STRIDE
STRATEGIES and TACTICS for RECRUITING to IMPROVE DIVERSITY and EXCELLENCE
at The University of Tennessee

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

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

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.


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

<table>
<thead>
<tr>
<th>Measure</th>
<th>Return on Assets</th>
<th>Return on Equity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women’s Representation</td>
<td>-0.0043</td>
<td>-0.0059</td>
</tr>
<tr>
<td></td>
<td>(0.0027)</td>
<td>(0.0081)</td>
</tr>
<tr>
<td>Women’s Representation × Innovation Intensity</td>
<td>0.1592***</td>
<td>0.2585***</td>
</tr>
<tr>
<td></td>
<td>(0.0234)</td>
<td>(0.0787)</td>
</tr>
</tbody>
</table>

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

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.
**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.

**FINDINGS:**
Author diversity (racial) *does* lead to higher citation rates and higher impact factors.
Does the gender of undergraduate women’s math and science professors affect women’s performance in math and science courses?
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.
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.

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

Non-Tenure Track
- Female: 59%
- Male: 41%

Assistant Professor
- Female: 50%
- Male: 50%

Associate Professor
- Female: 42%
- Male: 58%

Professor
- Female: 22%
- Male: 78%

UTK Office of Institutional Research and Assessment, 2015-2016, https://oira.utk.edu/
FULL-TIME INSTRUCTIONAL FACULTY BY *GENDER*, UTK, 2015–2016

*UTK Office of Institutional Research and Assessment, 2015-2016, https://oira.utk.edu/*
ALL FACULTY BY *RACE / ETHNICITY*, UTK, 2015–2016

- Multiracial: 1%
- Am. Indian / Alaskan Native: 0%
- Asian/Pacific Islander: 10%
- Black/African American: 4%
- Hispanic: 4%
- Other: 81%
Full-Time Instructional Faculty by Race, University of Tennessee, 2014


- Am. Indian or Alaskan Native
- Asian or Pacific Islander
- Black
- Hispanic
- Multiracial
- White
Are women dropping out of the educational “pipeline” leading to careers in STEM?
Are women dropping out of the educational “pipeline” leading to careers in STEM?

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

The leaky pipeline for women

Women are 23% less likely than men to become an Associate Professor

Women are 25% less likely than men to become a full Professor within a maximum of 16 years

Married women are 20% less likely than single women to enter a tenure track position

Women with babies are 29% less likely than women without babies to enter a tenure track position

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
BIAS characteristics:

Social categories are *automatically* and *unintentionally* encoded.
BIAS characteristics:

Social categories are automatically and unintentionally encoded.

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

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

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

BIAS can:

- *change* based on experience / exposure
- *be reduced* based on conscious considerations

### 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. |

---

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.
DIVERSITY

ISSUES AT UTK

BIAS

RESEARCH STUDIES

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

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).
LETTERS FOR MEN:

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

LETTERS FOR WOMEN:

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

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

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.
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.

5. RECOMMENDATIONS
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

stride@utk.edu  http://stride.utk.edu