National Science Foundation
Division of Undergraduate Education
Advanced Technological Education (ATE) Program

• The Science and Advanced Technology Act of 1992 (SATA) mandated the creation of ATE, with continuing reauthorizations under the America Competes Act.

• Program focuses on the education of science and engineering technicians for high-technology fields that drive the nation’s economy.
  • Grades 7-12, 2yr- and 4-yr institutions can be supported. (Career pathways, rigorous POS)
  • Community colleges have leadership roles on ALL projects.
Lessons Learned
Role of Education & Industry

- Partnerships: education, industry, economic development/WIB
- Industry input driving curriculum
  - Hire adjunct faculty from industry
  - Skill standards
  - Industry Advisory Board
- Education and Career pathways
- Integrated work experiences
  - Contract Research Organizations
Lessons Learned
Programs of Study Principles

- Design and input from industry (ongoing)
- Pathways: multiple entry and exit points
  - Flexible schedules
- Mentors (industry, faculty, peer)
- Transitions aligned (HS-CC, CC-job, CC-4-yr)
- Effective Learning Strategies
  - Learning communities
  - Project/Problem/Case-based learning
  - HANDS ON – MINDS ON
- Internships (undergraduate research experience)