

# Diversity Journal Club Discussion Notes (10/8/20)

- “Culture of academia is like learning a language” – we need to be aware that not everyone can speak “the language”
- Good article to read: “Tapping the Wisdom Tradition: Essential Elements to mentoring Students of Color” Alvarez et al. 2009. See Kevin’s slides for more.
- **Important Book to read!** *Successful STEM Mentoring Initiatives for Underrepresented Students* by Becky Wai-Ling Packard
- Rafi shared following article: <https://www.sciencemag.org/careers/2020/08/scientists-aren-t-trained-mentor-s-problem>
- Kunal: Academics usually assume one type of personality in academia. It is good to be more specific about backgrounds and cultures rather than talking in generalizations in these diversity discussions.
- Kevin: Would be good to have a mentoring type “contract” or agreement that sets a standard for how the student and mentor want to work
- Rachael: Does Steward track information of students (as per “Multiple Points of Entry” portion of his talk) - something to work on
- Rafi: How do you make a real time adjustment in mentoring practices?
  - Kevin: take time to think about these issues, i.e., go to readings and discuss these issues (confidentially) with other faculty members
- Ewan: What more from the Georgia Tech’s approach for faculty mentoring? How do we help faculty mentor students? (Andrew S. went to Georgia Tech for undergrad so reach to him with questions!)
- Logan – the mentoring task force is working on making all the information on good mentoring accessible! ☺
- Everett - In addition to Kevin's contacts, I have really enjoyed advice on mentoring from Laura Hunter (lahunter@email.arizona.edu) <https://success.gsu.edu/approach/>

# Presentation Slides

# Diversity Journal Club

## AIP Team-up Report

### Factor 3: Academic Support

Everett Schlawin, Kevin Hainline

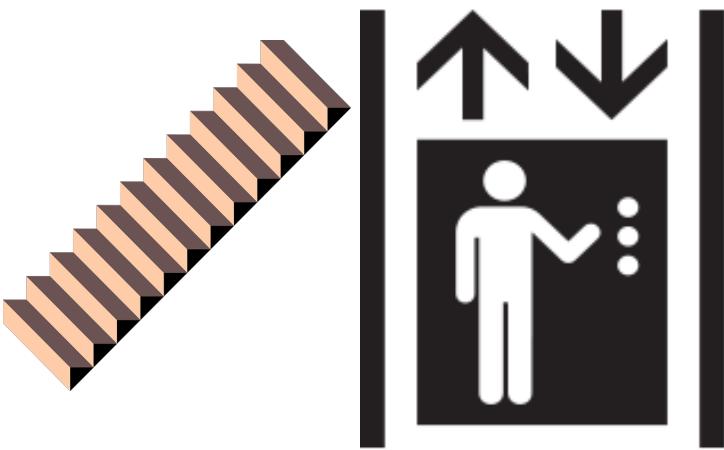
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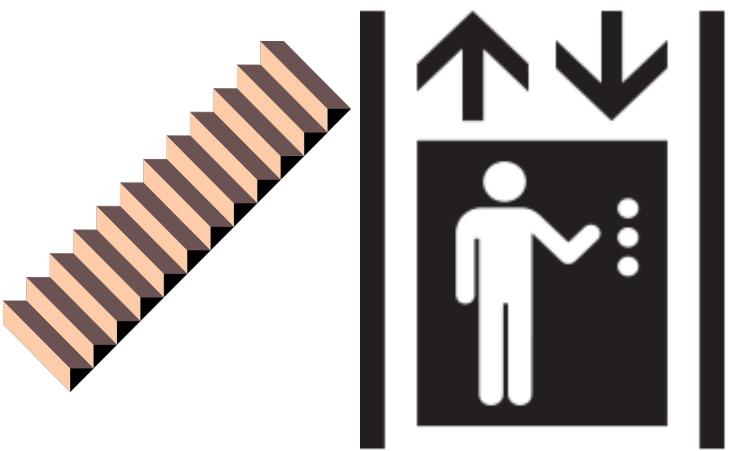
## 1. Affirmation and Investment



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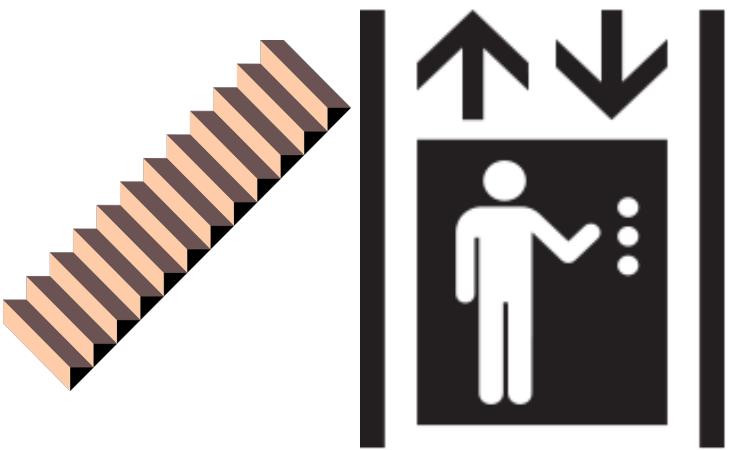
## 2. Multiple Points of Entry



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## 1. Affirmation and Investment



## 2. Multiple Points of Entry

## 3. Data Collection & Analysis



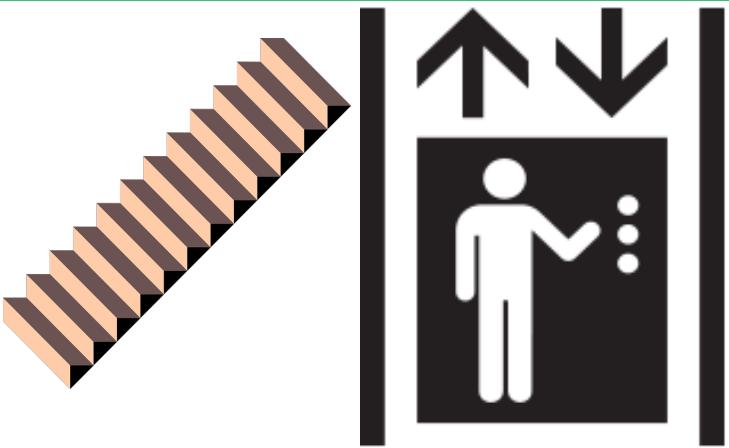
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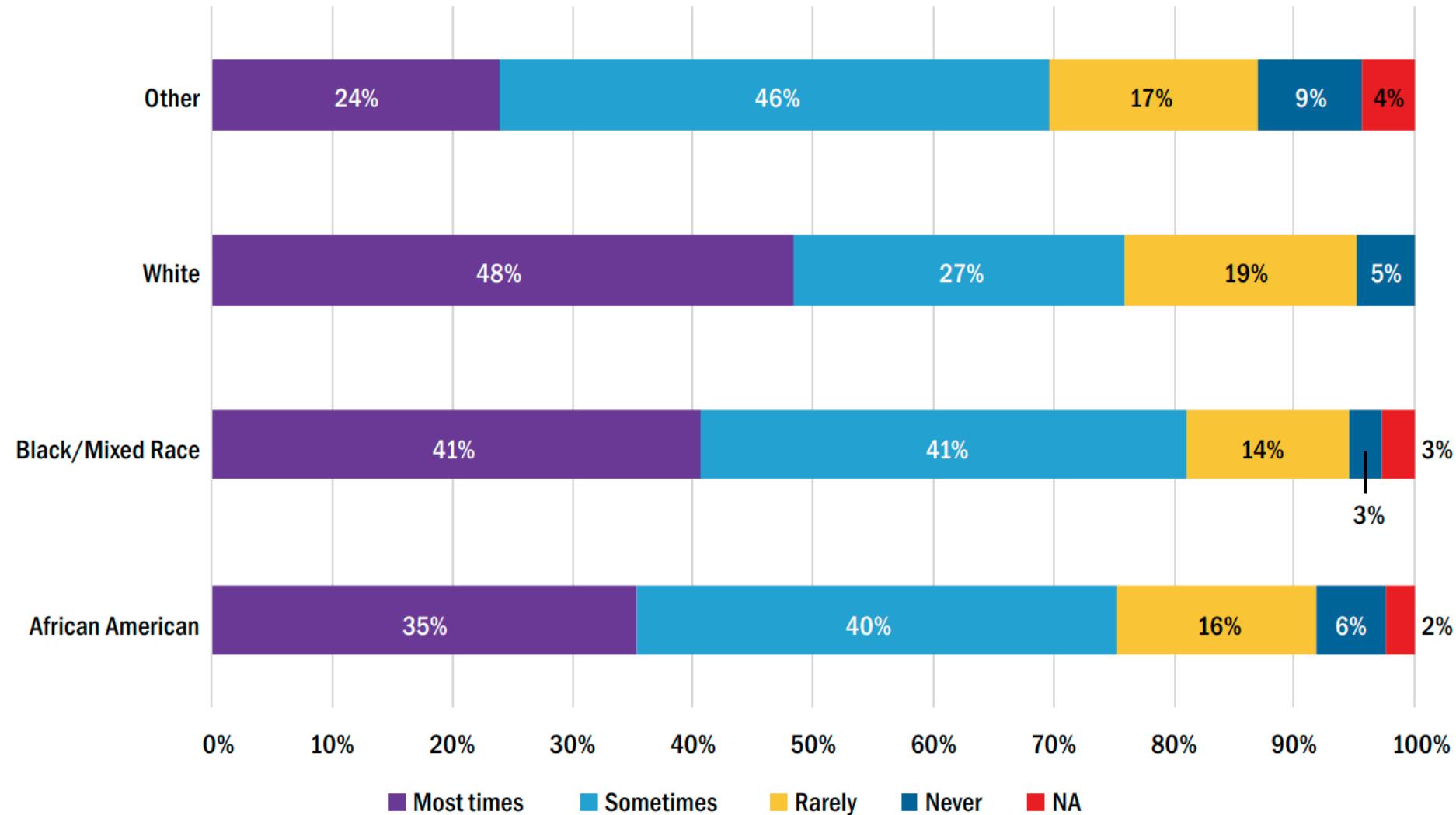
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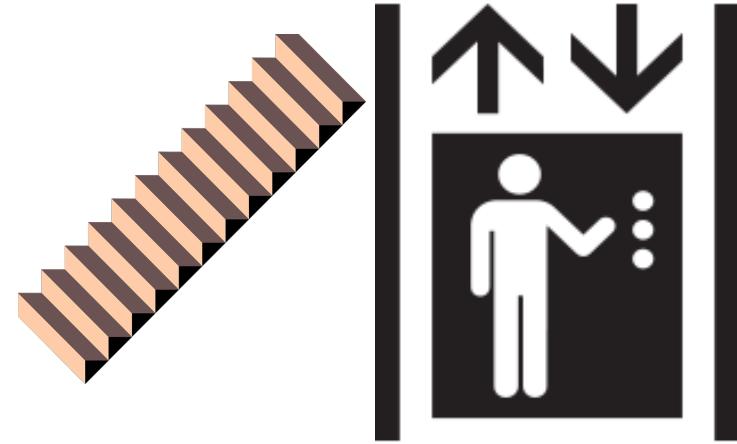


## 3. Data Collection & Analysis

## "Physics faculty/instructors affirm my ability to do physics."



# Focus on Strengths



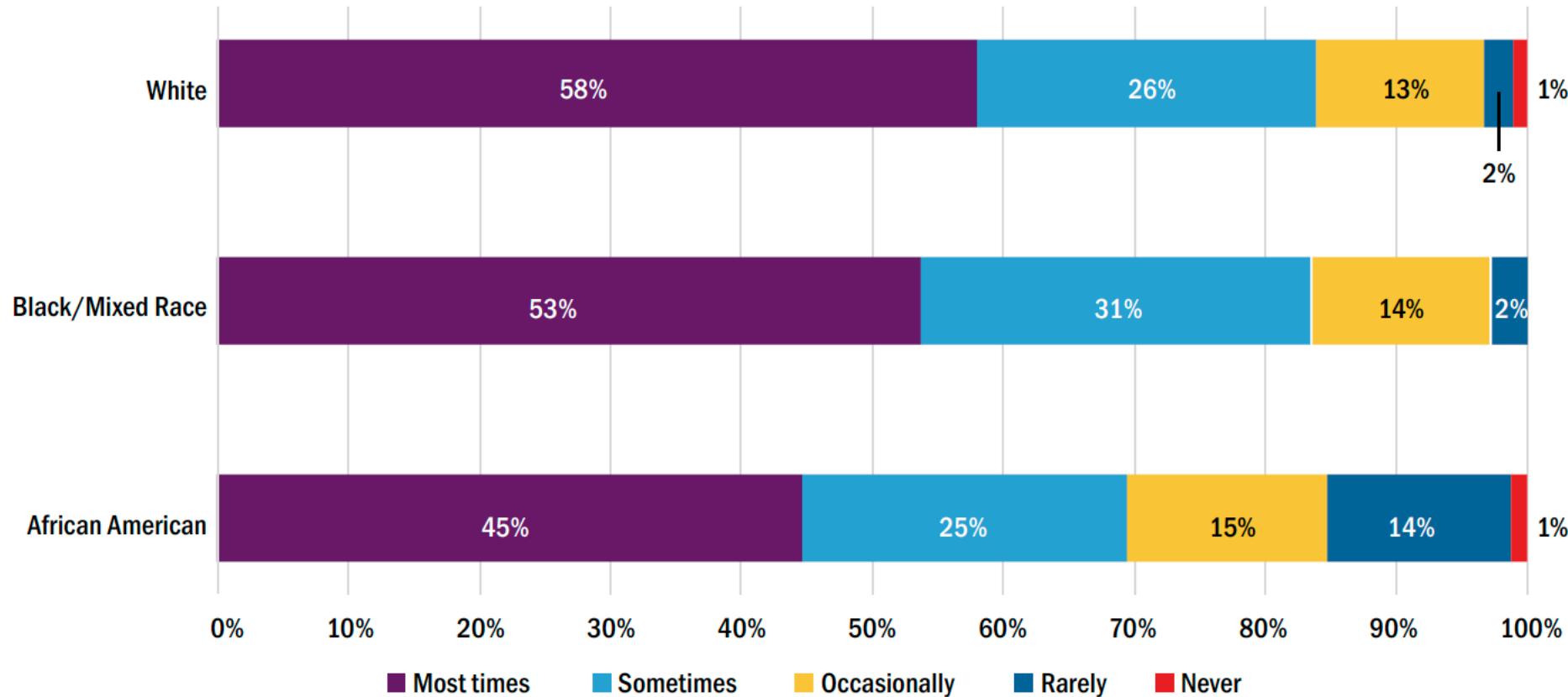
- Common (flawed) paradigm
  - Learning challenges makes minorities less capable
- Programs that Graduate most African American Students
  - Recognize and affirm abilities
  - Build on Strengths
  - Hire faculty who are committed to students
    - Belonging
    - Physics identity
  - Set high expectations, take them to where they can be

# Recommendations

- Encourage and support faculty to
  - Attend teaching & mentoring workshops
    - E.g. Faculty Workshop hosted by the American Association of Physics Teachers (AAPT)
    - Teaching can help research
    - <https://www.movebold.ly/intent-to-impact>
      - Registration ends Friday, October 9
  - Mentor formally & informally
    - Not just faculty who are from marginalized groups
      - This way burden isn't on faculty of color
    - Reward this work
      - Eg. teaching releases, reducing other service



## **"I feel comfortable approaching my physics faculty/instructors for help when I don't understand a concept"**



*Figure 16: Student comfortability approaching physics faculty for help  
Source: TEAM-UP Student Survey*

Class at Georgia state in their physics and astronomy department



Image Credit: Georgia State Physics

# Findings

- Interventions are key
  - Professional advisors (ie. Specialty is advising) are useful
- Georgia State
  - <https://success.gsu.edu/approach/>
  - “Intrusive advising”
  - Central University & College of Arts & Sciences support
- Morehouse College
  - Aware of student needs
    - Help financially, where necessary

# Other Recommendations

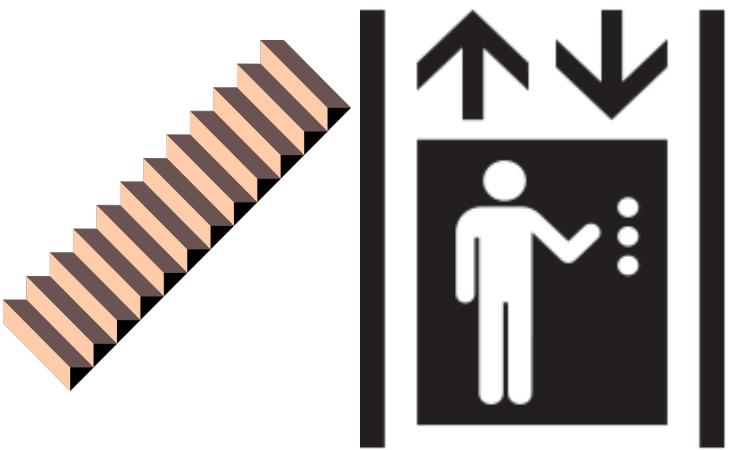
- Central advising offices
  - Students can find support
  - Make accessible & understandable
    - Helps if students review, update and disseminate information
  - Invite representatives to student events



UArizona  
Astronomy Club

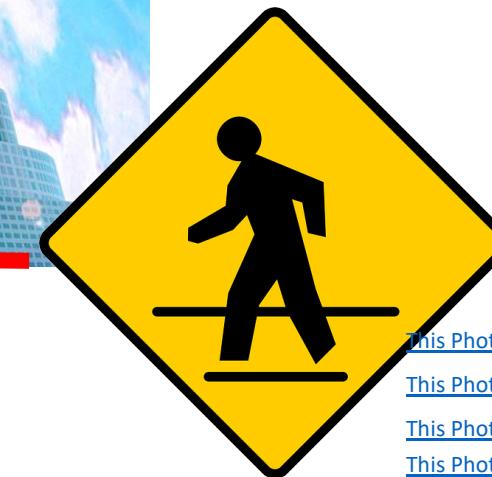


## 1. Affirmation and Investment



## 2. Multiple Points of Entry

## 3. Data Collection & Analysis



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**Our site visits showed that many African American students did not enter college intending to major in physics but were drawn to the department by inspiring classes or by peers who invited them to club events.**

# Findings Continued

- Entry Points
  - Multiple entry points
    - Algebra-based and calculus-based Introductory Mechanics
    - Morehouse College – students drawn to engineering dual degree
      - Ended up focusing on Physics

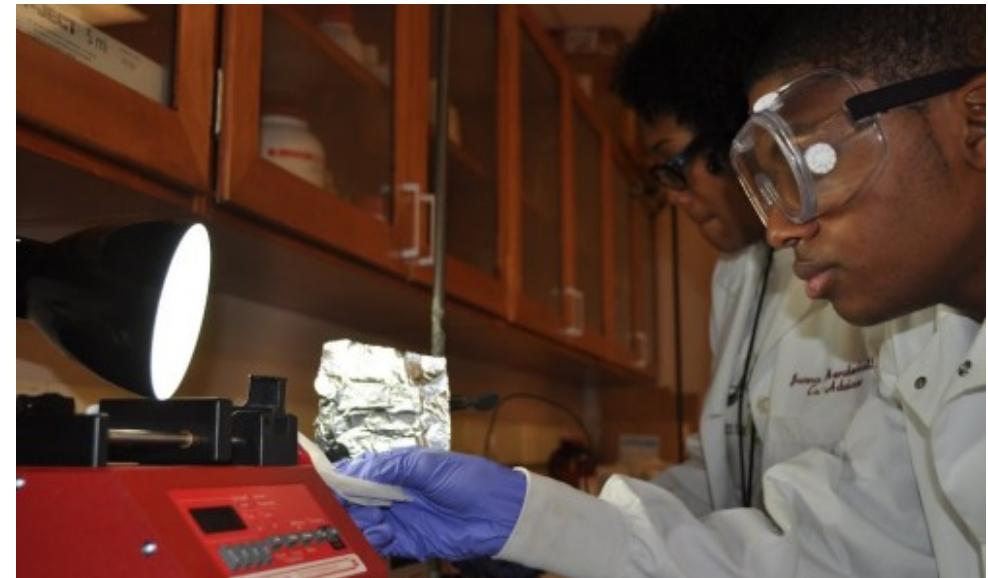
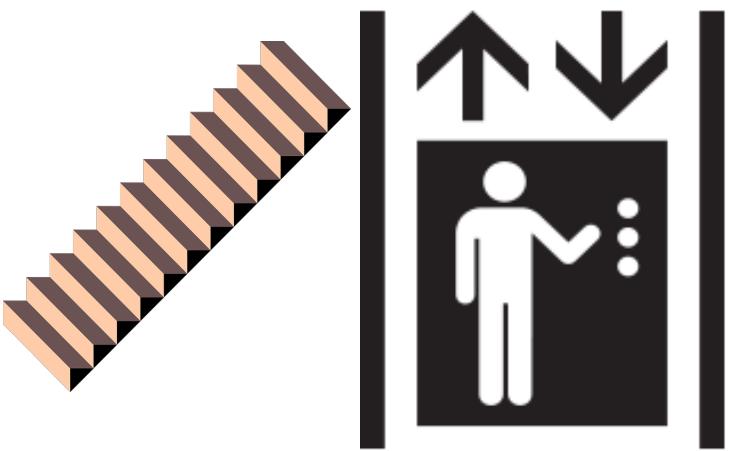


Image credit: morehouse.edu

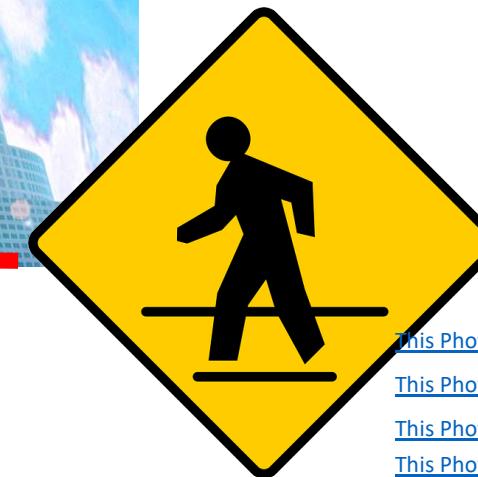
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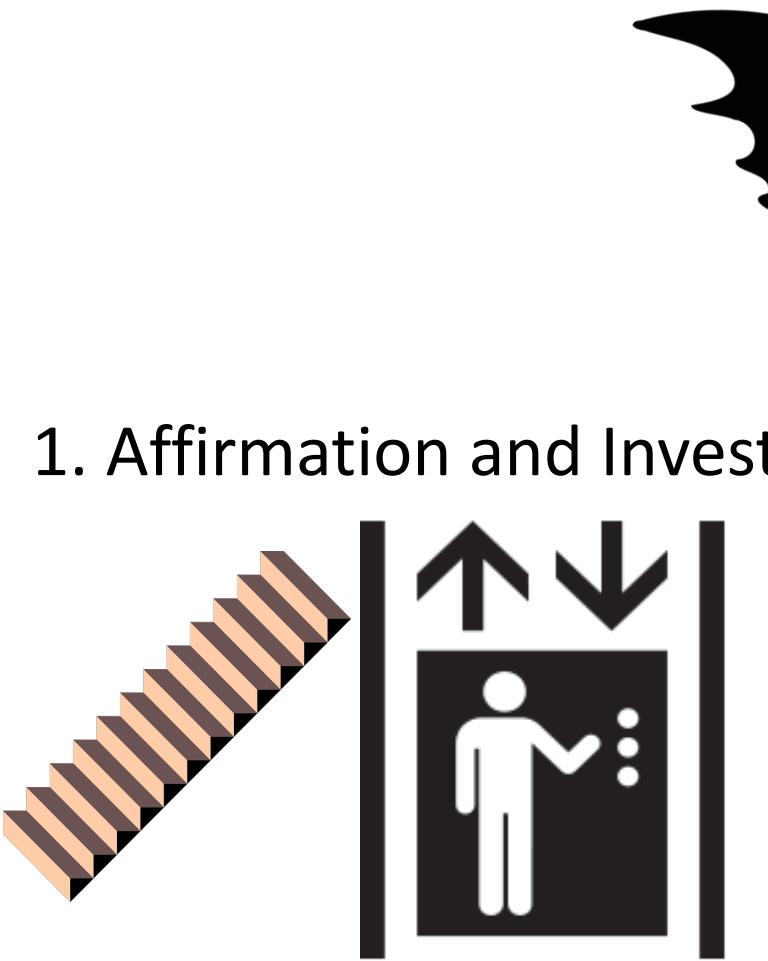
# Other Recommendations



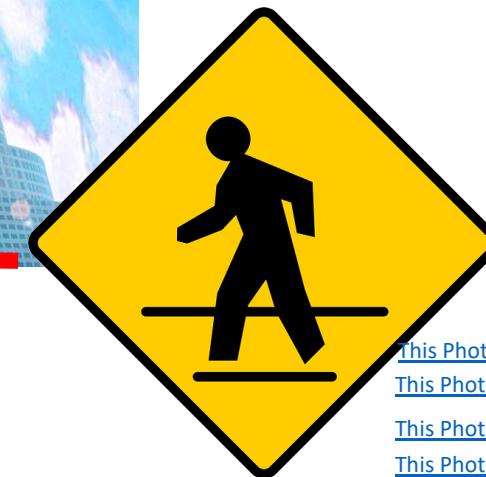
- Georgia State: Predictive analytics w/ student data
- Quantitative & qualitative assessment
  - Identify points at which students leave before graduation
  - Evidence-based plans
  - Regularly collect & analyze data
    - All universities report race/ethnicity/gender to National Center for Education Statistics
    - Compare fraction of enrolled physics majors versus all degrees

# Academic Support

## 2. Multiple Points of Entry



## 3. Data Collection & Analysis



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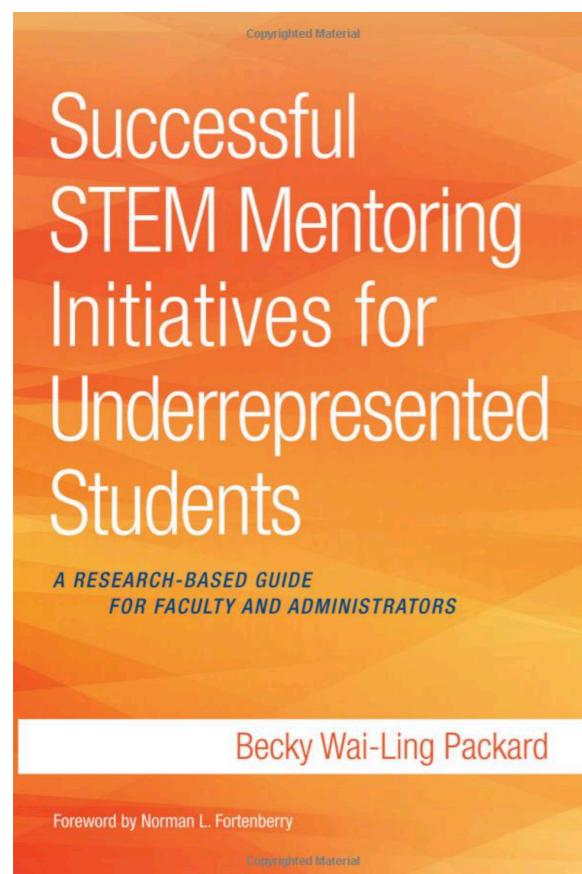
# **University of Arizona Inclusive Mentoring Program for STEM Faculty**

*Adapted from Mentoring Notes written by  
Kimberley Sierra-Cajas and Kasi Kiehlbaugh*

The overall goal of this project is to increase the completion of STEM bachelor's degrees by promising undergraduates with demonstrated financial need who are transferring from community colleges. The aim of the program is to create and implement a model for creating a "Culturally-Responsive Community of Practice" to improve faculty and peer mentoring.

**The three specific aims of this project are to:**

- enhance students' sense of STEM belonging
- improve academic achievement at the University of Arizona
- increase student interest in STEM careers.



Sponsored by NSF Award #1930455

*Bridging Faculty and Student Cultures: Culturally Responsive Support for STEM Students Transferring between Two- and Four-Year Hispanic Serving Institutions*

Training is adapted from the book *Successful STEM Mentoring Initiatives for Underrepresented Students* by Becky Wai-Ling Packard.

# Tapping the Wisdom Tradition: Essential Elements to Mentoring Students of Color

Alvin N. Alvarez  
San Francisco State University

Arthur W. Blume  
University of North Carolina at Charlotte

Joseph M. Cervantes  
California State University, Fullerton

Lisa Rey Thomas  
University of Washington

## Recommendations for Mentors:

1. Support the mentee in navigating two worlds.
2. Teach mentees how to navigate relationships with faculty, supervisors, and peers.
3. Integrate discussions of personal and professional identity.
4. Teach effective management of experiences with discrimination.
5. Recognize the role of racial identity and racial awareness in the mentor-mentee relationship.

# Inclusive Mentorship Seeks To Understand Primary Patterns of Cultural Difference

## 1. Communication styles

*Language usage, nonverbal communication, different degrees of assertiveness.*

## 2. Attitudes towards conflict.

*Some cultures view conflict more positively than others, which is reflected in desires for face-to-face meetings vs written discussions.*

## 3. Approaches to completing tasks

*Cultures differ in the role of establishing relationships early or later when working on tasks.*

## 4. Decision-making styles

*Who delegates tasks? Are tasks decided more by individuals or by higher-ups?*

## 5. Attitudes about open emotion and personal matters.

*Some cultures are more frank about their own emotions than others.*

## 6. Approaches to knowing.

*How do you come to understand something? By thinking about it?  
By doing something? By repetition?*

# Case Studies (example from Alvarez et al.)

## *Teisha*

Teisha is a 23-year-old Alaska Native woman who is studying psychology in Alaska. She was born and raised in a remote, isolated Alaska Native village that is accessible only by air. Teisha spoke her native language first, and English is her second language. Teisha was raised in a traditional manner; for example, she was taught that she should listen to her elders without speaking, that the good of her family and community is more important than her individual advancement, that it is disrespectful to stand out, and that subsistence is an important activity. Teisha's family is very proud of her academic accomplishments but also expects her to return home to help. One of her professors has noticed her quiet demeanor and her occasional absence and is following up with her to make sure she is getting the support she needs to continue her studies.

Teisha has chosen an undergraduate program that is understanding and supportive of a diverse student body. They will work together to develop a plan that will allow Teisha to continue her studies while fulfilling her obligations to her family and village. The university provides distance learning when Teisha returns to the village so that she is able to keep up with her course work. The university has made it a priority to recruit, retain, and graduate all students and to create a welcoming environment. Faculty members who serve as mentors are strongly encouraged to learn about the cultures of their students in order to better mentor them as they progress through their studies.

# Effective Feedback with a Growth Mindset



When giving feedback, you should attempt to utilize statements that focus on developing intelligence through effort and practice rather than on “intrinsic talent”.

## For Example:

- Describe mental acuity as something that can grow through effort.
- Remind students that tests and assignments only assess a student's skill at a point in time, and do not assess ability or potential.
- Focus on student progress, strategy, persistence, and effort.
- Help students recognize that preparation and ability are not the same thing.

# DIFFICULT MENTORING MOMENTS

## Framing Messages to Improve Impact

from: *Successful STEM Mentoring Initiatives for Underrepresented Students* by Becky Wai-Ling Packard.

### **Offering Critical Feedback About Poor Performance or Plans**

- This work has not met the mark. This plan has drawbacks we should discuss.
- This process is difficult for many people.
- I have high standards as do graduate schools or employers.
- I know you can meet this high standard. You are capable of better work.
- I am going to give you this feedback because I take you seriously.

### **Referring a Student Elsewhere**

I am unable to help you because (state the reason), however,

- I know your goal is important to you, and I want to steer you in the right direction.
- Let me help you work on the next step or determine to where you can turn.
- I could introduce you to (an expert), or I can give you (the person's) contact information.
- Don't be discouraged by having to pursue multiple leads; this is part of the process.<sup>23</sup>

### **Recovering From a Difficult Exchange or Microaggression in the Classroom**

- In this class (or lab), I think it is important to set some ground rules for discussions.
- Although I am the professor, I do not have all the answers. I'll get back to you about this issue during our next class.

# Resources

**CIMER** - Center for Improvement of Mentoring Experiences in Research:  
<https://cimerproject.org/>

**ASEMS** - University of Arizona Science Engineering and Math Scholars Program: <https://asems.arizona.edu/home>

**Thrive** - University of Arizona Peer Mentoring Center: <https://thrive.arizona.edu/mentoring>

**STEM in HSI Working Group:** <https://steminhsi.math.arizona.edu/working-group>

**WISE** - Women in Science and Engineering Mentoring Program: <https://wise.arizona.edu/mentorship>

Also, the **University of Arizona Mentoring Resource Page** has an excellent set of links and readings: <https://diversity.arizona.edu/mentoring-resources>