



National Science Foundation – Building Capacity

**NSF Regional Grants Conference
Salt lake City, UT October 25, 2010**

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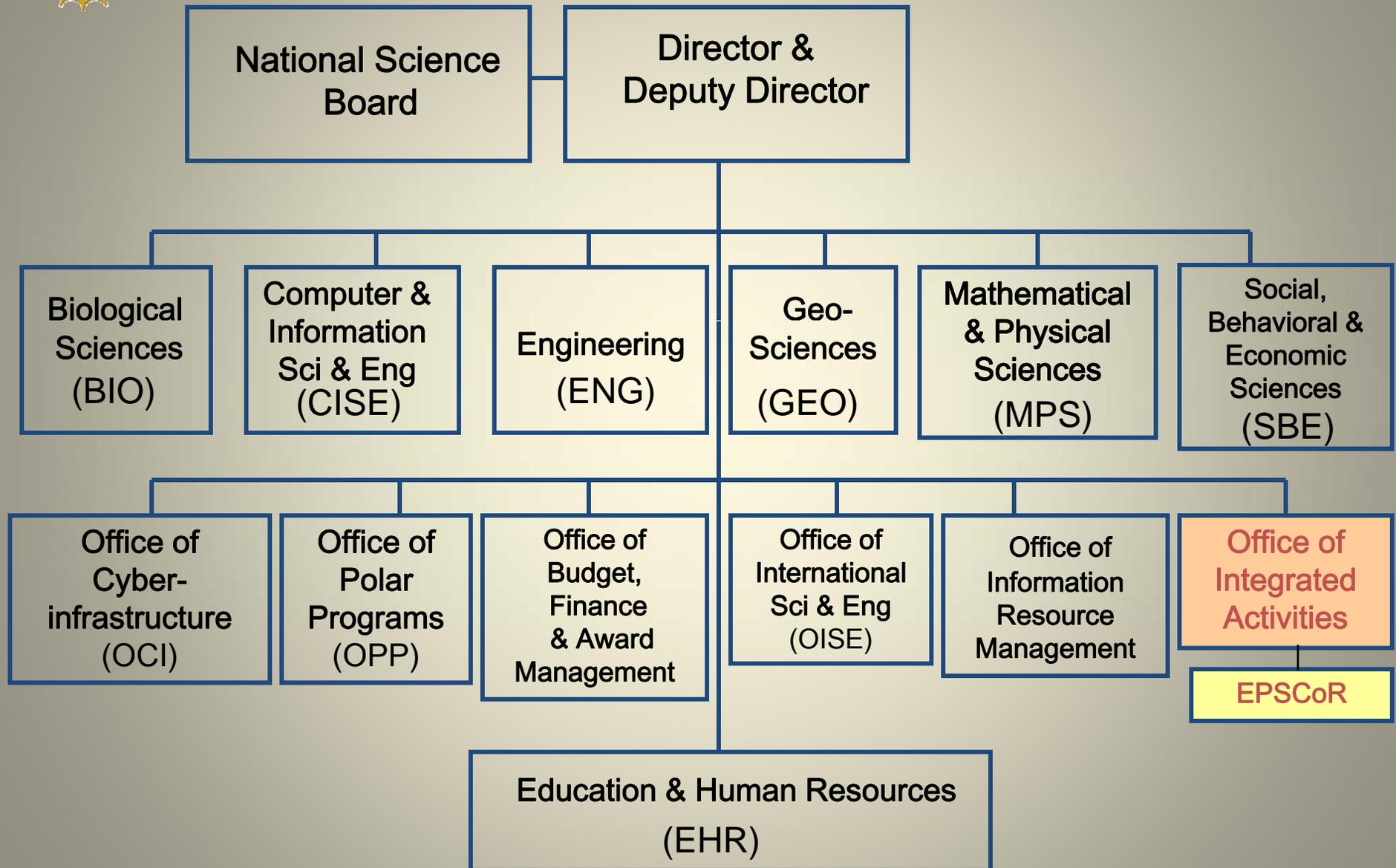
EPSCoR Mission

To assist the National Science Foundation in its statutory function

“ to strengthen research and education in science and engineering throughout the United States and to avoid undue concentration of such research and education.”



Basic NSF Organization





NSF EPSCoR Jurisdictions

1980

Arkansas
Maine
Montana
South Carolina
West Virginia

2001

Hawaii
New Mexico

2002

U.S. Virgin Islands

1985

Alabama
Kentucky
Nevada
North Dakota
Oklahoma
Puerto Rico
Vermont
Wyoming

2003

Delaware

2004

New Hampshire
Rhode Island
Tennessee

1987

Idaho
Louisiana
Mississippi
South Dakota

2009

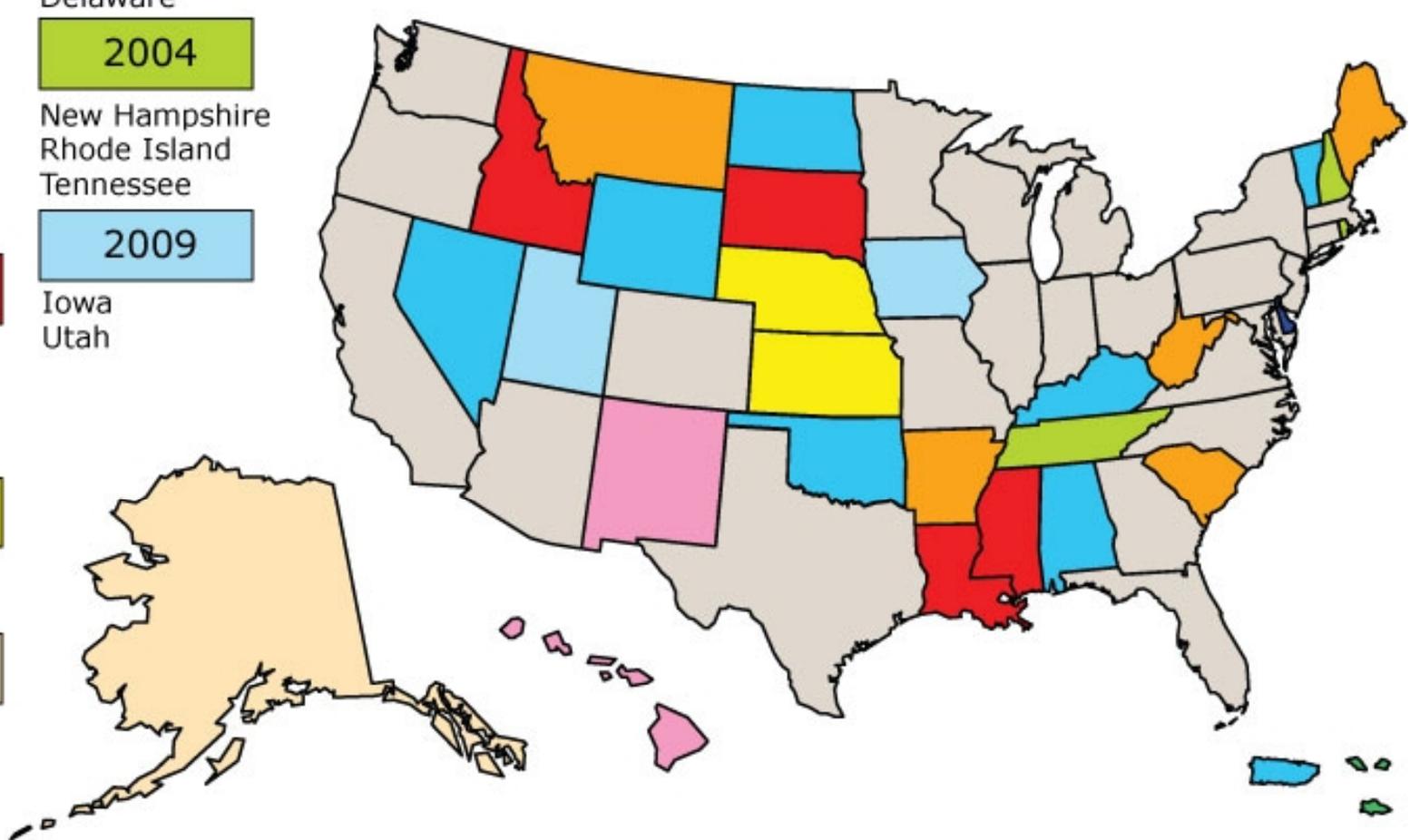
Iowa
Utah

1992

Kansas
Nebraska

2000

Alaska





EPSCoR Today

In the 29 EPSCoR jurisdictions, there are

- 21% of the nation's total population
- 24% of the research institutions
- 16% of the employed scientists and engineers
- 22% of the nation's African-Americans
- 36% of American Indians and Alaskan Natives
- 31% of Native Hawaiians and Pacific Islanders
- 16% of the nation's Hispanics
- 52 of the nation's 105 HBCUs (50%)
- 74 of the 257 institutions with high Hispanic enrollment (29%)
- 22 of the 32 Tribal Colleges and Universities (68%)

Great Opportunity for Leverage!



EPSCoR Objectives

- **Build research capacity and competitiveness**
- **Broaden participation in STEM (individual, institutional, disciplinary, geographic diversity)**
- **Promote development of a technically skilled workforce and informed citizenry**
- **Foster collaborative partnerships and multi-faceted Statewide Programs**



EPSCoR Portfolio Activity

- **Research Infrastructure Improvement (RII)**

Proposals from eligible jurisdictions submitted by a designee of the jurisdiction's governing committee

- Track 1 (up to \$4M per year for up to 5 years)
- Track 2 (new in FY 09; up to \$2M per year for up to 3 years; CI enabled S&E; consortia among jurisdictions)
- Inter-campus and Intra-campus Cyber Connectivity (new in FY 10; up to \$1M for up to 2 years)

- **Co-Funding with NSF Directorates and Offices**

- Meritorious proposals reviewed in NSF programs

- **Outreach Activities and Workshops**



NSF EPSCoR Funding (\$M)

Activity	FY06	FY07	FY08	FY09	FY10 (est.)
RII	61.7	65.8	72.8	91.5	99.2
Co-Fund	36.4	36.2	46.7	40.0	44.8
Outreach Workshop	0.1	0.1	0.5	1.5	1.4
Total	98.2	102.1	120.0	133.0	145.4



EPSCoR: RII Programs

- Track-1: Improve physical, human, & cyber infra. critical to R&D competitiveness in priority research areas
- Track-2: Support innovation-enabling CI of regional, thematic, or technological importance
- Cyber Connectivity (C2): Support the enhancement of inter-campus and intra-campus cyber connectivity and broadband



EPSCoR: RII Programs

- Track-1: Improve physical, human, & cyber infra. critical to R&D competitiveness in priority research areas
- **State-based capacity-building program**
 - State co-investment (20% Cost Sharing for RII Track-1)
 - Governance includes State committee
 - Alignment with State S&T plan
- **Research driven; Strong Workforce Development, Diversity, Cyberinfrastructure, External Engagement, Evaluation and Assessment, Sustainability, and Management**
- **Multidisciplinary and multi-institutional**
- **Close interaction between NSF and the EPSCoR community**



Co-Funding Essentials

- Reviewed and Recommended for Funding within NSF Directorates and Offices
- Combined leveraged support necessary for funding
- **Program Officers from NSF Directorates and Offices contact EPSCoR Office**
- Characteristics favoring Co-funding:
 - New PIs
 - Collaborative
 - Multidisciplinary
 - Synergistic
 - Broaden participation
 - Instrumentation
 - R/T Ops for St/Tchrs
 - Integration of R&E
- **Tipping Point is Financial!**

Social and Behavioral & Economic Sciences (SBE)

Priorities

- Innovation
- Learning, Thinking, Behavior
- **Climate, Energy, People**
- Cross-Cutting Approaches



Dynamics of Coupled Natural & Human Systems

Broad-Based Climate programs – water, climate modeling

Environment, Society, and Economics

Decision Making Under Uncertainty

Disaster Resilience for Rural Communities



Science, Engineering, and Education for Sustainability (SEES)

- A major new emphasis area for NSF
- First described in the FY 2011 budget request
- Builds on previously established and new activities in FY 2010
- Expects to be a major emphasis through 2015 -- with "mainstreaming" to follow

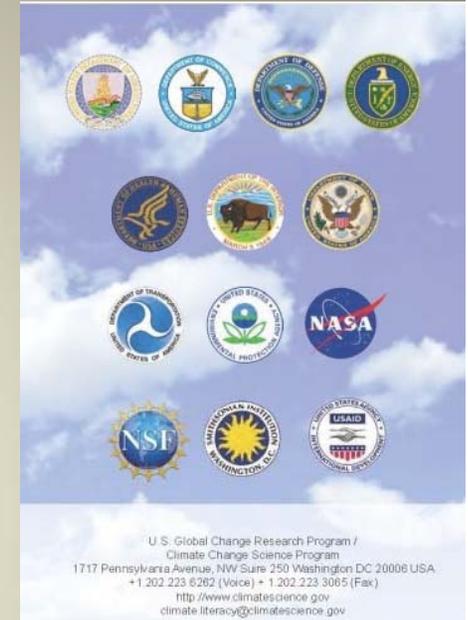
SEES Incorporates Established Activities

- Dynamics of Coupled Natural and Human Systems (CNH)
- Ecology of Infectious Disease (EID)
- Long-Term Ecological Research (LTER), including Urban Long-Term Research Area (ULTRA) activities

Federal Climate Change Education Portfolio

- ❖ U.S. Global Change Research Program (USGCRP)
 - Coordination of 13 agencies
 - Education Interagency Working Group (EdIWG)
 - Climate Literacy Framework

- ❖ Funding Opportunities
 - NSF Programs
 - NOAA Environmental Literacy Grants
 - NASA Global Climate Change Education
 - USDA/NIFA Agriculture and Food Research Initiative - Climate Change



Climate Change Education (CCE) Program

Pre-FY 09: Core NSF program investments

FY 09: Dedicated CCE funding (\$10 M) in EHR NSF 09-058
10 Awards made – PI meeting March 15-16, 2010

FY 10, 11: CCE funding continues; CCEP-I NSF 10-542
\$20 M; 15 awards (includes KSU)
co-managed between EHR, GEO, BIO, and OPP



NSF Proposal and Award Policies and Procedures Guide (PAPPG)

<http://www.nsf.gov/pubs/policydocs/pappguide/nsf11001/> Chapter II C.2.j – Special Information and Supplementary Documentation

- All proposals submitted on or after January 18, 2011 must describe plans for data management and sharing of the products of research, or assert the absence of the need for such plans.
- Fast lane will not permit submission of a proposal that is missing the Data Management Plan.
- The Data Management Plan will be reviewed as part of the intellectual merit or broader impacts of the proposal, or both, as appropriate.



Thank You