Building Thriving Programs

7 February 2015
Seattle, WA

Threatened Departments:
How They Responded – How They Fared

Theodore Hodapp
Director of Education and Diversity
American Physical Society
What do these institutions have in common?

• Elizabeth City State University
• Long Island University
• Minnesota State University Moorhead
• Prairie View A&M University
• Southern Oregon University
• Tennessee State University
• Texas Southern University
• University of Northern Iowa
• University of Southern Maine
Common themes

Department graduates few majors
New President (Provost)
Budget issues
Rethinking structure
Departments threatened

• Go gently into that good night…
• Department eliminated
• Teach service courses…

• Rage, rage against the dying of the light…
• President resigns/retires
• Department restructured
• Rebirth?!
Physics / STEM
Bachelor Degrees

Source: IPEDS Completion Survey
Change in BS Departments

Up 75%
Change in PhD Departments

PhD 98-00

PhD 11-13

Up 101%
National Implications

If we eliminate departments that graduate 5 or fewer graduates annually:

- 49% of all public programs (180 of 368) 16% of public students
- 66% of all private programs (260 of 391) 27% of private students
- 58% of all programs (440 of 759) 21% of all students
- 70% of all astronomy programs (57 of 82) 34% of all students
- 94% of HBCU programs 73% of African-Am. Students

States adopting or considering these measures: Texas, Idaho, Missouri, Tennessee, Florida, Maine, Louisiana, Mississippi, Iowa

Will 10 or 15 be the new 5?
Case Studies

- University of Northern Iowa
- Texas (lots of places)
- Southern Oregon University
University of Northern Iowa

- MS, 8 BS/yr, 2nd largest HS teacher educator
- President: Department not meeting 10/yr criteria
- Multiple “Tracks” used against them
- Multi-pronged “high-road” campaign
  - Alumni
  - Media
  - APS and AAPT (?) letters
- Faculty were fired, but all retained in lawsuit fought by union; some had opted to retire
- President resigned
Regents approve UNI request to cut 58 academic programs

CEDAR FALLS, Iowa — The Iowa Board of Regents today unanimously approved the proposed academic cuts at the University of Northern Iowa.

The list, which included 58 undergraduate and graduate majors and minors, was unanimously approved by the Education and Student Affairs Committee this morning.

The biggest change came in the physics department where Provost Gloria Gibson this morning said that the bachelor of science degree was removed from

Hard Work, Advocacy Paid Off For Physics Department In Face Of UNI Budget Cuts

Faculty and students of the University of Northern Iowa physics department didn't agree with a recommendation to eliminate one of their degree programs. They spoke up, and their voices were heard.
Our effort to fight program eliminations started with a call to APS. We have many people to thank and APS's support was noted early by the media and was constantly referred to by us as we fought for our programs.

John Deisz, UNI Physics
Texas

- THECB started enforcing minimum size requirements
- Lots of departments, individuals responded
- Many programs closed
## Closing Texas Physics Departments

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Source: National Center for Educational Statistics: IPEDS
Texas holds firm on physics closures

Undergraduate programmes face termination unless graduation rates improve.

Eugenie Samuel Reich

Texas higher-education officials delivered a stern message to physicists yesterday that the state is likely to stick to plans to phase out ‘low-performing’ physics programmes within the next year or two if they cannot demonstrate compelling plans to improve.

Members of the American Physical Society requested yesterday’s meeting with the state’s Higher Education Coordinating Board, which said closing the programs would mean losing $150,000 in state funding. The panel representatives said states would compete for that money by offering prospective students financial incentives. The requests come as state leaders say they want to increase the number of degrees awarded in STEM disciplines across the state.
New Texas Physics Consortium (TPC)

- Midwestern State University
- Prairie View A&M University
- Texas A&M University-Corpus Christi
- Texas A&M University-Kingsville
- Tarleton State University
- Texas Southern University
- West Texas A&M University

Fall 2015 classes:

- Mechanics
- Quantum Mechanics
- Physics Research Project
- Thermodynamics
- Electromagnetism
- Modern Physics I
- Introduction to Astrophysics

West Texas A&M University
Prairie View A&M University
Texas A&M University - Kingsville
Texas Southern University
Tarleton State University
Texas A&M University – Commerce

Dan Marble: Tarleton State
• THECB started enforcing minimum size requirements
• Lots of departments, individuals responded
• Many programs closed
• Birth of the TPC
• THECB stripped of many of their powers by legislature
Southern Oregon University

• New President, budget shortfall, declining enrollment in college, small classes in major
• Number of majors cut including French, geoscience, German, etc.
• Department tried various things
  • 4 “Tracks” used against them
  • No HS teacher education
  • Mobilized alumni, colleagues, etc.
• 4 FTE tenure/tenure-track to 1 non-tenured FTE
How to Respond / Act?

- Read the SPIN-UP
  - Put best people into introductory courses
  - Provide student study spaces / SPS chapter
  - Construct flexible degree programs for majors
- Form a Doubling Committee
- Speak with colleagues from places with large gains
- Join PhysTEC and improve teacher preparation
- Attend to department “culture”
- Market the degree
- Ask APS / AAPT for support (webpage with resources)
- Best defense is a strong offense
18 October 2011

Commissioner Raymund Paredes
Texas Higher Education Coordinating Board
1200 E. Anderson Lane
Austin, TX 78752

Dear Commissioner Paredes,

The American Physical Society (APS) recently learned of the intended action by the Texas Higher Education Coordinating Board (THECB) to terminate offering BA or BS degrees at a number of low-enrollment physics programs in Texas. We urge the THECB to carefully consider the repercussions that will ensue from closing these programs. We have spoken with many of the affected departments and are committed to working with the THECB, the State of Texas, and Texas Institutions to address low graduation rates. Our discussions with a number of institutions indicate that significant steps have already been taken, but more time must be allowed for these reforms to bear fruit. The APS shares the goal of the THECB to improve the
Thoughts

• Be proactive
• If attacked, ask for help
• Talk to people who have worked through this
• Universities are in a new/evolving economic reality – try and understand this from your dean/provost’s perspective
• Physics is not “pre-destined” to exist at all places
• Educate high school physics teachers
• Joint Task Force on Undergraduate Physics Programs (J-TUPP): Report due Summer 2016