A large suspension bridge with two tall white towers and numerous cables, spanning a body of water. The sky is a deep blue with some clouds, and the sun is low on the horizon, creating a warm glow. The bridge's reflection is visible in the water.

# Work in Progress: The Bridge to the Doctorate Experience

## A Reflection on Best Practices and Project Outcomes

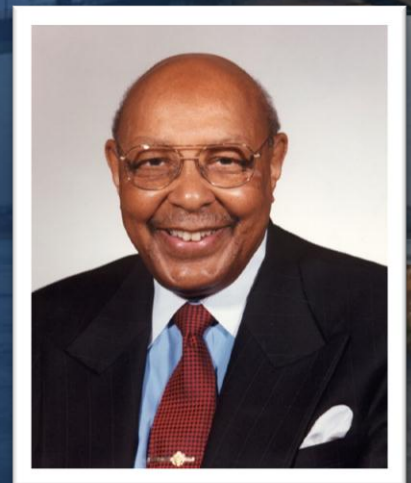
T. Aktosun (UT Arlington)

A. Arciero, B. Flores, **H. Knaust** (UT El Paso)

C. Villalobos (UT Pan American)

# The UT System Louis Stokes Alliance for Minority Participation (LSAMP)

- National Science Foundation (NSF) funding since 1992
- The University of Texas System Alliance consists of
  - Nine universities (UT Arlington, UT Austin, UT Brownsville, UT Dallas, UT El Paso, UT Pan American, UT Permian Basin, UT San Antonio, and UT Tyler), and
  - Five community colleges (El Paso Community College, Howard College, Midland College, Odessa College, San Antonio College)
- About 1,500 STEM at these campuses students have participated as LSAMP Research Scholars
- The Proven Method: Undergraduate Research



Louis Stokes, J.D.

# LSAMP Bridge to the Doctorate

A large suspension bridge with two tall white towers and multiple cables, spanning a body of water. The sky is a clear, deep blue. The bridge's reflection is visible in the calm water below.

- In 2002, the NSF started funding of LSAMP *Bridge to the Doctorate* (BD) programs.
- Goal: To provide funding for LSAMP scholars for their first two years in a graduate program.
- Each Bridge to the Doctorate Initiative consists of a cohort of twelve students at one LSAMP Alliance institution.

# LSAMP Bridge to the Doctorate

- Each BD scholar receives
  - A stipend of \$30,000 per year
  - Full payment of tuition and fees
  - A book allowance
  - Lab supply funding
  - Travel support



# UT LSAMP Bridge to the Doctorate

- The UT System Alliance has received funding from the NSF for seven cohorts:
  - Five cohorts at UT El Paso (2003-05, 2005-07, 2008-10, 2009-11, 2011-13)
  - One cohort at UT Pan American (2004-06)
  - One cohort at UT Arlington (2010-12)

Campus	Females	Males	URMs	Non-URMs
UT El Paso	20	26	41	5
UT Pan American	10	2	9	3
UT Arlington	6	6	8	4



# Selecting the BD Scholars I

- Extensive Recruitment
  - Locally (among students and faculty)
  - Nationwide among other LSAMP Alliances
- Goal: Creating a sufficiently large pool of applicants
- Two recruitment periods (Summer and Fall)



# Selecting the BD Scholars II

- Application material (requirements similar to the NSF Graduate Research Fellowship program)
  - Cover letter
  - Resume
  - Transcript(s)
  - Statement of Purpose
  - Two letters of recommendation
  - Proposal of research work



# Selecting the BD Scholars III

- Strong candidates are invited to a 30-minute interview with the program directors.
  - Phone interview is possible.
- Selection Criteria:
  - Strength of academic background
  - An established student-faculty mentor relationship
  - Strength of research proposal
  - Student's long-term goals & long-term planning; student determination & maturity
  - Communication skills
  - “New” graduate students





# Selecting the BD Scholars IV

- Scholars accepted into the program sign an annual contract
  - Enrollment in a four-semester weekly BD Seminar
  - Maintaining full time student status during long and summer semesters
  - Maintaining a GPA of 3.5/4.0
  - Satisfactory progress towards degree completion
  - Participation in one NSF *Joint Annual Meeting* (professional development)
  - At least one presentation of scholar's research at a professional conference per year
  - Agreeing not to accept other employment



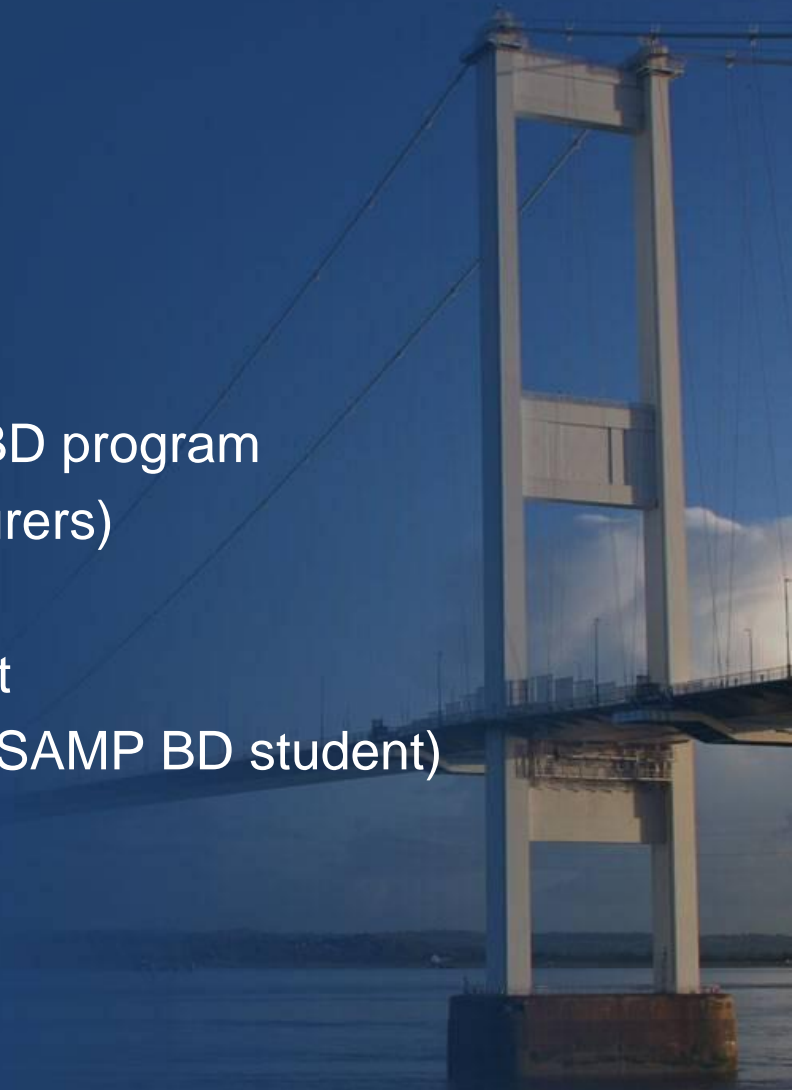
# The BD Seminar I

- Goals:
  1. Mentoring
  2. Team-Building
  3. Dissemination of information
  4. Improving communication skills (written and oral)
- Four-semester sequence starting in the spring semester



# The BD Seminar II

- Some Activities:
  - How to pick a faculty mentor
  - Funding opportunities beyond the BD program
  - How to apply for grants (guest lecturers)
  - Research papers
  - Academic and research misconduct
  - Post-Docs (guest lecturer, former LSAMP BD student)
  - How to apply for academic jobs
  - How to get tenure
  - “Ice cream socials”
  - “Challenge course”



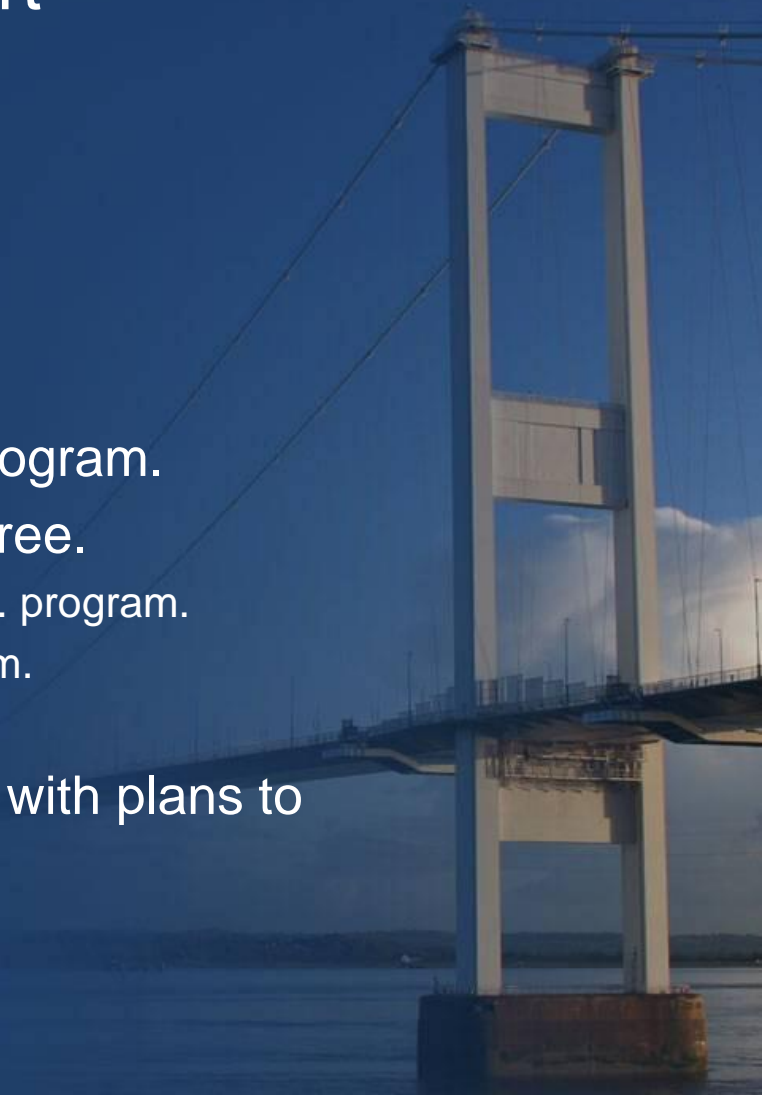
# The BD Seminar III

- Deliverables:
  - Research power point presentations (1<sup>st</sup> and 3<sup>rd</sup> semester)
  - Laboratory visits (2<sup>nd</sup> semester)
  - Write a CV
  - Write a grant proposal summary



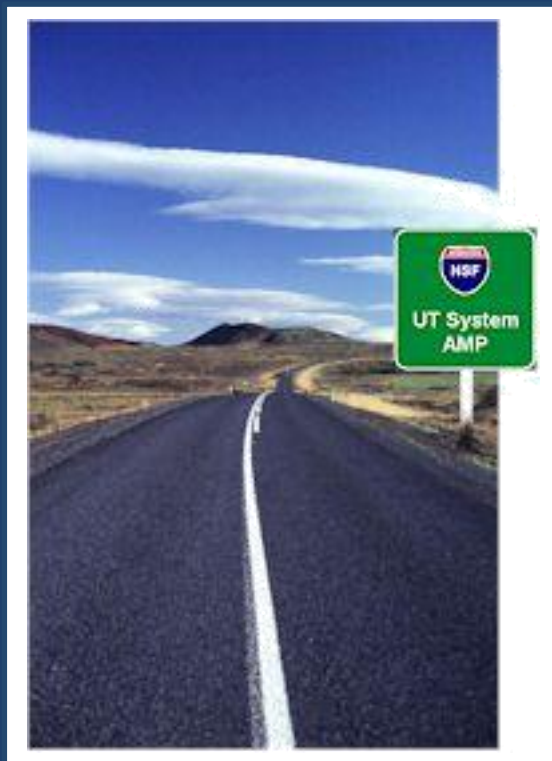
# 2009-11 Cohort Progress Report

- Total of 13 students
  - 5 students are in a fast-track Ph.D. program.
  - 5 students have completed a MS degree.
    - 3 students are currently enrolled in a Ph.D. program.
    - 1 student plans to enroll in a Ph.D. program.
    - 1 student accepted employment.
  - 2 students are pursuing a MS degree with plans to continue in a Ph.D. program.
  - 1 student stopped out.





# Contact Info



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