

Diversity in Data Science Breakout Session BD2K AHM Friday, November 13th 2015

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Key Questions:

- How can we facilitate the involvement of underrepresented minorities (URMs) in data science?
- How do we improve inclusion at the trainee level, and help to ensure a steady pipeline of individuals at the undergraduate, graduate, and postdoctoral levels? What creative techniques have been used to diversify the pool of potential trainees?
- How do we ensure a welcoming environment so that all members of the data science team can contribute fully?
- Should the conversation about diversity be broadened beyond racial and ethnic diversity, e.g., to academia vs. industry; faculty vs. staff?

Challenges

- Letting students know about the opportunities
 - students can act as ambassadors for an external organizational structure (can be a paid position)
 - mentorship to apply to opportunities is very important as well as finding the opportunities
 - Centers/other BD2K awards could send ambassadors (e.g. graduate students) into community colleges and high schools
- Recruitment and retention
 - REU-like summer programs can help with recruitment
 - data science in context: relate the science to the bigger picture in order to motivate students
- Seeing the bigger picture
 - students at primarily undergraduate non-research intensive institutions need to be paid to continue summer research into the school year because it takes time away from paid work

Discussion Summary

1. Critical to include outreach beyond the R25 institutions – Although it is central to partner with a R25-type institution to bolster diversity in BD2K, the following should also be outreach efforts to promote BD2K diversity:
 - a. BD2K COEs should consider partnering with local, surrounding institutions

- b. In addition to traditional seminars, workshops on BD2K curricula should be shared
 - c. Develop a BD2K Ambassador Program – where current and/or recently graduated underrepresented students will serve as mentors, liaisons and sounding boards for students at existing R25 institutions. A current R25 institution can potentially spear-head the program/efforts.
 - d. Implement a new position – A BD2K Diversity Coordinator. The coordinator will have several functions, including develop BD2K pathways resources, and link diverse/underrepresented students to existing opportunities within the various BD2K pathways.
 - e. When conducting outreach, develop materials, curricula, etc. that includes culturally-sensitive materials – understanding not only the academic level of the respective student, but also the social context issues and integrating social context within BD2K.
2. Develop a pipeline:
- a. Develop the traditional pipeline related to training students starting from high school to community colleges.
 - b. Faculty training at MSI and community colleges
 - c. When developing the pipeline, consider barriers to diversity (academic issues, timing, cost, practical considerations, cultural considerations).
 - d. Consider compensation during the academic year for students to encourage minority participation in BD2K.
 - e. Mentoring is critical to developing and retaining talent, thus opportunities to support mentorship should be explored.
3. Innovation and science are central to BD2K, therefore:
- a. Diversity leads to innovation
 - b. Keep diversity important and a priority