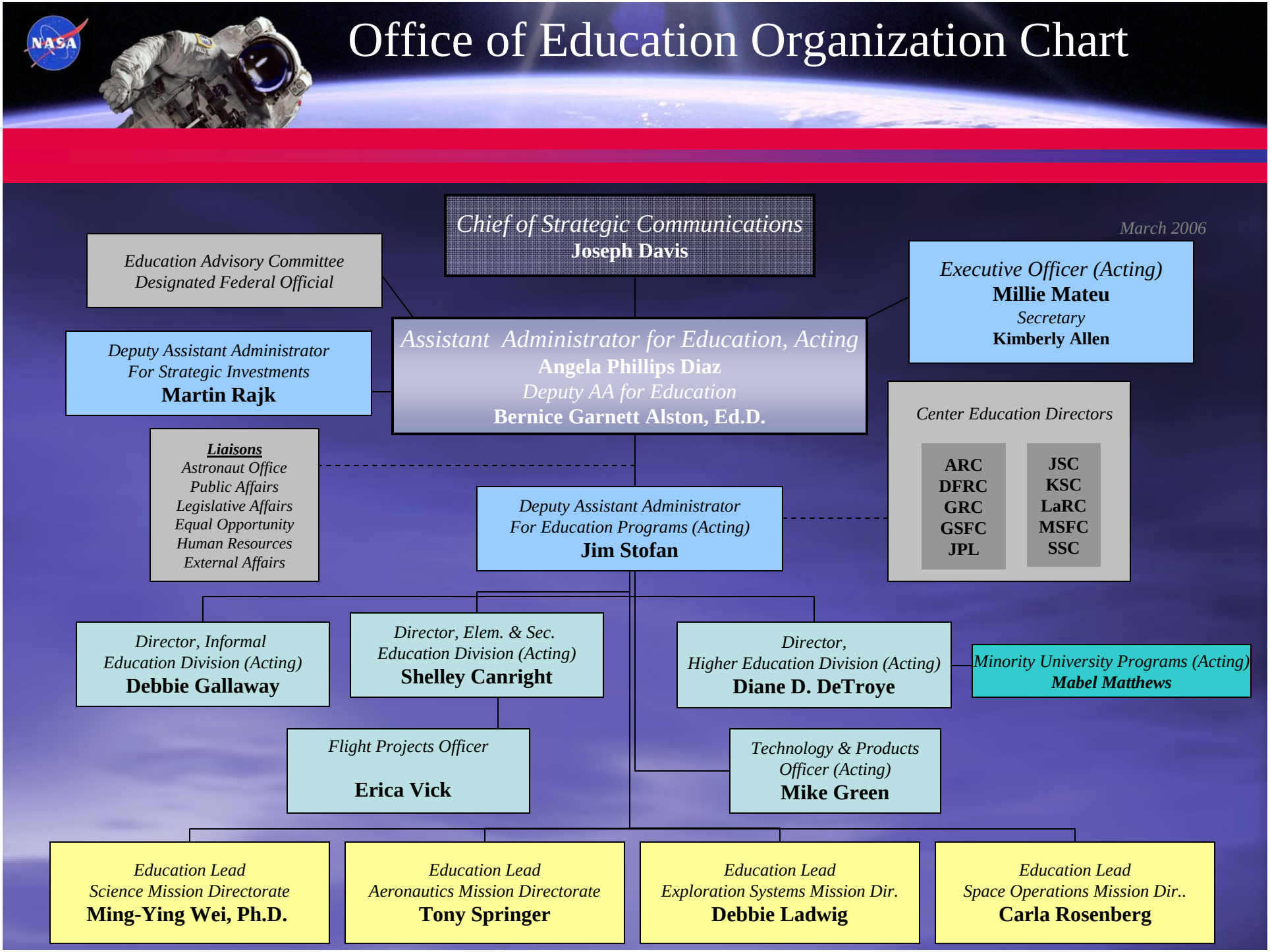
Office of Education

National Council of Space Grant Directors' Meeting

Washington, D.C.
March 15-18, 2006

Diane D. DeTroye
Director (Acting), Higher Education Division
Office of Education


Office of Education Organization Chart
March 2006
Chief of Strategic Communications
Joseph Davis
Education Advisory Committee
Designated Federal Official
Executive Officer (Acting)
Millie Mateu
Secretary
Kimberly Allen
Deputy Assistant Administrator
For Strategic Investments
Martin Rajk
Assistant Administrator for Education, Acting
Angela Phillips Diaz
Deputy AA for Education
Bernice Garnett Alston, Ed.D.
Center Education Directors
ARC
DFRC
GRC
GSFC
JPL
JSC
KSC
LaRC
MSFC
SSC
Liaisons
Astronaut Office
Public Affairs
Legislative Affairs
Equal Opportunity
Human Resources
External Affairs
Deputy Assistant Administrator
For Education Programs (Acting)
Jim Stofan
Director, Informal
Education Division (Acting)
Debbie Gallaway
Director, Elem. & Sec.
Education Division (Acting)
Shelley Canright
Director,
Higher Education Division (Acting)
Diane D. DeTroye
Minority University Programs (Acting)
Mabel Matthews
Flight Projects Officer
Erica Vick
Technology & Products
Officer (Acting)
Mike Green
Education Lead
Science Mission Directorate
Ming-Ying Wei, Ph.D.
Education Lead
Aeronautics Mission Directorate
Tony Springer
Education Lead
Exploration Systems Mission Dir.
Debbie Ladwig
Education Lead
Space Operations Mission Dir..
Carla Rosenberg

Changes since October 2005 meeting

- **New** 2006 NASA Strategic Plan
- **New** NASA Education Goals
- **New** NASA Education Outcomes
- **Ongoing** approach to earmark management within the Office of Education – earmarks provide Congressional direction to spending in Office of Education
- **New** NASA Education Strategic Coordination Framework under development
- **New** Creation of the Education Coordinating Council (ECC)
- **NASA FY 07 Budget Request** Space Grant requested at $28.76M, EPSCoR at $10M

Briefing to Angela Diaz
Assistant Administrator for Education (Acting)

March 9, 2006

Federal and University Partnerships

1862 - Land Grant

1966 - Sea Grant

1978 - NSF EPSCoR

1988 - Space Grant

1992 - NASA EPSCoR

Goals and Objectives

Goal:

Contribute to the nation's science enterprise by funding education, research, and public service projects through a national network of university-based Space Grant consortia.

Objectives:

1. Establish and maintain a national network of universities.
2. Encourage cooperative programs among universities, aerospace industry, and Federal, state, and local governments.
3. Encourage interdisciplinary education, research, and public service programs related to aerospace.
4. Recruit and train U.S. citizens, especially women, underrepresented minorities, and persons with disabilities.
5. Promote a strong science, mathematics, and technology education base from elementary through secondary levels.

Space Grant is primarily a Higher Education Program with K-12 and Informal Components

The Space Grant Approach

NASA Mission And Vision

Mission Directorates

- Aeronautics
- Exploration Systems
- Science
- Space Operations

***The Space Grant Network*:**
Education
Research
Public Service

State Interests and Needs

- Workforce Development priorities
- Education goals
- Economic growth
- Science and Technology goals

The First Five Years

Formation

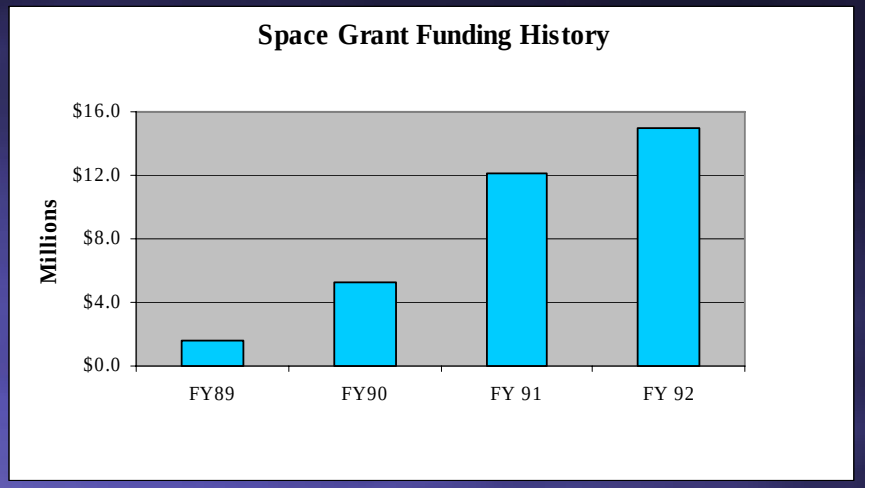
1987 – Public Law 100-147

1989 – Initial 21 Designated Consortia Selected

1991 – Growth to 52 Consortia

- 21 Designated - $325K/consortia
- 14 Program Grant - $150K/consortia
- 17 Capability Enhancement - $150K/consortia

- Woods Hole Conference/First Strategic Plan



Fellowship Award Demographics

- 19% Underrepresented Minority
- 39% Women

Building the National Network – Objective 1

Fellowship & Scholarship Program – Objective 4

Years 6-10

Evolution, Expansion, Flexibility of State Efforts

Programmatic

- Grant Types
  - 21 Designated - $325K/consortium
  - 14 Program Grant - $205K/consortium
  - 17 Capability Enhancement - $205K/consortium
- 2nd Strategic Plan developed
- Formation of Regional Consortia

NASA Connections

NASA Leveraging the Network

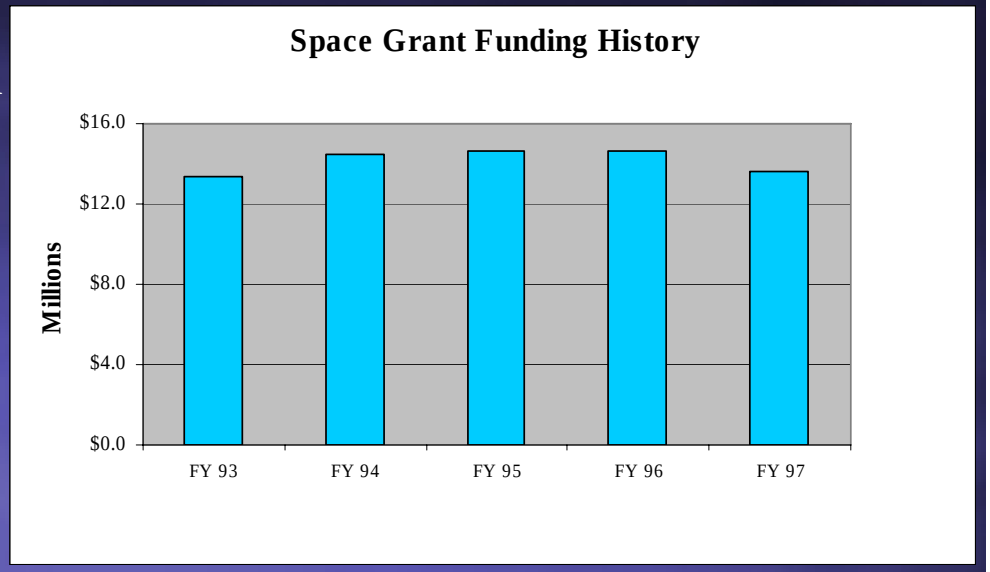
- First GLOBE Training Sites

SG Reaching out with the Network

- NASA Academies
- KC-135 and Moonbuggy

Special Emphasis

- Tribal College Involvement
- Industry Expansion



Fellowship Award Demographics

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Building partnerships – Objective 2
Establishing Interdisciplinary Programs – Objective 3
Refining Precollege Programs – Objective 5

Years 11-15

Realization of National Network

Programmatic

- Grant Types – Funding per consortium
  - 25 Designated - $475K/consortium
  - 12 Program Grant - $256K/consortium
  - 15 Capability Enhancement - $256K/consortium
- Formation of Topical Consortia
- Geospatial Interagency Initiatives (USDA, NOAA)
- Initial Congressional Interest

NASA Connections

NASA Leveraging the Network

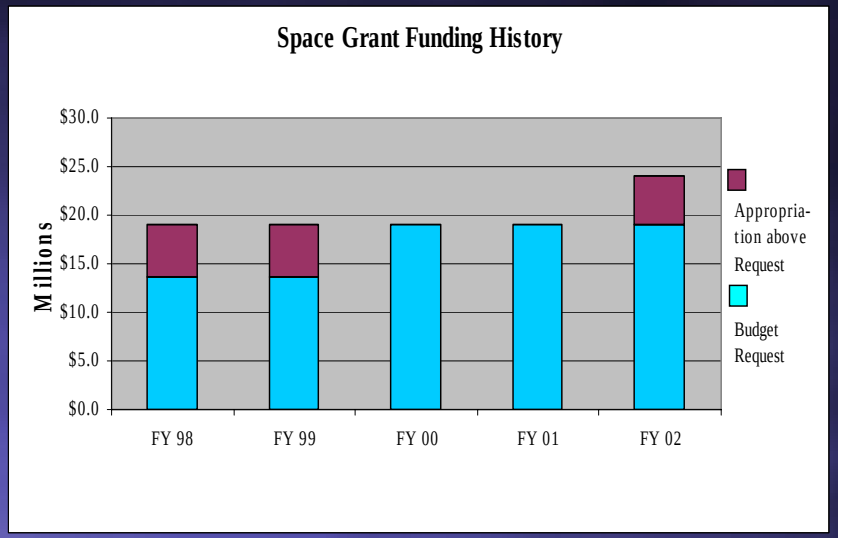
- FIRST Robotics Competition

SG Reaching out with the Network

- SMD Broker Facilitators (2)
- USRP

Special Emphasis

- Re-Focus on Diversity
- Initial STEM Workforce Development Awards
- Emergence of Student Satellite Initiatives
- State Government Involvement
- Undergraduate Research Opportunities
- Focus Precollege on Educators



Fellowship Award Demographics

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Progression from 52 State Entities to National Entity

Years 16-19

Workforce Development

Programmatic

- Grant Types (FY 06) – Funding per consortium
  - 35 Designated - $580K/consortium
  - 8 Program Grant - $403K/consortium
  - 9 Capability Enhancement - $403K/consortium
- Initiate Longitudinal Tracking
- NASA Workforce Development

NASA Connections

NASA Leveraging the Network

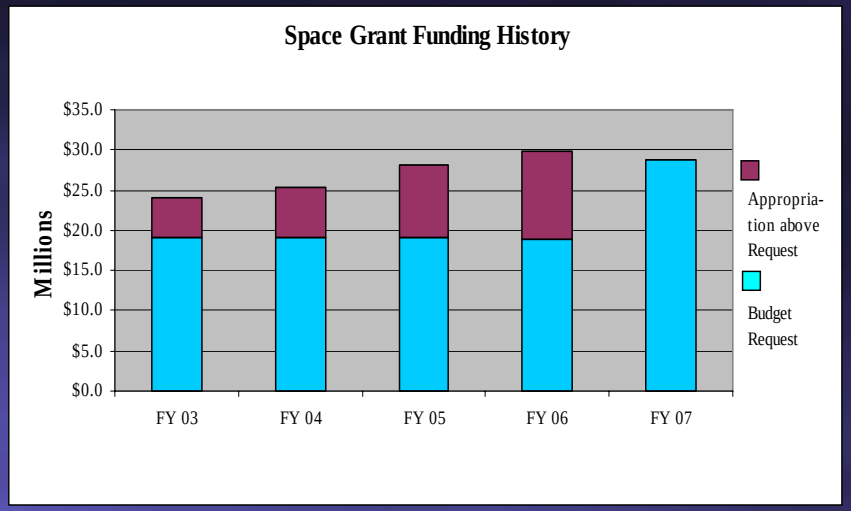
- ISS Engineering Outreach
- Corporate Recruiting
- Center-based internships

SG Reaching out with the Network

- NSIP
- E/PO for SMD programs
- Education Associates Program
- AERO Institute

Special Emphasis

- Expanding NASA ties
- Development of Hands-On Experiences
- Industry Ties



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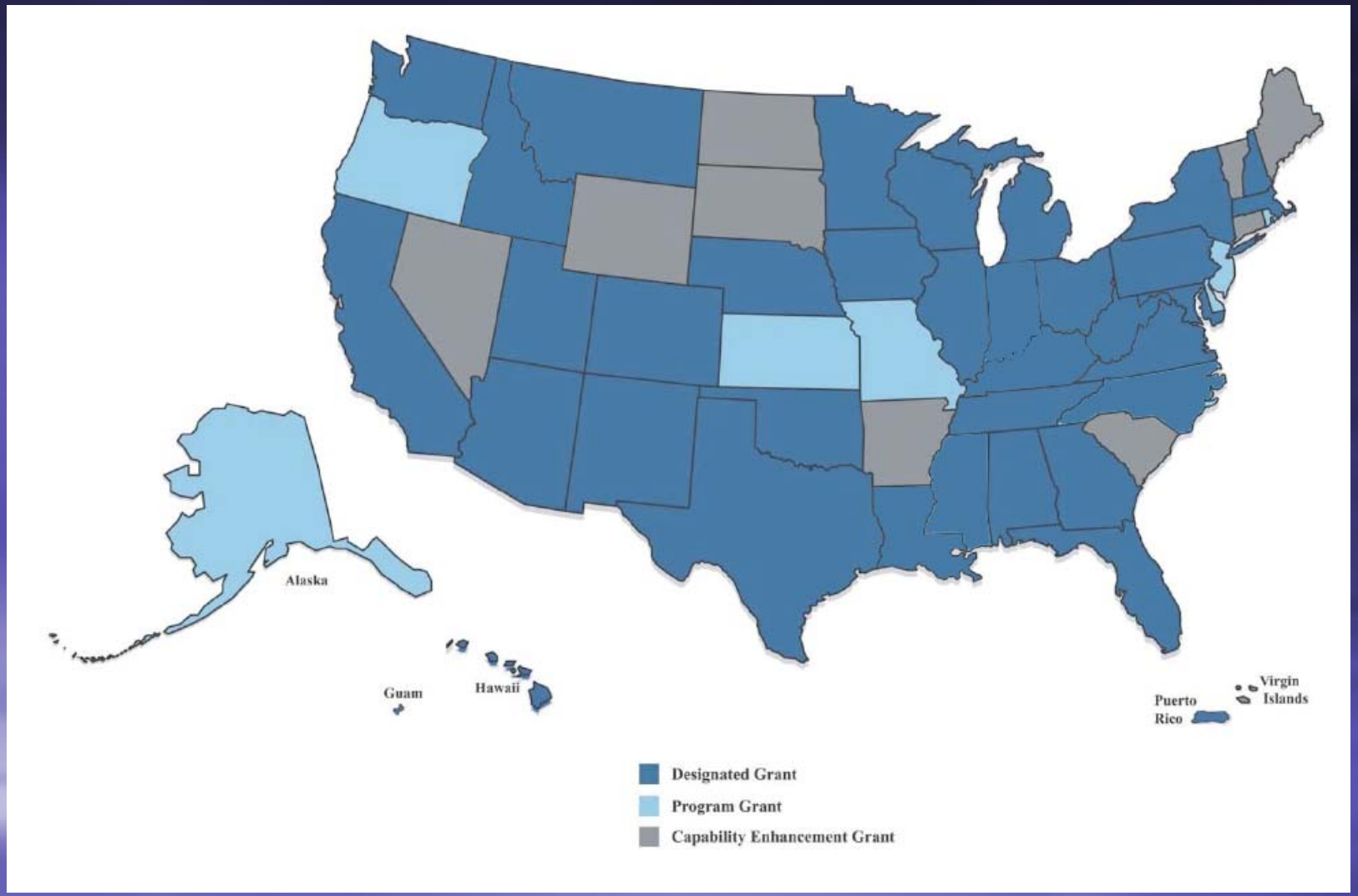
Space Grant is the Pump in the Pipeline

NASA Space Grant Consortia



National Statistics

Partnerships Comprising the National Network

- 850+ Affiliated Organizations
  - 550+ Colleges and Universities
    (including 42 HBCUs, 24 HSIs, 25 Tribal Colleges, 7 OMUs)
  - 80+ Industry Affiliates
  - 40+ Government Affiliates
  - 180+ Non-profit & Other Educational Organizations

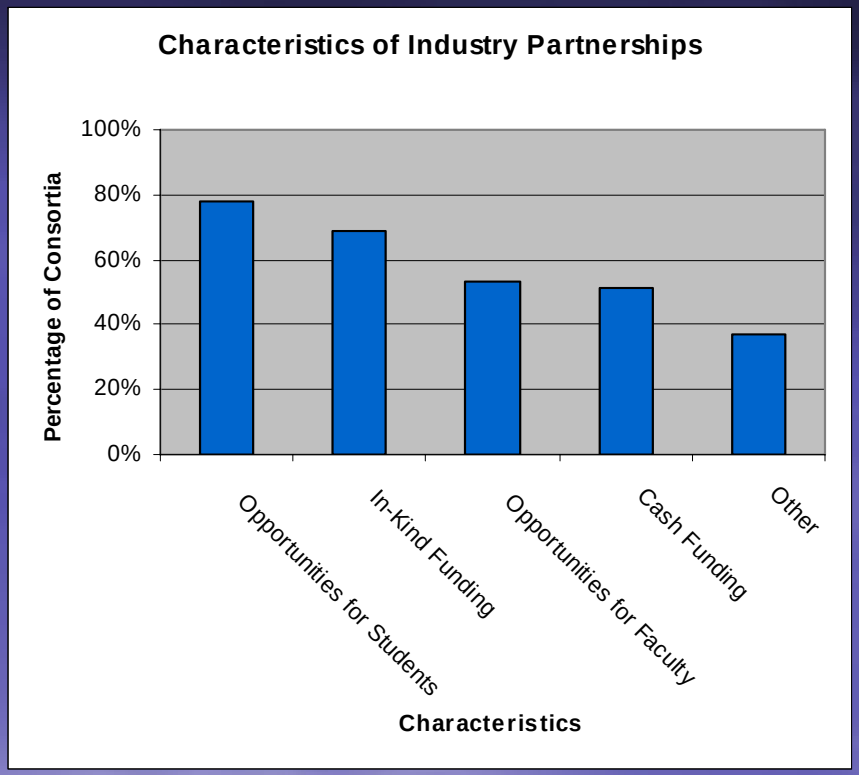
Programmatic Highlights

- 2,500+ Fellowship/Scholarship Awards annually
  - 450 Students with significant awards ($\geq$ $5,000/year) in 2004
- 1:1.5 Leveraged funding (includes other Federal) (recent average)
- 19 Patents in the past five years
- 320 Publications – (annual average for past five years)
- $27.4 Million in funded proposals due to Space Grant involvement
- 600+ Research Programs annually
- 475+ Public Service Programs

Workforce Development & Partnerships

Evidence of Success

Industry Partnerships



94% of Consortia Report Partnerships with Industry

Source: March 2006 Survey of Space Grant Directors

NASA Workforce Development

Student Placements

Space Grant consortia support approximately **360 students** annually to engage in an internship-type opportunity at a NASA Center .

Space Grant consortia support approximately **178 students** annually to engage in an internship-type opportunity with industry .

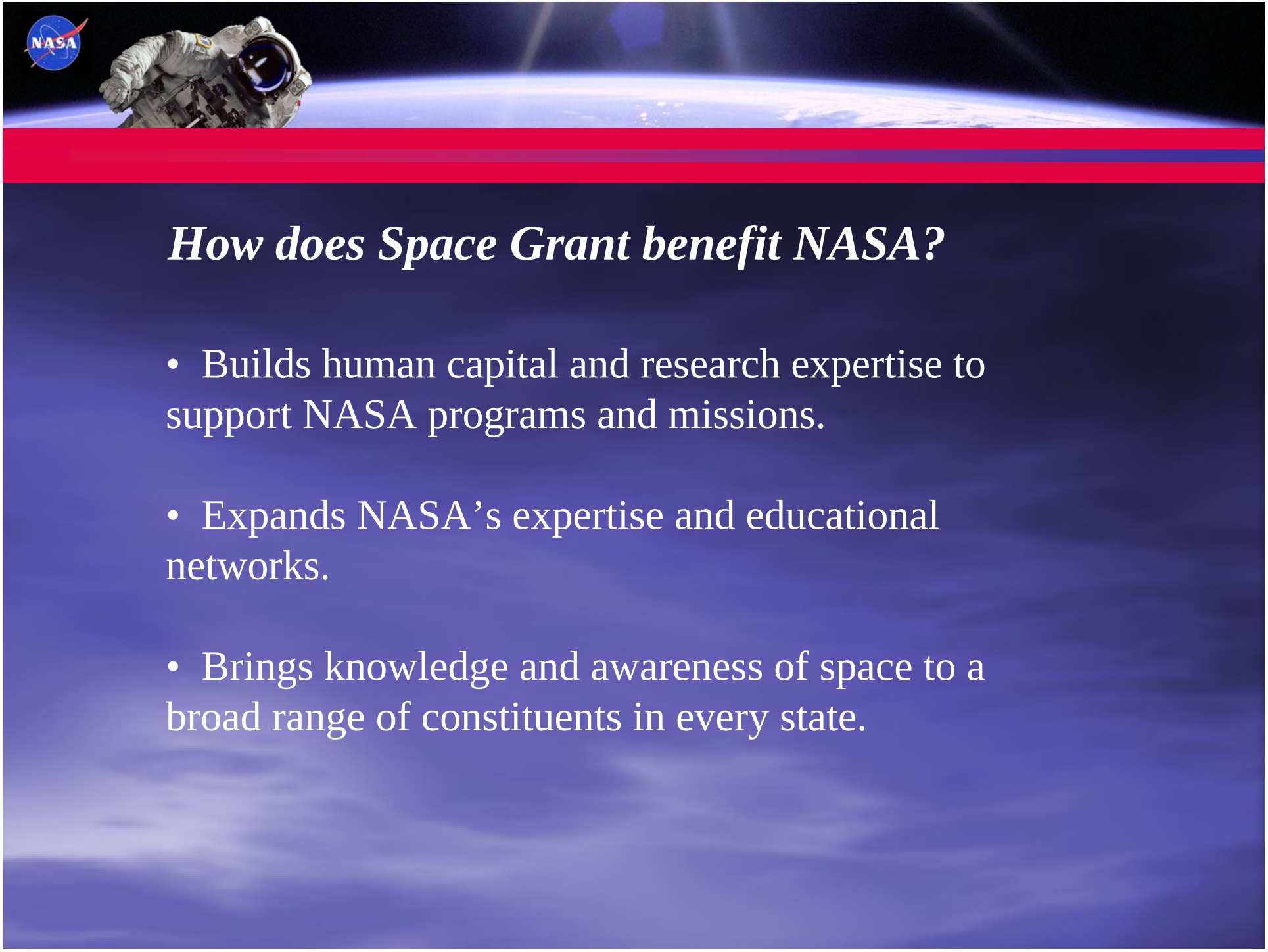
Most Space Grant Consortia place and support up to **4** students annually at NASA Centers, with some consortia supporting **10** or more.

Faculty Placements

Space Grant consortia support approximately **41 faculty members** annually to engage in an on-site research opportunity at a NASA Center .

Space Grant consortia support approximately **20 faculty members** annually to engage in an on-site research opportunity with industry.

**Average number of placements over a three year period for all consortia.*



How does Space Grant benefit NASA?

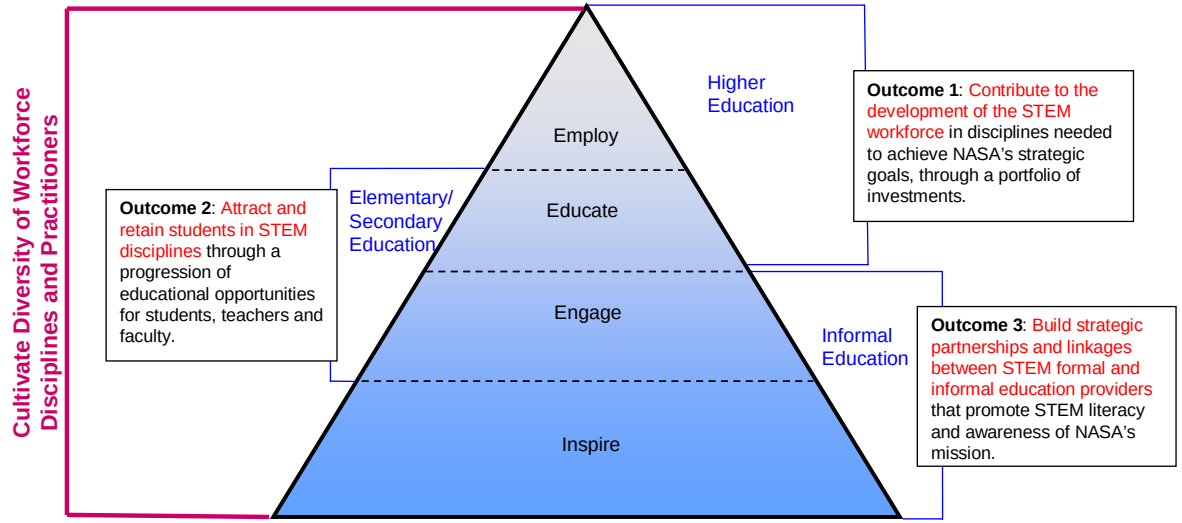
- Builds human capital and research expertise to support NASA programs and missions.

- Expands NASA's expertise and educational networks.

- Brings knowledge and awareness of space to a broad range of constituents in every state.

Next Steps – Where to from here?

NASA Education Strategic Framework



On the Horizon

- ECC-chartered team to look at Space Grant and EPSCoR within the environment of the new NASA Education Framework