

Recruitment and Retention Workshop Resources

Publications:

Campbell, A.G., Skvirsky, R., Wortis, H., Thomas, S., Kawachi, I., and Hohmann, C. 2014 NEST 2014: Views from the Trainees—Talking About What Matters in Efforts to Diversify the STEM Workforce. *CBE Life Sci Educ* vol. 13 no. 4 587-592 doi: 10.1187/cbe.14-04-0068.

Report from the Northeast Scientific Training Program (NEST) retreat where undergraduate, graduate, and postdoctoral trainees were gathered to network and formally share their ideas to increase URM student involvement in STEM fields.

Chang M. J., Sharkness, J., Hurtado, S. and Newman, C.B. 2014 What Matters in College for Retaining Aspiring Scientists and Engineers from Underrepresented Racial Groups. *JOURNAL OF RESEARCH IN SCIENCE TEACHING* VOL. 51, NO. 5, PP. 555–580.

The authors used data from The Freshman Survey (2004) and the College Senior Survey (2007-2008) from the Higher Education Research Institute to identify factors positively and negatively associated with successful completion of STEM degrees.

Chen, X. (2013). STEM Attrition: College Students' Paths into and out of STEM Fields. Statistical Analysis Report. NCES 2014-001. *National Center for Education Statistics*

This statistical analysis report contains findings on rates of attrition from STEM and non-STEM fields, characteristics of students who leave STEM fields, and associations of various factors with persistence in STEM.

Estrada, M., Burnett, M., Campbell, A.G., Campbell, P.B., Denetclaw, W.F., Gutiérrez, C.G., Hurtado, S., John, G.H., Matsui, J., McGee, R., Okpodu, C.M., Robinson, T.J., Summers, M.F., Werner-Washburne, M., and Zavala, M.E. 2016 Improving Underrepresented Minority Student Persistence in STEM. *CBE-Life Sciences Education* 15:es5 DOI:10.1187/cbe.16-01-0038.

Report from a joint working group on improving URM persistence in STEM. The group was convened by National Institute of General Medical Sciences and Howard Hughes Medical Institute, and proposed a focus on “institutional barriers to remove, and interventions that lift students’ interests, commitment, and ability”. Five recommendations for undergraduate institutions to retain URM students in STEM fields are described.

Kendricks K. and Arment A. 2010 Reconstructing the Family Model: Improving Student Success in STEM. The Higher Learning Commission. A Collection of Papers on Self-Study and Institutional Improvement. 223. 26th Edition.

Paper reporting on the Benjamin Banneker Scholars Program, which was developed to recruit and retain URM students in STEM fields by developing strong communities. This article also contains a list of barriers to recruitment and retention.

Swail, W.S., with Redd, K.E. and Perna, L.W. 2003 Retaining Minority Students in Higher Education: A Framework for Success ASHE-ERIC Higher Education Report Volume 30, Number 2.

A reference for colleges and universities that reviews factors influencing retention of URM students and strategies for improving retention. It lists four critical junctures for retaining URM students in higher education.

Other articles of interest:

<http://www.americanscientist.org/issues/pub/how-to-recruit-and-retain-underrepresented-minorities>

A “Perspective” article from *American Scientist* co-authored by a mentor who started a URM STEM mentorship program and a former graduate mentee. They discuss how to recruit URM students to careers in STEM, specifically in the area of Marine Sciences.

<https://www.edsurge.com/news/2017-04-27-why-one-college-is-going-back-to-high-school-to-help-students-succeed>

An article describing how Zane State College in Ohio is developing a student success program that begins with select students at a local high school who may not otherwise enroll in college, including minority and first generation students. The pilot program offers students two semesters of college-prep, advising, and guarantees admission to the college.

<https://www.aacu.org/campus-model/recruiting-and-retaining-diverse-pool-stem-majors-ohio-state-university>

Campus model article reporting on programs at Ohio State University to recruit and retain traditionally underrepresented students in STEM programs, including bridge programs for high school and transfer students. There is also discussion of curricular reform efforts to help retain STEM majors.