

Research in Disabilities Education (RDE)



- Broadening participation of people with disabilities in STEM
- Formerly “Program for Persons with Disabilities”
- Annual budget typically \$5-6M
- Funding research projects and alliances targeting post-secondary STEM degree completion



Estimates of Disability in the United States

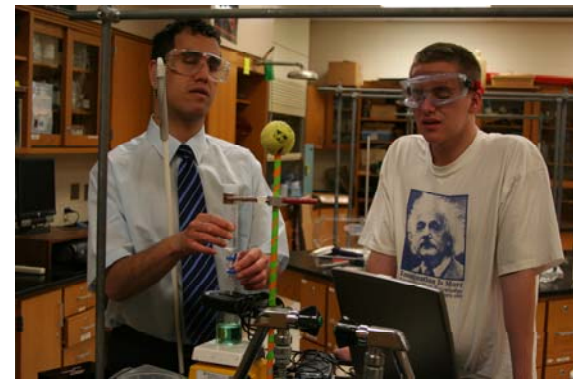
| | Percent with disabilities | Number with disabilities |
|----------------------------------|----------------------------------|---------------------------------|
| Population 15-24 | 11% | 4,128,000 |
| Students 6-17 | 12% | 5,708,900 |
| STEM undergraduates | 11% | 580,000 |
| STEM graduate students | 7% | 30,000 |
| STEM doctorate recipients | 1% | 307 |
| Population 25-64 | 16% | 24,350,000 |
| US workforce 21-64 | 10% | 14,313,000 |
| STEM workforce | 5% | 242,700 |
| STEM doctoral faculty | 8% | 13,500 |

SOURCES: Population and U.S. workforce—U.S. Census Bureau, Survey of Income and Program Participation, 2002; Students 6-17—U.S. Department of Education, Office of Special Education Programs, 2005; Undergraduate and graduate students—U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 2004; STEM doctorate recipients, NSF/SRS, Survey of Earned Doctorates 2005, Workforce and doctoral faculty—National Science Foundation, SESTAT data system, and Survey of Doctorate Recipients.



Definition of Disability

- **Physical or Mental Impairment that Substantially Limits a Major Life Activity**
- **Record of Such an Impairment**
- **Regarded as Having Such an Impairment**





Types of Disabilities

- Attention Deficit Disorder (ADD)
- Attention Deficit Hyperactivity Disorder (ADHD)
- Deaf or Hard-of-Hearing (D/HoH)
- Physical Disability/Orthopedic/Mobility Impairment
- Systemic Health Condition
- Psychological/Psychiatric Disability
- Specific Learning Disability
- Visual Impairment
- Acquired Brain Injury
- Other Disability



FY08 Program Solicitation (08-527)

Demonstration, Enrichment, or Information Dissemination

- Standard grants up to 2 yrs. and up to \$150,000.
- Demonstrate proof of concept for research studies.
- Enrich student learning; Disseminate information.

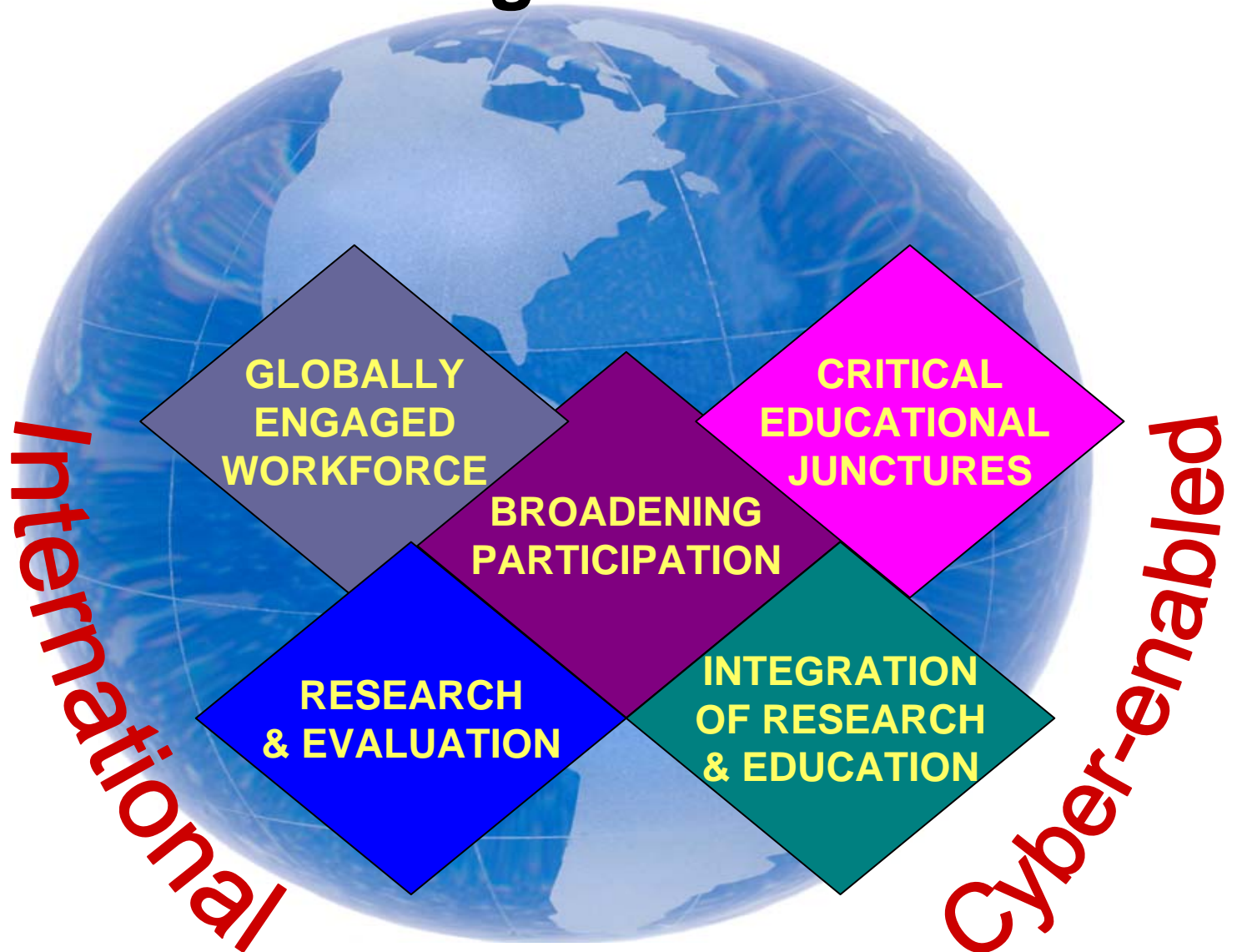
Focused Research Initiatives

- Standard or Continuing grants up to 3 yrs. and up to \$375,000.
- Investigations of promising practices for STEM education.
- Expanding knowledge base about students in STEM.

Regional Alliances for Disabilities Education

- Continuing grants up to 5 yrs. and up to \$3,000,000.
- Working with high school, 2-year and 4-year college students.
- Increasing STEM degrees and entry to 4-year schools, graduate school or industry.

Innovation Through Institutional Integration



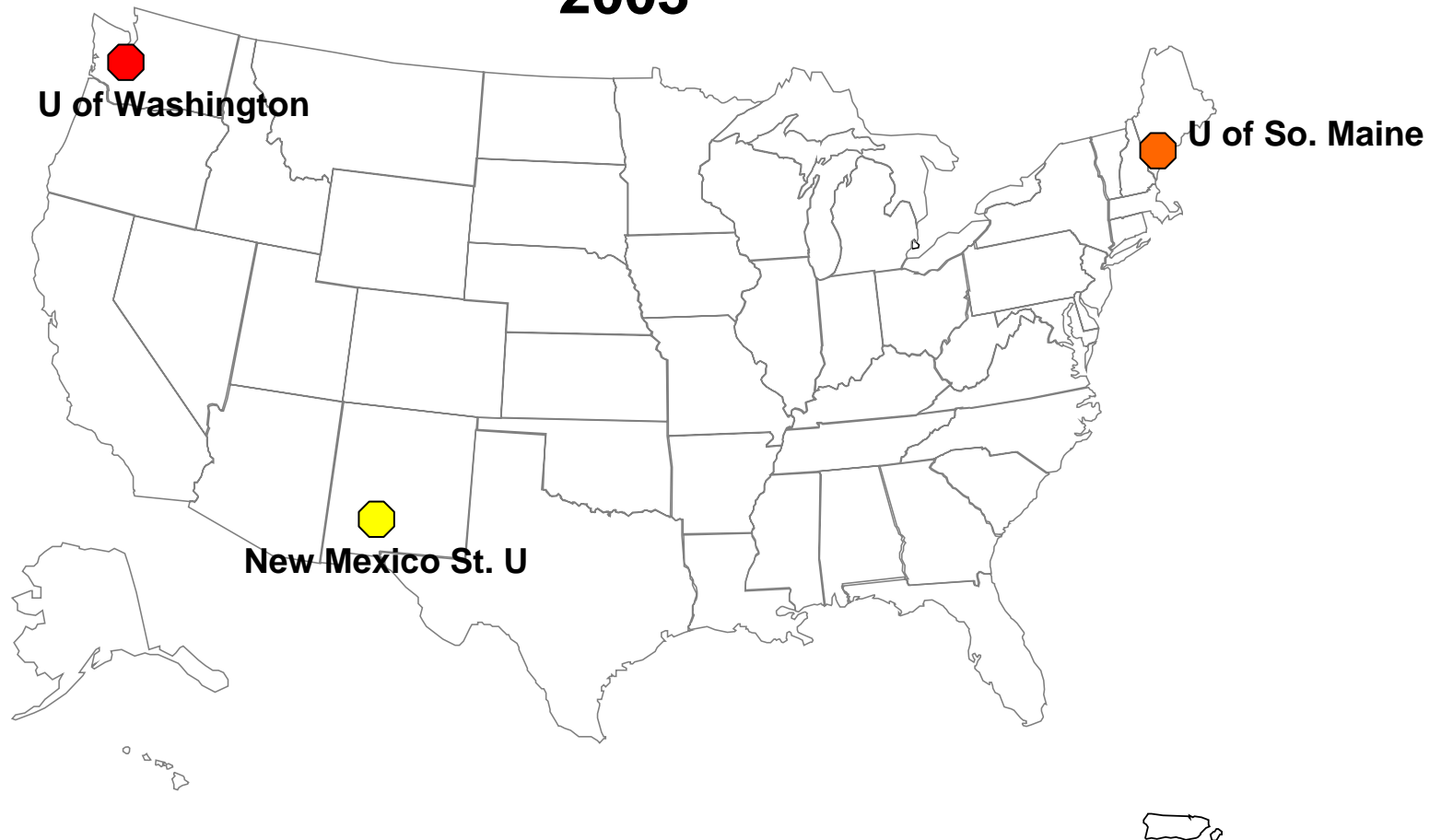
Goals of I³

- **Increase synergy & collaboration among NSF/EHR-funded projects and within/ between institutions**
- **Enhance sustainability**
- **Promote integration of STEM research and education**
- **Broaden participation, attend to critical educational junctures, and/or provide for more globally engaged workforce**
- **Encourage research on intra- or inter-institutional integration & broader impacts**



Alliances for Students with Disabilities in STEM

2003





Alliance Practices for Students

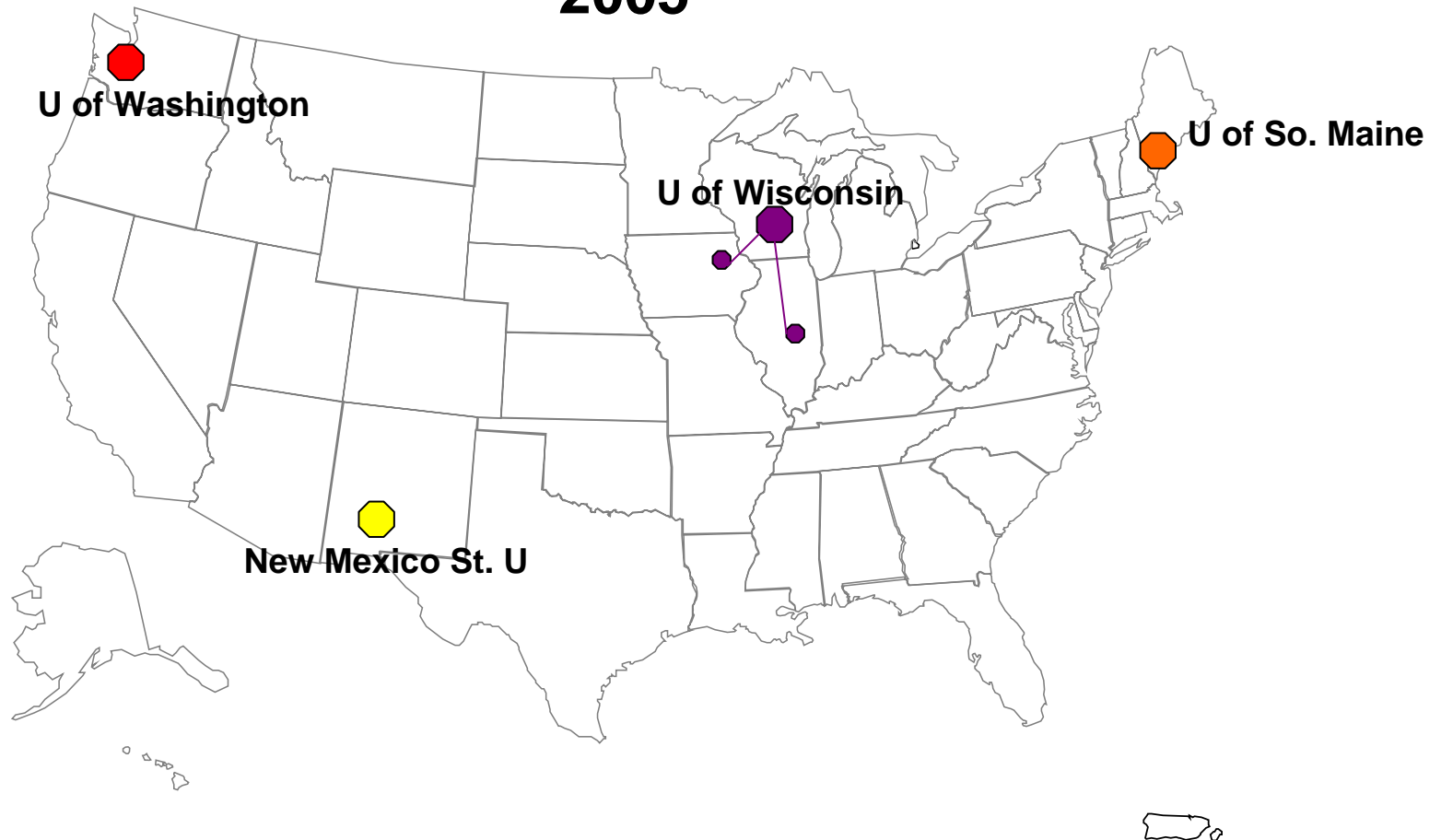
- Stipends
- Getting Mentored
- Research Experience
- Peer Tutoring
- Student Learning Communities
- Universal Design
- Hands-On STEM
- Off Campus Internships
- Providing Mentoring
- Transition Support





Alliances for Students with Disabilities in STEM

2005





Sample Alliance Results: AccessSTEM 2005-2008

Total AccessSTEM participants = 119

Total Number of Graduates = 46

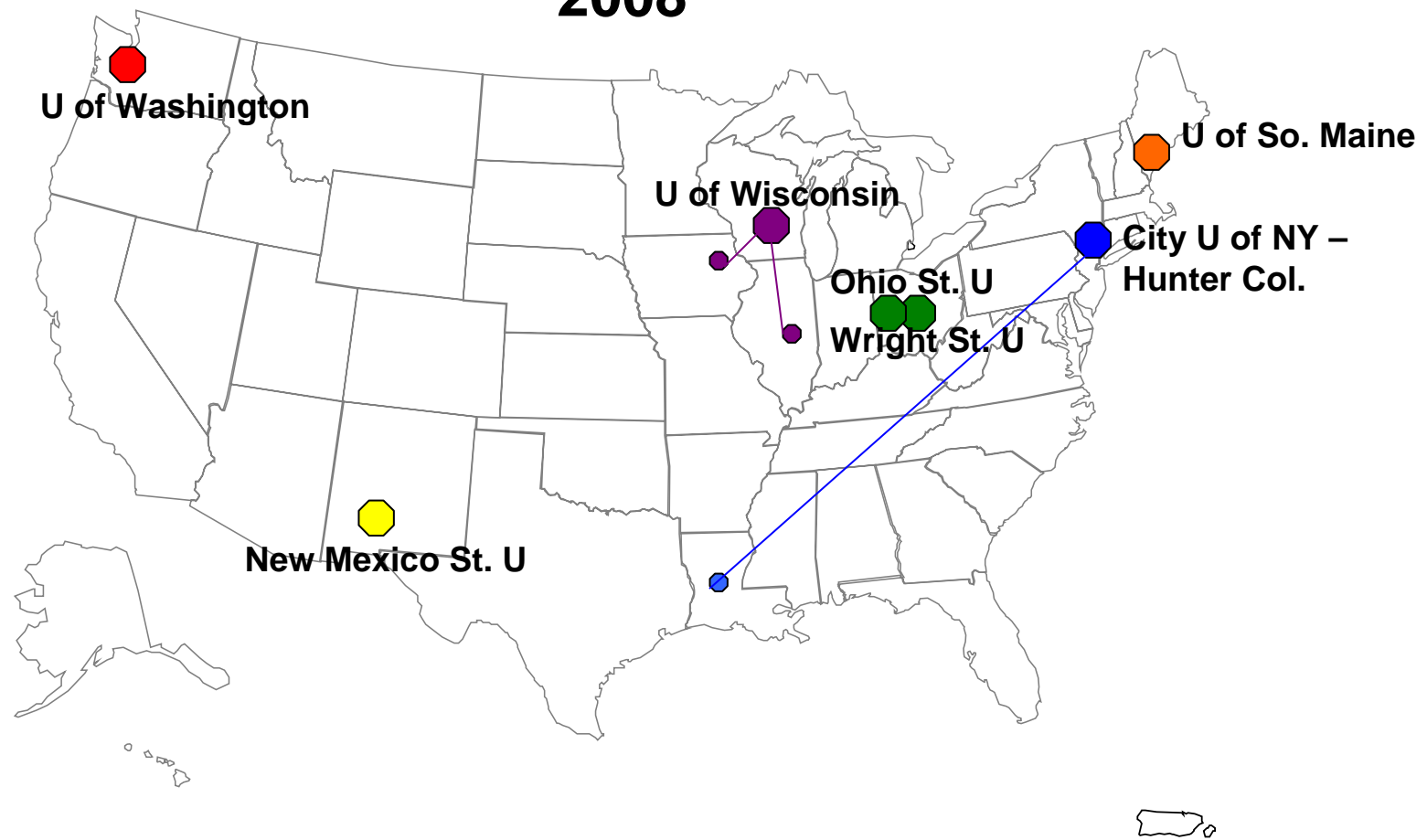
- 4 Year Degree = 35
- 4 Year and 2 Year Degree = 1
- 4 Year and Technical Degree = 1
- 2 Year Degree = 8
- Technical Degree = 1

Source: Dr. Sheryl Burgstahler provided raw data from AccessSTEM to SRI International in January 2008, updated June 2008.



Alliances for Students with Disabilities in STEM

2008





Alliance Models

- **Local Community vs. State vs. Multi-State**
- **Research Institution, Local 2 & 4 year Colleges & Local Public School Districts**
- **Research Institution with subawards to other research & graduate-degree granting Universities**
- **Collaborative awards to multiple institutions**



Alliances for Students with Disabilities in STEM



rasem.nmsu.edu (0124198; 0622930)



www.washington.edu/doit/Stem (0227995; 0833504)



research.usm.maine.edu/East (0333316; 0833567)



www.stemmidwest.org (0533197)

MIND Alliance for Minority Students with Disabilities in STEM (0833392)

Ohio's STEM Ability Alliance (0833644;0833561)



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