

South Dakota Research
Ecosystem Network:
STEM Education,
Community Engagement, and
Broadening Participation

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South Dakota

900,000 residents

< 12 people/sq mile

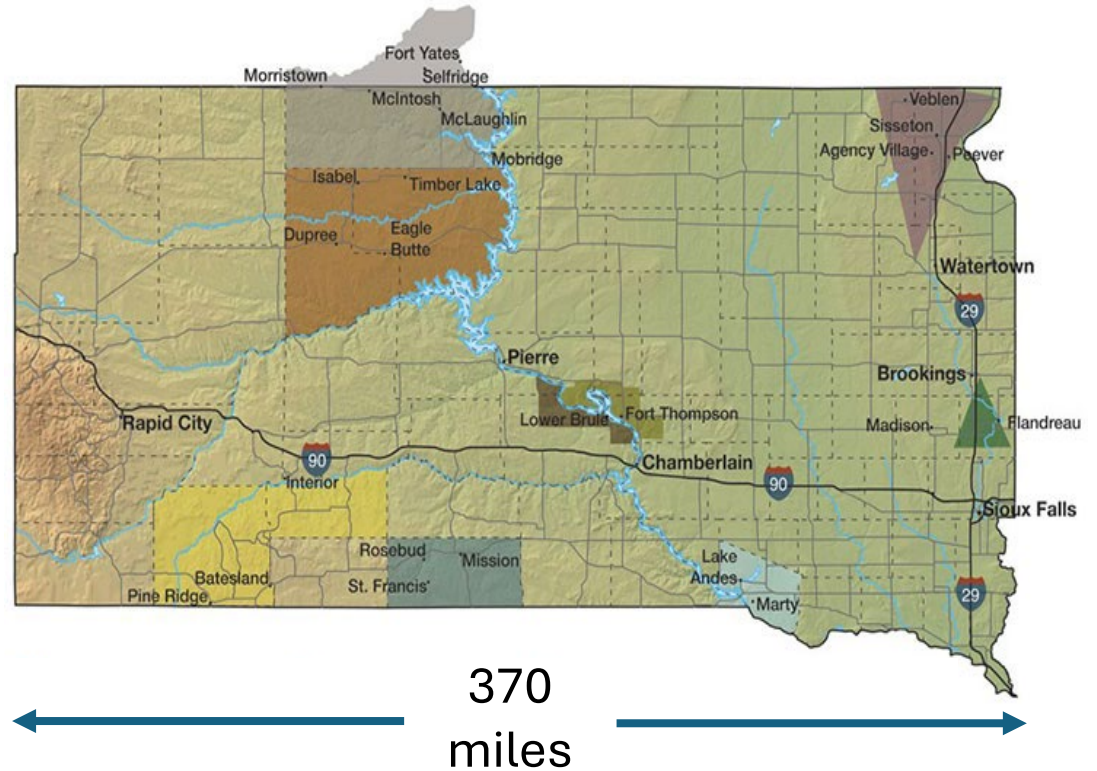
9 reservations

150,000 K-12 students

81% White

16% Native American

4,500 teachers of STEM



Post-secondary Landscape

South Dakota Board of Regents

- 3 Emerging Research Institutions (ERIs)
- 3 Primarily Undergraduate Institutions (PUIs)

3 Tribal Colleges and Universities (TCUs)

4 Private Colleges

4 Technical Colleges

Organizational Structure

15 Institutions:

- Lead Institution + 4 Subawards
- + 7 Collaboratives
- + 3 unfunded collaborators

Administrative Home:

Black Hills State University

Center for the Advancement of Mathematics &
Science Education (statewide center)

Partnership Composition:

3 public PUIs, 3 public ERIs, 3 TCUs, 1 private PUI, 2 state agencies, a specialty school for students with disabilities, an informal science education center, and a US DOE-funded research facility

35-Member Leadership Team

Programmatic Approach

6 Goals & related activities (topic areas):

- Scientist training in education & communication
- K-12 teacher leadership
- Broad-based K-12 teacher professional development
- Broadening participation and strengthening student identity in STEM
- Education research
- Collaboration with jurisdictional steering committee

4 Cores:

- Administrative
- STEM Education (K-16)
- Broadening Participation
- Community Engagement & Outreach

Challenges Encountered

- Pivoting from reasonably mature Track-1 plan
- Breadth vs. Depth
- Desire to connect with other E-CORE and E-RISE submissions, but needing to be self-sufficient
- Collaborative vs. Competitive
- Limited infrastructure of administrative home
- Limited NSF experience for many of the sub-awardees, collaboratives, and senior personnel
- How best to support and to collaborate with our JSC – concurrent with our JSC rethinking its own role, responsibilities, and opportunities

Looking Ahead

Eager to collaborate with additional E-COREs and with E-RISEs as they become awarded within jurisdiction

Looking forward to future rounds of submissions – without tinge of competition

Eager to learn from national EPSCoR community

- How other jurisdictions approach EOD
- How others structure, manage, and nurture E-COREs, E-RISEs, and their overall research ecosystem

4 years is going to go fast!