

Professional Women's Organizations

Supporting Women & Encouraging Girls in STEM

Presented to
Utah Women in the Economy Commission

March 23, 2015



Advancing Women in Transportation
Northern Utah



Society of
Women Engineers

ASPIRE • ADVANCE • ACHIEVE



WOMEN
OF WATER

Benefits of Membership

- Access to Women | Supportive Community
- Personal Growth | Non-threatening Environment
- Mentoring | Professional Development
- Leadership Opportunities | Achievement
- Continuing Education | Career Resources
- National Network

Programming

- Variety of forums and topics:
 - Professional development
 - Technical
 - Networking events
- Scholarships
- Student chapters
- Regional and national conferences
- Youth STEM outreach



Stemming the Tide: Why Women Leave Engineering

- Report published 2012
by National Science Foundation
- Conventional wisdom:
 - Many women engineers leave careers to devote time to families
- Groundbreaking study:
 - The **engineering culture** is often more to blame



"I have to get **OUTSIDE OF THE CUBICLE.**"

"My work for many years at a U.S. national laboratory has provided both the flexibility and scientific/educational environment I need. In turn I give my professional best while at work. It is a **WIN-WIN.**"

"There is little to no **RESPECT** for women in male-dominated fields."

"My current workplace is very **WOMAN ENGINEER FRIENDLY.** Women get promoted and paid at the same rate as men."

"Being a blonde, blue-eyed female **DOESN'T HELP** when interviewing in a manufacturing/plant setting."

"Still getting asked if I can handle being in a mostly male work environment in interviews in 2009 - I've been an engineer for 9 years, obviously I can. I know when I'm asked that question, **I HAVE NO CHANCE AT THE JOB.** It is nice they brought me in for equal opportunity survey points but don't waste my time if you don't take females seriously."

"The lack of women in general, and the lack of women mentors makes it [engineering] a **LONELY** field for women to want to stay in."

Stemming the Tide

Recommendations for Organizations

Workplace culture

- Value employees' contributions
- Respect – root out incivility and undermining behavior
- Create a supportive network
- Provide opportunities for mentoring
- Offer work-life initiatives that are part of the culture, not just written policies
- Create clear, transparent paths toward advancement
- Invest in training and professional development

Public Sector Opportunities

- Cost of professional membership is a barrier
- Flexibility in scheduling is advantageous for both women and men
- Offer Utah System of Higher Education scholarships for women in STEM majors
- Don't just mandate, but strive to develop beneficial work cultures in all municipalities
- Greater visibility for women's professional organizations and offerings

Personal Experiences

- My first interview after college the interviewer looked across the table and said “What’s a cute, young, thing like you doing in engineering?”
- The first five years of my career the engineering manager called me “little girl.”
- I requested to observe the surveyors and was told “ok, but you can’t wear a dress.”
- I have been introduced to new colleagues and they assume I am the receptionist, not a fellow engineer.
- Female co-workers requested a private room to pump breast milk. Their request was denied, they pumped in the bathroom (not sanitary) and cubicles (not comfortable). It took 2 years to finally get a private room, which was simply an empty office.



*Lizel Allen, P.E.
Salt Lake County
Flood Control Engineer*

Women and Leadership

- Utah Women & Leadership Project at Utah Valley University
- Research & Policy Brief No. 6: “Why does Utah struggle with getting more women into leadership roles?”
 - Mindset that women should not be leaders
 - Lack of:
 - Confidence
 - Understanding, belief in own worth and power
 - Mentors, role models, sponsors, support
 - Networking and other opportunities



Personal Experiences

Referring to the previous study:

- Involvement in WTS has helped me tackle these issues
- I have access to opportunities that I don't get through my employment
 - Networking
 - Leadership opportunities
 - Support from women in the same industry
 - Non-technical professional development such as communication skills and salary negotiation

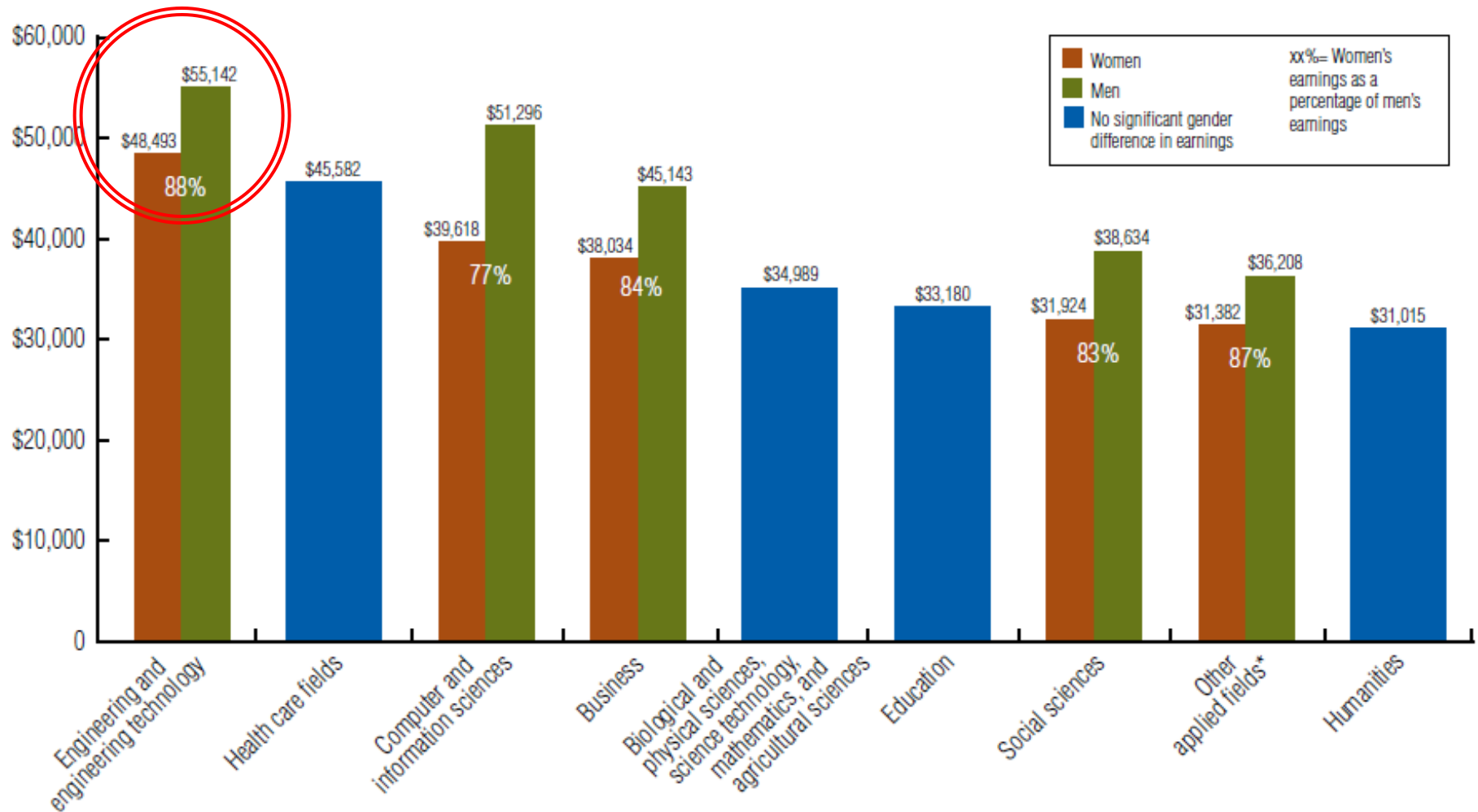


*Jodi Pearson, P.E.
Transportation Engineer
Michael Baker Inc.*

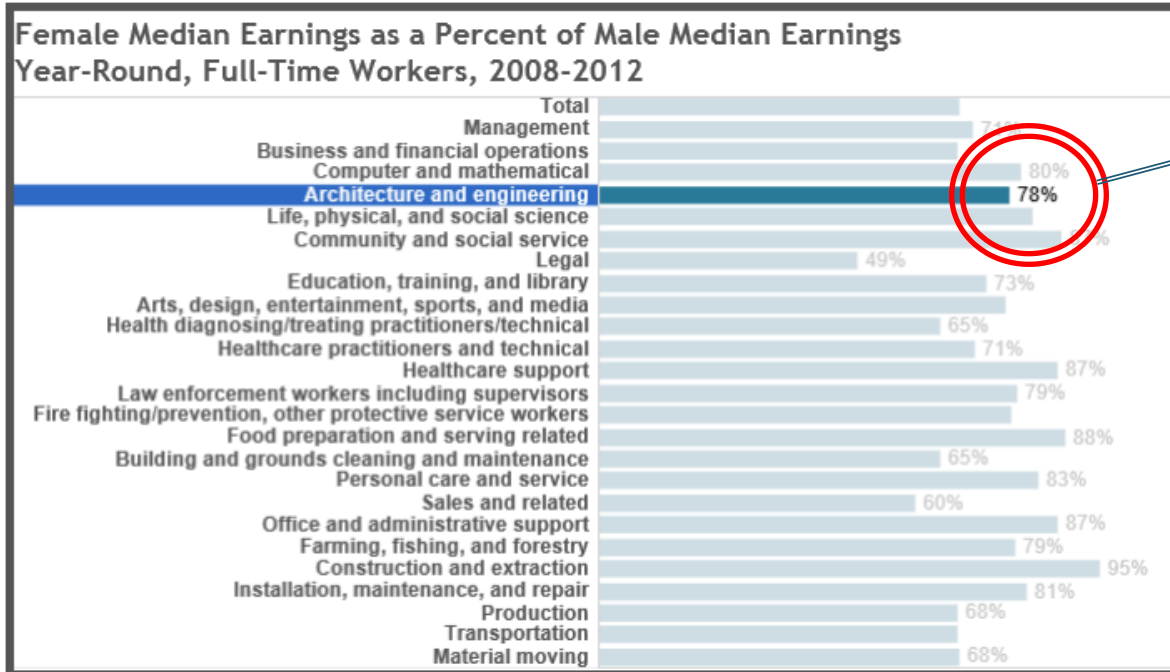
*One of 3 female engineers
in office of 30 engineers*

Graduating to a Pay Gap

FIGURE 5. Average Annual Earnings One Year after College Graduation, by Undergraduate Major and Gender

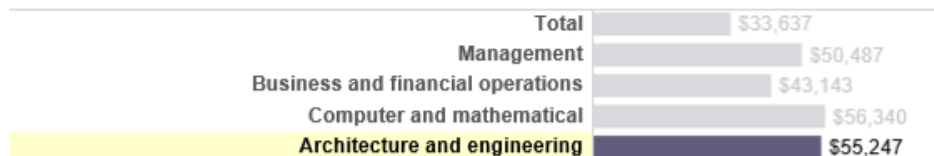


Women in Utah Labor Force



78%

Female Earnings, Year-Round, Full-Time Workers, 2008-2012



Male Earnings, Year-Round, Full-Time Workers, 2012



State of Utah, Division of Workforce Services, Updated January 2014

WTS International



Advancing Women in Transportation
Northern Utah

- **Attracting, retaining and advancing** women in the transportation industry
- 5,000+ members
- 57 chapters
- National scholarships
- Leadership development
- Policy



*WTS President and CEO Marcia Ferranto
“Women Who Move the Nation” award
Conference of Minority Transportation
Officials; calls on men to take action*



WTS Northern Utah

- Launched 2009
- 100 members, 20% men
- Vision: **Diverse programming, valuable networking opportunities, collaborative dialogue** focused on Utah transportation





Transportation YOU

U.S. Department of Transportation and
WTS International Joint Initiative



SWE

- International organization founded in 1950
- 27,000 Members (55% students)
- 10 geographic regions
 - 300 collegiate member sections
 - 100 professional member sections
- 230 scholarships in 2014, totaling \$700,000
- Annual Conference with 7,000



Mission –

Stimulate women to achieve full potential in careers as engineers and leaders, expand the image of the engineering profession as a positive force in improving the quality of life, and demonstrate the value of diversity.



SWE Greater Salt Lake Section

- Greater Salt Lake (GSL) Section founded in 1992
- 80 members
- 40 annual events
- Support student sections at USU, UofU, WSU, and BYU
- Consistently receive annual SWE Outreach Award
- Several members nominated for professional recognition awards

STEM Outreach



- “Girls Engineering Night @ The Leonardo”
- Girl Scout Badge Day
- Math Counts
- Science Fair Judging
- STEM Fairs
- “Expanding Your Horizons”
- Parent Daughter Engineering Day
- First Robotics
- “Engineering Extravaganza”

Women of Water



- Founded in 2012 in Utah
- Non-profit 501c3 status June 2013
- List of 150 working in the water and wastewater industries, 35 paid members
- Mission: **Engage, Empower and Educate**
- Strives to unite women throughout the state within the water industry
- Open to men and women



WoW Outreach



- Expanding Your Horizons Conference for 6th to 10th grade girls on STEM careers
- American Society of Civil Engineers lunch presentation





Questions?