

November 27, 2017

**NOTICE OF FUNDING OPPORTUNITY (NOFO)
Summer Undergraduate Research Fellowship (SURF) Program**

EXECUTIVE SUMMARY

- **Federal Agency Name:** National Institute of Standards and Technology (NIST), United States Department of Commerce (DoC)
- **Funding Opportunity Title:** Summer Undergraduate Research Fellowship (SURF) Program:
 - SURF Program (Program) operating on the Boulder, Colorado campus (SURF Boulder) and the Gaithersburg, Maryland campus (SURF Gaithersburg)
- **Announcement Type:** Initial
- **Funding Opportunity Number:** 2018-NIST-SURF-01
- **Catalog of Federal Domestic Assistance (CFDA) Number:** 11.620, Science, Technology, Business and/or Education Outreach
- **Dates: SURF Boulder and SURF Gaithersburg receive and process applications separately.** Applications for both campuses must be received by NIST via Grants.gov no later than 11:59 p.m. **Eastern Time**, Monday, February 12, 2018. Paper applications will not be accepted. Applications received after the deadline will not be reviewed or considered.

Applicants should be aware, and factor in their application submission planning, that the Grants.gov system is expected to be closed for routine maintenance from 12:01 Eastern Time, Saturday, December 16, 2017 until Monday, December 18, 2017 at 6:00 a.m. Eastern Time, and from 12:01 Eastern Time, Saturday, January 20, 2018 until Monday, January 22, 2018 at 6:00 a.m. Eastern Time, and that applications cannot be submitted when Grants.gov is closed. NIST considers the date and time stamped on the notice generated by www.grants.gov as the official time the application is received. The earliest anticipated start date for awards made under this NOFO is expected to be May 1, 2018.

The SURF Program is anticipated to run from:

- Monday, May 21, 2018 through Friday, August 3, 2018 for SURF Boulder; and
- Tuesday, May 29, 2018 through Friday, August 10, 2018 for SURF

Gaithersburg.

Adjustments may be made to accommodate specific academic schedules for colleges or universities operating on quarter systems. For instance, SURF Boulder offers a limited number of 9-week programs beginning after the regular start date, i.e., Monday, June 4, 2018 to Friday, August 3, 2018. SURF Gaithersburg offers a limited number of 9-week programs with the schedule shifted to begin after the regular start, i.e., Monday, June 11, 2018 to Friday, August 10, 2018.

Applicants are strongly urged to carefully read Section IV.2.b., Attachment of Required Application Documents. 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 included in their submission. Applications submitted without the required documents will not pass the Initial Administrative Review, described in Section V.4.a. of this NOFO.

When developing your submission timeline, please keep in mind that (1) applicants are required to have current registrations in both the System for Award Management (SAM.gov) and in Grants.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.(1).(b)) may take between three and five business days or as long as more than two weeks; and (3) applicants using Grants.gov will receive e-mail notifications over a period of up to two business days as the application moves through intermediate systems before the applicant learns via a validation or rejection notification whether NIST has received the application. (See <http://www.grants.gov> for full information on application and notification through Grants.gov). **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.**

- **Application Submission Address:** Applications must be submitted using Grants.gov. Applicants applying to both SURF Boulder and SURF Gaithersburg must submit a separate application for each site (see Section IV. in the Full Announcement Text of this NOFO).
- **Funding Opportunity Description:** NIST is soliciting applications from eligible colleges and universities in the U.S. and its territories, nominating undergraduate students to participate in the SURF Program. The SURF Program will provide research opportunities for undergraduate students to work with NIST scientists and engineers, to expose the students to cutting-edge research and promote the pursuit of graduate degrees in science and engineering.
- **Anticipated Funding Amounts:** Approximately \$1.8 million for new awards may be available (approximately \$200,000 for SURF Boulder and \$1.6 million for SURF

Gaithersburg). NIST anticipates that individual awards to institutions will range from approximately \$9,000-\$72,000 and will support approximately 200 undergraduate students in total. The total number of awards will depend upon the number of undergraduate students selected per institution to attend SURF Boulder or SURF Gaithersburg.

- **Funding Instrument:** Cooperative Agreement.
- **Who is Eligible:** Colleges and universities (includes 2-year and 4-year institutions) in the U.S. and its territories with degree-granting programs in biology, chemistry, computer science, engineering, materials science, mathematics, nanoscale science, neutron research, and/or physics. **Due to the size of SURF Boulder, applicants that apply to SURF Boulder are limited to nominating no more than eight (8) undergraduate students for participation.** SURF Gaithersburg does not have an applicant limit at this time. Each undergraduate student nominated to participate in the SURF Program from the applicant college or university must meet the requirements in Section III.1. of this NOFO.
- **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 Summer Undergraduate Research Fellowship (SURF) Program is 15 U.S.C. § 278g-1(d)(1)(A).

NIST is one of the nation's premiere research institutions for the physical and

engineering sciences and provides a strong interface between government, industry and academia. NIST embodies a science culture, developed from a large and well-equipped research staff that enthusiastically blends programs that address the immediate needs of industry with longer-term research that anticipates future needs. This occurs in few other places and enables the Center for Nanoscale Science and Technology (CNST), Communications Technology Laboratory (CTL), Engineering Laboratory (EL), Information Technology Laboratory (ITL), Material Measurement Laboratory (MML), NIST Center for Neutron Research (NCNR), and Physical Measurement Laboratory (PML), to offer unique research opportunities for undergraduates, providing them with a research-rich environment and exposure to state-of-the-art equipment.

The SURF Program provides an opportunity for the NIST laboratories to encourage outstanding undergraduate students to pursue careers in science and engineering. The objective of the SURF Program is to build a mutually beneficial relationship among the student, the academic institution, and NIST. The SURF Program is conducted in English and will provide research opportunities for students to work with NIST scientists and engineers, to expose the students to cutting-edge and world-class research, and to promote the pursuit of graduate degrees in science and engineering. It is expected that the students participating in the SURF Program will have a proficiency in writing and speaking English, the ability to live and work with others, a commitment to honesty, and an interest in learning measurement metrology and using their own innovativeness to develop new science.

SURF students will have the opportunity to work one-on-one with NIST scientists and engineers. In addition, SURF students may have opportunities to voluntarily participate as subjects in minimal-risk NIST research experiments, for example, an evaluation of the quality, whiteness, and color rendering of different correlated color temperatures of solid-state lamps in the NIST Spectrally Tunable Light Facility. It is anticipated that successful SURF students will move from a position of reliance on guidance from their NIST research advisors to one of research independence during the program period. One goal of the SURF Program is to provide opportunities for our nation's next generation of scientists and engineers to engage in scientific research of the highest caliber at NIST, especially in ground-breaking areas of emerging technologies. This carries with it the hope of motivating individuals to pursue Ph.D.s in biology, chemistry, computer science, engineering, materials science, mathematics, nanoscale science, neutron research, and/or physics, and to consider research careers.

The Managing SURF Program Director will answer questions regarding the application process and encourage the appropriate department chairs, outreach coordinators, and directors of multi-disciplinary academic organizations to advertise the program and solicit their best students (including graduating seniors) who would benefit from off-campus summer research in a first-class scientific environment to participate. Participating students must be enrolled full-time in an academic program at the time of

application. A grade point average of 3.0/4.0 or better is recommended.

NIST includes two user facilities, CNST and NCNR, and five laboratories: CTL, EL, ITL, MML, and PML and all of these organizational units (OUs) participate in the SURF Program. Each OU has a designated SURF OU coordinator who works with the Managing SURF Program Director to coordinate the selection of SURF participants for the OUs (see Section V.4.b. of this NOFO). A description of each OU and SURF participant project topic areas are provided in the text to follow. Students eligible for the SURF Program are encouraged to visit <https://www.nist.gov/labs-major-programs/laboratories> to learn about the multi-disciplinary nature of each OU.

NIST's CNST (in Gaithersburg only) supports the U.S. nanotechnology enterprise from discovery to production by providing industry, academia, NIST, and other government agencies with access to world-class nanoscale measurement and fabrication methods and technology. The CNST's shared-use NanoFab gives researchers access to and training on commercial state-of-the-art tools and clean room facilities required for cutting-edge nanotechnology development. The CNST's NanoLab does research on creating and using the next generation of nanoscale measurement instruments and methods. Examples of current research projects include nanomagnetism imaging and dynamics, atomic scale characterization and fabrication, nanoscale measurement and fabrication using laser-controlled atoms, advanced Focused Ion Beam (FIB) development, modeling nanostructures in mesoscopic environments, characterization of nanophotonic devices, transport in nanoscale devices, scanned force microscopy, diblock copolymers, nanoparticle assembly, metrology for electron-beam lithography, advanced electron-beam resist development, and metrology for directed assembly. Additional information about CNST can be found at www.nist.gov/cnst.

The NCNR (in Gaithersburg only) is a national resource for industry, universities, and government agencies, focused on providing neutron-measurement capabilities to the U.S. research community. Neutrons are powerful probes of the structure and dynamics of materials ranging from molecules inserted into membranes mimicking cell walls to protons migrating through fuel cells. The unique properties of neutrons can be exploited by a variety of measurement techniques to provide information not available by other means. Neutrons are particularly well suited to investigate all forms of magnetic materials such as those used in computer memory storage and retrieval. Atomic motion, especially that of hydrogen, can be measured and monitored, like that of water during the setting of cement. Residual stresses such as those inside stamped steel automobile parts can be mapped. Neutron-based research covers a broad spectrum of disciplines, including engineering, biology, materials science, polymers, chemistry, and physics. In SURF Gaithersburg MML (see below) and NCNR combine the strengths and facilities of two Operating Units to jointly administer their SURF activities and offer two programmatic choices: *Chemical/Biochemical Sciences* and *Materials Science*. Additional information can be found at www.nist.gov/ncnr.

NIST's CTL (in Boulder and Gaithersburg) promotes the development and deployment of advanced communications technologies, through the conduct of leading edge Research and Development (R&D) on the system modeling, metrology and understanding of physical phenomena, and complex systems and protocols relevant to advanced communications. CTL performs research in future generation wireless communications (5G and Beyond), , wireless systems metrology, antennas, network design and optimization, spectrum monitoring and resource sharing, and public safety communications. CTL also performs research supporting a multi-level test bed facility, including the development of precision instrumentation, validated test-protocols, system models, and simulation tools necessary to support the testing and evaluation of new communications technologies. More information about CTL can be found at www.nist.gov/ctl.

NIST's EL (in Gaithersburg only) anticipates and meets the measurement science and standards needs for technology-intensive manufacturing, construction, and cyber-physical systems. Through its measurement-focused research and services, EL supplies critical enabling solutions to U.S. manufacturers, the construction industry, and the broad array of businesses and other organizations that build, own, operate, or maintain the nation's vast physical infrastructure. EL researchers investigate the use of intelligent machines, precision control of machine tools, and information technology for the integration of all elements of a product's life cycle. Much of this applied research is devoted to overcoming barriers to the next technological revolution. EL's research and development leads to standards, test methods and data that are crucial to industry's success in exploiting advanced manufacturing technology. Critical components of manufacturing at any level are measurement and measurement-related standards, not just for products, but increasingly for information about products and processes. Thus, EL programs enhance both physical and information-based measurements and standards. Research projects can be theoretical or experimental, and will range in focus from intelligent machine control to characterizing a manufacturing process to improving product data exchange in manufacturing. EL also provides technical leadership and participates in developing the measurement and standards infrastructure related to materials critical to U.S. industry, academia, government, and the public. EL research in building and fire research covers a full range of materials issues, from design to processing to performance. Separate research initiatives address concrete, coating, earthquake resistance of structures, fire science and engineering, the theory and modeling of materials, and materials reliability. Through laboratory-organized consortia and one-on-one collaborations, EL's scientists and engineers work closely with industrial researchers, manufacturers of high-technology products, and the major users of advanced materials. More information about EL can be found at www.nist.gov/el.

NIST's ITL (in Boulder and Gaithersburg) has the broad mission to promote U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology through research and development in information

technology, mathematics, and statistics. ITL works with industry, academia, and government organizations to develop and demonstrate tests, test methods, reference data, proof of concept implementations, and other infrastructural technologies. The laboratory responds to industry and user needs for objective, neutral tests for information technology. These enabling tools help companies to produce the next generation of products and services, and help industries and individuals use these complex products and services. ITL's priority areas are Cybersecurity, Internet of Things, Reliable Computing, Future Computing Technologies and Applications, and Artificial Intelligence. Research areas include artificial intelligence, biometrics, cloud computing and virtualization, computational science, cyber-physical systems, cybersecurity, data and informatics, exchange and retrieval of complex information, standards for forensic science, health information technology, Internet of Things, mathematics and statistics, network technologies, privacy, software quality, usability and human factors, and voting systems. Additional information about ITL can be found at www.nist.gov/itl and <https://www.nist.gov/topics/it>.

NIST's MML (in Boulder and Gaithersburg) serves as the national reference laboratory for measurement research, standards, and data in the chemical, biological, and material sciences. MML research supports areas of national importance such as advanced materials (from nanomaterials to structural steels to complex fluids), electronics (from semiconductors to organic electronics), energy (from characterization and performance of fossil and alternative fuels to next-generation renewable sources of energy), the environment (from the measurement of automotive exhaust emissions and other pollutants to assessment of climate change and the health and safety aspects of man-made nanomaterials), food safety and nutrition (from contaminant monitoring to ensuring the accuracy of nutritional labels), health care (from clinical diagnostics to tissue engineering and more efficient manufacturing of biologic drugs), infrastructure (from assessing the country's aging bridges and pipelines to the quality of our drinking water), manufacturing (from lightweight alloys for fuel-efficient automobiles to biomanufacturing and data for chemical manufacturing), and safety, security and forensics (from gunshot and explosive residue detection, to ensuring the performance of body armor materials, to DNA-based human identity testing). MML conducts research in analytical chemistry, biochemical science, ceramics, chemical and biochemical reference data, materials reliability, metallurgy, polymers, surface and microanalysis science, and thermophysical properties of materials. MML offers two programmatic choices: *Chemical/Biochemical Sciences* and *Materials Science*. In addition, in SURF Gaithersburg MML and the NIST Center for Neutron Research (see above) combine the strengths and facilities of two Operating Units to jointly administer their SURF activities within these two programmatic choices. Additional information about MML can be found at www.nist.gov/mml.

NIST's PML (in Boulder and Gaithersburg) attends to the long-term needs of many U.S. high-technology industries. NIST's PML conducts basic research in the areas of quantum, electron, optical, atomic, molecular, and radiation physics. To achieve these

goals, PML staff develops and utilizes highly specialized equipment, such as polarized electron microscopes, scanning tunneling microscopes, lasers, and x-ray and synchrotron radiation sources. Research projects can be theoretical or experimental and will range in focus from computer modeling of fundamental processes through trapping atoms and choreographing molecular collisions, to standards for radiation therapy. PML also conducts theoretical and experimental research in length, mass, force, vibration, acoustics, and ultrasonics. In addition, NIST's PML strives to be the preeminent source of fundamental and industrial reference measurement methods and physical standards for electrotechnology. To be a world-class resource for semiconductor measurements, data, models, and standards focused on enhancing U.S. technological competitiveness in the world market, research is conducted in semiconductor materials, processing, devices, and integrated circuits to provide, through both experimental and theoretical work, the necessary basis for understanding measurement-related requirements in semiconductor technology. To provide the world's most technically advanced and fundamentally sound basis for all electrical measurements in the United States, PML's research projects include maintaining and disseminating the national electrical standards, developing the measurement methods and services needed to support electrical materials, components, instruments, and systems used for the generation, transmission, and application of conducted electrical power, and related activities in support of the electronics industry, including research on video technology and electronic product data exchange. PML offers two programmatic choices: *Physics* and *Electrical Engineering*. To learn more about PML, visit www.nist.gov/pml.

Periodically, there are opportunities for SURF students to participate in technical special projects (in Gaithersburg) in NIST offices outside of the NIST laboratories and user facilities. NIST has previously made offers to students selected to participate in the SURF Program for the following NIST offices: [Standards Coordination Office \(SCO\)](#), [Information Services Office \(ISO\)](#), [Special Programs Office \(SPO\)](#), and [Technology Partnerships Office \(TPO\)](#). We anticipate technical special projects being available this year. Undergraduate students nominated to participate in the SURF Program should indicate in their personal statement if they wish to be considered for a technical special project (see Section IV.2.a.(7).(f)).

Each award recipient shall require the undergraduate students accepted into the SURF Program to deliver an abstract and oral presentation on his/her experiences and accomplishments during the Program. The oral presentation must be presented prior to the last day of the student's participation in the SURF Program, at a symposium specifically organized for the student presentations, or to the student's mentor in the case of extenuating circumstances preventing the student from attending the symposium.

II. Federal Award Information

- Funding Instrument.** The funding instrument that will be used is a cooperative agreement. The nature of NIST's "substantial involvement" will generally be collaboration between NIST and the recipient organizations. This includes NIST collaboration with a recipient on the scope of work.
- Funding Availability.** Funds budgeted for payments to students under this Program are stipends, not salaries. The stipend is an amount that is expected to be provided to the participating student to help defray the cost of living, for the duration of the program, in the Boulder, CO or in the Gaithersburg, MD area.

The tables below summarize the anticipated FY 2018 funding levels for awards under the SURF Program, subject to the availability of funds. Program funding will be available to provide for the costs of stipends (\$5,500 per student), plus transportation and lodging (\$4,000 per student, see Section IV.2.a.(2). of this NOFO). If a student is unable to participate for the full 11-week period, then the amount of the stipend will be calculated at a rate of \$500 per week for that student.

SURF Boulder	Total Program Funding	Anticipated No. of Students
CTL	~\$ 20,000	~2
ITL	~\$ 10,000	~1
MML	~\$ 60,000	~6
PML	~\$110,000	~11

SURF Gaithersburg	Total Program Funding	Anticipated No. of Students
CNST	~\$ 40,000	~4
EL	~\$300,000	~30
ITL/CTL	~\$300,000	~30
MML/NCNR-Materials	~\$300,000	~30
MML/NCNR-Chemical/Biochemical Sciences	~\$200,000	~20
PML-Physics	~\$200,000	~20
PML-Electrical Engineering	~\$200,000	~20
Special Projects (SCO, ISO, TPO)	~\$40,000	~4

The actual number of awards made under this NOFO will depend on the proposed budgets and the availability of funding.

NIST anticipates that approximately \$1.8 million for new awards may be available (approximately \$200,000 for SURF Boulder and \$1.6 million for SURF Gaithersburg, see tables above). NIST anticipates that individual awards to institutions will range from approximately \$9,000-\$72,000 and will support approximately 200 undergraduate students in total (see tables above). The total number of awards will depend upon the number of institutions whose undergraduate students are selected to attend SURF Boulder or SURF Gaithersburg.

Funding for student transportation and lodging will be included in the awards under this NOFO. To assure that students can successfully participate in SURF, award recipients (i.e., colleges and universities) should disburse funds in a timely manner for student transportation, lodging, and stipends. It is highly recommended that funds for student lodging are disbursed prior to the start of the SURF Program. Furthermore, award recipients are encouraged to begin drawing down student stipends before July 1. This is necessary to enable effective student participation.

Finally, note that the stipends are not considered wage income; recipients may not withhold payroll/income taxes and must disburse the full amount of the stipend to every participating student.

SURF Boulder is anticipated to run from Monday, May 21, 2018 to Friday, August 3, 2018, and SURF Gaithersburg is anticipated to run from Tuesday, May 29, 2018 to Friday, August 10, 2018. Adjustments may be made to accommodate specific academic schedules for colleges or universities operating on quarter systems. For instance, SURF Boulder offers a limited number of 9-week programs beginning after the regular start date, i.e., Monday, June 4, 2018 to Friday, August 3, 2018. SURF Gaithersburg offers a limited number of 9-week programs with the schedule shifted to begin after the regular start, i.e., Monday, June 11, 2018 to Friday, August 10, 2018.

III. Eligibility Information

- 1. Eligible Applicants.** The SURF Program is open to colleges and universities in the United States and its territories with degree-granting programs in biology, chemistry, computer science, engineering, materials science, mathematics, nanoscale science, neutron research, and/or physics.

Each undergraduate student nominated to participate in the SURF Program from the applicant college or university must meet all of the following requirements:

- 1) Be a U.S. citizen or permanent U.S. resident.

- 2) Commit to eleven (11) full continuous weeks, or nine (9) full continuous weeks for the nine (9) week program, (Monday through Friday) from 8:30 a.m. to 5 p.m., during the summer of 2018, to participate in the SURF Program. Students are expected to participate in SURF Boulder and SURF Gaithersburg through the last day of the Program, August 3, 2018 and August 10, 2018, respectively.
- 3) Be a currently registered undergraduate at the applicant university or college in the U.S. or its territories at the time of application. Graduating seniors may apply for the program but must be a registered undergraduate at the time of application.
- 4) Is considering pursuing a graduate degree (M.S. or Ph.D.). Students with biology, chemistry, computer science, engineering, materials science, mathematics, nanoscale science, neutron research and/or physics majors are always encouraged to apply. There may also be research opportunities for students with other majors. Refer to the evaluation criteria and selection factors for additional recommendations.

It is recommended that students have a G.P.A. of 3.0 or better, out of a possible 4.0.

Applicants are encouraged, but are not required, to nominate eligible underrepresented minority undergraduate students.

2. Cost Sharing. This Program does not require cost sharing.

IV. Application and Submission Information

SURF Boulder and SURF Gaithersburg receive and process applications separately. Applicants applying to both SURF Boulder and SURF Gaithersburg must submit a separate application for each location.

1. **Address to Request Application Package.** The standard application package, consisting of the standard forms, i.e., SF-424, SF-424A, SF-424B, SF-LLL, and the CD-511, is available at www.grants.gov. The full application package consists of all of these standard forms plus the applicable Application Checklist and the applicable Student Application Form. Note: The Application Checklist and the Student Application Form for SURF Boulder and SURF Gaithersburg are the same. The forms can be found at the following websites:
 - a. SURF Application Checklist:
 - i. The Application Checklist is available at:
https://www.nist.gov/sites/default/files/documents/2017/11/27/surf_application_checklist.pdf;
 - b. SURF Student Application Form:
 - i. The Student Application Form is available at:
https://www.nist.gov/sites/default/files/documents/2017/11/22/surf_student_application_form_2018_1.pdf;

The full application package may also be requested by contacting the following NIST personnel:

For SURF Boulder and SURF Gaithersburg: Dr. Brandi Toliver, Managing SURF Program Director, National Institute of Standards and Technology, NIST SURF Program, 100 Bureau Drive, Mail Stop 1090, Gaithersburg, MD 20899-1090; Phone: (301) 975-2371; e-mail: brandi.toliver@nist.gov.

Please remember that if you are applying to both SURF Boulder and SURF Gaithersburg you must complete and submit a separate application for each location.

2. Content and Format of Application Submission

All applications to the NIST SURF Program are required to be submitted electronically via Grants.gov.

SURF Boulder and SURF Gaithersburg receive and process applications separately. This means that if you are applying to both SURF Boulder and SURF Gaithersburg, it is necessary to submit TWO SEPARATE APPLICATIONS, one for SURF Boulder and one for SURF Gaithersburg, using the same NOFO number and two separate sets of documents. A separate full application package must be submitted for each location.

For SURF Boulder include in the **full application package** the standard forms listed in Section IV.1. of this NOFO, the Application Checklist (https://www.nist.gov/sites/default/files/documents/2017/11/27/surf_application_checklist.pdf) and the Student Application Form (https://www.nist.gov/sites/default/files/documents/2017/11/22/surf_student_application_form_2018_1.pdf).

For SURF Gaithersburg include in the **full application package** the standard forms listed in Section IV.1. of this NOFO, the Application Checklist (https://www.nist.gov/sites/default/files/documents/2017/11/27/surf_application_checklist.pdf) and the Student Applicant Information Form (https://www.nist.gov/sites/default/files/documents/2017/11/22/surf_student_application_form_2018_1.pdf).

Applications will be directed to the campus named in **Field 15** of the **SF-424**. (See Section IV.2.a.(1). of this NOFO.)

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 12, must list the NOFO number 2018-NIST-SURF-01.

SF-424, Item 15, must specify either “SURF Boulder” or “SURF Gaithersburg”, depending on the location to which the application is directed.

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.** For both SURF Boulder and SURF Gaithersburg:

- (a) The Grant Program Function or Activity in **Section A**, on Line 1 under Column (a) should be entered as Science, Technology, Business and/or Education Outreach. The Catalog of Federal Domestic Assistance Number on Line 1 under Column (b) should be entered as 11.620.
- (b) The total stipend amount must be calculated as \$5,500 X the number of students and entered into **Section B, Budget Categories** on **line h.** under column (1). For students who are not able to participate for the full 11-week period (see Section II.2. of this NOFO), the amount of the stipend must be calculated at a rate of \$500 per week for these students only.
- (c) The transportation and lodging allowance must be estimated as \$4,000 X the number of students and entered into **Section B, Budget Categories** on **line c.** under column (1). The actual amount of that allowance, which is the maximum amount NIST will provide for these expenses (based on the lodging cost and the distance to be travelled to and from NIST by the accepted nominees), will be transmitted to the applicant shortly after the nominees’ acceptances are received by NIST. Note: For purposes of this application, please use the calculation of \$4,000 per student when estimating the transportation and lodging costs.

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

- (4) **CD-511, Certification Regarding Lobbying.** Enter “2018-NIST-SURF-01” in the Award Number field. Enter either “SURF Boulder” or “SURF Gaithersburg”, depending on the location to which the application is directed, in the Project Name field.

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

- (6) **Applicant Information.** This is a word-processed document written by the

applying college or university and must contain the following information:

- (a) A description of the institution's education and research programs;
- (b) A summary list of the student(s) being nominated; and
- (c) A brief narrative about each nominated student.

(7) Student Information. An applicant must compile and submit the following items for each student nominated to participate in the SURF Program. This means, by way of example, that an applicant nominating 20 students would attach 20 separate PDF files to the application, each containing items (a) – (g) for a single nominated student.

(a) SURF Application Checklist:

- i. The Application Checklist is available at:

https://www.nist.gov/sites/default/files/documents/2017/11/27/surf_application_checklist.pdf;

(b) SURF Student Application Form:

- i. The Student Application Form is available at:

https://www.nist.gov/sites/default/files/documents/2017/11/22/surf_student_application_form_2018_1.pdf;

(c) Resume, including activities, honors and awards, if any;

(d) Two letters of recommendation;

(e) Transcripts (unofficial copies acceptable);

(f) Personal statement of commitment to participate in the Program and work in a laboratory environment, a description of prioritized research interests, career goals, interest in pursuing graduate studies, if any; and, interests in technical special projects, if any (see page 8); and

(g) Verification of U.S. citizenship or permanent legal residence, (e.g., copy of birth certificate, passport, or green card).

The student's name and college/university must appear on all of the documents.

NOTE: It is recommended that students have a G.P.A. of 3.0 or better, out of a possible 4.0.

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.(7) 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 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.

Paper application submissions will not be accepted (see Section IV.2. of this NOFO).

b. Attachment of Required Application Documents

Applicants are strongly advised to use Grants.gov's Download Submitted Applications option to check that their applications' required attachments were included 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 omitted from the submission, follow the attachment directions found above, resubmit the application, and check again for the inclusion 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) Paper, E-mail and Facsimile (fax) submissions.** Will not be accepted.
- (3) Font.** Easy to read font (10-point minimum). Smaller type may be used in figures and tables but must be clearly legible.
- (4) Line spacing.** Single.
- (5) Margins.** One (1) inch top, bottom, left, and right.

- (6) **Number of paper copies.** Paper copies will not be accepted. Applications must be submitted electronically via Grants.gov (see Section IV.2. of this NOFO).
 - (7) **Page layout.** Portrait orientation only.
 - (8) **Page numbering.** Number pages sequentially.
 - (9) **Paper size.** 21.6 centimeters by 27.9 centimeters (8 ½ inches by 11 inches).
 - (10) **Typed document.** All applications, including responses on the SURF Student Application Form, 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 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. SURF Boulder and SURF Gaithersburg receive and process applications separately.** For both SURF Boulder and SURF

Gaithersburg, applications must be received by NIST electronically through Grants.gov no later than 11:59 p.m. Eastern Time, Monday, February 12, 2018.

Applicants should be aware, and factor in their application submission planning, that the Grants.gov system is expected to be closed for routine maintenance from 12:01 Eastern Time, Saturday, December 16, 2017 until Monday, December 18, 2017 at 6:00 a.m. Eastern Time, and from 12:01 Eastern Time, Saturday, January 20, 2018 until Monday, January 22, 2018 at 6:00 a.m. Eastern Time, and that applications cannot be submitted when Grants.gov is closed. Applications not received by the specified due date and time will not be reviewed or considered. NIST will consider the date and time recorded by www.grants.gov as the official submission time.

NIST strongly recommends that applicants do not wait until the last minute to submit applications. NIST will not make allowance for any late submissions. The responsibility for ensuring a complete application is received by NIST by the deadline is the sole responsibility of 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) applicants are required to have current registrations in both the System for Award Management (SAM.gov) and in Grants.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.(1).(b)) may take between three and five business days or as long as more than two weeks; and (3) applicants using Grants.gov will receive e-mail notifications over a period of up to two business days as the application moves through intermediate systems before the applicant learns via a validation or rejection notification whether NIST has received the application. (See <http://www.grants.gov> for full information on application and notification through Grants.gov). 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.

- 5. Intergovernmental Review.** Applications under this Program are not subject to Executive Order 12372.
- 6. Funding Restrictions.** The SURF Program will not authorize funds for indirect costs or fringe benefits. Profit or fee is not an allowable cost.
- 7. Other Submission Requirements**
 - a. Applications may be submitted electronically via Grants.gov only.**

(1) Applications must be submitted via www.grants.gov, under announcement 2018-NIST-SURF-01.

- (a) Submitters of 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 a proposal is received does not provide information about whether attachments have been received. For further information or questions regarding applying electronically for the 2018-NIST-SURF-01 announcement, contact Christopher Hunton by phone at 301-975-5718 or by e-mail at grants@nist.gov.
- (b) 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.
- (c) 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 the "Grant Applicants" page.

In addition to following the “Steps” and instructions described in the “Applicant Actions” section and its sub-categories, further detailed instructions are described in “Applicant Resources” and all of its subcategories. This appears in the box near the top left of the Grant Applicants page. Applicants should follow the links associated with each sub-category.

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 sub-categories 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.

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 leading up to the deadline date.

Refer to important information in Section IV.4. Submission Dates and Times, to help ensure the 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 or may request copies from Dr. Brandi Toliver at (301) 975-2371; e-mail: brandi.toliver@nist.gov.

V. Application Review Information

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

- a. Student's Interest in Participating in the Program, Academic Ability, Laboratory Experience, and Advanced Degree Interest.** Evaluation of GPA (grade point average) in relevant courses, career goals, activities, honors and awards, letters of reference, commitment of the student to working in a laboratory environment, and interest in pursuing graduate school.
- b. Applicant's Commitment to Program Goals.** Evaluation of the institution's academic department(s) relevant to the discipline(s) of the student(s), as demonstrated by accrediting organizations, course offerings in the relevant

departments, enthusiastic support by the academic department, school, or institution, and extensive publications in nanoscale science, engineering, computer science, mathematics, materials science, chemistry, biology, neutron research, and/or physics.

- 2. Selection Factors.** The Selecting Official, the Managing SURF Program Director, or designee, shall generally select applications for award based upon the rank order of the applications (see Section V.4.b. of this NOFO), but retains the discretion to select an application out of rank based on one or more of the following selection factors:
 - a. Fit of the undergraduate student's stated interest and commitment to the program priorities of NIST (see Section V.3. of this NOFO) and objectives of the SURF Program as described in Section I. of this NOFO (i.e., SURF Boulder or SURF Gaithersburg);
 - b. Fit of the undergraduate student's interests and abilities to the available NIST research projects and when appropriate, to the research priorities of NIST scientists and engineers in the specified laboratory program;
 - c. Relevance of the student's course of study to the program objectives of the specified NIST laboratory in which that SURF Program resides as described in Section I., Program Description, of this NOFO;
 - d. Assessment of whether the laboratory experience is a new opportunity for the student which may encourage future postgraduate training; and
 - e. The availability of Federal funds.
- 3. Program Priorities.** All applicable fields of science that promote U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance economic security and improve our quality of life. More information about those programs can be found at www.nist.gov.

4. 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 appropriate conflict of interest and confidentiality agreements covering such information.

- a. Initial Administrative Review of Applications.** An initial review of timely received applications will be conducted to determine applicant and undergraduate student

eligibility and application completeness and responsiveness to this NOFO and the scope of the stated program objectives. Applications determined to be ineligible, incomplete, and/or non-responsive based on this NOFO 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 corrected

b. Full Review of Eligible, Complete, and Responsive Applications.

For SURF Boulder:

Applications that are determined to be eligible, complete, and responsive will proceed for full reviews in accordance with the review and selection process below:

- (1) Applications will be separated into student/applicant packets and directed to the SURF OU sub-program contact as designated by the student as his/her first Program choice. For the purposes of the selection process, each student selectable program choice on the Student Applicant Information Cover Sheet (which means each of the OU sub-programs designated by a subject area) is considered a separate SURF OU sub-program.
- (2) Each student/application packet will be reviewed by at least three (3) independent, objective reviewers, which will include written evaluations and scores, based on the evaluation criteria (see Section V.1. of this NOFO). The independent reviewers will be NIST employees or associates who are knowledgeable in the scientific areas of the program. The reviewers may discuss the applications with each other, but scores will be determined on an individual basis, not as a consensus. The scores based on this merit review will be averaged for each student/applicant packet, creating a rank order.
- (3) The Selecting Official, the Managing SURF Program Director or their designee, will select funding recipients based upon the rank order of the student /applicant packets and the selection factors (see Section V.2. of this NOFO).

For SURF Gaithersburg:

Applications that are determined to be eligible, complete, and responsive will proceed for full reviews in accordance with the review and selection process below:

- (1) Applications will be separated into student/applicant packets and directed to the SURF sub-program contact for the OU as designated by the student as his/her first Program choice. For the purposes of the selection process, each student selectable program choice on the Student Applicant Information

Cover Sheet (which means each of the sub-programs designated by a subject area) is considered a separate SURF OU sub-program.

(2) The review and selection process occurs in three (3) rounds as follows:

(a) First round: For each SURF OU sub-program, three (3) reviewers will conduct independent, objective reviews of each student/applicant packet, which will include scores and comments, based on the evaluation criteria (see Section V.1. of this NOFO). The independent reviewers will be NIST employees who are knowledgeable in the scientific areas of the Program. Based on the average of the reviewers' scores, a separate rank order of the student/applicant packets will be prepared within each SURF OU sub-program and provided to the Managing SURF Program Director for further consideration.

Based on these results, the Managing SURF Program Director will coordinate with each SURF OU sub-program coordinator to divide the rank ordered student/applicant packets into three categories: "Priority Funding"; "Fund if Possible"; and "Do Not Fund."

Student/applicant packets placed in the "Priority Funding" category will be recommended to the Selecting Official for selection in that SURF OU sub-program, contingent upon availability of funds.

The Selecting Official, or their designee, will select funding recipients for each OU sub-program based upon the rank order of the student /applicant packets resulting from the first round of reviews and the selection factors (see Section V.2. of this NOFO). The Selecting Official may select proposals out of rank order based on the selection factors (see Section V.2. of this NOFO).

Student/applicant packets placed in the "Fund if Possible" category will be released for consideration for funding by the SURF OU sub-program which was designated by the student on his/her NIST SURF Program Student Application Information form as his/her second choice through a second round of selections (see below).

Student/applicant packets placed in the "Do Not Fund" category will not be considered for funding by any other SURF OU sub-program.

(b) Second round: Student/applicant packets placed in the "Fund if Possible" category may be considered for funding at a later time by the category-designating SURF program. The "category-designating" program is the SURF OU sub-program whose coordinator first categorized

the student/applicant packet as “Priority Funding,” “Fund if Possible,” or “Do Not Fund.” This is the same SURF OU sub-program that was designated by the student on his/her NIST SURF Program Student Application Information form as his/her first choice.

Student/applicant packets not selected for funding during the first round will be provided to the student’s second choice SURF OU. The student’s second choice SURF OU sub-program may conduct an additional three (3) independent technical reviews. The independent reviewers will be NIST employees who are knowledgeable in the scientific areas of the Program. The student’s second choice SURF OU sub-program coordinator will take into consideration the additional reviews, if conducted, and the comments and scores of the reviewers who conducted the technical reviews for the student’s first choice SURF Gaithersburg OU sub-program. The second choice SURF OU sub-program’s coordinator will arrive at a final rank order of the students available for the second round of selections and placements and provide this information to the Selecting Official.

The Selecting Official, or their designee, will select funding recipients based upon the rank order of the student /applicant packets resulting from the second round of reviews and the selection factors (see Section V.2. of this NOFO). The Selecting Official may select proposals out of rank order based on the selection factors (see Section V.2. of this NOFO).

Any SURF OU sub-program’s coordinator may look at any student application in advance of the second or third round. Any SURF OU sub-program’s coordinator may choose not to participate in the second or third round if he/she does not see suitable students in that round appropriate for the available projects within his/her OU and/or there are no slots available.

After the second round student/applicant packets placed in the “Priority Funding” and “Fund if Possible” categories but not selected for funding by the second round SURF OU sub-program to which they were assigned will be released for consideration for funding by all SURF OU sub-programs that still have slots available in the third round.

(c) Third round: Student/applicant packets categorized as “Priority Funding” and “Fund if Possible” that are not selected for funding by their first or second choice SURF OU sub-program and student/applicant packets categorized as “Priority Funding” and “Fund if Possible” for students who did not designate a second choice will then be considered for selection and placement by all SURF OU sub-program coordinators that still have

slots available in a third round. Each SURF OU sub-program may conduct an additional three (3) independent technical reviews. The independent reviewers will be NIST employees who are knowledgeable in the scientific areas of the program. Each SURF OU sub-program's coordinator will take into consideration the comments and scores of the reviewers who conducted the technical reviews for the student's first choice SURF OU sub-program, the comments and scores of the reviewers who conducted the technical reviews for the second and third rounds, if they were conducted, arrive at a final rank order of the students available for the third round of selections and placements, and present this information to the Selecting Official.

The Selecting Official, or their designee, will select funding recipients based upon the rank order of the student /applicant packets resulting from the third round of reviews and the selection factors (see Section V.2. of this NOFO).

Any SURF OU sub-program's coordinator may choose not to participate in the third round if he/she does not see suitable students in the third round appropriate for the available projects within his/her laboratory and/or there are no slots available.

Remaining students may be considered for special projects in standards development and technology transfer.

NIST reserves the right to negotiate the budget costs with the applicants that have been selected to receive awards, which 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. Substitutions for students who decline offers will be made from the remaining pool of ranked students consistent with the review and selection process (see Section V.4. of this NOFO). NIST also reserves the right to reject an application where information is uncovered that raises a reasonable doubt as to the responsibility of the nominated student or 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 NIST 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, and/or the applicant's ability to effectively implement statutory,

regulatory, or other requirements imposed on non-Federal entities. Upon review of these factors, if appropriate, special conditions that correspond to the degree of risk may be applied to an award.

In addition, prior to making an award where the total Federal obligation 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 (FAPIS). An applicant may, at its option, review and comment on information about itself previously entered into FAPIS 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 FAPIS in making its determination about the applicant's integrity, business ethics, and record of performance under Federal awards.

5. **Anticipated Announcement and Award Dates.** Review, selection, and award processing is expected to be completed in early April 2018. The earliest anticipated start date for awards made under this NOFO is expected to be May 1, 2018.

6. Additional Information

- a. **Notification to Unsuccessful Applicants.** Unsuccessful applicants will be notified by email.
- b. **Retention of Unsuccessful Applications.** All applications, whether successful or unsuccessful, are retained in the NIST Grants Management and Information System for at least three years.

VI. Federal Award Administration Information

1. **Federal 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/SBq4>.
 - 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 this award. Applicants should refer to Section VII. of this NOFO, Federal Awarding Agency Contacts, Grant Rules and Regulations, if they seek the information at this link and it is no longer working or if they need further information.

- c. **Department of Commerce 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 need more information.
- d. **Funding Availability and Limitation of Liability.** NIST issues this notice subject to the appropriations made available under the current continuing resolution funding the Department of Commerce, Division D of Continuing Appropriations Act, 2018 and Supplemental Appropriations for Disaster Relief Requirements Act, 2017, Public Law 115-56, September 8, 2017. NIST anticipates making awards for the program listed in this notice provided that funding for Fiscal Year 2018 is continued beyond December 8, 2017, 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.** The SURF Program Description specifically anticipates that students will collaborate with NIST. Applicants are not required to collaborate with specific NIST employees; however, if the applicant wishes to propose collaboration with a specific NIST employee, 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 merit review process, NIST will verify the approval of the proposed collaboration. Any unapproved collaboration will be stricken from the application prior to the merit 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.
- 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 Department of Commerce Financial Assistance 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.

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

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.

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 Federal-wide 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 review² 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 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.

² Conducting an "administrative review" means that the NIST HSPO will review and verify the performing institution'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.

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. **Safety.** Safety is a top priority at NIST. Students participating in the NIST SURF Program will be expected to be safety-conscious, attend NIST safety training(s), and comply with all NIST safety policies and procedures.

3. Reporting

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

(1) Financial Report. Each award recipient will be required to submit an SF-425, Federal Financial Report within 90 days after the award expiration date to the NIST Grants Officer and Grants Specialist named in the award documents, in combination with the final Performance (Technical) Report (see next paragraph).

(2) Performance (Technical) Report. Each award recipient will be required to submit a final technical progress report to the NIST Grants Officer and the NIST Federal Program Officer within 90 days of the end of the award. Technical reports shall contain information as prescribed to conform to the requirements in

2 C.F.R. § 200.328 (<http://go.usa.gov/xkVgP>) and Department of Commerce Standard Terms and Conditions, Section A.01 (<http://go.usa.gov/xXRxK>).

(3) Patent and Property Reports. From time to time, and in accordance with the Administrative and National Policy Requirements (see Section VI.2. of this NOFO) and other terms and conditions governing the award, the recipient may be required 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 notice, 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. Part 200 Subpart F, adopted by the Department of Commerce through 2 C.F.R. § 1327.101 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 Department of Commerce 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 (Pub. L. 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 Contacts

Questions should be directed to the following contact persons:

Subject Area	Point of Contact
Programmatic and Technical Questions	For the SURF Program: Dr. Brandi Toliver Phone: (301) 975-2371 E-mail : brandi.toliver@nist.gov
Technical Assistance with Grants.gov Submissions	Christopher Hunton Phone: (301) 975-5718 E-mail: grants@nist.gov Fax: (301) 975-8884 Or Grants.gov Phone: (800) 518-4726 E-mail: support@grants.gov
Grants Rules and Regulations	Husai Rahman Phone: (301) 975-4355 E-mail: husai.rahman@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. Sec. 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 CFR § 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.