PEERs: Promoting Equity in Engineering Relationships

Capacity Building Institute

Samuel E. Kelly Ethnic Cultural Center
June 7, 2013

NSF grant (HRD-0833338)
www.engr.washington.edu/peers/
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:00 – 11:15</td>
<td>PEERs Project Overview</td>
</tr>
<tr>
<td>11:15 – 11:30</td>
<td>PI Remarks</td>
</tr>
<tr>
<td>11:30 – 12:00</td>
<td>PEERs Leaders Q&amp;A</td>
</tr>
<tr>
<td>12:00 – 12:45</td>
<td>Working Lunch, Discussion #1</td>
</tr>
<tr>
<td>12:45 – 1:00</td>
<td>Report Out from Discussion #1</td>
</tr>
<tr>
<td>1:00 – 1:30</td>
<td>Discussion #2</td>
</tr>
<tr>
<td>1:30 – 1:50</td>
<td>Report Out from Discussion #2</td>
</tr>
<tr>
<td>1:50 – 2:00</td>
<td>Conclusion and Evaluations</td>
</tr>
</tbody>
</table>
PEERS PROJECT OVERVIEW

www.engr.washington.edu/peers
What is PEERS?

- **Project Goal:** Improve the experiences of underrepresented undergraduate students in the UW College of Engineering, resulting in increased participation of women, minorities, & people with disabilities

- A program **for-students, by students**

www.engr.washington.edu/peers
PI & Co-PIs

PI
Ana Mari Cauce, Provost, UW

Co-PI
Eve Riskin, Associate Dean & Professor, Electrical Engineering

Co-PI
Sheryl Burgstahler, Director, DO-IT

Co-PI
Joyce Yen, Program/Research Manager, UW ADVANCE

Co-PI
Sapna Cheryan, Assistant Professor, Psychology

www.engr.washington.edu/peers
Evaluation Team

Priti Mody-Pan, MPA, MS
Internal Evaluator; Deputy Director & Director of Evaluation, Center for Workforce Development

Laura Collins, Ph.D.
External Evaluator; President, Center for Research and Learning

www.engr.washington.edu/peers
Project Objectives

• **raise awareness** of unconscious and implicit biases toward underrepresented students;

• **promote actions** both majority and underrepresented students and faculty can take to counteract these biases to cultivate a more welcoming and success-promoting climate;

• **cultivate change agents** among both student and faculty bodies; and

• **build a foundation and collaboration mechanisms** for future efforts to make STEM and other programs campus-wide welcoming and accessible to underrepresented students

www.engr.washington.edu/peers
Partners at UW

Disabilities, Opportunities, Internetworking & Technology (DO-IT)

ADVANCE Center for Institutional Change

Center for Engineering Learning & Teaching (CELT)

www.engr.washington.edu/peers
Innovations

• Student-level innovations:
  – Annual Fall quarter one-credit seminar: ENGR 498C
  – Peer-to-peer workforce of students (PEERs Leaders) who lead presentations & panel discussions

• Campus-level innovations:
  – Campus-climate survey matching departments for comparison
  – Bridge across diversity silos
    • Capacity Building Institute
    • Community of Practice
  – Cross pollination of other NSF-funded efforts

www.engr.washington.edu/peers
Leadership Development to Promote Equity in Engineering Relationships

Fall 2009

Half of Fall 2010

Fall 2011

Fall 2012
Seminar Final Presentations

Seminar Topics:

- Engr. demographics
- Why diversity is important
- Disabilities
- Personal stories
- Resistance to diversity
- How to be an ally
- *Implicit bias
- *Biology and socialization
- *Talent, hard work, and grit
- *Uneven playing field
- *Stereotypes and Belonging
- *Privilege

* Denotes jigsaw classroom topic in which students become an “expert” and share their knowledge with other students

• Public group presentations during finals week
• Final presentations attended by many
• Seminar students selected as PEERs Leaders

www.engr.washington.edu/peers
Leaders Activities

- 18 PEERs Leaders
- 30+ presentations, 600+ people reached
  - STEM Bridge (incoming first year students)
  - Math Academy (rising HS seniors)
  - EURP (current engineering undergrads)
  - WISE Conference (HS – professionals)
  - ENGR 100 (generally first year students)
  - Engineering for Society seminar (first year students)
  - All-College mtg.
  - S-STEM mtgs.
  - Community Colleges
- Outreach Activities
  - Tabling
  - Facebook
  - Engr. Discovery Days

www.engr.washington.edu/peers
NSF-funded Synergies

Panel
Student Recruitment
Empowerment

DO-IT

S-STEM
COLLEGE OF ENGINEERING
UNIVERSITY OF WASHINGTON

Presentations
Student Recruitment
Empowerment

PEERS

Presentations
Student Recruitment
Empowerment

Access STEM
Student Services
Empowerment

PNW LSAMP
PACIFIC NORTHWEST LEWIS STOKES ALLIANCE FOR MINORITY PARTICIPATION
IDaho • Oregon • Washington

Presentations
Student Recruitment
Empowerment
Model Program
2013 Climate Survey

- Administered April 22 – May 23, 2013
  - Same 33 majors as baseline (n=10,880 students)
  - 10% response rate (n=1141 students)

- Additions:
  - PEERS specific questions
  - Pell-eligibility
  - Military service

- Data will be used to compare changes in engineering majors to changes in non-engineering majors over time

- Each major will receive a major-specific report

www.engr.washington.edu/peers
2013 Climate Survey: Preliminary Findings about PEERs

• 9% of all respondents have heard of PEERs
• 48 students responded to “Please describe in what ways PEERS has changed your personal awareness of diversity issues…” Responses include:
  – **Not really** (n=26; 54%): *I have only heard the name before - I don't actually know what PEERS is.*
  – **Deepen understanding** (n=7; 15%): *PEERs has caused me to be more aware of how my experiences in engineering may be shaped by my gender and has provided me with tools to overcome setbacks related to this.*
  – **Awareness-raising** (n=7; 15%): *More aware of disparities in education and opportunity.*
  – **Take action/change agents** (n=6; 13%): *Each person within the community has a responsibility to understand and get to know other cultures. If this is done, then we will have a stronger community within the UW. Not to say that we do not already, but it can only help to improve.*
  – **Other** (n=2; 4%): *I feel very welcomed at UW, which contrasts previous academic experience. I don't feel like an outlier. I love UW.*

[www.engr.washington.edu/peers](http://www.engr.washington.edu/peers)
## Evaluation Findings

<table>
<thead>
<tr>
<th>PEERs Program Component</th>
<th>Raise Awareness</th>
<th>Cultivate Change Agents</th>
<th>Promote Action</th>
<th>Build Foundation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PEERs Seminar</strong></td>
<td>• Students better informed and empowered</td>
<td>• Increased willingness to discuss seminar topics with others</td>
<td>• Increasing numbers of PEERs Leaders selected from seminar each year</td>
<td>• Initial seminar year highly impactful</td>
</tr>
<tr>
<td></td>
<td>• Course evaluations favorable</td>
<td>• TAs conduct research on gender &amp; engr</td>
<td></td>
<td>• Continuing demand for enrollment</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Website resources</td>
</tr>
<tr>
<td><strong>PEERs Leaders</strong></td>
<td>• PEERs Leaders are face and voice of PEERs</td>
<td>• Increasing number of PEERs Leaders +Coordinators</td>
<td>• Increasing number of presentations and diverse audiences</td>
<td>• Presentations stimulate discussions</td>
</tr>
<tr>
<td></td>
<td>• Work as synergistic team to raise awareness</td>
<td>• Personal growth as change agents</td>
<td></td>
<td>• Opening communication channels</td>
</tr>
</tbody>
</table>

[www.engr.washington.edu/peers](http://www.engr.washington.edu/peers)
# Evaluation Findings

<table>
<thead>
<tr>
<th>PEERs Program Component</th>
<th>Raise Awareness</th>
<th>Cultivate Change Agents</th>
<th>Promote Action</th>
<th>Build Foundation</th>
</tr>
</thead>
</table>
| Capacity Building Institute | • Learn about state of UW with respect to diversity  
• Highlighted multi-faceted nature & student perspectives | 35 participants in first CBI (admin, faculty, student groups, disability srvs, research ctrs, advisors, student srvs) | • Attendees willing to tackle big issues | • Tied together diversity efforts  
• Stimulated discussions  
• Set stage for flow of information |

[www.engr.washington.edu/peers](http://www.engr.washington.edu/peers)
## Evaluation Findings

<table>
<thead>
<tr>
<th>PEERs Program Component</th>
<th>Raise Awareness</th>
<th>Cultivate Change Agents</th>
<th>Promote Action</th>
<th>Build Foundation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Climate Survey (2010)</td>
<td>• Baseline data of student perceptions: Engr. and comparison groups, females, URMs, disabled • Differential experiences</td>
<td>• Departmental reports inform conversations</td>
<td>• Results distributed to participating departments</td>
<td>• Climate Survey is legacy of PEERs • Data to be used in UW Diversity Blueprint • Survey has potential for national impact</td>
</tr>
</tbody>
</table>
How you can help

• Recruit students to PEERs 1 credit seminar
  – ENGR 498C
  – Tuesdays 1:30 – 2:20
• Watch and share online video—coming soon!
• Attend our final presentations
• Identify venues for PEERs presentations and outreach activities
• Join PEERs Community of Practice

www.engr.washington.edu/peers
PEERS LEADERS Q&A

www.engr.washington.edu/peers
PEERs Leaders Q&A

Cezanne Camacho
Electrical Engineering

Nuvala Fomban
Bioengineering

Kimberlee Sing
Chemical Engineering

Megan Torkildson
Human Centered Design & Engineering

Rafael Vertido
Computer Science & Engineering

Quoc-Anh Vu
Pre-Engineering

www.engr.washington.edu/peers
WORKING LUNCH
SMALL GROUP DISCUSSION #1

www.engr.washington.edu/peers
SMALL GROUP DISCUSSION #1

• What has changed over the past four years related to diversity at UW?
• What is the evidence of these changes?
• What contributions/legacy has PEERs made to the diversity conversation and climate at UW/UW Engineering?
What are the next steps to keep moving forward in creating a welcoming and equitable campus?

www.engr.washington.edu/peers
REPORT OUT FROM DISCUSSION #2

www.engr.washington.edu/peers
CONCLUSION & EVALUATIONS

www.engr.washington.edu/peers