Creating Pathways...

Jackie Sullivan, Associate Dean
College of Engineering and Applied Science
University of Colorado at Boulder
Our Engineering BS Degrees Awarded
Access...
Creating Capacity through Partnerships.
BOLD — Leading our Diversity Charge

- Broadening Opportunity through Leadership & Diversity
  - Critical mass and cohesiveness
    - Women in Engineering
    - Multicultural Engineering
    - GoldShirt (new)
  - College-wide recruiting
    - First Year Coordinator (new)
  - Focus for K-12 initiatives

- College strategic initiatives evaluated through broadening participation lens
Access

- **Recruit** smarter — some gains
- **Create Capacity** — key
  - **GoldShirt** Program
  - Success Institute
  - Expand partnership
  - Mesa State Program
- **Create Capacity**: Cross-campus initiatives
  - Expand Precollegiate Program for STEM (new)
  - Native American STEM partnership (new!)
Recruiting...Daunting Challenges

ACT Scores

State of Colorado

Denver School of Science & Tech

Denver Public Schools
Engineering **GoldShirt Program**

- Break participation barrier?
- Performance enhancing year for under-prepared youth
- Highly motivated, under-represented students
  - First generation college-bound
  - Under-represented minority
- Admitted to engineering college (RedShirt analogy)
- Broad curricular range — thinking and writing, math, physics, chemistry, design
  - Women
  - Low income

---

Top performing HS in CO > ACT growth and performance serving similar demographics

Only CO HS ever to earn “Significant Improvement” 3 years in a row on state accountability report

ACT — 2nd in CO for math; 5th in CO for science

35% of AP exam results = 5 (national mean = 3.7)
Retention...

Become More Informed.
Measure Every Outcome.
Have Courage to Change.
Act.
Retention: Our BS Graduation Rate
(entering cohorts)

National Graduation Rates appear to be in the 75-82% range for entering '99-'01 cohorts.

Graduated by 2004
Retention: Our URM BS Graduation Rate (entering cohorts)

Range 30-68%
Retention

- Classroom climate is key
- First year, hands-on design experiences
- Overhaul teaching and learning practices to apply lessons from *science of learning*
- Programs that appeal to women
- Student Life opportunities in Quad residence halls

Pockets of Appeal to Women...

- CBEN degree program — 49% women
- Env’l degree program — 48% women
- MCEN Bioengineering participation
- EWB — 47% of CU travelers women

- Engineering Honors Program
Capitalize on Advances in the *Science of Learning*...
Opportunities abound...

...and they all take (lots of) human resources

jacquelyn.sullivan@colorado.edu