UCI Water-PIRE
SmartStart Evaluation Newsletter

2014-15 Quarter 4

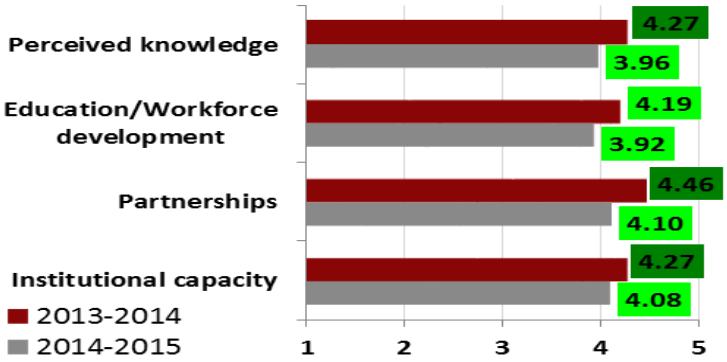
August 2015

This newsletter presents findings from the 2015 annual report including baseline and 2015 post-survey results.

Overview of the UCI Water-PIRE Project

Achievement of Project Goals

PIRE participants rated all goals as *achieved well*. While positive, all goals were rated lower this year compared to last.



Project Goals

Goal 1: Knowledge/Research/Discovery

Goal 2: Education/Workforce Development

Goal 3: Partnerships

Goal 4: Institutional Capacity

Excelled in achieving	4.21 – 5.00
Achieved well	3.41 – 4.20
Somewhat achieved	2.61 – 3.40
Achieved slightly	1.81 – 2.60
Not achieved at all	1.00 – 1.80

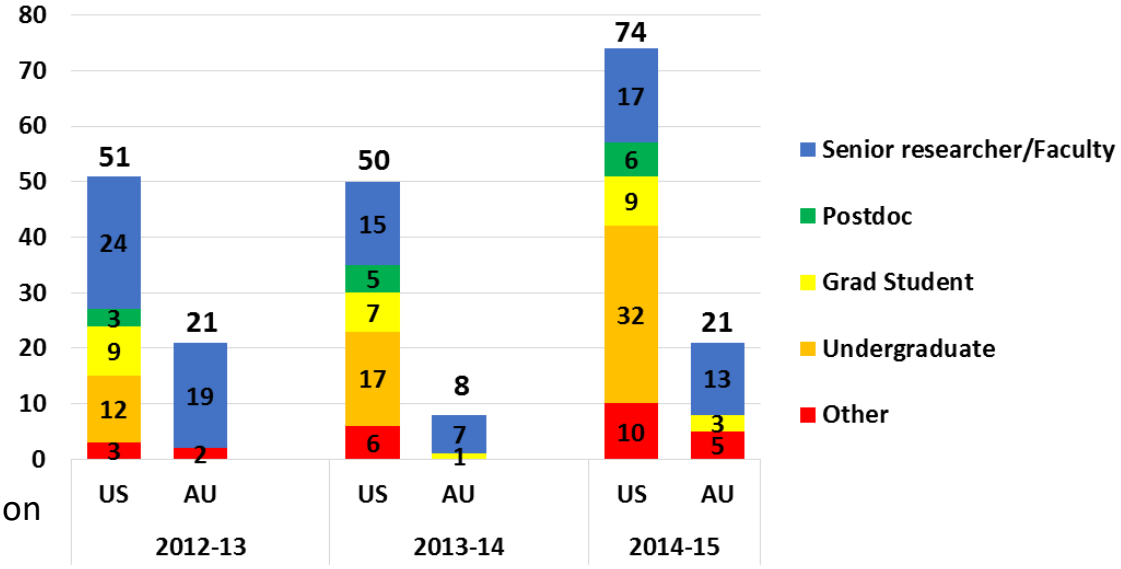
Project Participants

Project participants include undergraduate and graduate students, postdocs and senior researchers, and faculty who are involved in research, education, and outreach activities. Most participants are undergraduates, with senior researchers/faculty as the second largest group. There is an almost even gender split though only 9% participation from underrepresented minorities. Australian participation dropped in 2013-14, and while it has increased there are still far fewer Australian participants.

49% Female

51% Male

9% Underrepresented minority (URM) participation



There are more than 3.5x as many US participants as there are Australian participants.

"This project was amazing because these are real-life problems and it motivated some of us to learn more about problems like this one so that we could somehow help our society."

-high school student

Number of Students Reached by K-12 Education Activities

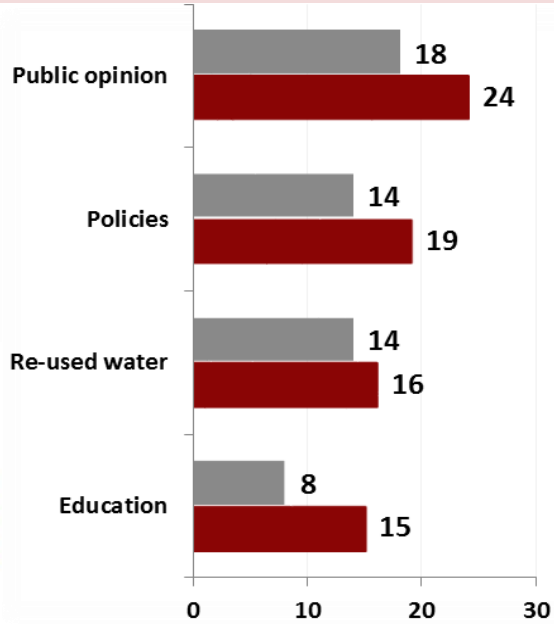
Project Component	Number of Students Reached			
	2012-13	2013-14	2014-15	Total
PIREWolf Productions	0	125	127	252
AISIESS	0	35	0	35
Orange County Water Festival	0	0	319	319
TOTAL	**0**	**160**	**446**	**606**

Participants' Gains in Conceptual Knowledge

Participants responded to an open-ended question to assess their conceptual knowledge related to sustainable urban water systems in the Southwest U.S. and Australia. The four most common themes and how many participants mentioned them are shown alongside selected post-survey quotes from participants.

# of Times Mentioned in Pre-Survey

# of Times Mentioned in Post–Survey



*"There is a **persistent attitude in Southern California** of "Water entitlement" and a fear of water recycling. We need to educate people better, and **support a culture of water conservation**."*

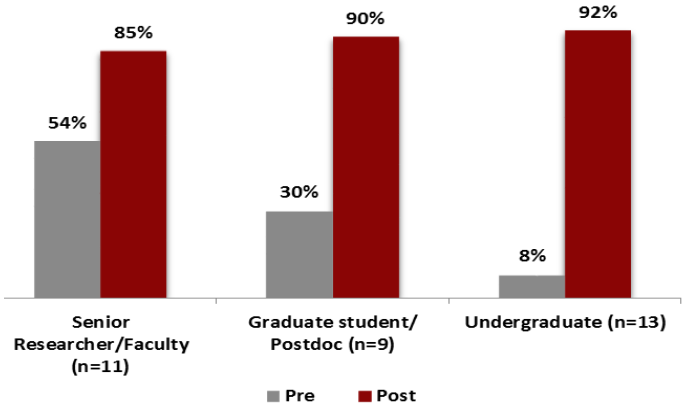
*"I believe **regulation** is still the driving force for environment protection. The incentives for water conservation, stormwaer reuse, water pollution control are all depended on the **laws/regulations/guidelines**."*

*"The seasonal rainfall in SoCal implies that implementation of strategies that are more dynamic is necessary to resolve the issues. For example, **wastewater**, which is a constant source of water, should be used as the main water supply portfolio, with stormwater (both dry and wet) as an additional water supply."*

*"The biggest barrier that the US has in the adoption of innovative approaches to water supply, treatment, reuse, etc. is **education** of the community."*

Partnerships with Other Countries

There were large increases in partnerships for participants in all roles, with an 84% increase for undergraduate students.



Lowest-Rated Knowledge Items

Knowledge items rated lower than three (out of 5) listed below.

- **Energy/greenhouse gas savings associated with rainwater tanks relative to conventional water supplies irrigation (2.91)**
- **Economic approaches for identifying optimal water supply options at the watershed scale (2.84)**
- **Energy/greenhouse gas savings associated with biofilters relative to conventional water supplies (2.79)**
- **Climate change predictions for Southeast Australia (2.77)**
- **Hyporheic exchange (2.65)**
- **Photochemical oxidation (2.63)**

Evaluator's Recommendations

- *Recruit and retain more underrepresented minority participants.*
- *Encourage long-term participation of undergraduate students in the PIRE project.*
- *Host research seminars to address the lowest rated knowledge areas.*
- *Create opportunities for undergraduates to collaborate with domestic, non-university researchers in addition to those from other countries, such as through seminars, publications, and conference presentations.*
- *Develop sustained mentoring and supportive relationships with undergraduates to support the next generation of urban water sustainability scholars.*
- *Expand programming by developing an international conference and periodic research seminars. Invite non-university and international partners to present at seminars and share industry knowledge.*
- *Increase project communication with bi-weekly email blasts that share upcoming activities and advertise ways to get involved.*
- *Hold quarterly leaderships meetings .*

SMART START EVALUATION & RESEARCH

(949) 396-6053

4482 Barranca Parkway, Ste. 220 , Irvine, CA 92604