



Board of Trustees Long-Range Planning Committee Meeting
University Center - UC 206
Thursday, 3/5/2009
8:30 to 9:30 am CT

1. REPORT FROM THE POTT COLLEGE OF SCIENCE AND ENGINEERING

Scott Gordon, dean of the Pott College of Science and Engineering, will present a report on the Southwest Indiana STEM (Science Technology Engineering Math) Resource Center (SwISTEM).

0309 LRP SwISTEM Presentation - Page 2



Biology

Chemistry

Geology and Physics

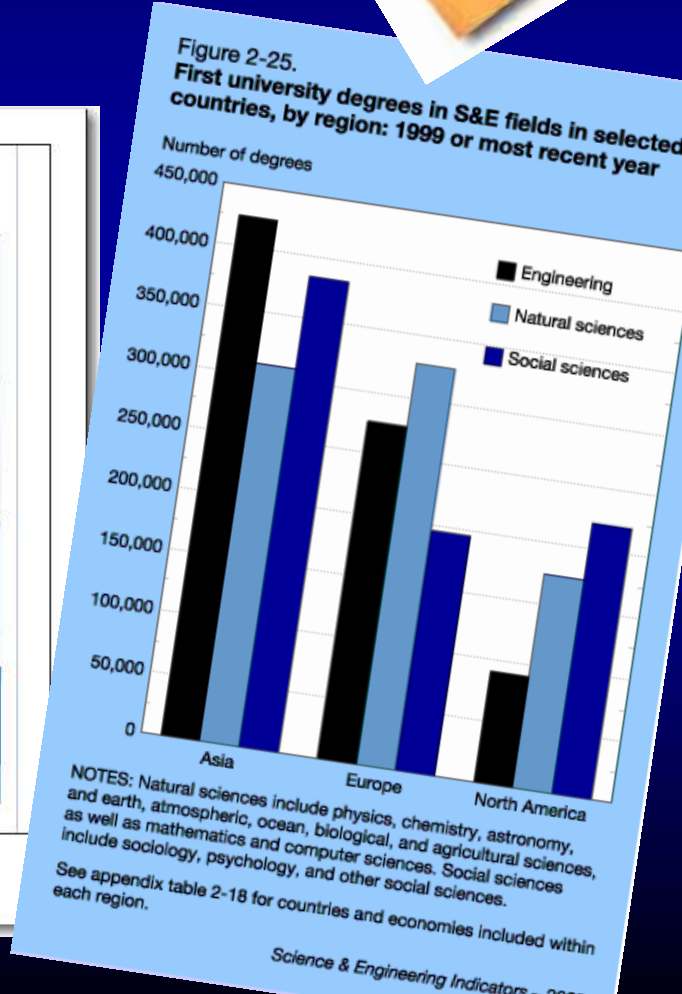
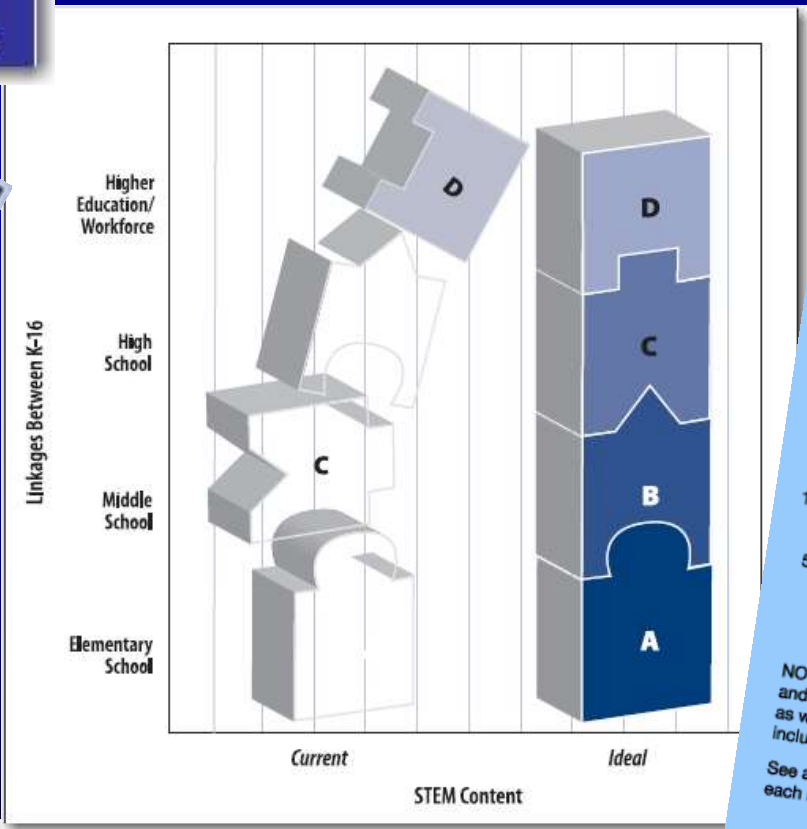
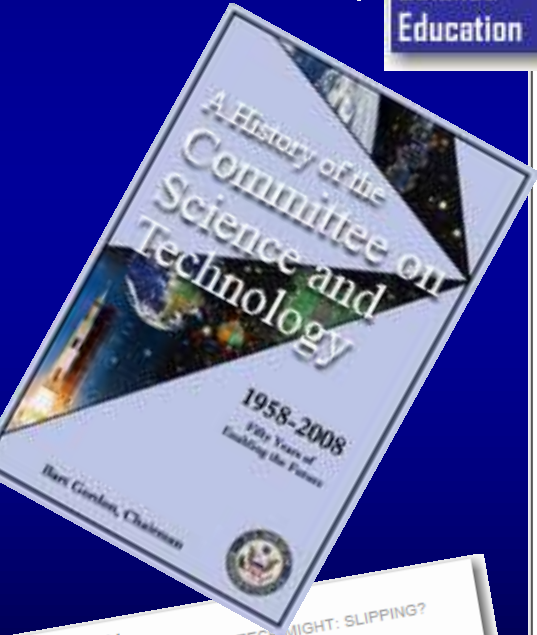
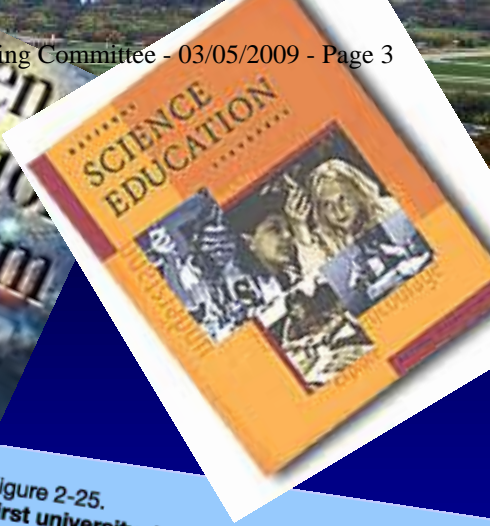
Engineering

Mathematics



Southwest Indiana **STEM**







Background

2006

Formation of Indiana Science, Technology, Engineering, and Mathematics Resource Network Concept



Late 2007

USI Selected as the SW Indiana Lead Institution



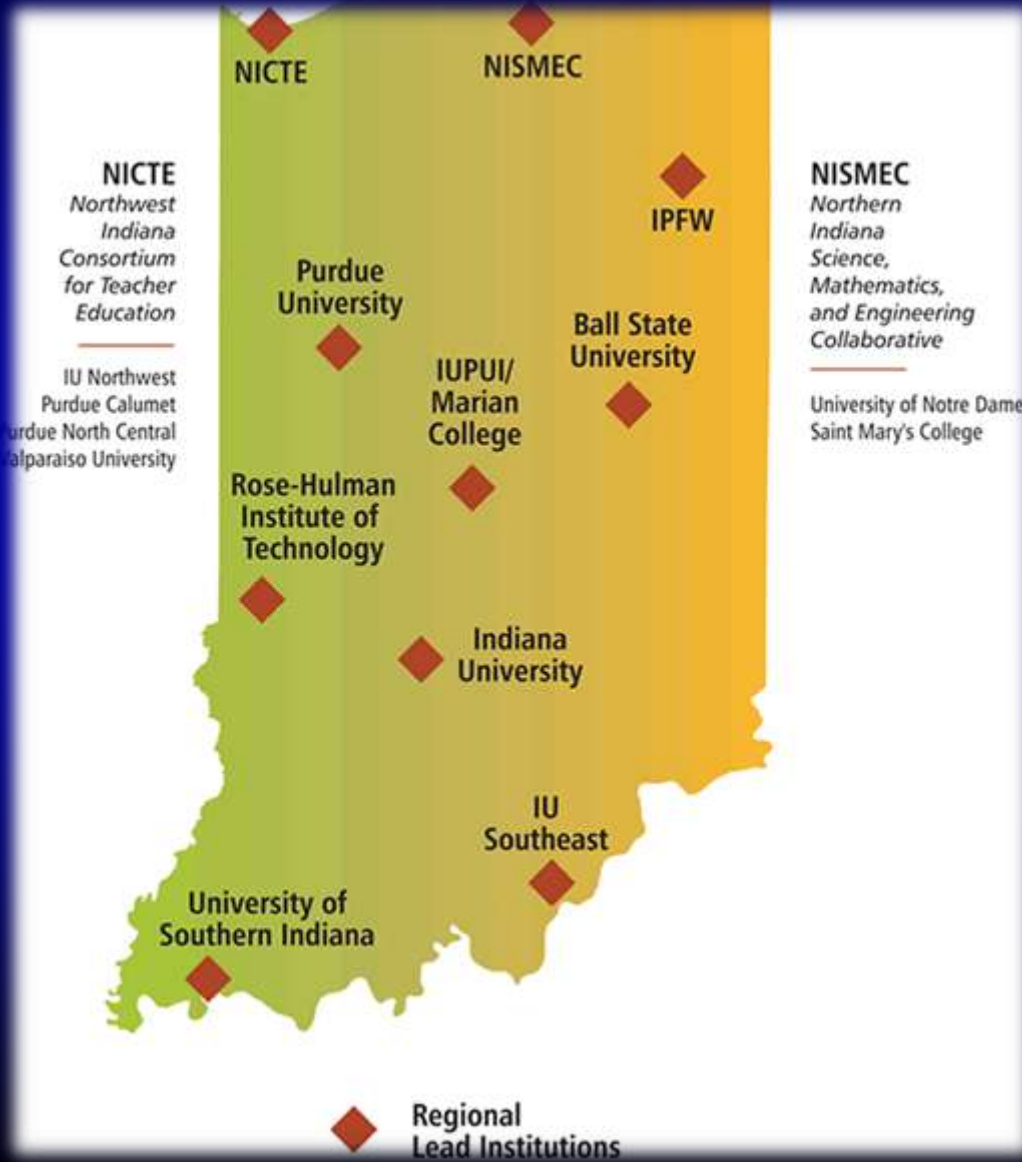


Funding (Statewide)



Overarching Goal

Help Indiana achieve its vision to be a national leader in student academic achievement in STEM disciplines and the in quality of its workforce





A Regional Solution to a National Problem



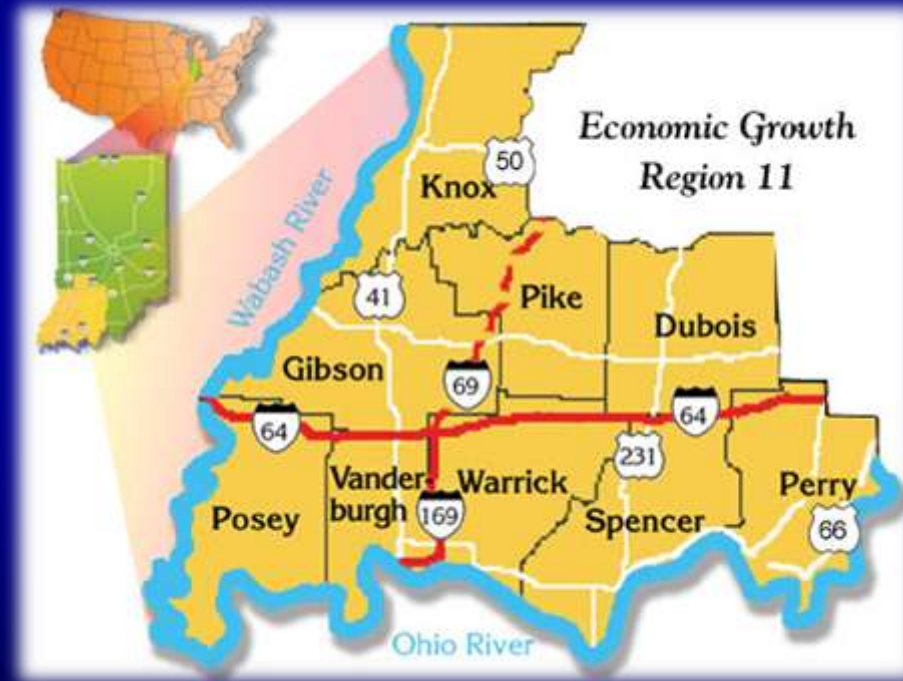


Establishment of Southwest Indiana STEM Resource Center

- Developed goals and objectives
- Prioritized initiatives
- Began developing framework for staffing
- Obtained additional funding
- Late 2007 – began developing initiatives



Regional Approach



+

Daviess
Martin





Funding

Southwest
Indiana **STEM**



\$150,000 per year



\$600,000 over 3 years



\$1,200,000 over 5 years

STEM Resource Endowment \$75,000

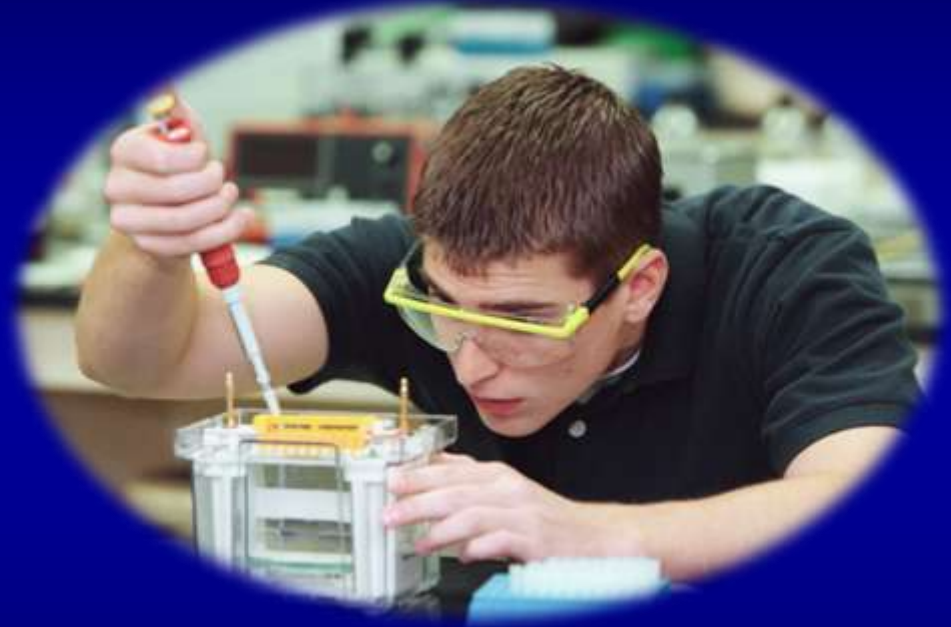


- Professional Development P-16
- STEM Camps P-12
- PTLW
- Competitions
 - Legos
 - Bridge-building
 - Science Fair
- Fostering Business/Industry Relationships
- Student Research Experiences
- Informal Education
- Demonstrations
- Career Exploration
- Advocacy





- Early Undergraduate Research
- Pathways Leading to Undergraduate Success in the Sciences (PLUSS) Program



National Science Foundation
WHERE DISCOVERIES BEGIN

Equipment/Instrumentation Trucks





- Lego robotics
- Interface modules
- Water baths
- spectrophotometers
- pH sensors
- gel electrophoresis
- thermocylers
- Teacher developed labs
- High pressure liquid chromatographs
- gas chromatographs
- Conductivity probes
- Motion detectors
- PCR kits
- Chemistry model kits
- HACH water test kits
- Skeletal models
- Hands-on labs
- Light sensors
- microcentrifuges
- analytical balances
- legos
- stereo microscopes
- EKG machines
- Slide collections
- glassware
- CO₂ sensors
- Spectrophotometers
- Inquiry science exercises
- O₂ sensors
- Relative humidity detectors
- Geiger counters
- water baths
- Video library
- Infrared light sensors
- Magnetic field detection
- Loggerpro software
- stereo dissecting scopes
- voltmeters
- laptop carts
- vanier probes
- stereo dissecting scopes
- voltmeters
- math manipulatives
- Van der Graaf Generators
- light boxes



- Provide research grade equipment and instrumentation to regional K-12 schools
- Develop inquiry-based hands-on laboratories utilizing equipment in trucks
- Provide students with real-world science experiences



Pott College

*“A Leader in Science, Technology,
Engineering, and Mathematics
Education”*

