Increasing the Diversity of the Engineering Pipeline: Graduate Pipeline

Sarah A. Rajala
Dean and Professor
Earnest W. & Mary Ann Deavenport, Jr. Chair

April 11, 2011
Changing Conditions

- Changing U.S. demographic
  - Increase in diversity
  - Increase in first-generation
  - Increase in non-traditional
  - Increase in returners

- Changing workforce needs
  - 2.5M jobs will require graduate degrees between 2008-2018
  - Changes in availability of tenure-track position
  - Changes in international higher education
Strategies for Success

- Broadening participation in graduate school
- Improve completion rates
- Provide peer-mentoring
- Make effective use of technology
- Recruit a more diverse faculty to serve as role models
- Develop strategic partnerships with minority-serving institutions
  - Pipeline
  - Role models
- Encourage faculty to promote inclusiveness
• Number one in master’s and doctoral degrees to African Americans
• Named number one graduate school by *Hispanic Business*
  • Recruitment and retention
• Recruitment
  • SURE - Summer Undergraduate Research in Engineering/Science
  • FOCUS - Weekend program for students of color - 20th year
• Partnerships
  • FACES - Facilitating Academic Careers in Engineering and Science
  • Morehouse, Emory, Spelman, Georgia Tech
- Purdue
  - College of Engineering Diversity Action Committee
    - Faculty and Staff
    - Promote a climate in engineering that values people
    - Programs - Resources - Recruitment

- Stanford
  - Engineering Diversity Programs
    - Champion - Dr. Noe Lozano, Director
    - GEM
    - gp2a Program – peer mentoring – all levels
    - Faculty mentoring
• IMAGE – Increasing Minority Access to Graduate Education
  • Entering 20th year
  • Summer Bridge to Ph.D. Degree
  • Partnership with Louis Stokes Alliance for Minority Participation
  • Mentoring – peer – faculty – professional
  • Seminars and workshops
  • Scholarships

• Diversity Advisory Council
  • Retention
  • Changing the culture