NASA Education Strategic Coordination Framework

Angela Phillips Diaz
Assistant Administrator for Education (Acting)

Presentation to the National Council of Space Grant Directors
March 17, 2006
Bring a detailed plan to the Strategic Management Council to include:

1. **Align with Agency Strategic Plan**
   - Education Outcomes → FY06 Agency Strategic Plan
   - Strategic Framework → Portfolio mapping and realignment
     → Informed FY06 & FY07 budget realignments

2. **Clearly defined roles and responsibilities to promote coordination**
   - Portfolio Coordination Framework
   - Roles and Responsibilities Defined
   - Education Coordinating Committee (ECC)

3. **Clearly defined and coordinated portfolio approach**
   - Top-level portfolio mapped to Strategic Framework
   - Detailed portfolio map
   - Portfolio realignment → ‘08 budget submission

4. **Well-defined evaluation component**
   - Strategy and principles
   - Issue definition
   - Detailed Agency-wide guidance
Task: Align with the three Education Priorities:

- Workforce Development
- Strengthening the Pipeline
- Public Benefit

The NASA Education portfolio is guided by three desired outcomes:

**Outcome 1:** Contribute to the development of the STEM workforce in disciplines needed to achieve NASA’s strategic goals, through a portfolio of investments.

**Outcome 2:** Attract and retain students in STEM disciplines through a progression of educational opportunities for students, teachers and faculty.

**Outcome 3:** Build strategic partnerships and linkages between STEM formal and informal education providers that promote STEM literacy and awareness of NASA’s mission.
 Outcome 1: Contribute to the development of the STEM workforce in disciplines needed to achieve NASA’s strategic goals, through a portfolio of investments.

 Outcome 2: Attract and retain students in STEM disciplines through a progression of educational opportunities for students, teachers and faculty.

 Outcome 3: Build strategic partnerships and linkages between STEM formal and informal education providers that promote STEM literacy and awareness of NASA’s mission.

 Principles/Criteria

<table>
<thead>
<tr>
<th>Relevance</th>
<th>NASA Content</th>
<th>Diversity</th>
<th>Evaluation</th>
<th>Continuity</th>
<th>Partnerships/Sustainability</th>
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Cultivate Diversity of Workforce Disciplines and Practitioners
Examples of FY06 Projects Mapped to Strategic Framework

**Outcome 1:** Contribute to the development of the STEM workforce in disciplines needed to achieve NASA's strategic goals, through a portfolio of investments.

**Outcome 2:** Attract and retain students in STEM disciplines through a progression of educational opportunities for students, teachers and faculty.

**Outcome 3:** Build strategic partnerships and linkages between STEM formal and informal education providers that promote STEM literacy and awareness of NASA's mission.
Education Portfolio Coordination Framework

Cross-Agency
- Assistant Administrator for Education
- Chair
- Education Coordinating Committee
  - Office of Education
  - Mission Directorates
  - Centers
  - Functional Offices

HQ
- Office of Education
- ARMD, ESMD, SOMD, SMD
- Performance Data
- Workforce Needs
- Framework/Principles
- Data

Centers and External Partners
- Center Education Offices
- Activities
- Programs/Projects
- Funding/Program Reqs
- Reporting

Accountability
- Policy
  - Strategic Goals/Objectives/Outcomes
  - Consultation
  - Coordination
  - Cognizance
  - Assessment

Content
- Performance Goals
- Direction
- Funding
- Evaluation
- Reporting

Implementation
- Program/Project Management and Execution
- Performance Data
- Evaluation
- Reporting
Map to the Agency Strategic Plan

- Clearly defined and coordinated portfolio approach
- Clearly defined roles and responsibilities to promote coordination
- Well-defined evaluation plan
HIGHLIGHTS

- Total requested new budget authority is $153.3 million.
- $47.2 million for the Elementary & Secondary Education program to make available NASA-unique strategies, tools content, and resources supporting the K-12 education community’s effort to increase student interest and academic achievement in STEM disciplines.
- $54.0 million for the Higher Education program to attract and prepare students for NASA-related careers, and enhance the research competitiveness of the Nation’s colleges and universities by providing opportunities for faculty and university-based research.
- $9.0 million for the e-Education program to develop and deploy technology applications, products, services and infrastructure to enhance the educational process for formal and informal education.
- $2.5 million for the Informal Education program to establish the forum for informal education community efforts to inspire the next generation of explorers and innovators and make available NASA-unique strategies, tools, content, and resources to enhance their capacity to engage in STEM education.
- $40.6 million for the Minority University Research and Education program to attract and prepare underrepresented and underserved students for NASA-related careers and enhance competitiveness of minority-serving institutions by providing opportunities for faculty and university- and college-based research.
Outcome 1: Contribute to the development of the STEM workforce in disciplines needed to achieve NASA’s strategic goals, through a portfolio of investments.

- Collect, analyze, and report longitudinal data on student participants to determine the degree to which participants enter the NASA workforce or other NASA-related career fields. (Higher Education)
- Award 1,200 competitive internships, fellowships, and research opportunities for higher education students and faculty in STEM disciplines. (Higher Education)
- Award 500 competitive scholarships, internships, fellowships, and research opportunities for underrepresented and underserved students, teachers and faculty in STEM disciplines. (MUREP)
- Provide 100 grants to enhance the capability of approximately 50 underrepresented and underserved colleges and universities to compete for and conduct basic or applied NASA-related research. (MUREP)

Outcome 2: Attract and retain students in STEM disciplines through a progression of educational opportunities for students, teachers and faculty.

- Conduct 10 Educator Astronaut workshops, involving approximately 200 educators. (Elementary & Secondary)
- Select and support 50 additional schools to participate in the NASA Explorer Schools program, maintaining the total number at 100 or more. (Elementary & Secondary)
- Select approximately 100 student experiments, involving approximately 1000 students, to participate in the Flight Projects program. (Elementary & Secondary)

Outcome 3: Build strategic partnerships and linkages between STEM formal and informal education providers that promote STEM literacy and awareness of NASA’s mission.

- Digitize and meta-tag up to 10 percent of NASA’s approved learning materials to be delivered using technology-enabled learning systems. (e-Education)
- Award competitive grants to NASA Centers and informal education partners to conduct up to 10 Explorer Institutes projects. (Informal Education)

Outcomes 1, 2 & 3:

- Complete a retrospective longitudinal study of student participants to determine the degree to which participants maintain affiliation with NASA through the pipeline. (All)
- Collect, analyze, and report that 100% of grantees that annually report on their accomplishments. (All)
- Peer review and competitively award at least 85 percent, by budget, of research projects. (All)
NASA Agency-wide Education Investments—FY06 President’s Budget

Pre-Earmarks Alignment $295M

Post-Earmarks Alignment $285M

Higher Education

Employ

$135 M 46%

Educate

$128 M 45%

Engage

Elementary/Secondary Education*

35% $102 M

Informal Education

26% $75 M

Inspire

$58 M 19%

$82 M 29%

* Includes three projects previously aligned with MUREP

Includes earmarks assigned to Office of Education;
reallocation of resources by ARMD, SOMD and ESMD
In Closing

- Space Grant is a critical component of the NASA Education portfolio
- Important to build on past successes and best practices to ensure alignment with the Agency’s priorities and new education framework
- Will convene an ECC-chartered team in March to look at Space Grant and EPSCoR within the environment of the new NASA education framework
  - Dialogue with you as we go forward is essential