Rowan University

Rowan Digital Works

Henry M. Rowan College of Engineering Faculty
Scholarship

Henry M. Rowan College of Engineering

6-8-2017

Beyond the binary: Building LGBTQ-inclusive classrooms and workplaces in STEM

Stephanie Farrell
Rowan University

Follow this and additional works at: https://rdw.rowan.edu/engineering_facpub

Part of the [Engineering Education Commons](#), and the [Science and Mathematics Education Commons](#)

Recommended Citation

Farrell, Stephanie. (2017). Beyond the binary: Building LGBTQ-inclusive classrooms and workplaces in STEM. *STEM Gender Equality Congress Proceedings*, Volume 1, Number 1, June 2017, pp. 473-491(19).

This Presentation is brought to you for free and open access by the Henry M. Rowan College of Engineering at Rowan Digital Works. It has been accepted for inclusion in Henry M. Rowan College of Engineering Faculty Scholarship by an authorized administrator of Rowan Digital Works.

Beyond the Binary:

Creating LGBTQ-inclusive Classrooms and Workplaces in STEM

Stephanie Farrell

**Rowan University
ASEE**

June 8, 2017

A letter to ASEE Prism

September 2013

Is All Diversity Good?

“[...] I have been rather fascinated by diversity articles in Prism and on the website. [...] But is diversity in sexual preference good if:

- The behavior takes 5 to 15 years off a person's life expectancy?
- The behavior proliferates sexually transmitted diseases?
- The behavior promotes a sexually promiscuous lifestyle?
- The behavior is addictive and abusive?

We would do well to **teach the truth** about the homosexual/lesbian/bisexual/transgender lifestyle.”

—ASEE Member

We have a problem

Anti-LGBTQ bias, discrimination, and hostility in the classroom, workplace, and the world

29%

Experienced
discrimination
/harrassment

37%

Not
comfortable
in the
classroom

30%

Seriously
considered
leaving

Rankin (2010)

62%

Hear
homophobic
jokes
HRC (2014)

53%

Hide LGBT
identity at
work
HRC (2014)

52%

No workplace
antidiscrimination
protection (US)

Movement Advancement Project

10

Countries where
homosexuality punishable by
death

79

Countries where
homosexuality is illegal

IGLA

CAMPUS CLIMATE

**WORKPLACE
CLIMATE**

**GLOBAL
CLIMATE**

Being LGBT Can Be Punishable by Law

The business case

Anti-LGBTQ bias, discrimination, and hostility in the classroom and workplace have harmful business impacts

22%

Look to Leave

Human Rights Campaign (2014 report)

30%

Lost Employee Engagement

Human Rights Campaign (2014 report)

~\$9.4 MM

Recruiting Savings

For a US company of 100,000

Out Now Global LGBT 2020 Study

72%

Non-LGBT Consideration

Williams Institute (2013 report)

8-51%

LGBT Out in Workplace

Out Now Global LGBT 2020 Study

~10%

Risk-Adjusted Excess Return

Li & Nagar, Diversity & Performance, MGMT. SCI. 529, 531 (2013)

**RECRUITING &
RETENTION**

**PERFORMANCE &
PRODUCTIVITY**

FINANCIAL

OUT AT WORK

■ Out to everyone
 ■ Out to most people
 ■ Out to some people
 ■ Out to few trusted people
 ■ Not out to anyone

The learning case

34%↑

**1 million additional STEM graduates by
2022**

President's Council of Advisors on Science and Technology (2012)

Most viable way to achieve
this is to

**Increase
retention**

Key reason for leaving
STEM is

Chilly climate

*President's Council of Advisors on Science and
Technology (2012)*

Creating an inclusive
climate benefits

ALL students

Diversity is essential to the
intellectual and social
development of

ALL students

Milem (2003), Smith (2010), Reason (2006)

Creating an inclusive
climate

30%↑

Employee engagement

Human Rights Campaign (2014)

Diversity increases

**Innovation and
productivity**

Herring (2009)

It's the right thing to do

CHOICE and TRUTH

On some positions, Cowardice asks the question, "Is it safe?" Expediency asks the question, "Is it politic?" And Vanity comes along and asks the question, "Is it popular?" But Conscience asks the question "Is it right?" And there comes a time when one must take a position that is neither safe, nor politic, nor popular, but he must do it because Conscience tells him it is right.

Martin Luther King Jr

Project Team

**Erin
Cech**

Sociology

**Rocio
Chavela**

Prof Dev

**Stephanie
Farrell**

ExEED

**Adrienne
Minerick**

Chem Eng

**Tom
Waidzunas**

Sociology

NSF EAGER AWARD

ASEE's Virtual Community of Practice: Promoting LGBTQ Equality in STEM

Exploratory • Transformative • Not fundable by any other mechanism

EAGER Grant

- 2 meta-Trainers
- 20 facilitators/advocates increasing inclusion in 20 Colleges
- Safe Zone Workshops on campuses, online, at conferences
- Transformative research to understand STEM culture and identify barriers to inclusion

Engineering Deans*

- 35% are aware of climate issues
- Supportive of inclusion measures
- Perception of faculty support is much lower
- May be untapped allies for LGBTQ inclusion

*47 Engineering and Engineering Technology Deans from US Colleges

LGBTQ Students*

- More likely than women, URM, & non-LGBTQ peers to report a chilly climate
 - Marginalized
 - Not Respected
- Personal consequences
 - Emotional stress
 - Difficulty sleeping
 - Exhaustion

*1,729 students from 8 institutions

“We would do well to
teach the truth
about LGBTQ people.”

Online Safe Zone workshops

- Launched April 2016
- Level 1, Level 2, Deep Dives
- STEM-oriented Safe Zone training
- Watch parties

ASEE ACTION ON DIVERSITY

**PROMOTING LGBTQ
EQUALITY IN STEM**

PRESENTS:

LGBTQ Safe Zone Ally Training

An Online Workshop Series

Safe Zone Ally Training is a two-part free interactive workshop for student, faculty, and the professional community during which participants will **build knowledge and skills** to create a more **inclusive and affirming environment** for LGBTQ individuals in engineering.

In Spring 2016, ASEE is introducing this workshop series with two Level 1 workshops. In these workshops, speakers and participants will focus on understanding LGBTQ concepts, developing an awareness of privilege, and becoming an ally to LGBTQ individuals.

Spring 2016: Level 1 Workshops

Workshop 1: Christopher Carr & Kelly Cross

Date/Time: Monday, April 18, 2-4 PM ET
Facilitators: Christopher Carr (National Society of Black Engineers) and Kelly Cross (University of Illinois at Urbana-Champaign)

[Register today!](#)

Workshop 2: Donna Riley & Tony Butterfield

Date/Time: Thursday Apr 28, 2-4 PM ET
Facilitators: Donna Riley (Virginia Tech) and Tony Butterfield (University of Utah)

[Register today!](#)

Partnerships

Community of Practice

Advocacy in departments

**Safe Zone
Workshops**

**oSTEM
Chapters**

**Endowed
scholarship
for LGBTQ
students**

**Gender-
inclusive
restrooms**

**LGBTQ-
STEM
speakers**

**LGBTQ
mentoring**

**Alumni
network**

**Dean's
support for
LGBTQ
faculty group**

**Preferred
name policy**

**oSTEM
website**

**Safe Zone
watch
parties**

**Spouse
invited to
holiday party
after 25 years**

Stephanie Farrell

Professor, Department Chair,
Rowan University

2018-2019 President, American
Society for Engineering Education

diversity@asee.org

For more information visit:
<http://diversity.asee.org/lgbtq>

This work is partially supported by a grant from the
National Science Foundation EEC-1539140

References

- E. Cech.; Farrell, S.; Waidzunus, T. J. In *How do LGBTQ faculty and students fare in US engineering education? Report from a survey of seven engineering colleges and programs*, ASEE Annual Conference, Columbus, Ohio, Columbus, Ohio, 2017.
- E. Cech, "LGBT Professionals workplace experiences in STEM-related federal agencies", ASEE Annual Conference Proceedings, 2015.
- S. Farrell, E. Cech, R. Chavela, A. Minerick, T. Waidzunus, "ASEE Safe Zone Workshops and Virtual Community of Practice to Promote LGBTQ Equality in Engineering", ASEE Annual Conference Proceedings, 2016.
- C. Herring, "Does diversity pay?: Race, gender, and the business case for diversity," *American Sociological Review*, vol. 74, pp. 208-224, 2009.
- Human Rights Campaign, "The cost of the closet and the rewards of inclusion," 2014.
- J. Milem, "The educational benefits of diversity: Evidence from multiple sectors, in *Compelling interest: Examining the evidence on racial dynamics in higher education*," M. Chang, D. Witt, J. Jones, and K. Hakuta, Eds., ed Stanford, CA: Stanford University Press, 2003, pp. 126-169
- President's Council of Advisors on Science and Technology, "Engage to excel: producing one million additional college graduates with degrees in science, technology, engineering and mathematics," 2012.
- S. Rankin, G. Weber, W. Blumenfeld, and S. Frazer, "2010 State of higher education for lesbian, gay, bisexual and transgender people," ed: Campus Pride, 2010.
- R. D. Reason, P. T. Terenzini, and R. J. Domingo, "Developing academic competence in the first year of college," *Research in Higher Education*, vol. 47, pp. 149-176, 2006.
- R. D. Reason, B. E. Cox, B. R. L. Quaye, and P. T. Terenzini, "Faculty and institutional factors that promote student encounters with difference in first-year courses.," *Review of Higher Education*, vol. 33, pp. 391-414, 2010.
- H. Smith, R. Parr, R. Woods, B. Bauer, and T. Abraham, "Five years after graduation: Undergraduate cross-group friendships and multicultural curriculum predict current attitudes and activities," *Journal of College Student Development*, vol. 51, pp. 385-402, 2010.