GENDER DIVERSITY, REPRESENTATION IN CS

// CLASS 15

FALL 2015 / SECTION 02 / HOLLY BUCK

ADOPTED FROM SLIDES BY DR. CYNTHIA MATUSZEK
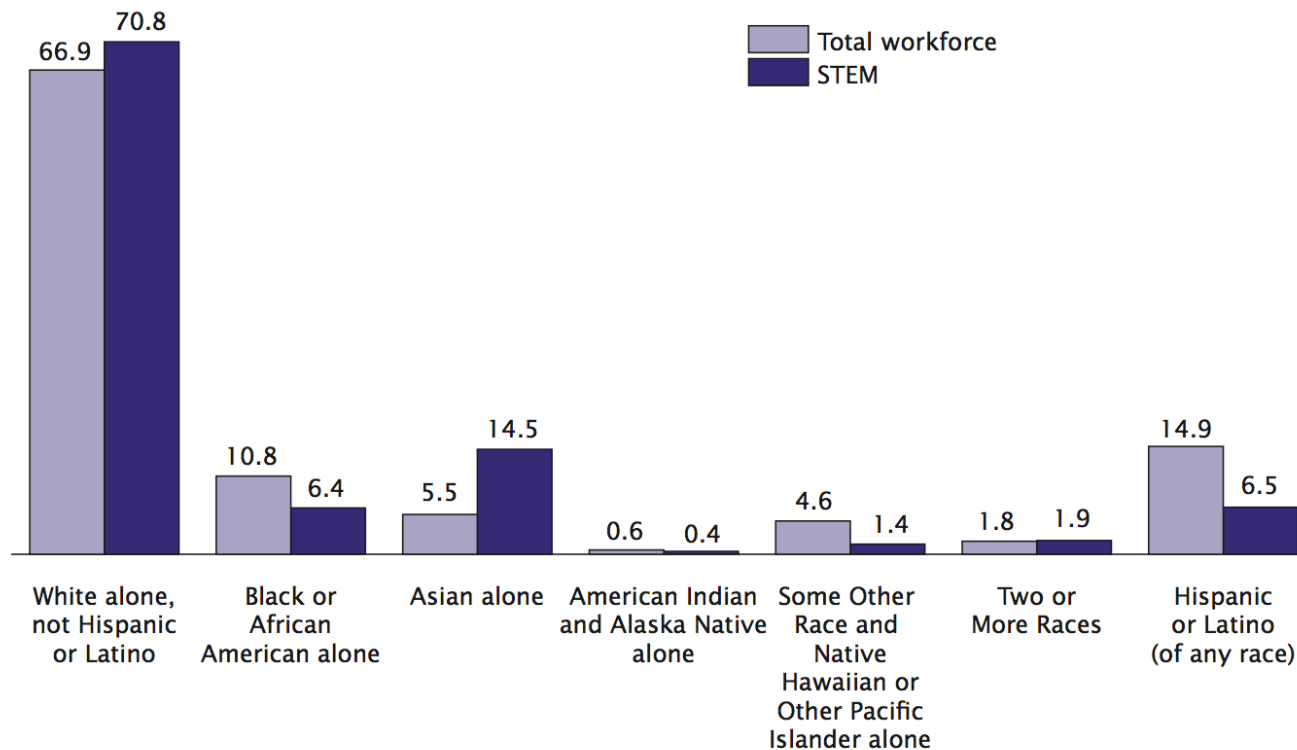
TODAY'S CLASS…

- Note: Office hours canceled today

- Mini-lecture / readings review
- Discussion

A WIDER LOOK AT REPRESENTATION

Figure 9.

Racial and Ethnic Representation in the STEM Workforce

(In percent. Data based on sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see *www.census.gov/acs/www/*)

Legend: Total workforce, STEM

- White alone, not Hispanic or Latino: 66.9 (Total workforce), 70.8 (STEM)
- Black or African American alone: 10.8 (Total workforce), 6.4 (STEM)
- Asian alone: 5.5 (Total workforce), 14.5 (STEM)
- American Indian and Alaska Native alone: 0.6 (Total workforce), 0.4 (STEM)
- Some Other Race and Native Hawaiian or Other Pacific Islander alone: 4.6 (Total workforce), 1.4 (STEM)
- Two or More Races: 1.8 (Total workforce), 1.9 (STEM)
- Hispanic or Latino (of any race): 14.9 (Total workforce), 6.5 (STEM)

Note: Native Hawaiian or Other Pacific Islander alone was combined with Some Other Race because of a small number of sample observations.
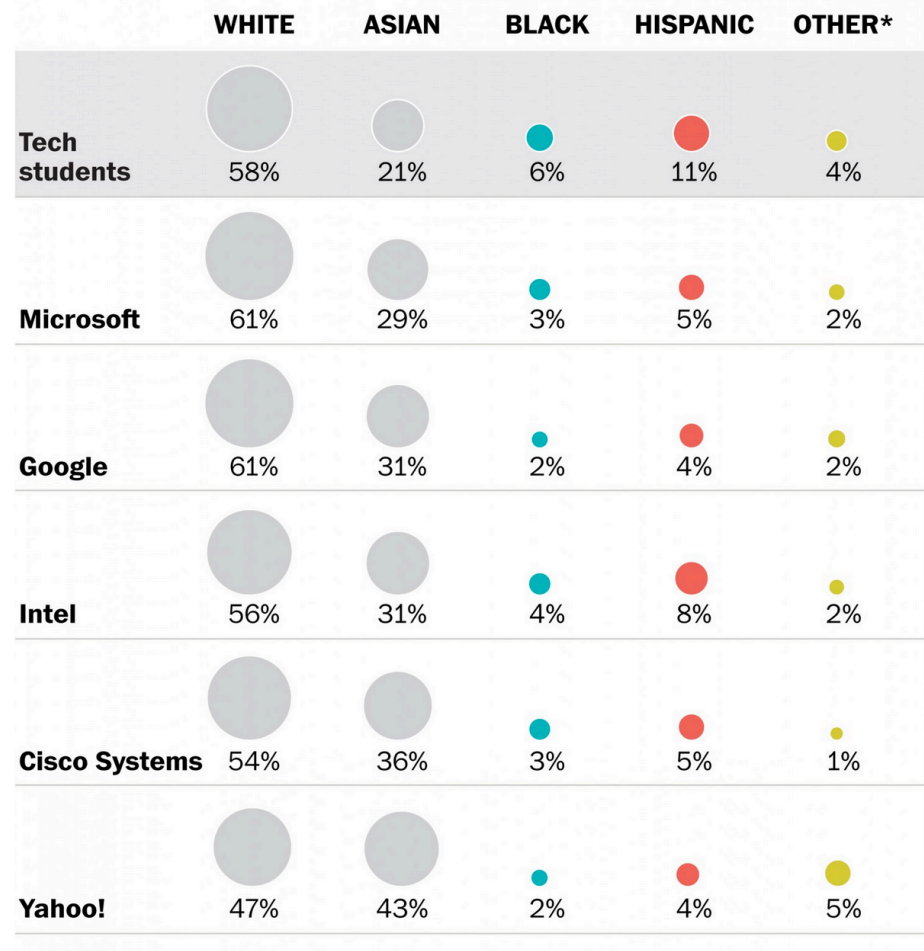Source: U.S. Census Bureau, 2011 American Community Survey.

A WIDER LOOK AT REPRESENTATION

Yahoo: African-Americans 2% of workers; Hispanics 4%

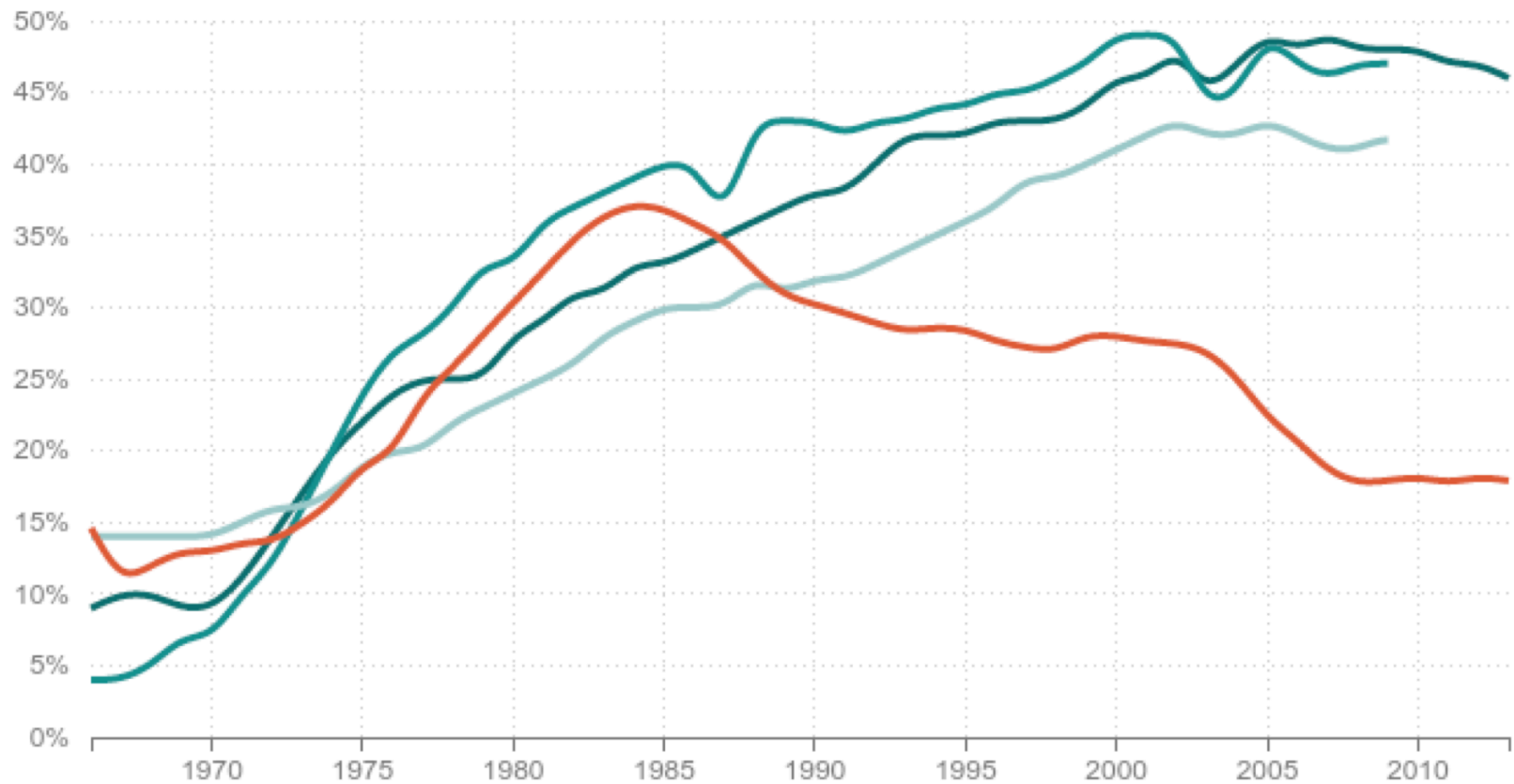Facebook in 2014: 81 out of 5,500 workers were African-American

http://www.washingtonpost.com/business/
economy/who-can-tech-companies-hire/
2015/07/13/31dcbba4-29a4-11e5-
a250-42bd812efc09_graphic.html

Diversity of potential employee pool vs. workers in 2014

	WHITE	ASIAN	BLACK	HISPANIC	OTHER*
Tech students	58%	21%	6%	11%	4%
Microsoft	61%	29%	3%	5%	2%
Google	61%	31%	2%	4%	2%
Intel	56%	31%	4%	8%	2%
Cisco Systems	54%	36%	3%	5%	1%
Yahoo!	47%	43%	2%	4%	5%

WOMEN IN CS

Legend: Medical School, Law School, Physical Sciences, Computer science

RESUME STUDIES

- VERY widely replicated

- Send resumés (only) to 2000-10,000 employers

- Variations: gender/ethnicity of name; PTA membership; lots of others but we'll focus on these
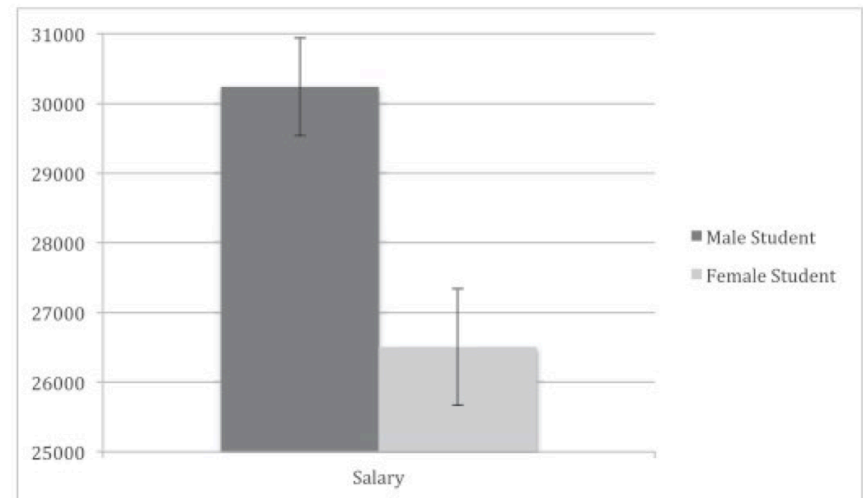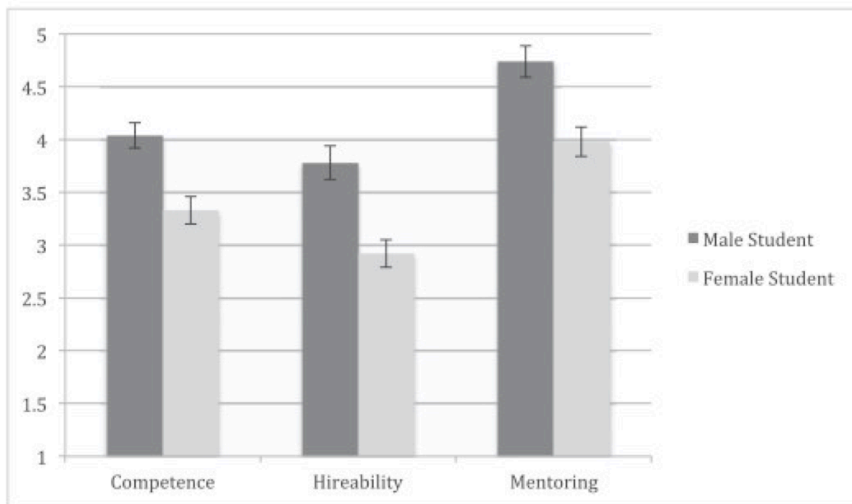
$30,238 / $26,508

C.A. Moss-Racusin et al, Proceedings of the National Academy of Sciences

PARENTHOOD

After controlling for:
Experience, Education, SES, hours worked, spousal income

Mothers made, on average, 4% less per child
Fathers made, on average, 6% *more*

Resumé studies: either mention the PTA or don't

Again, otherwise identical
"Mothers": $11,000 < childless women
"Mothers": $13,000 < fathers

Gap *widens* for lower-income jobs

Discussion: why mothers vs. parents?

CORPORATE CULTURE

- Few women in high tech, even though tech employs finance, marketing, sales people, and 40% of MBAs go to women

- In an analysis of 10,000 MBA graduates from 2007 to 2014 in the United States, Canada, Europe and Asia, 53 percent of the women left tech-intensive professions for other work, compared to 31 percent of the men.

http://www.washingtonpost.com/news/on-leadership/wp/2014/10/23/why-are-so-few-women-even-on-the-business-side-of-tech-companies/

http://valleywag.gawker.com/techcrunch-disrupt-kicks-off-with-titstare-app-and-fa-1274394925

"THEY'RE JUST NOT INTERESTED"

- "Women in tech are great. There's just not that many of them because tech is just a kind of thing that a lot of women aren't that interested in, I think." — Pax Dickinson, former CTO of Business Insider

- Counterpoints:

  - Put on certain tracks from infancy
  - High school: in 2013, 18% of people taking AP CS exam were women, 8% Hispanic, 4% African American
  - Hiring / educational biases
  - Non-inclusive cultures
    - Means that it is less a matter of "choice" or "interest"

WHY IS THIS IMPORTANT?

- Economic advantages to diverse teams?

- Diversity of experiences

- Diversity of ideas

- More engineers on market?

- Ethics..?

  - Bureau of Labor Statistics median salary for early childhood educators: $27,130 per year $13.04 per hour

  - For computer scientists: "$75,000 or more"

- [your answer here]

DISCUSSION

1. When might it matter *to you?*

2. What can/should people do differently?
   Employers?
       Teachers?
       Schools? You?

3. What would you personally change?

4. Professionally?

5. In the next 5 years?