), DHS Immigration and Customs Enforcement (ICE), DHS Office of Policy

OTHER HOMELAND SECURITY ENTERPRISE (HSE) RESEARCH COLLABORATORS

Applicants may seek to establish collaborative relationships with other suitable HSE partners that are performing research in any of the following areas: 1) counterterrorism; 2) transportation security and screening (includes explosives); 3) maritime domain awareness; 4) arctic domain awareness; 5) border security, trade and immigration; 6) infrastructure protection and resilience; and 7) natural hazards and resilience; 8) applied quantitative analyses in homeland security; and 9) criminal investigation science in homeland security. Suitable HSE partners include state and local labs or agencies, FFRDCs or private sector partners.

REFERENCES

DHS Science and Technology Directorate <https://www.dhs.gov/science-and-technology>

DHS 2014 Quadrennial Homeland Security <https://www.dhs.gov/sites/default/files/publications/2014-qhsr-final-508.pdf>

DHS S&T Office of University Programs and its' Centers of Excellence
<http://www.hsuniversityprograms.org>

DHS Component Careers <https://www.dhs.gov/homeland-security-careers/component-careers>

Department of Labor – STEM 101 <http://www.bls.gov/careeroutlook/2014/spring/art01.pdf>

Accredited U.S. postsecondary institutions that meet the statutory criteria for identification as HBCUs, TCUs, and HSIs <http://www.ed.gov/about/offices/list/ocr/edlite-minorityinst.html>