



Institutional data for equality, diversity, and inclusion

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STEMM Equality Congress

October 11, 2018

The magnitude of the difference between 2016/2017 and 2012/2013, where Orange is deterioration over time and Blue is improvement over time.



Change over Time

Select First Breakout

Gender

Select Second Breakout

None

	Satisfied	Supportive	Fair	Taken seriously	No bias	Relaxed	Average
Faculty (MC) Male		*	*				
Support (MC) Male							
Graduate Student Male		*	*				
Graduate Student Female					*		*
Research (MC) Male							
Admin (MC) Female					*		
Undergraduate Student Male		*	*				
Admin/Support/Service (LL) Male						*	
Support (MC) Female							
Admin (MC) Male							
Research (LL) Female					*		
Other Instructional (MC) Female					*		
Research (LL) Male		*					
Research (MC) Female							
Postdoc (MC) Female							
Admin/Support/Service (LL) Female							
Postdoc (MC) Male							*

Asterisk (*) indicates strong statistical significance, $|t| > 3.0$.

Data \equiv *facts and statistics* collected together

1. Why collect data on equality, diversity, and inclusion?

- Data are necessary for institutional self-assessment and improvement, and for informing social activism

2. Data \neq Numbers only

- 3 kinds in this talk: quantitative, qualitative, descriptive

Kinds of institutional data for EDI

Quantitative

- Demography
- Recruitment, retention, advancement
- Resources
- Surveys (climate, engagement, etc) – Likert scale responses

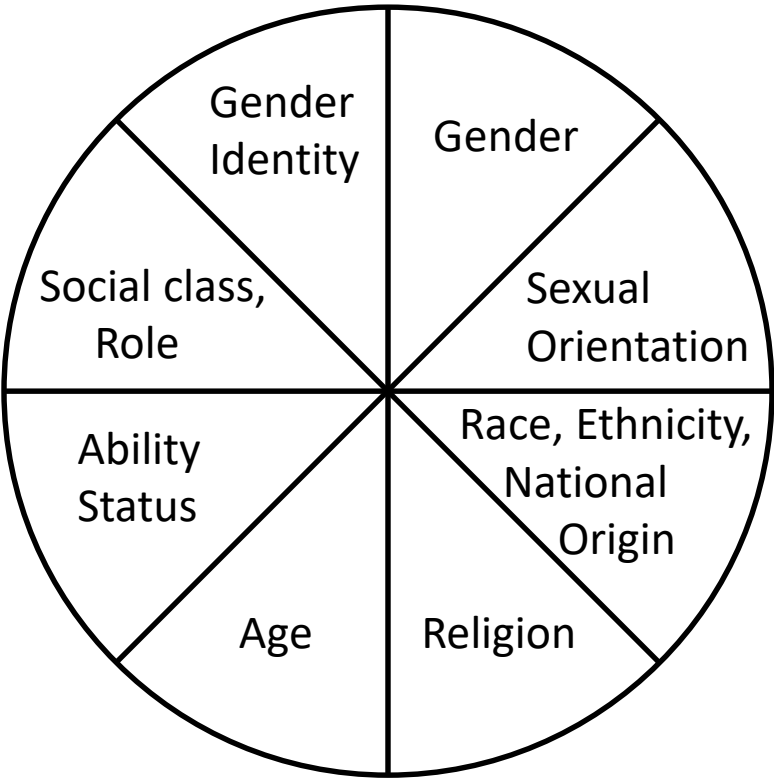
Qualitative

- Interviews and focus groups (experiences, perceptions, attitudes)
- Bias incident reports

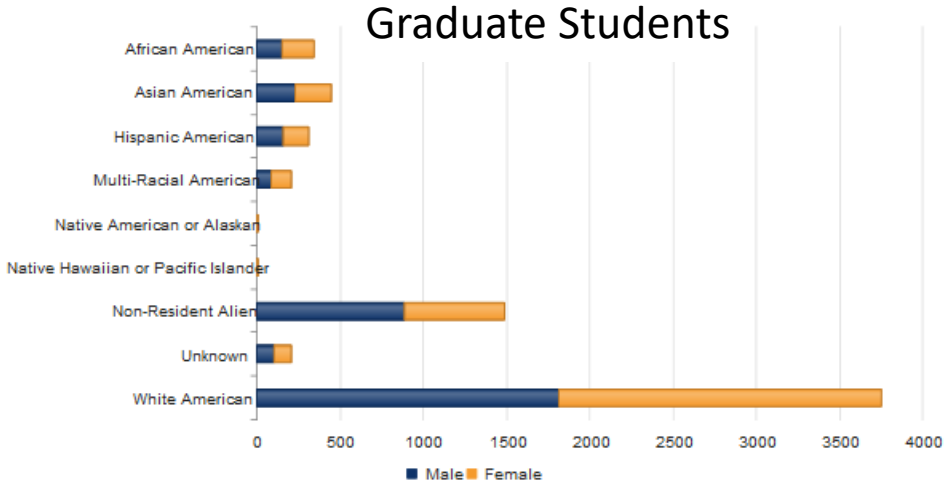
Descriptive

- Institutional policies, practices, and communications
- Self-assessment rubrics and scorecards

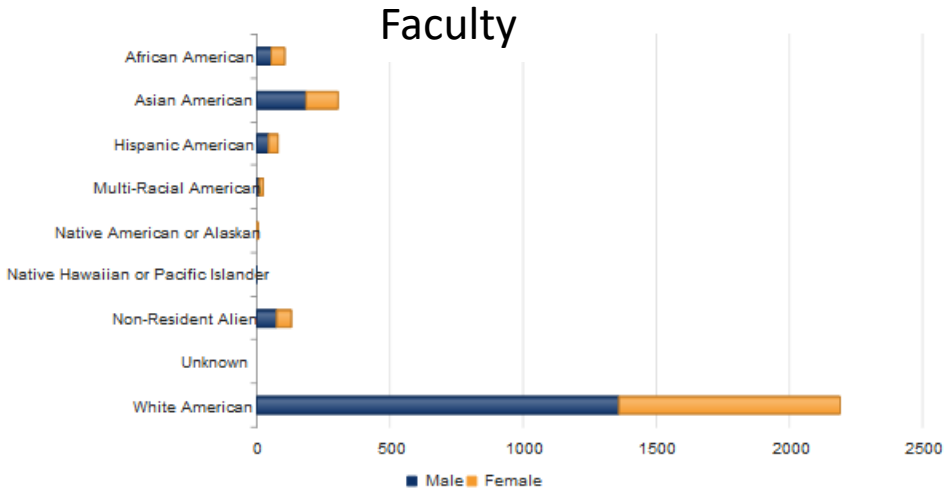
Demographic categories and data



Very few colleges/universities record more than binary gender, race/ethnicity, age, and role.



Graduate Student Details



Faculty Details

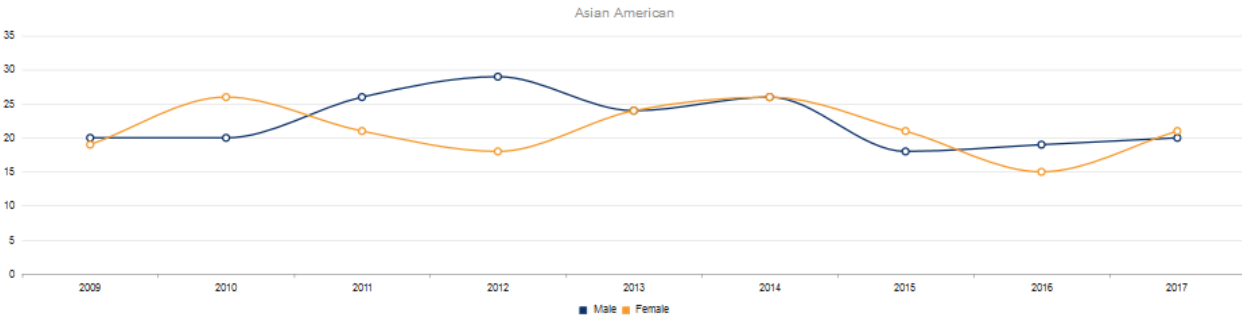
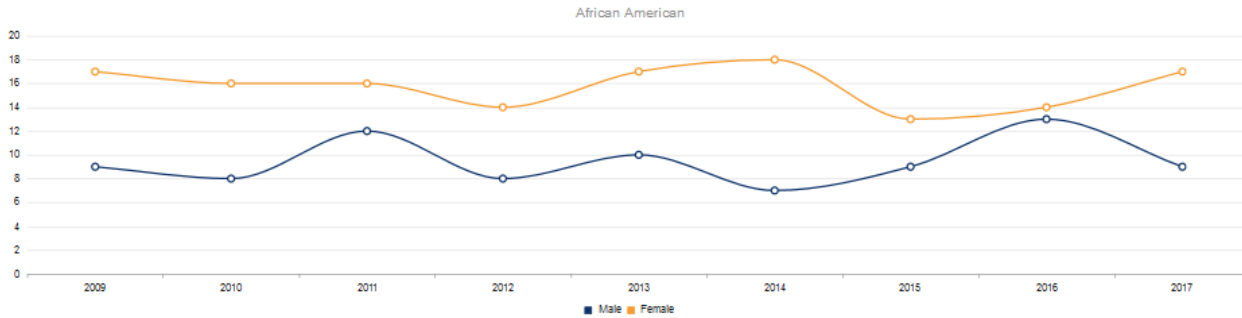
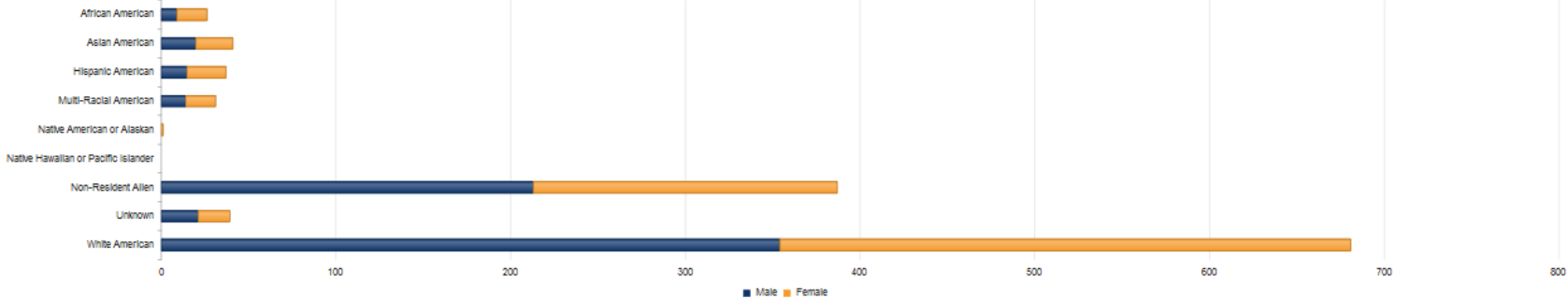
An excellent model:
University of Virginia
Diversity Dashboard
2017

Good dashboards allow group selection and show change with time

Graduate Students - Arts and Sciences - 2017

Year: 2017

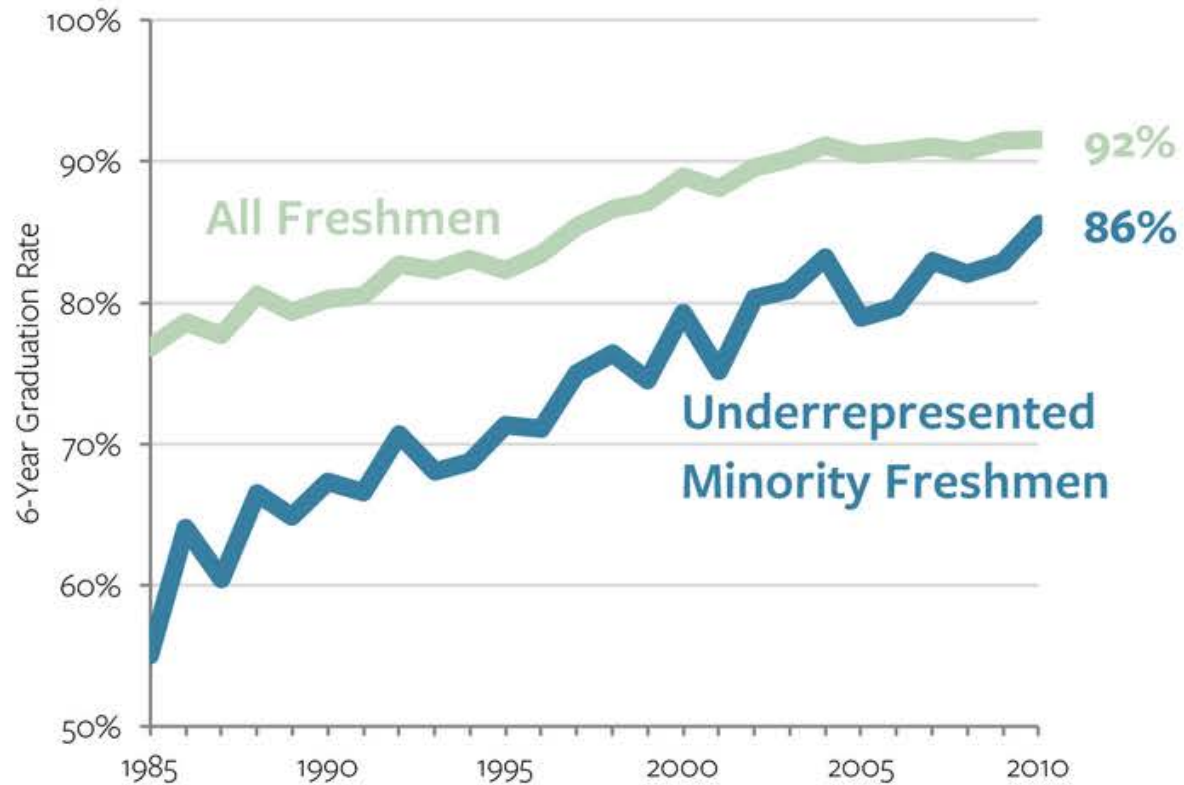
School: All



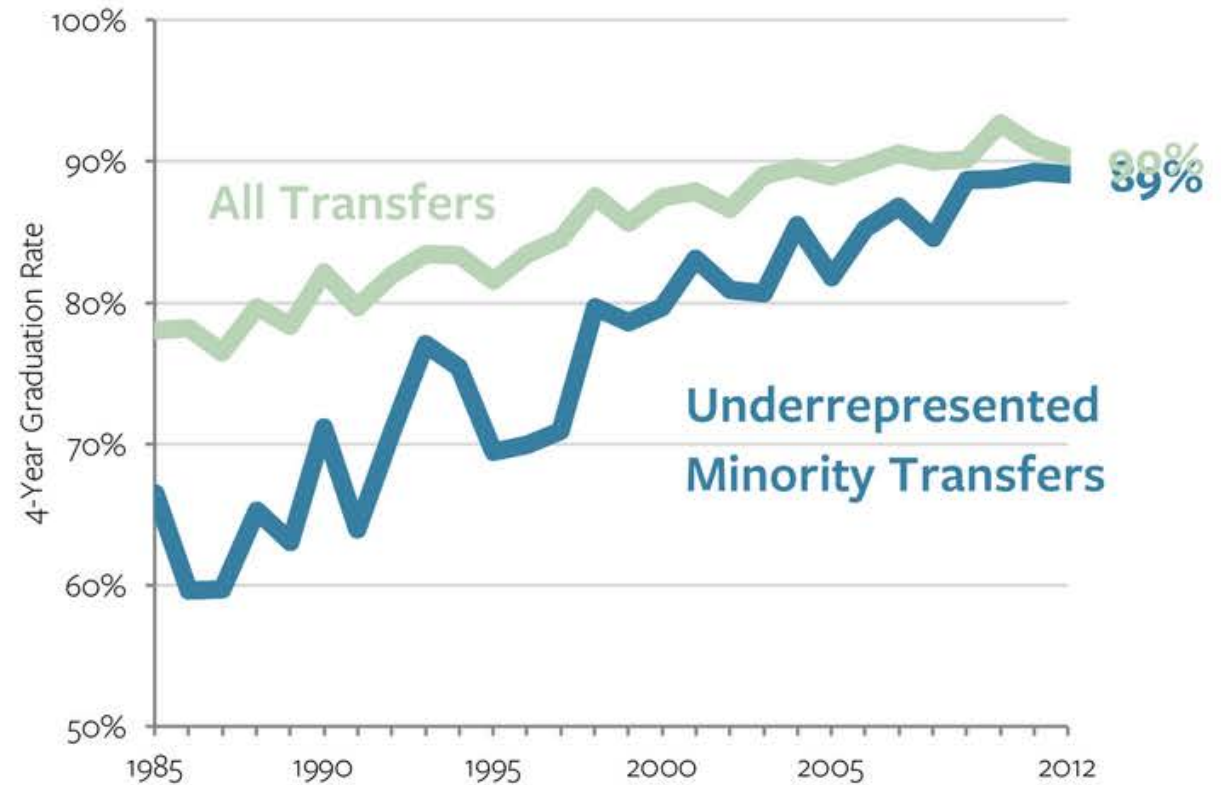
Graduation rates and race/ethnicity differences

Data from UC Berkeley diversity dashboard

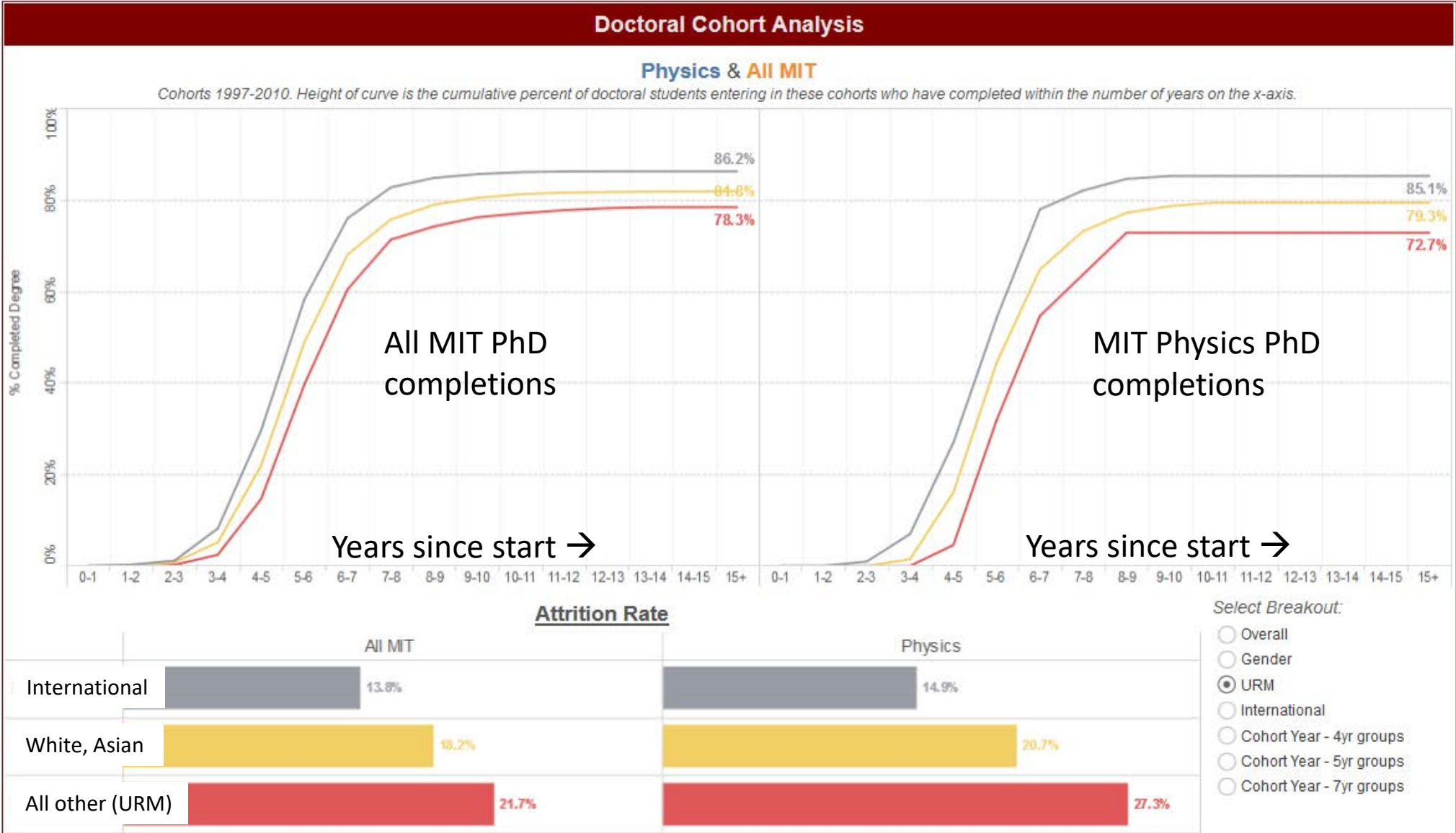
Freshmen 6-Year Graduation Rates,
1985 to 2010 Fall Entry Cohorts



Transfer 4-Year Graduation Rates,
1985 to 2012 Fall Entry Cohorts



PhD student and postdoctoral scholars: Coalition for Next-Generation Life Science



**MIT
Graduate
Education
Statistics,
Department
level**

**CNGLS is a
coalition of 9
US research
universities
and a research
institution**

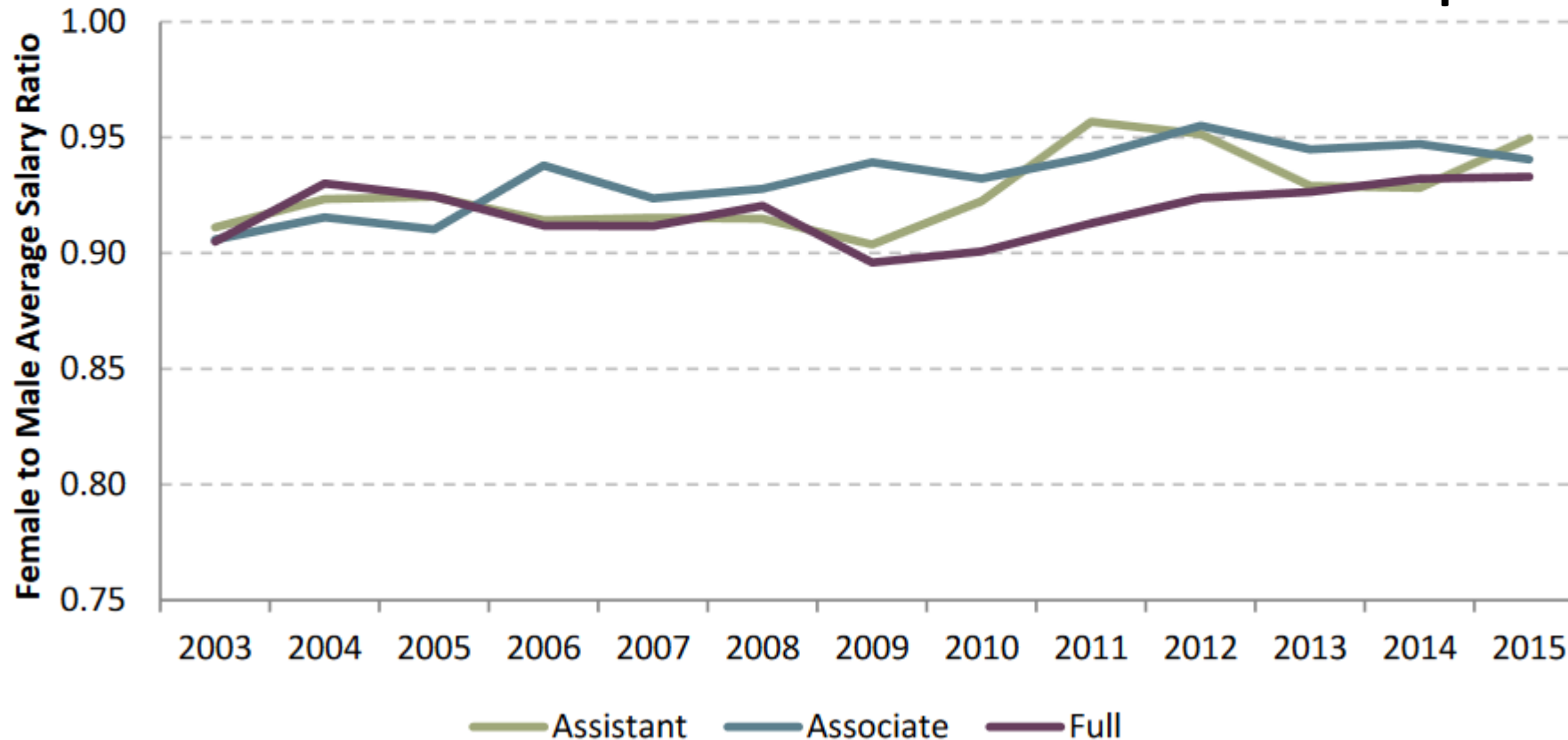
Faculty Salaries and Gender



Figure 7: Female to Male Salary Ratio, 2003-2015.

An excellent model:

UMass Amherst 2017 Report



“[M]ost of the total difference in average salaries between men and women would go away if women had similar characteristics than men in terms of rank, college, administrative positions, number of years at UMass, and number of grants awarded.”

THE GENDER WAGE GAP AT UMASS AMHERST: A CROSS SECTIONAL AND LONGITUDINAL ANALYSIS OF TENURE TRACK FACULTY, 2017

Quantifying climate survey data: MIT Climate dashboard

Dark blue = “good”, Brown/dark orange = “bad”, * = highly statistically significant ($p < 0.001$)

	Satisfied	Supportive	Fair	Taken seriously	No bias	Relaxed	No bigotry	Well-being	Average
Admin (MC)			*	*	*	*	*		*
Support (MC)			*	*	*	*	*		
Service (MC)	*					*			
Faculty (MC)	*	*		*		*			
Other Instructional (MC)						*			
Postdoc (MC)	*			*			*		
Research (MC)		*		*		*	*		
Admin/Support/Service (LL)			*	*		*	*		
Research (LL)		*		*		*			*
Undergraduate Student	*	*	*	*	*	*	*	*	
Graduate Student			*	*		*	*	*	

Asterisk (*) indicates statistically significant difference (compared to overall population) at 0.001 level.

MIT climate dashboard methodology

- 2013-14 interviews/focus groups identified themes
 - unconscious bias
 - micro-inequities (micro-aggressions)
 - discrimination or harassment based on social identity
 - abrasive conduct (bullying)
 - sexual harassment
 - excessive stress
- Sexual harassment excluded because of separate student-only projects (Title IX)
- Questions/items from 2012-13 climate surveys used which addressed remaining themes with largest variance across demography and department
- New survey items added 2016-17
- Sexual orientation obtained from survey itself (about 2/3 of respondents)
- Overall survey response rates about 50% based on 13,000 and 11,500 responses in 2012-13 and 2016-17, respectively

Climate Dashboard

Select First Breakout
Gender

See Notes tab for more information on sources and methodology



Select Second Breakout
Race/Ethnicity

Mean value where Orange is "Bad" and Blue is "Good"

Intersectionality: gender and race/ethnicity

Undergraduate students

Graduate students

Female

			Satisfied	Supportive	Fair	Taken seriously	No bias	Relaxed	No bigotry	Well-being	Average	
Undergraduate Student	Female	White/Unk..	Blue	* Blue	Light Blue	* Blue	* Blue	* Blue	* Blue	White	* Blue	
		Asian	Blue	Light Blue	* Blue	* Orange	* Blue	* Orange	Blue	* Light Blue	Blue	
		Internation..	Blue	Orange	* Blue	* Orange	Orange	* Orange	Light Blue	Light Blue	Light Blue	
		URM	Blue	* Light Blue	* Blue	* Orange	Light Blue	* Orange	Blue	* Orange	* Light Blue	
	Male	Asian	Blue	Light Blue	* Blue	Orange	* Blue	Light Blue	Blue	* Blue	Light Blue	* Blue
		Internation..	Blue	Light Blue	Blue	Orange	Light Blue	Light Blue	Blue	* Blue	Blue	Blue
		URM	Blue	* Light Blue	* Blue	* Orange	Light Blue	* Light Blue	* Blue	Light Blue	Light Blue	Blue
		White/Unk..	Blue	Light Blue	* Blue	Orange	* Blue	Light Blue	* Blue	Blue	Blue	* Blue
Graduate Student	Female	Asian	Blue	Light Blue	* Blue	* Orange	Light Blue	* Light Blue	Blue	Light Blue	Light Blue	Blue
		Internation..	Blue	Light Blue	Blue	* Orange	* Light Blue	* Orange	Blue	Light Blue	Light Blue	Blue
		URM	Blue	Light Blue	* Blue	* Orange	Orange	* Orange	Light Blue	Light Blue	Light Blue	* Blue
		White/Unk..	Blue	* Light Blue	* Blue	* Orange	Light Blue	* Orange	* Blue	* Light Blue	* Light Blue	* Blue
	Male	Asian	Blue	Light Blue	* Blue	Orange	Light Blue	Light Blue	Blue	* Blue	Light Blue	Blue
		Internation..	Blue	Light Blue	* Blue	Orange	Light Blue	Light Blue	Blue	* Blue	* Light Blue	* Blue
		URM	Blue	Light Blue	* Blue	Orange	Light Blue	Light Blue	Blue	Blue	Blue	Blue
		White/Unk..	Blue	Light Blue	* Blue	Light Blue	* Blue	Light Blue	* Blue	* Light Blue	* Light Blue	* Blue

Asterisk (*) indicates statistically significant difference (compared to overall population) at 0.001 level.

Climate Dashboard

Select First Breakout
 Gender

Select Second Breakout
 Sexual Orientation

See Notes tab for more information on sources and methodology



Mean value where Orange is "Bad" and Blue is "Good"

Intersectionality: gender and LGBTQ+ status

Undergraduate students

Graduate students

			Satisfied	Supportive	Fair	Taken seriously	No bias	Relaxed	No bigotry	Well-being	Average
		Heterosexu..		*		*	*	*	*		*
		Lesbian/Ga..						*			
Undergraduate Student	Female	[Not answe..		*		*					
		Heterosexu..	*		*	*	*	*	*	*	*
		Lesbian/Ga..		*		*		*	*	*	*
		Unsure/Oth..				*		*	*	*	
Undergraduate Student	Male	[Not answe..			*						
		Heterosexu..	*		*	*	*	*	*	*	*
		Lesbian/Ga..			*						
		Unsure/Oth..									
Graduate Student	Female	[Not answe..				*	*	*			
		Heterosexu..			*	*	*	*	*	*	*
		Lesbian/Ga..		*		*	*	*	*	*	*
		Unsure/Oth..				*	*	*	*	*	*
Graduate Student	Male	[Not answe..			*	*					*
		Heterosexu..			*		*	*	*	*	*
		Lesbian/Ga..									

Female

Asterisk (*) indicates statistically significant difference (compared to overall population) at 0.001 level.

Major findings from the MIT climate dashboard

1. Gender is the largest source of variation in experience among all variables tested (race/ethnicity, sexual orientation, role, department or work unit)
2. Students feel more fairly treated than others do; hourly support staff feel least well treated.
3. Compared with men, women consistently report having to work harder to be taken seriously.
4. Gender, role, sexual orientation, and race/ethnicity are the largest factors differentiating experience, in that order. **Gender > Class > Orientation > Race**
5. Intersectionality of marginalized identities leads to large effects: LGBTQ+ graduate women have the worst experience; men have the best.
6. Differences between demographic groups grew between 2012-13 and 2016-17.

For more information: iceoblog.mit.edu

Qualitative data: Interviews and focus groups

Environment

“My initial impression [of MIT was] very positive. Over the next years, I became more aware of the struggles of being a female at MIT. What are some of the factors [that influence this] and why don’t I see more people like me [in my classes]? My younger sister is 16 and she’s starting to look at colleges. I’m trying to put myself in her shoes. What does she see in a science career? What is appealing for her there?”

-Class of 2014, Mechanical Engineering

A positive and equitable school climate is crucial for a satisfied and productive student body. Females are significantly less likely to agree that, “The climate and opportunities for female students at MIT are at least as good as those for male students” (SQL, 2013) (Fig. 2.1). The data suggest that more than half of undergraduate students have at least some reservations about whether MIT has equal opportunities for men and women. This chapter explores aspects of MIT’s environment that may contribute to the disparity in climate and opportunities by gender.


From the
*Report on the
Status of
Undergraduate
Women at MIT,
2016*

Qualitative: interviews and bias incident reports



Undergraduate Rasheed Auguste, MIT MLK Celebration, 2017

Descriptive: Institutional policies, procedures, communications — 2 excellent models

 **Universities Canada.** October 2017

Universities Canada Inclusive Excellence Principles

Canadians value an inclusive country, where equity is deeply embedded and diversity welcomed. Our identity is expressed in the shared values of openness, fairness and tolerance.

Members of Universities Canada reflect those values in their approaches to teaching, research and community engagement. Universities recognize the vital importance of a diversity of identity and thought, with room for a variety of ideas, geographies, cultures and views. While progress has been made over the past few decades, we recognize that there is more we can – and must – do to truly achieve inclusive excellence.

To complement Universities Canada's Principles on Indigenous Higher Education and building on international movements such as the United Nation's *HeforShe* campaign, members of Universities Canada commit to attracting and retaining students, faculty, staff and leaders from all backgrounds. To serve their missions, our university leaders commit to being active champions of equity, diversity and inclusion on our campuses, in our communities and across the country.

To this end, the members of Universities Canada make an explicit public commitment to seven principles.

1. We believe our universities are enriched by diversity and inclusion. As leaders of universities that aspire to be diverse, fair and open, we will make our personal commitment to diversity and inclusion evident.
2. We commit our institutions to developing and/or maintaining an equity, diversity and inclusion action plan in consultation with students, faculty, staff and administrators, and particularly with individuals from under-represented groups¹. We commit to demonstrating progress over time.
3. We commit to taking action to provide equity of access and opportunity. To do so, we will identify and address barriers to, and provide supports for, the recruitment and retention of senior university leaders, university Board and Senate members, faculty, staff and students, particularly from under-represented groups.
4. We will work with our faculty and staff, search firms, and our governing boards to ensure that candidates from all backgrounds are provided support in their career progress and success in senior leadership positions at our institutions.
5. We will seek ways to integrate inclusive excellence throughout our university's teaching, research, community engagement and governance. In doing so, we will engage with students, faculty, staff, our boards of governors, senates and alumni to raise awareness and encourage all efforts.

Carnegie Mellon University

Vice Provost for Faculty

[Meet the Vice Provost](#) | [Faculty Development](#) | **[Faculty Recruitment](#)** | [F](#)

[Vice Provost for Faculty](#) > [Faculty Recruitment](#) > Checklist

Faculty Recruitment Checklist

Checklist for Search Committee Chairs for Effective, Inclusive Faculty Searches

Work with Department Head to define the position broadly.

Form a committee that includes people who value diversity.

Committee members can gain an understanding of implicit bias by either reviewing at least two of the resources about implicit bias and or by attending implicit bias training session. A discussion of implicit bias should be part of the first search committee meeting.

Descriptive: Self-assessment rubrics and scorecards

Progress on Action Steps

Community		
ACTION	RESPONSIBLE UNIT	PROGRESS
Establish a Diversity and Inclusion Collective	Office of Institutional Diversity and Inclusion	Diversity working groups, which meet regularly, have provided feedback on professional development and community-building activities. This feedback has been used and incorporated into professional development programming (e.g., Diversity and Inclusion Professional Development Lunch Series, Unpacking Diversity and Inclusion Professional Development Day, Diversity and Inclusion Summit). <i>Updated: Feb 27, 2017</i>
Strengthen departmental-level mentoring programs	Office of the Provost	OIDI has been working with departments to support pilot programs for department based mentoring. <i>Updated: Feb 27, 2017</i> OIDI working with departments to pilot department based mentoring programs. <i>Updated: Nov 30, 2016</i>
Establish a Diversity and Inclusion Collective	Office of Institutional Diversity and Inclusion	OIDI will coordinate the development and implementation of professional development programs starting in spring 2016. The D&I Collective will be an in-house group of consultants, made up of administrators, staff, faculty, and student employees who will serve both as trainers and consultants. <i>Updated: Jan 31, 2016</i>

Excellent model from

Brown University

Office of Institutional Equity & Diversity

Summary Scorecard										
Year	2010	2011	2015		2015	2015	2015	2016	2016	2016
Report	Hammond Report	Women Faculty	ICEO Report		BSU	BGSA	BAMIT Platform	LBGTQ+	Undergraduate Women	Staff
# Recommendations	38	13	36		11	7	14	19	14	25
% Completed	30%	35%	29%	(major)	57%	29%	52%	22%	43%	43%
			61%	(minor)						
			46%	average						
Total	177	Total recommendations	39%	Average completion rate						

MIT Recommendations Scorecard

The reports that were reviewed are listed here with their scorecards.

- Report on the Initiative for Faculty Race and Diversity (2010 Hammond Report) – **Scorecard**
- Report on the Status of Women Faculty in the Schools of Science and Engineering at MIT, 2011 – **Scorecard**
- ICEO: Advancing a Respectful and Caring Community: Learning by Doing at MIT, 2015 – **Scorecard**
- BSU Recommendations, 2015 – **Scorecard**
- BGSA Recommendations, 2015 – **Scorecard**
- BAMIT Platform for Diversity and the Black Experience at MIT, 2015 – **Scorecard**
- Recommendations of LGTBQ + Students and Communities at MIT, 2016 – **Scorecard**
- Report on the Status of Undergraduate Women at MIT, 2016 – **Scorecard**
- Recommendations from DUE (OME, UAAP/SDS)/DSL (OMP, LBGTQ)/ODGE Staff, 2016 – **Scorecard**

Summary and conclusions

Data for EDI are not just numbers!

Stories and Self-Assessment metrics are powerful tools

Identifying causes requires disaggregation and attention to multiple social identities

In the MIT climate data, Gender > Class > Sexual Orientation > Race/ethnicity

Many excellent models exist — copy and improve them!