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)
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