See Learning in a Whole New Light

Diane D. DeTroye
Acting Manager, Space Grant & EPSCOR
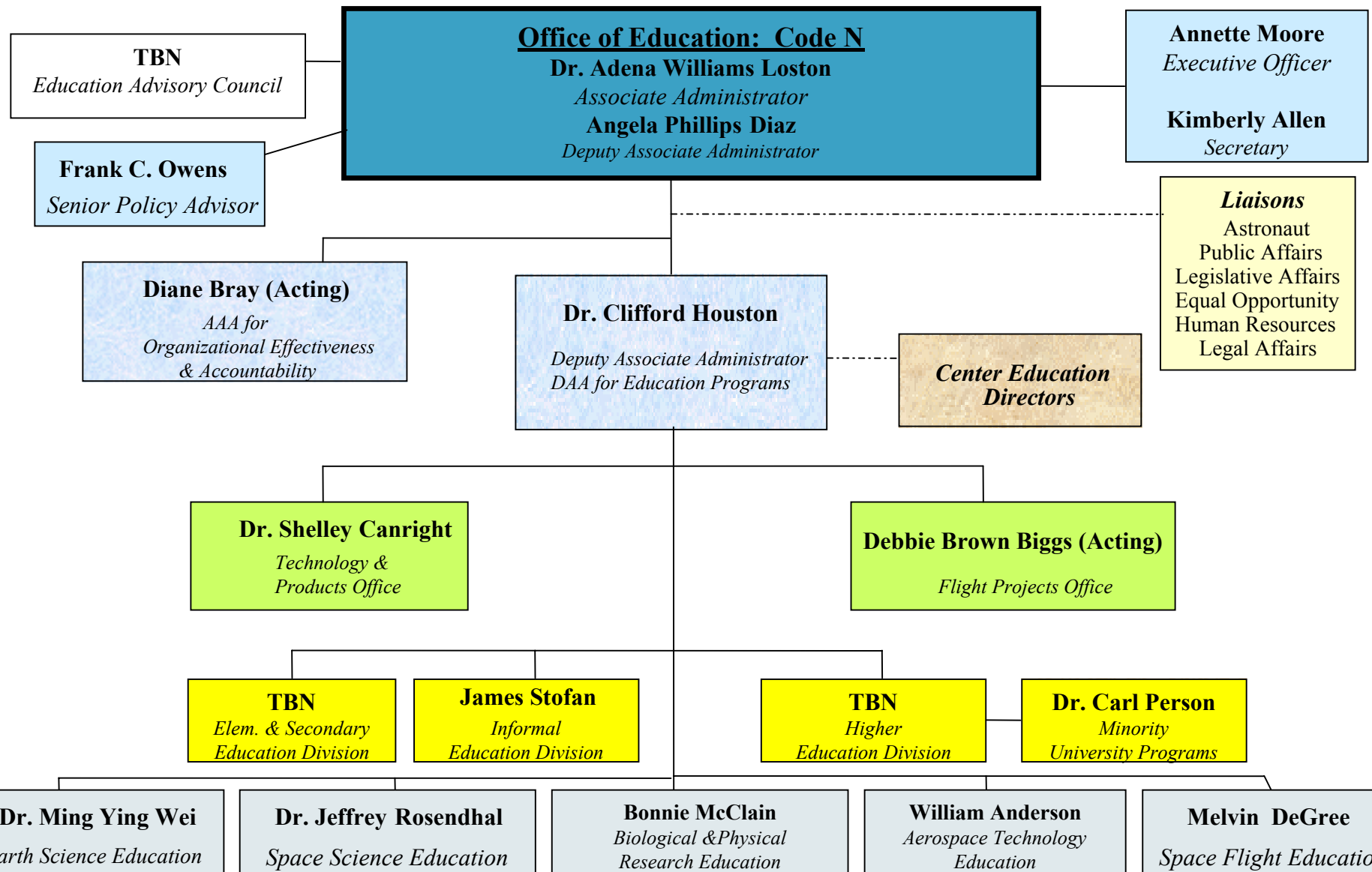**Higher Education Division**

September 2003

Agenda

- Updated Office of Education Org. Chart
- Update on Pathfinder Initiatives
- Office of Education Program Review (April 2003)
  - Space Grant and EPSCoR results and implications
- Brainstorm – Space Grant Highlights to Office of Education management
- Dr. Loston's visits to the field

Enterprise Organization

TBN
Education Advisory Council

Office of Education: Code N
Dr. Adena Williams Loston
Associate Administrator
Angela Phillips Diaz
Deputy Associate Administrator

Annette Moore
Executive Officer

Kimberly Allen
Secretary

Frank C. Owens
Senior Policy Advisor

Liaisons
Astronaut
Public Affairs
Legislative Affairs
Equal Opportunity
Human Resources
Legal Affairs

Diane Bray (Acting)
*AAA for
Organizational Effectiveness
& Accountability*

Dr. Clifford Houston
*Deputy Associate Administrator
DAA for Education Programs*

***Center Education
Directors***

Dr. Shelley Canright
*Technology &
Products Office*

Debbie Brown Biggs (Acting)
Flight Projects Office

TBN
*Elem. & Secondary
Education Division*

James Stofan
*Informal
Education Division*

TBN
*Higher
Education Division*

Dr. Carl Person
*Minority
University Programs*

Dr. Ming Ying Wei
Earth Science Education

Dr. Jeffrey Rosendhal
Space Science Education

Bonnie McClain
*Biological &Physical
Research Education*

William Anderson
*Aerospace Technology
Education*

Melvin DeGree
Space Flight Education

- ## Recruitment Results
  - Over 8881 nominations, produced over 4801 nominees
  - Recruitment efforts resulted in over 1685 resume submissions
- ## Earth Crew:
  - Over 1600 Teams include over 28000 members
  - Over 1121 Earth Crew mission submissions
- ## What's Next?
  - Continue with Educator Astronaut selection process
  - Shift program focus from recruitment to engaging the next generation of explorers via the Earth Crew

- Provide opportunities to students to explore STEM and geography

- Provide sustained professional development and access to NASA tools and application

- Build strong family involvement components

Program Elements

- Customized professional development over 3 years incorporates NASA education programs

- 50 teams selected, representing primarily underserved populations

- Each NES team will develop an action plan targeting high need STEM areas. $10K per school for implementation.

- Summer '03 workshops at each of the 10 NASA Centers for the NES teams.

- On-line presence of student investigative opportunities, mathematics problem solving and engineering design challenges.

Announcement of opportunity for new Explorer Schools was released 9/15/03

- **NASA Explorer Institutes: Pipeline**
  - Informal Education Division Director will be leading the development of this effort

- **NASA Science and Technology Scholarship Program: Workforce development**
  - Awaits final legislative language

EVALUATION OF EDUCATION PROGRAMS

April 2003

- "*Develop* a means for *measuring the impact* of the Education initiative on the science, technology, engineering, and math *(STEM) student pipeline* and a *benchmark for measuring success*."

- "*Undertake* a comprehensive *review* and *restructuring* of its *Education Base* and *Minority University Research and Education Programs*."

NASA's Approach

- ## Strategic Realignment
  - Develop Goals 6 & 7 in NASA's Strategic Plan
  - Address target areas of the NASA Pipeline
  - Align programs to Education Enterprise Initiatives

- ## Portfolio Management Implementation
  - Evaluation Reviews
  - Performance Metrics
 - Analysis and Redistribution

- **Customer-Focused**: Responsiveness to a need identified by the education community, customers or customer group (4 subcriteria)

- **Content:** Percentage use of NASA content, people or facilities to involve students and/or the public in NASA science, engineering, or technology (4 subcriteria)

- **Pipeline:** Contribution to attracting diverse students to NASA careers in science, technology, engineering, or mathematics (3 subcriteria)

- **Diversity:** Outreach to identified targeted groups (5 subcriteria)

- **Evaluation:** Development of goals expressed in an objective, quantifiable, and measurable form (5 subcriteria)

- **Partnerships and Sustainability:** Use of programs/ products by local, regional, or national partners (7 subcriteria)
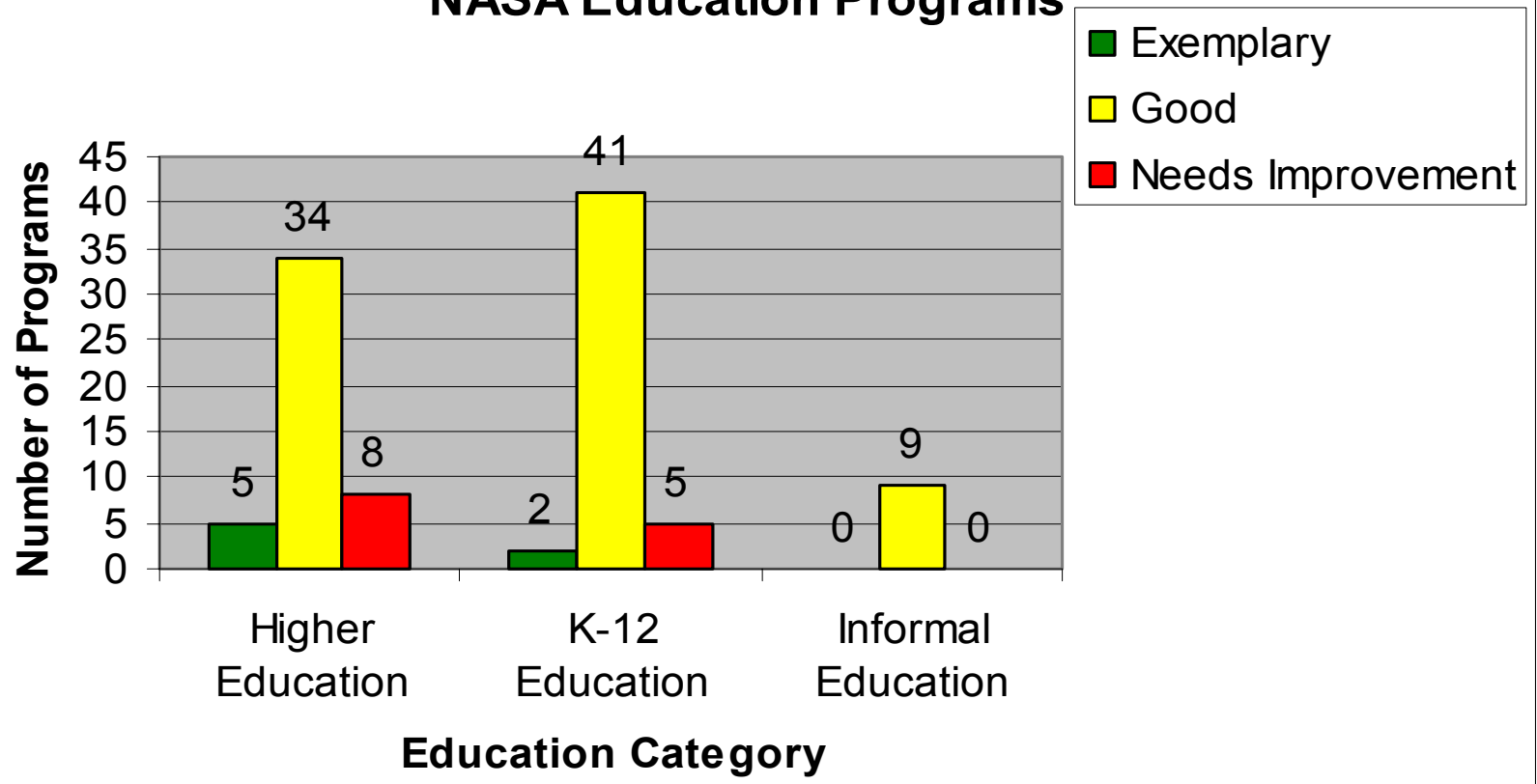
- Elements of the education portfolio are performing well and align with the NASA strategic plan

- Most NASA education programs strongly align with and support at least five of the six exemplary program criteria

- Higher Education programs rated highly for Pipeline support (82%) and for Partnerships and Sustainability (80%)

    - At the Elementary and Secondary Education level, the highest rated categories were Content (86%) and Customer-focused (84%)

    - Informal Education programs have a very strong content base (98%) and also reflect strong partnerships (85 %)

- Identified a gap in current NASA educational pipeline (first and second year undergraduate level)

Higher Education Program Scores
April 2003 Review

	Maximum Score							Rank
HIGHER EDUCATION	12	9	12	15	15	21		
Program Title	Customer Focused	Content	Pipeline	Diversity	Evaluation	Partners/ Sustainability	Composite Score	
Space Grant	93%	88%	79%	63%	85%	92%	83%	15th of 35
EPSCoR	93%	86%	74%	48%	80%	79%	77%	26th of 35
		Exemplary (100-90%)						
		Good (89-70%)						
		Needs Improvement (69% and below)						

- Space Grant was the highest rated non-minority targeted program

- Space Grant and EPSCoR did well in Customer-focused and Content; Space Grant in Partnerships/Sustainability

- There is room for improvement, especially in the area of diversity and pipeline for both programs

- We are awaiting guidance about the development of an Improvement Plan and the evolution of the Exemplary Program Criteria

Redirecting NASA's Education Portfolio

FY03

FY 04-07

FY08

Total Budget: $142.8M; estimate $26.6 million not fully aligned with education objectives

Annual Evaluations and Adjustments

Programs fully aligned with objectives; performance integrated with budget.

- Continue Evaluation Process
  - Gap Analysis of Pipeline Programs
  - Identify opportunities for collaboration
  - Program Evaluation and Research
  - Longitudinal Database

- Continue Portfolio Alignment and Assessment
  - Phase out programs that are not within target area
  - Phase out low-scoring and duplicative programs
  - Phase out programs that are non-sustainable
  - Enhance, expand and replicate Exemplary Programs
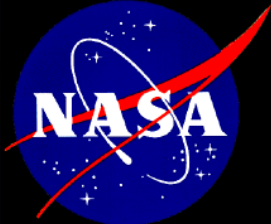 - Reallocate funding to target areas of pipeline

Space Grant and EPSCoR Highlights to Office of Education management

Categories of Reporting

- "Highlights from Prior Week"

- "Space Shuttle Return to Flight"

- "Upcoming Significant Events"

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