Education and Diversity

• Committees
  • Education (COE)
  • Women (CSWP)
  • Minorities (COM)

• Units
  • Forum on Education (FEd)
  • Topical Group on PER (GPER)
  • Forum on Graduate Student Affairs (FGSA)

• Staff
  • Monica Plisch (Assoc. Dir., PhysTEC)
  • Renee Michelle Goertzen (Project Manager, PhysTEC, Research)
  • Kathryne Woodle (Project Manager, NMC, Bridge Program, PhysTEC)
  • Marco (Project Manager, Bridge Program)
  • Arlene Modeste Knowles (Diversity Liaison)
  • Deanna Ratnikova (Committees, CUWiP)
  • Michelle Campbell (Coord., PhysTEC)
  • Asmaa Khatib (Coord., Bridge Program)
  • Susan Sargent (Coord., NMC, PhysTEC)
African American Bachelor Degrees

Sources: IPEDS Completion survey by race, US Census
At what stage do we lose most underrepresented minorities in the physics “pipeline”? 

1. High School  
2. Undergraduate  
3. Graduate  
4. Professoriate
Underrepresented Minorities in Higher Education

- College Age Population: ~1.5M
- All Bachelor Degrees: ~200k
- Physics Bachelor Degrees: ~450
- Physics Doctoral Degrees: ~35
- Physics Faculty: ~12

URM Percentage
Bridge Program Achievements

- 6 Bridge Sites (2 others self-funded)
- 95% retention rate
- 5+ institutions self-fund extra students from our pool
- APS does national recruiting, advocacy, collection of best practice
- Increasing by ~30/yr answers national need
- Research into admissions: how are departments using GRE and other measures, correlations with outcomes
- Lots of interest by departments and students
APS Committee on Minorities (COM) polled community leaders about barriers faced by URM students, and possible APS actions

- Issues at pre-college level – which impact students as they begin undergraduate studies
- Physics “culture” was unsympathetic
- Lack of information on physics careers
- Obstacles faced by URM students not understood by advisors
- Lack of advice about possibility of graduate studies
• APS longstanding commitment to supporting success of underrepresented minorities in physics (~40 years) – APS Minority Scholarships
• COM Minority Scholarships reached ~20 students each year (not really at the scale that will improve representation)
• We asked scholars: What made a difference to them? Answers:
  • Local mentoring
  • APS recognition
Through the Bridge Program we learned about the successes of the Math Alliance:

- >500 Mentors
- 1500 Mentees, >600 Currently active
- 110 institutions
- Annual “Field of Dreams” meeting (325 in 2014)
- Differing goals: Increase the number of URM students completing PhDs in Mathematical Sciences
  - 92 have graduated with PhDs
  - 157 currently making progress toward PhD
Program Components

• Approved by APS Council: November 2014
• Launched April 2015
• Goal: Increasing the number of URM students who receive undergraduate degrees in physics
• Pairing faculty and URM students
• 87 mentors; 60 mentees invited (38 paired)
• Host annual conference (21-23 October 2016) – in conjunction with REU Site Leaders meeting
• Planned scholarship funds distributed via mentors
• Planned recognition of mentoring
Next Steps…

- Enlist mentor/mentee pairs
- Get through the first year – learn what works and what doesn’t
- Refine and implement assessment plan
- Begin plans for scholarships / recognition
- Advocate to the broader community on importance of mentoring, and issues
- Listen to you!

Happy physicists ⇒ Great physics