

February 16, 2018

**NOTICE OF FUNDING OPPORTUNITY (NOFO)
NIST Standards Services Curricula Development (SSCD)
Cooperative Agreement Program**

EXECUTIVE SUMMARY

- **Federal Agency Name:** National Institute of Standards and Technology (NIST), United States Department of Commerce (DoC)
- **Funding Opportunity Title:** NIST Standards Services Curricula Development (SSCD) Cooperative Agreement Program
- **Announcement Type:** Initial
- **Funding Opportunity Number:** 2018-NIST-SSCD-01
- **Catalog of Federal Domestic Assistance (CFDA) Number:** 11.620 Science, Technology, Business and/or Education Outreach
- **Dates:** Applications must be received electronically through Grants.gov no later than 11:59 p.m. Eastern Time, Monday, April 16, 2018. Applications received after this deadline will not be reviewed or considered. The earliest anticipated start date for awards under this NOFO is expected to be September 2018.

Applicants should be aware, and factor into their application submission planning, that the Grants.gov system is expected to be closed for routine maintenance at these times from 12:01 Eastern Time, Saturday, February 17, 2018 until Tuesday, February 20, 2018 at 6:00 a.m. Eastern Time, and also from 12:01 Eastern Time, Saturday, March 17, 2018 until Monday, March 19, 2018 at 6:00 a.m. Eastern Time. Applications cannot be submitted when Grants.gov is closed.

When developing your submission timeline, please keep in mind that (1) all applicants are required to have a current registration in the System for Award Management (SAM.gov); (2) the free annual registration process in the electronic System for Award Management (SAM.gov) (see Section IV.3. and Section IV.7.a.(2). of this NOFO) often takes between three and five business days, and may take as long as two weeks; (3) applicants are required to have a current registration in Grants.gov; and (4) applicants will receive a series of e-mail messages from Grants.gov over a period of up to two business days before learning whether a Federal agency's electronic system has

received its application. **Please note that a federal assistance award cannot be issued if the designated recipient's registration in the System for Award Management (SAM.gov) is not current at the time of the award.**

Applicants are strongly urged to read Section IV.2.b., Attachment of Required Application Documents, found on page 12 of this NOFO, and Section IV.7.a., found on pages 15 through 17 of this NOFO, with great attention. Applicants should carefully follow the instructions and recommendations regarding attachments and using Grants.gov's Download Submitted Applications feature to check that all required attachments were contained in their submission. Applications submitted without the required documents will not pass the Initial Administrative Review of Applications, described in Section V.3.a. of this NOFO.

- **Proposal Submission Address:** See Section IV. in the Full Announcement Text of this NOFO.
- **Funding Opportunity Description:** The NIST SSCD Cooperative Agreement Program provides financial assistance and support for curricula development to integrate standards and standardization content into undergraduate and/or graduate courses, modules, seminars, and learning resources at U.S. colleges and universities. Recipients will work with NIST to strengthen education and learning about standards and standardization.
- **Anticipated Funding Amounts:** Approximately \$250,000 may be available to fund up to eight (8) projects in the \$25,000 to \$75,000 range with project performance periods of up to twenty-four (24) months.
- **Funding Instrument:** Cooperative agreement.
- **Who Is Eligible:** Accredited institutions of higher education (IHE) located in the United States or its territories. In addition, non-profit organizations, commercial organizations, public and private hospitals, and state, local, and Indian tribal governments located in the United States or its territories are eligible only if they include a letter of commitment from an accredited IHE located in the United States or its territories, in which the IHE commits to incorporate the applicant's project through a pilot or other program in the IHE's undergraduate and/or graduate educational programs. Any eligible applicant may work individually or include proposed sub-awards or contracts with others in a project application, effectively forming a team or consortium.
- **Cost Sharing Requirements:** This Program does not require cost sharing.

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FULL ANNOUNCEMENT TEXT

I. Program Description

The statutory authority for the NIST Standards Services Curricula Development (SSCD) Cooperative Agreement Program is 15 U.S.C. §§ 272(b) and (c).

The NIST SSCD Cooperative Agreement Program provides financial assistance to support curriculum development for the undergraduate and/or graduate level. This Program supports the integration of documentary standards and standardization content into courses, modules, seminars, and learning resources to educate undergraduate and/or graduate students at U.S. colleges and universities.

The recipients will work with NIST to strengthen education and learning about standards and standardization. Recipients are expected to:

- (1)** develop curriculum to educate undergraduate and/or graduate students about the impact and nature of standards and standardization so that they enter the workforce and/or continue their academic studies with a strong understanding and appreciation for the value and benefits of standards and standardization;
- (2)** develop sustainable approaches, methods, and models that can be replicated and/or built upon by the participating accredited institution of higher education (IHE) and by other educational programs at U.S. colleges and universities to support the integration of standards and standardization content into undergraduate and/or graduate level curricula;

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NIST STANDARDS SERVICES CURRICULA DEVELOPMENT (SSCD) COOPERATIVE AGREEMENT PROGRAM

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- (3)** develop a Communication Plan to share project information, results, and outcomes with the participating accredited IHE and with other educational programs at U.S. colleges and universities, including an action plan for internal and external outreach that will effectively demonstrate how the proposed project outcomes may be replicated and/or built upon by the participating accredited IHE and other educational programs at U.S. colleges and universities;
- (4)** disseminate project information, results, and outcomes for public release with the participating accredited IHE and with other educational programs at U.S. colleges and universities, and relevant educational communities or fields of practice through presentations, papers, news releases, newsletters, professional journals, exhibits, conferences, workshops, seminars, exhibits and trade shows, websites, and other appropriate media and forums;
- (5)** write a Final Summary Paper of major accomplishments and conclusions, of approximately 10 pages in length that will describe the project and its importance, explain the original project goal, describe the project outcomes, describe how the work was evaluated, and report the findings and lessons learned through the activity, including a summary of the project's suitability and potential for adoption in other educational organizations, communities, or fields of practice. The Final Summary Paper must be in a publicly releasable form and must not contain any personal or proprietary information. See Section IV.2.a.(6).b. and Section VI.3.a.(2). of this NOFO for more information about the Final Summary Paper.

Wherever possible, the results of the project should be published in such a way as to be generally available to the public. The NIST Standards Coordination Office will collaborate with recipients by reviewing any proposed publication prior to release and assisting in dissemination of the publication. See also Department of Commerce Financial Assistance Standard Terms and Conditions, dated March 31, 2017, Section C.03., Intellectual Property Rights, and G.05.j.3., Publications, Videos and Acknowledgment of Sponsorship, available at <https://go.usa.gov/xXRxK>; and

- (6)** participate in two (2) one-day workshops at NIST in Gaithersburg, Maryland in the fall of 2018 and 2019 or 2020. Applicants should include travel-related expenses to participate in these events in their proposed budgets (see Sections IV.2.a.(2) and IV.2.a.(9) of this NOFO).

Funds can be used for the design, testing, and evaluation of undergraduate and/or graduate curricula, course content and materials, courses or course modules, seminars, class assignments, and/or student projects. Funds can also help cover the cost of

students who assist instructors. Funds can be used for travel to implement elements of the Communication Plan and dissemination of project information and results (see Section I.(3). and I.(4). of this NOFO). Standards curriculum activities in any area that support science, technology, engineering, and math (STEM) and/or other related disciplines such as law, public policy, business, and/or multi-disciplinary approaches will be considered. Activities involving researching an idea for a proposed project, and the evaluation of the viability, necessity, or usefulness of a project are not within the scope of the NIST SSCD Cooperative Agreement Program and will not be funded. Ideas for proposed projects should be fully developed prior to submitting an application. Individuals proposed to participate in projects, as detailed in the project budget, must have the necessary knowledge and expertise to successfully complete the project.

NIST anticipates that most costs will be incurred within the first twelve (12) to eighteen (18) months of the project to support project milestones but funding will remain available for twenty-four (24) months to complete milestones and to support summarizing and reporting what was accomplished during the first twelve (12) to eighteen (18) months, including writing and disseminating a Final Summary Paper as described in Section I.(5)., Section IV.2.a.(6).b. and Section VI.3.a.(2). of this NOFO. Applicants may propose a start date anytime between September 1, 2018 and December 31, 2018.

II. Federal Award Information

- 1. Funding Instrument.** The funding instrument used in this program will be a cooperative agreement. The nature of NIST's "substantial involvement" will generally be NIST collaboration and involvement in the direction of the scope of work.
- 2. Funding Availability.** Approximately \$250,000 may be available to fund up to eight (8) projects in the \$25,000 to \$75,000 range per year with project performance periods of up to twenty-four (24) months.

III. Eligibility Information

- 1. Eligible Applicants.** Accredited institutions of higher education (IHE) located in the United States or its territories. In addition, non-profit organizations, commercial organizations, public and private hospitals, and state, local, and Indian tribal governments located in the United States or its territories are eligible only if they include a letter of commitment from an accredited IHE located in the United States or its territories, in which the IHE commits to incorporate the applicant's project through a pilot or other program in the IHE's undergraduate and/or graduate educational programs. Any eligible applicant may work individually or include proposed sub-

awards or contracts with others in a project application, effectively forming a team or consortium.

2. **Cost Sharing or Matching.** This program does not require cost sharing.

IV. Application and Submission Information

1. **Address to Request Application Package.** The standard application package, consisting of the standard forms, i.e., SF-424, SF-424A, SF-424B, CD-511, and the SF-LLL, is available at www.grants.gov.

2. **Content and Form of Application Submission**

- a. **Required Forms and Documents**

- (1) **SF-424, Application for Federal Assistance.** The SF-424 must be signed by an authorized representative of the applicant organization.

SF-424, Item 8.d Zip/Postal Code field should reflect the zip code + 4 (##### - ####) format.

SF-424, Item 12, should list the NOFO number 2018-NIST-SSCD-01.

For SF-424, Item 21, the list of certifications and assurances is contained in the SF-424B.

- (2) **SF-424A, Budget Information - Non-Construction Programs.** The budget should reflect anticipated expenses for the project, considering all potential cost increases, including cost of living adjustments.

The Grant Program Function or Activity on Section A, line 1 under Column (a) should be entered as "NIST SSCD Cooperative Agreement Program". The Catalog of Federal Domestic Assistance Number on Line 1 under Column (b) should be entered as "11.620". Line 1, column (e) should reflect the anticipated expenses for the full term of the project.

Section B, column (1) of the SF-424A should reflect funds for the first year of the award. Section B, column (2) of the SF-424A should reflect funds for the second year of the award. Section D requires a breakdown of the first year's budget by quarter. The budget estimate for the second year of the award should be entered in Section E, field 16, column (b).

(3) SF-424B, Assurances - Non-Construction Programs

(4) CD-511, Certification Regarding Lobbying.

Enter “2018-NIST-SSCD-01” in the Award Number field. Enter the title of the application used in field 15 of the SF-424, or an abbreviation of that title, in the Project Name field.

(5) SF-LLL, Disclosure of Lobbying Activities (if applicable)

(6) Technical Proposal. The Technical Proposal is a word-processed document of no more than ten (10) pages responsive to the program description (see Section I. of this NOFO) and the evaluation criteria (see Section V.1.a. through d. of this NOFO). It should contain the following information:

- a. Technical Project Approach and Methodology.** A detailed description of the proposed project and approach to support, advance, and/or integrate content on documentary standards and standardization processes into undergraduate and/or graduate courses, modules, seminars, and learning resources including sustainable approaches, methods, and models that can be replicated and/or built upon by the participating accredited IHE and by other educational programs at U.S. colleges and universities.

Applicants other than an IHE must provide a letter of commitment from an accredited IHE located in the United States or its territories. This letter must detail how the institution will incorporate the applicant’s project results into its undergraduate or graduate curriculum (see Section IV.2.a.(8). of this NOFO).

This section should address all the elements described in the *Technical Approach and Methodology* Evaluation Criterion (see Section V.1.a. of this NOFO).

- b. Communication Plan.** A detailed Communication Plan to include sharing project information, results, and outcomes, and how the proposed sustainable approaches, methods, and models can be replicated and/or built upon by the participating accredited IHE and by other educational programs at U.S. colleges and universities, including details on how and

when the plan will be implemented. The Communication Plan should also include the applicant's action plan for compiling and disseminating project results for public release, including a summary of major conclusions, in the form of a Final Summary Paper, as described in Section I.(5). and Section VI.3.a.(2). of this NOFO.

This section should address all the elements described in the *Communication Plan* Evaluation Criterion (see Section V.1.b. of this NOFO).

- c. Staffing.** A description of the relevant qualifications and experience of key personnel who will be assigned to carry out the objectives of the proposed project.

This section should address all the elements in the *Staffing* Evaluation Criterion (see Section V.1.c. of this NOFO).

- d. Resources Availability.** A detailed description and demonstration of appropriate use of funds and cost effectiveness of the proposal, including overall support to accomplish project objectives, access to necessary facilities, and the applicant's intent to incorporate the proposed project results into curriculum. Resources Availability should also be demonstrated through letter(s) of support, as described in Section IV.2.a.(7). of this NOFO, and a complete and detailed Budget Narrative as described in Section IV.2.a.(9). of this NOFO.

This section should address all the elements in the *Resources Availability* Evaluation Criterion (see Section V.1.d. of this NOFO), including Letters of Support.

- (7) Letters of Support.** Up to three letters of support of no more than one page each for the proposed project should be submitted. A letter from leadership within the applicant's organization, which, if submitted, will count as one of the three letters permitted, is strongly encouraged to demonstrate the extent to which the applicant has the overall support necessary to accomplish project objectives and the organization's intent to incorporate the proposed project results into undergraduate and/or graduate curriculum, consistent with the *Resource Availability* Evaluation Criterion (see Section V.1.d. of this NOFO). Letters of support from other organizations that may benefit from or otherwise collaborate on the proposed project, including other educational programs at U.S. colleges and universities, may also be submitted. The **mandatory** letter of commitment, (see Section IV.2.a.(8).

of this NOFO) from an IHE for applicants other than an IHE does not count as one of the three letters of support.

(8) Letter of Commitment. Applicants that are not an IHE must provide a letter from an individual with authority over curriculum decisions at an accredited IHE to demonstrate the extent to which the applicant's proposal has support from an IHE located in the United States or its territories. See Section III. Eligibility Information.

(9) Budget Narrative. The Budget Narrative for the project must provide a detailed breakdown of each of the object class categories as reflected on the SF-424A and include a detailed description of why the funds are necessary for the successful completion of the proposed project and how the funds will be used, in accordance with the *Resources Availability* Evaluation Criterion (see Section V.1.d. of this NOFO).

The SF-424A includes the categories listed below for which applicants need to provide supporting narrative if an applicable cost is proposed in the project. A project may involve costs in one or more categories and applicants should only propose and describe costs appropriate for their proposed projects. The written justification should include the necessity and the basis for the cost. Only allowable costs should be included in the budget. Information on cost allowability is available at 2 C.F.R. Part 200, as described in the DoC Financial Assistance Pre-Award Notice Requirements for Grants and Cooperative Agreements, which are contained in the Federal Register notice of December 30, 2014 (79 FR 78390), and available at <http://go.usa.gov/hKkR>.

Supporting information for each category is as follows, in accordance with applicable federal cost principles set forth in 2 C.F.R. Part 200, Subpart E:

- a) **Personnel** - At a minimum, the budget justification for all personnel should include the following: name, job title, commitment of effort on the proposed project (in hours or effort level), salary rate, and total direct charges on the proposed project, description of the role of the individual on the proposed project and the work to be performed.
- b) **Fringe Benefits** - Fringe benefits should be identified separately from salaries and wages and based on rates determined by organizational policy. The items included in the fringe benefit rate (health insurance, parking) should not be charged under another cost category.
- c) **Equipment** - Equipment is defined as an item of property that has an acquisition cost of \$5,000 or more (unless the organization has

established lower levels) and an expected service life of more than one year. Any items that do not meet the threshold for equipment can be included under the supplies line item. The budget justification should list each piece of equipment, the cost, and a description of how it will be used and why it is necessary to the successful completion of the proposed project. Please note that any general use equipment (computers, etc.) that is charged directly to the award should be allocated to the award according to expected usage on the project.

- d) **Travel** - For travel costs associated with travel required by the recipient to complete the project, the budget justification for travel should include the following: destination; names/number of people traveling; dates and/or duration; mode of transportation, lodging and subsistence rates; and detailed description of how the travel is directly related to the proposed project. For travel that is yet to be determined, please provide best estimates based on prior experience. If a destination is not known, an approximate amount may be used with the assumptions given for the location of travel.

Applicants should include travel-related expenses to participate in two (2) one-day workshops at NIST in Gaithersburg, Maryland in the fall of 2018 and 2019 or 2020 in their proposed budgets (see Section I.(6) of this NOFO).

- e) **Supplies** - A list of each supply, and the breakdown of the total costs by quantity or unit of cost. Include detailed information on the necessity of the supplies for the completion of the proposed project.
- f) **Contracts/Subawards** - Each contract or subaward should be treated as a separate item. Describe the services to be provided in detail and the necessity of the subaward or contract to the successful performance of the proposed project. Include a detailed breakdown of the proposed costs and tasks for each contract or subaward.
- g) **Other Direct Costs** - For costs that do not easily fit into the other cost categories, please list the cost and the breakdown of the total costs by quantity or unit of cost. Include the necessity of the cost for the completion of the proposed project. Only allowable costs can be charged to the award.

(10) Indirect Cost Rate Agreement. If indirect costs are included in the proposed budget, provide a copy of the approved negotiated agreement if this rate was

negotiated with a cognizant Federal audit agency. If the rate was not established by a cognizant Federal audit agency, provide a statement to this effect. If the successful applicant includes indirect costs in the budget and has not established an indirect cost rate with a cognizant Federal audit agency, the applicant will be required to obtain such a rate in accordance with the Department of Commerce Financial Assistance Standard Terms and Conditions (March 31, 2017), available at: <http://go.usa.gov/xXRxK> .

Alternatively, in accordance with 2 C.F.R. § 200.414(f), applicants that have never received a negotiated indirect cost rate may elect to charge indirect costs to an award pursuant to a de minimis rate of 10 percent of modified total direct costs (MTDC), in which case a negotiated indirect cost rate agreement is not required. Applicants proposing a 10 percent de minimis rate pursuant to 2 C.F.R. § 200.414(f) should note this election as part of the budget and Budget Narrative portion of the application.

b. Attachment of Required Application Documents

Items IV.2.a.(1) through IV.2.a.(5) above are part of the standard application package in Grants.gov and can be completed through the download application process.

Items IV.2.a.(6) through IV.2.a.(10) must be completed and attached by clicking on “Add Attachments” found in item 15 of the SF-424, Application for Federal Assistance. This will create a zip file that allows for transmittal of the documents electronically via Grants.gov.

Applicants should carefully follow specific Grants.gov instructions at www.grants.gov to ensure the attachments will be accepted by the Grants.gov system. ***A receipt from Grants.gov indicates only that an application was transferred to a system. It does not provide details concerning whether all attachments (or how many attachments) transferred successfully.*** Applicants using Grants.gov will receive a series of e-mail messages over a period of up to two business days before learning whether a Federal agency’s electronic system has received its application.

Applicants are strongly advised to use Grants.gov’s Download Submitted Applications option to check that their application’s required attachments were contained in their submission.

After submitting the application, follow the directions found in the Grants.gov Online Users Guide (<http://go.usa.gov/cjaEh>). Click first on “Applicants;” then click on “Applicant Actions;” go then to the “Check My Application Status” option, and choose “Download Submitted Applications.”

If any, or all, of the required attachments are absent from the submission, follow the attachment directions found above, resubmit the application, and check again for the presence of the required attachments.

Applicants can track their submission in the Grants.gov system by following the procedures at the Grants.gov site (<http://go.usa.gov/cjamz>). It can take up to two business days for an application to fully move through the Grants.gov system to NIST.

NIST uses the Tracking Numbers assigned by Grants.gov, and does not issue Agency Tracking Numbers.

c. Application Format

(1) Application language. English.

(2) E-mail, Hard Copies, or Facsimile (fax) Submissions. Will not be accepted. Applications must be submitted electronically. Electronic applications must be submitted via Grants.gov at www.grants.gov (see Section IV.7.a. of this NOFO),

(3) Figures, Graphs, Images, and Pictures. Should be of a size that is easily readable or viewable and may be landscape orientation.

(4) Font. Easy to read font (12-point minimum). Smaller type may be used in figures and tables but must be clearly legible.

(5) Line Spacing. Applicants can use single spacing or double spacing.

(6) Margins. One (1) inch top, bottom, left, and right.

(7) Page numbering. Number pages sequentially.

(8) Page layout. Portrait orientation only except for figures, graphs, images, and pictures.

(9) Page Limit. The Technical Proposal (see Section IV.2.a.(6). of this NOFO) is limited to ten (10) pages, one-sided print. Information submitted above the ten (10) page limit, including appendices, resumes and CVs, and bibliographies and references, will be redacted from the application prior to the technical review and will not be considered further.

Page limit includes: Table of contents (if included), Technical Proposal with all required sections, including figures, graphs, tables, images, and pictures.

Page limit excludes: SF-424, Application for Federal Assistance; SF-424A, Budget Information – Non-Construction Programs; SF-424B, Assurances – Non-Construction Programs; CD-511, Certification Regarding Lobbying; SF-LLL, Disclosure of Lobbying Activities; Letters of Support; Letter of Commitment; Budget Narrative; Indirect Cost Rate Agreement; and Data Management Plan.

(10) Typed document. All applications, including forms, must be typed.

d. Application Replacement Pages. Applicants may not submit replacement pages and/or missing documents once an application has been submitted. Any revisions must be made by submission of a new application that must be received by NIST by the submission deadline.

e. Pre-Applications. NIST is not accepting pre-applications or white papers under this NOFO.

f. Certifications Regarding Federal Felony and Federal Criminal Tax Convictions, Unpaid Federal Tax Assessments and Delinquent Federal Tax Returns. In accordance with Federal appropriations law, an authorized representative of the selected applicant(s) may be required to provide certain pre-award certifications regarding federal felony and federal criminal tax convictions, unpaid federal tax assessments, and delinquent federal tax returns.

3. Unique Entity Identifier and System for Award Management (SAM). Pursuant to 2 C.F.R. part 25, applicants and recipients (as the case may be) are required to: (i) be registered in SAM before submitting its application; (ii) provide a valid unique entity identifier in its application; and (iii) continue to maintain an active SAM registration with current information at all times during which it has an active Federal award or an application or plan under consideration by a Federal awarding agency, unless otherwise excepted from these requirements pursuant to 2 C.F.R. § 25.110. NIST will not make a Federal award to an applicant until the applicant has complied with all applicable unique entity identifier and SAM requirements and, if an applicant has not fully complied with the requirements by the time that NIST is ready to make a Federal award pursuant to this NOFO, NIST 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.

- 4. Submission Dates and Times.** Applications must be received electronically through Grants.gov no later than 11:59 p.m. Eastern Time, Monday, April 16, 2018. Applications received after this deadline will not be reviewed or considered. NIST will consider the date and time stamped on the validation generated by www.grants.gov as the official submission time.

Applicants should be aware, and factor into their application submission planning, that the Grants.gov system is expected to be closed for routine maintenance at these times from 12:01 Eastern Time, Saturday, February 17, 2018 until Tuesday, February 20, 2018 at 6:00 a.m. Eastern Time, and also from 12:01 Eastern Time, Saturday, March 17, 2018 until Monday, March 19, 2018 at 6:00 a.m. Eastern Time. Applications cannot be submitted when Grants.gov is closed.

NIST strongly recommends that applicants do not wait until the last minute to submit an application. NIST will not make allowance for any late submissions. The responsibility for ensuring a complete application is received by NIST by the deadline rests solely with the applicant. To avoid any potential processing backlogs due to last minute Grants.gov registrations, applicants are strongly encouraged to start their Grants.gov registration process at least four (4) weeks prior to the application due date.

When developing your submission timeline, please keep in mind that (1) all applicants are required to have a current registration in the System for Award Management (SAM.gov); (2) the free annual registration process in the electronic System for Award Management (SAM.gov) (see Section IV.3. and Section IV.7.a.(2). of this NOFO) may take between three and five business days, or as long as more than two weeks; (3) electronic applicants are required to have a current registration in Grants.gov; and (4) applicants will receive a series of e-mail messages from Grants.gov over a period of up to two business days before learning whether a Federal agency's electronic system has received its application. Please note that a federal assistance award cannot be issued if the designated recipient's registration in the System for Award Management (SAM.gov) is not current at the time of the award.

Applicants will find instructions on registering with SAM.gov as part of the Grants.gov process at: <http://www.grants.gov/web/grants/applicants/organization-registration.html>.

- 5. Intergovernmental Review.** Applications under this Program are not subject to Executive Order 12372.
- 6. Funding Restrictions.** Profit or fee is not an allowable cost.

7. Other Submission Requirements

- a. **Applications must be submitted electronically.** Electronic applications must be submitted via Grants.gov at www.grants.gov, under announcement 2018-NIST-SSCD-01.
- (1) Submitters of electronic applications should carefully follow specific Grants.gov instructions to ensure the attachments will be accepted by the Grants.gov system. A receipt from Grants.gov indicating an application is received does not provide information about whether attachments have been received. For further information or questions regarding applying electronically for the 2018-NIST-SSCD-01 announcement, contact Christopher Hunton by phone at 301-975-5718 or by e-mail at grants@nist.gov.
 - (2) Applicants are strongly encouraged to start early and not wait until the approaching due date before logging on and reviewing the instructions for submitting an application through Grants.gov. The Grants.gov registration process must be completed before a new registrant can apply electronically. If all goes well, the registration process takes three (3) to five (5) business days. If problems are encountered, the registration process can take up to two (2) weeks or more. Applicants must have a valid unique entity identifier number and must maintain a current registration in the Federal government's primary registrant database, the System for Award Management (<https://www.sam.gov/>), as explained on the Grants.gov Web site. See also Section IV.3. of this NOFO. After registering, it may take several days or longer from the initial log-on before a new Grants.gov system user can submit an application. Only individuals authorized as organization representatives will be able to submit the application, and the system may need time to process a submitted application. Applicants should save and print the proof of submission they receive from Grants.gov. If problems occur while using Grants.gov, the applicant is advised to (a) print any error message received and (b) call Grants.gov directly for immediate assistance. If calling from within the United States or from a U.S. territory, please call 800-518-4726. If calling from a place other than the United States or a U.S. territory, please call 606-545-5035. Assistance from the Grants.gov Help Desk will be available around the clock every day, with the exception of Federal holidays. Help Desk service will resume at 7:00 a.m. Eastern Time the day after Federal holidays. For assistance using Grants.gov, you may also contact support@grants.gov.
 - (3) To find instructions on submitting an application on Grants.gov, Applicants should refer to the "Applicants" tab in the banner just below the top of the www.grants.gov home page. Clicking on the "Applicants" tab produces two

exceptionally useful sources of information, Applicant Actions and Applicant Resources, which applicants are advised to review.

Applicants will receive a series of e-mail messages over a period of up to two business days before learning whether a Federal agency's electronic system has received its application. Closely following the detailed information in these subcategories will increase the likelihood of acceptance of the application by the Federal agency's electronic system.

Applicants should pay close attention to the guidance under "Applicant FAQs," as it contains information important to successful submission on Grants.gov, including essential details on the naming conventions for attachments to Grants.gov applications.

The application must be both received and validated by Grants.gov. The application is "received" when Grants.gov provides the applicant a confirmation of receipt and an application tracking number. If an applicant does not see this confirmation and tracking number, the application has not been received. After the application has been received, it must still be validated. During this process, it may be "validated" or "rejected with errors." To know whether the application was rejected with errors and the reasons why, the applicant must log in to Grants.gov, select "Applicants" from the top navigation, and select "Track my application" from the drop-down list. If the status is "rejected with errors," the applicant may still seek to correct the errors and resubmit the application before the deadline. If the applicant does not correct the errors, the application will not be forwarded to NIST by Grants.gov.

All applicants should be aware that adequate time must be factored into applicants' schedules for delivery of their application. Applicants are advised that volume on Grants.gov may be extremely heavy on the deadline date.

Refer to important information in Section IV.4. Submission Dates and Times, to help ensure your application is received on time.

- b. Amendments.** Any amendments to this NOFO will be announced through Grants.gov. Applicants may sign up for Grants.gov NOFO amendments.

V. Application Review Information

- 1. Evaluation Criteria.** The evaluation criteria that will be used in evaluating applications and assigned weights are as follows:

- a. Technical Project Approach and Methodology.** Reviewers will evaluate the

following subcategories for a total of 0-50 points:

- i. The extent to which the proposed project and approach supports, advances, or integrates content on standards and standardization processes into undergraduate and/or graduate courses, modules, seminars, and learning resources, including sustainable approaches, methods, and models that can be replicated and/or built upon by the participating accredited IHE and by other educational programs at U.S. colleges and universities. This also includes assessing the usefulness and effectiveness of the proposed project with regard to educating undergraduate and/or graduate students about standards and standardization. (0-25 points)
- ii. The completeness, quality, and technical merit of the detailed work plan, which should clearly identify the final deliverables and include clear and measurable performance objectives; key interim and final outputs reflecting the performance objectives; milestones and timelines; short-term and potential long-term impacts, the intended audience; and an evaluation plan. This also includes the extent to which the proposed methodology of program management is likely to ensure effective operations and oversight and meet program objectives. (0-25 points)

The extent to which the material developed encompasses the role of standards in competitiveness and innovation, if applicable, will be considered.

b. Communication Plan. Reviewers will evaluate the following subcategories for a total of 0-15 points:

- i. The extent to which the proposed Communication Plan demonstrates how the proposed sustainable approaches, methods, and models can be replicated and/or built upon by the participating accredited IHE and by other educational programs at U.S. colleges and universities. (0-5 points)
- ii. The extent to which the proposed Communication Plan enables sharing project information and outcomes with relevant organizations, communities, or fields of practice through presentations, papers, news releases, newsletters, professional journals, exhibits, conferences, workshops, seminars, exhibits and trade shows, websites, and other appropriate media and forums; this includes plans for composing and disseminating a summary of major accomplishments and conclusions in the form of a Final Summary Paper as described in Section I.(5)., Section IV.2.a.(6).b. and Section VI.3.a.(2). of this NOFO. (0-5 points)

- iii. The quality and completeness of the approach to implement the Communication Plan (see Section I.(3). of this NOFO). (0-5 points)

c. Staffing. Reviewers will evaluate the following subcategories for a total of 0-15 points:

The relevant qualifications and experience of key personnel to carry out the objectives of the proposed project. This includes the extent to which the applicant has demonstrated:

- i. technical expertise and access to staff necessary to accomplish the project objectives; this also includes the depth and quality of the applicant's experience collaborating with diverse stakeholders (e.g., subject matter experts, curricula development professionals, university public affairs personnel, industry, etc.) to develop curriculum for undergraduate and/or graduate level STEM, or related disciplines such as law, public policy, business and/or multi-disciplinary approaches, as necessary to successfully complete the proposed project. Staff with different experience and expertise may be responsible for different aspects of the proposed project. (0-5 points)
- ii. Knowledge of the current state, impact and nature of standards and standardization activities. (0-5 points)
- iii. Experience in curricula development. (0-5 points)

d. Resources Availability. Reviewers will evaluate the following for a total of 0-20 points:

- i. The extent to which the applicant has demonstrated overall support to accomplish project objectives, access to necessary facilities, and the applicant's intent to incorporate the proposed project results into curriculum. This includes the appropriateness of proposed resources compared to the project's scope, as well as the cost-effectiveness of the project in using available resources to complete the project.
- ii. The extent to which letter(s) of support (see Section IV.2.a.(7). of this NOFO), indicate a commitment to the project and demonstrate relevance to the project scope.
- iii. The appropriateness and cost effectiveness of the proposed budget to assess the breakdown of costs against the proposed activities to carry out

the objectives of the project as described in Section I. of this NOFO.

- 2. Selection Factors.** The Selecting Official, the Director of the Standards Coordination Office, or designee, will make final application selections. The Selecting Official shall generally select and recommend applications for awards based on the rank order provided by the Evaluation Panel (see below) but may select an application out of rank based on one or more of the following selection factors:

- a. results of the reviewers' evaluations;
- b. relevance to the proposed project to the NIST SSCD Cooperative Agreement Program objectives, as described in Section I. of this NOFO;
- c. variety among the most meritorious projects;
- d. applicant's past performance under this program, if applicable, and;
- e. the availability of Federal funds.

3. Review and Selection Process

Proposals, reports, documents and other information related to applications submitted to NIST and/or relating to financial assistance awards issued by NIST will be reviewed and considered by Federal employees, Federal agents and contractors, and/or by non-Federal personnel who have entered into nondisclosure agreements covering such information, when applicable.

- a. Initial Administrative Review of Applications.** An initial review of timely received applications will be conducted to determine applicant eligibility, completeness, and responsiveness to this NOFO and the scope of the stated program objectives. Applications determined to be ineligible, incomplete, or non-responsive may be eliminated from further review. However, NIST, in its sole discretion, may continue the review process for an application that is missing non-substantive information which may easily be rectified or cured.
- b. Review of Eligible, Complete, and Responsive Applications.** At least three (3) independent, objective federal employees who are knowledgeable about standards and standardization will conduct a technical review of each application based on the evaluation criteria (see Section V.1. of this NOFO). Each reviewer will independently prepare written evaluations and a numerical score for each application.

The reviewers' numeric scores and written evaluations, and a combined average score for each application, will be provided to the Evaluation Panel (see below). If deemed necessary to clarify information in an application, an applicant may be asked written questions prior to the applications being scored and presented to the Evaluation Panel.

The Evaluation Panel, consisting of at least three (3) NIST staff and/or other federal agency employees with appropriate technical expertise, will conduct an initial review of all numerical scores and written evaluations to determine an average reviewer score threshold above which applications will be deemed "fundable" and require further review by the Evaluation Panel. Applications with an average reviewer score below the assigned threshold will be deemed "unfundable" and will not receive further consideration. For the purpose of clarifying information in an application, the Evaluation Panel may ask questions of applicants in writing and/or may request teleconferences.

The Evaluation Panel will conduct a detailed review of all fundable applications; once completed, the Evaluation Panel will prepare and provide a final ranking of fundable applications to the Selecting Official (see Section V.2. of this NOFO) for further consideration. The Evaluation Panel will prepare its final ranking of fundable applications by taking into consideration the following information:

- a.** All application materials;
- b.** Results of the technical reviewers' evaluations and numeric scores; and
- c.** Any clarifying information obtained through written questions or teleconferences with the applicants.

The Selecting Official will then select and recommend applications for funding to the Grants Officer based upon the rank order and the selection factors (see Section V.2. of this NOFO).

NIST reserves the right to negotiate the budget costs with the selected applicant. Negotiations may include requesting that the applicant remove certain costs. Additionally, NIST may request that the applicant modify objectives or work plans and provide supplemental information required by the agency prior to award. NIST also reserves the right to reject an application where information is uncovered that raises a reasonable doubt as to the responsibility of the applicant. NIST may select some, all, or none of the applications, or part(s) of any particular application. The final approval of selected applications and issuance of awards will be by the NIST Grants Officer. The award decisions of the Grants Officer are final.

- c. Federal Awarding Agency Review of Risk Posed by Applicants.** After applications are proposed for funding by the Selecting Official, the NIST Grants Management Division (GMD) performs pre-award risk assessments in accordance with 2 C.F.R. § 200.205, which may include a review of the financial stability of an applicant, the quality of the applicant's management systems, the history of performance, reports and finding from financial assistance audits, and/or the applicant's ability to effectively implement statutory, regulatory, or other requirements imposed on non-Federal entities.

In addition, prior to making an award where the total Federal share is expected to exceed the simplified acquisition threshold (currently \$150,000), NIST GMD will review and consider the publicly available information about that applicant in the Federal Awardee Performance and Integrity Information System (FAPIIS). An applicant may, at its option, review and comment on information about itself previously entered into FAPIIS by a Federal awarding agency. As part of its review of risk posed by applicants, NIST GMD will consider any comments made by the applicant in FAPIIS in making its determination about the applicant's integrity, business ethics, and record of performance under Federal awards. Upon completion of the pre-award risk assessment, the Grants Officer will make a responsibility determination concerning whether the applicant is qualified to receive the subject award and, if so, whether appropriate special conditions that correspond to the degree of risk posed by the applicant should be applied to an award.

- 4. Anticipated Announcement and Award Dates.** The earliest anticipated start date for awards under this NOFO is expected to be September 2018.

5. Additional Information

- a. Notification to Unsuccessful Applicants.** Unsuccessful applicants will be notified in writing.
- b. Retention of Unsuccessful Applications.** An electronic copy of each non-selected application will be retained for three (3) years for record keeping purposes.

VI. Federal Award Administration Information

- 1. Award Notices.** Successful applicants will receive an award package from the NIST Grants Officer.
- 2. Administrative and National Policy Requirements**

- a. Uniform Administrative Requirements, Cost Principles and Audit Requirements.** Through 2 C.F.R. § 1327.101, the Department of Commerce adopted Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards at 2 C.F.R. Part 200, which apply to awards in this program. Refer to <http://go.usa.gov/SBYh> and <http://go.usa.gov/SBg4>.
- b. Department of Commerce Financial Assistance Standard Terms and Conditions.** The Department of Commerce will apply the Financial Assistance Standard Terms and Conditions dated March 31, 2017, accessible at <https://go.usa.gov/xXRxK>, to awards in this program. Refer to Section VII. of this NOFO, Federal Awarding Agency Contacts, Grant Rules and Regulations, if you seek the information at this link and it is no longer working or you need more information.
- c. Pre-Award Notification Requirements.** The Department of Commerce will apply the Pre-Award Notification Requirements for Grants and Cooperative Agreements dated December 30, 2014 (79 FR 78390), accessible at <http://go.usa.gov/hKkR>. Refer to Section VII. of this NOFO, Federal Awarding Agency Contacts, Grant Rules and Regulations, if you seek the information at this link and it is no longer working or you need more information.
- d. Funding Availability and Limitation of Liability.** Funding for the program listed in this notice is contingent upon the availability of Fiscal Year 2018 appropriations. NIST issues this notice subject to the appropriations made available under the current continuing resolution funding the Department of Commerce, the Bipartisan Budget Act of 2018, Section 20101 of Subdivision 3 of Division B of Public Law 115-123, February 9, 2018. NIST anticipates making awards for the program listed in this notice provided that funding for the program is continued beyond March 23, 2018, the expiration of the current continuing resolution. In no event will NIST or the Department of Commerce be responsible for proposal preparation costs if these programs fail to receive funding or are cancelled because of agency priorities. Publication of this announcement does not oblige NIST or the Department of Commerce to award any specific project or to obligate any available funds.
- e. Collaborations with NIST Employees.** All applications should include a description of any work proposed to be performed by an entity other than the applicant, and the cost of such work should ordinarily be included in the budget.

If an applicant proposes collaboration with NIST, the statement of work should include a statement of this intention, a description of the collaboration, and prominently identify the NIST employee(s) involved, if known. Any collaboration by a NIST employee must be approved by appropriate NIST management and is at the sole discretion of NIST. Prior to beginning the technical review process, NIST will verify the approval of the

proposed collaboration. Any unapproved collaboration will be stricken from the application prior to the technical review. Any collaboration with an identified NIST employee that is approved by appropriate NIST management will not make an application more or less favorable in the competitive process. Letters of Support from NIST Employees are not permitted and will be redacted from the application prior to the technical review.

- f. Use of NIST Intellectual Property.** If the applicant anticipates using any NIST-owned intellectual property to carry out the work proposed, the applicant should identify such intellectual property. This information will be used to ensure that no NIST employee involved in the development of the intellectual property will participate in the review process for that competition. In addition, if the applicant intends to use NIST-owned intellectual property, the applicant must comply with all statutes and regulations governing the licensing of Federal government patents and inventions, described in 35 U.S.C. §§ 200-212, 37 C.F.R. Part 401, 2 C.F.R. §200.315, and in Section C.03 of the DoC Financial Assistance Standard Terms and Conditions dated March 31, 2017, found at <https://go.usa.gov/xXRxK>. Questions about these requirements may be directed to Chief Counsel for NIST, (301) 975-2803, nistcounsel@nist.gov.

Any use of NIST-owned intellectual property by an applicant is at the sole discretion of NIST and will be negotiated on a case-by-case basis if a project is deemed meritorious. The applicant should indicate within the statement of work whether it already has a license to use such intellectual property or whether it intends to seek one.

If any inventions made in whole or in part by a NIST employee arise in the course of an award made pursuant to this NOFO, the United States government may retain its ownership rights in any such invention. Licensing or other disposition of NIST's rights in such inventions will be determined solely by NIST, and include the possibility of NIST putting the intellectual property into the public domain.

- g. Research Activities Involving Human Subjects, Human Tissue, Data or Recordings Involving Human Subjects Including Software Testing.** Any application that includes research activities involving human subjects, human tissue/cells, or data or recordings from or about human subjects, must satisfy the requirements of the Common Rule for the Protection of Human Subjects ("Common Rule"), codified for the Department of Commerce at 15 C.F.R. Part 27. Research activities involving human subjects that fall within one or more of the classes of vulnerable subjects found in 45 C.F.R. Part 46, Subparts B, C and D must satisfy the requirements of the applicable subpart(s). In addition, any such application that includes research activities on these subjects must be in compliance with all applicable statutory requirements imposed upon the Department of Health and Human Services

(DHHS) and other Federal agencies, all regulations, policies and guidance adopted by DHHS, the Food and Drug Administration (FDA), and other Federal agencies on these topics, and all Executive Orders and Presidential statements of policy on applicable topics. (Regulatory Resources: <http://www.hhs.gov/ohrp/humansubjects/index.html> which includes links to FDA regulations, but may not include all applicable regulations and policies).

NIST uses the following Common Rule definitions for research and human subjects research:

Research: A systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge. Activities which meet this definition constitute research for purposes of this policy, whether or not they are conducted or supported under a program which is considered research for other purposes. For example, some demonstration and service programs may include research activities.

Human Subject: A living individual about whom an investigator (whether professional or student) conducting research obtains data through intervention or interaction with the individual or identifiable private information.

- (1) *Intervention* includes both physical procedures by which data are gathered and manipulations of the subject or the subject's environment that are performed for research purposes.
- (2) *Interaction* includes communication or interpersonal contact between investigator and subject.
- (3) *Private information* includes information about behavior that occurs in a context in which an individual can reasonably expect that no observation or recording is taking place, and information which has been provided for specific purposes by an individual and which the individual can reasonably expect will not be made public (for example, a medical record). Private information must be individually identifiable (i.e., the identity of the subject is or may readily be ascertained by the investigator associated with the information) in order for obtaining the information to constitute research involving human subjects.

See 15 C.F.R. § 27.102 (Definitions).

- 1) **Requirement for Federalwide Assurance.** If the application is accepted for [or awarded] funding, organizations that have an IRB are required to follow the procedures of their organization for approval of exempt and non-exempt research

activities that involve human subjects. Both domestic and foreign organizations performing non-exempt research activities involving human subjects will be required to have protocols approved by a cognizant, active IRB currently registered with the Office for Human Research Protections (OHRP) within the DHHS that is linked to the engaged organizations. All engaged organizations must possess a currently valid Federalwide Assurance (FWA) on file from OHRP. Information regarding how to apply for an FWA and register an IRB with OHRP can be found at <http://www.hhs.gov/ohrp/assurances/index.html>. NIST relies only on OHRP-issued FWAs and IRB Registrations for both domestic and foreign organizations for NIST supported research involving human subjects. NIST will not issue its own FWAs or IRB Registrations for domestic or foreign organizations.

- 2) **Administrative Review.** The NIST Human Subjects Protection Office (HSPO) reserves the right to conduct an administrative review¹ of all applications that potentially include research involving human subjects and were approved by an authorized non-NIST institutional entity (an IRB or entity analogous to the NIST HSPO) under 15 C.F.R. § 27.112 (Review by Institution). If the NIST HSPO determines that an application includes research activities that potentially involve human subjects, the applicant will be required to provide additional information to NIST for review and approval. The documents required for funded proposals are listed in each section below. Most documents will need to be produced during the proposal review process; however, the Grants Officer may allow final versions of certain required documents to be produced at an appropriate designated time post-award. Research involving human subjects may not start until the NIST Grants Officer issues an award explicitly authorizing such research. In addition, all amendments, modifications, or changes to approved research and requests for continuing review and closure will be reviewed by the NIST HSPO.
- 3) **Required documents for proposal review. All applications involving human subject research must clearly indicate, by separable task, all research activities believed to be exempt or non-exempt research involving human subjects, the expected institution(s) where the research activities involving human subjects may be conducted, and the institution(s) expected to be engaged in the research activities.**

¹ Conducting an “administrative review” means that the NIST HSPO will review and verify the performing institution’s determination for research not involving human subjects or exempt human subjects research. In addition, for non-exempt human subjects research, the NIST HSPO will review and confirm that the research and performing institution(s) are in compliance with 15 C.F.R. Part 27, which means HSPO will 1) confirm the engaged institution(s) possess, or are covered under a Federalwide Assurance, 2) review the research study documentation submitted to the IRB and verify the IRB’s determination of level of risk and approval of the study for compliance with 15 C.F.R. Part 27, 3) review and verify IRB-approved substantive changes to an approved research study before the changes are implemented, and 4) review and verify that the IRB conducts an appropriate continuing review at least annually.

- a. **Not research determination.** If an activity/task involves human subjects as defined in the Common Rule, but the applicant participant(s) indicates to NIST that the activity/task is not research as defined in the Common Rule, the following information may be requested for that activity/task:

- (1) Justification, including the rationale for the determination and such additional documentation as may be deemed necessary by NIST to review and/or support a determination that the activity/task in the application is not research as defined in the Common Rule.
- (2) If the applicant participant(s) used a cognizant IRB that provided a determination that the activity/task is not research, a copy of that determination documentation must be provided to NIST. The applicant participant(s) is not required to establish a relationship with a cognizant IRB if they do not have one.

NIST will review the information submitted and may coordinate further with the applicant before determining whether the activity/task will be defined as research under the Common Rule in the applicable NIST financial assistance program or project.

- b. **Research not involving human subjects.** If an activity/task is determined to be research and involves human subjects, but is determined to be *not human subjects research* (or *research not involving human subjects*) under the Common Rule, the following information may be requested for that activity/task:

- (1) Justification, including the rationale for the determination and such additional documentation as may be deemed necessary by NIST to review and/or support a determination that the activity/task in the application is not research as defined in the Common Rule.
- (2) If the applicant participant(s) used a cognizant IRB that provided a determination that the activity/task is research not involving human subjects, a copy of that determination documentation must be provided to NIST. The applicant participant(s) is not required to establish a relationship with a cognizant IRB if they do not have one.

- c. **Exempt research determination with no IRB.** If the application appears to NIST to include exempt research activities, and the performer of the activity or the supplier and/or the receiver of the biological materials or data from human subjects **does not** have a cognizant IRB to provide an exemption determination, the following information may be requested during the review process so that NIST can evaluate whether an exemption under the Common

Rule applies (see 15 C.F.R. § 27.101(b), (c) and (d)):

- (1) The name(s) of the institution(s) where the exempt research will be conducted.
- (2) The name(s) of the institution(s) providing the biological materials or data from human subjects.
- (3) A copy of the protocol for the research to be conducted; and/or the biological materials or data from human subjects to be collected/provided, not pre-existing samples (*i.e.*, will proposed research collect only information without personal identifiable information, will biological materials or data be de-identified and when and by whom was the de-identification performed, how were the materials or data originally collected).
- (4) For pre-existing biological materials or data from human subjects, provide copies of the consent forms used for collection and a description of how the materials or data were originally collected and stripped of personal identifiers. If copies of consent forms are not available, explain.
- (5) Any additional clarifying documentation that NIST may deem necessary in order to make a determination whether the activity/task or use of biological materials or data from human subjects is exempt under the Common Rule.

d. **Research review with an IRB.** If the application appears to NIST to include research activities (exempt or non-exempt) involving human subjects, and the proposed performer of the activity has a cognizant IRB registered with OHRP, and linked to their Federalwide Assurance, the following information may be requested during the review process:

- (1) The name(s) of the institution(s) where the research will be conducted.
- (2) The name(s) and institution(s) of the cognizant IRB(s), and the IRB registration number(s).
- (3) The FWA number of the applicant linked to the cognizant IRB(s);
- (4) The FWAs associated with all organizations engaged in the planned research activity/task, linked to the cognizant IRB.
- (5) If the IRB review(s) is pending, the estimated start date for research involving human subjects.
- (6) The IRB approval date (if currently approved for exempt or non-exempt research).
- (7) If any of the engaged organizations has applied for or will apply for an FWA or IRB registration, those details should be clearly provided for each engaged organization.

If the application includes research activities involving human subjects to be performed in the first year of an award, additional documentation may be

requested by NIST during pre-award review for those performers, and may include the following for those research activities:

- (1) A signed (by the study principal investigator) copy of each applicable final IRB-approved protocol.
- (2) A signed and dated approval letter from the cognizant IRB(s) that includes the name of the institution housing each applicable IRB, provides the start and end dates for the approval of the research activities, and any IRB-required interim reporting or continuing review requirements.
- (3) A copy of any IRB-required application information, such as documentation of approval of special clearances (*i.e.*, biohazard, HIPAA, etc.) conflict-of-interest letters, or special training requirements.
- (4) A brief description of what portions of the IRB submitted protocol are specifically included in the application submitted to NIST, if the protocol includes tasks not included in the application, or if the protocol is supported by multiple funding sources. For protocols with multiple funding sources, NIST will not approve the study without a non-duplication-of-funding letter indicating that no other federal funds will be used to support the tasks proposed under the proposed research or ongoing project
- (5) If a new protocol will only be submitted to an IRB if an award from NIST is issued, a draft of the proposed protocol.
- (6) Any additional clarifying documentation that NIST may request during the review process to perform the NIST administrative review of research involving human subjects. (See 15 C.F.R. § 27.112 (Review by Institution)).

This clause reflects the existing NIST policy and requirements for Research Involving Human Subjects. Should the policy be revised prior to award, a clause reflecting the policy current at time of award may be incorporated into the award.

If the policy is revised after award, a clause reflecting the updated policy may be incorporated into the award.

For more information regarding research projects involving human subjects, contact Anne Andrews, Director, NIST Human Subjects Protection Office (e-mail: anne.andrews@nist.gov; phone: (301) 975-5445).

h. Research Activities Involving Live Vertebrate Animals or Pre-Existing Cell Lines/Tissues From Vertebrate Animals. Any application that proposes research activities involving live vertebrate animals that are to be cared for, euthanized, or used by award recipients to accomplish research goals, teaching, or testing must meet the requirements of the Animal Welfare Act (AWA) (7 U.S.C. § 2131 et seq.), and the AWA final rules (9 C.F.R. Parts 1, 2, and 3), and if appropriate, the Good Laboratory

Practice for Nonclinical Laboratory Studies (21 C.F.R. Part 58). In addition, such research activities should be in compliance with the “*U.S. Government Principles for Utilization and Care of Vertebrate Animals Used in Testing, Research, and Training*” (Principles). The Principles and guidance on these Principles are available in the National Research Council's “Guide for the Care and Use of Laboratory Animals,” which can be obtained from National Academy Press, 500 5th Street, N.W., Department 285, Washington, DC 20055, or as a free PDF online at <http://www.nap.edu/catalog/12910/guide-for-the-care-and-use-of-laboratory-animals-eighth>.

- 1) **Administrative Review.** NIST reserves the right to conduct an administrative review¹ of all applications that potentially include research activities that involve live vertebrate animals, or custom samples from, or field studies with live vertebrate animals. If the application includes research activities, field studies, or custom samples involving live vertebrate animals, the applicant will be required to provide additional information for review and approval. In addition, NIST will verify the applicant's determination(s) of excluded samples from vertebrate animals. The documents required for funded proposals are listed in each section below. Some may be requested for a pre-review during the proposal review process; however, the Grants Officer may allow final versions of certain required documents to be produced at an appropriate designated time post-award. If an award is issued, no research activities involving live vertebrate animals shall be initiated or costs incurred for those activities under the award until the NIST Grants Officer issues written approval. In addition, all re-approvals, amendments, modifications, changes, annual reports and closure will be reviewed by NIST.
- 2) **Required documents for NIST proposal review.** *The applicant should clearly indicate in the application, by separable task, all research activities believed to include research involving live vertebrate animals and the institution(s) where the research activities involving live vertebrate animals may be conducted. In addition, the applicant should indicate any activity/task that*

¹ Conducting an “administrative review” means that the NIST HSPO will review and verify the performing institution's Institutional Animal Care and Use Committee's (IACUC's) approval of research with live vertebrate animals, and confirm that the research and performing institution(s) have an appropriate assurance and are in compliance with applicable regulations. HSPO will 1) confirm the engaged institution(s) possess, or are covered under an applicable assurance, 2) review the research study documentation submitted to the IACUC and verify the IACUC's determination of level of risk and approval of the study for compliance with applicable regulations, 3) review and verify IACUC-approved substantive changes to an approved research study before the changes are implemented, and 4) review and verify that the IACUC receives an annual report for the study and conducts an appropriate continuing review at least every three years.

involves an excluded or custom collection from vertebrate animals, or a field study with animals.

- a) **Excluded Collections from Vertebrate Animals:** The requirements for review and approval by an Institutional Animal Care and Use Committee (IACUC) do not apply to proposed research using preexisting images of animals or to research plans that do not include live animals. These regulations also do not apply to obtaining stock or pre-existing items from animal material suppliers (e.g., tissue banks), such as pre-existing cell lines and tissue samples, or from commercial food processors, where the vertebrate animal was euthanized for food purposes and not for the purpose of sample collection.

For pre-existing cell lines and tissue samples originating from vertebrate animals, NIST requires that the proposer provide documentation or the rationale for the determination that the cell line or tissue is pre-existing and not a custom collection from live vertebrate animals for an activity/task within the proposal. NIST may require additional documentation to review and/or support the determination that the cells and/or tissues from vertebrate animals are excluded from IACUC review.

- b) **Custom Collections Harvested from Live Vertebrate Animals:** NIST requires documentation for obtaining custom samples from live vertebrate animals from animal material suppliers and other organizations (*i.e.*, universities, companies, and government laboratories, etc.). A custom sample includes samples from animal material suppliers, such as when a catalog item indicates that the researcher is to specify the characteristics of the live vertebrate animal to be used, or how a sample is to be collected from the live vertebrate animal.
- c) **Field Studies of Animals:** Some field studies of animals may be exempt under the Animal Welfare Act from full review and approval by an animal care and use committee, as determined by each institution. Field study is defined as “... *a study conducted on free-living wild animals in their natural habitat...*”. 9 C.F.R. § 1.1. However, this term excludes any study that involves an invasive procedure or that harms or materially alters the behavior of an animal under study. Field studies, with or without invasive procedures, may also require obtaining appropriate federal or local government permits (marine mammals, endangered species, etc.). If the applicant’s institution requires review and approval by an animal care and use committee, NIST will require that documentation to be provided as described below.

d) **For custom collections or studies with live vertebrate animals that require review and approval by an animal care and use committee the following documentation is required:**

(1) **Requirement for Assurance.** An applicable assurance for the care and use of the live vertebrate animal(s) to be used in the proposed research is required. NIST may request documentation to confirm an assurance, if adequate confirmation is not available through an assuring organization's website. The cognizant IACUC where the research activity is located may hold one or more assurances applicable to the research activity that are acceptable to NIST. These three assurances are:

- i. Animal Welfare Assurance from the Office of Laboratory Animal Welfare (OLAW) indicated by the OLAW assurance number, *i.e.*, A-1234;
- ii. USDA Animal Welfare Act certification indicated by the certification number, *i.e.*, 12-R-3456;
- iii. Association for the Assessment and Accreditation of Laboratory Animal Care (AAALAC) indicated by providing the organization name accredited by AAALAC as listed in the AAALAC Directory of Accredited Organizations.

(2) **Documentation of Research Review by an IACUC:** If the applicant's application appears to include research activities, field studies, or custom sample collections involving live vertebrate animals the following information regarding review by an applicable IACUC may be requested during the application review process:

1. The name(s) of the institution(s) where the research involving live vertebrate animals will be conducted and/or custom samples collected.
2. The assurance type and number, as applicable, for the cognizant Institutional Animal Care and Use Committee (IACUC) where the research activity is located. [For example: Animal Welfare Assurance from the Office of Laboratory Animal Welfare (OLAW) should be indicated by the OLAW assurance number, *i.e.* A-1234; an USDA Animal Welfare Act certification should be indicated by the certification number *i.e.* 12-R-3456; and an Association for the Assessment and Accreditation of Laboratory Animal Care (AAALAC) should be indicated by AAALAC.]
3. The IACUC approval date for the Animal Study Protocol (ASP) (if currently approved).
4. If the review by the cognizant IACUC is pending, the estimated start date for research involving vertebrate animals.

5. If any assurances or IACUCs need to be obtained or established, that should be clearly stated.
6. If any special permits are required for field studies, those details should be clearly provided for each instance, or indicated as pending.

If the application includes research activities involving vertebrate animals to be performed in the first year of an award, additional documentation may be requested by NIST during pre-award review for those performers, and may include the following for those research activities, which may also include field studies, custom sample collections involving live vertebrate animals:

1. A signed (by the Principal Investigator) copy of the IACUC approved ASP.
2. Documentation of the IACUC approval indicating the approval and expiration dates of the ASP.
3. If applicable, a non-duplication-of-funding letter if the ASP is funded from several sources.
4. If a new ASP will only be submitted to an IACUC if an award from NIST is issued, a draft of the proposed ASP may be requested.
5. Any additional clarifying documentation that NIST may request during review of applications to perform the NIST administrative review of research involving live vertebrate animals.

This clause reflects the existing NIST policy for Research Involving Live Vertebrate Animals. Should the policy be revised prior to award, a clause reflecting the policy current at time of award may be incorporated into the award.

If the policy is revised after award, a clause reflecting the updated policy may be incorporated into the award.

For more information regarding research projects involving live vertebrate animals, contact Linda Beth Schilling, Senior Analyst (e-mail: linda.schilling@nist.gov; phone: 301-975-2887).

- i. **Collaborations Making Use of Federal Facilities.** All applications should include a description of any work proposed to be performed using Federal facilities.

If an applicant proposes use of NIST facilities, the statement of work should include a statement of this intention and a description of the facilities. Any use of NIST facilities must be approved by appropriate NIST management and is at the sole discretion of NIST. Prior to beginning the technical review process, NIST will verify the availability of the facilities and approval of the proposed usage. Any unapproved facility use will be stricken from the application prior to the technical review. Examples of some

facilities that may be available for collaborations are listed on the following NIST Web site: <https://www.nist.gov/labs-major-programs/user-facilities>.

3. Reporting

- a. **Reporting Requirements.** The following reporting requirements described in Section A.01, Reporting Requirements, of the DoC Financial Assistance Standard Terms and Conditions dated March 31, 2017 (<https://go.usa.gov/xXRxK>), apply to awards in this program:

(1) Financial Reports. Each award recipient will be required to submit an SF-425, Federal Financial Report on a semi-annual basis for the periods ending March 31 and September 30 of each year. Reports will be due within 30 days after the end of the reporting period to the NIST Grants Officer and Grants Specialist named in the award documents. A final financial report is due within 90 days after the end of the project period.

(2) Performance (Technical) Reports. Each award recipient will be required to submit a technical progress report to the NIST Grants Officer and Grants Specialist named in the award documents on a semi-annual basis for the periods ending March 31 and September 30 of each year. Reports will be due within 30 days after the end of the reporting period. Technical progress reports shall contain information as prescribed in 2 C.F.R. § 200.328 (<http://go.usa.gov/xkVgP>) and Department of Commerce Standard Terms and Conditions, Section A.01 (<https://go.usa.gov/xXRxK>).

In addition, a Final Summary Paper will be due to the Federal Program Officer within 45 days after the end of the project period, as described in Section I.(5). and Section IV.2.a.(6).b. of this NOFO.

(3) Patent and Property Reports. From time to time, and in accordance with the Uniform Administrative Requirements and other terms and conditions governing the award, the recipient may need to submit property and patent reports.

(4) Recipient Integrity and Performance Matters. In accordance with section 872 of Public Law 110-417 (as amended; see 41 U.S.C. § 2313), if the total value of a recipient's currently active grants, cooperative agreements, and procurement contracts from all Federal awarding agencies exceeds \$10,000,000 for any period of time during the period of performance of an award made under this NOFO, then the recipient shall be subject to the requirements specified in Appendix XII to 2 C.F.R. Part 200, <http://go.usa.gov/cTBwC>, for maintaining the currency of

information reported to SAM that is made available in FAPIIS about certain civil, criminal, or administrative proceedings involving the recipient.

- b. Audit Requirements.** 2 C.F.R. Subpart F, adopted by the Department of Commerce through 2 C.F.R. § 1327.101, and the Department of Commerce Financial Assistance Standard Terms and Conditions, Section F.01.b (<https://go.usa.gov/xXRxK>), requires any non-Federal entity (*i.e.*, including non-profit institutions of higher education and other non-profit organizations) that expends Federal awards of \$750,000 or more in the recipient's fiscal year to conduct a single or program-specific audit in accordance with the requirements set out in the Subpart. Applicants are reminded that NIST, the DoC Office of Inspector General, or another authorized Federal agency may conduct an audit of an award at any time.
- c. Federal Funding Accountability and Transparency Act of 2006.** In accordance with 2 C.F.R. Part 170, all recipients of a Federal award made on or after October 1, 2010, are required to comply with reporting requirements under the Federal Funding Accountability and Transparency Act of 2006 (Public Law No. 109-282). In general, all recipients are responsible for reporting sub-awards of \$25,000 or more. In addition, recipients that meet certain criteria are responsible for reporting executive compensation. Applicants must ensure they have the necessary processes and systems in place to comply with the reporting requirements should they receive funding. Also see the *Federal Register* notice published September 14, 2010, at 75 FR 55663 available here <http://go.usa.gov/hKnQ>.

VII. Federal Awarding Agency Contact(s)

Questions should be directed to the following contact persons:

Subject Area	Point of Contact
Programmatic and Technical Questions	Erik Puskar Phone: (301) 975-8619 Fax: (301) 975-4715 E-mail: erik.puskar@nist.gov <u>or</u> Mary Jo DiBernardo Phone: (301) 975-5503 Fax: (301) 975-4715 E-mail: maryjo.dibernardo@nist.gov

Subject Area	Point of Contact
Technical Assistance with Grants.gov Submissions	Christopher Hunton Phone: (301) 975-5718 Fax: (301) 975-6368 E-mail: grants@nist.gov or Grants.gov Phone: (800) 518-4726 E-mail: support@grants.gov
Grant Rules and Regulations	Gilbert Castillo Phone: (301) 975-3726 E-mail: gilbert.castillo@nist.gov

VIII. Other

1. Personal and Business Information

The applicant acknowledges and understands that information and data contained in applications for financial assistance, as well as information and data contained in financial, performance and other reports submitted by applicants, may be used by the Department of Commerce in conducting reviews and evaluations of its financial assistance programs. For this purpose, applicant information and data may be accessed, reviewed and evaluated by Department of Commerce employees, other Federal employees, and also by Federal agents and contractors, and/or by non-Federal personnel, all of whom enter into appropriate conflict of interest and confidentiality agreements covering the use of such information. As may be provided in the terms and conditions of a specific financial assistance award, applicants are expected to support program reviews and evaluations by submitting required financial and performance information and data in an accurate and timely manner, and by cooperating with Department of Commerce and external program evaluators. In accordance with 2 C.F.R. § 200.303(e), applicants are reminded that they must take reasonable measures to safeguard protected personally identifiable information and other confidential or sensitive personal or business information created or obtained in connection with a Department of Commerce financial assistance award.

In addition, Department of Commerce regulations implementing the Freedom of Information Act (FOIA), 5 U.S.C. § 552, are found at 15 C.F.R. Part 4, Public Information. These regulations set forth rules for the Department regarding making requested materials, information, and records publicly available under the FOIA. Applications submitted in response to this Notice of Funding Opportunity may be subject to requests for release under the Act. In the event that an application contains information or data that the applicant deems to be confidential commercial information that should be exempt from disclosure under FOIA, that information should be identified, bracketed, and marked as Privileged, Confidential, Commercial or Financial Information. In accordance with 15 C.F.R. § 4.9, the Department of Commerce will protect from disclosure confidential business information contained in financial assistance applications and other documentation provided by applicants to the extent permitted by law.