



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



NJSGC FY 2012 Funding and Budget

	FY 2012	Augmentation	Competition	Totals	Percentages
Fellowships	110,000			110,000	25.6%
Research	49,000			49,000	11.4%
Higher Ed (Outcome 1)	61,000			61,000	14.2%
Higher Ed (Outcome 2)	35,000			35,000	8.1%
Pre-College	20,000			20,000	4.7%
Informal Education	4,000			4,000	0.9%
Operating	110,000			110,000	25.6%
Overhead (26.5% MTDC)	41,000			41,000	9.5%
Total	430,000			430,000	

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