

Cooperative Program for Atmospheric Science Education

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ANNOUNCEMENT OF FEDERAL FUNDING OPPORTUNITY

EXECUTIVE SUMMARY

Federal Agency Name(s): Office of the Under Secretary (USEC), National Oceanic and Atmospheric Administration (NOAA), Department of Commerce

Funding Opportunity Title: Cooperative Program for Atmospheric Science Education

Announcement Type: Initial

Funding Opportunity Number: NOAA-SEC-OED-2017-2005168

Catalog of Federal Domestic Assistance (CFDA) Number: 11.008, NOAA Mission-Related Education Awards

Dates: The deadline for applications is 11:59 pm EST on May 17, 2017. Note that NOAA's Office of Education staff will only be available to answer questions until 5 PM EST.

Applications must be submitted online through Grants.gov; no hard copy or email applications will be accepted. Grants.gov requires applicants to register with the system and with SAM.gov prior to submitting an application. These registration processes can take several weeks and involve multiple steps. In order to allow sufficient time for this process, applicants should register as soon as they decide they intend to apply, even if they are not yet ready to submit their applications. Applications submitted through Grants.gov are automatically date/time stamped when they are validated and submitted to the Agency. PLEASE NOTE: When submitting through Grants.gov, you will receive 2 emails. An initial email will be sent to confirm your attempt to submit an application. This is NOT a confirmation of acceptance of your application. It may take Grants.gov up to two business days to validate or reject the application and send you a second email. Please keep this in mind in developing your submission timeline.

PLEASE ALSO NOTE: For a list of software applications that allow you to successfully navigate the Grants.gov pages and complete your application visit <http://www.grants.gov/web/grants/applicants/applicant-faqs.html>.

Funding Opportunity Description: NOAA's Environmental Literacy Program provides grants and in-kind support for programs that educate and inspire people to use Earth systems science to improve ecosystem stewardship and increase resilience to environmental hazards. We build capacity for institutions and networks to advance NOAA's mission through formal and informal education at national, regional, and local levels. The Environmental Literacy Program supports long-term partnerships that enable the education community to incorporate and deliver NOAA's latest scientific information on the topics of the ocean, coasts, weather, and climate.

NOAA's Office of Education (OED) is requesting applications to establish an institutional award for a Cooperative Program for Atmospheric Science Education. This institutional award will support a long-term partnership with an organization of atmospheric science professionals with the capacity to offer and support (1) sustained professional development at a national scale for K-12 educators and the faculty and staff who educate pre-service teachers and (2) scholarships to undergraduate and graduate students in atmospheric and related ocean and hydrologic sciences who are recruited from or plan to matriculate at accredited 4-year colleges and universities in the United States and its territories. These program components should address two or more of the goals and employ two or more objectives articulated in the 2015-2035 NOAA Education Strategic Plan (<http://www.noaa.gov/explainers/noaa-education-strategic-plan>).

Eligible applicants are nonprofit organizations and institutions of higher education.

Proposed programs must be 5 years in duration and have total federal requests of \$300,000 to \$500,000 for each of those 5 years. NOAA anticipates that awards funded under this announcement will be made by September 30, 2017 and will have a start date no earlier than October 1, 2017.

Note: Templates and examples that may be helpful in preparing an application can be found at: <http://www.noaa.gov/elp/grants/templates>. Visit <http://www.noaa.gov/elp/grants/faqs> for answers to frequently asked questions.

FULL ANNOUNCEMENT TEXT

I. Funding Opportunity Description

A. Program Objective

1. Overview

NOAA's Environmental Literacy Program provides grants and in-kind support for programs that educate and inspire people to use Earth systems science to improve ecosystem stewardship and increase resilience to environmental hazards. We build capacity for institutions and networks to advance NOAA's mission through formal and informal education at national, regional, and local levels. The Environmental Literacy Program supports long-term partnerships that enable the education community to incorporate and deliver NOAA's latest scientific information on the topics of the ocean, coasts, weather, and climate.

NOAA's Office of Education (OED) is requesting applications to establish an institutional award for a Cooperative Program for Atmospheric Science Education. This institutional award will support a long-term partnership with an organization of atmospheric science professionals with the capacity to offer and support (1) sustained professional development at a national scale for K-12 educators and the faculty and staff who educate pre-service teachers and (2) scholarships to undergraduate and graduate students in atmospheric and related ocean and hydrologic sciences who are recruited from or plan to matriculate in accredited 4-year colleges and universities in the United States and its territories.

2. Description of Activities

The proposed program should contain components designed to improve K-12 educators' understanding of the Earth system through atmospheric, ocean, and hydrologic sciences and support undergraduate and graduate scholars pursuing degrees in the fields of the atmospheric and related ocean and hydrologic sciences. These program components should address two or more of the goals and employ two or more objectives articulated in the 2015-2035 NOAA Education Strategic Plan (<http://www.noaa.gov/explainers/noaa-education-strategic-plan>)

Proposed components supporting the professional development of K-12 educators should:

- use NOAA data, data products, and other NOAA assets;

- include realistic and relevant inquiry-based learning experiences using online data products;
- Integrate practices, core ideas, and crosscutting concepts from the National Research Council's Framework for K-12 Science Education (www.nationalacademies.org/bose/Standards_Framework_homepage.html);
- introduce K-12 educators to the pedagogical content knowledge related to “The Essential Principles and Fundamental Concepts for Atmospheric Science Literacy” (<http://eo.ucar.edu/asl/pdfs/ASLbrochureFINAL.pdf>), “Ocean Literacy: Essential Principles of Ocean Sciences” (<http://www.coexploration.org/oceanliteracy/documents/OceanLitChart.pdf>), and “Climate Literacy: The Essential Principles of Climate Science” (https://downloads.globalchange.gov/Literacy/climate_literacy_lowres_english.pdf);
- include distance-learning and face-to-face components;
- offer sustained interaction among peers and professional development providers that enables the educators deep exploration of the content and pedagogy;
- build upon an existing professional development program (or programs);
- involve NOAA scientists and other NOAA personnel as partners;
- involve other partners among academic institutions and professional scientific organizations; and
- allow participants to earn graduate-level credit-hours from an accredited US college or university.

K-12 professional development activities should be designed to sustain a network of educators and ensure that the content learned in the professional development courses is implemented in the classroom.

Proposed program components related to scholarships and graduate fellowships will support undergraduate and graduate students from accredited 4-year colleges and universities in the US who are pursuing degrees in the fields of the atmospheric and related ocean and hydrologic sciences.

Undergraduate scholarships would be provided to incoming freshmen, with a particular emphasis on attracting students from groups that are underrepresented in atmospheric and related ocean and hydrologic sciences (see “Science & Engineering Indicators 2016” for a definition of underrepresented minorities at <https://www.nsf.gov/statistics/2016/nsb20161/#/report/chapter-2/glossary>). The award recipient would be responsible for the recruitment and selection process. The scholarship is intended to prepare students, particularly from underrepresented groups, for participation in NOAA’s Ernest F. Hollings Scholarship program (<http://www.noaa.gov/office->

education/hollings-scholarship). Freshmen scholarship applicants should provide proof of acceptance into an accredited 4-year college or university with the intent to study a NOAA mission-related field. Scholarship applicants must be U.S. Citizens and participants would need to sign and Intent to Apply agreement for the Hollings Scholarship in order to be considered. Depending on current Fiscal Year appropriations, NOAA anticipates funding no less than 6 applicants per year. The scholarship may include travel-related costs for attending a conference or other relevant professional development experience.

Graduate level fellowships should recruit students who (1) are in the top 5% of their class, (2) receive outstanding recommendations and (3) clearly demonstrate their intent to pursue a career in atmospheric, ocean, or hydrologic sciences.

Successful applicants will have a history of providing high-quality professional development experiences for K-12 educators on national scale and supporting an active network of past participants; a demonstrated ability to work with NOAA scientists and other personnel to enrich understanding of the atmospheric, ocean, and hydrologic sciences and enhance pedagogical content skills in these fields; and a history of successfully recruiting and managing undergraduate and graduate scholarships and fellowships.

3. Target Audiences

There are two target audiences of this funding opportunity: (1) formal K-12 educators (pre- or in-service) and (2) students pursuing baccalaureate and post-baccalaureate degrees in atmospheric, ocean, and hydrologic sciences.

4. Evaluation

Program descriptions should include robust evaluation plans. Evaluation plans should include measurement of the program's progress towards meeting the program goals and objectives as well as the goal of this funding program. Plans for formative and summative evaluations should be well constructed and should use best practices for evaluating the type of activities proposed. Discussion of both formative and summative evaluations should be included in the program description and in the budget section. Program evaluation should include assessment of changes in the target audiences' attitudes, knowledge, skills, and/or behaviors as a result of the activities undertaken. The impact of the proposed program on the target audiences must be measurable during the award period. Particularly when dealing with populations under-represented in science, the evaluation should reflect practices of cultural competence (<http://www.eval.org/ccstatement>). Potential impacts of the program beyond the award period should be described. During the award period, an updated evaluation plan will

be required and reports of both outputs and outcomes for a program will be expected. Program activities should be based on an existing front-end evaluation/needs assessment and there should be a description of that needs assessment in the description.

Program evaluation should be handled by external professional evaluators or by internal staff who have significant experience with each type of evaluation and are not otherwise substantively involved with the program. Applicants should include funding for evaluation in their budgets. While the costs for program evaluation may vary considerably, 10 to 20 percent of the total budget is a reasonable estimate of costs associated with a comprehensive program evaluation.

To further inform the broad fields of K-12 education and early scientific and educational career mentoring, applicants are encouraged to develop appropriate dissemination strategies for sharing information about impacts and lessons learned. Program teams are encouraged to engage their peers in active discussion of relevant best practices. This may or may not be best accomplished by attending and presenting at annual meetings of professional societies. Principal Investigators (PIs) must provide summative program evaluation reports to NOAA.

5. Awards Dates and Mission Goal

NOAA anticipates that awards funded under this announcement during this fiscal year (FY) will be made by September 30, 2017 and that the program funded under this announcement will have a start date no earlier than October 1, 2017.

This FFO meets NOAA's four Mission Goals: Climate Adaptation and Mitigation, Weather-Ready Nation, Healthy Oceans, and Resilient Coastal Communities and Economies (http://www.performance.noaa.gov/wp-content/uploads/NOAA_NGSP.pdf).

6. Definitions

Environmental Data: Environmental data are defined as recorded and derived observations and measurements of the physical, chemical, biological, geological, and geophysical properties and conditions of the oceans, atmosphere, space environment, sun, and solid earth, as well as correlative data, such as socio-economic data, related documentation, and metadata. Data and information collected as part of the program evaluation are not considered environmental data and information.

NOAA Assets: Resources, services, or sites that are used to support NOAA's mission and to communicate NOAA research, data, information, and knowledge to the public. These

include education materials and programs, datasets and visualizations, subject matter experts, facilities, and managed natural resource areas. A partial listing of NOAA assets can be found at <http://www.noaa.gov/office-education/grants/noaa-assets>. A summary of NOAA programs and activities sorted by the state or territory in which they are based or focused is available at: www.legislative.noaa.gov/NIYS/. A summary of NOAA resources in various regions of the country is available at: www.education.noaa.gov/Special_Topics/NOAA_in_Your_Backyard.html. NOAA assets incorporated into education materials can be found at <http://www.noaa.gov/education/for-educators>.

Outcomes: The changes that show movement toward achieving ultimate goals and objectives - e.g., the number of persons who, as a result of their participation in a project, demonstrate changes in: awareness and knowledge of specific concepts and/or issues; interest in and/or attitudes toward certain issues, careers, or courses of action; and behavior or skills. Outcomes may be changes that occur in the short-term (e.g., knowledge, attitudes, skills and aspirations); medium-term (e.g., practices and behaviors); or long-term (e.g., social, economic, and environmental conditions). (Source: adapted from the Framework for Evaluating Impacts of Informal Science Education Projects (p.35, http://www.informalscience.org/sites/default/files/Eval_Framework).)

Outputs: The immediate results of an action (e.g., services, events, and products) that document the extent of implementation of a particular activity. They are typically expressed numerically - e.g., the number of educators involved in a capacity-building project or the number of professional development workshops held. (Source: adapted from the Framework for Evaluating Impacts of Informal Science Education Projects (p.35, http://www.informalscience.org/sites/default/files/Eval_Framework).)

7. References

American Evaluation Association. (2011). Public Statement on Cultural Competence in Evaluation. Fairhaven, MA: Author. URL: <http://www.eval.org/ccstatement>.

Friedman, A. (Ed.). (2008). Framework for Evaluating Impacts of Informal Science Education Projects. URL: http://www.informalscience.org/sites/default/files/Eval_Framework.

National Research Council. (2012). A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas. Committee on a Conceptual Framework for New K-12 Science Education Standards. Board on Science Education, Division of

Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press.

National Oceanic and Atmospheric Administration. NOAA in Your Backyard. URL: <http://www.noaa.gov/education/noaa-in-your-backyard>.

National Oceanic and Atmospheric Administration. (2015). Education Strategic Plan 2015-2035. URL: <http://www.noaa.gov/explainers/noaa-education-strategic-plan>.

National Oceanic and Atmospheric Administration. (2010). Next Generation Strategic Plan. URL: http://www.performance.noaa.gov/wp-content/uploads/NOAA_NGSP.pdf.

National Science Board. (2016). Science and Engineering Indicators 2016. Arlington, VA: National Science Foundation (NSB-2016-1).

U.S. Department of Commerce. (2014). FY 2014-2018 Strategic Plan. URL: https://www.commerce.gov/sites/commerce.gov/files/media/files/2014/doc_fy2014-2018_strategic_plan.pdf.

B. Program Priorities

Refer to I.A., Program Objective. There are no other program priorities.

C. Program Authority

Authority for this program is provided by the following: 33 USC 893a, as amended by the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science Reauthorization Act of 2010 ("America COMPETES Reauthorization Act of 2010").

II. Award Information

A. Funding Availability

NOAA anticipates the availability of approximately \$2,300,000 of total federal financial assistance over the five year period of FY 2017 to FY 2022 for this institutional award. Only one award in the form of a cooperative agreement will be made.

Proposed programs must be 5 years in duration and have annual federal requests between \$300,000 to \$500,000 for each year of the project for direct and indirect costs. Applications requesting annual federal support from NOAA of less than \$300,000 or more

than \$500,000 will not be considered for funding. Only applications that are 5 years in duration will be considered for funding.

The combined total budget request should not include any funding that would support NOAA partners in the project, including the personnel involved and the activities and tasks that they will undertake. The amount of funding available through this announcement will be dependent upon final budgetary decisions for FY 2017 through FY 2022. Publication of this notice does not obligate DOC/NOAA to award any specific project or to obligate any available funds. If an applicant incurs any costs prior to receiving an award agreement from an authorized NOAA Grants Officer, the applicant does so solely at his/her own risk of such costs not being included under the award. Pre-award costs are not allowed under the award unless approved by the NOAA Grants Officer in accordance with 2 C.F.R. §§ 200.308(d) and 200.458. The exact amount of funds that may be awarded will be determined in pre-award negotiations between the applicant and NOAA representatives.

B. Project/Award Period

Applications must cover a project period of five years to be eligible for merit review. Start dates can be October 1, 2017 or later.

C. Type of Funding Instrument

The application selected for funding will be funded through a cooperative agreement under the terms of this notice. Applications funded through cooperative agreements include substantial involvement of the federal government such as liaison activities between the grantee and NOAA personnel who are contributing data or expertise to the project and NOAA personnel involvement in the selection of scholarship and fellowship applicants.

III. Eligibility Information

A. Eligible Applicants

Eligible applicants are nonprofit organizations and institutions of higher education. For-profit organizations, individuals not affiliated with an eligible organization, state, local and Indian tribal governments in the United States, foreign institutions, foreign organizations and foreign government agencies are not eligible to apply. Federal agencies are not eligible to receive federal assistance under this announcement, but may be project partners.

The Department of Commerce/National Oceanic and Atmospheric Administration (DOC/NOAA) is strongly committed to increasing the participation of Minority Serving Institutions (MSIs), i.e., Historically Black Colleges and Universities, Hispanic-serving

institutions, Tribal colleges and universities, Alaskan Native and Native Hawaiian institutions, and institutions that work in underserved communities.

B. Cost Sharing or Matching Requirement

There is no cost share requirement.

C. Other Criteria that Affect Eligibility

None.

IV. Application and Submission Information

A. Address to Request Application Package

Application packages are available through Grants.gov (<http://www.grants.gov>). Grants.gov requires applicants to register with the system prior to submitting an application. This registration process can take several weeks and involves multiple steps. In order to allow sufficient time for this process, applicants should register as soon as they decide they intend to apply, even if they are not yet ready to submit their applications. Also, even if an applicant has registered with Grants.gov previously, the applicant's password may have expired or their System for Award Management (SAM) registration (formerly Central Contractor Registration [CCR]) may need to be renewed or updated prior to submitting to Grants.gov. (Note that your CCR username will not work in SAM; you must create a new SAM User Account to renew or update your registration.) Grants.gov will not accept submissions if the applicant has not been authorized or if credentials are incorrect. Authorizations and credential corrections can take several days to establish. Please plan accordingly to avoid problems with the submission process. For further information please visit the SAM web portal (<https://www.sam.gov/portal/public/SAM/>).

Each applicant must be registered in Grants.gov. If any applicant has problems downloading the application forms from Grants.gov or uploading the application into the Grants.gov system, they should contact Grants.gov Customer Support at 1-800-518-4726 or support@grants.gov.

PLEASE NOTE: For a list of software applications that allow you to successfully navigate the Grants.gov pages and complete your application visit <http://www.grants.gov/web/grants/applicants/applicant-faqs.html>.

B. Content and Form of Application

Each applicant must submit an application through Grants.gov. Failure of an applicant to

submit an application before the deadline will result in the project not being merit reviewed or receiving any additional consideration. See the Office of Education's frequently asked questions site: <http://www.noaa.gov/elp/grants/faqs> for additional guidance during the preparation of applications.

1. Format Requirements

The page margin on standard letter-size paper should be one inch (2.5 cm) at the top, bottom, left, and right. All pages should be numbered. The typeface should be standard 11-point size or larger and must be clear and easily legible. Color or high-resolution graphics, unusually sized materials, or otherwise unusual materials submitted as part of the application are allowed, but should be employed only when necessary for adequate description of the proposed project. All narrative sections of the application should be single spaced and consist of the elements described in Section IV.B.2. Do not submit scanned documents, other than letters of commitment.

2. Content Requirements

An application must include all elements (a) through (i) below; elements (j) and (k) are optional. Failure to provide this information in the required form and within prescribed page limits will result in the application being excluded from further review. Any non-requested elements submitted as part of an application package will be removed from the application prior to merit review.

(a) Required Forms. At the time of application submission, applicants must complete and submit the following forms with signatures of the Authorized Representative of the submitting institution. (Note: submission through Grants.gov results in automatic electronic signatures on these forms.):

(i) SF-424, Application for Federal Assistance

(ii) SF-424-A, Budget Information, Non-Construction Programs

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

(iv) CD-511, Certifications Regarding Lobbying

(v) SF-LLL, Disclosure of Lobbying Activities (only if applicable; see instructions on form); only the versions of these forms available in Grants.gov are acceptable.

(b) Title Page. Please use the title page template available at <http://www.noaa.gov/elp/grants/templates>. Whether or not the title page template is used, a title page must be submitted and contain all of the following elements:

- (i) the project's title;
- (ii) the Principal Investigator (PI) and co-PI names, affiliations, complete mailing addresses, email addresses, telephone numbers, and fax numbers. The PI listed on the title page should be affiliated with the institution submitting the application;
- (iii) the requested funding amount as well as funding requested for each year of the project;
- (iv) the title page should also contain an executive summary of the project that does not exceed 150 words and should be a concise overview of the objectives of the project, the project activities, the expected outcome(s), and the rationale for the work proposed. Please note: project summaries of applications that receive funding may be posted on program-related websites and/or included in notices that NOAA may send to members of Congress.

(c) 15-page Project Description. The project description section must not exceed 15 pages and must follow the requirements in IV.B.1, Content and Form of Applications. Page limits are inclusive of figures and other visual materials, but exclusive of title pages, budget information, references, work plan/milestone chart, resumes, description of NOAA involvement, current and pending support, and letters of commitment. A template for the project description can be found online at <http://www.noaa.gov/elp/grants/templates>.

The proposed project must be described completely. The project description should clearly describe the project's goals, implementation, and management. It should provide a full justification/rationale for the project. Specifically, this section should include:

- (i) The objective(s), expected outputs and outcomes (see definitions in Section I.A.6), and an explanation for how the activities and expected outputs and outcomes support the goal of this funding program and advance NOAA's mission, as described in section I.A.;
- (ii) Description of the proposed program components, including: all activities that will be undertaken and/or products that will be created; the need for those products or activities; and the process that will be used to develop and implement all activities and products. Applications should clearly demonstrate how the proposed project is informed by

best practices and should cite appropriate literature references that support the proposed approach. Some examples of the literature on best practices can be found in the references section of this funding announcement (I.A.7). Applications should clearly demonstrate how target audiences will be actively engaged in programmatic activities.

(iii) A description of the project partners' roles and the coordination among project partners; specifically, highlight any partnerships involving the use of NOAA assets. (Note: letters of commitment articulating project partners' roles should be submitted as a separate section of the application. Also, additional details of NOAA involvement are provided in IV.B.2(f) below);

(iv) A description of how the project will incorporate NOAA data, data access tools, and/or other NOAA assets into the project activities (for a partial listing of NOAA assets, see <http://www.noaa.gov/office-education/grants/noaa-assets>);

(v) A description of how the project activities will be evaluated for their effectiveness in meeting stated project goals and objectives as well as the goal of this funding opportunity. Also discuss who will carry out the evaluation, and, if the evaluator is part of the applicant institution, verify that he/she is not otherwise substantively involved in the project. See Section I.A.4 for further guidance on project evaluation;

(vi) A description of the qualifications and capabilities of the personnel who will be involved in the project, as well as the institutional profiles and capabilities of the applicant and other partner institutions; include a justification for how the personnel/partnering institution(s) provide both educational and scientific expertise needed to carry out the project;

(vii) Because of uncertainty of Federal funding, a description of how the project will be implemented at the following annual funding levels: \$300,000 per year; \$400,000 per year; and \$500,000 per year. Enough information should be given so that the reviewers can assess the impact various funding levels will have on the operation of the program.

(d) Proposed Work Plan/Milestone Chart. In a chronological fashion, indicate the tasks to be completed by the applicant and other project partners, including specific project deliverables. Provide a timeline of major tasks and potential outcomes covering the duration of the proposed project, including project evaluation. The tasks should relate both to the budget and to the intended deliverables or activities. There is no page limit for this element.

(e) Brief Resumes. Each Principal Investigators (PIs), Co-Principal Investigators (co-

PIs), and other key personnel involved in carrying out the proposal must provide a resume of no more than 3 pages per person that include a list of professional and academic credentials, relevant publication references, and contact information (mailing address, email address, and phone number).

(f) Description of NOAA Involvement in Project. Describe the involvement of any NOAA partners in the project, including the personnel involved and the activities and tasks that they will undertake. If there is no NOAA partner, this must be clearly indicated on a separate page under a heading, "Description of NOAA Involvement in Project". There is no page limit for this element.

(g) Current and Pending Support for PI and Co-PIs. Describe all current and pending federal and non-federal funding, including application(s) to this funding opportunity, for all PIs and co-PIs. The capability of the designated PIs and co-PIs and their collaborators to complete the proposed work in light of present commitments to other projects must be assessable. Therefore, please list the percentage of time the individuals have committed to other federal or non-federal grant-funded projects, as compared to the time that will be committed to the project solicited under this notice. If any PI or Co-PI has no current or pending funding, this must be clearly indicated on a separate page under a heading "Current and Pending Support". There is no page limit for this element. A template for summarizing Current and Pending Support can be found online at <http://www.noaa.gov/elp/grants/templates>.

(h) Budget. Applications must include a budget that contains both a detailed table and a narrative, in addition to the required official budget form (SF-424A). Both the table and the narrative should use the same categories as shown on the SF-424A form. The budget justification/narrative requirement should reference the GMD Budget Narrative Guidance at <http://www.ago.noaa.gov/grants/training.html>

The budget section of the application should provide enough detail to allow Office of Education staff and the review panel to evaluate the level of effort proposed by investigators and staff on the project. The budget must include all applicant expenses anticipated in order to realistically describe for reviewers what resources will be necessary to carry out the project. The budget must provide a year-by-year breakdown using the same costs categories of the SF424A. When appropriate, the narrative and table must provide details on:

- Personnel salaries and fringe benefits (specifying the salary plus the percent of time and/or number of months devoted to the project for every individual to be paid by the project).
- Travel including per person and per trip costs for transportation, lodging, and meals.

Travel costs may be charged on an actual cost basis, on a per diem, or mileage basis in lieu of actual costs incurred, or on a combination of the two, provided the method used is applied to an entire trip and not to selected days of the trip, and results in charges consistent with those normally allowed in like circumstances in the non-federal entity's non-federally-funded activities and in accordance with non-federal entity's written travel reimbursement policies. In the absence of an acceptable, written non-federal entity policy regarding travel costs, the rates and amounts established under 5 U.S.C. 5701-11, ("Travel and Subsistence Expenses; Mileage Allowances"), or by the Administrator of General Services, or by the President (or his or her designee) pursuant to any provisions of such subchapter must apply to travel under federal awards (48 C.F.R. 31.205-46(a)) federal travel per diem rates: <http://www.gsa.gov/portal/content/104877>.

- Equipment and supplies, if applicable. See 2 C.F.R. §200.313 and See 2 C.F.R. §200.314 for additional guidance on equipment and supplies costs.

- Contractual costs, such as anticipated sub-awards. If sub-contracts or sub-awards will be made to project partners or others, the same amount of budget detail provided for the applicant institution's activities (broken down by the categories shown on the SF-424A form) should be provided for each sub-award. If any portion of the project will be conducted through consultants, subcontracts, and/or sub-awards, you must follow the requirements set out at 2 C.F.R. §§ 200.330 through 200.332, as applicable. If you select a consultant, subcontractor, and/or sub-awardee prior to submitting an application, indicate the process that you used for selection and provide a statement of his/her qualifications or background.

- Other costs, including printing, publications, evaluations, and communication expenses.

- Indirect costs, if applicable. As defined at 2 C.F.R. § 200.56, indirect costs, which are sometimes referred to as facilities and administrative (F&A) costs, are those costs incurred for common or joint purpose benefiting more than one cost objective, and not readily assignable to the cost objectives specifically benefitting without effort disproportionate to the results achieved. Indirect costs may include costs for basic operational functions, including lights, water, and insurance. If indirect costs are included, the negotiated rate must be requested, and the application must include a copy of the current, approved, negotiated indirect cost agreement with the federal government. Indirect-cost-rate-agreement documentation is also required for sub-award recipients if they have a negotiated indirect cost rate agreement with a federal agency.

If an applicant has not previously established an indirect cost rate with a Federal agency they may choose to negotiate a rate with the Department of Commerce or use the de minimis indirect cost rate of 10% of MTDC (as allowable under 2 C.F.R. §200.414). The negotiation and approval of a rate is subject to the procedures required by NOAA and the Department of Commerce Standard Terms and Conditions. The NOAA contact for indirect or facilities and

administrative costs is: Lamar Revis, Grants Officer, NOAA Grants Management Division, 1325 East West Highway, 9th Floor, Silver Spring, MD 20910, or lamar.revis@noaa.gov.

Applicants should include funding for project evaluation in their budgets. While the costs for project evaluation may vary considerably, 10 to 20 percent of the total budget is a reasonable estimate of costs associated with a comprehensive project evaluation.

If appropriate, include in the budget narrative a description of any in-kind resources or equipment that will be provided to support this project.

See <https://coastalscience.noaa.gov/funding/applicants/requirements> for guidance from NOAA's Grants Management Division regarding the budget narrative details. See <http://www.noaa.gov/elp/grants/templates> for a budget narrative template and model and a budget table model.

There is no page limit for this element.

(i) Data Management Plan. This announcement is not seeking applications that generate environmental data. Therefore, a data management plan is not required as part of the application.

(j) References Cited. If literature references are cited in the project narrative, then a References Cited section should be included. Each reference should include the names of all authors in the same sequence in which they appear in the publication, the article title, publication or publication title, volume number, page numbers, and year of publication. While there is no established page limit, this section must include bibliographic citations only and must not be used to provide parenthetical information outside the 15-page project description.

(k) Letters of Commitment. If substantive partnerships are described in the project description, letters of commitment should be provided. Letters of commitment are important for demonstrating the concrete involvement of project partners (including NOAA partners) and are reviewed as part of the application. Partner institutions that will be participating in program activities are strongly encouraged to submit letters of commitment indicating their interest in the topic and format of the proposed program, their willingness to participate, and how the program complements their strategic priorities. Letters of support or endorsement of the program or applicant that do not describe substantive involvement of the letter's author or the organization he/she represents are discouraged.

(l) NEPA Questionnaire. The Office of Education has determined that applicants do not need to provide answers to the NOAA NEPA Questionnaire.

C. Unique Entity Identifier and System for Award Management (SAM)

To enable the use of a universal identifier and to enhance the quality of information available to the public as required by the Federal Funding Accountability and Transparency Act, 31 U.S.C. 6101 note, to the extent applicable, any proposal awarded in response to this announcement will be required to use the System for Award Management (SAM), which may be accessed online at <https://www.sam.gov/portal/public/SAM/>. Applicants are also required to use the Dun and Bradstreet Universal Numbering System, as identified in OMB guidance published at 2 CFR Parts 25, which may be accessed at <http://www.ecfr.gov/cgi-bin/text-idx?ID=2dae4a7dcd5848a6364bb94d2d7786dd&mc=true&tpl=/ecfrbrowse/Title02/2subtitleA.tpl>.

D. Submission Dates and Times

The deadline for applications is 11:59 pm EST on May 17, 2017. (Note that NOAA's Office of Education staff will only be available to answer questions until 5 PM EST.) Applications must be submitted online through Grants.gov; no hard copy or email applications will be accepted. Late applications are neither reviewed nor considered for funding. Applications submitted through Grants.gov will be accompanied by an automated receipt of the date and time of submission. For applications submitted through Grants.gov, there will be two automated email receipts sent to the application submitter with the date and time of submission (the first email confirms receipt, the second email confirms that there are no errors with your application submission and that it has been forwarded to NOAA for further processing). If both email confirmation receipts are not provided within two (2) days of application submission, contact the Grants.gov Help Desk and oed.grants@noaa.gov. PLEASE NOTE: It may take Grants.gov up to two business days to validate or reject the application. Please keep this in mind in developing your submission timeline. Applicants are responsible for ensuring that all required elements have been appropriately submitted before the deadline. Additional instructions for Grants.gov can be found at <http://www.grants.gov/web/grants/applicants/applicant-faqs.html>.

E. Intergovernmental Review

Applications submitted to this funding opportunity are not subject to Executive Order 12372, Intergovernmental Review of Federal Programs.

F. Funding Restrictions

There are no funding restrictions.

G. Other Submission Requirements

Please refer to important information in Submission Dates and Times above to help ensure your application is received on time.

Applications must be submitted through Grants.gov APPLY (<http://www.grants.gov>). Hard copy and/or email application submissions will not be accepted.

PLEASE ALSO NOTE: For a list of software applications that allow you to successfully navigate the Grants.gov pages and complete your application visit <http://www.grants.gov/web/grants/applicants/applicant-faqs.html>.

V. Application Review Information

A. Evaluation Criteria

(1) Importance and/or relevance and applicability of proposed project to the program goals (35 points): This criterion ascertains whether there is intrinsic value in the proposed work and/or relevance to NOAA's federal, regional, or local activities. The application should describe how well the proposed project addresses NOAA's stated objectives and priorities. Reviewers will evaluate:

- How well the proposed program meets the objective stated in I.A. to offer and support sustained professional development on a national scale to K-12 educators and the faculty and staff who educate pre-service teachers (5 points);

- How well the proposed program meets the objective stated in I.A. to offer and support scholarships to undergraduate and graduate students in atmospheric and related ocean and hydrologic sciences who are recruited from accredited 4-year colleges or universities in the United States (5 points);

- Whether the proposed program components address 2 or more goals and objectives from NOAA's 2015-2035 Education Strategic Plan (<http://www.noaa.gov/explainers/noaa-education-strategic-plan>) (4 points);

- The extent to which NOAA data, data products and educational resources are integrated into the program (2 points);

- Whether the professional development opportunities for K-12 educators involve NOAA scientists and other personnel as partners (3 points);

- Whether the professional development opportunities for K-12 educators and graduate fellowships allow participants to earn graduate-level credit-hours from an accredited 4-year college or university in the United States and its territories (3 points);

- Whether the professional development opportunities for K-12 educators is likely to address the Essential Principles and Fundamental concepts of Ocean Literacy (<http://www.coexploration.org/oceanliteracy/documents/OceanLitChart.pdf>), Climate Literacy (https://downloads.globalchange.gov/Literacy/climate_literacy_lowres_english.pdf) and Atmospheric Sciences Literacy (<http://eo.ucar.edu/asl/pdfs/ASLbrochureFINAL.pdf>) (3 points);

- Whether K-12 professional development activities are likely to sustain a network of educators (3 points);

- Whether the K-12 professional development is likely to ensure that the content learned in the professional development courses is implemented in the classroom (2 points); and Whether undergraduate scholarships will emphasize attracting students from minorities underrepresented in science and engineering (5 points).

(2) Technical/scientific merit (40 points): This criterion assesses whether the approach is technically sound and/or innovative, if the methods are appropriate, and whether there are clear project goals and objectives. Reviewers will evaluate:

- The completeness and adequacy of detail in the project description (3 points);
- The extent to which the project has clearly stated outcomes and objectives that are measurable, will be measured, and are appropriate to the target audience(s) (5 points);
- The overall technical feasibility of the project, including whether the proposed approach is educationally and technically sound (i.e., based on best practices), uses appropriate methods to achieve project outcomes, and is likely to be implemented on the scale described (i.e., at \$300K, \$400K and \$500K per annum) (15 points);
- Whether there are appropriate mechanisms to evaluate the success of the project in meeting the anticipated outcomes, including impacts on the target audience(s) (3 points);
- The likelihood of meeting milestones and achieving anticipated results in the time proposed (5 points);
- Whether the applicant has considered potential problems and their solutions in the implementation of the project (5 points); and
- How the information on the design and outcomes of the proposed project will be disseminated to relevant audiences beyond those participating directly in the project (4 points).

(3) Overall Qualifications of Applicants (15 points): This criterion ascertains whether the applicant possesses the necessary education, experience, training, facilities, and administrative resources to accomplish the project. Reviewers will evaluate:

- The relevance of the qualifications of the PIs, co-PIs, and key personnel, including their previous experience in designing, implementing and managing the proposed activities (7 points);

- The applicants' previous experience in designing, implementing, and managing evaluations appropriate for the target audiences and proposed activities (3 points);
- The likelihood that the participating institution(s) have the appropriate resources to carry out the proposed activities and have the ability to complete the proposed project successfully (2 points);
- Whether there is a clear delineation of responsibilities of the project's key personnel and whether there are adequate communication mechanisms in place for coordinating among all project partners (2 points); and
- The extent to which all partners are contributing meaningfully to the project, including articulation of activities in letters of commitment (1 point).

(4) Project Costs (10 points): This criterion evaluates the budget to determine if it is realistic and commensurate with the project needs and time-frame. Reviewers will evaluate:

- The appropriateness of the requested resources to accomplish the proposed work within the indicated time-frame (5 points);
- Whether the budget is sufficient for the scope of the evaluation planned (3 points); and
- The adequacy of detail in the budget table and narrative to allow an informed determination of how well all costs associated with the project are justified (2 points).

(5) Outreach and Education (0 points): This criterion ascertains whether this project provides a focused and effective education and outreach strategy regarding NOAA's mission to protect the Nation's natural resources. Reviewers will not evaluate this criterion.

B. Review and Selection Process

Upon receipt of an application by NOAA, an initial administrative review is conducted to determine compliance with requirements regarding eligibility and completeness of the application. Minimum requirements, among other elements, include all of the following:

- Applicant is eligible to apply;
- Application was received on time;
- All required elements of the application are present and follow format requirements;
- The sum of the requested budget is no more than \$500,000 and no less than \$300,000 for each year of the program; and
- The program duration is 5 years.

All applications that meet the eligibility and minimum requirements will be evaluated and scored by a single panel of independent reviewers, who are federal or non-federal experts, each having relevant expertise. The reviewers will read, score and provide comments on each application using the evaluation criteria provided in section V.A. The

panel will then meet to discuss the applications. After discussing a particular application, the reviewers on the panel may re-score the application and will provide a summary of their comments. The rank order of all applications will be established by averaging the individual panel reviewers' final scores for each application they reviewed. The panel will give no consensus advice.

The Federal Program Officers (FPOs) will neither vote nor score applications as part of the review process. The FPOs will make their recommendations for funding based on rank order and the selection factors listed in the next section (V.C) to the Selecting Official, the Director of NOAA Education, who is responsible for making final recommendations to the NOAA Grants Officer.

C. Selection Factors

The Selecting Official will select applications in the rank order established by the panel unless an application is justified to be selected out of rank order based upon one or more of the following factors:

1. Availability of funding;
2. Balance/distribution of funds:
 - a. Geographically
 - b. By type of institutions
 - c. By type of partners
 - d. By research areas
 - e. By project types
3. Whether this project duplicates other projects funded or considered for funding by NOAA or other federal agencies;
4. Program priorities and policy factors;
5. Applicant's prior award performance;
6. Partnerships and/or participation of targeted groups; and
7. Adequacy of information necessary for NOAA staff to make a NEPA determination and draft necessary documentation before recommendations for funding are made to the Grants Officer.

Selected applicants may be asked to modify objectives, project plans, timelines, and/or budgets, and provide supplemental information required by the Agency prior to the award. When a decision has been made (whether an award or declination), anonymous copies of reviews and summaries of review panel deliberations, if any, will be made available to the applicant.

D. Anticipated Announcement and Award Dates

Review of applications will occur from May through June 2017. It is anticipated that recommendations for funding under this announcement will be made by September 30, 2017. Projects funded under this announcement during this fiscal year will start no earlier than October 1, 2017.

VI. Award Administration Information

A. Award Notices

Successful applicants will receive notification (either hard copy or electronically) from the Office of Education by September 30, 2017, that the application has been recommended for funding to the NOAA Grants Management Division. This notification is not an authorization to begin performance of the project. Official notification of funding, authorized by a NOAA Grants Officer, is the authorizing document that allows the project to begin. Notifications will be made by e-mail from Grants Online to the Authorized Representative of the project. Unsuccessful applicants will receive notification (either hard copy or electronically) from the Office of Education by September 30, 2017, that their reviewed application was not recommended for funding (declined) or was not reviewed because it did not meet the minimum requirements prescribed in Sections IV.B and IV.D.

Successful applicants may be asked to modify objectives, work plans, or budgets prior to final approval of an award. The exact amount of funds to be awarded, the final scope of activities, the project duration, and specific NOAA cooperative involvement with the activities of each project will be determined in pre-award negotiations among the applicant, the NOAA Grants Management Division, and NOAA program staff. Projects should not be initiated in expectation of federal funding until an official notice of award document is received from the NOAA Grants Officer.

After applicants are proposed for funding by the selecting official, the grants officer performs administration reviews. These reviews may include the financial stability of an applicant, quality of the applicant's management systems, history of performance, and 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 award conditions that correspond to the degree of risk may be applied.

To enable the use of a universal identifier and to enhance the quality of information available to the public as required by the Federal Funding Accountability and Transparency Act of 2006, to the extent applicable, any application awarded in response to this announcement will be required to use the System for Award Management Registration (formerly Central Contractor Registration) and Dun and Bradstreet Universal Numbering

System and be subject to reporting requirements, as identified in OMB guidance published at 2 CFR Parts 25 and 170 (2015), (see http://www.ecfr.gov/cgi-bin/text-idx?SID=61d8b7e1303dc7a8551766b44801c3cd&tpl=/ecfrbrowse/Title02/2cfrv1_02.tpl#0).

B. Administrative and National Policy Requirements

1. **LIMITATION OF LIABILITY:** Funding for programs listed in this notice is contingent upon the availability of appropriations. Applicants are hereby given notice that funds may not have been appropriated yet for the programs listed in this notice. In no event will NOAA or the Department of Commerce be responsible for proposal preparation costs. Publication of this announcement does not oblige NOAA to award any specific project or to obligate any available funds.

2. **DEPARTMENT OF COMMERCE PRE-AWARD NOTIFICATION REQUIREMENTS FOR GRANTS AND COOPERATIVE AGREEMENTS:** The Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements contained in the Federal Register notice of December 30, 2014 (79 FR 78390) are applicable to this solicitation and may be accessed online at <http://www.gpo.gov/fdsys/pkg/FR-2014-12-30/pdf/2014-30297.pdf>

3. **UNPAID OR DELINQUENT TAX LIABILITY.** 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.

4. **NATIONAL ENVIRONMENTAL POLICY ACT (NEPA).** NOAA must analyze the potential environmental impacts, as required by the National Environmental Policy Act (NEPA), for applicant projects or proposals which are seeking NOAA federal funding opportunities. Detailed information on NOAA compliance with NEPA can be found at the following NOAA NEPA website: <http://www.nepa.noaa.gov/>, including our NOAA Administrative Order 216-6 for NEPA, http://www.nepa.noaa.gov/NAO216_6.pdf, and the Council on Environmental Quality implementation regulations, http://energy.gov/sites/prod/files/NEPA-40CFR1500_1508.pdf. Consequently, as part of an applicant's package, and under their description of their program activities, applicants are required to provide detailed information on the activities to be conducted, locations, sites, species and habitat to be affected, possible construction activities, and any environmental concerns that may exist (e.g., the use and disposal of hazardous or toxic chemicals, introduction of non- indigenous species, impacts to endangered and threatened species,

aquaculture projects, and impacts to coral reef systems). In addition to providing specific information that will serve as the basis for any required impact analyses, applicants may also be requested to assist NOAA in drafting an environmental assessment, if NOAA determines an assessment is required. Applicants will also be required to cooperate with NOAA in identifying feasible measures to reduce or avoid any identified adverse environmental impacts of their proposal. Failure to do so shall be grounds for not selecting an application. In some cases if additional information is required after an application is selected, funds can be withheld by the Grants Officer under a special award condition requiring the recipient to submit additional environmental compliance information sufficient to enable NOAA to make an assessment on any impacts that a project may have on the environment.

5. UNIFORM ADMINISTRATIVE REQUIREMENTS, COST PRINCIPLES, AND AUDIT REQUIREMENTS. Through 2 C.F.R. § 1327.101, the Department of Commerce adopted Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards at 2 C.F.R. Part 200, which apply to awards in this program. Refer to <http://go.usa.gov/SBYh> and <http://go.usa.gov/SBg4>.

6. DOC TERMS AND CONDITIONS. Successful applicants who accept a NOAA award under this solicitation will be bound by Department of Commerce Financial Assistance Standard Terms and Conditions. This document will be provided in the award package in NOAA's Grants Online system at <http://www.ago.noaa.gov> and at <http://go.usa.gov/hKbj>.

7. REVIEW OF RISK. After applications are proposed for funding by the Selecting Official, the Grants Office will perform administrative reviews, including an assessment of risk posed by the applicant under 2 C.F.R. 200.205. These may include assessments of the financial stability of an applicant and the quality of the applicant's management systems, history of performance, and the applicant's ability to effectively implement statutory, regulatory, or other requirements imposed on non-Federal entities. Special conditions that address any risks determined to exist may be applied. Applicants may submit comments to the Federal Awardee Performance and Integrity Information System (FAPIIS) about any information included in the system about their organization for consideration by the awarding agency.

8. FREEDOM OF INFORMATION ACT: In the event that an application contains information or data that you do not want disclosed prior to award for purposes other than the evaluation of the application, mark each page containing such information or data with the words "Privileged, Confidential, Commercial, or Financial Information - Limited Use" at the top of the page to assist NOAA in making disclosure determinations. DOC regulations

implementing the Freedom of Information Act (FOIA), 5 U.S.C 552, are found at 15 C.F.R. Part 4, which sets forth rules for DOC to make requested materials, information, and records publicly available under FOIA. The contents of funded applications may be subject to requests for release under the FOIA. Based on the information provided by the applicant, the confidentiality of the content of funded applications will be maintained to the maximum extent permitted by law.

9. MINORITY SERVING INSTITUTIONS: The Department of Commerce/National Oceanic and Atmospheric Administration (DOC/NOAA) is strongly committed to increasing the participation of Minority Serving Institutions (MSI), i.e., Historically Black Colleges and Universities, Hispanic-serving institutions, Tribal colleges and universities, Alaskans Native and Native Hawaiian institutions, and institutions that work in underserved communities."

10. EXECUTIVE ORDER 12866 (Regulatory Planning and Review): It has been determined that this notice is not significant for purposes of Executive Order 12866.

11. EXECUTIVE ORDER 13132 (Federalism): It has been determined that this notice does not contain policies with Federalism implications as that term is defined in Executive Order 13132.

C. Reporting

Progress reports should be submitted electronically through the NOAA Grants Online system and are due semi-annually on October 30th and April 30th for the preceding 6-month period (April 1st to September 30th and October 1st to March 30th) or portion thereof if the project start or end-date falls in the middle of one of these intervals. A final comprehensive report is due no later than 90 days after the expiration date of an award. Progress on each award is communicated to NOAA in the form of performance progress reports, the requirements of which are outlined in 2 C.F.R. § 200.301. Progress reports should provide specific, project-related information such as details on the accomplishments, outputs, and outcomes that have occurred during the reporting period, corresponding with the goals and objectives identified in the project narrative. A suggested template for semi-annual and final progress reports will be provided to grant recipients. The final comprehensive report shall include an executive summary of the project's outcomes, including major findings of the project evaluation, that can be shared publicly online and in print as desired by NOAA's Office of Education.

Federal Cash Transaction reports, form SF-425, should be submitted electronically through the NOAA Grants Online system and are due semi-annually on October 30th and

April 30th for the preceding 6-month period (April 1st to September 30th and October 1st to March 30th) or portion thereof if the project start or end-date falls in the middle of one of these intervals. Financial reports are due for all award recipients no later than 30 days after each 6-month period. The Final Financial Status report, form SF-425, is a comprehensive financial report that is due no later than 90 days after the expiration date of an award.

The Federal Funding Accountability and Transparency Act, 31 U.S.C. 6101 note, includes a requirement for awardees of applicable Federal grants to report information about first-tier subawards and executive compensation under Federal assistance awards. All awardees of applicable grants and cooperative agreements are required to report to the Federal Sub-award Reporting System (FSRS) available at <https://www.fsrs.gov/> on all sub-awards over \$25,000. Refer to 2 CFR Parts 170.

VII. Agency Contacts

You can contact the Program Officers: Sarah Schoedinger or Jaime Frungillo at oed.grants@noaa.gov. For further information about NOAA's Office of Education, please visit the office website at <http://www.noaa.gov/office-education>.

VIII. Other Information

Note: Templates and examples that may be helpful in preparing an application can be found at: <http://www.noaa.gov/elp/grants/templates>. Visit <http://www.noaa.gov/elp/grants/faqs> for answers to frequently asked questions.