NASA Space Grant Program Office Update

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Crystal City, VA

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Outline

- Space Grant NASA Center Points of Contact
- What's New at NASA?
- Space Grant Program Office
  - Graduate Education CoSTEM Interagency Working Group
  - NASA Lines of Business
  - Space Grant Objectives
  - CoSTEM Priority Areas
- Future Solicitations
- Fiscal Climate
- National Evaluation
- Space Grant Messaging

What's New at NASA?

- EarthNow
- OSIRIS-REx
- ORION EFT-1

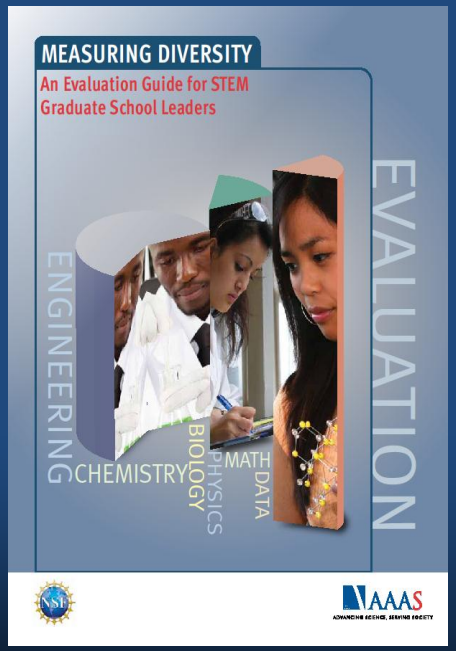
Artistic concept of ORION capsule in orbit – nasa.gov

NASA's EARTH NOW apps for iPhone– nasa.gov

Artistic concept of OSIRIS-REx – nasa.gov

Graduate Education
CoSTEM Interagency Working Group

- One Stop Shopping Portal – Graduate Fellowships
- Develop common metrics with automated tracking mechanisms.
- Work with outside stakeholders (i.e. universities, professional associations).
- Bring students funded by different agencies together (i.e. AAAS meeting).
- Co-Leads – Dr. Lenell Allen and Dr. Lisa Wills



NASA Education Lines of Business

STEM Engagement

Activities utilizes NASA-unique resources and include STEM Challenges, STEM Public Education events, and STEM Experiential Learning Opportunities

Educator Professional Development

Increases and educators (in-service, pre-service, informal) confidence and enthusiasm in delivering STEM materials

Institutional Engagement

Builds the capacity of formal and informal education institutions to participate in NASA's mission

NASA Internships, Fellowships and Scholarships (NIFS)

Motivate students to pursue careers in STEM and improve the retention of students in STEM disciplines

NASA Space Grant Objectives

Establish and maintain a national network of universities with interests and capabilities in aeronautics, outer space and related fields

Encourage cooperative programs among universities, aerospace industry, and federal, state and local governments

Encourage interdisciplinary training, research and public service programs related to aerospace

Recruit and train U.S. citizens, especially women, underrepresented minorities, and persons with disabilities, for careers in aerospace science and technology

Promote a strong science, mathematics, and technology education base from elementary - secondary levels

Co-STEM Priority Areas

Improve STEM Instruction

Prepare 100,000 new K-12 STEM Teachers by 2020

Increase and Sustain Youth and Public Engagement in STEM

Support a 50% increase in U.S. youth authentic STEM Experience prior to completing high school

Enhance STEM Experience of Undergraduate Students

Graduate 1 Million additional students in STEM fields over the next 10 years

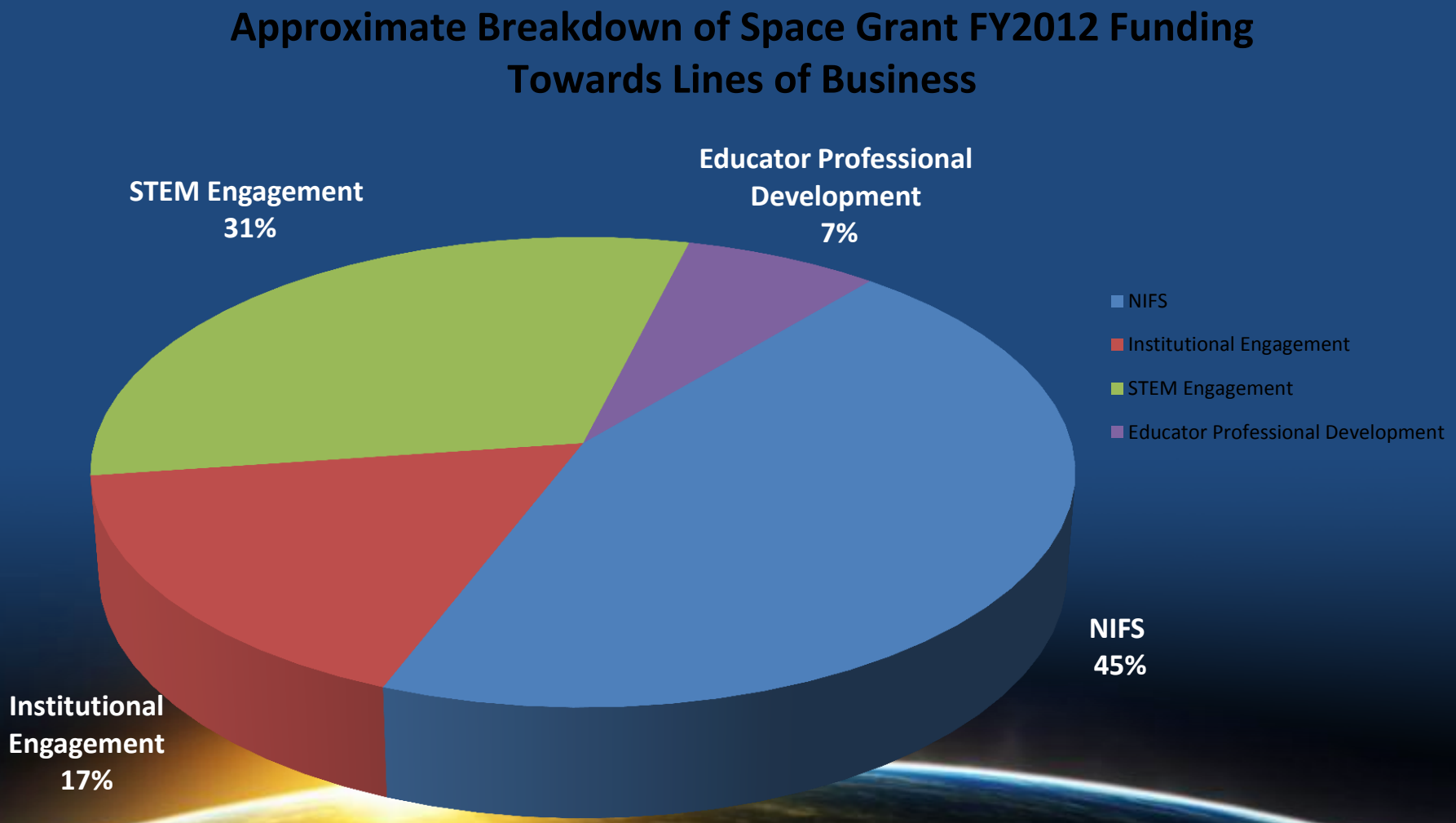
Better Serve Groups Historically Under-represented in STEM

Increase the # of underrepresented minorities graduates in STEM degrees in the next 10 years

Design Graduate Education for Tomorrow's STEM Workforce

Provide graduate trained STEM professionals with basic and applied research expertise

FY2012 Lines of Business Funding



STEM Engagement

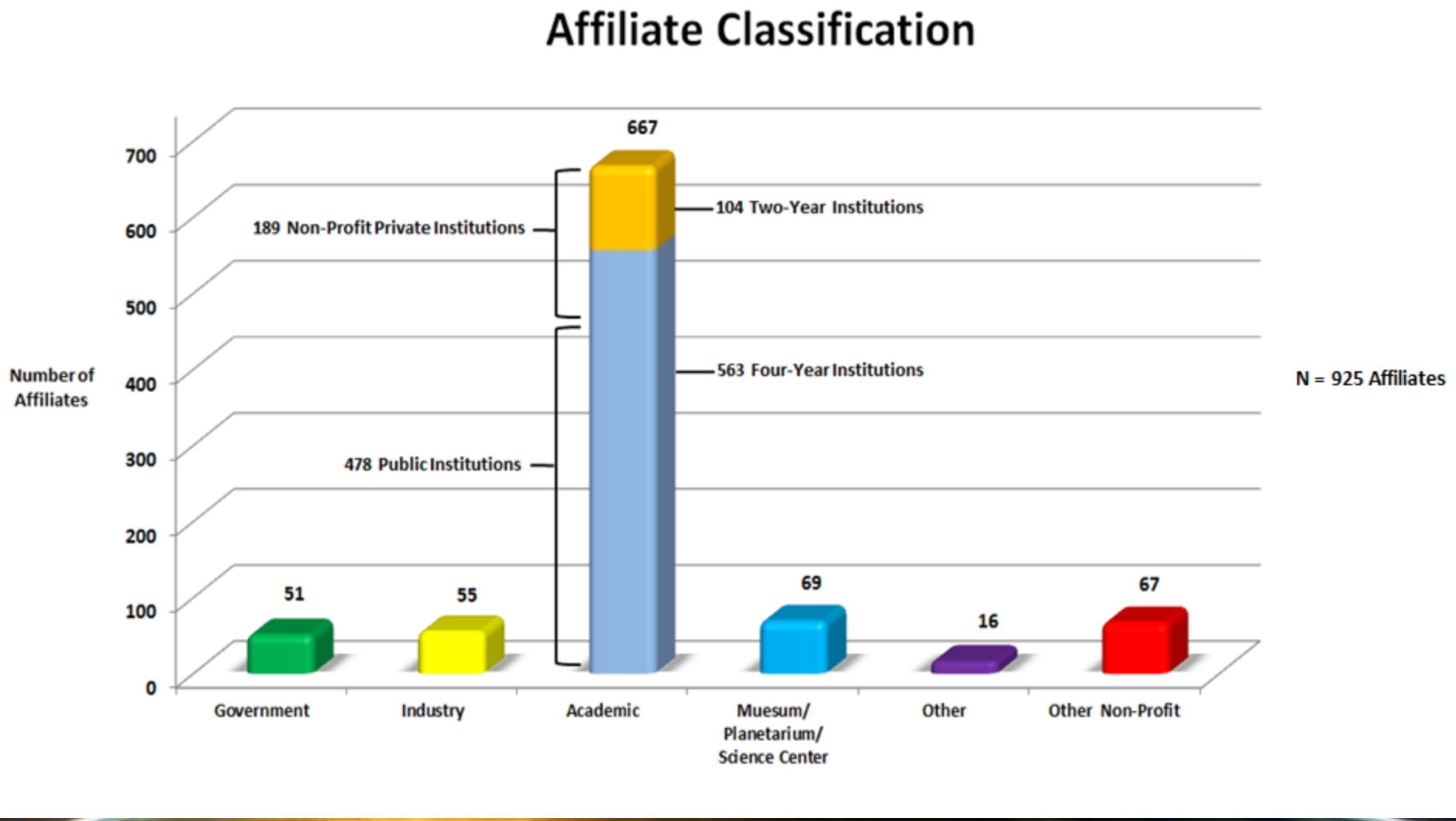
# of Project Partners	# of Publications	# of Papers Presented	# of Proposals Funded	# of Patents Granted	# of Tech Transfers
211	971	629	187	1	9

- 244 Public Education Activities
- 649 Pre-College Project Activities
- 687 Higher Education Project Activities
- New/Revised Higher Education STEM Courses
  - 166 New Courses
  - 222 Revised Courses

Educator Professional Development

Participant Type	Direct Interaction	Indirect Interaction	Unique Participants
Elementary School Teachers	10,451	13,435	14,798
Middle School Teachers	11,962	24,939	10,220
High School Teachers	5,769	8,516	5,231
Pre-Service Teachers	1,702	3,557	1,204
Higher Education Faculty	2,999	3,120	2,192

Institutional Engagement



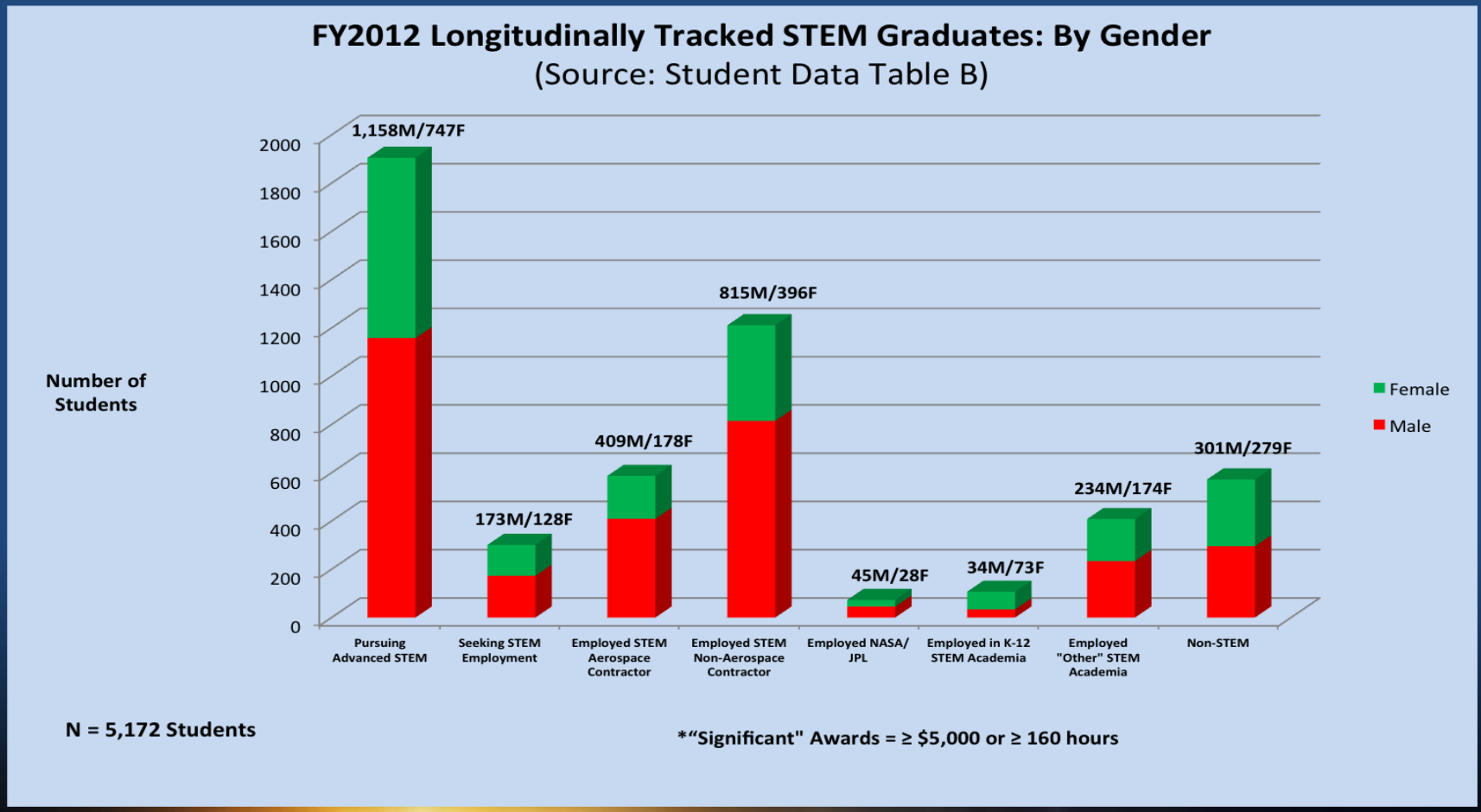
*Functionality to determine Minority Serving Institutions in OEPM is currently in the development phase

NASA Internships, Fellowships and Scholarships

Space Grant Student Internships FY2012

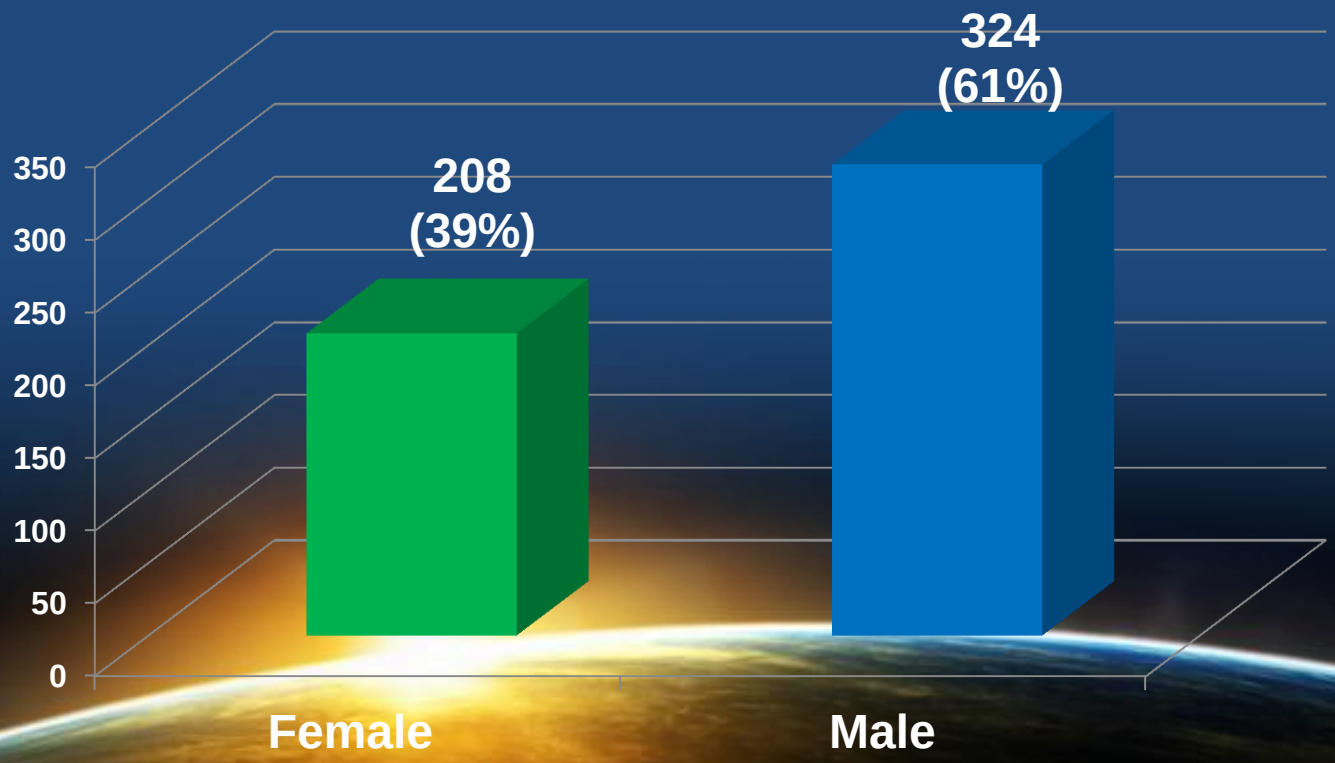
- 518 Internships Awarded through Space Grant
  - 191 Internships at NASA Centers
- Approximately $2.1M Awarded as Internship Awards
- 100+ Fields of Study (122 Unknown Student Majors)

FY2012 Space Grant STEM Graduates: By Gender



Space Grant Graduate Fellowships

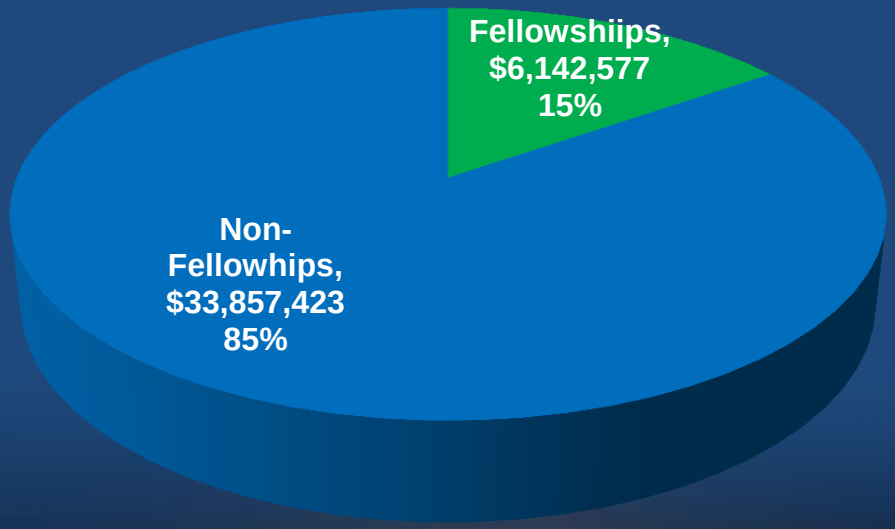
- 533 Fellowships awarded in FY2012
  - 42 Underrepresented Minority Students



*1 Student with Undisclosed Gender

Space Grant Graduate Fellowships

FY2012 Space Grant Fellowships Expenditure



FY2012 Space Grant Budget = $40,000,000

Highlights

- 376 Students Pursuing Masters or Doctorates
  - 90+ Different Fields of Study being Pursued
  - (157 Students Unknown)

- Consortium with Highest Number of Awarded Fellowships:
  - Massachusetts 50
  - Virginia 38
  - New Mexico 23
  - California 17
  - Pennsylvania 17
  - Puerto Rico 17

Fiscal Climate

- Budget – FY 2014 Funding Levels:
  - NASA Office of Education: $116.6m
  - Space Grant: $40m
  - EPSCoR: $18m
- FY 2015 Budget

Courtesy of MA Space Grant

Future Solicitations

- FY14 Omnibus Bill Language

  "Any Space Grant funds available in excess of the amount needed to fulfill base awards shall be made available to all consortia on a competitive basis."

- Competitive Targeted Community College and Technical Schools Opportunity
  - Expected Release Date on NSPIRES – March 7, 2014
  - Cooperative Agreement (2-Year Period of Performance)

- Base Awards (Space Grant Community Input)
  - Expected Release Date on NSPIRES – August, 2014
  - Grants (2-Year Period of Performance)

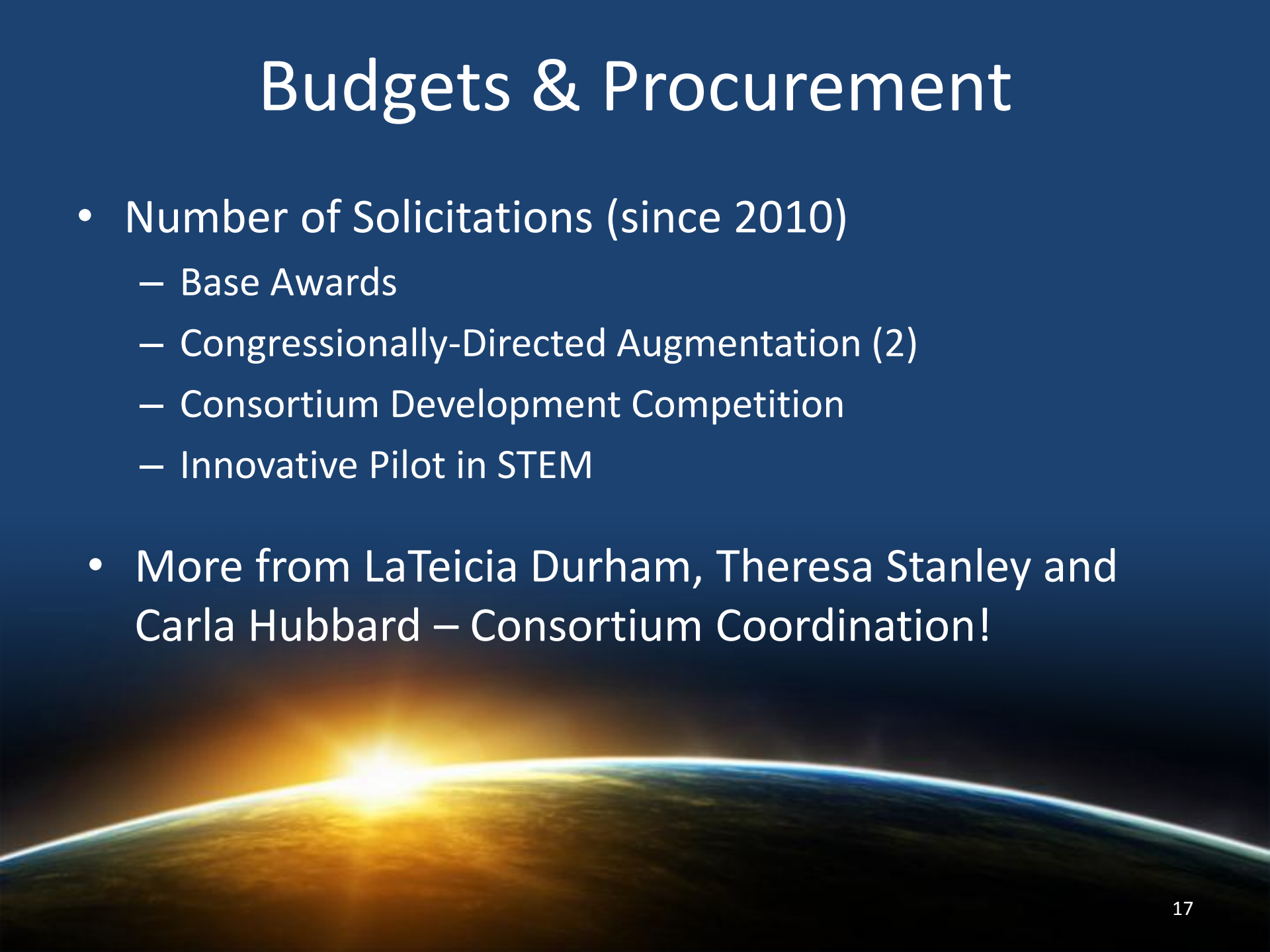
National Evaluation

- External, Third-Party Evaluation
- More from Dr. Patricia Shaffer -Consortium Coordination!

Courtesy of DE Space Grant

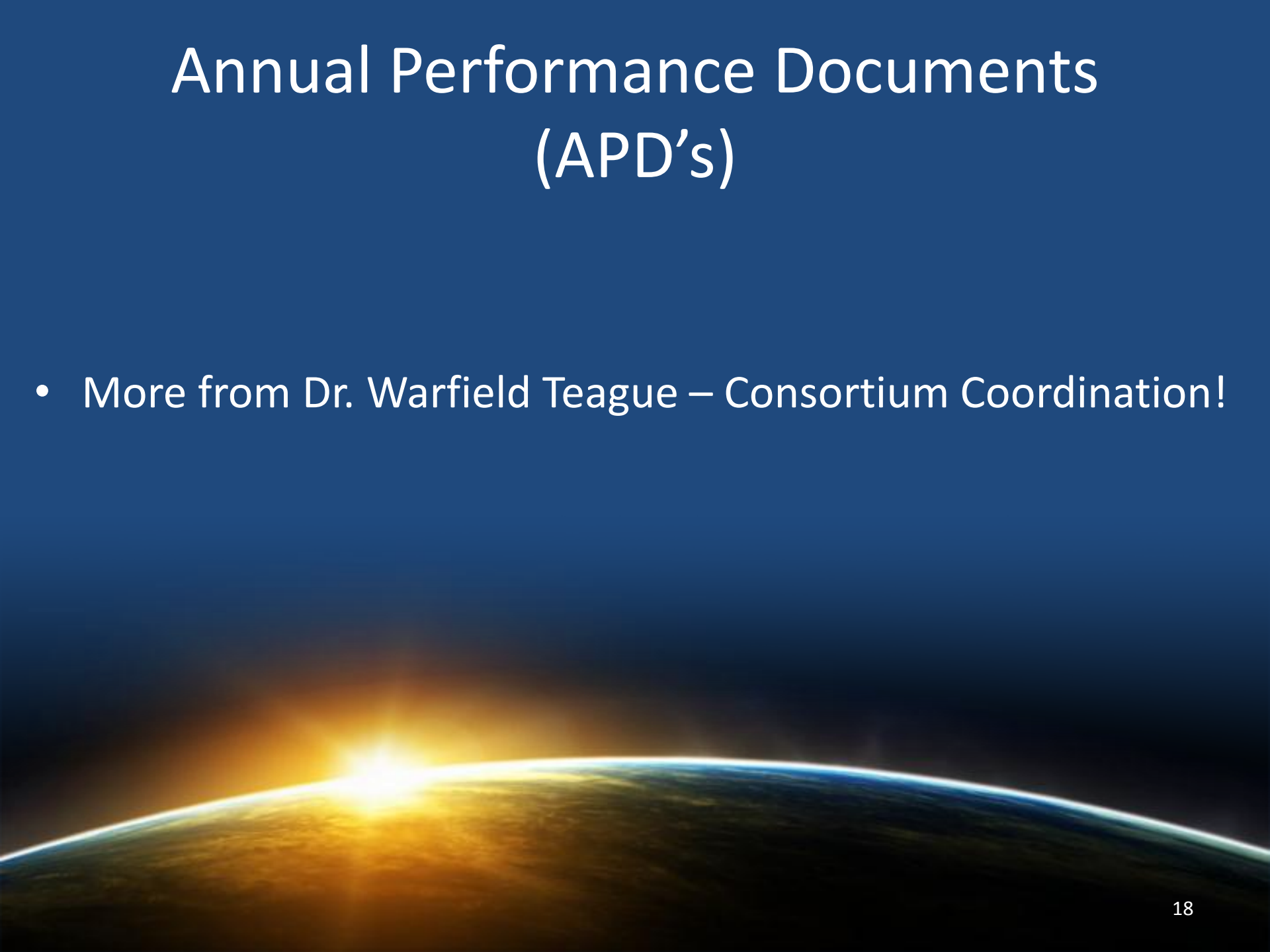
Budgets & Procurement

- Number of Solicitations (since 2010)
  - Base Awards
  - Congressionally-Directed Augmentation (2)
  - Consortium Development Competition
  - Innovative Pilot in STEM
- More from LaTeicia Durham, Theresa Stanley and Carla Hubbard – Consortium Coordination!



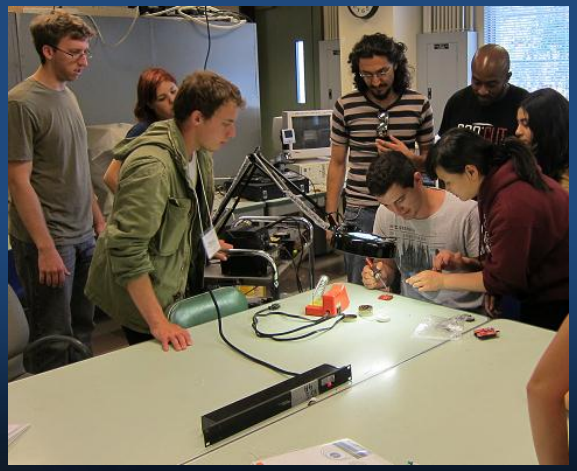
Annual Performance Documents (APD's)

- More from Dr. Warfield Teague – Consortium Coordination!



Space Grant Messaging

- Ongoing Communications Efforts
- Anticipated Coordination with Center PoC
- More from Sasha Korobov – Consortium Coordination!
  - Website
  - Twitter
  - NASA Express
  - WAR Report



Courtesy of CA Space Grant

Kudos

Leland Melvin

Jim Stofan

Thank You!!