

WHAT CAN WE DO AT STEWARD TO HELP WITH THIS FACTOR OF “LEADERSHIP AND STRUCTURES” ?

DICUSSION NOTES 12/3/20:

Carlos: **Is mentoring and DEI part of tenure review?**

Benjamin Weiner: Something to be made important at the university level, because the university is the ultimate decider

Allie mentions that at Dean of Science Open Forum she noticed that one of the applicants didn't mention much about DEI and people caught on and pushed that person to discuss it further. At the University level its on people's radar and important to people.

Jane: **My sense is that including mentoring and DEI efforts in tenure/hiring/incentives/rewards is a tangible way for us to make a statement about what the values and culture of our department are.**

Allie: Would it be good to push for a formal award at different levels to show support?

Stacey: Hoping we get more recognition. Department Climate task force of SO DEI is asking in the survey if people want recognition and getting those numbers will help to push this.

Rafi: What about monetary awards?

Stacey & Sam: putting information on a CV will help to normalize this work and hopefully we can keep pushing for that

Everett & Stacey: Let's look into our department mission statement and see if we can make suggestions. We should have some practice in using these resources. **NEED to have a “mission/vision statement” or coherent idea as a whole department about what our goals are and these should be presented in formal meetings and people should be reminded about it!**

From the TEAM-UP Report: A first step that departments can take is to establish a departmental values or vision statement.

We currently have this statement on our website: <https://www.as.arizona.edu/promoting-healthy-and-welcoming-environment-our-students-staff-and-faculty>

What about a statement that lays out more clearly what we value? The D&I committee has a “Charge” but can the whole department get on the same page?

THE TIME IS NOW

Systemic Changes to Increase African
Americans with Bachelor's Degrees in
Physics and Astronomy

FACTOR 5: LEADERSHIP AND SUPPORT
DIVERSITY JOURNAL CLUB, 12/3/20



FIVE FACTORS FOR SUCCESS OR FAILURE

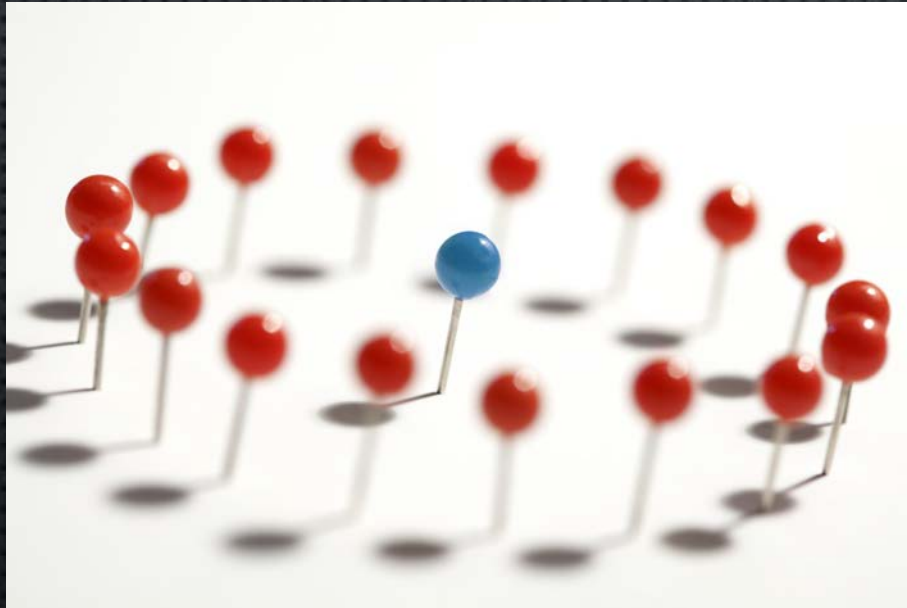
1. BELONGING
2. PHYSICS IDENTITY
3. ACADEMIC SUPPORT
4. PERSONAL SUPPORT
5. LEADERSHIP

6. CHANGE MANAGEMENT

FIVE FACTORS FOR SUCCESS OR FAILURE

1. BELONGING
2. PHYSICS IDENTITY
3. ACADEMIC SUPPORT
4. PERSONAL SUPPORT
5. **LEADERSHIP & STRUCTURES: “FOR SUSTAINABILITY, ACADEMIC AND DISCIPLINARY LEADERS MUST PRIORITIZE CREATING ENVIRONMENTS, POLICIES, AND STRUCTURES THAT MAXIMIZE AFRICAN AMERICAN STUDENT SUCCESS”**
6. CHANGE MANAGEMENT

FACTOR 5: LEADERSHIP AND STRUCTURES



EFFECTIVE ACADEMIC
LEADERSHIP UTILIZES
COMMITTEES, EXISTING
DECISION-MAKING
BODIES, INTERNAL
FUNDING AND OTHER
RESOURCES, AND
COALITION BUILDING
TO EFFECT CHANGE

KEY FINDINGS

1. Department chairs and officers can set norms and values; recruit, develop and support faculty; and oversee structures, policies and practices that enhance or diminish the success of African American students
2. Departmental initiatives can provide scaffolding for student belonging, physics identity development, and academic support

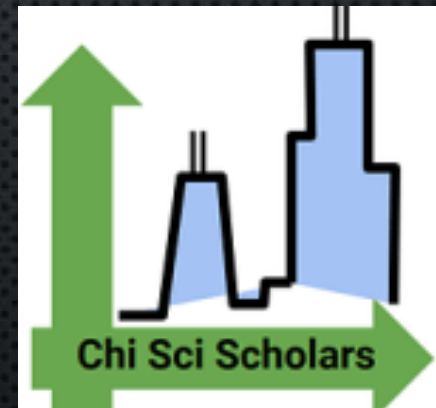
KEY FINDINGS

3. Department connections to university- and college-level resources such as student affairs offices, dual-degree programs, research funding programs, multicultural centers, tutoring centers, etc., help to increase student awareness and usage of these valuable offerings.
3. Lone champions can make a big difference for students, but their effort is unsustainable, making this an ineffective long-term strategy. In the most successful departments, a significant fraction of the faculty consistently value and support underrepresented students

When we asked faculty in departments that were highly successful in graduating African American physics students how they achieved their strong collective results, several noted that their department recruited faculty whose values and vision were aligned with the department's mission.

EXAMPLE: Chicago State University Department of Chemistry and Physics has adopted many of the recommendations and has been successful. The Chi-Sci Scholars program is the backbone of this effort (Sabella et al. 2017).

<https://doi.org/10.1119/1.4999730>



Chicago State University (CSU)



- Classified as a Predominantly Black Institution was founded in 1867 and has an enrollment of about 3,100 students.
- There are currently 18 physics majors, of which about half are women

Successes:

- Regional, national, and international collaboration through the Illinois Louis Stokes Alliance for Minority Participation and the Learning Assistant Alliance
- A strong record of grants that target undergraduate research participation
- A focus on faculty collaboration within and across discipline
- The mutual support and strong commitment of all physics faculty reduces the burnout associated with singular champions and allows the department to remain strong through financial turbulence

Chicago State University (CSU)



“The site visit committee was impressed with the range of activities pursued by these campus programs and the strongly collaborative nature of the work across departments to effectively engage students. When asked how they managed to be so successful in receiving grant funding, the faculty credited the experience of the senior faculty and the support of the Chicago State administration in providing 50% release time for a faculty member to work with OGRA (Office of Grants and Research Administration). The farsighted and collaborative model of integrating research and education at Chicago State is a significant factor in the school’s success in graduating African American physics bachelor’s degrees. In addition, many faculty members rotate through administrative roles at Chicago State so they learn how to work effectively with their local administration. “

RECOMMENDATIONS

1. Department chairs and officers should set norms and values of inclusion and belonging; recruit, develop and support diverse faculty; and oversee structures, policies and practices that enhance the success of African American students.
2. Departments should identify, partner with, financially support, and advocate for campus programs like McNair Scholars that may already provide a scaffolding for student belonging, STEM indemnity development, and academic support of African American students.

McNair Scholars

- The McNair Scholars Program is a federal TRIO program funded at 151 institutions across the United States and Puerto Rico by the U.S. Department of Education.
- McNair participants are either first-generation college students with financial need, or members of a group that is traditionally underrepresented in graduate education and have demonstrated strong academic potential
- The goal of the McNair Scholars Program is to increase graduate degree awards for students from underrepresented segments of society.



<https://mcnairscholars.com/about/>

RECOMMENDATIONS

3. Departmental admin should become familiar with and encourage students to utilize campus resources, including student affairs offices, dual-degree programs, research funding programs, multicultural centers, etc.
4. Department chairs should provide incentives and rewards to multiple faculty members, including those who are not members of marginalized groups, who actively support underrepresented students.
5. Professional societies should encourage existing and new groups within their organizations, such as the new APS Forum on Diversity and Inclusion, to examine ways to advance the recommendations of this and similar reports.

Where does University of Arizona fall?

Leadership and Structures

For sustainability, academic and disciplinary leaders must prioritize creating environments, policies, and structures that maximize African American student success.

	Excellent	Good	Fair	Poor	Not Discussed
Special programs exist to help students with physics identity and belonging.					
The department offers dual-degree programs and research funding.					
The university has a multi-cultural center.					
The university has a tutoring center.					
Students are made aware of the campus resources.					

CHANGE MANAGEMENT



THE UNDERREPRESENTATION OF AFRICAN AMERICANS IN PHYSICS IS A SYSTEMIC PROBLEM THAT CANNOT BE SOLVED THROUGH THE WORK OF INDIVIDUAL FACULTY, DEPARTMENTS, OR PROFESSIONAL SOCIETIES. IT REQUIRES COORDINATED EFFORT.

A common error in work on diversity, equity, and inclusion is to use methods suitable for first-order change (strategic planning, creating and charging committees, providing staff support) to address problems that require second-order changes. Change requires...

- Social cognition
 - *Understanding how physicists can develop a shared understanding of the need for change and the appropriate mechanisms to accomplish that change*
- Political considerations
 - *The need to build relationships, create coalitions, and examine social power and influence*
- Culture change
 - *Examining norms and values, learning and utilizing the power of storytelling*

RECOMMENDATIONS (SUMMARIZED)

1. Develop theory of change and produce a unified change management model
2. Departments should review and learn from related reports
3. Professional societies should empower and prepare change
4. Professional societies should establish or increase rewards and incentives for efforts made by faculty members
5. Professional societies should gather relevant quantitative, qualitative and descriptive data about their organization

LIST OF SCHOLARLY ORGANIZATIONS

1. AAS (Nashville Recommendations, Diversity and Inclusion in Astronomy Graduate Education)
2. APS (LGBT Climate in Physics, Effective Practices for Recruiting and Retaining Women in Physics, Effective Practices for Physics Programs, and the APS Inclusion, Diversity, and Equity Alliance), AAPT (New Faculty Programs)
3. AAAS (SEA Change institutional awards and a parallel Physics and Astronomy SEA Change departmental award planned by disciplinary societies in the physical sciences)
4. AAC&U (Project Kaleidoscope)
5. National Academies of Science, Engineering, and Medicine (Sexual Harassment of Women, The Science of Effective Mentorship in STEMM)

Table 1: Key Findings and Recommendations by Theme

Belonging	Identity	Academic Support	Personal Support	Leadership and Structures	Change Management
Faculty role	Faculty role	Faculty preparation	Financial	Department chairs	Theory of change
Student role	Co-curriculum	Faculty commitment	Paid work	McNair and similar programs	Alignment with related efforts
Counterspaces	Faculty diversity	Advising	Mental health	Campus resources	Faculty preparation and training
Climate	Prosocial behaviors	Curriculum	Intersectional identity	Incentives and rewards	Rewards and incentives
Harassment response	Career options	Resource guide for students	\$50M endowment for financial aid	Professional societies support	Ongoing data collection, assessment, and accountability

Items in **blue** cells describe **both key findings** and **recommendations**.

Items in **purple** cells describe **recommendations only**.