Many “underserved communities” exist in STEM:

- Minorities
- Females
- Students with Disabilities
- Rural and Low Income
Educate as a “student,” not as a “________ student.”

- All students have abilities that allow them to learn STEM, but students need the right conditions suited to what they can bring to the learning activities.

- Consider e.g. students with blindness/visual impairments.
Students with blindness/visual impairments in STEM

- Highly underrepresented (~69% do not progress beyond high school)
- However, have interest in STEM and cognitive abilities equivalent to sighted peers
- Face 3 key barriers: (i) inadequate instructor preparation, (ii) limited access to appropriate ed. materials, (iii) lack of acceptance by educators.
How do we accommodate?

- Strategic teaching and instructional materials that emphasize skills of touch, hearing, and communication.
- Use a hands-on approach if possible (benefits all students).
- Avoid misconceptions of ability.
- Take advantage of strengths, i.e. abstract concepts, extreme length scales, non-experiential phenomena.
- Use new technology.
- Seek out role models.
What resources are available?

- Professional Foundations/Organizations (AFB, NFB)
- Conferences (CSUN, NFB/AFB, Field Specific)
- Online Repositories (NASA 3D Resources, IAU, AWB)
- New Technology (screen readers, haptic feedback, 3D printing, augmented reality)
- Fellow Faculty and Students
- Do-It-Yourself