THE IDAHO EPSCoR PROGRAM

Peter Goodwin
Project Director
Idaho EPSCoR

University of Idaho Faculty Senate
January 24, 2012
Outline

1. What is EPSCoR?
2. EPSCoR in Idaho
3. The Future

Dr. Aaron Thomas – NASA & Idaho Space Grant
Dr. Carolyn Bohach – INBRE/NIH
Dr. Richard Jacobsen [ISU] – DOE
On May 10, 1950, President Harry S. Truman signed a bill establishing the National Science Foundation. The President announced the creation of the new federal agency, dedicated to advancing the scientific enterprise of the United States, from the rear platform of a train in Pocatello, Idaho.

The National Science Foundation (NSF) Act of 1950 (Public Law 507-81st Congress, as amended) stated that “…it shall be an objective of the Foundation to strengthen science and engineering research potential and education at all levels throughout the United States; and avoid undue concentration of such research and education, respectively.”
EPSCoR History

- National Science Board (NSB) task force in 1977
- 1978 the NSB approved a resolution (NSB-78-12) establishing the *Experimental Program to Stimulate Competitive Research (EPSCoR)* and the general guidelines for its management.
- Original funding $1M
- Five states in the first cohort – Arkansas, Maine, Montana, South Carolina, West Virginia
EPSCoR Jurisdictions

- Have historically received little federal R&D funding, current definition less than 0.75% of the total NSF Research funds over the preceding three year period

- Have demonstrated a commitment to develop their research base and improve science and engineering research and education programs at their universities and colleges.
<table>
<thead>
<tr>
<th>STATE</th>
<th>FY 2006 Research Support</th>
<th>FY 2007 Research Support</th>
<th>FY 2008 Research Support</th>
<th>FY 2006-08 Research Support</th>
<th>% of Total $</th>
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<tbody>
<tr>
<td></td>
<td>Amt $</td>
<td>Cnt</td>
<td>Amt $</td>
<td>Cnt</td>
<td>Amt $</td>
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</table>
| Grand Total  | $4,310,421 | 18,803 | $4,612,577 | 19,896 | $4,805,944 | 19,741 | $13,728,942 | 58,440 | 100.00%
| Other        | $26,135 | 41 | $31,177 | 34 | $34,616 | 37 | $91,928 | 112 | 0.67%
| US Total     | $4,284,286 | 18,762 | $4,581,400 | 19,862 | $4,771,327 | 19,704 | $13,637,013 | 58,328 | 99.33%
| Virgin Islands | $2 | 1 | $24 | 1 | $2,528 | 2 | $2,554 | 4 | 0.02%
| North Dakota | $2,083 | 24 | $2,706 | 22 | $3,796 | 35 | $13,587 | 81 | 0.10%
| West Virginia | $3,812 | 35 | $2,972 | 31 | $3,683 | 34 | $15,467 | 100 | 0.11%
| Vermont      | $3,800 | 30 | $4,639 | 35 | $3,940 | 43 | $17,479 | 106 | 0.13%
| South Dakota | $4,050 | 22 | $4,809 | 32 | $3,790 | 36 | $17,649 | 90 | 0.13%
| Wyoming      | $6,151 | 41 | $6,520 | 42 | $5,950 | 47 | $22,171 | 130 | 0.16%
| Idaho        | $5,951 | 40 | $6,729 | 53 | $11,068 | 65 | $23,748 | 158 | 0.17%
| Arkansas      | $7,915 | 69 | $9,207 | 84 | $8,899 | 65 | $26,021 | 218 | 0.19%
| Mississippi  | $8,526 | 56 | $10,308 | 55 | $13,656 | 53 | $32,490 | 164 | 0.24%
| Nevada       | $8,734 | 65 | $13,028 | 80 | $14,253 | 81 | $36,015 | 226 | 0.26%
| Puerto Rico* | $18,162 | 29 | $8,210 | 37 | $12,785 | 36 | $39,177 | 102 | 0.29%
| Kentucky      | $14,241 | 94 | $10,724 | 92 | $14,270 | 94 | $39,897 | 290 | 0.29%
| Montana       | $12,047 | 86 | $13,684 | 93 | $18,966 | 104 | $44,737 | 293 | 0.33%
| Maine        | $13,353 | 77 | $16,440 | 87 | $19,676 | 98 | $49,469 | 262 | 0.36%
| Nebraska      | $15,749 | 96 | $15,881 | 85 | $20,566 | 85 | $52,206 | 296 | 0.38%
| Alabama       | $17,182 | 125 | $17,392 | 135 | $22,240 | 130 | $56,814 | 390 | 0.41%
| New Hampshire | $18,371 | 124 | $18,809 | 128 | $21,610 | 135 | $58,790 | 387 | 0.43%
| Oklahoma      | $17,764 | 132 | $18,697 | 116 | $24,104 | 120 | $60,565 | 368 | 0.44%
| Delaware      | $18,328 | 108 | $18,032 | 118 | $28,632 | 118 | $64,992 | 344 | 0.47%
| Louisiana     | $22,770 | 189 | $26,630 | 164 | $27,690 | 115 | $77,000 | 505 | 0.56%
| Kansas        | $25,415 | 139 | $24,238 | 139 | $27,911 | 135 | $77,564 | 413 | 0.56%
| Alaska*       | $21,400 | 99 | $28,747 | 115 | $31,485 | 121 | $61,832 | 335 | 0.59%
| New Mexico    | $24,539 | 145 | $24,050 | 158 | $36,500 | 156 | $85,089 | 459 | 0.62%
| Tennessee*    | $27,270 | 167 | $26,507 | 105 | $32,072 | 192 | $87,049 | 564 | 0.63%
| South Carolina* | $20,423 | 152 | $37,956 | 178 | $27,659 | 153 | $86,038 | 483 | 0.63%
| Hawaii*       | $30,431 | 138 | $26,522 | 135 | $31,923 | 122 | $88,876 | 395 | 0.65%
| Rhode Island  | $29,453 | 212 | $32,318 | 211 | $33,479 | 215 | $95,250 | 638 | 0.69%
| Utah          | $36,031 | 195 | $30,315 | 189 | $30,897 | 196 | $97,243 | 580 | 0.71%
| Iowa          | $33,380 | 210 | $28,399 | 184 | $38,297 | 206 | $100,056 | 600 | 0.73%
| Connecticut   | $44,203 | 263 | $40,206 | 276 | $47,123 | 298 | $131,532 | 837 | 0.96%
| Missouri      | $56,591 | 273 | $53,025 | 276 | $50,828 | 292 | $160,444 | 841 | 1.17%
| Oregon        | $56,115 | 306 | $62,603 | 327 | $65,190 | 320 | $183,906 | 955 | 1.34%
| Minnesota     | $71,940 | 402 | $82,426 | 472 | $81,015 | 457 | $235,383 | 1,331 | 1.71%
| Georgia       | $74,168 | 376 | $88,383 | 374 | $82,487 | 366 | $245,038 | 1,116 | 1.78%
| Wisconsin     | $78,231 | 425 | $88,647 | 480 | $85,674 | 474 | $252,552 | 1,379 | 1.84%
| Indiana       | $75,802 | 493 | $83,574 | 513 | $94,097 | 552 | $253,473 | 1,556 | 1.85%
| Ohio          | $100,723 | 509 | $100,968 | 523 | $101,897 | 470 | $303,588 | 1,502 | 2.21%
| New Jersey    | $99,422 | 522 | $108,166 | 566 | $96,009 | 526 | $304,099 | 1,614 | 2.22%
| Maryland      | $108,462 | 485 | $96,923 | 490 | $101,864 | 494 | $307,249 | 1,469 | 2.24%
| Washington    | $95,790 | 550 | $97,163 | 576 | $119,519 | 595 | $312,472 | 1,726 | 2.28%
| North Carolina | $112,724 | 530 | $123,157 | 597 | $120,284 | 604 | $356,165 | 1,731 | 2.59%
| Florida       | $11,724 | 530 | $123,157 | 597 | $120,284 | 604 | $356,165 | 1,731 | 2.59%
What is EPSCoR?

Experimental Program to Stimulate Competitive Research

NSF EPSCoR Jurisdictions

- Arkansas
- Maine
- Montana
- South Carolina
- West Virginia
- Alaska
- Louisiana
- Mississippi
- South Dakota
- Kansas
- Nebraska
- New Hampshire
- Rhode Island
- Tennessee
- U.S. Virgin Islands
- Delaware
- New Mexico
- Iowa
- Utah
- Maine
- Montana

1980
1985
1987
1992
2000
2001
2002
2003
2004
2009
<table>
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<tr>
<th>Agency</th>
<th>Date Enacted</th>
<th>FY 09 Budget</th>
<th>Types of Support</th>
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| NSF    | 1979         | $133M        | • Research Infrastructure Improvement (RII) Tracks 1 and 2  
                                 • Co-Funding |
| NIH    | 1993         | $224M        | • Centers of Biomedical Research Excellence (COBRE)  
                                 • IDeA Networks of Biomedical Research Excellence (INBRE) |
| NASA   | 1993         | $20M         | • Research Implementation  
                                 • Research Infrastructure Development |
| DoD    | 1991         | $15M         | • Research Grants  
                                 • Graduate Traineeships  
                                 • Research Instrumentation |
| DOE    | 1991         | $17M         | • Implementation Grants  
                                 • Laboratory-State Partnerships |
| USDA   | 1991         | $20M         | Research Career Enhancement Equipment, Seed Grants,  
                                 Strengthening Standard Research |
What is EPSCoR?

In the 29 (soon to be 31) EPSCoR jurisdictions:

- 21% of the nation’s total population
- 24% of the research institutions
- 16% of the employed scientists and engineers

Yet these same 29 EPSCoR jurisdictions

Receive only about 12% of all NSF research funding

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<tr>
<th>Total EPSCoR Funding FY10</th>
<th>FY 2011 NSF Request: $154,360,000</th>
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<tr>
<td>$ 449.8m</td>
<td>% Change from FY 2010: +4.9%</td>
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<tr>
<td>NSF, NIH, DoE, USDA, NASA</td>
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<tr>
<td>[no DoD]</td>
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EPSCoR Objectives

- To catalyze key research themes
- To activate effective collaborations
- To broaden participation in S&E
- To use EPSCoR as a programmatic test bed

NSF Investment Strategies in EPSCoR

- Research Infrastructure Improvement (RII)  
  [Track-1, Track-2, C2]
- Co-Funding
- Outreach and Workshops
EPSCoR Governance

Mr. Ken Edmunds,  
Vice-President, Idaho State Board of Education

➢ Dr. Doyle Jacklin, Riverbend Commerce Park,  
Post Falls - Chair
➢ Dr. Laird Noh, Idaho State Senator (Retired),  
Kimberly - Vice-Chair

➢ Dr. Mark Rudin, Vice President for Research, Boise  
State University, Boise
➢ Dr. Dick Jacobson, Vice President for Research,  
Idaho State University, Pocatello
➢ Dr. Jack Mclver, Vice President for Research,  
University of Idaho, Moscow
➢ Dr. Jean’ne Shreeve, Professor of Chemistry,  
University of Idaho, Moscow

➢ The Honorable Maxine Bell, Idaho State  
Representative, Jerome
➢ The Honorable John Goedde, Idaho State  
Senator, Coeur d'Alene
➢ Gynii Gilliam, Idaho Department of  
Commerce

➢ Dr. Melinda Hamilton, Director of Educational  
Programs, Idaho National Laboratory (INL), Idaho  
Falls
➢ Dr. Francisco Roberto, Director, Energy and  
Environment Department, INL, Idaho Falls
➢ Dr. Dennis Stevens, Chief, Infectious Disease  
Section, Veterans Affairs Medical Center, Boise

➢ Mr. Douglas Chadderdon, President, Great Floors,  
LLC, Coeur d’Alene
➢ Mr. Leo Ray, President, Fish Breeders of Idaho, Inc.,  
Hagerman
➢ Mr. David Barneby, Vice-President (retired),  
Nevada Power and Sierra Pacific Power Companies,  
Twin Falls, Idaho
What is EPSCoR?

- Research Infrastructure Improvement (RII) Track 1: Academic Research Capacity
  *Water Resources in a Changing Climate* – $15M

- Research Infrastructure Improvement (RII) Track 2: Cyberinfrastructure – *Western Consortium of Idaho, Nevada, and New Mexico* - $2M to ID

- Research Infrastructure Improvement (RII) C2: Intra- and Inter-campus connectivity - $1.2M

- Hosting Annual NSF EPSCoR Conference
  *Coeur d’Alene Resort, October 22-26, 2011* - $0.45m

- Co-funding of research and education proposals – *totaling $4.9M in FY09*
EPSCoR in Idaho:

- Driven by State S&T Plan
- A catalyst for cultural change in Idaho
- State EPSCoR Committee and State Board of Education

With support from:

Idaho National Laboratory
Idaho Department of Water Resources
Idaho Department of Fish and Game
USDA ARS Northwest Watershed Research Center
USFS Rocky Mountain Research Station
US Fish and Wildlife Service
USGS

www.idahoepscor.org
Program Element Planning

- Cyberinfrastructure Plan
- Diversity Plan
- Outreach and Communication Plan
- Evaluation and Assessment Plan
- Early Career Faculty and Postdoctoral Researcher Mentoring Plan
- Sustainability Plan
- Management Plan
Our Philosophy - OneIdaho

EPSCoR is not about playing ‘catch-up’ – but about forging niche areas [EPSCoR 2020 and 2030]

EPSCoR is about building ‘community’.
- research community
- education community
- promote development of a technically engaged workforce
- integrating research and education
- engaging the full intellectual capacity of Idaho
- face of the US workforce reflects the face of America

EPSCoR is about transformative research - exploring high-risk concepts and establishing test-beds

Trends: Awards are becoming bigger but more competitive
Emphasis on Cyberinfrastructure and Diversity
State Demographics

- Idaho’s minority population is up from 11% to 13%
- Total enrollment of minority students at public institutions:
  - 9.6% at 4-year
  - 8.9% at 2-year

University-level participation in Track 1 RII

- Idaho EPSCoR RII Baseline: 9% URM; 36% women
- Yr3 RII: 17% URM (nearly double); 40% women

Yr-5 RII Goals: 12% URM; 46% women
The Future

- Ten Years of Flat Federal Budgets [NSF and EPSCoR may do better]

- Direct Involvement of the National Science Board
  - resulted in additional proposals being rejected [50%]
  - some EPSCoR states have been declined three consecutive times

- We are in a larger and very competitive pool for the next RII

- We must play to our strengths
  - a small state, but cohesive, united, responsive (nimble), committed to long-term strategic vision
  - research universities function as single research entity ONEIdaho
  - we are part of national and global networks

- The critical role of diversity and cyberinfrastructure
The Future

ONEIdaho – EPSCoR RII as a catalyst for cultural change

- Ambition and Scale of Research
- Transformation of Programs/Institutions
- Niche areas contributing to National Agenda
- Early Career Researcher Environment
NSF Funding to Idaho’s Public Universities

- Total NSF Proposals and Awards increasing
- Average Size of Awards increasing
- Total NSF Funding to Idaho Increasing
NSF Funding to Idaho’s Public Universities

Idaho’s Increasing Share of NSF Research Funding

0.75% Criteria for EPSCoR Eligibility
Upcoming Activities

www.idahoepsccor.org
www.uidaho.edu/epsccor

- Idaho Science and Technology Plan Update (Higher Education)
- I-STEM Comprehensive Summit - May 3-4, 2012
- I-STEM Diversity Workshop – March 1, 2012
- Presidential Doctoral Scholar Program
- Idaho CI Integration [Northwest Knowledge Network and State CI Plan]
- Tri-State Consortium – Sun Valley, Idaho April, 3-5, 2012
- State-wide REU program
- Annual Springboard Day, Float Trip, . . .
- Early Career Faculty Training Workshops
- College Engagement – Faculty Ambassador Program
- 2012 RII Proposal Process – Community Building
Thank you for your attention
Any Questions?