

TARGETING SUCCESS – IMPROVE EMPLOYEE SATISFACTION, RETENTION, AND PROFIT

Retention of Women Engineers in Industry

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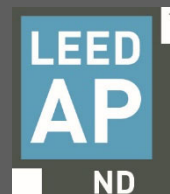
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How to Increase Profit – **Retention of Women Engineers in the Workforce**

As the building design and construction industry looks at the composition of the future workforce it is clear that the demographics of today's workforce will need to change to meet future demand for employees. It is projected that this change will include increasing the number of women employed in the building design and construction industry. We have seen an increase in young women enrolling in STEM disciplines at the university level and an improvement in the number of women students attaining college degrees but we have not seen the same increase in the percent of women employed in the STEM workforce. This inconsistency can be attributed to poor retention of women once they enter the profession. This presentation will address why women leave the industry and what can be done to help increase retention. This is an important topic for our industry as a whole as well as for employers trying to minimize turn-over and maximize productivity and profit.

Learning Objectives



- Define the facts and figures related to retention of employees in the building engineering and construction industry
- Identify common barriers experienced by women employees that impact their retention
- Recognize actions that employers can implement to better retain employees
- Communicate actions that women can take to better aide their success

Purpose



- This is not a women issue but an employer issue
- The purpose of this presentation is **not** to:
 - ▣ Place blame or point fingers
 - ▣ Make excuses
- Instead the **goal** is to:
 - ▣ Improve the industry
 - ▣ Create awareness and consciousness

Overview



- Facts
- Barriers
- Recommended Action



Facts

Facts – Shortage in HVAC&R



- There is a shortage of employees in HVAC&R
- In 2014 there were 220,734 HVAC&R Job Postings
 - ▣ Twice as many as the oil and gas industry (HVACR Workforce Development Foundation)

Facts – Shortage in HVAC&R

- Retirement will increase demand
 - ▣ U.S. Bureau of Labor Statistics projects that by 2024 a quarter of the U.S. workforce will be over the age of 55, with one-third of that group aged 65 or older



Facts – Alternate Demographics



- There are not enough white males to fill the gap
- Alternate demographics must be considered
- Women should be part of this equation
 - ▣ Need to reflect the composition of your customer base
 - ▣ Diversity = multiple experiences and perspectives
 - ▣ Increases effectiveness of problem solving

Facts

- Companies employing women in large numbers outperform competitors in profitability

(Del Guidice, Crawford)



Facts

- Women compose 13% of the engineering workforce
 - ▣ < 5% change of representation in 20 years
 - Other professions > 40% (Crawford)
 - ▣ Nearly 20% women enter the workforce with engineering bachelor degree each year (Frehill)

- ▣ Retention is a problem



Facts - Retention

□ Compared to other professions, women in STEM are:

▣ **8 times** more likely to leave the field than other professions (Crawford)

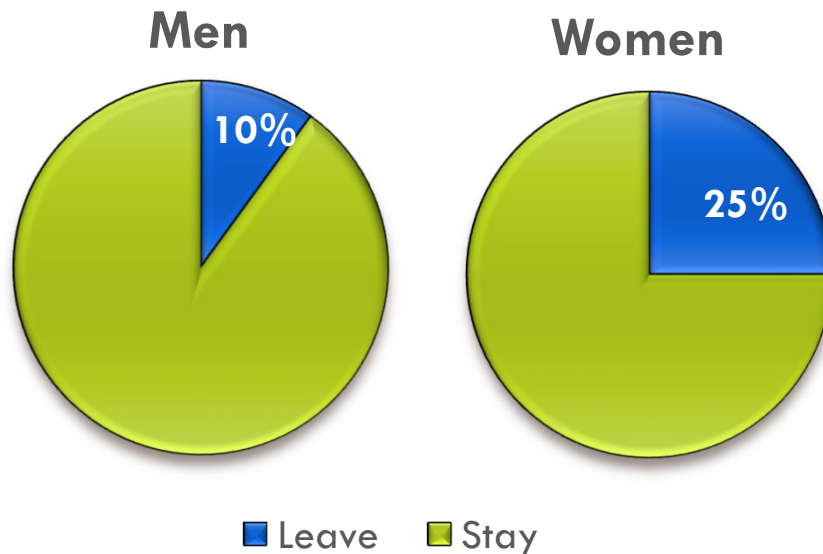
▣ Less likely to return to work after starting a family (Blackwell)

▣ Men also leave engineering but at lower rates



Facts - Retention

- 1 in 4 women leave engineering after age 30 compared to 1 in 10 men (SWE)



- Nearly 70% of the women that leave engineering are working in another industry (Fouad)

Facts - Retention



- Retention is not a women issue is an employer issue
- Cost of losing an employee
 - ▣ Training
 - ▣ Recruitment
 - ▣ Knowledge, relationships, & skill



Barriers

- ❑ Image
- ❑ Work Culture
- ❑ Balance Between Work & Life

Barrier - Image



- Unattractive public view of the industry – stereotyping
- Negative opinions of women in masculine professions (Hill)
- Lack of female role models (Dahlmann)

Barrier – Work Culture

- Isolation or sense of belonging
 - ▣ Social events
 - ▣ Relationship building
 - ▣ Only other female is clerical
 - Problematic for career
 - ▣ Lack of support network



Barrier – Work Culture

- ▣ Voice
- ▣ Communication
- ▣ Management
- ▣ Self promotion



Barrier – Work Culture

- Women perceive they have to work harder than men to be recognized as competent (Arditi)



- Women are judged to be less competent than men in 'male' jobs unless they are clearly successful in their work (Hill)

- When a woman is clearly competent in a 'masculine' job, she is considered to be less likable (Hill)



Barrier – Work Culture

- Since both likability and competence are needed for success in the workplace, women in STEM fields can find themselves in a double bind (Hill)



Barrier – Work Culture

- Women lack confidence (Kay)
 - ▣ Result - self doubt & underestimated ability
 - ▣ Review of personnel records at Hewlett Packard
 - Women only applied for promotion when they fit 100% of the qualifications
 - Men applied meeting only 60% of the qualifications
 - ▣ Women are confident only when they are perfect



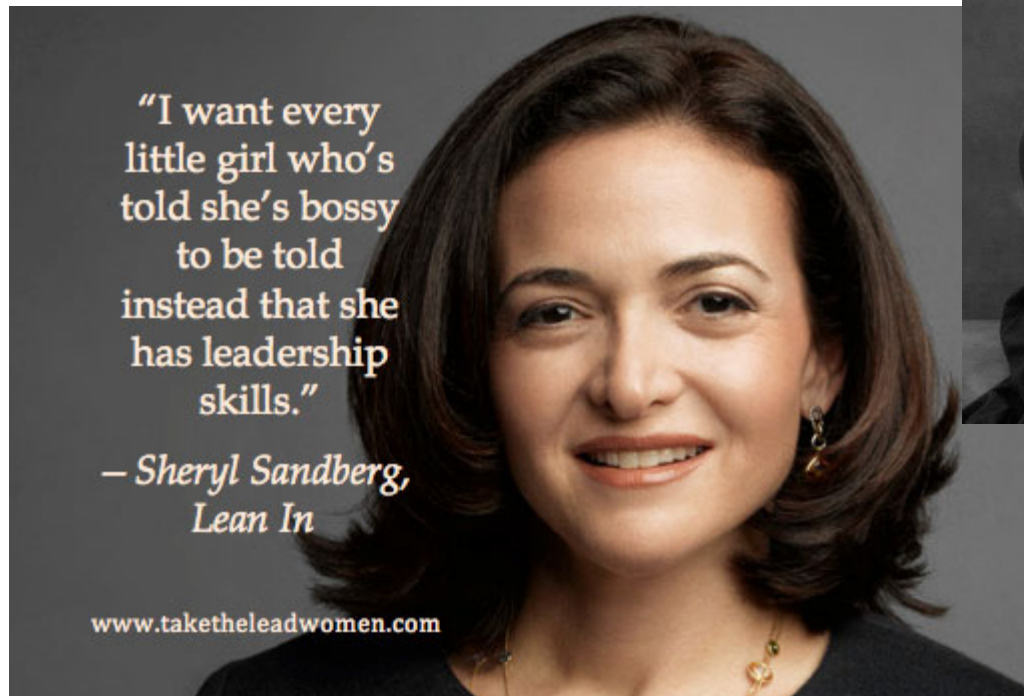
Barrier – Work Culture



- Confidence matters as much as competence
- Women assume blame when something goes wrong while credit others for their success (Kay)

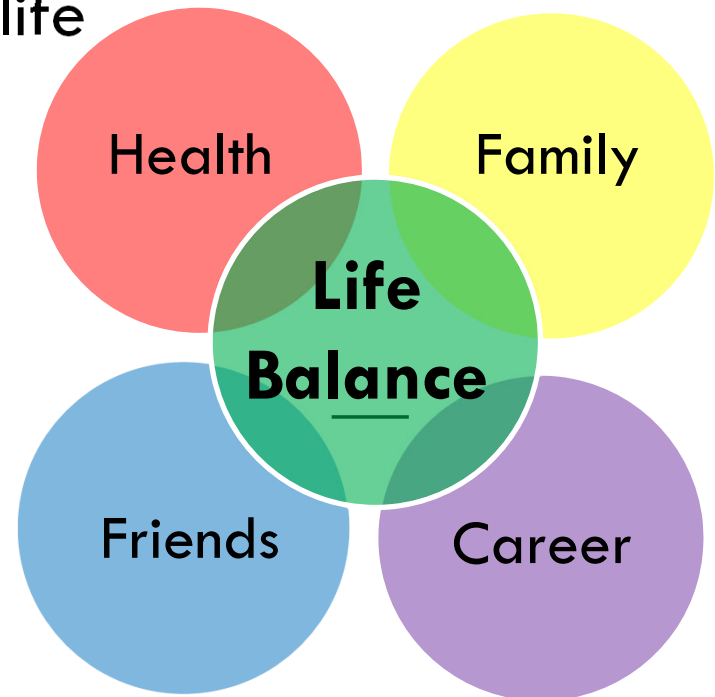
Barrier – Work Culture

- ❑ Women that are assertive or aggressive may suffer other consequences (social and professional) – they may be disliked (Kay)



Barrier – Work Culture

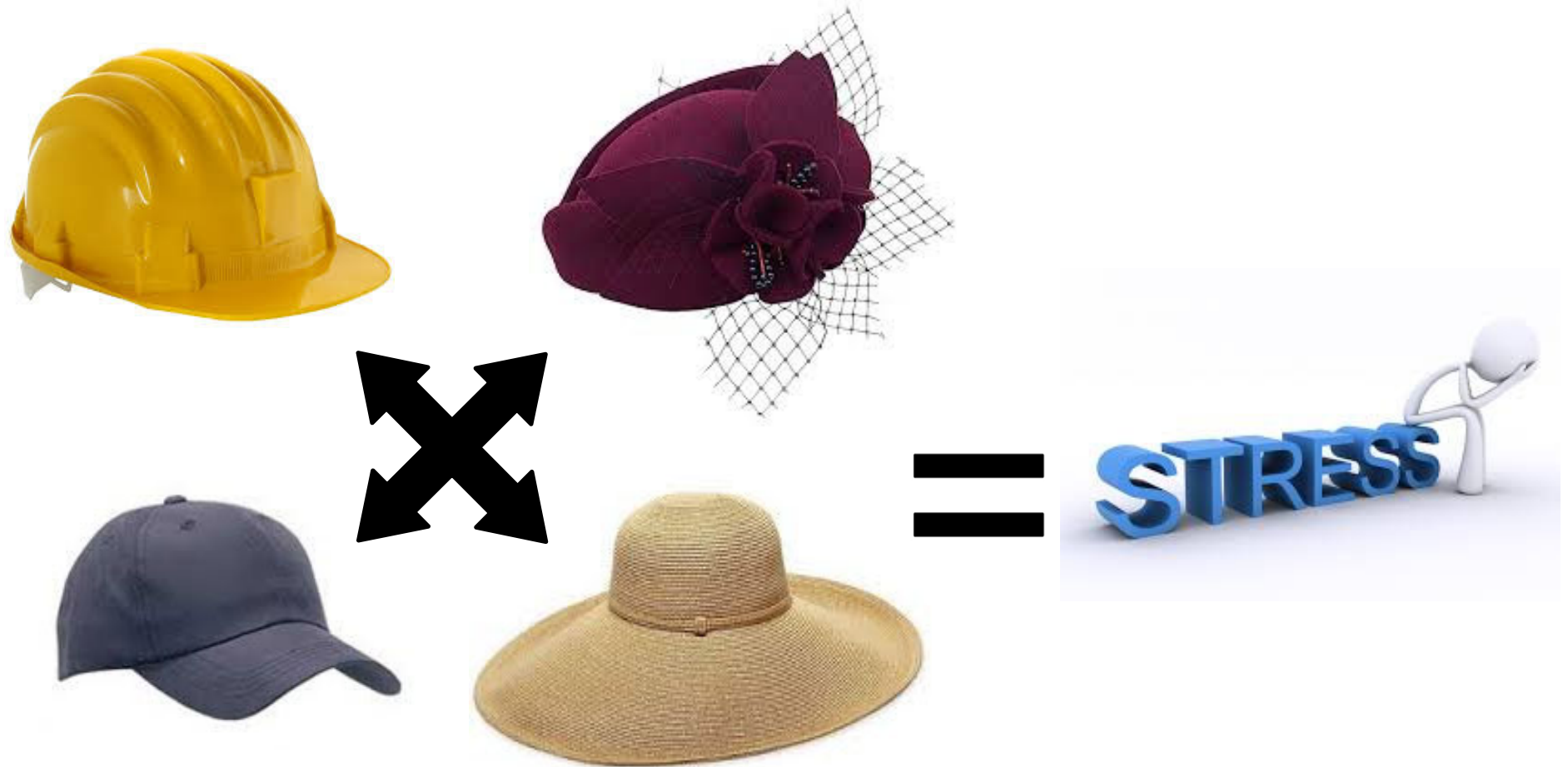
- Success is defined differently for men and women
 - ▣ Need for job security
 - ▣ Promotion and pay
 - ▣ Balance between work and life
 - ▣ Job satisfaction



Barrier – Balance

- Women & men feel having a family hinders success at work (Hill)
 - ▣ Women more likely to forgo/delay marriage & children
- Women & men identify interest in another career the primary reason to leave the industry
 - ▣ But women far more commonly cite time & family issues
- Women are more likely to have a partner in STEM
 - ▣ Similarly demanding work schedules
 - ▣ Men's career often takes priority

Barrier - Identity





Recommended Action/Programming

- ❑ Employers
- ❑ Professional Societies
- ❑ Universities
- ❑ Women Engineers

Employers

- Goal –
 - ▣ Maximize performance & profitability
- Programming
 - ▣ Develop formalized mentoring program
 - ▣ Invest in training and development



Employers (Cont.)

- Goal –

- ▣ Maximize performance & profitability

- Programming

- ▣ Reinforce contribution and value
 - ▣ Ensure that the same opportunities/promotions are provided to all qualified employees



Employers (Cont.)



- Goal –

- ▣ Maximize performance & profitability

- Programming

- ▣ Alternate work arrangements & benefits

- flex time, job sharing, alternative career paths, work from home, compressed work week, maternity/paternity leave, time off for dependent care, child/elder care

- sabbatical

- ▣ Maintain contact during leave

- Lunch and learn invites for continued development

Employers (Cont.)

- Programming benefits **all** employees
- Ensure that there are no unintended consequences to taking advantage of alternate work arrangements & benefits
 - ▣ Should not impact promotion / review
 - ▣ Manage load
 - Resentment from team members when leave is taken because of added load

Professional Societies

- Goal

- ▣ Advance the profession

- Programming

- ▣ Develop mentoring programs
 - ▣ Create resources for employers
 - ▣ Engage those on leave or pausing on career ladder
 - ▣ Education
 - ▣ Focus on image



Universities



□ Goal

- ▣ Prepare students for the workforce
 - Preparation needed in more than technical areas

□ Programming

- ▣ Develop workshops to discuss issues of gender - tools
 - Work/life balance
 - Confidence
- ▣ Emphasize the importance of mentoring
- ▣ Provide role models

Women Engineers



- Goal

- ▣ Success in a satisfying work environment

- Programming

- ▣ Find effective ways of reporting contribution
 - Submit 'brag' sheet
 - ▣ Find mentors – more than 1
 - Advocate in the workplace
 - Confidant outside the workplace that understands the culture
 - ▣ Do not take things personally
 - ▣ Ask for what you need

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QUESTIONS & COMMENTS

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Thank you