AGU OUTREACH PROGRAMS

• Education and Human Resources
• Public Affairs
• Public Information
GOAL OF EDUCATION PROGRAM

• EXPAND PUBLIC KNOWLEDGE AND UNDERSTANDING OF EARTH & SPACE SCIENCES

• FOSTER A PRODUCTIVE WORKFORCE
Emphasis is on developing resources and offering services for:

• continuing development of members as educators
• improving Earth & space science teaching at the pre-college level
• nurturing undergrad & grad students plus early career Earth & space sciences
• recruiting the next generation of Earth & space scientists
• increasing diversity in the Earth & space sciences workforce
PROFESSIONAL DEVELOPMENT OF MEMBERS AS EDUCATORS

• Special education sessions at annual meetings
• Education related workshops for researchers
• Excellence in geophysical education awards
• Sharing resources
SPECIAL EDUCATION SESSIONS AT ANNUAL MEETINGS

Number of ED sessions has grown

- FM02 – 162 papers – 9 sessions
- FM03 – 399 papers – 24 sessions
- FM04 – 363 papers – 23 sessions

These sessions provide an important outlet for NSF’s Criterion 2 or NASA E/PO requirements
EDUCATION-RELATED WORKSHOPS FOR RESEARCHERS

• These are half-day or day-long workshops
• FM04 workshops include:
  • Space Science and Astronomy Teaching for College Faculty
  • Scientific Inquiry in the K-12 Classroom
  • How to Start a Research Program at a PUI
  • Teaching Geosciences using Visualization

These workshops have about 30 attendees, usually offered for free because of NASA or NSF support
EXCELLENCE IN GEOPHYSICAL EDUCATION AWARD

Given since 1996
Given to a member or program demonstrating sustained efforts in achievements in improving Earth & space science education
SHARING RESOURCES

• AGU operates an Education Briefs list-serve
• Currently about 800 members
• Used to distribute announcements of opportunities, programs, and resources that relate to education in the Earth & space sciences
IMPROVING PRE-COLLEGE EARTH & SPACE SCIENCE TEACHING

• Geophysical Information for Teachers (GIFT) Workshops
• Sponsored lectures at National Science Teachers Association (NSTA) Meetings
• Earth in Space
• Complimentary memberships
GIFT WORKSHOPS

• Free workshops for middle and high school teachers lasting for 1 and ½ days
• Teachers from local area schools (~45/workshop)
• Organized around a specific disciplinary theme
• Attending scientists describe their research
• Participating teachers given opportunity to attend meeting sessions and exhibits during second PM
GIFT WORKSHOPS
Recent & Upcoming Topics

• SM04 - Sun-Earth Interactions
• FM04 - Extreme Exploration: NASA Solar System Missions 2003-2006
• SM05 – Climate Change Research
• FM05 – Solid Earth Research*
• FM06 – Seismology Research*
SPONSORED LECTURES AT NSTA MEETINGS

• Annual NSTA meeting has a Featured Lecture
• Two or three additional speakers as part of Earth & Space Science Resource Day
• Sponsor one speaker at regional NSTA meetings
• Most speakers are members describing their research and general issues in their field
• Travel, meeting registration, and a consulting fee provided
EARTH IN SPACE

• Magazine *Earth in Space* published 1989-2001
• Had 2-3 science articles mostly from *Eos* rewritten for 9th grade level audience
• Now migrating these articles to an outreach website that is expected to be running by early 2005
• These articles converted to an accessible CD-ROM format
• CD-ROMs will be distributed at regional and annual NSTA meetings in 2005
COMPLIMENTARY MEMBERSHIPS

• 1-year complimentary membership for Outstanding Earth Science Teacher Awards ~15
• Earth Science Presidential Teacher Awardees
• Pre-college teachers presenting papers at meetings
NURTURING STUDENTS & EARLY CAREER SCIENTISTS

• Reduced rates for students
• Student breakfasts at annual meetings
• Student travel grants
• Outstanding student paper awards
• Union tutorials
• Academic Showcase
• Education and Student Lounge
• Career Center and Career Planning Workshops
• PhD Surveys
RECRUIT NEXT GENERATION OF EARTH & SPACE SCIENTISTS

• Develop and distribute career brochures in English and Spanish for middle and high school students
• Contributes and supports the U.S. Physics Olympiad Team
INCREASING DIVERSITY IN THE GEOSCIENCE WORKFORCE

• Established a Diversity Plan
• Diversity-themed Sessions at Meetings
• Bright STaRS Program
• Minorities Striving & Pursuing Higher Degrees of Success (MS PHDS) Program
• Professional Resources for Institutions Serving Minorities (PRISM) Programs
• Teaching Earth & Space Science to Students with Exceptional Needs
• Pan-society Summit on Broadening STEM
DIVERSITY PLAN

Plan established in May 2002

Goals of the Plan

• Educate membership about diversity issues and best practices
• Encourage participation and advancement of minorities (leadership positions, honors, etc)
• Increase awareness of careers among the underrepresented and underserved communities
• Encourage elimination of obstacles and barriers that impede progress
DIVERSITY-THEMED SESSIONS AT MEETINGS

• At FM04 over 70 abstracts on diversity issues and best practices
• Publish a monograph on diversity in geosciences with NAGT
• Use papers from AGU FM, Fall GSA and ASLO meetings
• Survey of member attitudes and knowledge on diversity distributed at diversity education sessions
BRIGHT STaRS
STUDENTS TRAINING AS RESEARCH SCIENTISTS

• Initiated in 2002
• Program for ~45 high school students
• Engaged in after school and summer geoscience research projects
• Two parts – morning symposium, 4-5 talks giving science overviews and career opportunities
• Students submit meeting abstracts for special afternoon poster session in Exhibit Hall
MINORITIES STRIVING & PURSUING HIGHER DEGREES OF SUCCESS (MS PHDS)

• Five year NASA funded program
• Three cohorts of ~25 minority undergrads and grad students participating is a three-year program
• Students partnered with peer & meeting mentors
• Each cohort attends FM in first year, another society’s meeting in second with their mentor, and a special convocation in third year at NAS
PROFESSIONAL RESOURCES FOR INSTITUTIONS SERVING MINORITIES (PRISM)

• A new program
• Develop network of and resources for geoscience faculty working at minority serving institutions
• Pilot workshop will be held prior to FM04 for geoscience and related faculty
TEACHING EARTH & SPACE SCIENCE TO STUDENTS WITH EXCEPTIONAL NEEDS

• Supporting an effort led by University of Charleston to convene a dedicated conference on making geosciences more accessible to persons with disabilities
• Conference sponsored by NASA will be held at MSFC in Huntsville, AL, July 24-28, 2005
PAN-SOCIETY SUMMIT ON BROADENING PARTICIPATION IN THE STEM DISCIPLINES

• A one day conference on diversity in partnership with other societies that serve the science, technology, engineering and mathematics communities

• Conference will be held in DC at NAS in conjunction with the 2005 Meeting of the AAAS
NEW INITIATIVES

• earthinspace.org website will be a venue for making latest research in geosciences accessible to students, teachers, and the general public

• Engaged in discussions with U.S. Department of State and other STEM societies trying to infuse more science and technology into Foreign Service Officer training

• AGI and AGU together with USA TODAY submitted a proposal to NASA to bring geoscience research & education to ~30,000 classrooms
INFORMATION

• PhD Surveys
• Creationism
• Center for Advancing Science & Engineering Capacity – Sloan supported at AAAS
• Congressional Science Fellowship
• ASLAs
• CVD
• Mass Media Fellowships