Transformation Alliance:
Improved Academic Climate for STEM Dissertators
and Postdocs to Increase Interest in Faculty Careers

Key Activities

Our project will produce a model set of initiatives for faculty advisors, postdocs, and graduate students that will strengthen underrepresented minority student and postdoc interest in faculty careers.

Project Goals

• Improve the climate in graduate education to increase the number of underrepresented minority (URM) graduate students and postdocs interested in and prepared for faculty careers.

• Implement a Networked Improvement Community that uses Plan-Do-Study-Act cycles of improvement to enhance our interventions.

• Disseminate our outcomes and tested practices across the 43 CIRTL universities that produce 30% of the nation’s STEM PhDs.

Networked Improvement Community Cycles

Assess current institutional climate regarding inclusion at nine universities.

Plan

Develop first set of practices based on hypothesized causes for drop in interest in faculty careers.

Do

Coordinate implementing faculty mentor and graduate student peer interventions, as described at right.

Study

Collect and analyze data using common assessments and metrics.

Act

Revise hypothesized causes and refine plans for next cycle.

Research Strategy

Our qualitative educational research is centered upon three questions:

• How do students describe initial and continuing engagement with the department and the discipline?

• What experiences and relationships are most influential in strengthening students’ interest in faculty careers?

• How do peers and external supports influence the sense of community?

After each cycle, the research team will conduct focus groups at selected institutions with students, administrators, and faculty members.

Outcomes

Short-term:

• Graduate students and postdocs at participating institution experience an improved climate.

• Faculty use more student-centered advising practices for all, but especially URM students.

• Participating institutions will have better retention and degree completion of URM students.

Mid- to Long-term:

• Faculty and department leaders show increased knowledge and practice of inclusive excellence.

• URM PhD students and postdocs show continuing interest in and improved preparation for faculty careers.

• Contribute to building a more diverse STEM faculty.

Get involved: We will help train you to promote inclusive excellence on your campus by adopting our measures and interventions, and using our evidence-based climate survey to understand your institution.

Contact Principal Investigator Craig Ogilvie, Iowa State University, at cogilvie@iastate.edu to learn more.