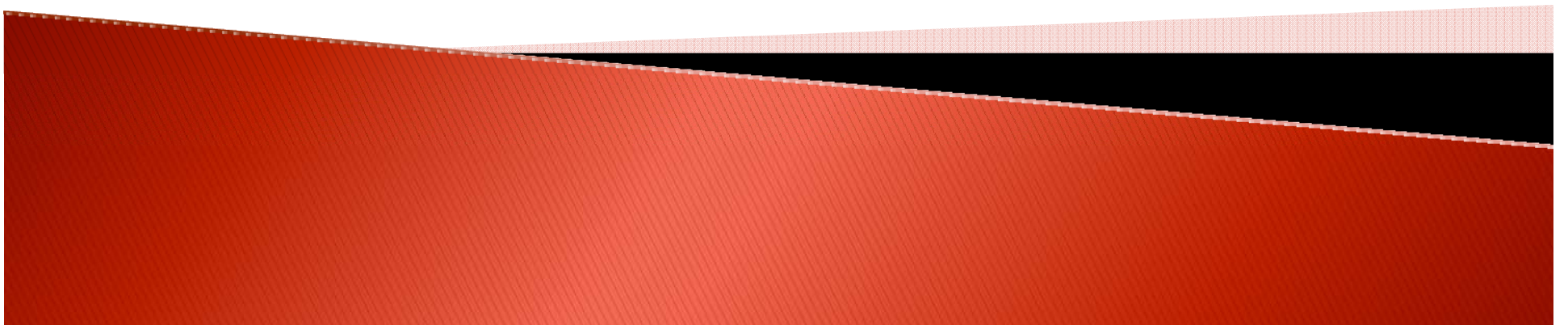
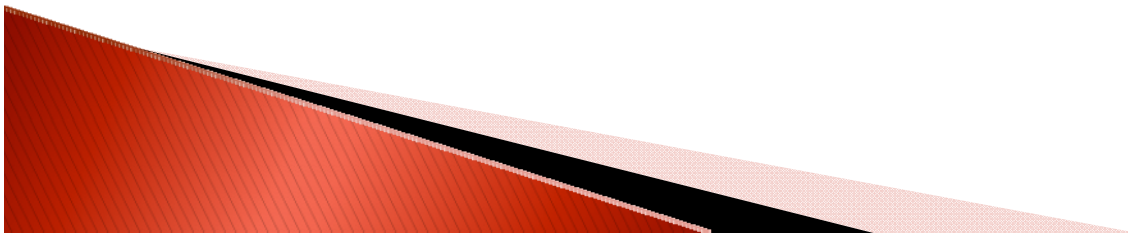


The Perspective of an Outreach Mathematician: Bridging the Gap

Jerry Dwyer
Texas Tech University

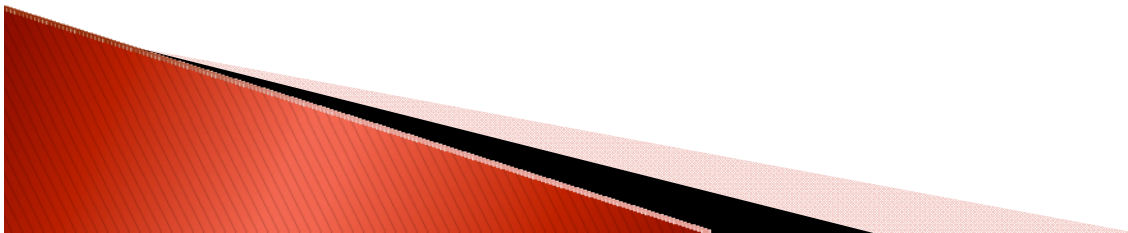


- ▶ Why “Bridging”?



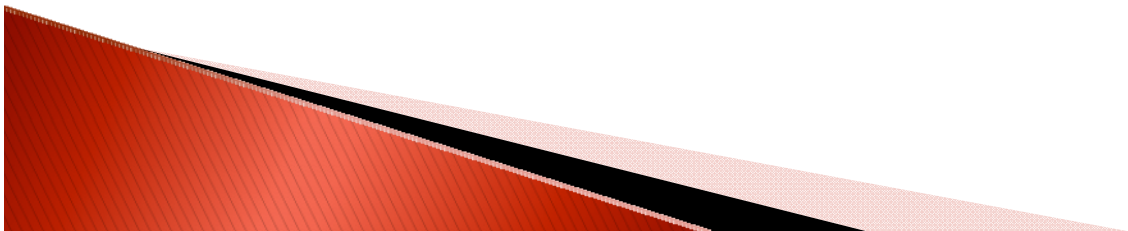
Role of the outreach mathematician

- ▶ Not a math educator
- ▶ Building collaborations on and off campus
- ▶ Scholarship of outreach
- ▶ Reward structures



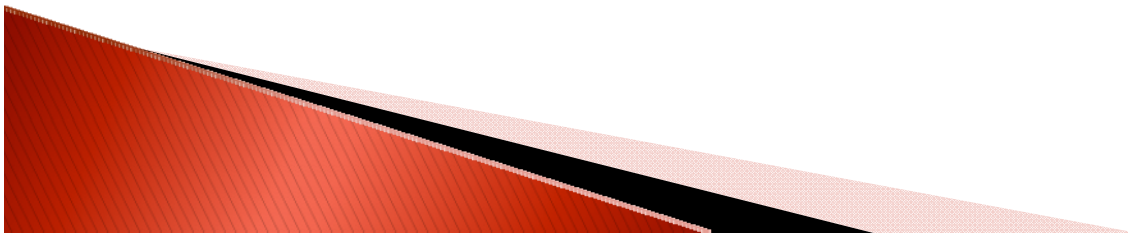
Connections to K-12

- ▶ School visits
- ▶ Math clubs
- ▶ Summer camps
- ▶ Teacher workshops



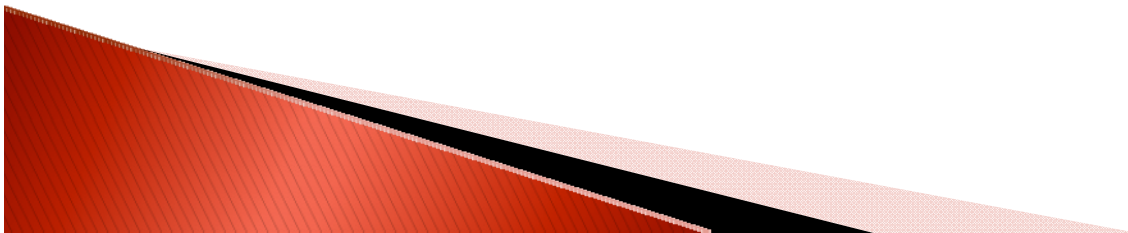
Mathematical Education of Teachers

- ▶ Role of math departments
- ▶ Credibility of outreach mathematician
- ▶ Building partnerships with K–12
- ▶ Liaison with education colleges
- ▶ Providing overview



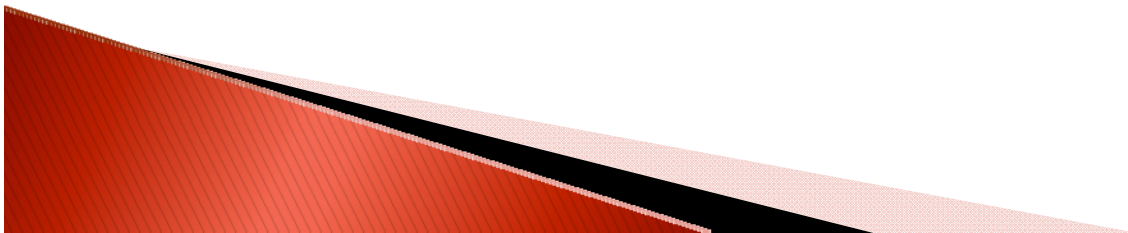
Texas Tech programs

- ▶ Need for specialized courses
- ▶ 24 math “minor” credits for middle school
- ▶ Conceptual understanding
- ▶ Links to MSP project
- ▶ What about high school?



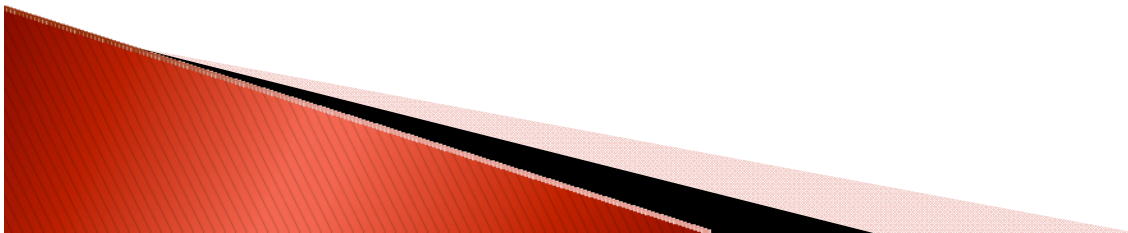
Math Modeling Course

- ▶ What is missing?
- ▶ Review of functions
- ▶ Math modeling
- ▶ Technology
- ▶ Programming
- ▶ Positive student feedback



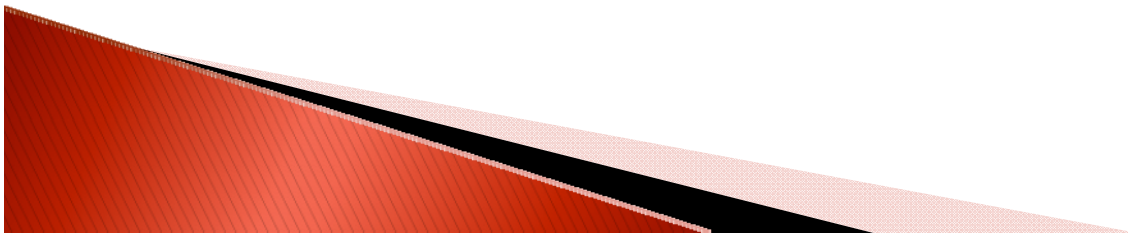
Funded Programs

- ▶ Undergraduate scholarships
- ▶ MSP
- ▶ Noyce
- ▶ I '3
- ▶ STEM Center?



Challenges

- ▶ Culture change
- ▶ Not math “education”
- ▶ Need to focus
- ▶ Publications dilemma
- ▶ Tenure and Promotion



Benefits

- ▶ Flexibility and range of activities
- ▶ Provides overview
- ▶ Integration of activities
- ▶ K-12 Collaboration
- ▶ Cross Disciplinary collaboration
- ▶ Funding

