National Science Foundation Experimental Program to Stimulate Competitive Research (NSF EPSCoR)

Idaho EPSCoR is a federal-state partnership between the National Science Foundation (NSF) and Idaho's three research universities – the University of Idaho, Boise State University, and Idaho State University – to build capacity for statewide academic science, technology, engineering and mathematics (STEM) research, education and outreach. Enhanced research infrastructure augments economic development by supporting jobs and industry establishment, diversification and growth.

Idaho EPSCoR is completing three concurrent NSF Research Infrastructure Improvement (RII) awards for a combined $18 million in funding. The awards help advance understanding of the effects of climate on water resources and the adaptation of economic and ecological systems. They also broaden diverse participation in STEM and foster integration of research and education programs across the state.

Associate professor Timothy E. Link of the UI College of Natural Resources conducts research at Reynolds Creek

Research and outreach goals focus on:

- Developing strategies for buffering climate impacts
- Understanding effects of climate variability on water resources and other state interests
- Investigating linkages between land use, climate-driven change and water supply
- Developing capabilities for advanced data management
- Increasing participation in STEM

Accomplishments

- Augmented the National Oceanic and Atmospheric Administration's Regional Integrated Sciences and Assessments and attracted funding for the Department of Interior's Northwest Climate Science Center and the USDA AFRI Coordinated Agriculture Project– all designed to understand and adapt to the effects of climate change on Idaho agriculture, forests, water supplies and industry.
- Engaged 400 university faculty, staff, undergraduates, graduate students and technicians and 14,000 K-12 students, teachers and other stakeholders in STEM programs throughout the state to prepare Idaho's workforce to prosper in a science-based and high-technology world.
- Created 10 new academic faculty positions throughout Idaho (60 percent women and 20 percent underrepresented minorities), including experts in a wide range of disciplines. This enhances our ability to attract other research dollars and to respond to Idaho research needs.
- Contributed to development of the Idaho STEM Roadmap by leading the State's strategy for increasing diversity in STEM.
- Catalyzed cyber-infrastructure and data management, data sharing and research through the Northwest Knowledge Network and the Idaho LiDAR Consortium.

- Supported data-intensive research by enabling researchers to share multidisciplinary data and models and integrate their products into national and international systems.
- Improved internet connectivity to the Hagerman Fish Culture Experiment Station and U-Idaho's Kimberly Research and Extension Center and created new data manager and systems analyst positions at U-Idaho.
- Improved cyber-connectivity and broadband access (up to100 times more) at three rural two- and four-year colleges and two universities via the Idaho Regional Optical Network (IRON), providing increased video collaboration and distance learning capabilities via the Idaho Education Network.

Funding Prospects for FY14

Idaho has two NSF EPSCoR RII proposals pending. The awards are highly competitive, given a projected reduction in the total number of new awards and an increase in the number of EPSCoR-eligible states.

Idaho's pending RII proposals are:

- Track 1 ($20M, 5 yr): Managing Idaho's Landscapes for Ecosystem Services (MILES) will advance the state's capacity to resolve complex social-ecological processes associated with urban growth-influenced changes to ecosystem services.
- Track 2 ($2M,3 yr): Idaho, Nevada and New Mexico propose a Western Consortium for Watershed Analysis, Visualization and Exploration (WC-WAVE), whose overarching goal is to advance watershed science, workforce development and education with cyber-infrastructure-enabled discovery and innovation.

Both projects will build upon Idaho's reputation as a regional and national leader in the design and build-out of cyber-infrastructure and innovations in research data management, assurance of data quality and inter-institutional data sharing.

NSF EPSCoR investments have positive effects in Idaho. The state has become increasingly more competitive in winning research funding. During the past decade, Idaho's three-year average share of NSF's total research funding has more than doubled, from 0.09 to 0.22 percent.

For more information, please contact:

John K. "Jack" McIver, Vice President for Research and Economic Development
vpresearch@uidaho.edu | 208.885.6689 | www.uidaho.edu/research/federal-relations