

# TRI-STATE EPSCOR



VOL. 1 TRIMESTER 3

## TRACK 2 WC-WAVE PROJECT

## JULY 2014

## **PROJECT GOALS**

Component 1: Watershed Sciences Component 2: Cyberinfrastructure Visualization Component 3: Cyberinfrastructure Data Component 4: Workforce Development

In comparison to the tri-state population, American Indians were equally represented, females were fairly represented, and Hispanics and African-Americans were underrepresented.



Baseline Survey Recommendations

- Recruit female and URM faculty and students.
- Provide opportunities for participants to develop knowledge about WC-WAVE topics.
- Promote cross component involvement in Workforce Development programs.

This newsletter presents information about the Baseline Survey, CSDMS, Tri-State Consortium Meeting, Stream Camp, and the UVMN Workshop.

## 2013-14 WC-WAVE Baseline Survey Results

#### Baseline survey assesses:

- Demographics
- Implementation of the project
- Progress made towards achievement of project goals

#### Findings:

- Components 1-3: Participants show some baseline knowledge.
- Component 4: Overall initial participation is low.

#### Mean ratings of respondent knowledge by component



#### **Respondent participation for Component 4: Workforce Development**



The Albuquerque, NM training assists participants to develop CSDMS

## Community Surface Dynamics Modeling System (CSDMS) Training May 28-29, 2014

#### Objectives

Increase knowledge of:

- CSDMS
- How to build a Basic Model Interface
- Model integration challenges and solutions
- Specifications for model wrapping target

#### Findings

- Sessions rated very or extremely useful.
- Statistically significant gains for all objectives.



adapters for the models being used by the Watershed Science component.

#### CSDMS Recommendations

- Recruit females and URMs.
- Send agenda in advance.
- Provide transportation from the hotel to training site.
- Encourage faculty to discuss STEM and students' career interests.

Overall ratings of all objective statements

## WC-WAVE Tri-State Consortium Meeting May 29, 2014

NIFW/ MFXIC

**Objectives** - Increase knowledge of:

- Year 1 project updates
- Year 2 project plans
- Project integration plans



Overall rating of all objective statements

## Stream Flow Camp May 30-31, 2014

Stream Flow Camp is a watershed science field learning experience held in Jemez Valley, NM over 2 days: Rio Chama/Day 1 and Jemez/Day 2.

## **Objectives** –Increase ability to:

- Day Measure instantaneous discharge of a small stream
- 1 Develop & use a rating curve-stage to discharge
- \_\_\_\_ Measure ground H<sub>2</sub>0-stream flow interactions
- Day Monitor discharge, dispersion, & turbulence
- 2 Measure instantaneous discharge of a large stream



Overall ratings of all objective statements

#### Findings

- Rio Chama/Day 1 received high ratings
- Statistically significant gains for both days' objectives

## Recommendations

- Outreach to females and URMs.
- Send information early.
- Create small groups and assign faculty to each.

## **Upcoming Evaluation Activities**

**Conduct PSAT** (Program Sustainability Assessment Tool) **UVMN** (Undergraduate Visualization and Modeling Network) **Follow Up**  The Tri-State Consortium Meeting at the NM Museum of Natural History & Science brings together all WC-WAVE participants to review progress, plan, and collaborate.

## Meeting Attendees



#### Findings

- Sessions rated very or extremely useful
- Statistically significant gains for all program objectives

#### Recommendations

- Outreach to females and URMs.
- More collaborative activities.
- Distribute meeting schedule in advance.

## Undergraduate Visualization and Modeling Network (UVMN) Workshop

The workshop teaches undergrads and faculty from PUIs visualization/modeling techniques.

## Objectives

Increase participants:

- Knowledge of modeling and visualization tools.
- Skills to integrate modeling in undergraduate STEM courses.
- Interest in and commitment to study modeling and visualization.

- GIS
- FindingsSessions
- very or extremely useful
- Statistically significant gains for most objectives



Overall rating of objectives

## Recommendations

- Increase URM participation.
- More demonstrations.
- Encourage faculty to discuss their research.

## **Evaluator Recommendations**

- **OUTREACH and RECRUITMENT** to increase females and URMs
- FORMATS of MEETINGS & ACTIVITIES Incorporate formats that encourage collaboration, especially between components and between students and faculty.
- **PARTICIPATION** Increase student and faculty participation in field trips and meetings.

