ICALEPCS

Founders of ICALEPCS (mid-1980s)

ICALEPCS 2019 International Scientific Advisory Committee and Local Organizing Committee
Motivation

• Studies show diverse workgroups are more productive, more innovative, more creative

• Companies now invest in building a diverse workforce because studies show, this increases their profits

• What happens when we workgroups are not diverse?
Disasters

Earthquake Gujarat 2001

Tsunami Sri Lanka 2004
Automotive Safety

• In the US, first mandatory car safety testing began in 1973
• Tests used only average male size crash dummies (5’8” 165 pounds)
• Airbags have saved a lot of lives, but initially caused some injuries and deaths to shorter drivers (sitting too close to the steering wheel < 10”)
• Testing requirements changed to include women and child size dummies in 2011
• We now have “smart airbags” with deployment pressure and speed modified according to the size of the occupant
Medical Care

• Vast majority of medical studies conducted on white males

• Data used to determine diagnosis and treatment protocols

• Medical care based on this data bias is optimized for 31% of the population

• This data bias has led to
  – Women receiving excessive medication dosages
  – Women treated based on normal blood levels for men
  – Misdiagnosis and inadequate treatment
    • Heart attacks in women often missed in the ER because they often have different symptoms which men symptoms
Implicit Bias

• Also called unconscious bias
• Limits are ability to become more inclusive
• Learn about your bias
  – [https://implicit.harvard.edu/implicit/](https://implicit.harvard.edu/implicit/)
• Reflects our learned stereotypes rather the values we believe we live by
• Affinity Bias – people are generally more comfortable with people similar to themselves – your “comfort zone”
Social and cultural factors

• Girls and boys treated differently from birth
• Gendered language, toys, clothing, activities, roles
• Girls steered away from math, science and engineering
• Boys encouraged, easily viewed in STEM roles
  – Most role models are white males
  – Reinforced by media images
  – Powerful stereotypes
Men and women are treated differently

Dr. Ben Barres
Neurobiologist
1954-2017
• Advocate for equality for women in science
• First openly transgender scientist in the National academy of Science (2013)
• Unique perspective from working in science as a woman and a man
Organizational bias

• Most organizations now recognize the boundaries in place limiting diversity in STEM fields

• Historically, approached as a problem for HR, women and minorities

• Women encouraged to be more like men

• Misguided notion that would limit the value diversity brings

• You can’t “fix’’ the women – they are not broken

• We have to fix our biased organizations

• Diversity is not a problem, but rather an opportunity for organizations to excel
Why are you successful?

• Intelligence?

• Hard work?

• Lucky breaks?

• Fortunate opportunities?

• Opportunities = Advantages = Privilege

• Privilege is usually comes from factors you did not control

• Most privilege is shared by the dominant group with others in the dominant group

• Real change requires the dominant group to become allies for diversity and extend their privilege equitably
Extend your privilege

• Work toward equity in career building business practices
  – Hiring
  – Professional development
  – Mentoring
  – Recommendations

• Speak out against inequitable practices

• Include women and minorities in decision making committees

• Build accountability into organizational processes
More on Diversity and Inclusion

Breaking Down Barriers to Diversity and Inclusion

Panel Discussion

Wednesday 10/9/19

2:30 – 4:00 PM

Allan Casey

Florence Hudson

Allison Bishop

Allan Casey