New Jersey Space Grant
Activities and Future Outlook

Haim Baruh, Director
Summary of FY 2011 Activities

- Maturation of NJSGC
- Hosted successful regional conference
- Expansion of programs (from 7 to 24) in three years
- Establishment of new contacts via congressional and other visits
- Improvement on record with females, small drop in diversity record
  - 24% Underrepresented minorities (28% NJ Target Goal)
  - 43% Females (45% NJ Target Goal)
  - Better distribution of our funding statewide
Maturation of Consortium

- 13 Affiliates: 11 academic, 1 government, 1 planetarium
- Contacts with community colleges
- More active in National Space Grant Network
- Contacts continuing with:
  - Federal Aviation Administration
  - Sea Grant
Outcome One Programs in FY 2011

• Expansion of research clusters (NJIT, Princeton, Coll. of NJ, Rowan)

• Bridge Programs: K-12 to college, entering college students, and college to graduate school programs

• Increase in academic year fellowships (has become our most popular program)

• More academic institutions receiving fellowships

• Increase in industry-supported internships
Outcome One Programs in FY 2011

- RiSE Program – Research in Science and Engineering – Summer internship program for minorities
- NJIT & Ramapo College bridge program
- Travel support to students for conferences to make presentations
- Senior project support, other project support (Princeton)
- Over 60 direct funded undergraduate and graduate students
Outcome Two Programs in FY 2011

- Rock On in 2010 – Rock SAT in 2011 and 2012 (6)
- Partners in Science at Liberty Science Center (10 students)
- GIST – Girls involved in Science and Technology at Georgian Court University (6 students)
- NYCRI, where teams of K-12 and college students work on research projects (6 students)
- NASTAR – Astronaut Teacher Training (slightly revised focus this year, 6 teachers)
- Rutgers Pre-Service Science Teacher Training (12 students)
- Rutgers TARGET (The Academy at Rutgers for Girls in Engineering and Technology) for high school females (15 students)
Outcome Three Programs in FY 2011

- Edelman Planetarium at Rowan University
- Raritan Valley Community College Planetarium
Conferences Held and Participated in During in FY2011

• Regional Conference – November 2011

• Academic Year Fellowship Poster Session – April 2012
  • 24 college students from 12 different academic institutions presented their research

• New York City Research Initiative – July 2012
  • Six NJSGC sponsored students presented their research at a poster session

• Summer Research Conf. & Poster Session – August 2012
  • 10 undergraduates from six different academic institutions presented their research with a talk and a poster session

• RiSE (Research in Science and Engineering) Program at Rutgers - August 2012
  • Five NJSGC-funded students made presentations at a one-day symposium
New Initiatives for FY2012

• Programming
  • As NJSGC matures and NASA funding levels decline, we do not anticipate any new programs in FY2012
  • We will, of course develop initiatives in response to RFPs and competition announcements, as well as continuously evaluate our existing programs

• Mentoring
  • This year’s focus is bringing together NJSGC alumni and new students and have the new students mentored by NJSGC alumni
  • Begin with the Rock-Sat program
  • Continue with research clusters
Administrative Actions

- NJSGC Staff:
  - Director (Haim Baruh)
  - Program Director (Joseph S. Miles)
  - Program Coordinator (Aiesha Long)
  - Web Master (Leora Wenger)

- More proactive and engaging with affiliate representatives

- Personal visits to affiliates and partners achieves success

- The NJSGC team has been persistently on the road, making site visits
  - This year, we will begin doing encore visits
Success Stories

- **Brian Arnold (Rowan University)**
  - Summer fellowship from NJSGC
  - Graduated with degree in physics in 2012
  - Graduate study in physics (partially supported by NJSGC graduate fellowship) at SUNY Stony Brook

- **Naomi Baruh (Rutgers University)**
  - LARSS Fellow in 2011
  - Graduated in 2012 with high honors in mechanical engineering
  - Working in aerospace industry (Alcoa in Dover, NJ, manufacturing aircraft engine parts)
  - Wants to form volunteer groups to teach math to disadvantaged children
We will rely on prior year unused funds in FY2012 so that we do not cut too many programs.
NJSGC Diversity Initiatives and Results

- Substantial overall improvement in minority and female awards over the last three years
  - However, improvement is erratic year by year
- Success in attracting a graduate student with disability
- Collaborative efforts include
  - Excellent collaboration with NJ City University (majority Hispanic)
  - Bloomfield College (large minority enrollment) into the fold
  - Minority graduate student development and bridge programs
  - Successful in attracting minority students to graduate fellowships
Improvement Needed

• Additional sources of funding to support the Consortium expansion
• To encourage affiliate representatives to publicize programs more aggressively
• Advisory board and newsletter
• Diversity record
• Writing proposals to N.J. industry and government
Summary and Overall Outlook for the Future

- Maturing of the Consortium
- Maintaining activity level
- Continuous work on encouraging alliances and affiliations
- Improvements in programs and diversity
- Increased mentoring