



SOLVING THE EQUATION

The Variables for Women's Success in Engineering and Computing

FIGURE 1. WOMEN IN SELECTED STEM OCCUPATIONS, 1960–2013

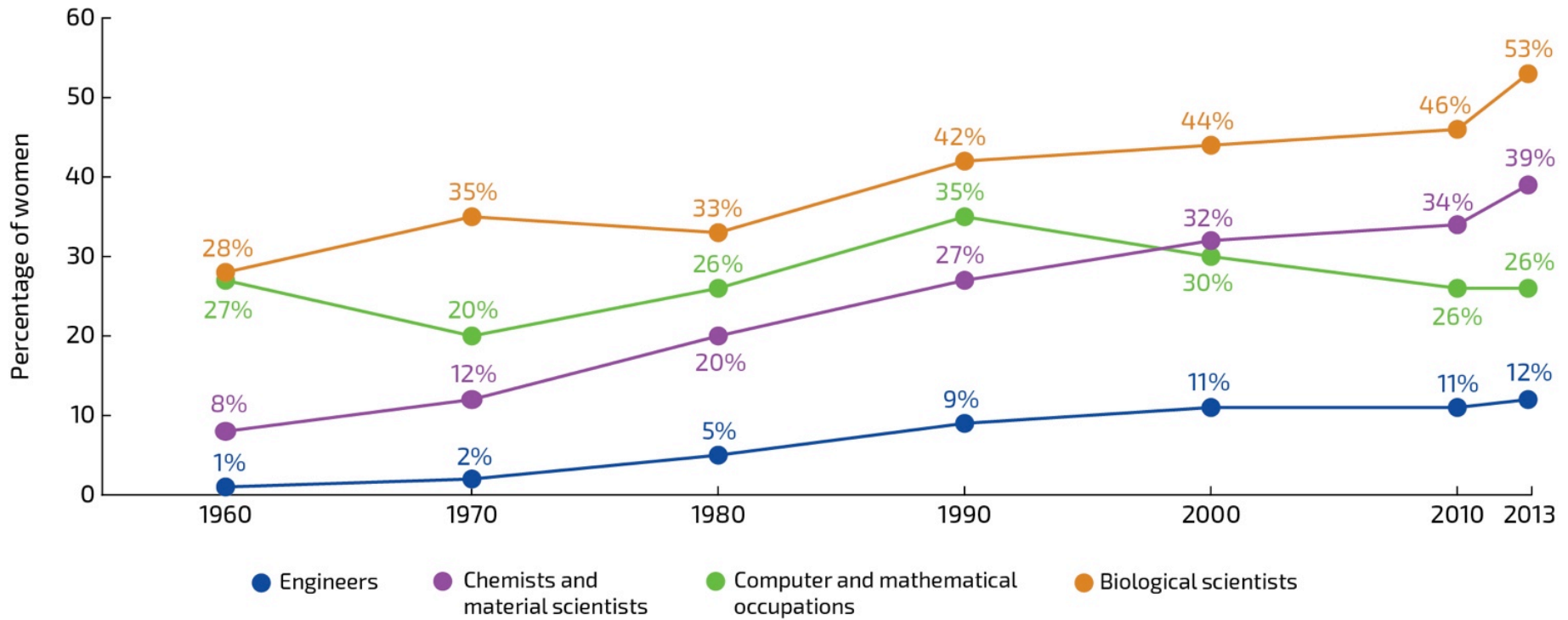


FIGURE 3. COMPUTING WORKFORCE, BY GENDER AND RACE/ETHNICITY, 2006–2010

Women make up 26% of the computing workforce.

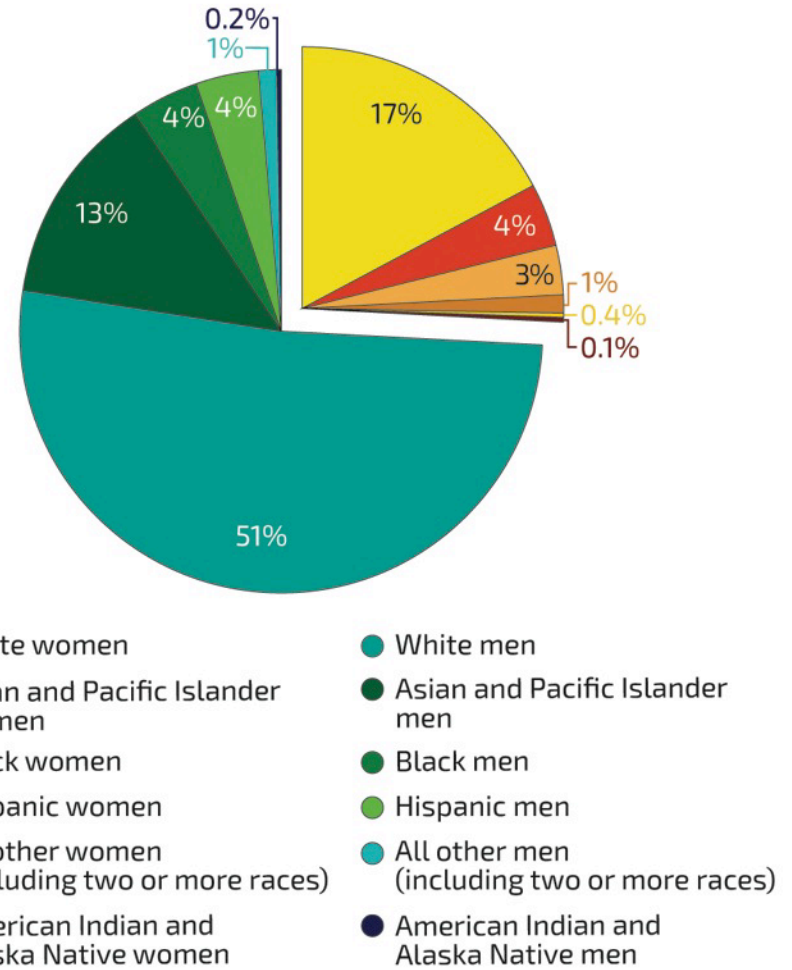
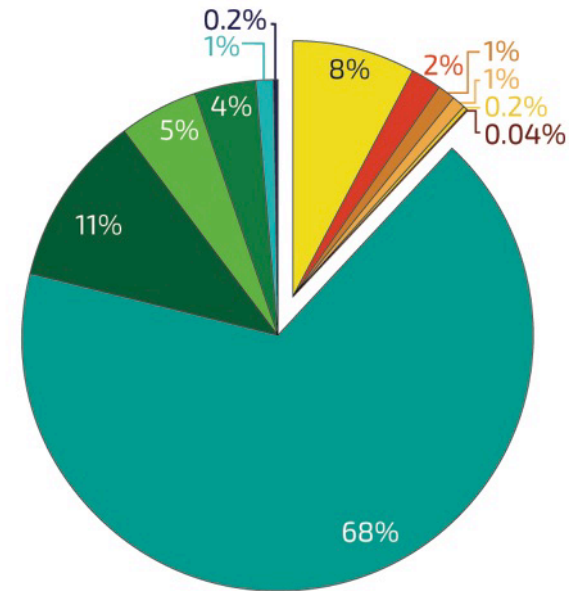


FIGURE 2. ENGINEERING WORKFORCE, BY GENDER AND RACE/ETHNICITY, 2006–2010

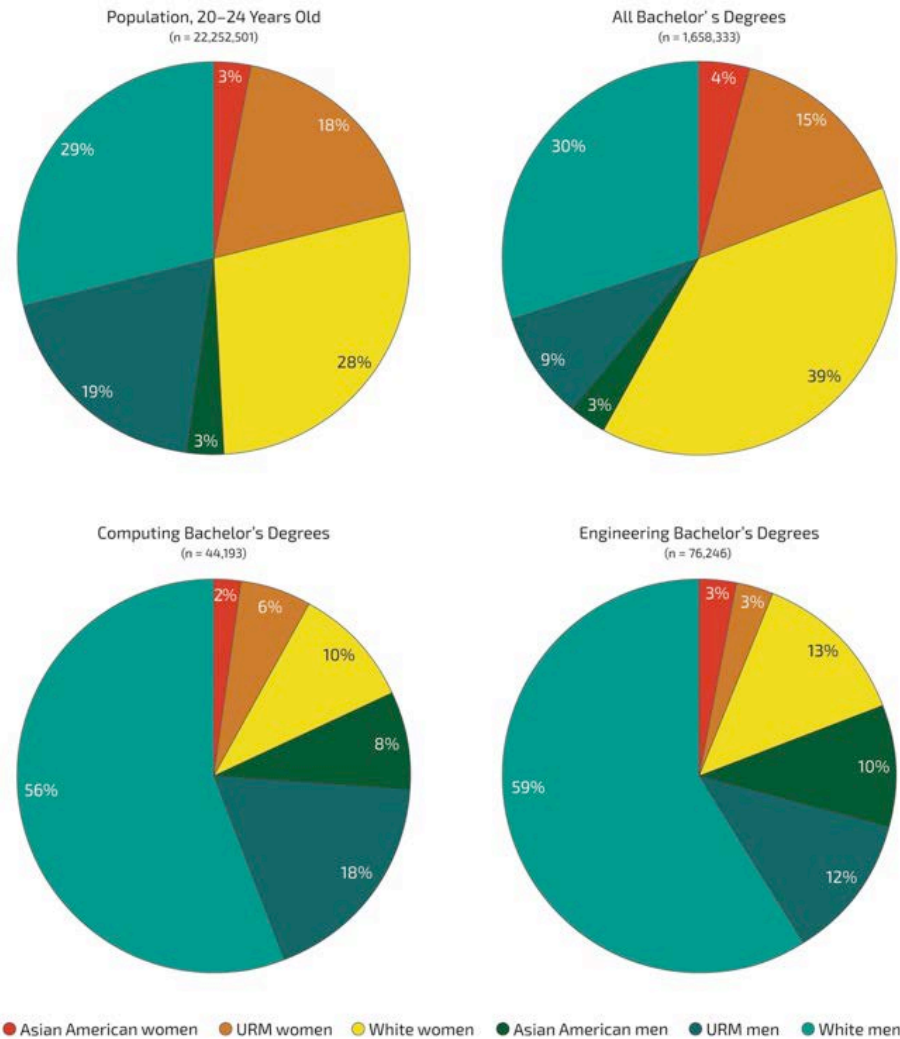
Women make up 12% of the engineering workforce.



- White women
- Asian and Pacific Islander women
- Hispanic women
- Black women
- All other women (including two or more races)
- American Indian and Alaska Native women
- White men
- Asian and Pacific Islander men
- Hispanic men
- Black men
- All other men (including two or more races)
- American Indian and Alaska Native men

FIGURE 9. POPULATION AGES 20–24 AND BACHELOR'S DEGREES AWARDED IN SELECTED FIELDS, BY RACE/ETHNICITY AND GENDER, 2013

Many women of color are particularly underrepresented.



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FIGURE 14. FACULTY RATINGS OF LAB MANAGER APPLICANT, BY GENDER OF APPLICANT

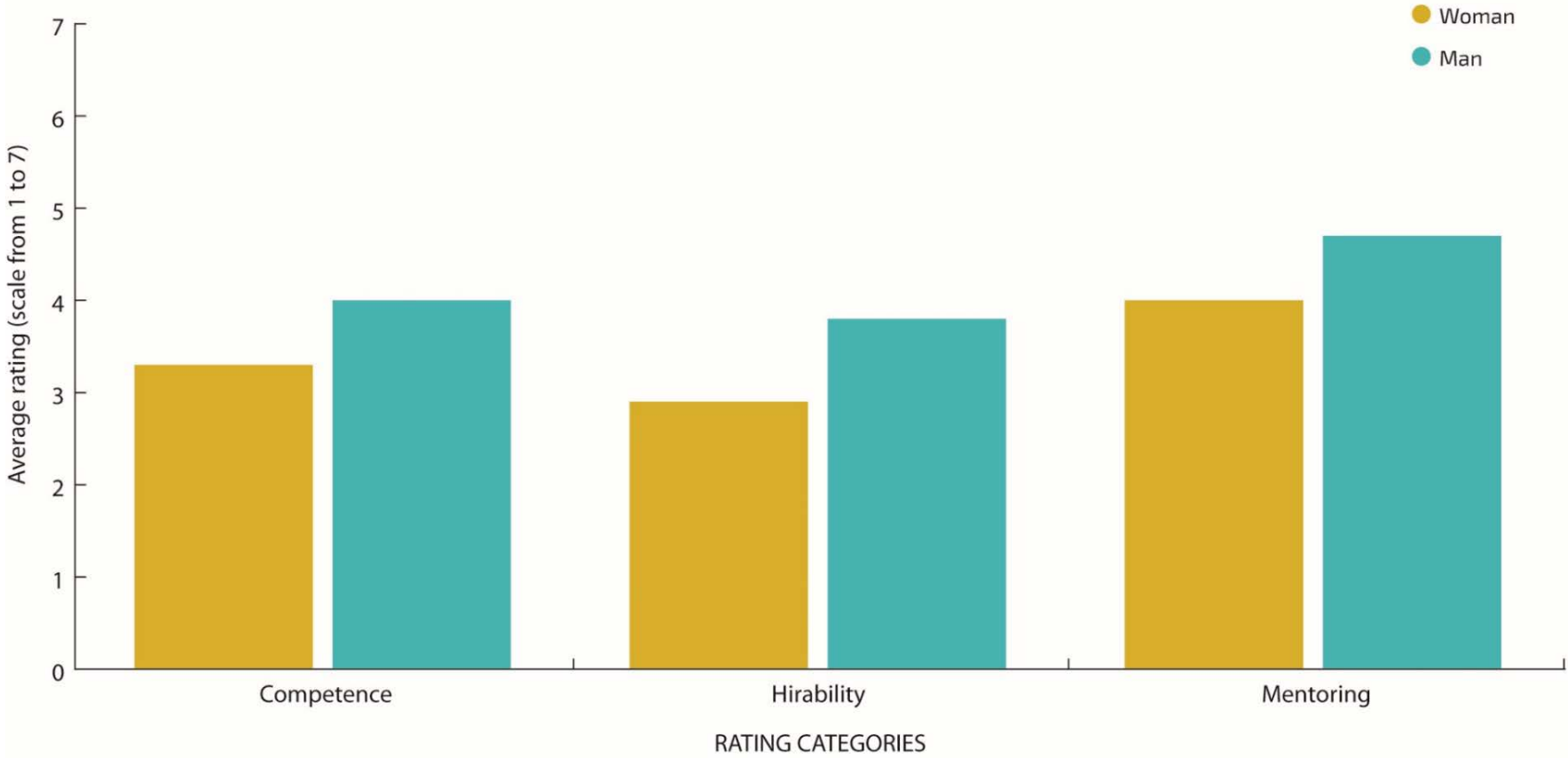


FIGURE 15. PROBABILITY OF SELECTING THE BEST CANDIDATE FOR A MATHEMATICAL TASK

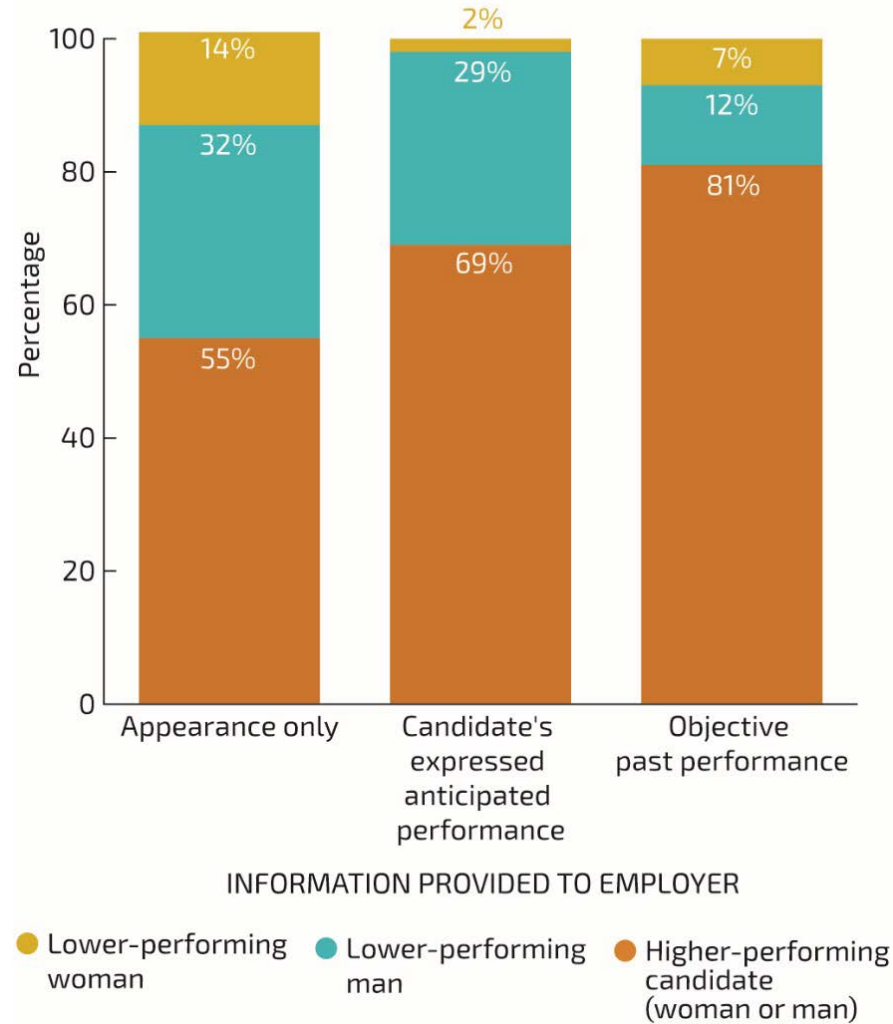


FIGURE 18. RESEARCH CONVERSATIONS WITH MALE COLLEAGUES AND LEVEL OF JOB DISENGAGEMENT, BY GENDER

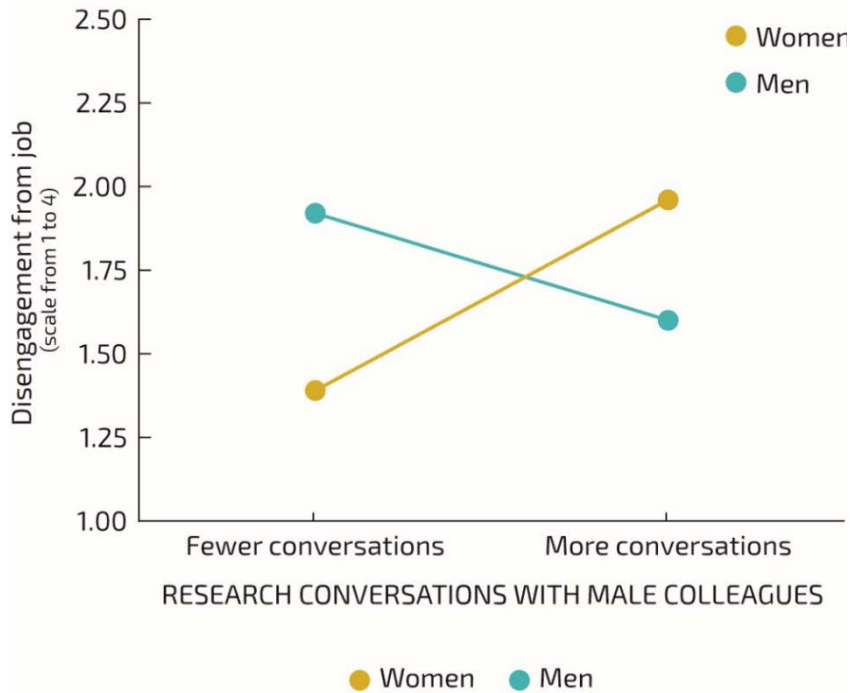
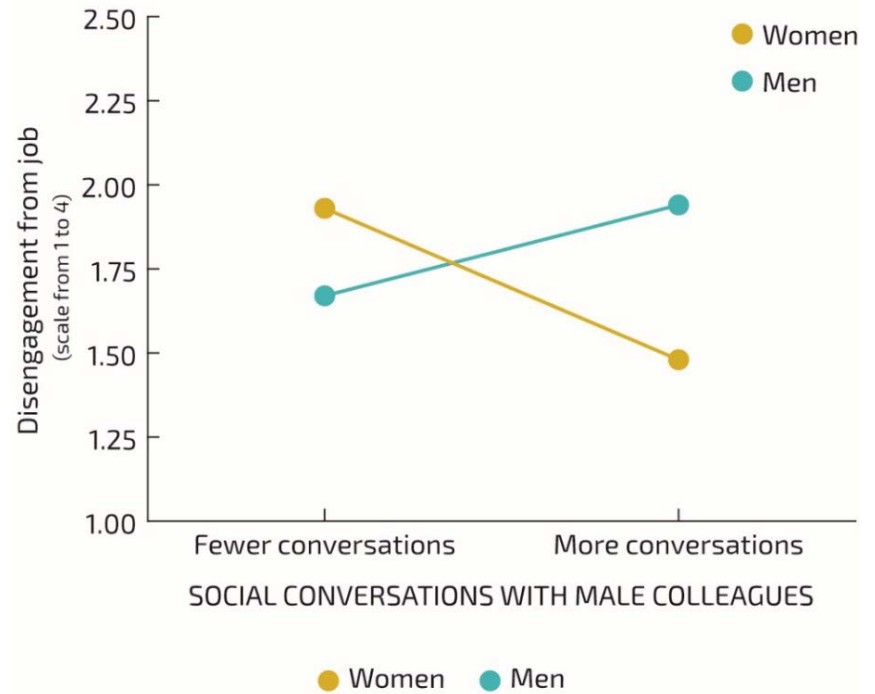


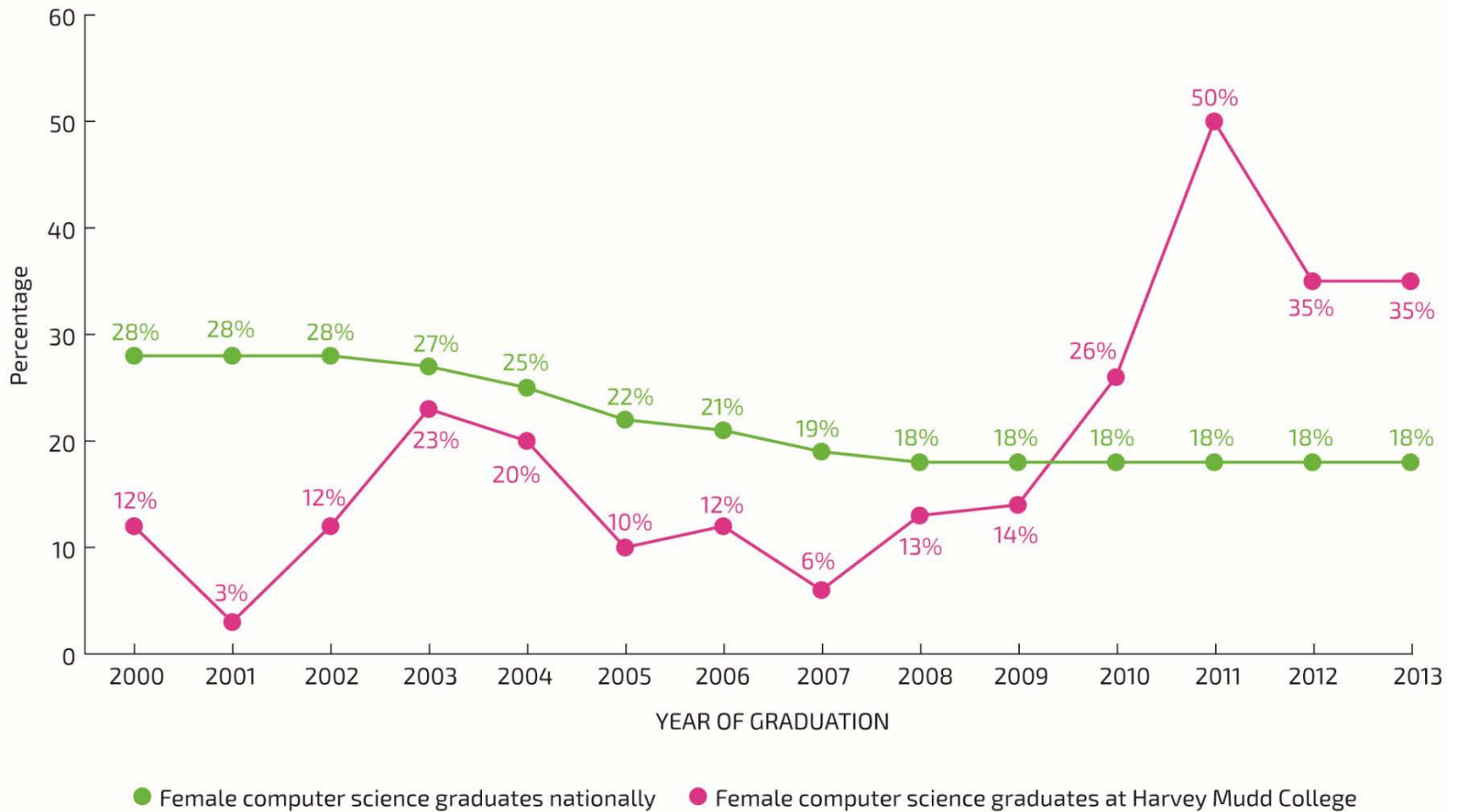
FIGURE 19. SOCIAL CONVERSATIONS WITH MALE COLLEAGUES AND LEVEL OF JOB DISENGAGEMENT, BY GENDER



What can we do?

- Acknowledge that we are all influenced by gender biases
- Base hiring decisions on objective information
- Remove gender information from evaluation scenarios

FIGURE 23. FEMALE COMPUTER SCIENCE GRADUATES NATIONALLY AND AT HARVEY MUDD COLLEGE, BY GRADUATION YEAR, 2000–2013



What can colleges do?

- Revise their introductory computer science course and split it into two levels divided by experience
- Provide research opportunities for undergraduates after their first year in college
- Take female students to the Grace Hopper Celebration of Women in Computing or similar conferences

FIGURE 11. RETENTION IN ENGINEERING, BY GENDER, 2010

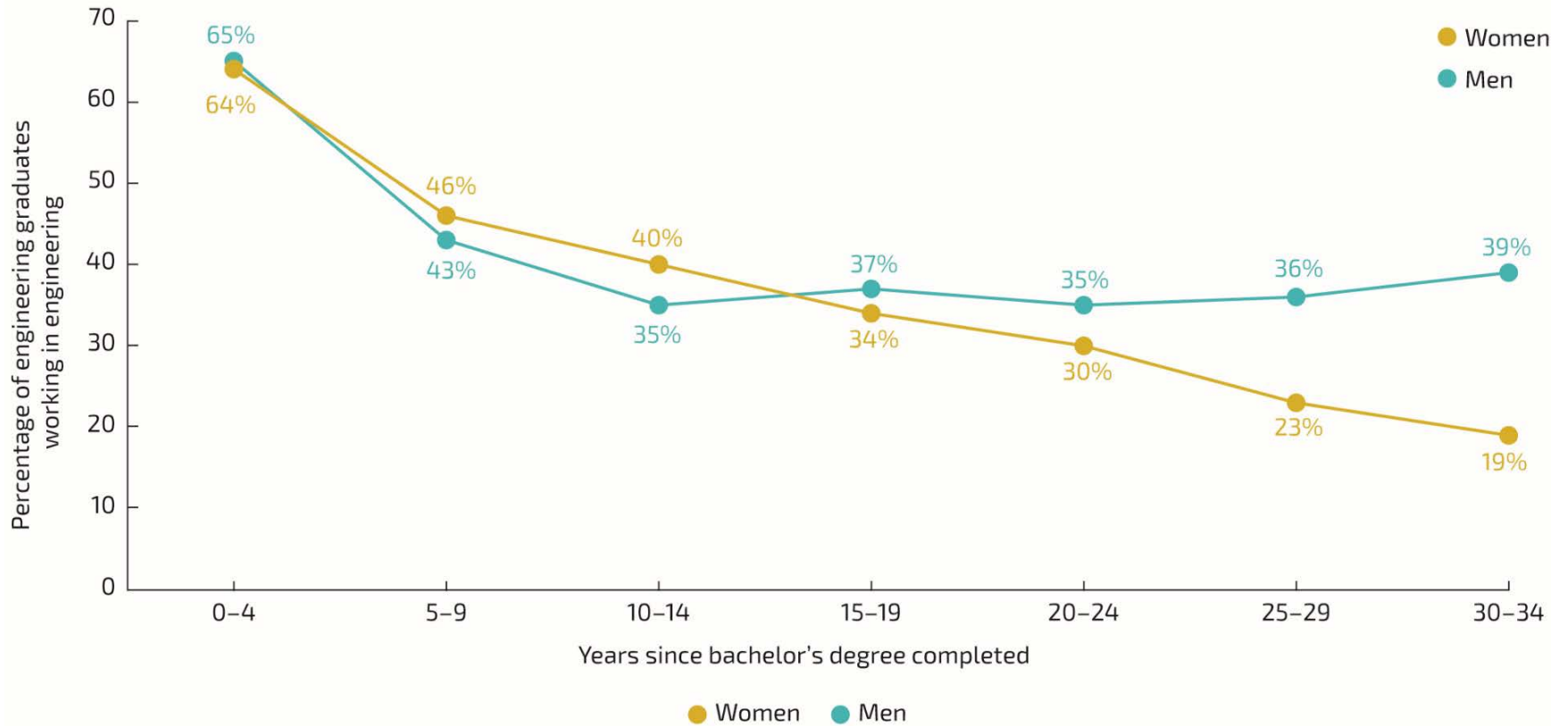
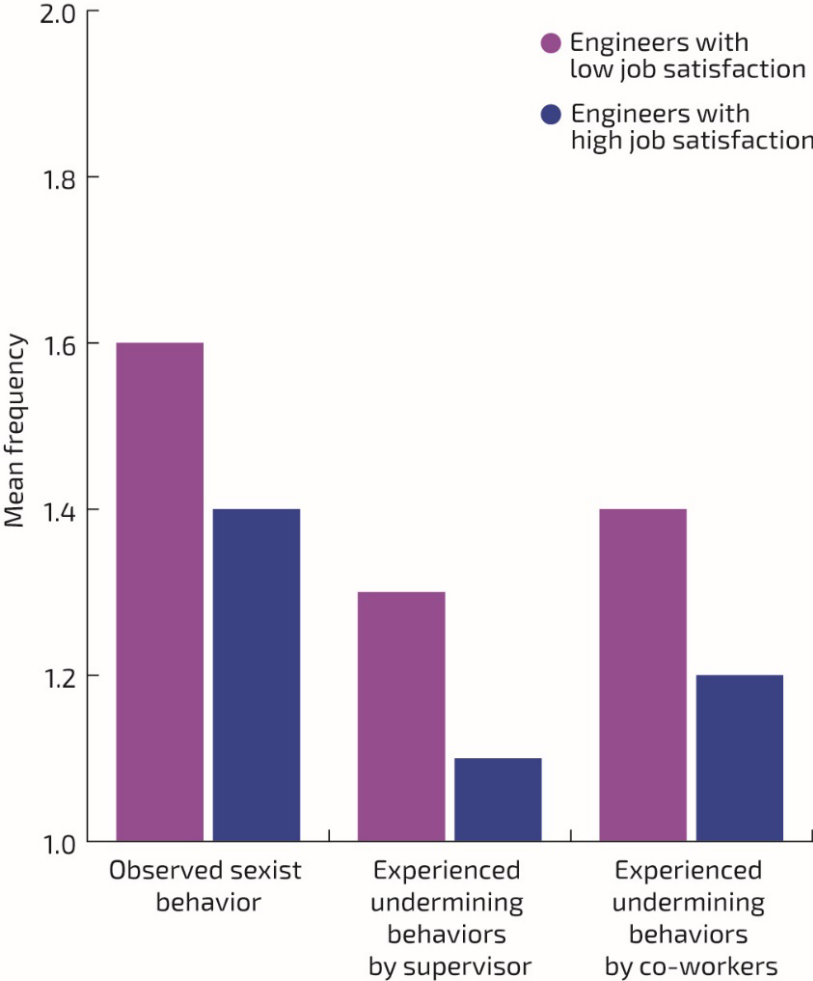


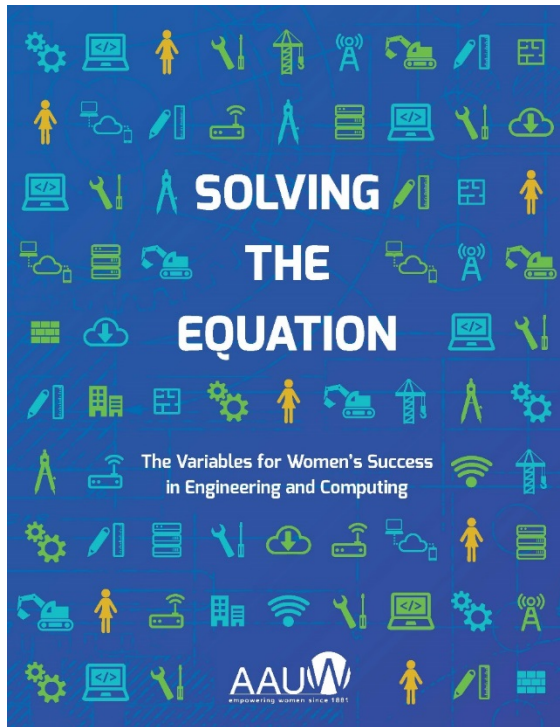
FIGURE 25. FEMALE ENGINEERS' EXPERIENCE OF INCIVILITY AT WORK, BY LEVEL OF JOB SATISFACTION



What can employers do?

- Clearly define employees' roles and responsibilities
- Provide opportunities for training and development
- Acknowledge employees' contributions
- Root out uncivil behaviors

www.aauw.org/research/solving-the-equation





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