

**Designing an Evaluation Framework for
Retaining Students in
STEM PhD Programs**

**The 3rd Annual Alliance for Graduate
Education & the Professoriate (AGEP)
Capacity Building Meeting**

February 1-3, 2007

San Juan, Puerto Rico

Meeting Objectives

Identify strategies and practices that will help us to develop a framework to help graduate school administrators improve the retention of graduate students, particularly URM students in STEM PhD Programs. This framework will be:

- Research-based.
- Include indicators that will help with **early detection** of students who are facing academic, psychosocial, and cultural challenges in pursuit of a STEM PhD.
- Include examples of institutional and departmental practices and suggested graduate student interventions.

Other Meeting Objectives

- Discuss methods for conducting retention studies and measuring graduate student progression towards the PhD.
- In addition, we are interested in understanding **infrastructure challenges** related to collecting a common set of retention data (quantitative and qualitative) across **departments** within institutions and working with Alliances to develop ways of meeting these challenges.

Products

Information gathered from this meeting will be used to develop a guide that will include

- A framework for improving retention (early detection).
- Community generated retention strategies and suggestions for evaluating those strategies.
- Tips on conducting retention and longitudinal studies of students in STEM PhD programs.

Presentations will focus on lessons learned from student retention or longitudinal studies including identifying:

- **Indicators** that can be collected; **rationale** for collecting the data; and a **timeframe** for collection of the data. Ideally, indicators should be linked to requirements for earning the PhD and monitoring of timely progression towards earning the PhD.
- **Methods** for data collection and rationale for selecting methods.
- **Departmental practices and strategies** for retaining students in STEM PhD programs and suggestions for evaluating those practices and strategies.

Presenters will briefly describe their studies, including:

- What research informed the design of the study?
- What type of data was collected? Why?
- What types of methods were used? Why?
- What recommendations would they make in regards to designing a data collection system to improve retention in STEM PhD Programs, particularly retention of underrepresented minority students?
- What are challenges of implementing a campus based data collection system to improve retention in STEM PhD programs, particularly retention of underrepresented minority students?

Agenda Review

- Perspectives from NSF
- Commission on 21st Century Education in STEM (Policy Perspective)
- Lessons learned from researchers
- Poster Session
- Networking Time
- Feedback session on pre-assignment questions
- Presentation from 2 NSF Directorates
- Saturday Breakout session
- AGEP 2007 Data Collection and Other Activities
- Special CGS Session on the PhD Completion Project (Still time to sign-up)

Homework for Saturday – Read Draft of the 3 Data Papers

Data is reported as annual averages in three categories:

- (1) Pre-AGEP Years (1997/98 to 1999/00)
- (2) The Early AGEP Years (2000/01 to 2002/03)
- (3) The Mid-AGEP Years (2003/04 to 2005/06) for New enrollees and all enrollees. For PhD data (2003/04 to 2004/05)

Things to Think About Over the Next 2 days

- **Intentional** Retention Strategies and Practices
 - Deliberate
 - On Purpose
 - Planned
 - Intended
 - Premeditated
 - Calculated
- Strategies that can be used to get departments and faculty involved in graduate student retention
- Intentional retention strategies related PhD requirements