

# **UCI WATER-PIRE** SMARTSTART EVALUATION NEWSLETTER



2016-17 Quarter 1

DECEMBER 2016

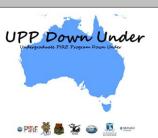
Findings from the surveys and interviews with 2016 UPP Down Under cohort and follow-up survey with 2013-15 UPP participants are presented in this newsletter.

# **Undergraduate PIRE Program (UPP) Down Under**

## 2016 UPP Program

12 undergraduates participated in the Summer 2016 UPP Down Under Program held at UC Irvine and University of Melbourne in Australia.

- ♦ UCI Weeks 1-2: Student Orientation, field trips, & lectures
- ♦ Australia Weeks 3-4: Tours of facilities & experiments on biofilter performance
- ♦ UCI Weeks 5-6: Lectures, data analysis, group work, & student presentations

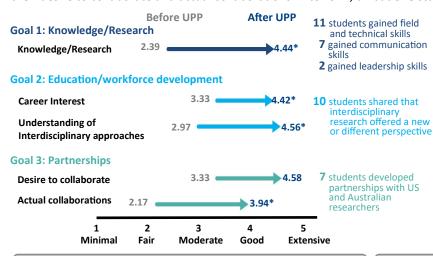


Check out our Water-PIRE YouTube video, "Every last drop"



## **2016 Achievement of Project Goals**

Students had statistically significant increases in their knowledge, career interest, understanding of interdisciplinary approaches, and their desire to collaborate and actual collaborations. After UPP, all but one student were interested in a water sustainability career.



Academic and career interest in field related to urban water sustainability science before and after UPP Down Under

Majoring		Grad school	Career
Before UPP	58%	25%	50%
After UPP	84%	83%	92%

I'd want to stay Environmental Engineering, go to grad school and then career. I was 50/50 before, but now I know I want to go to grad school. - 2016 UPP Participant

#### Mentorship in 2016

Students shared that mentorship by faculty and postdoctoral fellows was an important part of the UPP program because they:

# career advice research training

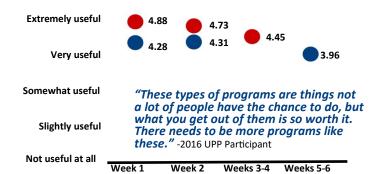
Felt mentors were: approachable supportive



7 mentioned mentorship was the most rewarding aspect of UPP

## **Usefulness of 2016 Activities**

Students rated lectures and tours as very or extremely useful, but rated them higher during weeks 1&2 than the later weeks. Tours were rated higher than lectures because students were interested in the practical application of the lecture topics.



# Follow-up Surveys with 2013-15 UPP Participants

A follow-up survey was sent to all past UPP participants (n=36). Twenty-three (64%) completed the follow-up survey. Respondents were 6% female, 43% Asian, 57% from UCI, 48% environmental engineering students, and 39% from the 2015 cohort.

# **Knowledge Application**

Knowledge and skills gained from UPP are being retained and put to use.

# **Education and Workforce Development**

Past participants stayed engaged with water-related activities, schooling, and careers.

# Used the knowledge & skills in research projects "Lab research experience relevant to current research skill

requirements. Understanding of current research skill requirements. Understanding of current issues and leading initiatives helped focus my career goals. International experience and understanding of Australia's response to millennial drought relevant in current drought discussions."



# Water- and engineering-related activities in the past year:

8 participated in an internship

5 presented research

1 involved in a publication

9 participated in solving urban water sustainability problems

# Used the knowledge & skills at work/ fellowship/internship

"The knowledge and skills I gained in UPP helped me get my internship after college and at my current job I may be able to use the skills in the water quality division."



**6 out of 7** past participants in graduate school attributed their pursuit of further education to UPP

# 18%

27%

55%

Found the knowledge & skills generally useful

"Better understanding of what is involved in high-level research, ability to interact professionally with my peers, more global understanding of environmental issues."



**21 out of 23** past participants' long-term career plans are in a water-related field or engineering

# **Personal and Professional Development**

Past participants indicated that UPP impacted them personally and professionally. The 2015 cohort indicated that the most valuable aspects of UPP were the networking opportunities and the knowledge they gained.

#### 18 shared personal and professional impacts of UPP:



- 2 gained skills related to their current fields
- 7 networked and collaborated with researchers and students
- 4 had increased confidence
- 2 gained international experience
- 2 had increased understanding of water sustainability
- 1 learned more about academia

9 from the 2015 cohort shared the most valuable aspect of UPP:



- 4 stated networking opportunities
- 3 stated increased interest in water sustainability field, grad school, or career
- 2 stated knowledge they gained

"UPP showed me the bigger picture of urban water sustainability and made me excited about being part of California's solution."

-Past UPP Participant

# **Evaluator's Recommendations**

- Provide opportunities for students to talk to and possibly conduct research with Australian partners during and after UPP Down Under.
- Facilitate research and presentation opportunities after UPP Down Under to help students stay connected to UCI and water-related research/work.
- Stay connected to all past UPP Down Under students to track their retention in water-related academic and career paths and activities.

"This project has given me connections to other students, faculty, and post-docs that have been a great support network. UPP opened the door for me to go to graduate school and gave me a unique research experience that I continue to talk about and draw on." -Past UPP Participant



