Primer on Diversity Barriers & Solutions

Dr. Dontarie Stallings
April 24, 2017

www.oxide.jhu.edu

Why is Diversity Important

Business Case (that is, the Academic Case in our context)

The Business Case for Diversity

"I see three main points to make the business case for diversity:

I. A talent shortage that requires us to seek out and use the full capabilities of all our employees.

2. The need to be like our customers, including the need to understand and communicate with them in terms that reflects their concerns.

3. Diverse teams produce better results.

This last point is not as easy to sell as the first two-especially to engineers who want the data. What I need is the data, evidence that diverse groups do better."

Lewis Platt, former CEO of Hewlett Packard, comments to the Diversity Research Network, Stanford Business School, March 18, 1998.
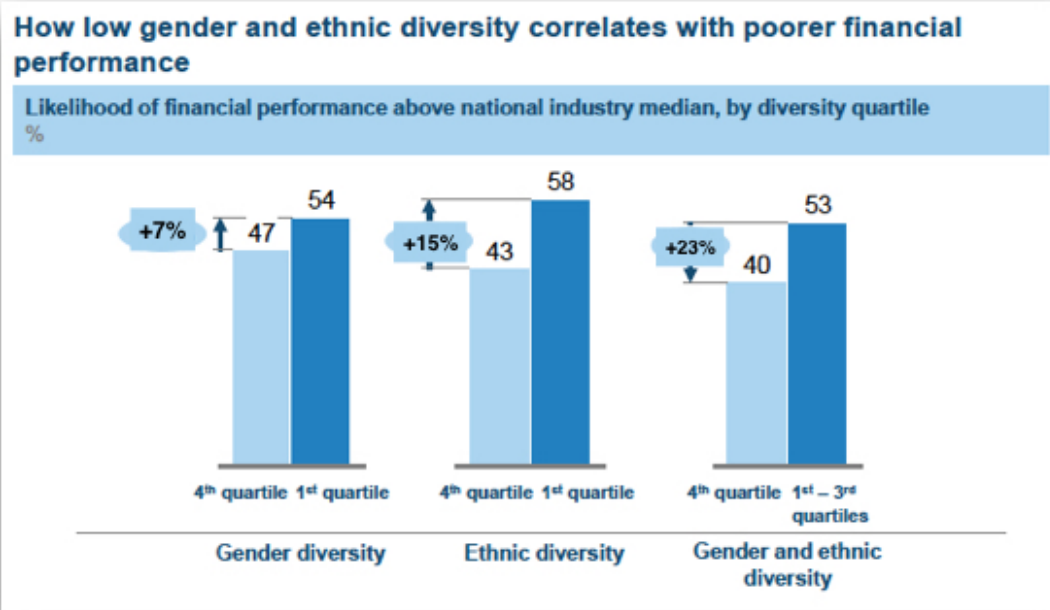

For the Chronicle / Tim Kao

http://www.sfgate.com/business/article/LEWIS-PLATT-An-Appreciation-He-embodied-the-2570016.php

OXIDE
Open Chemistry Collaborative in Diversity Equity
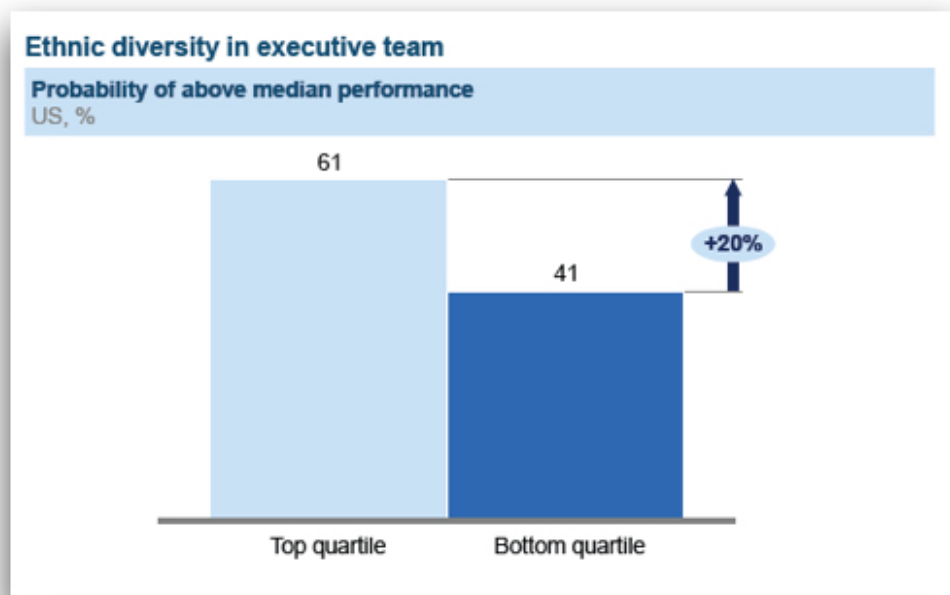
Why is Diversity Important

Business Case

- 366 public companies across a range of industries

- Relationship between leadership diversity and financial performance

- Data collected included the composition of:

    - top management and boards in 2014

    - financial data

    - earnings before interest & tax for the years 2010 - 2013

How low gender and ethnic diversity correlates with poorer financial performance

Likelihood of financial performance above national industry median, by diversity quartile %

Gender diversity: 4th quartile 47, 1st quartile 54 (+7%)
Ethnic diversity: 4th quartile 43, 1st quartile 58 (+15%)
Gender and ethnic diversity: 4th quartile 40, 1st – 3rd quartiles 53 (+23%)

Diversity Matters, McKinsey & Company, 2015

OXIDE
Open Chemistry Collaborative in Diversity Equity

Why is Diversity Important

Business Case

Ethnic diversity in executive team

Probability of above median performance
US, %

61

+20%

41

Top quartile   Bottom quartile

Diversity Matters, McKinsey & Company, 2015

- Relationship between ethnic diversity and performance:

- Top Quartile Diversity

- Bottom Quartile Diversity

(1) Apfelbaum, E. P., et al., "Rethinking the Baseline in Diversity Research: Should We Be Explaining the Effects of Homogeneity?," Perspectives on Psychological Science,9 (3), pp. 235–244 (May 2014).
(2) Cummings, D. E., "The Evolution and Current Status of Process Safety Management Metrics," Process Safety Progress,28 (2), pp. 147–155 (June 2009).

4

OXIDE
Open Chemistry Collaborative in Diversity Equity

Why is Diversity Important

Business Case

- Benefits of significant expenditures & financial capital towards inclusive excellence:[1 & 2]

  - an edge in talent acquisition

  - employee engagement

  - retention

  - innovation

- Continued effort leads to sustained excellence in:[1 & 2]

  - performance

  - growth

  - profitability.

(1) Apfelbaum, E. P., et al., "Rethinking the Baseline in Diversity Research: Should We Be Explaining the Effects of Homogeneity?," Perspectives on Psychological Science,9 (3), pp. 235–244 (May 2014).
(2) Cummings, D. E., "The Evolution and Current Status of Process Safety Management Metrics," Process Safety Progress,28 (2), pp. 147–155 (June 2009).

5

OΧIDE
Open Chemistry Collaborative in Diversity Equity

What Social Science Teaches us about Diversity Barriers

Schemas

- You throw like a girl

- Hypotheses used to make sense of the world (V. Valian)
  - Positive
  - Negative
  - Neutral

www.espnw.com

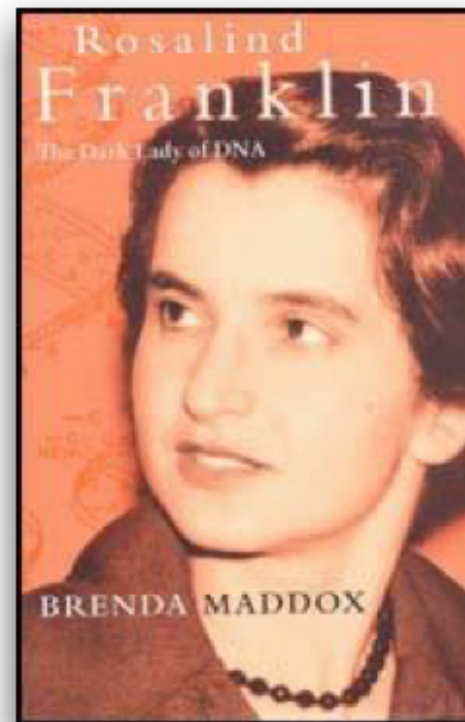V. Valian, "Beyond Gender Schemes," *NWSA* **16**, 1 (2004).

Schemas

Major US symphony orchestras study from 1970-1996

- Audition data from 14,000 individuals

- Screens used

- Probability that a woman will advance

- Roster data from 11 major orchestras show the switch to blind auditions accounts for 30% of the increase in the proportion of women among new hires*

*Goldin & Rouse (2000) *The American Economic Review*, 90, 4, 715-741.

Stereotype Threat

- Rosalind Franklin was a victim of many biases, including stereotype threat

- A disruptive concern that one will be treated, judged, or evaluated through the lens of negative group stereotypes in a particular setting (C. M. Steelle)

http://spartacus-educational.com

C. M. Steele, "Stereotype Threat and the Intellectual Performance of African Americans," *J. Pers. Soc. Psychol* **69**, 5 (1995).
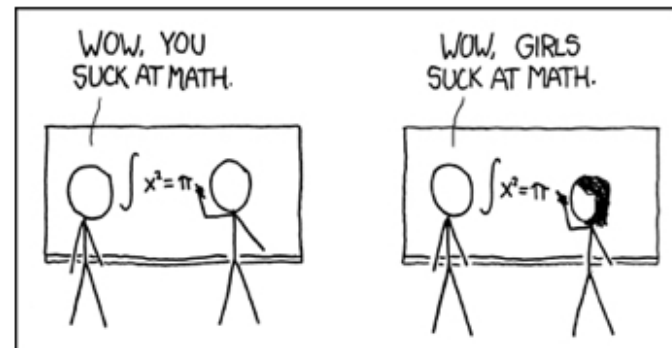
Stereotype Threat

Effects of stereotype threat on academic learning

- Black and White students studied rare words*
  - nonthreatening conditions
  - threatening conditions.

- Participants recalled word definitions
  - half in a nonthreatening "warm-up"
  - half in a threatening "test."

- Black students performed worse on the test than on the warm-up.

- Black students who had studied in the threatening rather than nonthreatening environment performed worse even on the warm-up.

- White students were unaffected.

http://steminist.com

*Taylor and Walton (2011), *Pers Soc Psychol Bull*, 37, 8,1055.

oxide.JHU.edu | NDEW 2017

Open Chemistry Collaborative in Diversity Equity

Microaggressions

#itooamharvard

"I don't see COLOR." ...Does that mean you don't see Me?

http://itooamharvard.tumblr.com

- "I don't see color"
  - Does that mean you don't see me

- Microaggressions remind an out-group member ("them") that he/she is not fully embraced by the in-group member ("us")
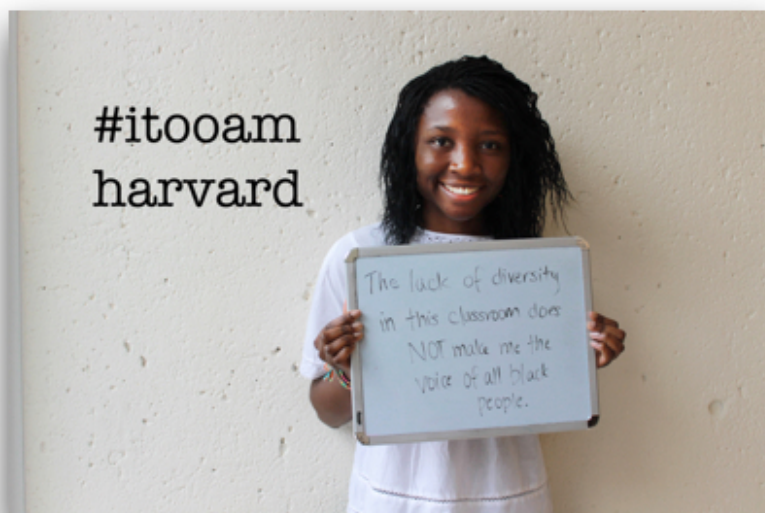 - Unconscious
  - Automatic
  - Subtle

G. Wong et al, "The what, the why and the how: A review of racial and microaggression research in psychology," *Race Soc. Probl.* **6**, 2 (2014)

OXIDE
Open Chemistry Collaborative in Diversity Equity

Microaggressions

http://media.breitbart.com

- Loretta Lynch confirmation hearing to attorney general

- "You're not Eric Holder, are you?"[+]

- "[Law School] Teachers are overwhelmingly white, male, and middle class; and most (by no means all) black and women law teachers give the impression of thorough assimilation to that style, or of insecurity and unhappiness."[*] (D. Kennedy)

- Women and Minorities: "Offensive"

- White Male Response: "Dumbfounded"

OXIDE
Open Chemistry Collaborative in Diversity Equity

Solo Status

#itooam harvard

http://itooamharvard.tumblr.com

- "The lack of diversity in this classroom does NOT make me the voice of all black people"

- Being the only representative of a social category present*
  - Impacts performance & outcomes
  - Different than tokenism

*Sekaquaptewa & Thompson, *Pers Soc Psychol Bull,* **28**, 5, 694 (2002)

OXIDE
Open Chemistry Collaborative in Diversity Equity

Solo Status

Study on the effects of high and low status groups

- The lower your social status the more negatively impacted you are by solo status*

  - Women vs. Men

  - Black vs. White

  - White Female vs. Black Female vs. Hispanic Female

  - Asian vs. White[+]

* Sekaquaptewa & Thompson (2002) *Pers Soc Psychol Bull*, 28, 5, 694.
+ Shih, Pittinsky & Ambady (1999) *Psychological Science*, 10, 1, 80.

OXIDE
Open Chemistry Collaborative in Diversity Equity

Universal Design

- Americans with Disabilities Act (ADA)

  - A physical or mental impairment that substantially limits one or more of the major life activities

- Is a design principle that entails creating products and environments that are usable by all people to the greatest extent possible without the need for accommodation or modification

OXIDE
Open Chemistry Collaborative in Diversity Equity

Implicit Bias

- "She has kids so she won't be able to keep up with her research....."

- "Implicit biases come from the culture. I think of them as the thumbprint of the culture on our minds. Human beings have the ability to learn to associate two things together very quickly— that is innate."*

*Dr. Mahzarin R. Banaji, quoted in Hill, Corbett, & Rose, 2010

OXIDE
Open Chemistry Collaborative in Diversity Equity

Implicit Bias

Impact of gender on job applications

- Evaluated identical application packages

  - Karen vs Kevin*

  - Greg vs. Jamal[+]

- Male application package preferred 2:1

*Steinpreis, Anders, & Ritzke (1999) Sex Roles, 41, 509.
+ Bertraind, Mullainathan (2004) The Am. Econ. Rev., 4, 99.

OXIDE
Open Chemistry Collaborative in Diversity Equity

Lessons Learned from Industry about Diversity Barriers

OXIDE
Open Chemistry Collaborative in Diversity Equity

Diversity Barriers & Solutions

Implications for Department Heads and Champions

- Design targeted goals for every step of the ladder

- Faculty serve as levers for change

- Identify/recruit talent at all levels

- Work with each other through mechanisms such as NDEWs…
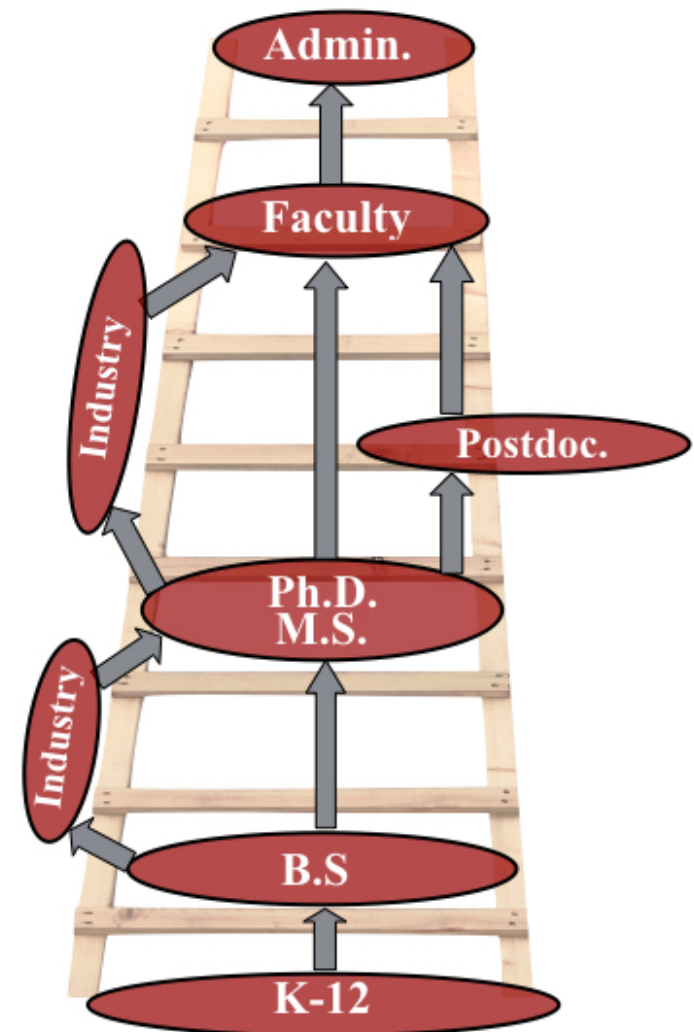
Stallings, D.; Iyer, S. K.; Hernandez, R., Effective usage of social media and #DiversitySolutions to discuss solutions to improve diversity. Diversity in the Scientific Community, American Chemical Society: 201X; Vol. XXXX, pp XXX-XXX.

Lessons from Industry

Internally Assess

- Clear value proposition
  - Understand what you want your culture to be
  - lineup your leadership actions with your target culture

- Quantitative decision making[1 & 2]
  - know your internal statistics
  - climate survey
  - utilize best "peer reviewed" practices

- Top down leadership
  - diversity management with actionable responsibilities

- Effective assessment
  - plan -> act -> analyze -> adjust

- Link to meritocratic culture
  - link diversity and inclusion to management efforts

(1) Prince, Sara., "Why Diversity Matters." www.mckinsey.com. McKinsey & Company, Jan 2015.
(2) Dobbin, F.; Kim, S.; Kalev, A., You can't always get what you need: Organizational determinants of diversity programs. American Sociological Review 2011, 76 (3), 386-411
(3) Scott Keller and Colin Price, Beyond Performance: How great organizations build ultimate competitive advantage, Wiley, 2011

oxide@jhu.edu
www.oxide.jhu.edu

20

Lessons from Industry

Build for the future

- Clear value proposition
  - Understand what you want your culture to be
  - lineup your leadership actions with your target culture

- Quantitative decision making
  - know your internal statistics
  - climate survey
  - utilize best "peer reviewed" practices

- Top down leadership[1, 2, 3]
  - diversity management with actionable responsibilities

- Effective assessment
  - plan -> act -> analyze -> adjust

- Link to meritocratic culture
  - link diversity and inclusion to management efforts

(1) Prince, Sara., "Why Diversity Matters." www.mckinsey.com. McKinsey & Company, Jan 2015.
(2) Dobbin, F.; Kim, S.; Kalev, A., You can't always get what you need: Organizational determinants of diversity programs. American Sociological Review 2011, 76 (3), 386-411
(3) Scott Keller and Colin Price, Beyond Performance: How great organizations build ultimate competitive advantage, Wiley, 2011

oxide@jhu.edu
www.oxide.jhu.edu

Lessons from Industry

Act

- Clear value proposition
  - Understand what you want your culture to be
  - lineup your leadership actions with your target culture

- Quantitative decision making
  - know your internal statistics
  - climate survey
  - utilize best "peer reviewed" practices

- Top down leadership
  - diversity management with actionable responsibilities

- Effective assessment[3]
  - plan -> act -> analyze -> adjust

-
  Link to meritocratic culture
  - link diversity and inclusion to management efforts

(1) Prince, Sara., "Why Diversity Matters." www.mckinsey.com. McKinsey & Company, Jan 2015.
(2) Dobbin, F.; Kim, S.; Kalev, A., You can't always get what you need: Organizational determinants of diversity programs. American Sociological Review 2011, 76 (3), 386-411
(3) Scott Keller and Colin Price, Beyond Performance: How great organizations build ultimate competitive advantage, Wiley, 2011

oxide@jhu.edu
www.oxide.jhu.edu

Lessons from Industry

Wholesale Incorporation of policies

- Clear value proposition
  - Understand what you want your culture to be
  - lineup your leadership actions with your target culture

- Quantitative decision making
  - know your internal statistics
  - climate survey
  - utilize best "peer reviewed" practices

- Top down leadership
  - diversity management with actionable responsibilities

- Effective assessment
  - plan -> act -> analyze -> adjust

- Link to meritocratic culture [1]
  - link diversity and inclusion to management efforts
  - Every policy, protocol, hiring & promotion decision must reference your vision

(1) Prince, Sara., "Why Diversity Matters." www.mckinsey.com. McKinsey & Company, Jan 2015.
(2) Dobbin, F.; Kim, S.; Kalev, A., You can't always get what you need: Organizational determinants of diversity programs. American Sociological Review 2011, 76 (3), 386-411
(3) Scott Keller and Colin Price, Beyond Performance: How great organizations build ultimate competitive advantage, Wiley, 2011

23

#DiversitySolutions

Check out frequent updates on twitter
(and oxide.jhu.edu)

Stallings, D.; Iyer, S. K.; Hernandez, R., Effective usage of social media and #DiversitySolutions
to discuss solutions to improve diversity. Diversity in the Scientific Community,
American Chemical Society: 201X; Vol. XXXX, pp XXX-XXX.

24

Open Chemistry Collaborative in Diversity Equity

Diversity Barriers & Solutions

Implications for Department Heads and Champions

- There are many small barriers that hinder the success of all people, but people from URGs tend to be more adversely effected

- Design targeted goals to reduce barriers along every step of the academic ladder
  - This helps everyone!

- You and your faculty serve as levers for change because you set the example (and the policies!)