

Promotion of Underrepresented Minorities in Academic STEM (PUMA-STEM)  
**Recruitment and Retention Workshop Summary Report**

The third PUMA-STEM workshop on recruitment and retention of underrepresented minority (URM) students was held at Elmhurst College on May 9<sup>th</sup>, 2017. Twenty faculty from 6 Chicago area colleges or universities and one high school attended the workshop. A short presentation on topics related to recruitment and retention was given, followed by small group discussions prompted with questions about current practices, perceived barriers, and recommendations. Afterwards, all participants reconvened to report on the group discussions. The major findings from these discussions are summarized below.

The small groups first discussed any current practices used by their institutions to recruit and/or retain URM students in STEM fields. Some participating faculty reported that their institutions already have practices used to recruit URM students, such as: campus visits, student awards, recruitment from STEM high schools with URM students, camps and out-of-school programs, and use of bilingual institutional representatives during recruitment. Other institutions do not currently have any practices to recruit URM students. For retention of URM students, current practices include: careful selection of faculty teaching early courses, hiring students to work for the department/institution (specifically “B” students), giving them early research experiences, making sure courses relate to real-life, breaking down institutional silos, giving students safe opportunities to fail, and planning events that include student’s families.

Areas where recruitment and retention of URM students to STEM fields could be improved were also identified. Specifically, barriers that prevent recruitment and retention and need to be removed were discussed. Common barriers to recruitment included: students not knowing the breadth of STEM career options and how they could lead to financial stability (a major concern), the lack of role models with similar backgrounds, a “sink or swim” culture in STEM classes, a lack of community and campus relationships, and family-related or “life” issues taking precedence over high school or college. Common barriers to URM student retention identified were: students not being used to challenges, the unfamiliar culture of institutions or communities, students focusing on their deficits instead of resilience and persistence, resistance to change from faculty (and lack of training for faculty), and high impact practices not being scalable due to financial concerns.

There were some areas of improvement identified that were specific to the type of institution. For example, earlier recruitment of students to STEM fields may be required, before they enter high school. For high schools, connections could be made to groups that support URM high school students, such as Upward Bound. Likewise, colleges and universities could connect with groups like the Louis Stokes Midwest Center for Excellence (LSMCE) and Society for the Advancement of Chicanos/Hispanic and Native Americans in Science (SACNAS). Colleges and universities also need to reduce financial barriers, which are often a concern for URM students. In addition, URM commuter students attending colleges or universities may need help fitting in with the community. Finally, URM students at post-secondary institutions may be unfamiliar with the expectations of college, and need guidance in this area.

Finally, discussion also centered on how to increase URM student interest and persistence in STEM fields. The groups suggested use of near-peer mentoring, as well as helping students develop a “science identity”. Other ideas were to make connections between science and how it could benefit students’ communities, and increase awareness of alternate career paths (other than graduate school or medical school). To increase persistence of URM students, it was suggested that faculty should use intrusive advising to increase interactions with students, focus on being supportive and positive, and try to establish common ground with students. Institutions should also work to build communities on campus to support URM students, and make stronger connections to their families.