ISEE raises funds from a wide range of sources to support participation in the PDP (see "ISEE Funding Sources & Priorities"), and receives core funding from the following units at University of California, Santa Cruz:

- Division of Social Sciences
- Division of Physical & Biological Sciences
- Division of Graduate Studies
- Vice Chancellor for Research
- Jack Baskin School of Engineering

The PDP is part of the Institute for Scientist & Engineer Educators at the Division of Social Sciences, University of California, Santa Cruz
ISEE manages a range of funding sources and collaborates with others to support participants from many locations, and in many disciplines. Below is a list of current funding commitments:

**NSF Astronomy grant** supports astronomy and physics graduate students and postdocs nationally (AST#1743117 & AST#1643290; PI: L. Hunter).

**NSF Graduate Research Fellowship Program** awarded to UCSC (#1339067; PI: T. Miller) supports UCSC graduate students from all STEM disciplines to teach in WEST or Research Saturdays.

**Air Force Office of Scientific Research grant** supports participants who will teach in the Akamai PREP short course (FA95501510427; PI: L. Hunter).

**UCSC campus funding** funds participants teaching in the WEST program in any STEM discipline.

**NSF Astronomy research grant** supports University of California, Berkeley graduate students and postdocs (AST-1518273; PI: J. Lu).

**Graduate Assistance in Areas of National Need (GAANN) grant** supports Conservation Biology Fellows at UCSC (PI: R. Mehta; Co-PI: I. Parker).

Chapters may have additional funding sources. ISEE is continually raising funds, so participants should still apply even if they do not fit the above funding sources. Please contact Lisa Hunter if you have questions about funding sources.
PDP PARTICIPANTS GET JOBS

“The PDP has had the largest impact on my teaching philosophy than anything else in my academic career. The specific values and techniques taught in the PDP were directly cited as a major reason I was chosen for my current faculty position.”

“During my interview I had to give a teaching demonstration and discuss inquiry and learner centered models of education. I felt confident doing this as a direct result of my participation in the PDP program.”

“I just passed my tenure review … and based on the feedback I received about my teaching and mentoring, there is no question in my mind that I would not have been half as successful without my experiences with the PDP…”

OVER 110 PDP ALUMNI HAVE MOVED INTO STEM CAREERS

THE PDP IS MEETING A NATIONAL NEED TO BETTER PREPARE Ph.D.s

“Examples of important skills that Ph.D.-level employees typically need, whether they are employed in academia or elsewhere, but for which most new Ph.D.s are ill prepared include project management, leadership, the ability to work in teams, the expertise to address complex interdisciplinary problems, and the ability to teach.”

President’s Council of Advisors on Science and Technology, 2012

PDP ALUMNI

WHERE PARTICIPANTS TEACH

PDP participants teach in a range of ISEE affiliated venues that offer supportive environments for innovative teaching and piloting new activities. Venues are often workshops or programs, although experienced PDP participants may also teach in formal courses. The general teaching venues are:

- Undergraduate Research Programs
- Bridge Programs
- Technical Short Courses
- Summer Schools
- College Courses

For further details see http://isee.ucsc.edu/programs/pdp/teams/index.html

ISEE has grown to include a range of Chapters across the U.S. and internationally. Chapter Liaisons work with ISEE to identify appropriate teaching venues, give input on participant selection, and decide on the topical or disciplinary focus for their site. Individuals connected with our chapters below are invited to apply to the PDP. Others interested are encouraged to contact PDP Program Manager Nicholas McConnell (njmccomm@ucsc.edu).

Santa Cruz Chapter
Primary contact: Rafael Palomino (rpalomin@ucsc.edu)

Akamai-Hawaii Chapter
Primary contact: Austin Barnes (isee.austinbarnes@gmail.com)

Houston, TX Chapter
Chapter Liaison: Jason Porter (jporter@central.uh.edu)

UCLA Astronomy & Astrophysics Chapter
Chapter Liaison: Michael Fitzgerald (mpfitz@ucla.edu)

UC San Diego Chapter
Chapter Liaisons: Quinn Konopacky (qkonopacky@ucsd.edu) and Shelley Wright (saw@physics.ucsd.edu)

Austin, TX Chapter
Chapter Liaison: Caitlin Casey (cmcasey@astro.as.utexas.edu)

Boulder, CO Chapter
Chapter Liaison: Seth Hornstein (seth.hornstein@colorado.edu) and Mark Rast (mark.rast@lasp.colorado.edu)

Pasadena, CA Chapter
Chapter Liaison: Gwen Rudie (gwen@carnegiescience.edu)

New York City Chapter
Chapter Liaisons: Emily Rice (emily.rice@csi.cuny.edu) and Gregy Bryan (gbryan@astro.columbia.edu)

Michigan State University Chapter
Chapter Liaison: Devin Silvia (dsvilvia@msu.edu)

UC Berkeley Chapter
Chapter Liaison: Jessica Lu (jlu.astro@berkeley.edu)

South Carolina Chapter
Chapter Liaison: Steve Rodney (srodney@sc.edu)

Dunlap Institute Chapter
Chapter Liaison: Michael Reid (mike.reid@utoronto.ca)
**INQUIRY INSTITUTE**
Workshops & Team Formation over 4 days
The Inquiry Institute includes the following:
- "Comparing Approaches: Three Kinds of Hands-On Science" activity and discussion
- "How People Learn" discussion
- Inquiry activity and discussion (Light & Shadow or Digital Images)
- Diversity and Equity workshops
  - Introduction to "Backward Design"
  - Learning goals; content, practices, attitudes
  - Begin working with activity Design Teams
Here, participants experience inquiry from the learner’s perspective, reflect on that experience, and are introduced to strategies for designing and teaching science/engineering inquiry activities inclusively and effectively.

**TEACH**
PDP participants gain practical experience as they co-teach the inquiry activity they designed with their fellow Design Team members. Teaching experiences may range from fairly short (few hours) to week-long or longer activities. Teaching often takes place in ISEE affiliated programs and special courses.

**FACILITATION WORKSHOP**
Training in facilitation strategies, techniques, and how to effectively progress students toward learning goals is provided at several intervals close to the time of teaching.

**INDEPENDENT DESIGN TIME**
Teams independently continue planning and preparing to teach their inquiry activity up until the scheduled venue. Teaching generally occurs May–November.

**PDP CYCLE of ACTIVITIES**
Activities are included below. Also see the PDP team pages on the ISEE website, http://isee.ucsc.edu/programs/pdp/teams/index.html.

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**Reflective Community of Scientist and Engineer Educators**

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