

Idaho EPSCoR
Outreach, Diversity, &
Communication K-12

EPSCoR Western Tri-State
Consortium Meeting

April 1, 2009

Presented by Paul Allan,
Outreach/Diversity/Communication
Coordinator
Idaho EPSCoR

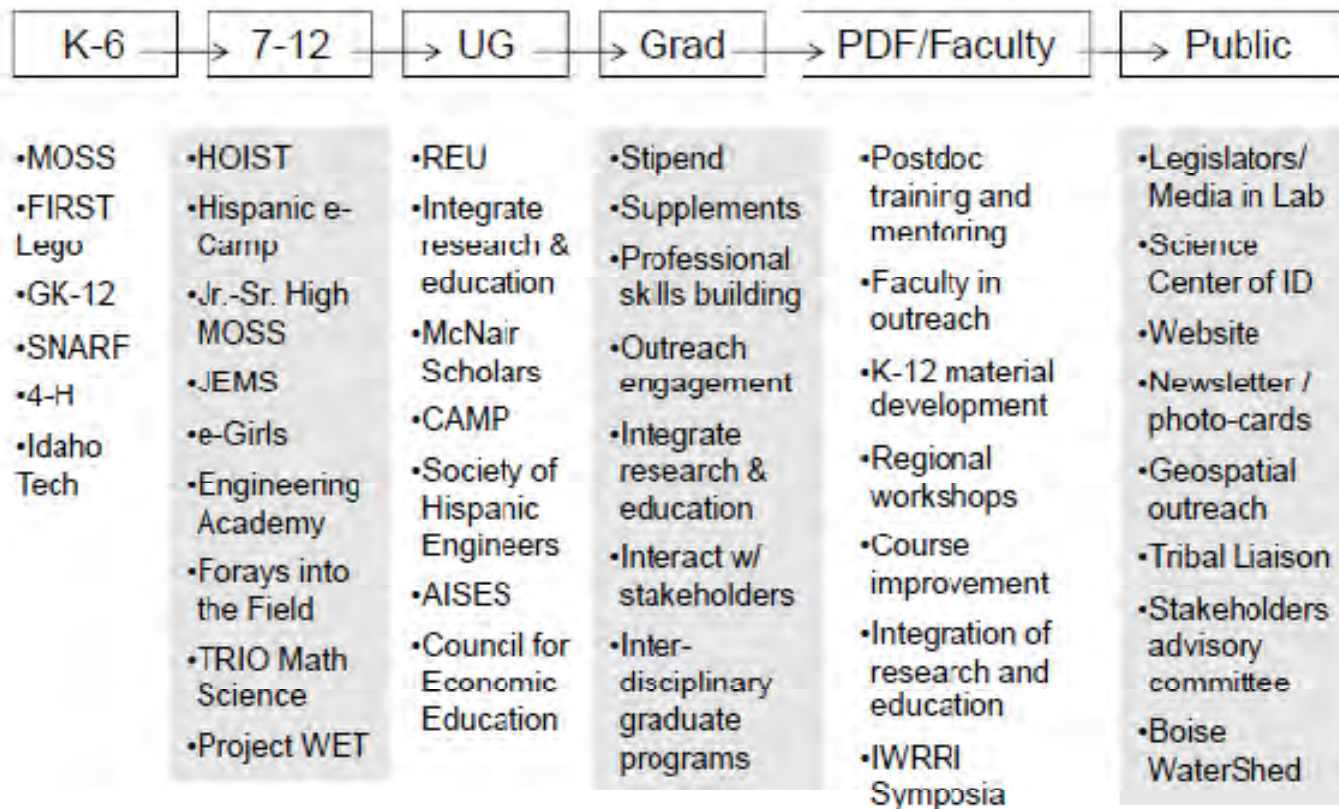
Goals for Outreach

“The RII research theme will be a major catalyst for the integration of research and education within Idaho. It will involve people from all levels in collaborative multi-institutional, interdisciplinary research.

- Short-term goal: contribute to an increase in the number and diversity of students who enroll in college and pursue STEM degrees.
- The long-term goal is to measurably increase the number and diversity of Idaho students earning STEM degrees.”

Pipeline Outline

Figure 4: Idaho EPSCoR Learning/Diversity STEM Pipeline Portfolio



Programs in Existence

Potential Partners in the Pipeline

K-6 Programs

- MOSS
- FIRST LEGO
- GK-12 (UI & ISU)
- SNARF (ISU)
- 4-H
- Idaho TECH

7-12 Programs

- JEMS
- e-Girls (BSU)
- GK-12 (UI)
- Engineering Academy (BSU)
- Forays into the Field (ISU)
- TRIO Math/Science (UI)
- Project WET

UG/Grad/PDF/Faculty/ Public Programs

- Numerous research opportunities and support
- Programs with a focus on underrepresented populations
- Engagement in Outreach
- Various programs to engage and find support for STEM from the Public
- LSAMP & AGEP

Goals for Outreach and Diversity

K-12

1. Increase awareness and interest in STEM discipline study by 4-12 grade students through the integration of STEM research into pre-college outreach programs.
2. Stimulate participation and continued engagement by K-12 students in STEM studies and activities
3. Support K-12 teacher professional development in STEM content and pedagogy
4. Support greater participation by under-represented groups of K-12 students in STEM studies and activities
5. Provide an introduction to college and continuing guidance and mentoring to 9-12 grade students from under-represented groups

ID EPSCoR Funded Outreach & Diversity Components K-12

- e-Day (w/ focus on Hispanic students) (BSU)
- e-Camp (w/ focus on Hispanic students) (BSU)
- Hispanic Youth Symposium (BSU)
- Jr.-Sr. High MOSS (statewide)
- MOSS Teacher Professional Development (Statewide)
- HOIST (Native American students) (UI)
- LiDAR Interactive Demonstrations (ISU)
- Research internship: Shoshone-Bannock Tribes (ISU)
- Interactive web site: Water Resources (ISU)

Strategies to Accomplish Goals

- Faculty and grad students purposefully develop and insert research components into programs
- Educators involved with programs incorporate activities from scientist research endeavors (MOSS, e-Day, e-Camp, etc.)
- Provide numerous and varied opportunities for K-12 student participation
- Provide financial support for disadvantaged students
- Incorporate more teacher professional development opportunities in what have traditionally been viewed as student focused programs

Strategies to Accomplish Goals (con't)

- **Track students and support continuing growth and interest through personal communication and contact**
- **Develop interactive activities and exhibits for use in informal settings, e.g. science centers, community youth groups, web sites**
- **Build from existing programs so interest and enthusiasm is fostered throughout K-12**
- **Use university infrastructure that already exists to develop new programs (e.g. ISU MOU with NA Tribe, UI NA Student Center, MOSS)**

Strategies to Accomplish Goals (con't)

- **Advertise programs through numerous venues including classroom visitations, print media, radio, community groups, etc. with a focus on targeting schools and communities with higher underrepresented populations**
- **Development by EPSCoR staff of a web portal to act as a clearinghouse for all programs associated with the pipeline concept**
- **Support a faculty outreach leader position within EPSCoR (Dr. Lee Vierling, UI)**
- **Collecting baseline data to establish present involvement and demographics for underrepresented groups to assure progress is made to increase participation over the life of the program**

Areas for Potential Collaboration

- Share strategies that prove successful in:
 - Integrating research into outreach
 - Increasing under-represented populations into programs and STEM studies (K-20)
 - Leveraging EPSCoR funding to increase program size and effectiveness
- Link appropriate outreach activities within web portal(s)
- Share “exhibits” where possible
- Share program assessment tools
- Web-based mentoring
- Other?