STRIDE

STRATEGIES and TACTICS for RECRUITING to IMPROVE DIVERSITY and EXCELLENCE

at The University of Tennessee

stride@utk.edu

We are grateful for the support and inspiration we have received from the STRIDE committee at the University of Michigan. Many of their best ideas have been used and incorporated in this presentation.

Developed *by* UTK faculty *for* the UTK community.

ART
ARCHITECTURE
BIOLOGY
BOTANY
CHEMICAL & BIOELECT. ENG.
CHEMISTRY
CIVIL AND ENVIRON. ENG.
EDUCATIONAL PSYCHOLOGY
ENTOMOLOGY & PLANT PATH.
LAW
NUCLEAR PHYSICS
NUTRITION
PSYCHOLOGY
RETAIL HOSPITALITY & TOURISM
SOCIAL WORK
SOCIOLOGY

STRIDE serves at the request of the Provost's Office.

PURPOSE OF STRIDE

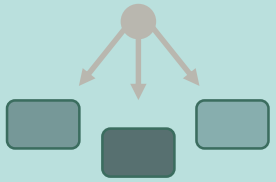
To revitalize our efforts to hire and retain a diverse faculty by using *peer-to-peer* instruction about the academic research on bias and diversity

STUDY & INSTRUCTION METHOD

Peer Reviewed Academic Research

Committee Discussion

UTK Presentations



TODAY'S PRESENTATION:

1. DIVERSITY
2. ISSUES AT UTK
3. BIAS
4. RESEARCH STUDIES
5. RECOMMENDATIONS

1 DIVERSITY / *CHALLENGES & BENEFITS*

2. ISSUES AT UTK

3. BIAS

4. RESEARCH STUDIES

5. RECOMMENDATIONS

SOCIAL DIVERSITY

All the ways that people within a single culture are set apart from one another

Phillips, K. W. (2014). How Diversity Makes Us Smarter. Scientific American, 311 (4), 43-47. link.

SOCIAL DIVERSITY

All the ways that people within a single culture are set apart from one another

In a group setting this can cause:

- Discomfort
- Rougher interactions
- More concern about disrespect
- Lack of trust
- Less communication

Phillips, K. W. (2014). How Diversity Makes Us Smarter. Scientific American, 311 (4), 43-47. link.

SOCIAL DIVERSITY

- Encourages the search for novel information and perspectives, leading to *better decision making and problem solving*.
- When problems are solved in diverse groups, solutions tend to be *better formulated*, explained in *more detail*, addressed from *more perspectives*, and *work better* in innovative environments.

Phillips, K. W. (2014). How Diversity Makes Us Smarter. Scientific American, 311 (4), 43-47. link.

METHODS : 15 years of panel data on the top management teams of the S&P 1,500 firms. The sample covered 1992–2006.

Dezso, C. L., & Ross, D. G. (2009). Does Female Representation in Top Management Improve Firm Performance? A Panel Data Investigation. Robert H. Smith School Research Paper No. RHS 06- 104. link

METHODS : 15 years of panel data on the top management teams of the S&P 1,500 firms. The sample covered 1992–2006.

FINDINGS :

Female representation in top management improved firm performance, but *only to the extent that a firm's strategy is focused on innovation.*

Table 4. Women's Representation in Top Management & Measures of Firm Performance

	Measure	
	Return on Assets	Return on Equity
Women's Representation	-0.0043 (*0.0027*)	-0.0059 (*0.0081*)
Women's Representation × Innovation Intensity	0.1592*** (*0.0234*)	0.2585*** (*0.0787*)

***p < 0.01, **p < 0.05, p< 0.10. Standard errors are reported under each coefficient in parentheses.

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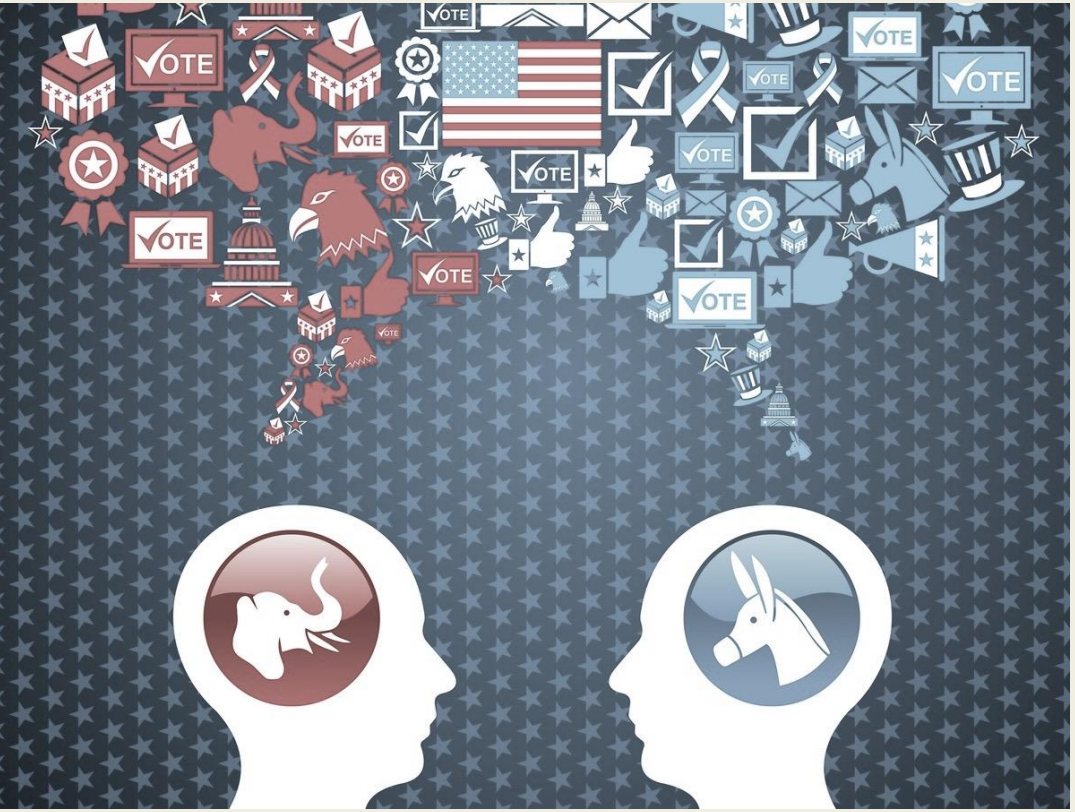


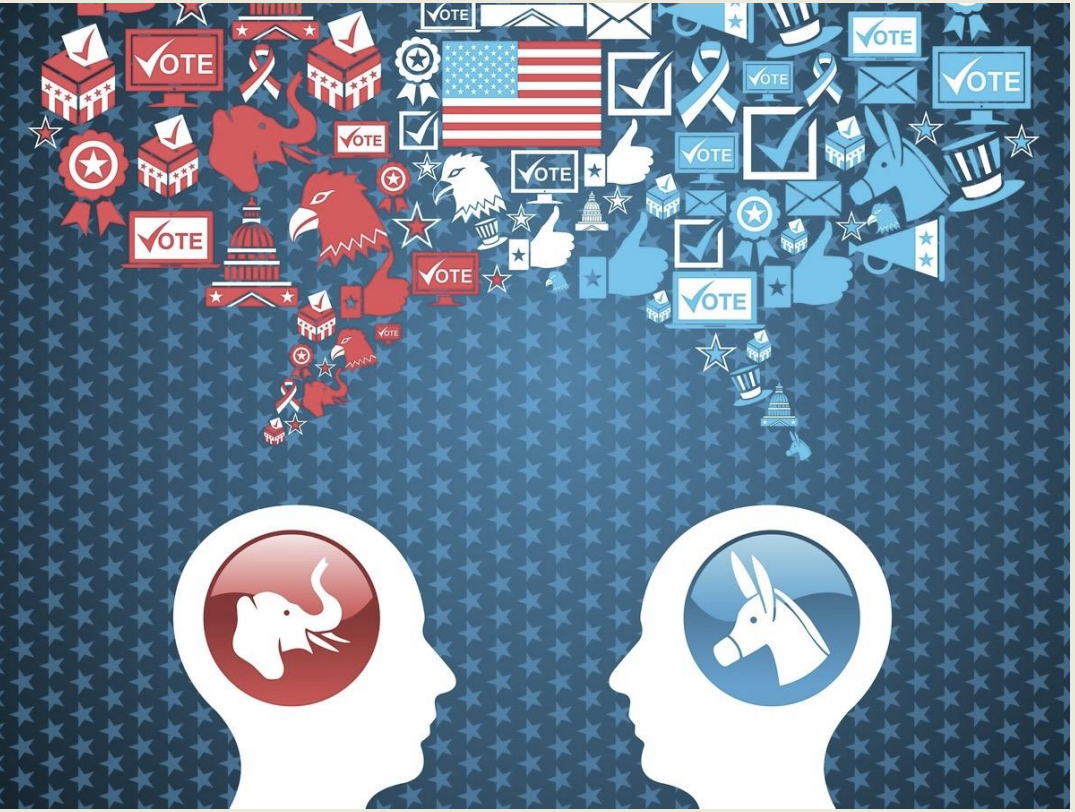
STUDY:

People (86) with different political ideologies (Democrats and Republicans) were asked to read a murder mystery case, and prepare for a meeting with another participant by writing an essay about who they thought committed the murder.

They were told that

- the other participant disagreed with them
- they needed to reach consensus
- the other participant was from either the opposing political party or the same party as themselves

Lloyd, D.L., Wang, C.S., Phillips, K. W., and Lount, R. B. (2013). Social category diversity promotes premeeting elaboration: The role of relationship focus. Organization Science 24 (3), 757-772. link



RESULT:

When Democrats were told that they would meet with another Democrat who disagreed with them, they prepared less well for the discussion than Democrats who were told that they would meet with a Republican who disagreed with them. Republicans showed the same pattern.

LESSON:

When disagreement comes from a socially different person, we are prompted to work harder. *Diversity jolts us into cognitive action in ways that homogeneity simply does not.*

Lloyd, D.L., Wang, C.S., Phillips, K. W., and Lount, R. B. (2013). Social category diversity promotes premeeting elaboration: The role of relationship focus. Organization Science 24 (3), 757-772. link

STUDY:

Does diversity within research collaborations lead to higher impact research results?

METHOD:

A study of 1.5 million scientific papers (1985–2008) for racial diversity among authors.

WEB OF SCIENCE™

THOMSON REUTERS

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STUDY:

Does diversity within research collaborations lead to higher impact research results?

METHOD:

A study of 1.5 million scientific papers (1985–2008) for racial diversity among authors.

WEB OF SCIENCE™

THOMSON REUTERS

FINDINGS:

Author diversity (racial) *does* lead to higher citation rates and higher impact factors.

Freeman, R. B., & Huang, W. (2014). Collaborating with People Like Me: Ethnic Co-Authorship Within the US. National Bureau of Economic Research, Working Paper 19905. link

STUDY:

Does the gender of undergraduate women's math and science professors affect women's performance in math and science courses?

Scott E. Carrell, Marianne E. Page, and James E. West, Sex and Science: How Professor Gender Perpetuates the Gender Gap, NBER Working Paper Series, No. 14959, May 2009 (Cambridge, Mass.: National Bureau of Economic Research link

STUDY:

Does the gender of undergraduate women's math and science professors affect women's performance in math and science courses?

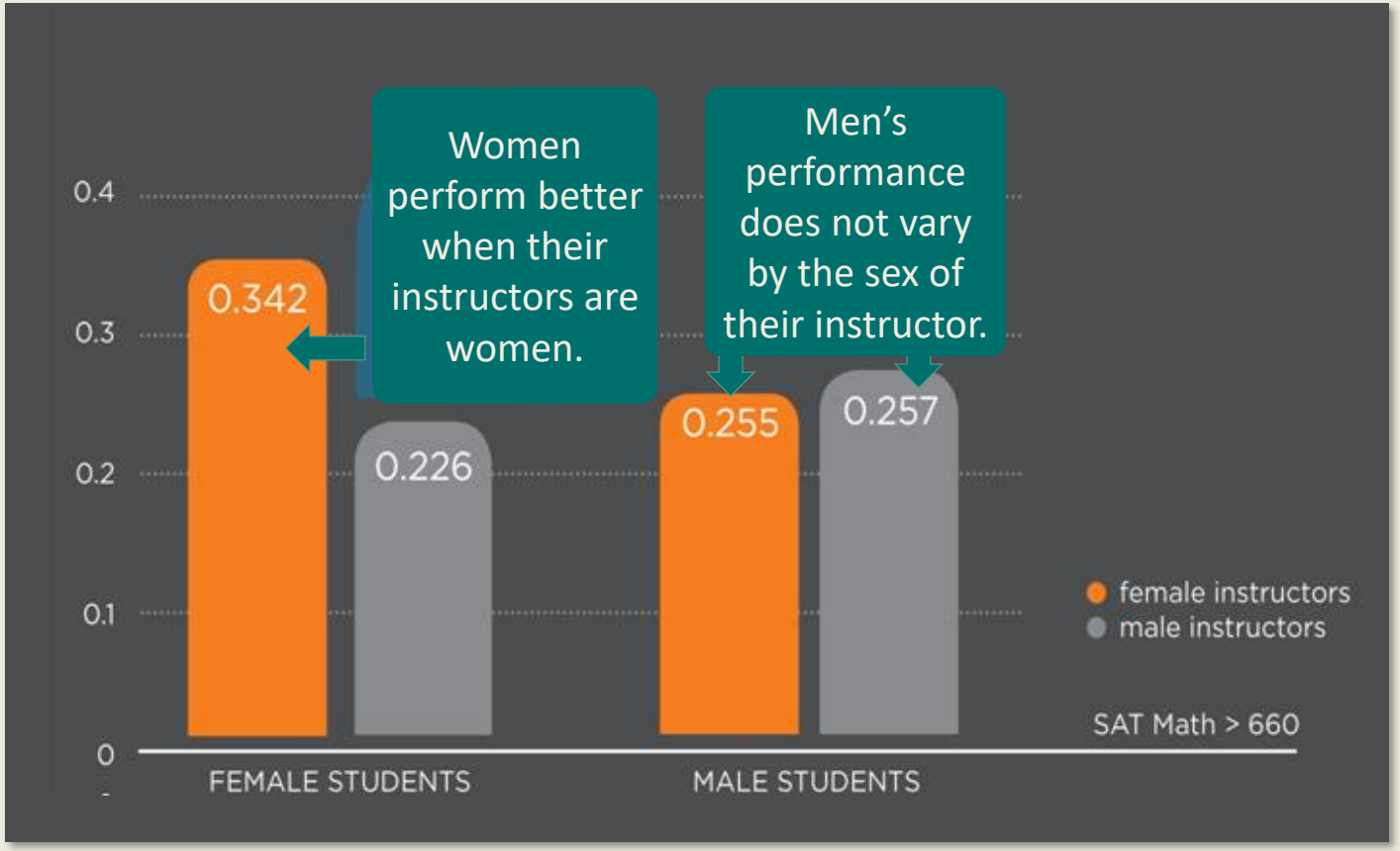
METHOD:

Authors compared the math and science course grades of 9,481 undergraduate students at the U.S. Air Force Academy. They compared the grades of men and women students according to whether the students had men or women math and science professors.

Scott E. Carrell, Marianne E. Page, and James E. West, Sex and Science: How Professor Gender Perpetuates the Gender Gap, NBER Working Paper Series, No. 14959, May 2009 (Cambridge, Mass.: National Bureau of Economic Research link

FINDINGS:

Women's performance in math and science courses improves substantially when the course is taught by a woman professor, while the effect of professor gender on men students is negligible.



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RECAP:

OVERVIEW OF DIVERSITY BENEFITS

INFORMATIONAL DIVERSITY:

When innovation or careful considerations are important, diverse groups and institutions perform better.

2

DIVERSITY

ISSUES AT UTK

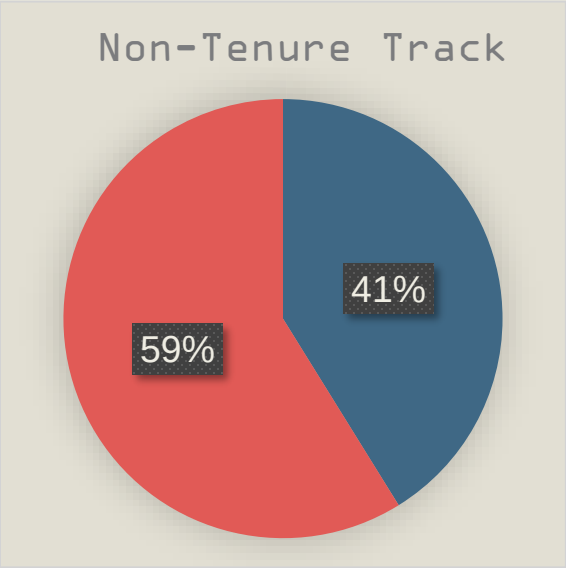
BIAS

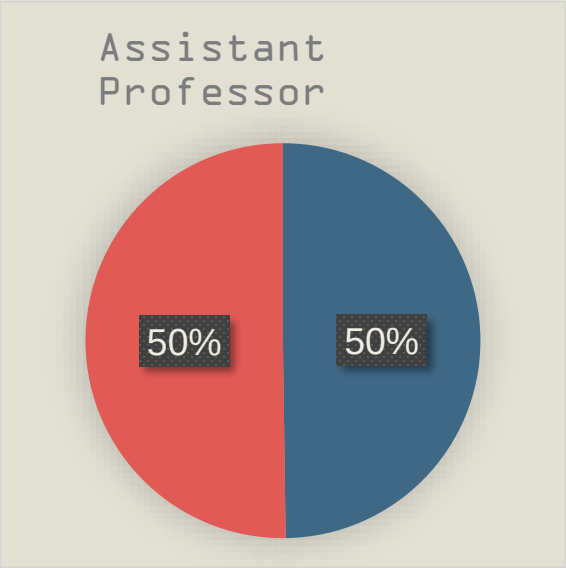
RESEARCH STUDIES

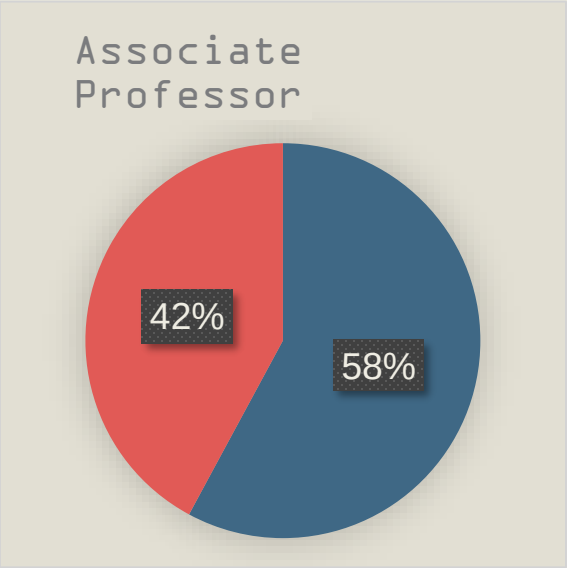
RECOMMENDATIONS

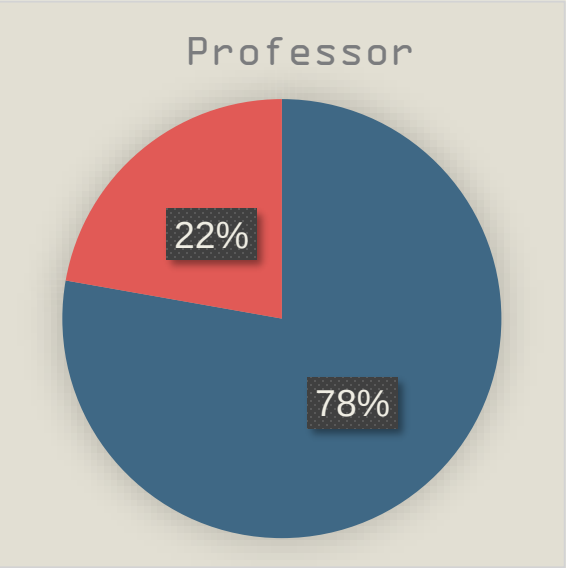
GENDER DIVERSITY AT UTK, 2015–2016

FEMALE MALE





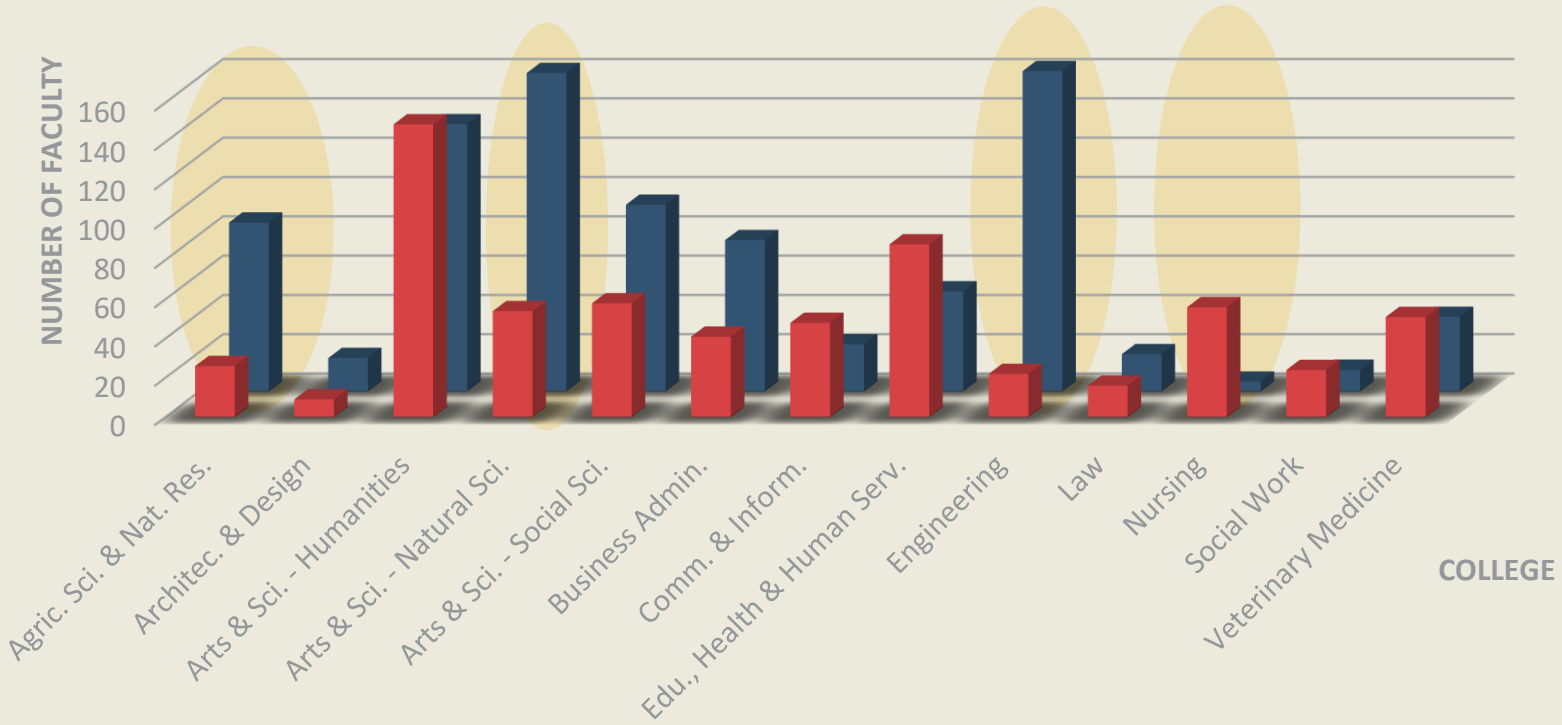




UTK Office of Institutional Research and Assessment, 2015-2016, https://oira.utk.edu/

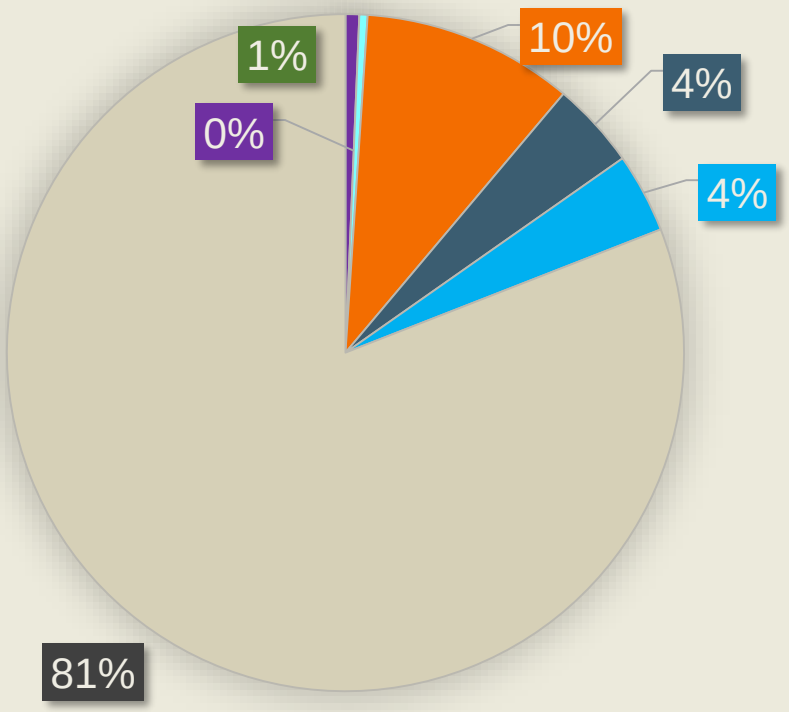
FULL-TIME INSTRUCTIONAL FACULTY BY *GENDER*, UTK, 2015–2016

FEMALE MALE



UTK Office of Institutional Research and Assessment, 2015-2016, https://oira.utk.edu/

ALL FACULTY BY *RACE / ETHNICITY*, UTK, 2015–2016



Multiracial

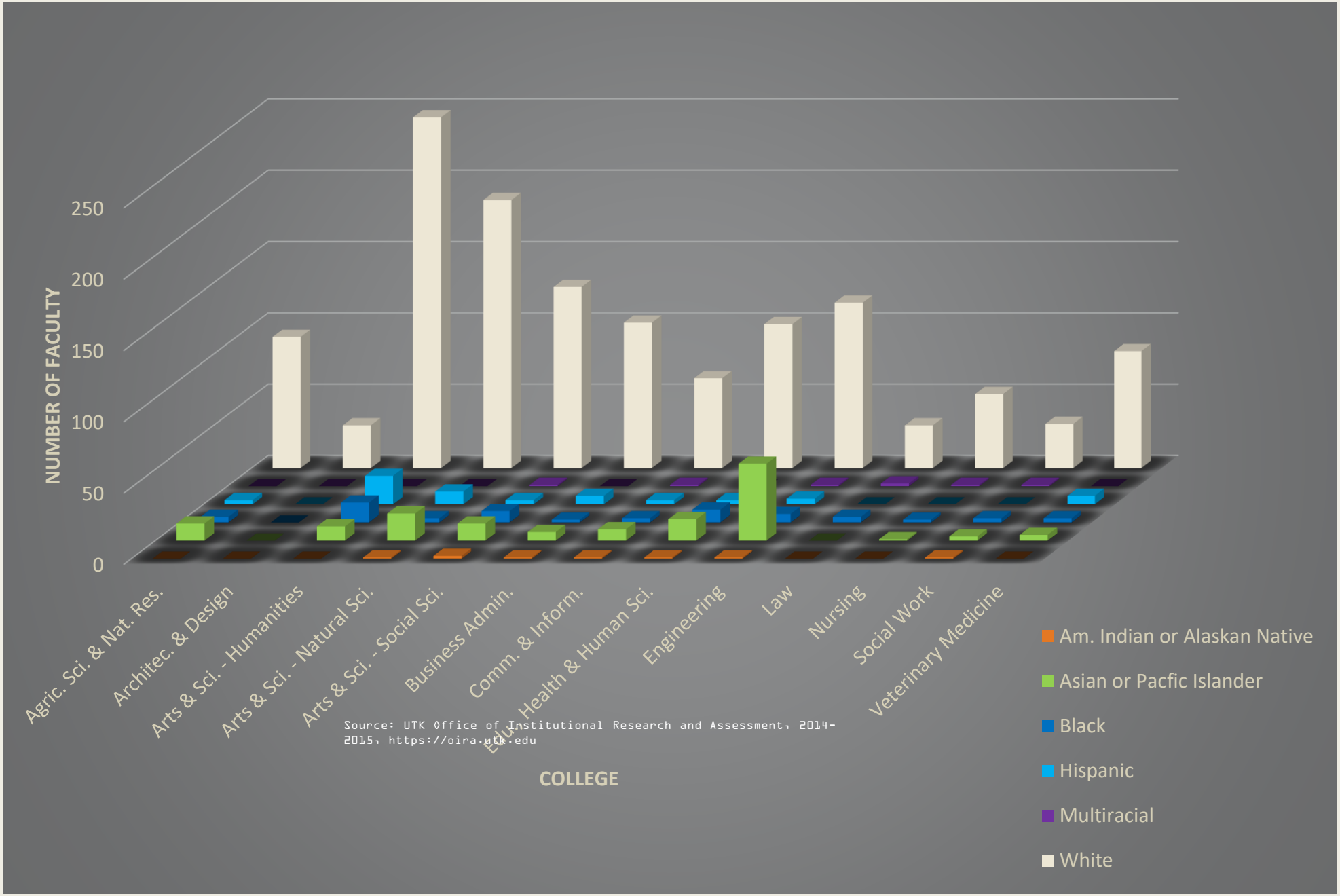
Am. Indian / Alaskan Native

Asian/Pacific Islander

Black/African American

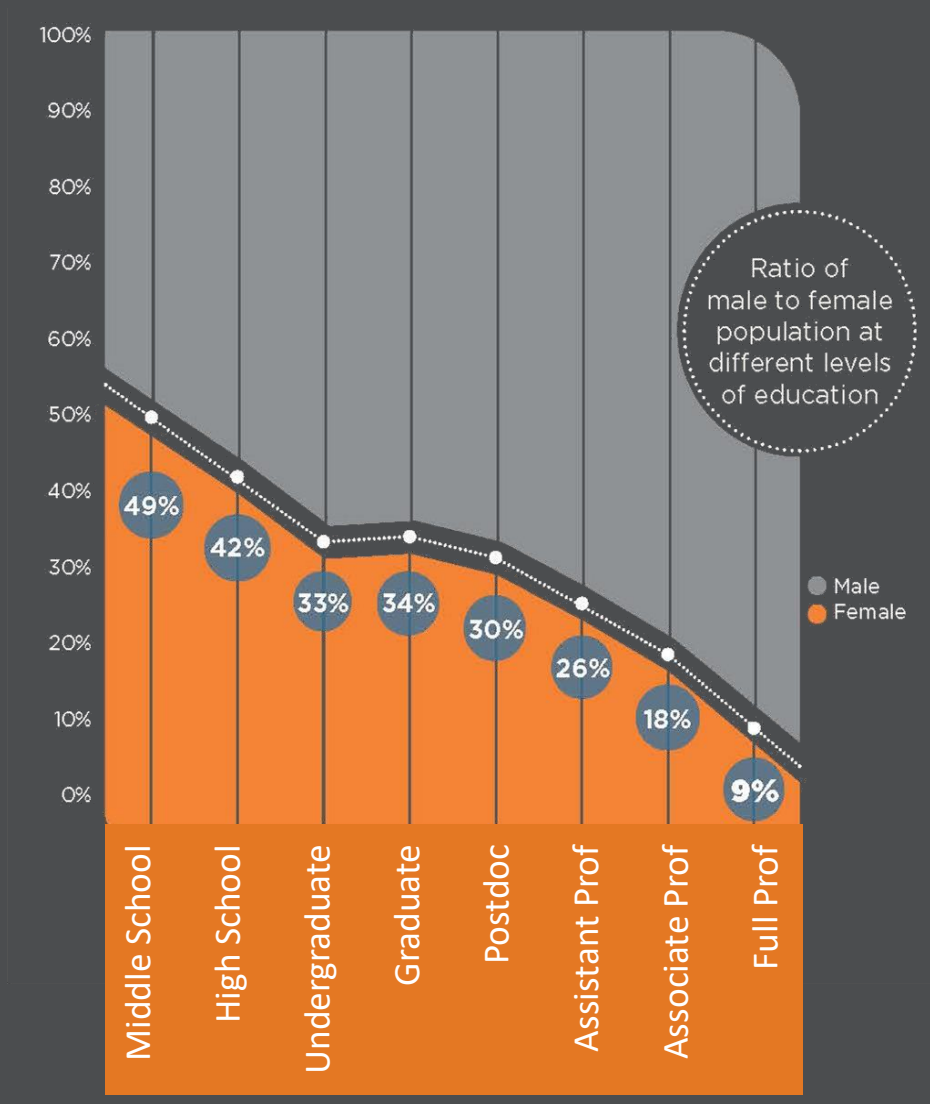
Hispanic

UTK Office of Institutional Research and Assessment, 2015-2016, https://oira.utk.edu/



Source: UTK Office of Institutional Research and Assessment, 2014-2015, https://oira.utk.edu

Are women dropping out of the educational "*pipeline*" leading to careers in STEM?



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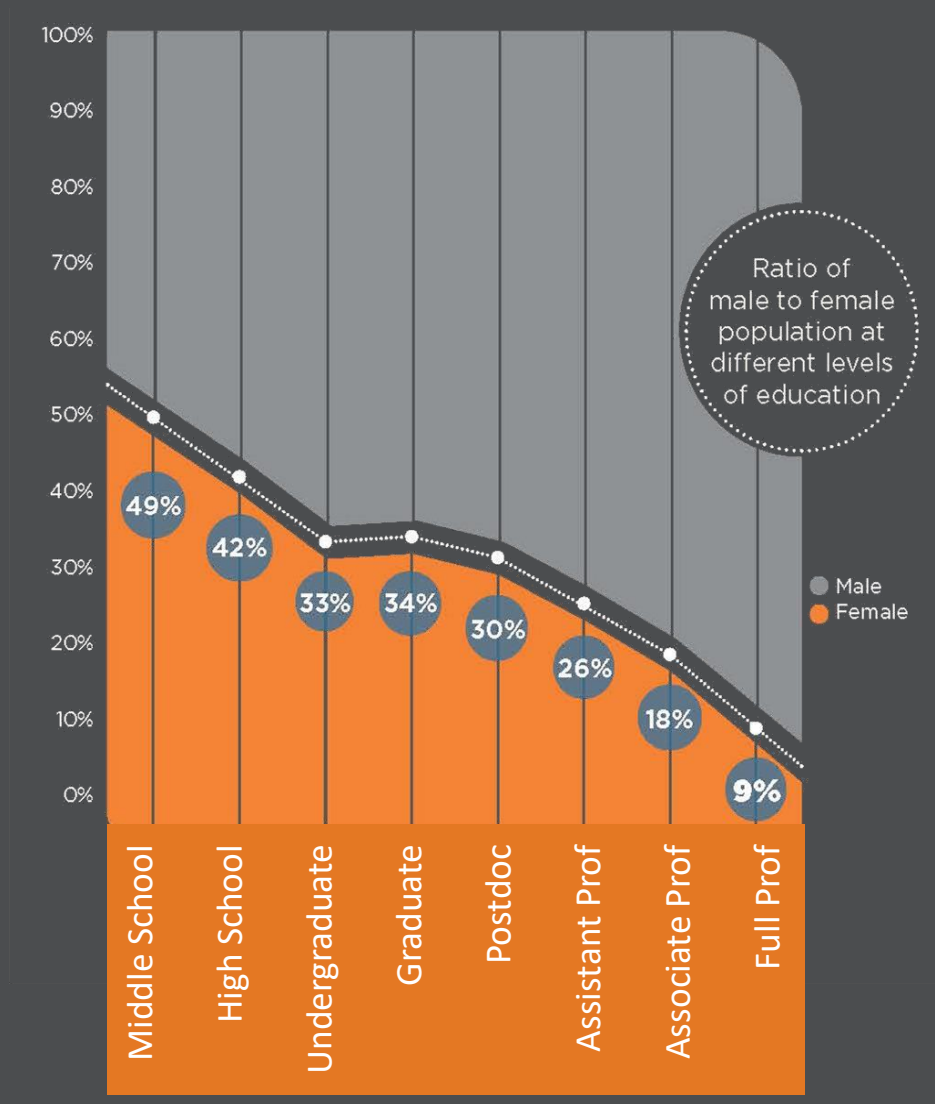
Are women dropping out of the educational "*pipeline*" leading to careers in STEM?

Why are women choosing not to pursue careers in STEM fields?



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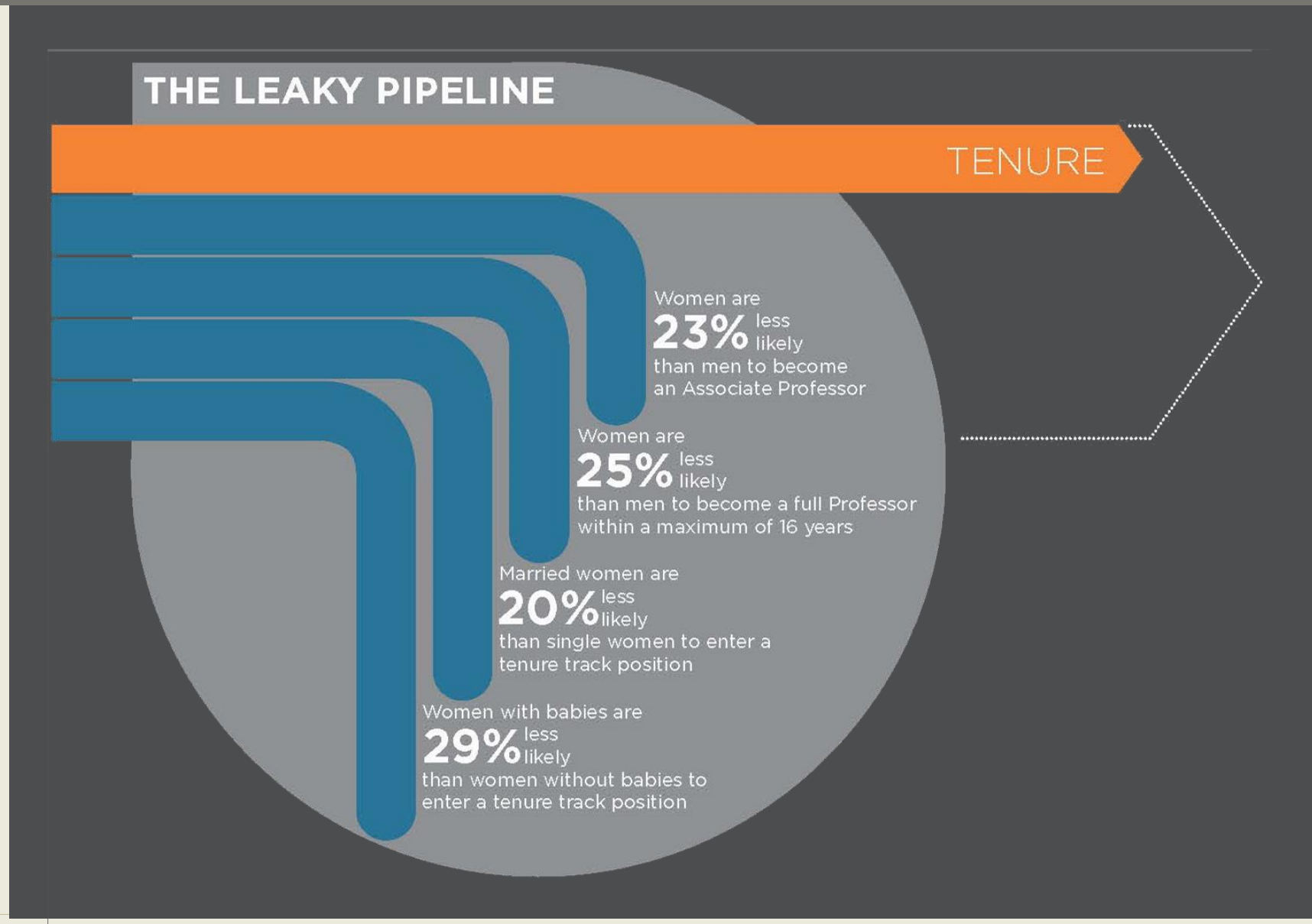
The *leaky pipeline* for women



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3

DIVERSITY

ISSUES AT UTK

BIAS

RESEARCH STUDIES

RECOMMENDATIONS


The Chef
does everything
but cook
– that's what
wives are for!
I'm giving my wife a
Kenwood Chef

EXPLICIT BIAS

Intentional & obvious

Leads to discrimination

VS.

IMPLICIT BIAS

Unintentional & subtle

Leads to discrimination

BIAS is impactful and pervasive

Learned early from family, peers, media

Learned without intention or awareness

Culturally shared

BIAS is impactful and pervasive

Learned early from family, peers, media

Learned without intention or awareness

Culturally shared


in a world-record time of 8:04.79.

Phelps ties for silver in 100 fly

Ledecky sets world record in women's 800 freestyle

By PAUL NEWBERRY
Associated Press

BIAS characteristics:

Social categories are *automatically* and *unintentionally* encoded.

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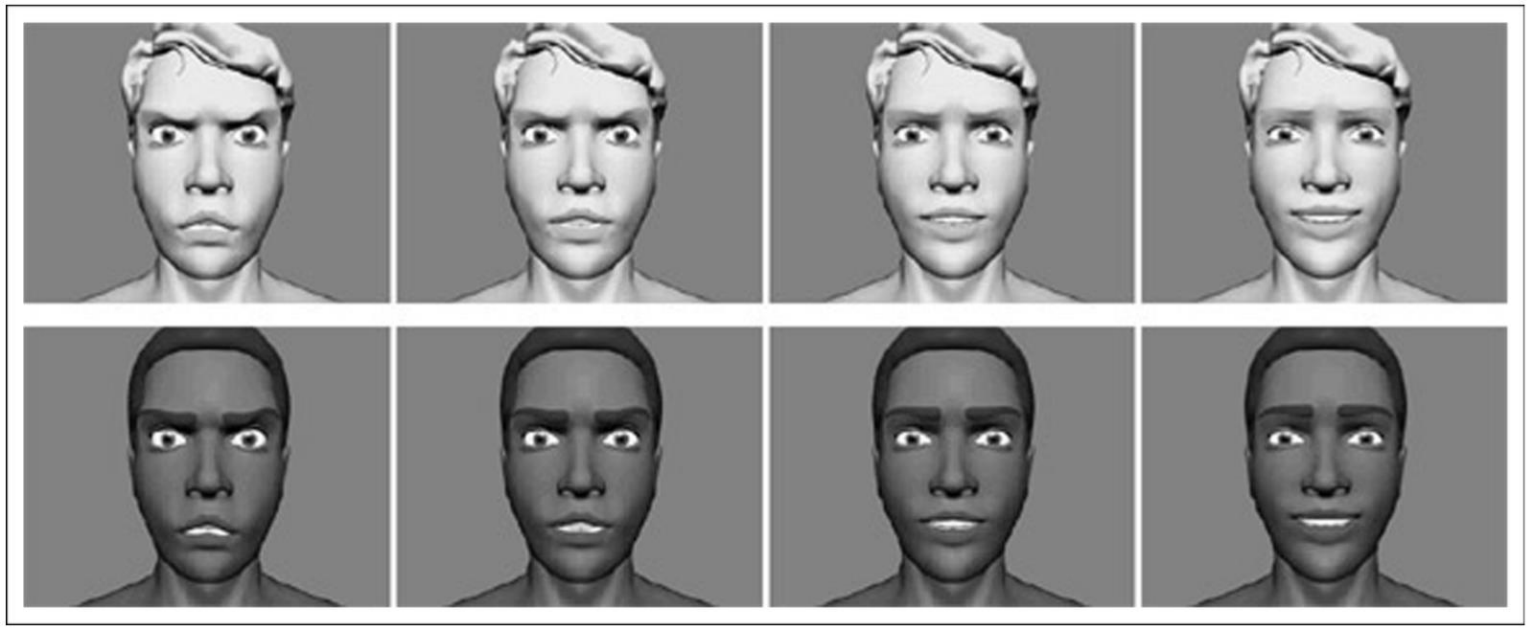
Once categories are activated, bias can influences perception *without awareness.*



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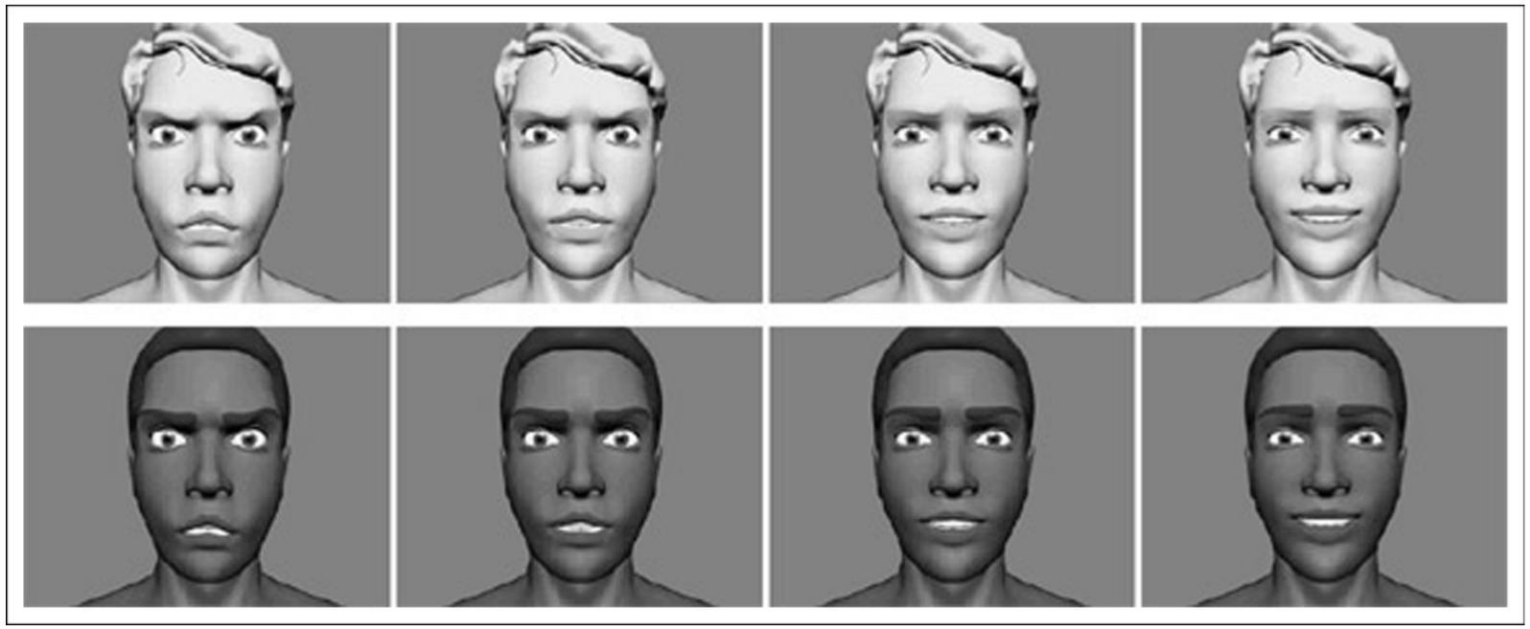


BIAS can:

change based on experience / exposure

be *reduced* based on conscious considerations

Hugenberg, K., & Bodenhausen, G. V. (2003). Facing prejudice implicit prejudice and the perception of facial threat. Psychological Science, 14(6), 640-643.

When does BIAS affect judgment?

When the situation is ambiguous, stressful, or rushed.

When you are not motivated to think clearly.

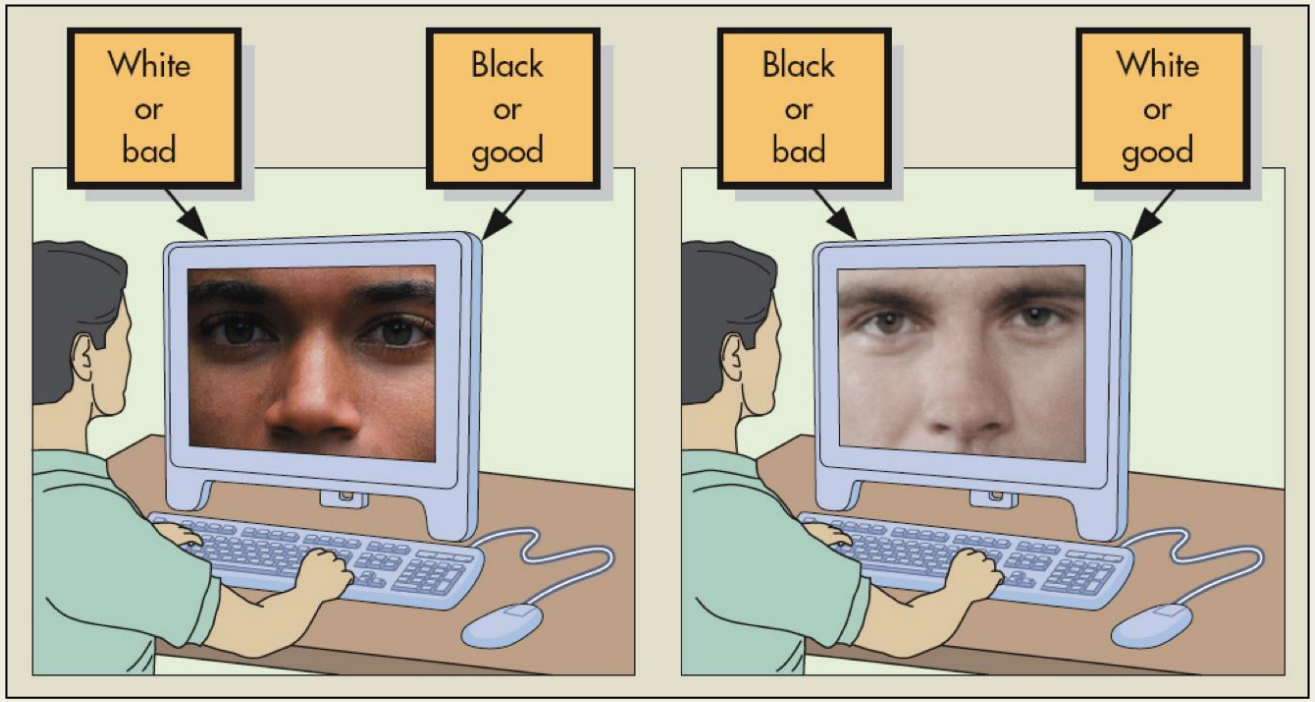
When you are unaware of the effects of bias.

Fazio, R. H., & Olson, M. A. (2014). The MODE model: Attitude-behavior processes as a function of motivation and opportunity. Dual process theories of the social mind, 155-171.

How do we know BIAS can affect judgment?

Implicit measures allow researchers access to biases without having to ask directly.

100's of peer-reviewed studies demonstrate *predictive validity.*



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4

DIVERSITY

ISSUES AT UTK

BIAS

RESEARCH STUDIES

RECOMMENDATIONS

STUDY:

Is the juror for a symphony affected by seeing the person who is trying out?

Goldin and Rouse (2000). The American Economic Review 90(4): 715-741 link.

STUDY:

Is the juror for a symphony affected by seeing the person who is trying out?

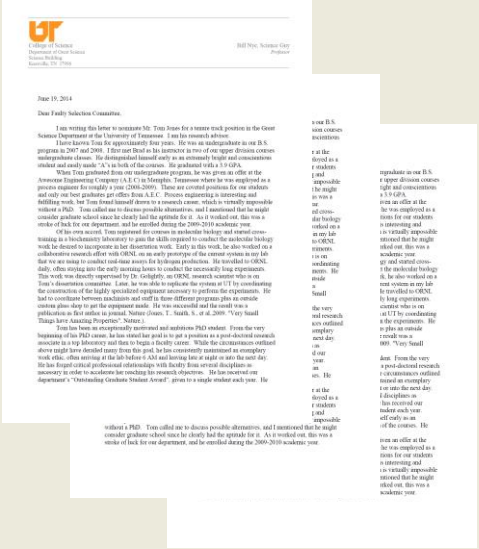
FINDINGS :

Major U.S. symphony orchestra audition data for 14,000 individuals showed that use of a screen, which concealed gender, *increased the probability by 50%* that a woman would advance from preliminary rounds (1970-1996).

Goldin and Rouse (2000). The American Economic Review 90(4): 715-741 link.

LETTERS FOR MEN:

- Longer
- More references to CV, publications, patents, colleagues

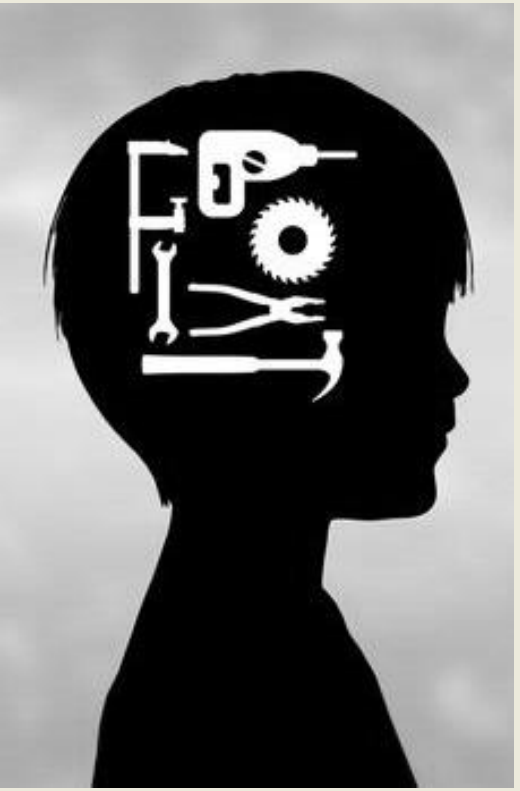


LETTERS FOR WOMEN:

- Shorter
- More references to personal life
- More “doubt raisers”

Trix, F., & Psenka, C. (2003). Exploring the color of glass: Letters of recommendation for female and male medical faculty. Discourse & Society, 14(2), 191-220. link

- Men are more likely to be *first authors* on scientific papers.
- Men are more likely to be selected for prestigious *invited talks* than women.
- Men are more likely to obtain *research grants* than women.
- Mothers are rated *less* competent and recommended for *lower salaries* than non-mothers.
- Fathers are rated *more* competent and recommended for *higher salaries* than non-fathers.



STEREOTYPE THREAT

- Stereotype threat is a self-threatening phenomenon where individuals perform in testing situations at the level that they are expected to based on the group to which they belong.

- The stereotype threat introduces a risk to individuals during testing situations that individuals without the threat do not experience.

Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. Journal of Personality and Social Psychology, 69(5), 797–811. link

STUDY:

Undergraduate female Asian American math test results can be manipulated by activating different parts of their cultural identity.

vs.

METHODS:

Researchers manipulated 46 undergraduate Asian American female participants prior to a test by either:

- asking identity activation questions such as “Do you live in a co-ed dorm?”
- asking ethnicity activation questions such as “Do you live in a home where a second language is spoken?”

All prior to a 12-question math test to be taken in 20 minutes.

Shih, M., Pittinsky, T. L., & Ambady, N. (1999). Stereotype Susceptibility: Identity Salience and Shifts in Quantitative Performance. Psychological Science, 10(1), 80–83. link

People perform the way they are "expected" to perform.

OUTCOME:

Measured against unprimed students' performance,

-Students whose gender was primed performed worse, while

-Students whose race was primed performed best.

Both positive and negative cultural stereotypes can interfere with individual performances.

Shih, M., Pittinsky, T. L., & Ambady, N. (1999). Stereotype Susceptibility: Identity Salience and Shifts in Quantitative Performance. Psychological Science, 10(1), 80–83. link

5.

DIVERSITY

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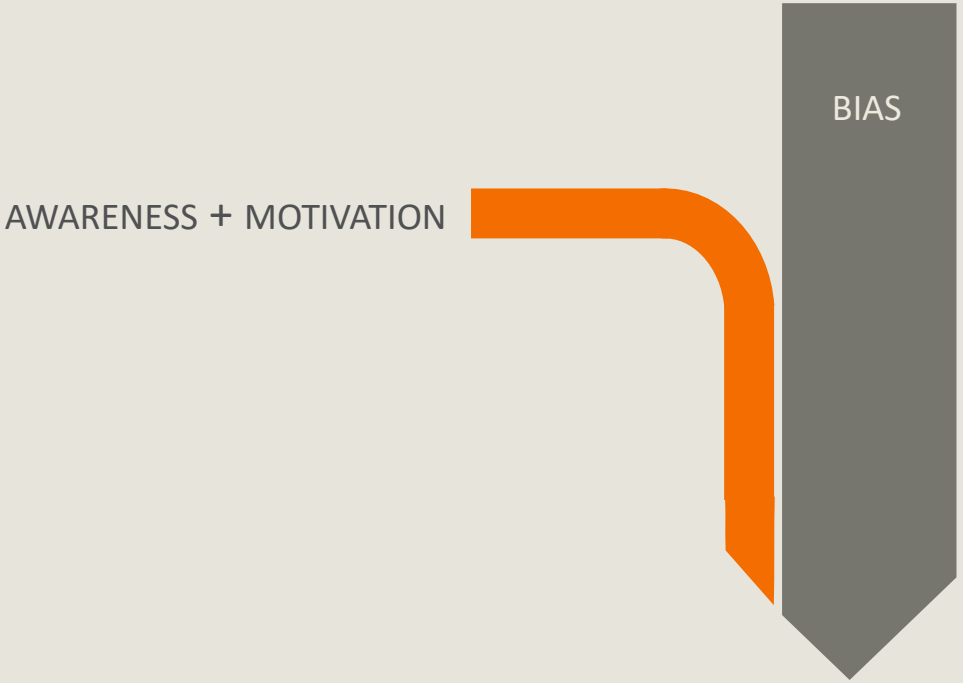
RECAP:

CONCLUSION SUMMARY

Please remember one thing …



Implicit bias surfaces when decisions have to be made under duress, time is limited, or the situation is ambiguous.

Thank you

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