aeop
ARMY EDUCATIONAL OUTREACH PROGRAM

Evaluation Informational Webinar

July 21, 2021

- **Agenda**

  - Introduce the goals of AEOP and Evaluation

  - Introduce AEOP programs

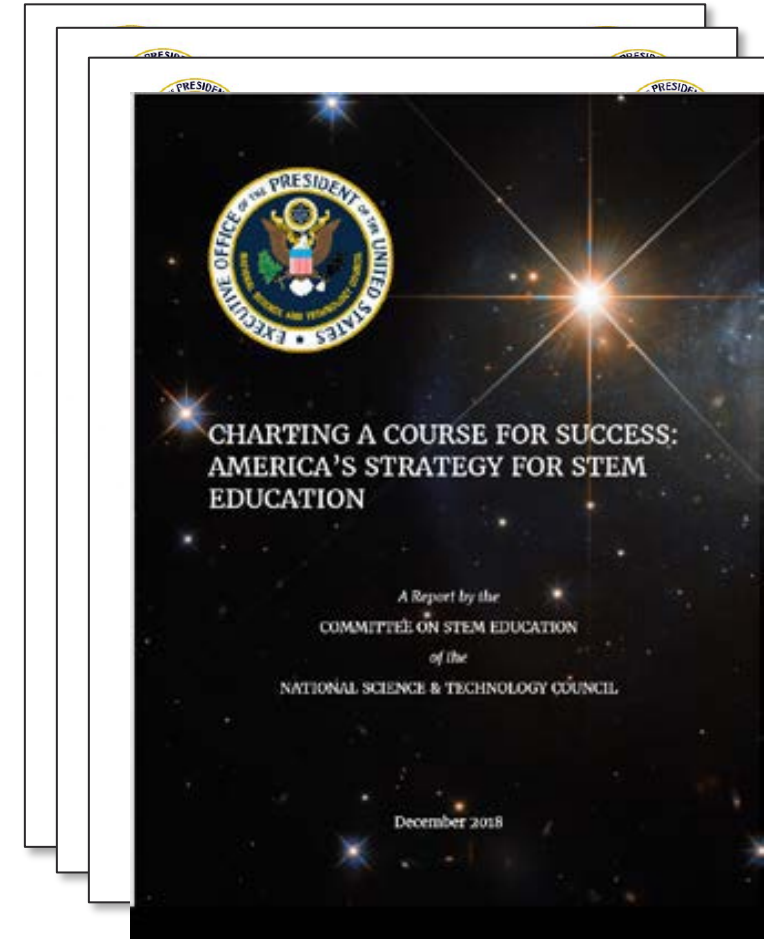 - Outline the requirements of the RFP

  - Budget and additional Q&A

- Focused on the following priorities:

    - Build strong foundations for **STEM-literate citizenry**

    - **Increase diversity and inclusion** through broader access to STEM

    - Prepare the **STEM workforce** for the future

    - Develop **quantitative methods/metrics** to collect data and evaluate program effectiveness

CHARTING A COURSE FOR SUCCESS: AMERICA'S STRATEGY FOR STEM EDUCATION

A Report by the
COMMITTEE ON STEM EDUCATION
of the
NATIONAL SCIENCE & TECHNOLOGY COUNCIL

December 2018

The Department has unique assets that play an important role in the Federal STEM education strategy -- our STEM professional workforce and our highly equipped research laboratories.

- **Vision:** A diverse, agile, highly competent STEM talent pool, representative of our nation's demographics to supply Army workforce initiatives.

- **Mission:** Offer students and teachers a collaborative, cohesive, portfolio of Army-sponsored STEM programs that effectively engage, inspire, and attract the next generation of STEM talent through K-through college programs and expose them to DoD STEM careers.

- **Priorities:** (aligned with Federal STEM Strategic Plan)
  - *STEM Literate Citizenry*: broaden, deepen, and diversify the pool of STEM talent in support of our Defense Industrial Base.
  - *STEM Savvy Educators*: support and empower educators with unique Army Research and Technology resources.
  - Develop and *implement a cohesive, coordinated, and sustainable STEM education outreach infrastructure* across the Army.

- Army – specifically Combat Capabilities Development Command (DEVCOM)

- National Science Teaching Association (eCYBERMISSION, GEMS/CI, Junior Science and Humanities Symposium)

- Technology Student Association (Junior Solar Sprint, Unite)

- Rochester Institute of Technology (Apprenticeships)

- Tennessee Technological University (Research Experiences for STEM Educators and Teachers)

- Metriks Amerique (Membership

- North Carolina State University (Evaluation)

- Widmeyer/Finn (Communications)

AEOP Programs

- **IPA:** Tori Matthews, RIT
- **Program Description**
  - The AEOP Apprenticeship program, you can turn student STEM interest into tangible research skills. Throughout the apprenticeship, students will learn the ins and outs of how real-world science and engineering research operates. Working directly under the guidance of a professional scientist or engineer – who will serve as your mentor – They can conduct hands-on research in a state-of-the-art facility at a partner university or one of the U.S. Army Research Laboratories and Centers. Students will have a front row seat to the exciting research, advancement and innovation happening in labs across the country that are driving forward the solutions to the problems of tomorrow.

- **IPA:** Winnie Boyle, NSTA

- **Program Description**

  - eCYBERMISSION is a web-based STEM competition that enables 6th to 9th grade students to recognize real-life applications of STEM. Teams of three or four students are instructed to ask questions or define problems, and then construct explanations or design solutions based on identified problems in their community.

- **IPA:** Renee Wells, NSTA

- **Program Description**

  - GEMS is a summer STEM enrichment program that takes place at participating Army Research Laboratories. GEMS' mission is to interest young people, who might not otherwise give serious thought to becoming scientists or engineers, in STEM careers early enough that they can attain the appropriate academic training.

  - Camp Invention is an exciting, weeklong summer adventure for first through sixth graders with activities that explore connections between science, technology, engineering and innovation. Throughout the week, children rotate through various modules that encourage them to work together, seek solutions to real-world problems and sharpen critical 21st century skills.

- **IPA:** Jennifer Liu, NSTA

- **Program Description**

  - Junior Science & Humanities Symposium is an opportunity for high school students to compete for scholarships and recognition by presenting the results of their STEM projects before a panel of judges and an audience of their peers. Students also get access to hands-on workshops, panel discussions, career exploration, research lab visits and networking.

- **IPA:** Sue King, TSA

- **Program Description**

    - Junior Solar Sprint is a competition to create the fastest, most interesting, and best crafted solar-vehicle possible. Fifth through eighth grade students will design, build and race solar powered cars using engineering skills and principles of science and math, develop teamwork and problem-solving abilities, investigate environmental issues, and gain hands-on STEM skills.

- **IPA:** Jennifer Meadows, TTU

- **Program Description**

  - RESET provides educators with summer research experience at participating Army Laboratories. The goal of the enrichment program is to reinforce teachers' content knowledge through research experience and interactions with Army and Department of Defense scientists and engineers. Teachers participate in online learning as a cohort, with a subset of the cohort selected to conduct research on-site with a mentor Army scientist or engineer. At the completion of the program, teachers are able to translate this knowledge and experience into enhanced STEM research curricula and enriched learning for their students. RESET is designed for high school and upper middle school teachers of science, math and/or career technical education (CTE) including engineering and other topics closely related to STEM.

- **IPA:** Hillary Lee, TSA

- **Program Description**

  - Unite is a pre-collegiate summer experience for high school students held at higher education institutions across the country. Unite encourages students to pursue college majors and careers in engineering and other STEM-related fields through a program of focused hands-on rigorous academics, enrichment, and career exploration.

Program Timelines

Program Name	Registration Open	Program	National event
Apprenticeships	November	June-August (some year-round)	N/A
eCYBERMISSION	August	August-February	June
GEMS/Camp Invention	February/March	June-August	N/A
Junior Science and Humanities Symposium (JSHS)	October, varies by region	January-March	April
Junior Solar Sprint (JSS) (only Army sponsored sites)	September/October	December-May	June
RESET	October	November-August	N/A
Unite	February	June-August	N/A

- AEOP seeks an evaluation partner that will be responsible for developing and managing the program evaluations to include design and instrumentation, data collection, verification, analysis, and the generation of annual evaluation reports.

Task 1: Kick-off/Orientation Meeting

Task 2: Assess Current Evaluation Practices

Task 3: Refine Evaluation Plan

Task 4: Modify/Create Data Collection Protocols and Instruments

Task 5: Collect Data

Task 6: Analyze Data

Task 7: Maintain Online Registration and Data Collection System

Task 8: Additional Evaluation

Task 9: Share Findings

Task 10: Manage the Overall Project

Evaluation – Who and When

Program Name	Who		When	
	Students/ Participants	Mentors/ Teachers	Program year	Annual event
Apprenticeships	✓	✓	✓	
eCYBERMISSION	✓	✓	✓	✓
GEMS/Camp Invention	✓	✓		
Junior Science and Humanities Symposium (JSHS)	✓	✓	✓	✓
Junior Solar Sprint (JSS) (only Army sponsored sites)	✓	✓	✓	✓
RESET	✓		✓	
Unite	✓	✓	✓	
Alumni	✓			
One-time funding proposals	✓	✓	✓	✓

Evaluation – Data Collection

Program Name	Student/Participant Questionnaires	Mentor/Teacher Questionnaires	Student/participant Focus groups/interviews	Mentor/Teacher Focus groups/interviews
Apprenticeships	✓	✓*	✓	✓
eCYBERMISSION	✓ (state and national events)	✓* (state and national events)	✓ (national)	✓ (national)
GEMS/Camp Invention	✓	✓	✓	✓
Junior Science and Humanities Symposium (JSHS)	✓ (state and national events)	✓ (state and national events)	✓ (state and national events)	✓ (state and national events)
Junior Solar Sprint (JSS) (only Army sponsored sites)	✓ (local and national events)	✓ (local and national events)	✓ (local and national events)	
RESET			✓	
Unite	✓	✓*		
Alumni	✓			

* 21st Century Skills

- Currently using CVENT – a registration system to collect:
    - Registration
    - Demographics
    - Evaluation questionnaires – links
    - Scheduling interviews
- In first year, make system recommendation

1. Proposal Cover Letter (1 page)

2. Proposal Narrative (7 pages)

3. Qualifications (2 pages)

4. Management Plan (3 pages)

5. Project Budget and Narrative

6. Appendix

    1. Resumés (2 page limit per resumé)

    2. Work samples (2 examples)

7. Attachments

    1. Vendor registration form

    2. Reps and certs

- Historical costs: $400,000 to $600,000 annually.
- CVENT paid through FY22. Starting in FY23, evaluation partner will include cost of CVENT or other system in budget.
- Please include an itemized budget reflecting requested support and any cost-sharing and/or in-kind support. **Must use Budget Template form and attach as PDF. Personnel rates and hours must be included**.
- Include totals for the following cost categories for the base year and three option years: Personnel, Travel, Equipment, Supplies, Contracts, and Other and Indirect costs.
- This project may include significant travel for site visits and national events, depending on the evaluation design.
- Specify cost-sharing or in-kind contributions (university in-kind support, school district support, leveraged funds from other state and national sources, etc.). Cost-share is not a requirement for proposal submission.
- The applicant must include a budget summary for each of the cost categories.

Timeline

Activity	Date
RFP released	July 8, 2021
Informational webinar	July 21, 2021 at 12:00 pm EST
Notice of intent to apply due to johnsonsa@battelle.org	July 23, 2021 by 5:00 pm EST
Final date to submit questions and requests for additional information to gossard@battelle.org	August 9, 2021 by 5:00 pm EST
Posting of responses to questions	August 10, 2021
Proposals due	August 19, 2021 by 5:00 pm EST
Partner selected	September 10, 2021
Start date	October 1, 2021

- Updated RFP, webinar slides, and FAQ will be posted to AEOP website by 5:00 pm on July 23rd.

- Email Kristen Salmans, salmansk@battelle.org for fillable forms.