National Oceanic and Atmospheric Administration

Office of Education

Educational Partnership Program

Cooperative Science Center Handbook

September 2008

NOAA EPP Cooperative Science Center Handbook

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I. INTRODUCTION

A. Overview

The **National Oceanic and Atmospheric Administration's (NOAA)** mission is to understand and predict changes in the Earth's environment and conserve and manage coastal and marine resources to meet our nation's economic, social and environmental needs. NOAA's vision is an informed society that uses a comprehensive understanding of the role of the oceans, coasts and atmosphere in the global ecosystem to make the best social and economic decisions.

The **NOAA Office of Education (OEd)** is a staff office within the Office of the Under Secretary of Commerce for Oceans and Atmosphere (the NOAA Administrator) and provides advice and counsel to the Under Secretary on matters pertaining to education. OEd, in conjunction with the NOAA Education Council, coordinates education activities across NOAA and oversees the implementation of the NOAA's Education Plan and Policy. These efforts help to ensure that NOAA's education programs and activities are based on NOAA science and support the agency's cross-cutting priority of promoting environmental literacy. OEd also works with external partners to promote environmental literacy efforts that directly benefit the NOAA mission.

The NOAA **Educational Partnership Program (EPP) with Minority Serving Institutions (MSI)** provides financial assistance through competitive processes to minority serving institutions that support education and research for students in NOAA sciences. The program's goal is to increase the number of educated, trained and graduated students from underrepresented minority communities in science and technology fields directly related to NOAA's mission. EPP also seeks to increase collaborative research efforts between NOAA scientists and researchers at minority serving academic institutions. Financial assistance is provided through four competitive program components: the Cooperative Science Centers (CSC); the Environmental Entrepreneurship Program; the Graduate Sciences Program; and, the Undergraduate Scholars Program. For additional information on EPP, please visit the website: http://epp.noaa.gov.

B. Background

The Educational Partnership Program (EPP) with Minority Serving Institutions (MSI) Program is a NOAA-wide program. The program uses the Department of Education definition of MSIs (e.g., Historically Black Colleges and Universities; Hispanic Serving Institutions; Indian Tribally Controlled College and Universities; Alaskan-Native Serving Institutions; or Native Hawaiian-Serving Institutions). The Department of Education list of MSIs is located at the following link: http://www.ed.gov/about/offices/list/ocr/edlite-minorityinst.html. The EPP/MSI Program was initiated in FY 2001 with a $15M budget appropriation. EPP is designed to collaborate with MSIs to build capacity and strengthen their course work and research training in NOAA-mission subjects and to provide career options to students who do not traditionally choose careers in earth and environmental sciences. EPP is a partnership between NOAA and MSIs that have a track record of educating and graduating students from underrepresented minority communities and with the capability to increase the number of students trained and graduated in NOAA mission

sciences. The research linkages created through this program ensures that students and faculty have opportunities to participate in research related to the mission of the agency and become familiar with career options within NOAA. A history of the Educational Partnership Program is provided in Appendix A.

EPP's five goals are to:

- Increase programs and opportunities for students to pursue education and research in NOAA sciences at MSIs;
- Develop collaborative programs with MSIs that provide education and research opportunities to serve the interests of NOAA and the nation at large;
- Develop collaborative programs between NOAA and MSIs;
- Build institutional capacity at MSIs; and,
- Increase linkages between MSIs, other research institutions, the private sector, Non-Governmental Organizations (NGOs) and NOAA.

II. COOPERATIVE SCIENCE CENTERS

NOAA provides funding to eligible MSIs, on a competitive basis, to educate, train and graduate students in NOAA sciences, particularly atmospheric, oceanic, environmental, marine science, remote sensing and scientific environmental technology. The CSC goals are to:

- Educate, train and graduate students, particularly from underrepresented communities, in NOAA sciences;
- Increase graduation rates of students from underrepresented minority communities in NOAA sciences;
- Impact NOAA and national Science, Technology, Engineering and Mathematics (STEM) workforce statistics by increasing the number of graduates from underrepresented communities in NOAA sciences;
- Contribute to NOAA's mission by strengthening and building capacity in NOAA scientific and management areas at MSIs as well as building research experience in NOAA scientific areas; and,
- Leverage NOAA funds to build the education, training and research capacity at the MSI.

The NOAA EPP performance measures are as follows:

- Number of students educated, trained and graduated using NOAA science curriculum;
- Number of collaborative research projects with NOAA scientists and other Federal, state, private sector and NGOs;
- Number of peer reviewed publications in NOAA science; and,
- Dollar amount of funds leveraged with EPP funds.

III. ESTABLISHING NEW COOPERATIVE SCIENCE CENTERS

A national competition is held every five years via GRANTS.GOV to establish CSCs under NOAA's EPP in atmospheric, oceanic and environmental sciences, marine science, remote sensing and scientific environmental technology at MSIs. National competitions were held in 2001 and 2005. Subject to appropriation, the next competition is planned for 2010. NOAA EPP

manages the Cooperative Science Center competition through GRANTS.GOV (http://www.grants.gov/) and Grants Online (GOL; https://grantsonline.rdc.noaa.gov). The EPP/MSI Catalog of Federal Domestic Assistance (CFDA; http://www.cfda.gov) number is 11.481.

The following items must be addressed in applications for CSC awards:

1. Formation of partnerships with other MSIs and research institutions, including universities with strong departments that contribute to the proposed activities of the CSC;
2. A summary of clearly stated goals to be achieved during the five-year period, which support NOAA's strategic plan and goals;
3. A demonstrated commitment (in terms of resources and facilities) to enhance existing NOAA and university resources to foster:
   - a strong education program with established graduate degree programs in NOAA-sciences that encourages student participation in NOAA research studies,
   - a well-developed education business plan including fiscal and human resource management as well as strategic planning and accountability; and,
   - a long-term collaborative research environment/culture, nationally recognized expertise within the appropriate disciplines needed to conduct the collaborative and interdisciplinary research, unique capabilities in a mission-critical area of research for NOAA,
4. In the case of institutions and/or principal investigators currently or recently funded by NOAA, a demonstrated record of outstanding performance collaborating with NOAA scientists on NOAA scientific research projects must be provided.

CSC proposals are submitted as applications using the standard NOAA grant application kit (http://www.ago.noaa.gov/grants/appkit.shtml) of various Federal forms (SF-424, A, B, C, D (or the SF-424R&R series); CD-511; SF-LLL, if the recipient lobbies Congress), a project description that includes sufficient information to address all the evaluation criteria identified in the Full Funding Opportunity (FFO), a budget, and a budget justification. The project description includes a thorough explanation of all proposed education and science themes and tasks. The application should also identify the capability and capacity of the CSC to conduct education and research in the scientific areas described in the FFO, as well as a summary of clearly stated goals to be achieved during the five-year period, which reflect NOAA's strategic plan and goals. Additional elements of the proposal may be requested in accordance with NOAA Grant Management Division (GMD) policies.

The budget should represent a reasonable estimate of funding to support the activities described in the proposal, including an estimate of the number of required personnel. Institutions proposing a CSC should use the funding information listed in the FFO to guide their proposed budgets. The budget should also include a breakdown of approximate costs and narrative description for the following direct student support subcategories: scholarships, stipends, travel and training.

To assist the reviewers with evaluating the overall qualification of the proposal, the project description may include an education business plan that describes fiscal and human resource

management as well as strategic planning and accountability. All CSCs must include multiple partners and the business plan should describe the governance structure among the partners, how the education and research will be coordinated, and the primary contact for the CSC education and research activities.

A. Eligibility

The following are the eligibility requirements for prospective CSCs (the eligibility requirements are subject to change with each new FFO):

- The lead academic institution must be an accredited MSI with a Ph.D. program in a NOAA science area: atmospheric, oceanic and environmental sciences, marine science, remote sensing or scientific environmental technology;
- The lead and partner institutions must demonstrate a proven track record of educating, training and graduating students, particularly from underrepresented minority groups, in NOAA sciences;
- The lead and partner institutions must demonstrate that resources are available to conduct NOAA mission research;
- The lead and partner institutions must demonstrate the capability to manage the education, scientific research, and administrative aspects of a program; and,
- The lead and partner institutions must demonstrate the capability to recruit, retain and graduate students in NOAA mission science fields of study.

B. Award Period

Applications may be submitted requesting funding for a period up to five years. The award period is subject to change with each new FFO.

C. Funding Mechanism

EPP CSCs are established via cooperative agreements. The cooperative agreements are five-year awards made to the lead MSI. A NOAA cooperative agreement means that NOAA will collaborate with the award recipient in the design and implementation of the program. A cooperative agreement is appropriate when substantial NOAA involvement is anticipated. There will be substantial NOAA involvement, collaboration and/or participation, in Center performance. Substantial involvement exists when responsibility for the management, control, direction, or performance of the project is shared by the assisting agency and the recipient or the assisting agency has the right to intervene (including interruption or modification) in the conduct or performance of project activities. The current CSC cooperative agreements contain the following substantial involvement special award condition, but are subject to change with each new FFO:

The National Oceanic and Atmospheric Administration (NOAA), Office of Education, Educational Partnership Program will be significantly involved in the planning of research and education activities at the Cooperative Science Center (CSC). Specifically, NOAA will participate in the following activities:

- *Identify a NOAA staff scientist to serve as the Technical Monitor to ensure science conducted at the CSC is compatible with the respective NOAA Line Office (LO);*

- *NOAA will participate on the science committees that evaluate projects submitted for approval through the CSC administrative structure;*
- *NOAA will participate on the education and outreach committees that evaluate projects submitted for approval through the CSC administrative structure;*
- *NOAA scientists will serve as advisors on all graduate science thesis committees;*
- *NOAA EPP and LO Technical Monitors will provide guidance on the development of CSC Implementation Plans; and,*
- *NOAA EPP will host CSC faculty at NOAA facilities.*

IV. MANAGEMENT OF COOPERATIVE SCIENCE CENTER AGREEMENTS

Monitoring of the five CSC cooperative agreements is conducted via GOL, deliverables (e.g., implementation plans, performance reports and student tracker database forms), formal Center evaluations, meetings and teleconferences.

Responsibilities:
1. NOAA EPP manages all programmatic aspects of the CSC award in consultation with the NOAA GMD and NOAA Line Office Technical Monitors.
2. The GMD Grant Specialist and Grants Officer review and approve request for actions and issue amendments to an award. GMD reviews and approves financial reports.

A. Deliverables
Six types of deliverables are currently required of each CSC.
They are:
1. Implementation Plan;
2. Performance Reports;
3. Financial Reports;
4. Student Tracker Database Form;
5. Attendance at CSC Director's meetings and other required EPP events; and,
6. Hosting the Education and Science Forum on a rotational basis.

1. Implementation Plan
An implementation plan is due 60 days following the start of the award period. The grantee is required to submit the documentation via email to NOAA EPP. NOAA reviews and approves the implementation plan. Revisions to an implementation plan may be required. Amendment of the Implementation Plan is allowable. Implementation plan guidance is provided in the Appendix B.

2. Performance Reports
All grantees are required to submit semiannual performance reports via GOL. The grantee submits the document via GOL to NOAA EPP and NOAA reviews and approves or disapproves the performance report. Prior to final acceptance, NOAA may require a revision of a performance report. Performance Report Guidelines are provided in Appendix C.

3. Financial Reports
All grantees are required to submit semiannual financial reports (SF269, SF272 and SF-272A reports) in GOL. On the cover page, please include the award number and the name of the institution.

4. Student Tracker Database Form
All grantees are required by the Special Award Conditions to submit tri-annually the student tracker database form via a web-based application. Table 1 identifies the data period and deadline for the completed student tracker database form; the form is due 31 January, 30 June and 30 September of each year:

Table 1 – Student Tracker Database Form Delivery Schedule

Deliverable No.	**Data Period**	**Date Due**
1	1 September – 31 December	31 January
2	1 January – 31 May	30 June
3	1 June – 31 August	30 September

NOAA EPP will validate the data and advise the CSC of discrepancies by checking the student tracker database for duplicate entries, funding inaccuracies, missing and incomplete entries. A data cleansing process compares the data and information to previous student tracker data and information. EPP will also calculate whether 30% of program funds are directed towards student support as required by the program requirements provided in Section C.4.a.

All student data must be provided in a student tracker database. The data fields are defined in Table 2 of Appendix D.

The Survey of Earned Doctorates (SED) conducted by NORC, a national Organization for research at the University of Chicago for the National Science Foundation, is the mechanism for Ph.D. graduate data to enter the national database. NOAA EPP uses the national database for comparisons with NOAA EPP CSC graduate data. NOAA EPP strongly recommends the CSCs encourage their Ph.D. graduates to complete the SED.

5. Center Director's Meetings & Events
Please see B. Meetings and Events

6. Hosting the Education and Science Forum
Please see B. Meetings and Events

B. Meetings and Events

1. Education and Science Forum

On a rotational basis each CSC hosts the biennial NOAA Education and Science Forum and leads the planning of the event in coordination with EPP. The Forum provides a venue where CSC educational and scientific research results are shared. The purpose of the Forum is to allow NOAA scientific research and education accomplishments to be presented via technical and poster sessions by MSI faculty and students and NOAA scientists. Funding for the Forum will be provided by EPP to the host CSC via GOL.

2. CSC Director Meetings

Semiannually, the CSC Directors meet at the EPP Office in Silver Spring, Maryland for a meeting with EPP staff, NOAA Line Office Technical Monitors, Director of the Office of Education and invited senior NOAA leaders. The meetings are designed to address CSC administration and are also an opportunity for NOAA briefings on NOAA budget, grants and other relevant topics (e.g., *U.S. Department of Education Report of the American Competitiveness Council*).

3. CSC Director Teleconferences

Quarterly the EPP Program Director conducts teleconferences with the CSC Directors. The teleconference schedule and agenda is developed in coordination with the CSC Directors. The teleconferences are an opportunity to plan and discuss CSC administration and program implementation.

C. Structure

1. Key Center Roles

a. Educational Partnership Program

EPP is responsible for evaluating, assessing and generating reports on CSC performance by:

- Monitoring the education and outreach activities;
- Reviewing and coordinating the review of all deliverables (e.g., implementation plans, performance reports and student tracker database forms);
- Monitoring expenditure of center award funds;
- Update and maintain the student tracker;
- Co-planning the biennial NOAA EPP Education and Science Forum;
- Developing an EPP program report; and,
- Coordinating the CSC evaluations.

b. Line Office Technical Monitors

The NOAA Line Office Technical Monitors are responsible for facilitating the establishment and development of the CSC by:

- Participating in CSC advisory committees / meetings;
- Monitoring the scientific research components and activities;
- Reporting opportunities and issues associated with CSCs to EPP;
- Facilitating the transfer of science and technology from research to application;

- Reviewing and providing constructive feedback on all deliverables;
- Facilitating research collaboration between NOAA, other agencies, institutions and CSCs;
- Informing NOAA Line Office leadership of, and seeking their participation in, CSC activities and events;
- Identifying research opportunities; and,
- Identifying scientists and opportunities for faculty/staff exchanges.

c. Center Director

The CSC Director is responsible for leading the activities associated with establishing and developing a CSC by doing the following:

- Managing, planning, coordinating, organizing, reporting and monitoring on the CSC finances, administration, scientific research, education, outreach and recruitment;
- Providing all grant deliverables (e.g., performance and financial reports, implementation plan and student tracker database forms);
- Contributing to the EPP program report; and,
- Co-planning the biennial NOAA EPP Education and Science Forum.

d. Distinguished Scientist Position

A CSC Distinguished Scientist position must be filled within one year of CSC establishment at the lead MSI institution. The CSC Distinguished Scientist is responsible for:

- Developing and managing significant research projects for the CSC and the partnering academic institutions;
- Leading the development and assessment of the CSC Science Plan;
- Facilitating and coordinating scientific research between NOAA and CSC scientists;
- Leading, organizing and conducting scientific meetings;
- Coordinating scientific research among the CSC partners and ensuring that research conducted is in support of NOAA's mission;
- Maintaining outstanding research accomplishments;
- Writing research proposals;
- Leveraging resources – submit proposals to other funding organizations; and,
- Mentoring students.

e. EPP Funded Students

All NOAA EPP CSC-funded students must be United States citizens and full-time students. EPP funds for direct student support shall be provided for students maintaining a minimum 3.0 grade point average (GPA) per school term, whether quarter or semester system, for the following time periods (except in extenuating circumstances):

- No more than four (4) years for students pursuing bachelor's degrees;
- No more than three (3) years for students pursuing master's degrees; and,
- No more than five (5) years for students pursuing doctorate degrees.

EPP funds may not be used to support students who do not meet the minimum 3.0 GPA for every school semester or quarter term or to repeat courses previously paid for with EPP funds.

f. CSC Majority Institutions

Collaboration with majority institutions is also allowed, however, funding to majority institutions is limited to no more than 20% of the total award. The majority institution's (non-Minority Serving Institution) role is to enhance and support the CSC capability (curriculum, lab facilities and equipment) to educate and train underrepresented minority students and faculty in NOAA sciences. The majority institutional partners must adhere to the direct student support requirements, 30% of total received NOAA funding must be provided directly to students.

2. Postdoctoral Program

All NOAA EPP-funded postdoctoral fellows must be either United States citizens or United States permanent residents. At least one of the post-doctoral positions must be a filled by a United States citizen. The CSC is required to provide funding for two postdoctoral positions. During the two-year fellowship, the postdoctoral research should be collaborative among the postdoctoral fellows, CSC scientists and NOAA scientists and should address NOAA science areas. Furthermore, post-doctorates are required to have mentors at the respective institution.

3. K-12 Science Education Program

The K-12 science education activities must be established at each CSC. The purpose of the K-12 science education program is to increase the basic science and math "skilled student pipeline." The expected outcome of the K-12 program is to increase the number of students pursuing bachelor's degrees in NOAA science at the CSC institutions.

4. Funding Requirements

Utilization of NOAA EPP funds must meet the Department of Commerce Financial Assistance Standard Terms and Conditions. NOAA funds may only be used for domestic travel or NOAA research cruise embarkation and disembarkation.

a. Direct Student Support

Thirty (30) percent of CSC funding is mandated for direct student support. The 30% direct student support is mandated for the CSC lead institution and all partner institutions. The scholarships / stipends are to support tuition; stipends for housing, books and lab fees; travel for registration, transportation and lodging to NOAA programs and facilities, scientific conferences, meetings and workshops; training for registration or course costs.

b. Overhead or Indirect Cost Rate

The total dollar amount of the indirect cost proposed must be the lesser of 25% of the total proposed direct cost or the amount that would be authorized as a result of applying the indirect cost rate negotiated and approved by a cognizant Federal agency prior to the proposed effective date of the award. The cognizant Federal agency is NOAA. The grant applicant should provide documentation that supports the Federal approved cost rate obtained from the cognizant Federal agency. If the applicant does not have a current negotiated rate and plans to seek reimbursement for indirect costs, documentation is necessary to establish a rate and must be submitted to NOAA Grants Management Division within 90 days of receiving the award.

c. Funding to Partnering Academic Institutions (Subcontracts)
Funding to subcontractors, i.e., partnering academic institutions, must be issued within 60 days of the grant award start date. Where multi-institutional applications between majority and minority serving institutions are submitted, no more than 20% of the total funds shall be awarded to majority institutions. NOAA's grant rules apply to the primary grantee, the lead academic institution. The primary grantee is responsible for the management of its sub-contracts. Any change of the Principal Investigator(s) requires approval from the Grants Officer.

5. Public and Private Sector Partnerships
Private and public sector partnerships are encouraged. The private and public sector partners may not secure NOAA EPP CSC funds.

6. Faculty / Staff Exchanges
Faculty or staff exchanges are an integral part of this program and opportunities for faculty or staff exchanges are available for collaborative research or other agreed upon activities. Through the CSCs, NOAA EPP encourages academic faculty or NOAA scientists to spend up to one year at a NOAA facility or at a CSC academic institution, respectively.

7. Education
The education that is attained at the Center institutions must result in students being qualified to work at NOAA, other resource management agencies and the private sector.
Each CSC has an education focus as follows:

a. Atmospheric Cooperative Science Center
The Center's focus is to educate, train and graduate students in atmospheric sciences. The Center's collaborative research with NOAA's priority areas is in numerical weather prediction, data assimilation, climate modeling, climate analysis and prediction, water resources, and/or studies that lead to improvements in warning and forecast operations.

b. Environmental Cooperative Science Center
The Center's focus is to educate, train and graduate students in the environmental sciences. The Center's collaborative research with NOAA's priority areas is in ecological and coastal management (issues specific to the National Estuarine Research Reserves): coastal and ocean threats, restore damaged areas, manage coastal and ocean resources and support maritime commerce.

c. Marine Cooperative Science Center
The Center's focus is to educate, train and graduate students in marine sciences. The Center's collaborative research with NOAA's priority areas places emphasis on the following: biological assessments; stock assessment; marine chemical assessments; habitat quality, coastal ecology - including ecosystem monitoring; remote sensing technology and GIS mapping; biodiversity; essential fish habitat; fishery economics; fishery-related social sciences and fishery biology, to

include reproduction and food habitats; systematics and taxonomy; biotechnology; aquaculture; and enhancement.

d. Remote Sensing Technology Cooperative Science Center
The Center's focus is to educate, train and graduate students in remote sensing including: sensor development, satellite remote sensing, ground-based field measurements, data processing and analysis, modeling and forecasting. The Center's collaborative research with NOAA's priority areas emphasizes environmental satellite-related research activities directed toward helping to sustain healthy coasts, to build sustainable fisheries, to recover protected species, to help improve weather forecasts and warnings, to provide improved environmental forecasts or analyses, and to prepare for future NOAA operational environmental satellite missions.

e. Interdisciplinary Scientific Environmental Technology Cooperative Science Center
The Center's focus is to educate, train and graduate students in scientific environmental technology. The Center's collaborative research with NOAA's priority areas is in sensor science and sensor technology for oceanic and atmospheric applications; perform analysis of global observing systems that include numerical and physical research and analysis of hurricanes; and, develop information technology tools for data fusion, data mining and geospatial modeling and analysis.

8. Research
All NOAA EPP-funded research must meet the following criteria:

- Must be NOAA mission relevant and linked to the NOAA's Line Office(s); and,
    - Address the Strategic Plan
    - Address the Research Plan
    - Encourage collaboration with other Line Offices
    - Develop mechanisms to approve and prioritize research
- Must be applied NOAA mission research.

a. Student Participation in Research Activities
NOAA EPP requires all CSC-funded students participate in NOAA science or policy research activities. EPP strongly recommends collaboration among faculty, graduate and undergraduate students and NOAA scientists on research projects. At least one CSC funded student must be assigned to every EPP sponsored research project. The students' participation is intended to further the student's scientific education and training.

V. EVALUATION

In the third year of the five-year grant award, the CSCs are evaluated. The evaluation consists of a formal review of the CSCs education, scientific and administrative components. A five-person evaluation team is selected by NOAA EPP to conduct the CSC evaluation at the site of the lead CSC institution and an Evaluation Coordinator is identified. The EPP CSC Evaluation Coordinator is responsible for coordinating all activities associated with the evaluation.

A. Schedule
The schedules for evaluations of the five EPP CSCs are established in coordination with the CSCs at the end of the second year of a five-year cooperative agreement.

B. Process
The review consists of three phases:

1. Phase 1: Pre-site evaluation
2. Phase 2: On-site evaluation
3. Phase 3: Post-site evaluation

Phase 1: Pre-site evaluation
Six months prior to the CSC evaluation, the NOAA EPP coordinator sends formal invitation letters to prospective evaluation team members.

Five months prior to the CSC evaluation, the five-person evaluation team is identified. The following package is provided to the team:

1. A brief summary of the CSC evaluation process;
2. EPP performance metrics;
3. Curricula vitas of the evaluation team;
4. The expected time commitment of the evaluation team;
5. Evaluation team responsibilities;
6. A summary of the three-tier (outstanding, satisfactory and unsatisfactory) rating system; and,
7. A template for the final report.

Four months prior to the CSC evaluation, the CSC will draft the briefing booklet and provide the booklet to the Evaluation Coordinator. The briefing booklet shall include the following:

- Draft review agenda;
- One-page synopsis of the CSC;
- List of research themes;
- Latest implementation plan;
- Performance measures and metrics;
- Budget information (break out by research themes, education and outreach and student support);
- Latest financial report;

- Latest performance report;
- Latest student tracker database form;
- Summary / Highlights of CSC Performance;
- CSC organizational chart;
- List of CSC committees and membership;
- Web page URL/other locations for information on CSC; and,
- Other information the CSC deems as useful (e.g., reports from internal CSC evaluations).

Three months prior to the EPP CSC Evaluation, the NOAA EPP Evaluation Coordinator provides the standard evaluation questions to the CSC Evaluation Team and the CSC.

Two months prior to the CSC Evaluation, the CSC finalizes the evaluation agenda. The agenda should include time for the following:

- Evaluation team (education, scientific research and administrative) to have a closed session prior to the start of the on-site evaluation;
- Formal presentations by the CSC Center Director, Distinguished Scientist and the Education and Outreach Lead;
- Education and outreach presentations;
- Science research presentations;
- A student session;
- Time for the evaluation team to discuss particular aspects of the provided CSC data and information with the CSC Center Director, Distinguished Scientist and the Education and Outreach Lead;
- Time for the evaluation team to have a closed session after the formal review activities; and,
- A debriefing and preliminary feedback session with the evaluation team and selected CSC representatives.

Also, two months prior to the CSC evaluation, the CSC finalizes the briefing booklet and provides copies of the briefing booklet directly to the NOAA EPP Evaluation Coordinator and the evaluation team.

At least three weeks prior to the CSC evaluation, the CSC provides responses to the standard evaluation questions. One week prior to the CSC evaluation the review team may provide specific follow-up evaluation questions to the CSC that are to be responded to during the CSC on-site evaluation.

Phase 2: On-site evaluation

Up to three days will be allocated for the on-site evaluation that is conducted by a CSC external evaluation team. While at the CSC, the evaluation team conducts a review of the CSCs education, scientific research, and administrative components. The CSC performance is measured against its CSC application proposal and Implementation Plan goals / targets.

Phase 3: Post-site evaluation
One month after the evaluation, the preliminary CSC Evaluation Report produced by the evaluation team is due to the NOAA EPP CSC Evaluation Coordinator and the Evaluation Coordinator provides the report to the CSC Center Director.

Two months after the evaluation, the NOAA EPP CSC Coordinator receives the final report from the evaluation team and provides the report to EPP Program Director and the CSC Center Director.

C. Evaluation Team
The five–person evaluation team is comprised of a chair and four team members. The evaluation team will have the following membership:

- Education (Chair) - expertise in developing and leading higher education programs;
- Scientific - expertise relevant to each Center's scientific area (external to NOAA);
- Grants - representative from NOAA's Grants Management Division;
- Administrative - expertise in the management of multi-component education and scientific research programs; and,
- NOAA scientists - expertise relevant to each Center's scientific area.

At the evaluation, the NOAA Line Office technical monitor(s) and EPP representatives will be present as observers.

D. Education Review
The education review examines the effectiveness of the program to educate, train and graduate students in NOAA mission science, using the EPP Performance measures and the CSC Implementation Plan performance measures at the Center and partner institutions. Education programs will be assessed at the K-12, bachelors, masters, doctorate, and post-doctorate levels. The general elements of the review will include assessments of: (1) adequacy of degree programs / curriculum / courses; (2) student outcomes; (3) faculty outcomes; (4) partner involvement; (5) outreach programs, materials and activities; and, (6) leveraging of education programs. *The CSC is required to provide the NOAA EPP CSC Evaluation Coordinator with responses to a list of standard evaluation questions at least three weeks prior to the review. The questions will address the following areas:*

- *Adequacy of Degree Programs/ Curriculum / Courses;*
- *Student Outcomes;*
    - *Recruitment Strategy*
    - *Mentoring*
    - *Pipeline*
    - *Peer-reviewed Scientific Publications*
    - *Graduation Rates*
    - *Retention Rates*
    - *Employment*
        - *NOAA*
        - *NOAA Contractor*

        - *Federal*
        - *State*
        - *Local*
        - *Tribal*
        - *Academia*
        - *Non Governmental Organizations*
- *Faculty Outcomes;*
    - *Recruitment Strategy*
    - *Hires*
    - *Peer-reviewed Scientific Publications*
- *Partner Involvement (Academic & Non Governmental Organizations);*
- *Outreach Programs & Material & Activities;*
- *Leveraging of Education Programs.*

E. Scientific Research Review

The science research review will evaluate the quality of the research, using the EPP performance measures, the CSC Implementation Plan performance measures and the quality and effectiveness of the CSC research management at the Center and partner institutions. The general elements of the review will include assessment of: 1) relevance to NOAA science; (2) relevance to the respective NOAA Line Office science; (3) collaborative research strategy, plans and/or procedures; (4) scientific research accomplishments, (5) infrastructure (capacity-building); (6) faculty, student, and Center staff outcomes; and, (7) research resources leveraging. The review will also evaluate the linkages between the CSC strategic or science and Implementation Plans and the NOAA Strategic and Line Office Strategic plans. *The CSC is required to provide the NOAA EPP CSC Evaluation Coordinator with responses to a list of standard evaluation questions at least three weeks prior to the review. The questions will address the following areas:*

- *NOAA Science (relevance);*
- *NOAA Line Office Strategic Plan (relevance);*
- *Collaborative Research Strategy, Plans, and/or Procedures;*
    - *Within the Center*
    - *With NOAA Scientists*
    - *Across the Centers*
    - *With Research Partners external to NOAA*
    - *Among the scientific community*
- *Scientific Research Accomplishments;*
    - *Research to Operations Accomplishments & Deliverables (i.e., models)*
    - *Peer-Reviewed Publications*
- *Infrastructure;*
    - *Communication mechanisms*
    - *Equipment*
    - *Facilities*
- *Roles / Outcomes;*
    - *Senior Scientist / Distinguished Professor / Distinguished Scientist*

    - *Faculty*
    - *Students*
    - *Committees / Boards*
- *Research Resources Leveraging.*

F. Administrative Review

The administrative review examines the procedures associated with Center management at the CSC and the partner institutions including: (1) institutional support; (2) communication mechanisms; (3) staffing; (4) compliance with grant management polices and procedures; and, (5) performance measurement. Since the evaluation includes requirements imposed by Federal regulations for managing Federal financial assistance awards, the evaluation team will include NOAA employee(s) with grants management experience. *The CSC is required to provide the NOAA EPP CSC Evaluation Coordinator with responses to a list of standard evaluation questions at least three weeks prior to the review. The questions will address the following areas:*

- *Institutional Support;*
- *Budget / Grant Execution;*
- *Communication Mechanisms;*
    - *Committees / Boards*
- *Sub – Contract Execution;*
- *Capacity;*
    - *Staff*
    - *Office Space*
    - *Facilities*
- *Performance Measurement.*
    - *Plans (i.e., Implementation Plan)*
    - *Center Internal or Academic Program Evaluations*
    - *Performance and Financial Reports*

G. Rating Scheme

1. Outstanding (IF 85 / 15 RULE IS MET, NO CONDITIONS; IF 85/15 IS NOT MET CONDITIONS)

The CSC has consistently demonstrated superior achievement of all initially agreed goals as stated in the grant award and Implementation Plan, as well, as evidence of an on-going resource commitment that enhances NOAA's resources to support collaborative research. If the evaluation scoring is such that the score for Education, Scientific Research and Administrative is above 85% then there are no conditions. However, if the evaluation scoring is such that the score for each of three areas is below 85%, then conditions are in effect. The rating scheme, rules and conditions are provided in Table 2.

2. Satisfactory (CONDITIONS)

The CSC has achieved some or all of its agreed goals as stated in the grant award and Implementation Plan and has demonstrated acceptable performance. Its performance, however, is not considered outstanding and/or the CSC's resource commitment provides a limited enhancement of NOAA's resources. For acceptable performance, the CSC will be required to

address deficiencies within a given timeframe with restricted release of funds. The rating scheme, rules and conditions are provided in Table 2.

3. Unsatisfactory (CONDITIONS)
The CSC has demonstrated a failure to achieve some or all of its agreed goals as stated in the grant award and Implementation Plan, CSC performance is unacceptable. For unacceptable performance, NOAA will allow one-year of funding before the award is terminated. The one-year of funding shall have 30% allocated to direct student support. The rating scheme, rules and conditions are provided in Table 2.

Table 2 – Rating Scheme with rules and conditions

SCORE (POINTS)	**RULE**	**RATING**	**CONDITIONS**
100-90	85 / 15 MET	OUTSTANDING	NO CONDITIONS
89-85	85 / 15 MET	OUTSTANDING	NO CONDITIONS BUT RECOMMENDATIONS FOR IMPROVEMENT
89-85	85 / 15 NOT MET	OUTSTANDING WITH CONDITIONS	DISTRIBUTE 90% & HOLD 10% **PIP** - **PLAN (30 DAYS)** - **IMPLEMENTATION (60 DAYS)** MONITOR SEMIANNUALLY
84-75	75 / 25 MET	SATISFACTORY WITH CONDITIONS	DISTRIBUTE 80% & HOLD 20% **PIP** - **PLAN (30 DAYS)** - **IMPLEMENTATION (60 DAYS)** MONITOR QUARTERLY
84-75	75 / 25 NOT MET	SATISFACTORY WITH CONDITIONS	DISTRIBUTE 80% & HOLD 20% **PIP** - **PLAN (30 DAYS)** - **IMPLEMENTATION (60 DAYS)** MONITOR BIMONTHLY
NO PIP = LOSS OF FUNDS; NO IMPROVEMENT = LOSS OF FUNDS			
74-below		UNSATISFACTORY WITH CONDITIONS	DISTRIBUTE 50% (1 YEAR OF FUNDING WHEREBY 30% MUST GO TO DIRECT STUDENT SUPPORT) & AWARD TERMINATED (REMAINING FUNDING MAY BE PROVIDED TO ANOTHER CSC)

*PIP = Performance Improvement Plan

The two rules are the 85/15 and 75/25. The scores are determined using the CSC Evaluation Scoring Sheet provided in Table 3.

The 85/15 rule points are calculated as follows, multiply the maximum score for each of the three elements by .85. (For example: Education Maximum Score is 40 points X .85 = 35 points). The 85/15 rule is met when each element equals or exceeds the resulting element score multiplied by .85.

- 85/15
    - Education - 34 points and above;
    - Scientific Research – 29.75 points and above; and,
    - Administrative – 21.25 points and above.

The 75/25 rule points are calculated as follows, multiply the maximum score for each of the three elements by .75. (For example: Education Maximum Score is 40 points X .75 = 30 points). The 75/25 rule is met when each element equals or exceeds the resulting element score multiplied by .75.

- 75/25
    - Education – 30 points and above;
    - Scientific Research – 26.25 and above; and,
    - Administrative – 18.75 points and above.

Table 3 – CSC Evaluation Scoring Sheet

CSC EVALUATION SCORE SHEET			
CRITERIA I	**EDUCATION**	**40 POINTS**	**SCORE**
	Adequacy of Degree Programs / Curriculum / Courses	8	
	Student Outcomes • Recruitment Strategy • Mentoring • Pipeline • Peer-reviewed Scientific Publications • Graduation Rates • Retention Rates • Employment • Hires (NOAA, NOAA Contractor, Federal, State, Local, Tribal, Non-Governmental Organizations, and/or Academia)	8	
	Faculty Outcomes • Recruitment Strategy • Hires • Peer-reviewed Publications	7	
	Partner Involvement	6	
	Outreach Programs / Materials / Activities	6	
	Leveraging of Education Programs	5	
CRITERIA II	**SCIENTIFIC RESEARCH**	**35 POINTS**	**SCORE**
	Relevance to NOAA Science & NOAA Line Office Strategic Plan	7	
	Collaborative Research Strategy, Plans, and/or Procedures • Within the Center • With NOAA Scientists • Across the Centers • With Research Partners external to NOAA • Among the scientific community	5	
	Scientific Research Accomplishments • Research to Operations Accomplishments & Deliverables (i.e., models) • Peer-reviewed Publications	6	
	Roles / Desired Outcomes • Senior Scientist / Distinguished Professor • Faculty • Students • Committees / Boards	6	
	Infrastructure • Communication Mechanisms • Equipment • Facilities	5	
	Research Resources Leveraging	6	

CRITERIA III	ADMINISTRATIVE	25 POINTS	SCORE
	Institutional Support	5	
	Budget / Grant Execution	4	
	Communication Mechanisms • Committees / Boards	4	
	Sub-Contract Execution	4	
	Capacity • Staff • Office Space • Facilities	4	
	Performance Measurement • Plans • Performance and Financial Reports • Center Internal or Academic Program Evaluations	4	
	TOTAL SCORE	**100**	

VI. APPENDICES

A. EDUCATIONAL PARTNERSHIP PROGRAM BACKGROUND

An Educational Partnership Program with Minority Serving Institutions: A Framework for Producing Minority Scientists in NOAA-mission Disciplines

Introduction

During the past ten years, issues associated with the number of underrepresented minorities in science, technology, engineering and mathematics (STEM) have been at the center of numerous discussions, studies and programs. These efforts have been conducted in good faith and in some cases have led to positive outcomes (American Council on Education, 2006). However, the baseline in the late 1990s offered considerable opportunity for improvement. For example, although some growth in the number of racial/ethnic minorities with science and engineering doctorates occurred between 1987 and 1996, with the exception of Asians, this growth was marginal at best. African Americans held 2.5% of science and engineering doctorates awarded during the period 1987-1991. This value increased to only 2.8% between 1992 and 1996. (National Science Foundation, 1999)

A similar trend is found among doctoral scientists and engineers employed in colleges and universities between 1985 and 1995 (NSF/SRS, 1995*).* These statistics, coupled with a strong desire to make significant improvement in these data, a commitment to diversify the workforce and the need to prepare a Succession Plan to address the aging workforce led to the U.S. Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA) and a consortium of 10 historically black colleges and universities (HBCUs) to establish the foundation and framework for NOAA's Educational Partnership Program with Minority Serving Institutions (EPP/MSI) described below.

Background

Several longstanding activities by NOAA staff strongly committed to diversifying NOAA's workforce contributed to programs of this nature. Most notable among these collaborative efforts were the "Expanding Opportunities Conferences" (EOC) initiated in 1995 and held in 1999, 2001 and 2003. These conferences sponsored by NOAA, and organized jointly with minority serving institutions and others concerned with diversity in NOAA related sciences defined issues and proposed strategies for their resolution. In fact, the need for a new approach to address the under representation of minorities in NOAA related sciences is reflected in the following statement from the 1999 conference proceedings: "As minority under representation in these fields is a complex and pervasive issue, a simplistic approach to increasing the numbers of minorities in the occupational and educational sectors will not work." (EOC, 1999). Later in 1999, NOAA's Science Advisory Board (SAB) established September 25, 1997, voted unanimously to

recommend that diversity should be included among eight themes that "should be woven into all NOAA science program efforts." (NOAA, 1999).

Robinson, L., Rousseau, J., Mapp, D., Morris, V., and Laster. M., 2007, An Educational Partnership Program with Minority Serving Institutions: A Framework for Producing Minority Scientists in NOAA-Related Disciplines, Journal of Geoscience Education, v. 55, n. 6, p.486-491.

NOAA EDUCATIONAL PARTNERSHIP PROGRAM
COOPERATIVE SCIENCE CENTER
B. IMPLEMENTATION PLAN GUIDANCE

PURPOSE

This guidance is provided for development of the NOAA Educational Partnership Program (EPP) Cooperative Science Center (CSC) Implementation Plan due by Close of Business (COB) 60 days following the start of the award period.

GENERAL

The NOAA EPP CSC Implementation Plan shall **be no more than fifteen** (15 pages, not including the Appendices). The NOAA CSC Implementation Plan shall be in Microsoft Word or PDF format, Times Roman font, and font size 12. The Implementation Plan shall adhere to the following outline:

I. Cover Page
   - A. Grant award number;
   - B. Grant award recipient - CSC lead academic institution, name of CSC and CSC mailing address; and,
   - C. Cooperative Science Center partner institutions.

II. Table of Contents

III. Introduction
   - A. Purpose of the Implementation Plan;
   - B. Implementation Plan synopsis; and,
   - C. Deliverables.

IV. Center Management
   - A. Organizational Chart;
   - B. Center personnel roles and responsibilities;
   - C. Center decision making process for each specific area:
     (Please identify where NOAA and specifically EPP contribute to committee activities)
     1. Science and Research
     2. Education, Outreach and Recruitment
     3. Administrative (including Reporting)
   - D. Center Financial Management

V. Research - Science
   - A. Overview;
   - B. Goals;
   - C. Strategies and approach; and,
   - D. Performance metrics.

VI. Education and Outreach
   - A. Overview;
   - B. Goals; and
   - C. Strategies and approach; and,
   - D. Performance metrics.

VII. Appendices

A. Appendix I: Points of contact including: 1. Center Director; 2. Deputy Center Director; 3. Distinguished Scientist; 4. Program Manager; 5. Education Lead;
B. Appendix II: 5-Year Deliverables (Education and Outreach, Research – Science, and Center Management);
Please list deliverables for Year 1, 2, 3, 4, and 5.
C. Appendix III: Master schedule (including Milestones) for Education and Outreach, Research – Science, and Center Management;
D. Appendix IV: Glossary of terms; and,
E. Appendix V: Acronyms and abbreviations.

SPECIFIC GUIDANCE

Introduction

The Implementation Plan is to be used to guide both the CSC and NOAA during the five years of the grant award. The required semiannual performance reports will be reviewed against the Implementation Plan and the application. Additionally, the Implementation Plan will be a guide in determining accomplishments and metrics met during the CSC Program Evaluations.

Management

The NOAA EPP CSC management section shall include enough details so that NOAA EPP may determine if the appropriate infrastructure is in place to effectively manage the multi-year (five-year) grant award.

Research - Science

The NOAA EPP CSC research section shall include enough details so that NOAA EPP may determine if the proposed research addresses NOAA's Mission Goals, Research Plan and the Line Office Strategic Plan. The research section should convey how the proposed research will contribute to student education. In addition, the proposed research should address how the following performance metrics will be addressed.

Performance Metrics

- Number of collaborative research projects undertaken between NOAA and MSI partners;
- Number of peer reviewed papers published in NOAA sciences by scientists and students sponsored by NOAA EPP; and,
- Total NOAA-mission related resources leveraged with EPP funds.

Education and Outreach

The NOAA EPP CSC education and outreach section shall include enough details so that NOAA EPP may determine if the proposed education and outreach plan addresses recruitment, retention, training and graduation as well as NOAA's Mission, EPP's Mission and EPP's Performance Metrics.

Performance Metrics

- Number of students who are educated and trained in NOAA science curriculum;
- Number of students who graduate in NOAA core science areas; and,
- Number of CSC lead and partner institution students at the bachelors, masters and doctorate levels.

Appendices

The Point of Contact information should include telephone numbers as well as email and mailing addresses. The five-year milestones and master schedule shall be a Gantt chart provided in MS Word, Excel, or Microsoft Project. In addition, please provide a Glossary of Terms as well Acronyms and Abbreviations.

SUBMISSION

Please email the NOAA EPP CSC Implementation Plan to the EPP Program Director, Jacqueline.J.Rousseau@noaa.gov by COB 60 days from the start of the grant award.

NOAA EDUCATIONAL PARTNERSHIP PROGRAM
WITH MINORITY SERVING INSTITUITONS

C. PERFORMANCE REPORT GUIDELINES

The following document provides guidelines for preparing performance reports submitted to the NOAA Educational Partnership Program with Minority Serving Institutions (EPP/MSI). These guidelines apply to all Centers (lead institutions) and subcontractors or partner institutions, as appropriate. Please distribute this reporting guidance to each of your partner institutions.

If there are questions on this reporting format, please do not hesitate to contact the EPP Program Director, Jacqueline Rousseau at 301 713 9437 extension 124 or Jacqueline.J.Rousseau@noaa.gov. Secondary contacts for performance report questions are Meka Laster at 301 713 9437 extension 147 or Meka.Laster@noaa.gov and Priti Brahma at 301 713 9437 extension 118 or Priti.Brahma@noaa.gov.

Background:

The files of all Federal agencies, including those of NOAA, are subject to the annual Federal Chief Financial Officer's Act (CFOA) of 1990. These audits include a determination as to whether Federal grant/cooperative agreement award files contain current financial and performance reports from financial award recipients.

Award recipients who fail to submit timely performance and/or financial reports as required by the NOAA Standard Terms and Conditions of the award are subject to the following: i) NOAA's Corporate Finance and Administration Services Office, Acquisitions and Grants Office (AGO) cannot issue a new grant award; ii) NOAA AGO cannot approve grant amendments; and, iii) NOAA's AGO must deny access to funds under all current and pending financial assistance awards to that recipient.

General Reporting Requirements:

The reporting requirements for performance reports are identified in the NOAA Administrative Standard Terms and Conditions and provided by NOAA's Grants Management Division upon issuance of a new award.

The EPP/MSI program requires semiannual performance reports during the financial assistance award period. Semiannual performance reports are required no later than 30 days after the end of each grant period from the start date of the award to ensure compliance with NOAA Standard Terms and Conditions, and the CFOA. The two grant periods are provided in the Grant Award documentation located on Grants Online.

The CSC student tracker database shall be provided to NOAA EPP no later than January 31st, June 30th and September 30th. Student data and information from September 1st through December 31st shall be provided on January 31st. Student data and information from January 1st through May 30th shall be provided on June 30th. Student data and information from June 1st through August 31st shall be provided on September 30th. This data should include student data for summer programs.

All performance reports (progress and financial) shall be submitted electronically via Grants Online. All student tracker databases may be electronically mailed to NOAA EPP.

It is the responsibility of the CSC Director to obtain, coordinate, and synthesize information, data and activities contained in performance reports from subcontractors. Subcontractor reports should not be sent as individual reports under separate cover. Instead, subcontractors' report should be summarized in the CSC's semiannual reports.

The performance report should include: 1) cover page; 2) table of contents; 3) executive summary; 4) main body of the report; and, 5) appendices.

Cover Page

Please include the following information on the cover page of the report:

"Performance Report for Cooperative Agreement No: [Award number]
for the Period from _____ to _____"

Name of Institution

Title of Center

Table of Contents

All performance reports should have a table of contents.

Executive Summary

The executive summary should provide a table containing the performance metrics and articulate how the Center addresses these five areas:

1. NOAA's mission and the strategic plan.
2. EPP performance measures:
   - Number of students who are educated and trained with NOAA science curriculum.
   - Number of students who graduate annually in NOAA science areas.
   - Number of collaborative research projects with NOAA and other partners.
   - Number of peer reviewed publications in NOAA science. (Specifically identify the number of peer reviewed student publications)
   - Dollar amount of funds leveraged with EPP funds.

3. NOAA Line Office (i.e., National Weather Service, National Ocean Service) strategic plan.
4. Research including student education through research
5. Education and other benefits from the faculty / staff exchanges.
6. Outreach.

Main Body of Report

Performance reports are reviewed and assessed against the approved award and any amendments to the award.

1. The performance reports shall be no more than 50 pages not including the appendices.
2. The performance report should not be written in the first person.
3. The performance report should explain how the CSC supports NOAA's mission by specifically identifying areas where the CSC supports the NOAA and NOAA Line Office strategic plans.
4. The performance report should provide the EPP performance numbers and describe how the CSC supports the EPP performance measures with specific data to validate the measures.

In addition, the main body of the performance reports should include the following sections. This information should be used as a guide. Reports must include, but should not be limited to, the following:

- Section I Status of all Award Tasks (goals and objectives)
- Section II Education & Outreach Activities
- Section III Success Stories (scientific and student accomplishments)
- Section IV Revisions to tasks as described in the original grant award, amendments and the impact to the award

Section I: Status of Award Tasks

This section should summarize the status of CSC (lead and partner institutions) in meeting goals and objectives outlined in the original proposals. The report must be detailed enough to provide EPP/MSI with a clear understanding of what was accomplished during the performance period. The section should be organized in the same format as the original proposal and include the following information:

1. Status of goals/objectives accomplished as defined in the CSC's proposal.
2. Status of benchmarks due during the performance period. The Center should specify any anticipated delays, difficulties/problems that may impede timely completion of projects or activities.
3. Status of special award conditions (if applicable) due during the performance period.
4. Identification of the NOAA-mission research and report on the impact of the research on NOAA's mission. Describe how the research is transitioned to operation. In addition, provide the planned and actual duration and status of the research activity that is in support of NOAA's mission. If applicable, describe the delay and the reason for the delay.
5. Identification of all collaborative research activities undertaken during the award period; this must include names of both NOAA and academic (faculty and student) individuals. In addition, provide the planned and actual duration and status of the collaborative research activity that is in support of NOAA's mission.

6. Report on the administrative and research meetings conducted in support of activities under this award. Summary minutes may be included in the appendices.
7. Status of recruitment (including students, staff and post doctorates).
8. Status of Faculty/NOAA staff exchanges.
9. Status of Budget to date (expended and remaining funds).

Section II: Education & Outreach Efforts

1. How many students and faculty were recruited to participate in academic programs, training, workshops, conferences or seminars?
2. Enter data in the EPP provided Student Tracker Database Form for each student receiving direct and indirect support through this award. Please do not provide student data in any other format other than what is provided in the Student Tracker Database Form.
3. What outreach activities (i.e., workshops, conferences, seminars) have the CSC coordinated as part of the project? Report on any local, regional or national media that were involved on this activity. Specify all participants including students, faculty, partner organizations or institutions. Also, please provide copies of the news articles, press clippings and releases, pictures, etc. in the appendices. This information is particularly useful for the NOAA EPP/MSI web site, annual report, brochures and other outreach materials.

Section III: Success Stories

The CSC should report on notable success stories during the performance period. Specify how the activity/project advanced the goals of the EPP program. Examples may include:

1. What specific contributions has the project made to the CSC, NOAA and partners?
2. How many students participated in CSC projects or activities?
3. What specific benefits were accrued to students, faculty members and the institution(s) by participating in the program?
4. To what extent has the project or activities enhanced and improved outreach, education, training and NOAA related research at the institution(s)?
5. Did students participate in site visits to NOAA laboratories and/or facilities?
6. In what specific NOAA activity (e.g., NOAA research cruises) were students involved?
7. What is the significance, and impact, of the research/demonstration activity to NOAA, CSC and the local community?

Appendices

Per the cooperative agreement Special Award Conditions, all recipients must provide directly to NOAA EPP via a Student Tracker web-based application student data that includes K-12, undergraduate, graduate, and post-doctorate student data and other information. In addition, please include the performance measure tables, graphs, and charts. Please include any outreach materials including a newsletter(s).

D. STUDENT TRACKER DATBASE DEFINITIONS AND FORM

* Field values are subject to change

Table 4 – Student Tracker Database Definitions

Field	Description
First Name	Refers to the student's first name (include middle initial)
Last Name	Refers to the student's last name (include suffix as appropriate)
Race / Ethnicity (*if available)*	Check all that apply: **Native Hawaiian or Other Pacific Islander** **Asian** **American Indian or Alaska Native** **Black or African American** **Hispanic or Latino** **Native Hawaiian or Other Pacific Islander** **White.** Note: These boxes must be checked based on how the student identifies him/herself.
Gender (*if available)*	Please make a selection: **Female** **Male.**
Program	Please make a selection: **Cooperative Remote Sensing Science and Technology Center** **Dr. Nancy Foster Scholarship Program** **Ernest F. Hollings Scholarship Program** **Environmental Cooperative Science Center** **Environmental Entrepreneurship Program** **Graduate Sciences Program** **Interdisciplinary Scientific Environmental Technology Cooperative Science Center** **Living Marine Resources Cooperative Science Center** **NOAA Center for Atmospheric Sciences** **Undergraduate Scholarship Program.**
Training Category	Please make a selection: **Internship** **Poster Presentations** **Science Bowl** **Science Camps** **Scientific Presentations**

	Student Mentor (High School) **Student Mentor (Undergraduate)** **Other** **N/A.**
Training Activity	Please enter the name of the training activity.
Activity Year	Please enter the year of the activity (e.g., XXXX).
Outreach Category (if applicable)	Please make a selection: **NOAA Event** **Presentations to Community Groups** **Stakeholder Presentations** **Summer Programs** **Symposiums / Conferences** **Other** **N/A.**
Outreach Activity	Please enter the name of the outreach activity.
Outreach Activity Role	Please check the applicable box: **Participant** **Leader / Staff.**
Activity Year	Please enter the year of the activity (e.g., XXXX).
NOAA Summer Assignment	Refers to the summer internship opportunities provided through the Undergraduate and Hollings Scholarship Programs and the Cooperative Science Centers.
NOAA Research Mentor(s)	Refers to the individual(s) who provides guidance and direction to the student as they complete their *summer assignment as stated above*. (Format: First Name Last Name) Note: If there is more than one NOAA Research Mentor, please list each separated by forward slashes (Example: John Doe / Sally Smith)
Academic Institution	Refers to the school the student is currently attending (Examples: University of Maryland Eastern Shore, Oxon Hill High School).
Academic Start Date For Funding	Refers to the first date when a student receives funding through an EPP program. (Format: MM/YYYY)
Primary / Secondary / Post Secondary	Refers to the education level the student is pursuing. Possible values are in **bold** below: **Primary** = K-8 **Secondary** = 9-12 **Post Secondary** = Undergraduates, Graduate, and Post Doctorates
Level of Education	Defines the Primary / Secondary / Post-Secondary column more specifically. Possible Values are listed in **bold** below:

	Elementary School = Grades K-5 **Middle School** = Grades 6-8 **High School** = Grades 9-12 **Undergraduate** **Graduate** **Post Doctorate.**
Degree	Refers to the degree the student is pursuing (Examples: H.S., B.S., B.A., M.S. and Ph.D.).
Major	Refers to the student's primary field of study. Refer to the NSF Specialities List (main headings which are bolded and capitalized) for possible values (Example: Engineering).
Area Of Concentration	Refers to the secondary field of study within the major. Refer to the NSF Specialities List (lower case subcategories) for possible values (Examples: Chemical Engineering, Civil Engineering).
Source Of Funding	Refers to the organization providing funding (Examples: NOAA-EPP, University Funded, NSF, State Funded).
Fiscal Year of Award	Refers to the fiscal award period for which EPP funding is provided.
Type Of Award	Refers to the purpose or reason for disbursement of funds (Examples: Stipend, Travel and Tuition).
Reporting Period	Refers to the reporting period in question: Jan-May, Jun-Aug, or Sep-Dec. (Format: MM/DD/YYYY - MM/DD/YYYY).
Funding For This Report Period	Refers to the **funding amount granted for this report period**. Funds listed here should only relate to the time period specified under Reporting Period. In cases where students were funded from more than one source, enter a row for each source amount. Also, if students were funded from more than one Award (FY01 / FY06), enter a row for each award amount. For instance, if the Source Type selected is EPP and Award Type is FY01, then this value should be the total EPP funds under the FY01 Award for this reporting period. Please round the amounts up to the next whole dollar. (Format: $XX,XXX or $X,XXX).
Total Funding To Date	Refers to the **total cumulative funding amount** granted to a student for the duration of their participation in a program (e.g., CREST, ECSC, ISETCSC, LMRCSC, NCAS) under a particular source of funding and award type. Multiple rows should be used to specify total funds for different sources or award types. For instance, if the Source Type selected is EPP and Award Type is FY01, then this value should be the total EPP funds under the FY01 Award over all reporting periods. Please round the

	amounts up to the next whole dollar. (Format: $XX,XXX or $X,XXX).
Research Title	Refers to the name of either the research conducted by the student or the activity in which the student participated.
Primary Academic Research Advisor	Refers to the primary individual within the program specified who provides guidance and direction to the student as they complete their academic research. (Format: First Name Last Name).
Expected Date Of Graduation	Refers to the date the student is expected to graduate (Format: MM/YYYY).
Graduation Status	Please make a selection: **Yes** **No.** The relevant question is, "Has the student received a degree for completion of studies in their major field?"
Actual Date Of Graduation	Refers to the date the student actually graduated (Format: MM/YYYY). Note: The date should correspond to the date on the transcript.
Sector	Please make a selection: **Academia** **NGO = Non-Governmental Organization** **NOAA** **NOAA Contractor** **Other Federal, State, Local, or Tribal Government** **Private Industry.**
Name of Organization	Please type in the name of the organization.
Field Of Work	Refers to the type of work the student is pursuing after graduating. Refer to the NSF Specialities List (non-bolded items) for possible values. If the student is no longer in a NOAA-mission field, simply enter 'Other - *field of work*'.
Position	Please type in the title of the position.
Hired Government Grade	Please make a selection: Refers to the Hired Grade for a student who was hired as a government employee after graduating. **AL** = Administrative Law Judges **ES** = Senior Executive Service (SES) **GS** = General Schedule and Similar **ST** = Scientific and Professional **ZA** = Administrative **ZP** = Scientific & Engineering Professional

	N/A.
Hired Level	Please enter the level within the Government grade.
Future Plans Or Studies	Refers to additional studies or objectives of the student after graduating.
Student Withdrawn, Suspended From Program, Or Failed Qualifying Exam	Refers to whether or not the student withdrew from the program before attaining their degree or was suspended from the program for not meeting requirements or failed the qualifying exam. Possible **character** values are listed below: **A** = Active **W** = Withdrew **S** = Suspended **F** = Failed Qualifying Exam If the student is a current or graduated student and has neither withdrawn or been suspended or failed the qualifying exam, **A** is appropriate.
Reason For Withdrawal, Suspension, Or Failure	The reason the student is no longer program funded (i.e., why he/she withdrew, was suspended, or failed the qualifying exam).
Have you ever been a NOAA employee	Please make a selection: **Yes** **No.** Refers to whether the student is or was a NOAA employee at any time.
Other Comments Or Information	Provide any additional information about the student here including accomplishments or awards.

Please note: If student is pursuing more than one degree (i.e., double major) within the same performance reporting period, there should be a record within the Student Tracker Database for every degree that the student is pursuing.

Please note: If a student is enrolled in a Dual Degree program, then the following procedures should be followed:

- Degree 1: A record should exist within the Student Tracker Database until the student has completed the first degree. Once the first degree is completed, the 'Graduated' variables should be updated.
- Degree 2: Records associated with the second degree should be entered to reflect the new degree being pursued. Particular attention should be given to the

‘Degree’ and ‘Expected Date of Graduation’ variables in an effort to indicate that a given student is matriculating through the degree program.

Mandatory Student Tracker Input Form

OMB Control #0648-0568
Expires: 10-31-2010

First Name:

Last Name:

Race / Ethnicity (Check all that apply):

- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Black or African American
- ☐ Hispanic or Latino
- ☐ Native Hawaiian or Other Pacific Islander
- ☐ White

Gender: -Please make selection-

Program:

-Please make selection-

Training Category:

-Please make selection-

Training Activity:

Activity Year:

Outreach Category:

-Please make selection-

Outreach Activity:

- ☐ Participant
- ☐ Leader / Staff

Activity Year:

NOAA Summer Assignments:

NOAA Research Mentor(s):

Academic Institution:

Academic Start Date For Funding:

Primary / Secondary / Post Secondary:

-Please make selection-

Level of Education:

Degree:

Major:

Area Of Concentration:

Source Of Funding:

Fiscal Year of Award:

Type Of Award:

Reporting Period:

Funding For This Report Period:

Total Funding To Date:

Research Title:

Primary Academic Research Advisor:

Expected Date Of Graduation:

Graduation Status: -Please make selection-

Actual Date Of Graduation:

Sector: -Please make selection-

Name Of Organization:

Field Of Work:

Position:

Hired Government Grade: -Please make selection-

Hired Level:

Future Plans Or Studies:

Student Withdrew, Was Suspended From Program, or Failed Qualifying Exam:
-Please make selection-

Reason For Withdrawal, Suspension, or Failure:

Have you have ever been a NOAA Employee?: -Please make selection-

Other Comments Or Information:

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The NSF Specialities List is provided on the next page.

BUSINESS MANAGEMENT/ADMINISTRATION

900 Accounting
905 Banking/Financial Support Services
910 Business Administration & Management
915 Business/Managerial Economics
901 Finance
921 Human Resources Development
916 International Business/Trade/Commerce
920 Marketing Management & Research
917 Management Information Systems/Business Statistics
930 Operations Research *(also in ENGINEERING & in MATHEMATICS)*
935 Organizational Behavior *(see also PSYCHOLOGY/Industrial & Organizational)*
938 Business Management/Administration, General
939 Business Management/Administration, Other

COMMUNICATION

940 Communication Research
957 Communication Theory
950 Film, Radio, TV & Digital Communication
947 Mass Communication/Media Studies
958 Communication, General
959 Communication, Other

COMPUTER & INFORMATION SCIENCES

400 Computer Science
410 Information Science & Systems
419 Computer & Information Science, Other

EDUCATION

RESEARCH & ADMINISTRATION

840 Counseling Education/Counseling & Guidance
800 Curriculum & Instruction
805 Educational Administration & Supervision
820 Educational Assessment/Testing/Measurement
810 Educational/Instructional Media Design
807 Educational Leadership
822 Educational Psychology *(also in PSYCHOLOGY)*
815 Educational Statistics/Research Methods
845 Higher Education/Evaluation & Research
825 School Psychology *(also in PSYCHOLOGY)*
830 Social/Philosophical Foundations of Education
835 Special Education

TEACHER EDUCATION

858 Adult & Continuing Teacher Education
852 Elementary Teacher Education
850 Pre-elementary/Early Childhood Teacher Education
856 Secondary Teacher Education

TEACHING FIELDS

860 Agricultural Education
861 Art Education
862 Business Education
864 English Education
870 Family & Consumer/Human Science *(also in Fields Not Elsewhere Classified)*
866 Foreign Languages Education
868 Health Education
874 Mathematics Education
876 Music Education
878 Nursing Education
880 Physical Education & Coaching
882 Reading Education
884 Science Education
885 Social Science Education
888 Trade & Industrial Education
889 Teacher Education & Professional Development

OTHER EDUCATION

898 Education, General
899 Education, Other

ENGINEERING

300 Aerospace, Aeronautical & Astronautical Engineering
303 Agricultural Engineering
306 Bioengineering & Biomedical Engineering
309 Ceramic Sciences Engineering
312 Chemical Engineering
315 Civil Engineering
318 Communications Engineering
321 Computer Engineering
324 Electrical, Electronics & Communications Engineering
376 Engineering Management & Administration
327 Engineering Mechanics
330 Engineering Physics
333 Engineering Science
336 Environmental Health Engineering
339 Industrial & Manufacturing Engineering
342 Materials Science Engineering
345 Mechanical Engineering
348 Metallurgical Engineering
351 Mining & Mineral Engineering
357 Nuclear Engineering
360 Ocean Engineering
363 Operations Research *(also in MATHEMATICS & in BUSINESS MANAGEMENT)*
366 Petroleum Engineering
369 Polymer & Plastics Engineering
372 Systems Engineering
398 Engineering, General
399 Engineering, Other

HUMANITIES

HISTORY

706 African History
700 American History (U.S. & Canada)
703 Asian History
705 European History
710 History, Science & Technology & Society
707 Latin American History
708 Middle/Near East Studies
718 History, General
719 History, Other

FOREIGN LANGUAGES & LITERATURE

768 Arabic
758 Chinese
740 French
743 German
746 Italian
762 Japanese
752 Russian
755 Slavic (other than Russian)
749 Spanish
769 Other Languages & Literature

LETTERS

732 American Literature (U.S. & Canada)
720 Classics
723 Comparative Literature
735 Creative Writing
734 English Language
733 English Literature (British & Commonwealth)
724 Folklore
736 Speech & Rhetorical Studies
738 Letters, General
739 Letters, Other

OTHER HUMANITIES

770 American/U.S. Studies
773 Archaeology
776 Art History/Criticism/Conservation
792 Bible/Biblical Studies
795 Drama/Theater Arts
780 Music
786 Music Theory & Composition
787 Music Performance
788 Musicology/Ethnomusicology
789 Music, Other
785 Philosophy
790 Religion/Religious Studies
798 Humanities, General
799 Humanities, Other

LIFE SCIENCES

AGRICULTURAL SCIENCES/NATURAL RESOURCES

005 Agricultural Animal Breeding
000 Agricultural Economics
025 Agricultural & Horticultural Plant Breeding
020 Agronomy & Crop Science
010 Animal Nutrition
014 Animal Science, Poultry (or Avian)
019 Animal Science, Other
081 Environmental Science
055 Fishing & Fisheries Sciences/Management
043 Food Science
044 Food Science & Technology, Other
066 Forest Sciences & Biology
070 Forest/Resources Management
079 Forestry & Related Science, Other
050 Horticulture Science
074 Natural Resources/Conservation
030 Plant Pathology/Phytopathology *(also in BIOLOGICAL SCIENCES)*
039 Plant Sciences, Other
046 Soil Chemistry/Microbiology
049 Soil Sciences, Other
080 Wildlife/Range Management
072 Wood Science & Pulp/Paper Technology
098 Agriculture, General
099 Agricultural Science, Other

LIFE SCIENCES CONT.

BIOLOGICAL/BIOMEDICAL SCIENCES

130 Anatomy
110 Bacteriology
100 Biochemistry *(see also PHYSICAL SCIENCES/ Chemistry, other)*
102 Bioinformatics
103 Biomedical Sciences
133 Biometrics & Biostatistics
105 Biophysics *(also in PHYSICS)*
107 Biotechnology
129 Botany/Plant Biology
158 Cancer Biology
136 Cell/Cellular Biology & Histology
142 Developmental Biology/Embryology
139 Ecology
145 Endocrinology
148 Entomology
137 Evolutionary Biology
170 Genetics/Genomics, Human & Animal
151 Immunology
157 Microbiology
154 Molecular Biology
160 Neurosciences
163 Nutrition Sciences
166 Parasitology
175 Pathology, Human & Animal
180 Pharmacology, Human & Animal
185 Physiology, Human & Animal
115 Plant Genetics
120 Plant Pathology/Phytopathology *(also in AGRICULTURAL SCIENCES)*
125 Plant Physiology
169 Toxicology
189 Zoology
198 Biology/Biomedical Sciences, General
199 Biology/Biomedical Sciences, Other

HEALTH SCIENCES

210 Environmental Health
211 Environmental Toxicology
220 Epidemiology
212 Health Systems/Service Administration
222 Kinesiology/Exercise Science
240 Medicinal/Pharmaceutical Sciences
230 Nursing Science
215 Public Health
245 Rehabilitation/Therapeutic Services
200 Speech-Language Pathology & Audiology
250 Veterinary Sciences
298 Health Sciences, General
299 Health Sciences, Other

MATHEMATICS

425 Algebra
430 Analysis & Functional Analysis
420 Applied Mathematics
460 Computing Theory & Practice
435 Geometry/Geometric Analysis
440 Logic
445 Number Theory
465 Operations Research *(also in ENGINEERING & in BUSINESS MANAGEMENT/ADMIN.)*
450 Statistics *(also in SOCIAL SCIENCES)*
455 Topology/Foundations
498 Mathematics/Statistics, General
499 Mathematics/Statistics, Other

PHYSICAL SCIENCES

ASTRONOMY

500 Astronomy
505 Astrophysics

ATMOSPHERIC SCIENCE & METEOROLOGY

510 Atmospheric Chemistry & Climatology
512 Atmospheric Physics & Dynamics
514 Meteorology
518 Atmospheric Science/Meteorology, General
519 Atmospheric Science/Meteorology, Other

CHEMISTRY

520 Analytical Chemistry
522 Inorganic Chemistry
526 Organic Chemistry
530 Physical Chemistry
532 Polymer Chemistry
534 Theoretical Chemistry
538 Chemistry, General
539 Chemistry, Other *(see also BIOLOGICAL/Biochemistry)*

GEOLOGICAL & EARTH SCIENCES

542 Geochemistry
540 Geology
552 Geomorphology & Glacial Geology
544 Geophysics & Seismology
548 Mineralogy & Petrology
546 Paleontology
550 Stratigraphy & Sedimentation
558 Geological & Earth Sciences, General
559 Geological & Earth Sciences, Other

OCEAN/MARINE SCIENCES

585 Hydrology & Water Resources
590 Oceanography, Chemical & Physical
595 Marine Sciences
599 Ocean/Marine, Other

PHYSICS

560 Acoustics
576 Applied Physics
561 Atomic/Molecular/Chemical Physics
565 Biophysics *(also in BIOLOGICAL SCIENCES)*
574 Condensed Matter/Low Temperature Physics
568 Nuclear Physics
569 Optics/Photonics
564 Particle (Elementary) Physics
570 Plasma/Fusion Physics
572 Polymer Physics
578 Physics, General
579 Physics, Other

PSYCHOLOGY

600 Clinical Psychology
603 Cognitive Psychology & Psycholinguistics
606 Comparative Psychology
609 Counseling
612 Developmental & Child Psychology
618 Educational Psychology *(also in EDUCATION)*
615 Experimental Psychology
620 Family Psychology
613 Human Development & Family Studies
621 Industrial & Organizational *(see also BUSINESS MANAGEMENT/Organization Behavior)*
624 Personality Psychology
627 Physiological/Psychobiology Psychology
633 Psychometrics & Quantitative Psychology
636 School Psychology *(also in EDUCATION)*
639 Social Psychology
648 Psychology, General
649 Psychology, Other

SOCIAL SCIENCES

650 Anthropology
652 Area/Ethnic/Cultural/Gender Studies
657 Criminal Justice & Corrections
658 Criminology
662 Demography/Population Studies
668 Econometrics
667 Economics
670 Geography
674 International Relations/Affairs
676 Linguistics
678 Political Science & Government
682 Public Policy Analysis
686 Sociology
690 Statistics *(also in MATHEMATICS)*
694 Urban Affairs/Studies
695 Urban/City, Community & Regional Planning
698 Social Sciences, General
699 Social Sciences, Other

FIELDS NOT ELSEWHERE CLASSIFIED (NEC)

960 Architecture/Environmental Design
964 Family/Consumer Science/Human Science *(also in EDUCATION)*
968 Law
972 Library Science
974 Parks/Sports/Rec./Leisure/Fitness
976 Public Administration
980 Social Work
984 Theology/Religious Education *(see also OTHER HUMANITIES/Religion/Religious Studies)*
989 Other Fields, NEC

FIELD UNKNOWN

999 Unknown Field