

Program: Women in Engineering

Speakers: Terri Talbert-Hatch, Ed.D and Jennifer Williams, MS

Introduced by: Joe Abella

Guests: E. Betsy Spencer, Rick Wiethoff

Attendance: 98

Scribe: Don Mink

Editor: Carl Warner

The presentation discussed:

Why do we need more women engineers?

While women comprise 47% of the U.S. workforce, only 13% of engineering professionals are women. Research shows that diverse teams perform better. Individuals from different genders, races, backgrounds and experiences bring different perspectives that can lead to innovative solutions. Women may think, act, or approach problems differently.

Recruitment and Retention.

Recruitment of females is very competitive. Females are 50% (or more) of students in college but only 20% of engineering students. Women now take as many high school science classes and their achievement levels are roughly the same as men. While measures of student abilities indicated that women's skill levels did not differ from those of men, women self-reported lower competency on basic engineering skills and knowledge, problem solving, and engineering abilities. Women identified social support as one of the strongest factors influencing their pursuit of a degree in a technical field. Barriers to recruiting women to engineering and technology programs include lack of role models, young women are strongly influenced by self-confidence issues, women are more interested in dealing with people and men with things, and their lack of comfort and perhaps lack of experience with various tools and machinery that are part of engineering practice.

What is IUPUI doing?

- 1) Customized marketing materials.
- 2) On campus recruitment days just for females.
- 3) Current female students sending handwritten welcome notes to admitted female students.
- 4) WISE Wing – Women in Science and Engineering section of the residence hall STEM floor for first year students.
- 5) *POWER Camp* – Preparing Outstanding Women for Engineering Roles (13 years).
- 6) Added *POWER Senior Academy* for rising seniors in 2018.
- 7) *Introduce a Girl to Engineering Day* for 5th and 6th grade girls conducted by the Society of Women Engineers student organization.
- 8) Girl Scout events such as *Slumber at the Speedway*.
- 9) *Wow! That's engineering!* event in partnership with Central Indiana SWE for middle school girls.
- 10) All female orientation to place more females in the same sections of classes. 11) Society of Women Engineers student organization.

The results have shown dramatic increases in applicants, admissions, and enrollees. Student census, as of the spring 2018 semester, has 21.8% of all enrolled students in the School (BS through Ph.D) being female.

The Sciencetech Foundation provides financial support for the POWER Program. The 2018 Power Camp had 35 participants, and, the 2018 Power Senior Academy had 15 participants. POWER

Scholarships (started in 2016) provide \$1,000-\$4,000 for all four years, depending on eligibility (past POWER participant and a minimum GPA of 3.5). The Sciencetech Club was thanked for their ongoing support.



Jennifer Williams (L) and Terri Talbert-Hatch (R)