The many facets of diversity
Diverse practices for diverse students

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Disclaimers
- research interest in gender gap, esp. at intro undergraduate level
- teaching experience
  - intro (200+) to majors (30)
  - K–12 outreach

Special treatment cuts both ways
- pros
  - makes up for unequal opportunities
  - builds community among minorities
- cons
  - furthers negative stereotypes
  - enables “imposter syndrome”
  - turns off some potential beneficiaries
  - faces backlash
  - ...and is sometimes illegal (CA, WA)

Targeted changes in practice
- Design changes for specific underrepresented groups.
- Implement changes without explicit focus on those groups.

How do you do that?

Gender and ethnicity
- Know the statistical differences.
  - opportunity
  - self-confidence
  - motivation, interest
  - learning styles
- See the individuals, appreciate exceptions.

On to some examples...

Teaching to a diverse audience
- learning styles (Felder, Kolb...)
- active learning
- frequent, formative assessment (e.g., CATs)
- collaborative learning (e.g., pair programming [McDowell et al.])
- compelling applications, creativity [GA Tech]

all ways to move beyond “sage on the stage”
Our many roles as teachers
- roles with impact on diversity
  - We mentor. [Cohoon et al.]
  - We advise.
  - We encourage.
  - We befriend.
  - We serve as role models.

Battling low self-confidence
- Your students don’t think they’re smart enough to major in CS.
  - Reach out to individuals.
  - Talk about who would enjoy CS.
  - Fail openly and often.
- “Steppingstone” or “chain” mentoring
- Your students think everyone else is doing better in the course.
  - Use group work and facilitate properly.
  - Use frequent summative assessment.

Working on CS’s image problem
- Your students think you have no life.
  - Make your hobby/family/etc. life visible.
- Your students think you work alone all the time.
  - Highlight teamwork, collaborations, collegiality.
- Your students think your work is irrelevant.
  - Talk excitedly (but comprehensibly) about your research, putting it in context.
  - Highlight interdisciplinary collaborations.

CS diversity must-reads
- Unlocking the Clubhouse (CMU)  
  Margolis & Fisher, see also: Blum et al.
- Irani (Stanford)
- Cohoon et al.
- Barker, Garvin-Doxas, et al. on defensive climate
- Giguette, Lopez, et al.
- Talking About Leaving  
  Seymour & Hewitt
- Goodman Group, WECE