

SEA CHANGE BIOMEDICINE

Making Diversity, Equity, and Inclusion in STEMM the Norm

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TRANSFORMING A SYSTEM THAT IS WORKING THE WAY IT WAS DESIGNED TO WORK?

YOUR VISION

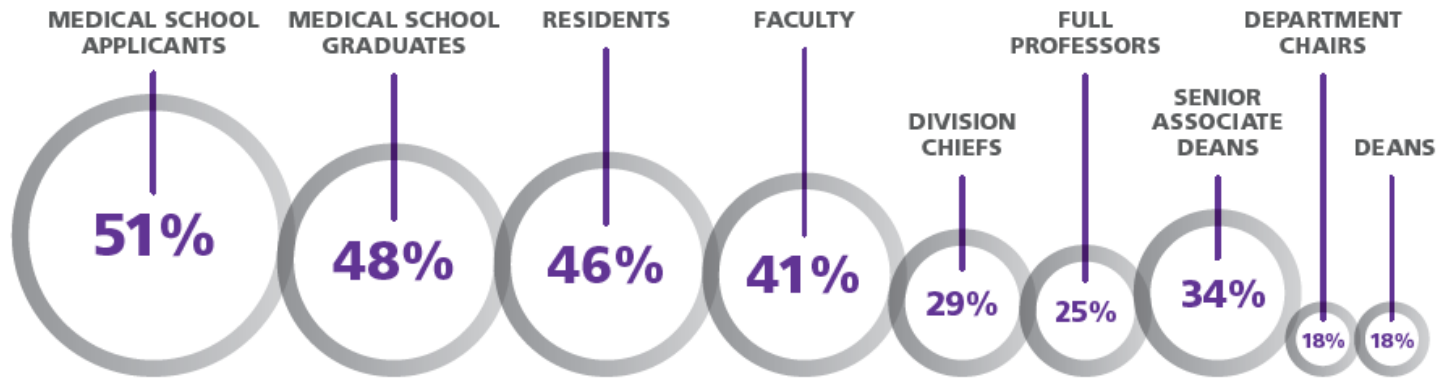
What is the vision for your institution?

Through a DEI lens, how do you see your institution today?

Where do you see your institution 5, 10, 15 years from now?

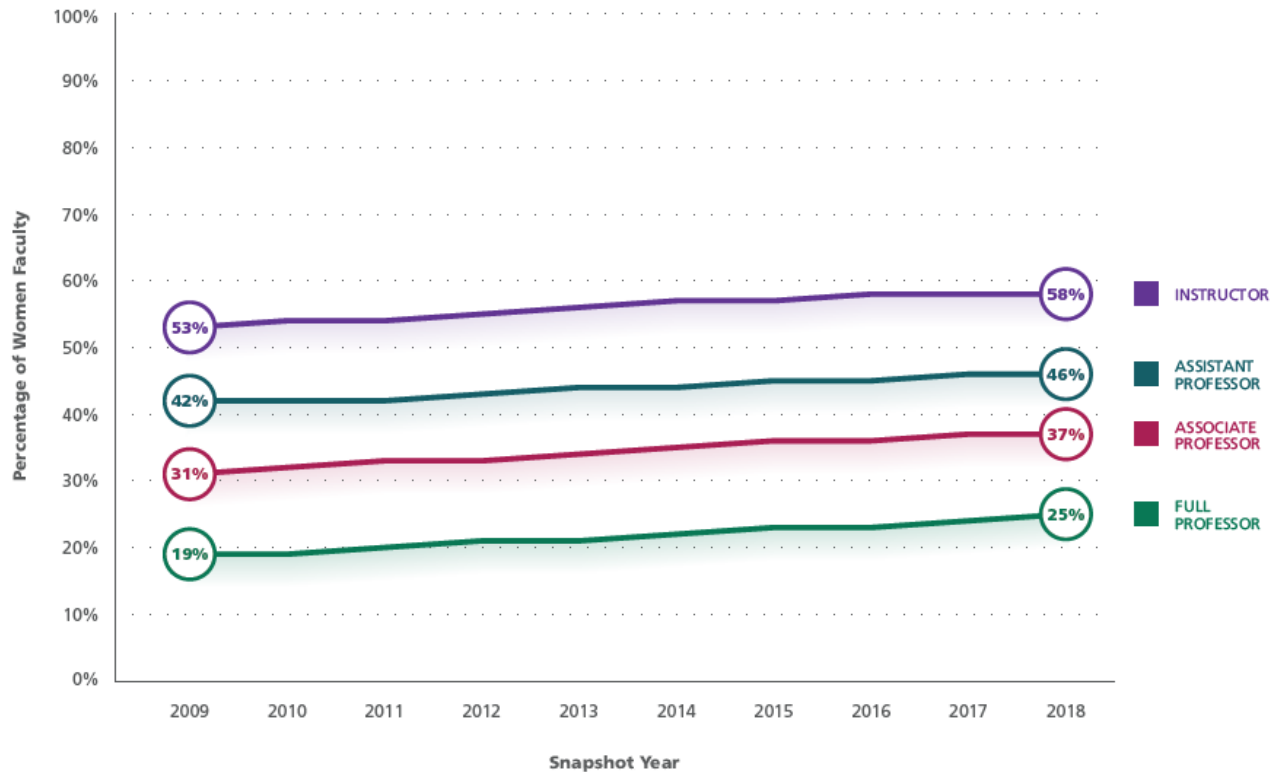
WHY DO WE NEED TO SEE SYSTEMS CHANGE?

REPRESENTATION OF WOMEN IN ACADEMIC MEDICINE 2018-2019



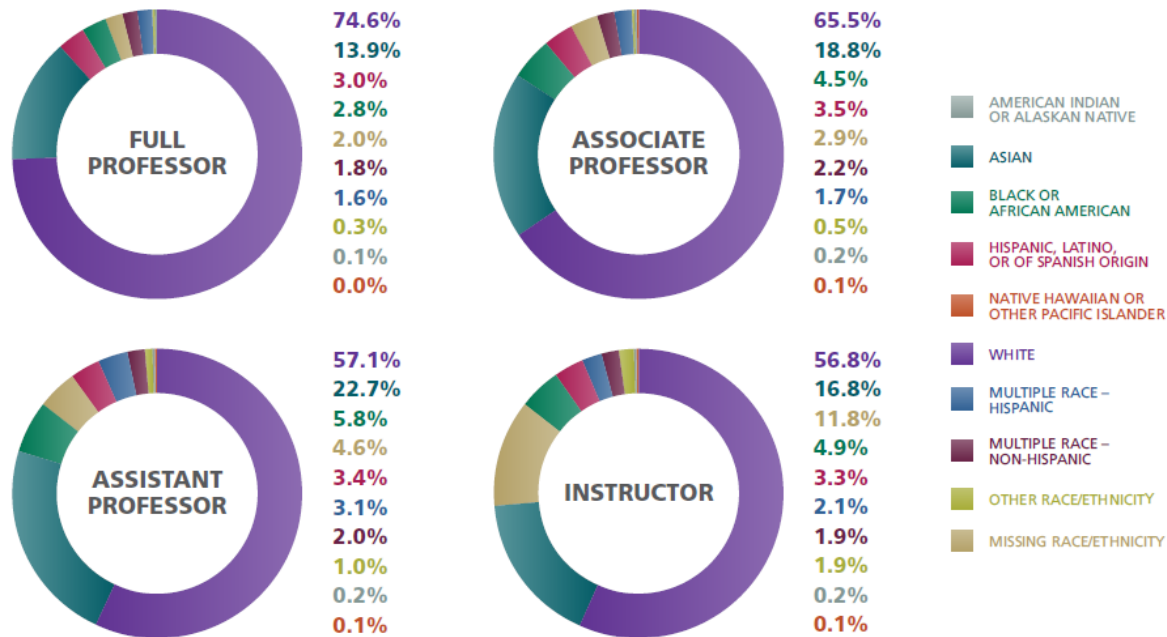
Source: AAMC. 2020. The State of Women in Academic Medicine, 2018-2019.

Full-time women faculty as a percentage of each rank, 2009-2018



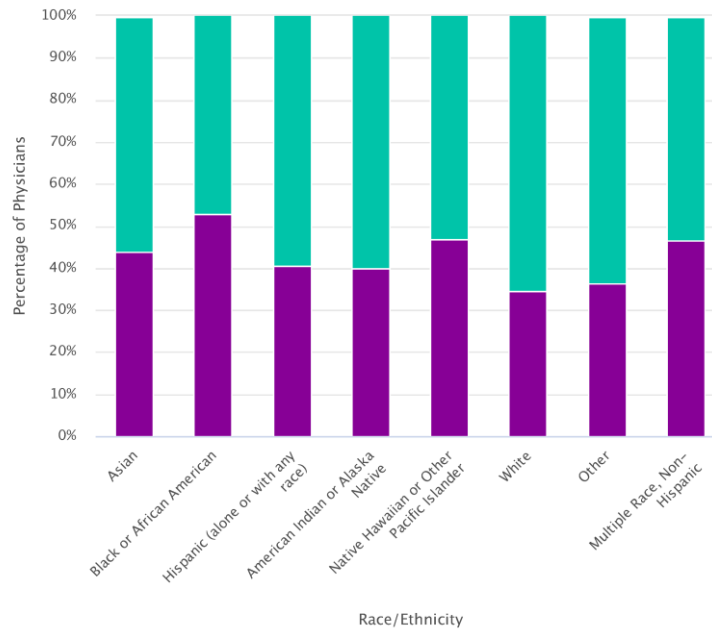
Source: AAMC. 2020. State of Academic Women in Academic Medicine.

Full-Time Women Faculty by Rank and Race/Ethnicity, 2018



Source: AAMC. 2020. The State of Women in Academic Medicine, 2018-2019.

Physicians by sex and race/ethnicity, 2018

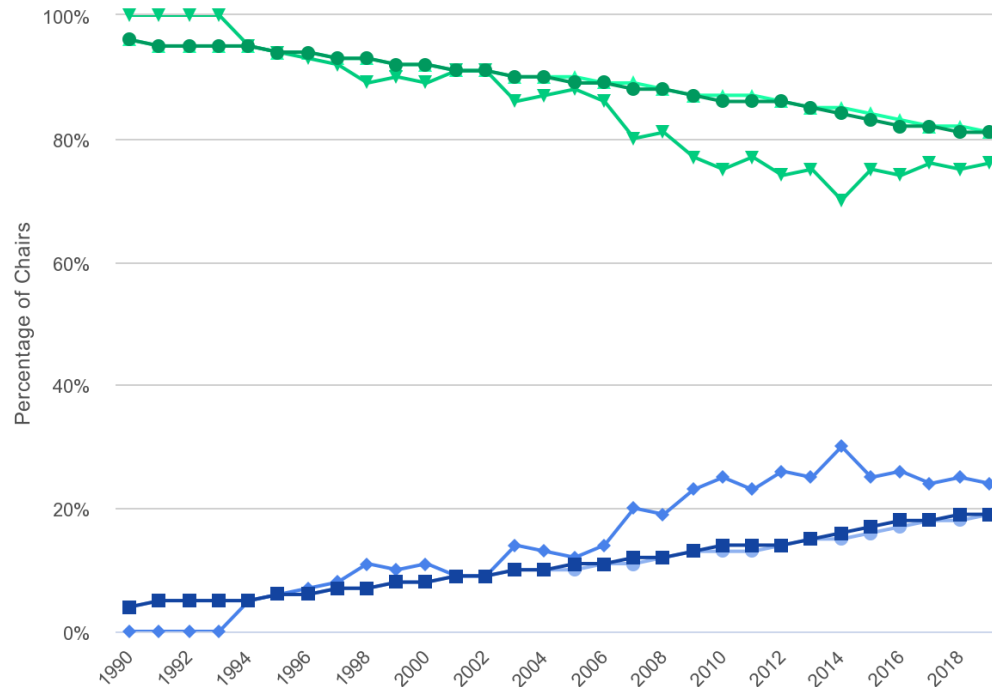


Click on legend item below to add or remove a bar from the report.

● Female ● Male

Source: Physician characteristics (sex) are from the AMA Physician Masterfile, Dec. 31 2018. Race and ethnicity data are from a variety of sources including DBS, ERAS, APP MCAT, SMDEP, GQ, MSQ, PMQ, FACULTY, GME, STUDENT with priority given to the most recent self-reported source

U.S. Medical School Department Chairs by Chair Type and Sex



Click a legend item below to add or remove a line from the report

- ◆ Women Permanent Chairs
- All Women Chairs Combined
- ◆ Men Permanent Chairs
- ▼ Men Interim/Acting Chairs
- ◆ Women Interim/Acting Chairs
- All Men Chairs Combined



Barriers and Opportunities for 2-Year and 4-Year STEM Degrees

SYSTEMIC CHANGE TO SUPPORT STUDENTS' DIVERSE PATHWAYS



The National Academies of SCIENCES • ENGINEERING • MEDICINE

The National Academies of SCIENCES • ENGINEERING • MEDICINE

CONSENSUS STUDY REPORT

F W L P M I A H K R S F A C U L T Y N D E
 X R E U Q I T Z P X O 7 S D M A K Q I Y A
 G M I **GRADUATE** X E T Z L R N L 3 S
 K T N Y M A **STEM** K U P W I W G K B R M
 E C Q F O **EDUCATION** R S E J T N Z
 T W H A D S **FOR THE** H P X L I R
 B A 4 P X I A E X T M O J Y F X I U N X S
 J S C A R E E R A B T F R P R A H O T 6 E
 8 J A T W M I P M A E 4 S T U D E N T S S
 X C X H D O K 5 X Z J O X 7 S D M A K P H
 S L I W I R 8 E R N J M E R N 7 O J Y M 3
 N S T A O Z X Q 6 H R E S E A R C H M 3 X
 E R 8 Y L F N U 5 W S N P I O J M N E J S
 Y O B S U Z X I A M S T U E X F A L A I N
 C G 2 J A S B T O L U O Y M S A O T G A X
 9 X B M I 4 D Y X E B R H R B W F M E M R
 I H X S L E O L 2 M X P E L I 9 Z A X T S
 E O Y M C U L T U R E 8 C H A N G E T N A

The National Academies of SCIENCES • ENGINEERING • MEDICINE

CONSENSUS STUDY REPORT

Sexual Harassment of Women

Climate, Culture, and Consequences in Academic Sciences, Engineering, and Medicine

The National Academies of SCIENCES • ENGINEERING • MEDICINE

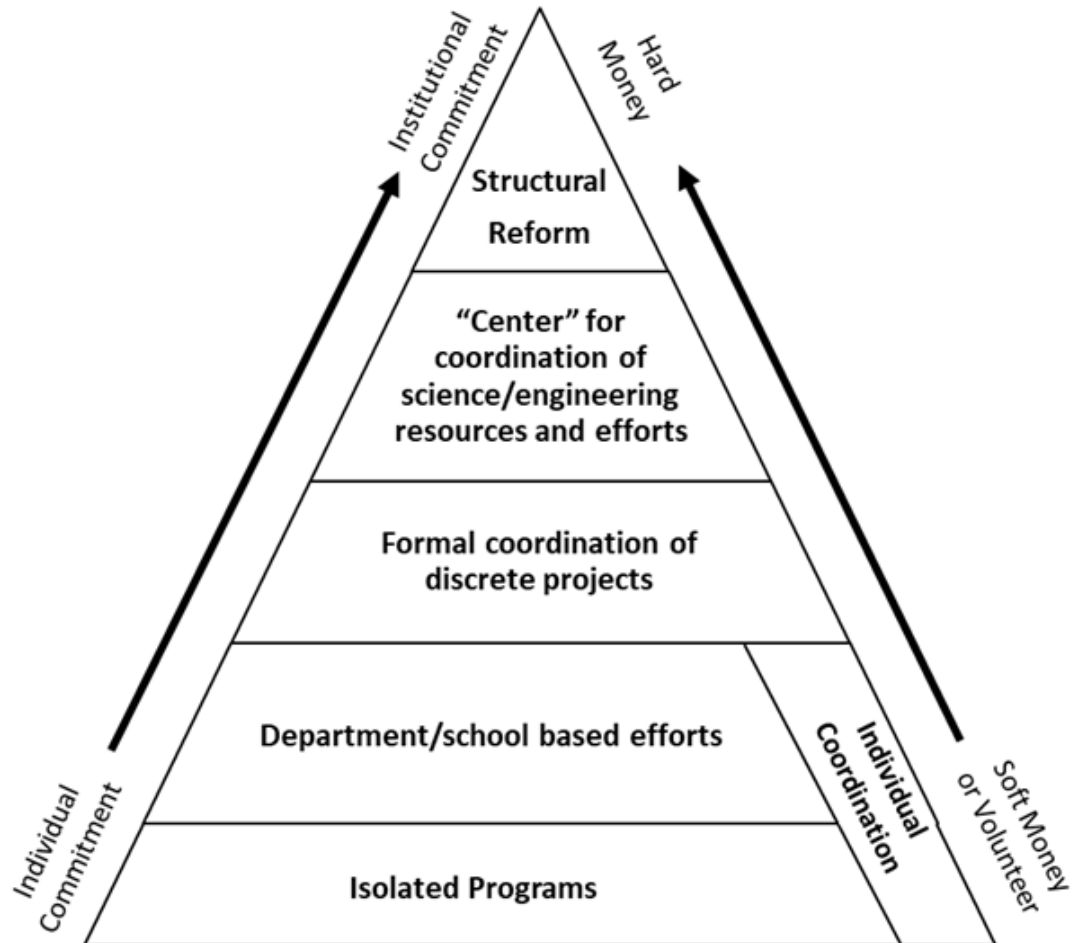
CONSENSUS STUDY REPORT

Promising Practices for Addressing the Underrepresentation of Women in Science, Engineering, and Medicine

OPENING DOORS

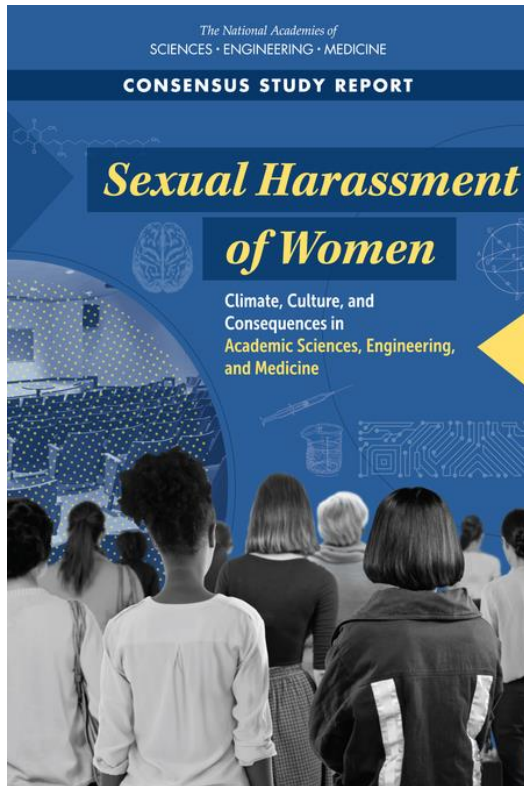
Model for the evolution of intervention programs

Why hasn't the needle moved?



Matyas, M.L., and Malcom, S.M. Women, Minorities, and Persons with Physical Disabilities in Science and Engineering. American Association for the Advancement of Science, 1991.

A call for systemic change



RECOMMENDATION 9: Incentivize change.

- a. Academic institutions should work to apply for awards from the emerging STEM Equity Achievement (SEA Change) program.³ Federal agencies and private foundations should encourage and support academic institutions working to achieve SEA Change awards.
- b. Accreditation bodies should consider efforts to create diverse, inclusive, and respectful environments when evaluating institutions or departments.
- c. Federal agencies should incentivize efforts to reduce sexual harassment in academia by requiring evaluations of the research environment, funding research and evaluation of training for students and faculty (including bystander intervention), supporting the development and evaluation of leadership training for faculty, and funding research on effective policies and procedures.

Equality Charters Process: Adapted Globally



Est. 2005



Est. 2015



Est. 2015



Est. 2017



Est. 2019



STEMM Equity Achievement Change

SEA Change provides the scaffolding to guide and support context-specific, voluntary change within institutions that will result in systemic transformation, particularly in STEMM, in alignment with their own mission and that of AAAS

STEMM Equity Achievement Change

- Increased access to and inclusion in STEMM education for traditionally underrepresented groups
- A shift in culture that results in a more diverse student population and workforce with higher retention rates
- Operates within the context of the United States
- Intersectional identities *must* be considered

STEMM Equity Achievement Change

- For institutions:
 - An opportunity to stand up as a member of a global higher education community committed to shifting the culture of academia to one that is truly inclusive, equitable, and diverse
 - An opportunity to increase excellence in research and education
 - A public commitment to a set of Principles





Faculty

Grad Students • Undergrads

Policy, practices, procedures,
climate across an institution



Policy, practices, procedures,
climate within a department

Faculty

Grad Students • Undergrads



	Bronze	Silver	Gold
A thorough self-assessment using qualitative and quantitative analyses	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Identifies key issues	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Actions in place to address key issues and carry the institution forward	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Demonstrates impact of previous activity and expands action plan to continue progress		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Serves as a beacon in the sector and beyond			<input checked="" type="checkbox"/>



SEA CHANGE BIOMEDICINE



National Institutes of Health
Office of Research on Women's Health

Self-assessment

Use detailed framework as guide
Gather info: what's missing?
Answer as many questions as possible
Should be complete but not all info needed in application

Narrative

Tell institution's story, provide context
Make clear the understanding gained from self-assessment
Discuss what's included in action plan, what isn't, and why

Action Plan

What are plans moving forward?
Why and how were issues prioritized?
Are actions SMART?
Do the actions reflect findings from the self-assessment?

Internal use only
Creates complete picture **critical** for success

Submitted for peer-review

Specific, **M** measurable, **A**chievable, **R**elevant, **T**ime-limited – **SMART!**



AAMC Framework for Addressing and Eliminating Racism at the AAMC, in Academic Medicine, and Beyond

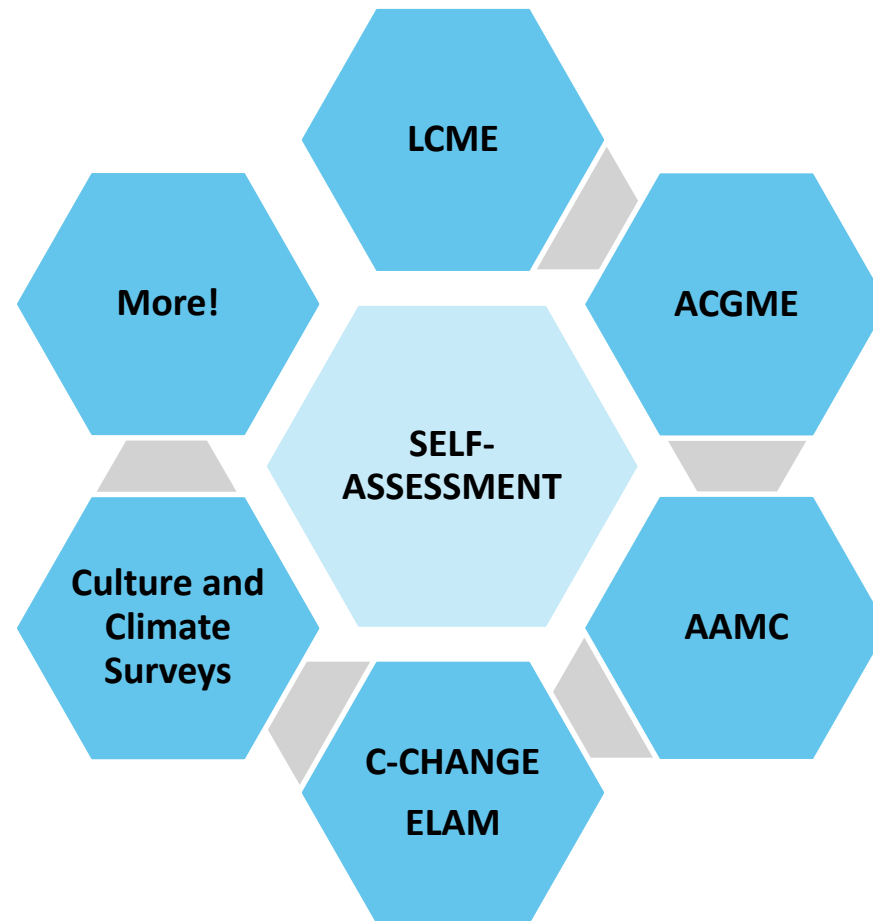
SELF-ASSESSMENT

Self-assessment team



- high-level administrators;
- full professors/tenured faculty;
- early career faculty;
- institutional data experts;
- enrollment management professionals (including those involved in outreach and bridging strategies, admissions, financial aid, mentoring);
- HR representative;
- social scientist(s) or others familiar with qualitative data assessment;
- student affairs professionals;
- staff involved with diversity & inclusion efforts; and
- legal counsel

Leverage what your institution and faculty are already doing





National Institutes
of Health

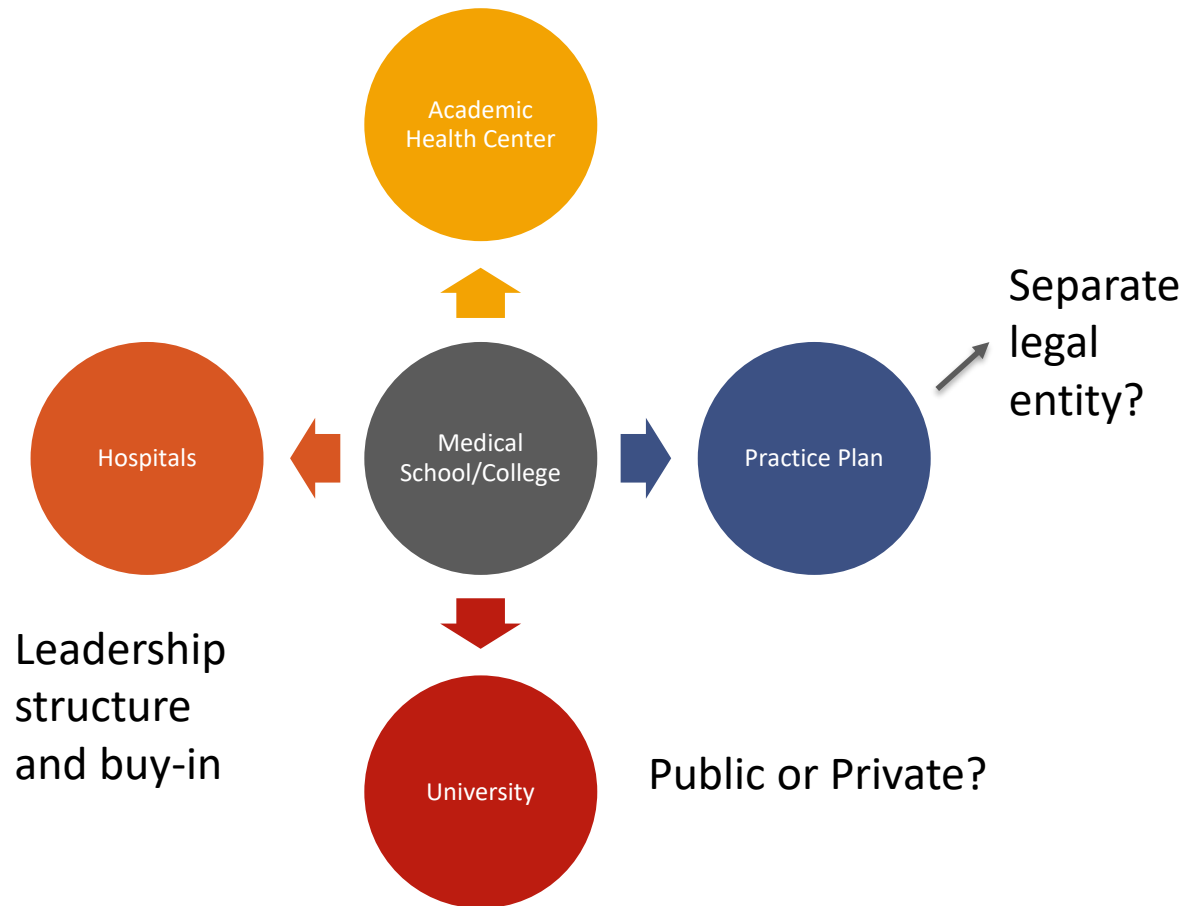
Department of Health and
Human Services - National
Institutes of Health

NIH Prize for Enhancing Faculty Gender Diversity

NIH Prize for Enhancing Faculty Gender Diversity in Biomedical and
Behavioral Science

NIH Faculty Institutional Recruitment for Sustainable Transformation (FIRST) Program

Description of Institution and Relationships



Who are your people?

- Total number of departments, faculty, students, degrees granted
- Composition of faculty, students, postgraduates, and administrators
- Disaggregated data (3-5 years) for each category

Pipelines to Pathways

Faculty Recruitment to Hiring

Pay Equity

Faculty Review

Mentoring

Faculty Pedagogical Support

Faculty Workload

Leave policies

Family Care and Flexible Work

Promotion and Tenure

Pay Equity-Promotion and Tenure

Faculty Retention

Role Models and Diversity

Diversity in Governing Leadership

- Composition
- Appointment Process

Diversity Office/Administrator

- Dedicated office
- Alignment
- Accountability

Institutional Policies for Diversity and Inclusion

- Policy review
- Outcome
- Purpose
- Engagement
- Awareness
- Evaluation

Sexual Harassment and Assault

- Policy and Practices
- Excellence
- Transparency
- Training
- Action
- Sexual harassment and assault services
- Racial, ethnic and religious harassment services
- Academic freedom and free expression

Institutional Climate and Culture

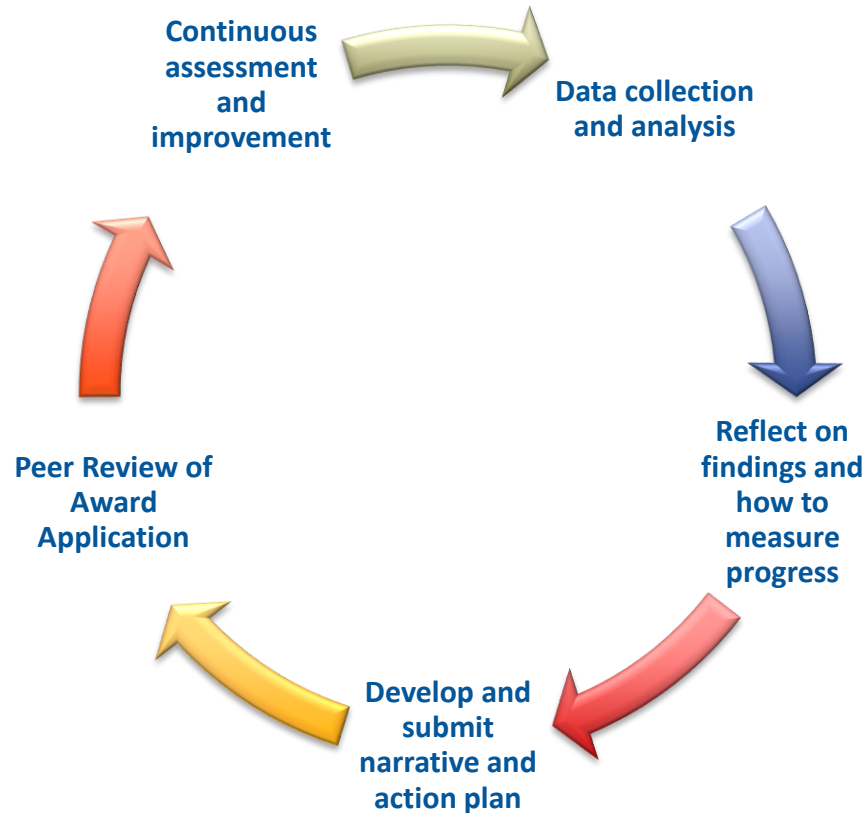
Culture and Climate: Best Practices

- Implement a schedule for assessments
- Use multiple measures
- Disaggregate and analyze data
- **Action:** How are findings from climate studies shared and used? When issues are identified, how are they addressed, and are follow-up assessments done? Does the institution share the findings? If so, how? How are the effectiveness of studies reported and follow-up actions determined?

SEA Change – change the culture without doubling administrative burden

- Focus on policies, programs, practices, and culture for focal populations relevant to your institution
- Holistic self-assessment, using what you have already doing and what you have available
- Create an action plan that includes building capacity and “institutionalizing” the work
- Awards provide recognition for continuous improvement

Iterative Process for Continuous Improvement



SEA Change Biomedicine Institutional Bronze Awards pilot



- **The SEA Change Biomedicine Institutional Bronze Awards Pilot will begin accepting letters of intent in spring 2021.**
- **The first applications will be due April 30, 2022.**
- **Our goal is to work with leadership of medical schools and academic health centers interested in joining the pilot to develop the SEA Change Biomedicine framework and metrics.**

Upcoming event

Reckoning with Structural Racism and Sexism, COVID-19, and the Urgent Need for Diverse Leaders in Academic Medicine

Joint meeting with NASEM Roundtable on Black Men and Black Women in Science, Engineering and Medicine

October 15, 2020

1:00-3:30pm EDT

<https://seachange.aaas.org/events/2020/10/15/reckoning-with-structural-racism-and-sexism-covid-19-and-the-urgent-need-for-diverse-leaders-in-academic-medicine>

THANK YOU!

QUESTIONS?

Email: seachange@aaas.org

Learn more: seachange.aaas.org