The Next Generation of Explorers
Status Briefing:
NASA Education Evaluation and Performance Monitoring Activities

November 13, 2017
Agenda

- FY 17 Evaluation Challenges, Progress and Opportunities
- FY 18 Plans
This appropriation provides for the full costs associated with NASA’s education activities within the Office of Education, which include labor, travel, procurement, test and fabrication costs. The Budget proposes the termination of the Office of Education and its portfolio of programs and projects. The Office of Education has experienced significant challenges in implementing a focused NASA-wide education strategy. Additionally, the Office of Education lacks sufficient outcome measures to assess the effectiveness of its programs.

The Budget supports the orderly closeout and/or transition of these activities needed to comply with federal laws and regulations regarding contracts, grants/cooperative agreements, civil servants, records management, and administrative infrastructure.

While the Budget no longer supports the formal Office of Education programs, NASA will continue to use every opportunity to support the next generation through engagement in our missions and the many ways that our work excites and encourages discovery by learners and educators.
Office of Education Challenges

Performance Measurement

• NASA Education’s broad measures of success miss an opportunity to demonstrate specific progress towards short, mid and long-term outcomes.
• Prior performance assessment has excluded portions of the portfolio

Evaluation

• Program-level evaluation efforts have not synthesized individual activity-level evaluations to identify program-level impacts
2017 Progress Update

Performance Measurement

• In alignment with BSA direction, NASA Education is proposing revised FY 18 performance measures to assess improvement of evaluation strategies and project impacts.

• NASA Education implemented refined data management business processes that improved activity data reporting by 46% over FY 2016.

• NASA Advisory Council (NAC) Subcommittee on STEM Education

Evaluation

• All significant MUREP and SEAP activities have active awardee or Center-level evaluations.

• NASA Education is in the process of testing instruments for broader use with internship, educator professional development, and STEM engagement efforts.

• Collaboration with Co-STEM Interagency Working Groups (IWG)

• NSF/NASA Collaboration Meeting (Nov. 2\textsuperscript{nd})
Key Opportunities for Continuous improvement

Performance Measurement

• Develop a series of performance indicators that demonstrate progress towards achieving goals and outcomes.
• Refine performance measurement and data management business processes to strengthen: 1) Development of performance targets; 2) Data collection, verification and validation, and analysis; and 3) Performance reporting.

Evaluation

• Strengthen the quality and cost effectiveness of evaluation activities by creating multi-year program-level strategies.
• Refine the business process to review evaluation plans and reports against a set of standards.
• Refine the approach to synthesize findings and use results to improve programs.
Develop a cross-cutting evaluation strategy based on scope of investments and stage of implementation including scaled-evaluation efforts, performance goals, education outcomes, and success criteria for the education components of public campaigns.

In alignment with GAO-11-208G and GAO-11-646SP Performance Measurement and Evaluation Guidance.

Establish success criteria for improving student and educator proficiency in STEM disciplines.

Establish success criteria for grantee/awardee efforts to increase institutional capacity, research infrastructure, and building the future STEM workforce.

Provide robust evidence, literature reviews, and benchmarking studies for decision making, planning, program design assessment, and responding to and anticipating reporting needs.

Evidence-Based Design using Literature Reviews and Benchmarking Studies (4th QTR.)

- Provide robust evidence, literature reviews, and benchmarking studies for decision making, planning, program design assessment, and responding to and anticipating reporting needs.

Cross-Cutting Evaluation Strategy for Center and Awardee Efforts (4th QTR.)

- Develop a cross-cutting evaluation strategy for Center and Awardee led efforts including performance goals, education outcomes, and success criteria for the education components of public campaigns.

Pending Availability of FY2018 OE Resources

Performance Measures and Metrics (3rd QTR.)

- Establish success criteria for measurement of program and activity impact.
- Establish success criteria for grantee efforts to increase institutional capacity, research infrastructure, and building the future STEM Workforce.

Governance and Business Process Refinement (4th Qtr.)

- Strengthen Evaluation Accountability for Awardees
- Improve Evidence-Based Decision Making and Strategic Goal Setting
- Prioritize PRA Compliance

*Pending Availability of FY2018 OE Resources