

# Purdue School of Engineering and Technology, IUPUI

## Dean's Industry Advisory Council

March 7, 2013

# Today's Agenda

- 3:30 p.m. **Meeting Convened (Vince Newsom, Chair)**  
Introduction of New Members
  
- 3:35 p.m. **ASEE Intern of the Year (Kirk Barber)**
  
- 3:40 p.m. **Committee Updates**  
General Administration  
Research  
Diversity, Recruitment & Retention  
Student Services
  
- 4:10 p.m. **STEM Professional Certificate (Andrew Frazier)**
  
- 4:30 p.m. **Break & Networking**
  
- 4:45 p.m. **Linkage to Department IABs (Vince Newsom)**  
Biomedical Engineering (Ed Berbari)  
Discussion (All)
  
- 5:15 p.m. **School Update (Dean Russomanno)**
  
- 5:30 p.m. **Wrap-Up, Adjourn and Networking**

## New DIAC Members

**Carol Curran**

President & CEO

Phoenix Data Corporation

# Congratulations!

## American Society for Engineering Education

Intern of the Year

Kirk Barber

## Committee Updates

- General Administration
- Research
- Diversity, Recruitment & Retention
- Student Services

# General & Administration Committee Update

- Committee:
  - Frank St. John - Chairman
  - Joe Abella
  - Joe Bentley
  - Stephen Hundley
  - Cary Marston
  - Malcolm Thomas
  - Vince Newsom-Past Chairman
- Conduct monthly teleconference meetings
  - 2 held this year so far

- **Priorities**

- Progressing** – Examine DIAC Expansion to Regional/National
- Ongoing** – Recruit Representative Membership
- Discussing** – Link to Dept. Advisory Boards & Alumni Board
  - Identify next DIAC Chairman

# Work Plan & Metric (example)

## General & Administration Committee

Strategy → Initiative	Task	Measurement
<p>Maintain Vibrant and Relevant DIAC</p> <p>→ <b>Examine DIAC Expansion to Region/National</b></p>	<ul style="list-style-type: none"><li>• Assess pros and cons</li><li>• Review benchmark information</li><li>• Consider potential DIAC membership composition</li><li>• Evaluate meeting formats changes</li><li>• Review Companies hiring graduates</li><li>• Prepare report</li></ul>	<ul style="list-style-type: none"><li>• Complete assessment and report finding to the Dean and DIAC</li><li>• Recommend new DIAC members consistent with the plan</li><li>• Develop and recommend a new meeting format</li></ul>

## What should be the make-up of DIAC?

### – Organizations

- Diversity (firm size, type, region, technology, cluster/technology intensity)
- Organizations that hire IUPUI graduates & interns (now and future)
- Organizations who employ the central Indiana workforce (now and future)
- Firms whose research and development interest blend with IUPUI
- Organizations considered leaders in their industries
- Individuals and organizations that bring strategic interests to the school
- Organizations that support state initiatives (Life Science, Transportation, & Logistics and Advanced Manufacturing)

### – Members

- Leaders in their companies and community
- Influential within their organization
- A diverse membership that brings insight and different points of view to the School
- Members who are engaged and who demonstrate a personal commitment to the School
- Members that may be affiliated with the school already (alumni, etc.)
- Willing to advocate for the School within their companies and communities

**Research  
Committee**

- Wayne Eckerle
- Bernie Sepaniak
- Jorge Schreiber
- Joe Kitterman
- Bill Wylam
- Jim Wheeler
- Steve Wellborn
- Razi Nalim

*Primarily Supports Associate Dean for Graduate  
School and Research*

## Committee Goals

- Increase the number of opportunities for student interaction with discipline professionals (Career Forums, Coop & Intern Opportunities, Resume Reviews & Mock Job Interviews)
- Increase the number of opportunities for internships or recruitment with DIAC member firms
- Make proposals on how to improve “marketability” and employment opportunities for students with 2.6 – 2.9 GPAs
- Make proposals and implement a more robust process for bringing together students and potential employers in the areas outside of Engineering & Engineering Technology.
- Coordinate efforts with DIAC Diversity, Recruitment & retention Committees

- **Membership**

- Jill Mendoza – i.d.o. Inc.
- Bruce Wylam – Hunt Construction
- Bill Klenk – Allison Transmission
- Mike Martin - Lilly
- Dale Jacobs – BSA LifeStructures
- Souhel Stanbouly – Carrier
- Terri Talbert–Hatch – Asst. Dean Student Services
- Jennifer Williams – E&T Career Services Specialist

- Membership Database Tool
  - Requirements defined
  - Initial meeting with Computer Network Services
    - MS SharePoint chosen as platform
    - In-queue for design and implementation
  - Project to start March 8<sup>th</sup>

- Multiple Points of Contact for Industry Companies
  - Have received input from DIAC companies (15 companies solicited; 52 individuals)
    - Except Roche, Allison Transmission, AIT Labs & Cummins
      - Joe needs to follow-up
    - Have updated rosters with new information obtained so far
  - Received four HR contacts and three additional contacts
    - Provided four HR contacts to Career Services
    - Add additional contact names into new SharePoint Tool when available
  - Next steps
    - Update e-mail to make instructions more clear
    - Identify additional candidate companies from Complete List of IAB members and solicit additional contacts from them

# Student Support Committee

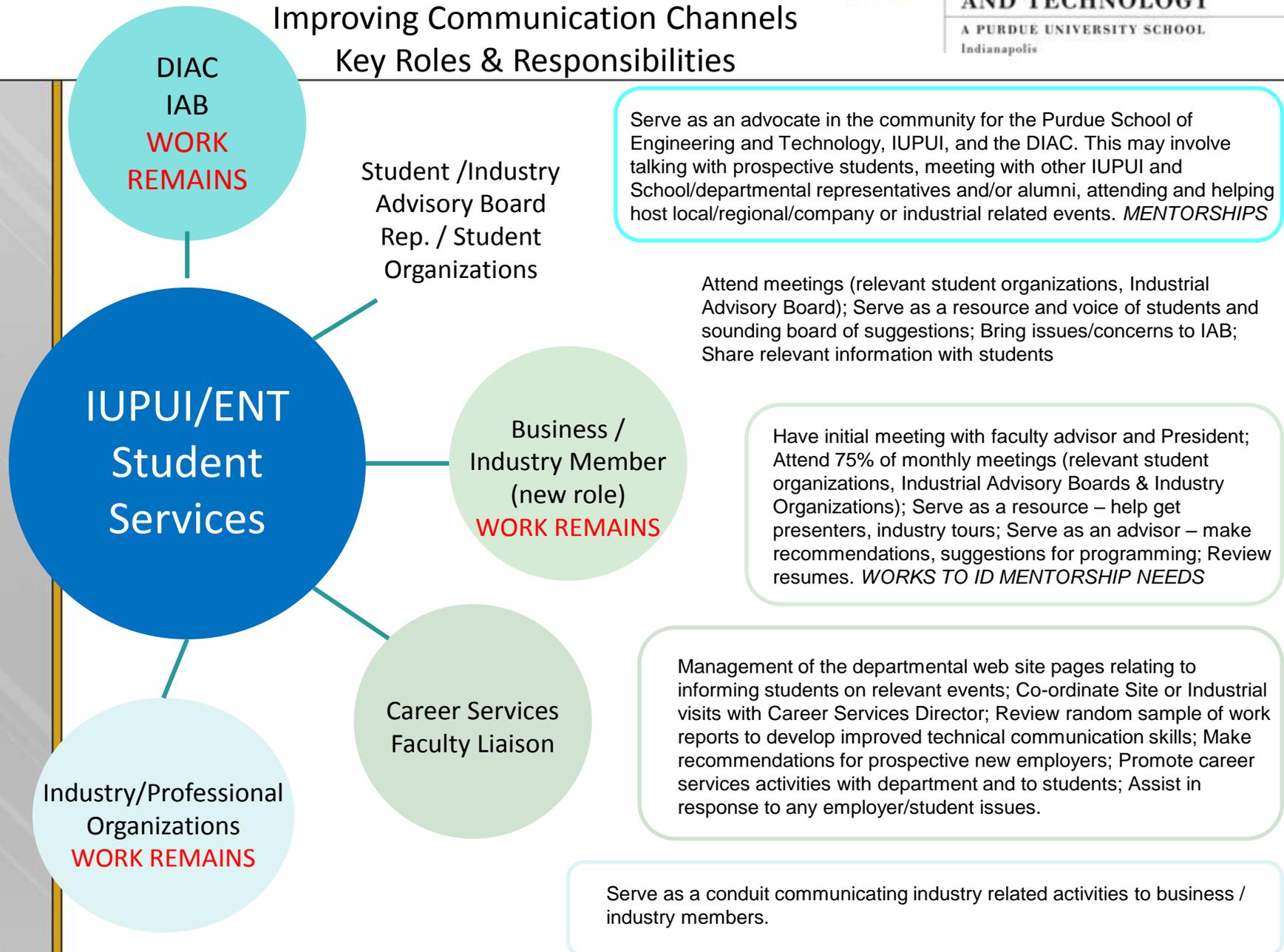
- Implementation of Faculty-Student Services Liaison and Student membership on IABs

Department/Program	Student Services Liaison	Student IAB Member
BME	Karen Alfrey	Chad Harding (also president of BME club)
ECE	Jane Simpson	Kyle Moody
ME	Hazim El-Mounayri	Akram Khatib
CIT	Dan Baldwin	Shannon Britt
CGT	Dan Baldwin	
ECET/CpT	Allison Stevenson	Kenneth Lee
MET	Allison Stevenson	
CEMT	Allison Stevenson	Charlie Tinch III
BMET	Allison Stevenson	Heather Schwipps
MSTE	Allison Stevenson	Dwight Brown
INTR	Allison Stevenson	Mary Beth Spindler (Student Design Organization)
ART	Allison Stevenson	Kevin Bolger
MAT	Roberta Lindsey	N/A
TLC	Pat Fox	LAmerica Smith
TCM	Pat Fox	

# DIAC Student Support Committee

## Improving Communication Channels

### Key Roles & Responsibilities



## Committee's Unfinished Business Action Items

- Make Recommendations on how to improve “marketability” and employment opportunities for students with 2.6-2.9 GPA's.
- Explore areas of opportunity where DIAC Members can get involved through mentorships and other Student Events.
- Recommend a set of expectations for DIAC Member involvement in Student Activities.
- Coordinate efforts with DIAC Diversity, Recruitment & Retention Committees.

## 2013 Goals & Activities

Kevin Zaletel

- Membership
  - Kevin Zaletel, *Chairman* – UPS
  - Clayton Nicholas – IUPUI
  - Chris O’Keefe – Ernie Greene Industries
  - Terri Talbert–Hatch – Asst. Dean Student Services
- Frank St. John, *Past Chairman* – Applied Engineering Services

- DRR Meeting 2/26/13 with Student Organizations
- 2013 Goals
  - Continue to work with Student Organizations
    - What are their needs?
    - How can we better support them?
    - What is their mission and are they meeting their goals?
    - Continuity of student organizations
    - Business Contacts for NSBE, SHPE (need contact for SWE)
- Spring Student Organization recognition event

- NSBE National Conference - Indianapolis
- SHPE National Conference
- Support Schools Diversity Initiatives
  - Coop / Internship opportunities
  - Capstone Project
- Develop Strategies for Recruiting Diverse Students
  - Power Camp
  - MEAP
    - Provide feedback and recommendations

**STEM Professional Certificate  
Andrew Frazier**

# Leadership and Professionalism Certificate

March 7, 2013

## 1. Leadership

## 2. Communication

## 3. Professional Skills

a. project management

b. team building

c. entrepreneurship

d. business

# Requirements

## 1. Leadership (3 CR):

-Specified OLS course

## 2. Communication (3-4 CR)

-Specified TCM Course

## 3. Professional Skills (9 CR)

-Focused Ensemble of Student  
Selected Courses

## 4. Application (3 CR)

-Sr. Design, Capstone, or Internship

**All Courses:**

**≤300 level**

**≤3.0 GPA**

- Application (Fall Freshman Year)
  - Resume and Cover Letter
  - Proposed Plan of Study
- Complete Courses
- Review (Spring Senior Year)
  - Portfolio: work and reflections
  - Presentation: application focused
  - Evaluation: students, faculty, and industry partners

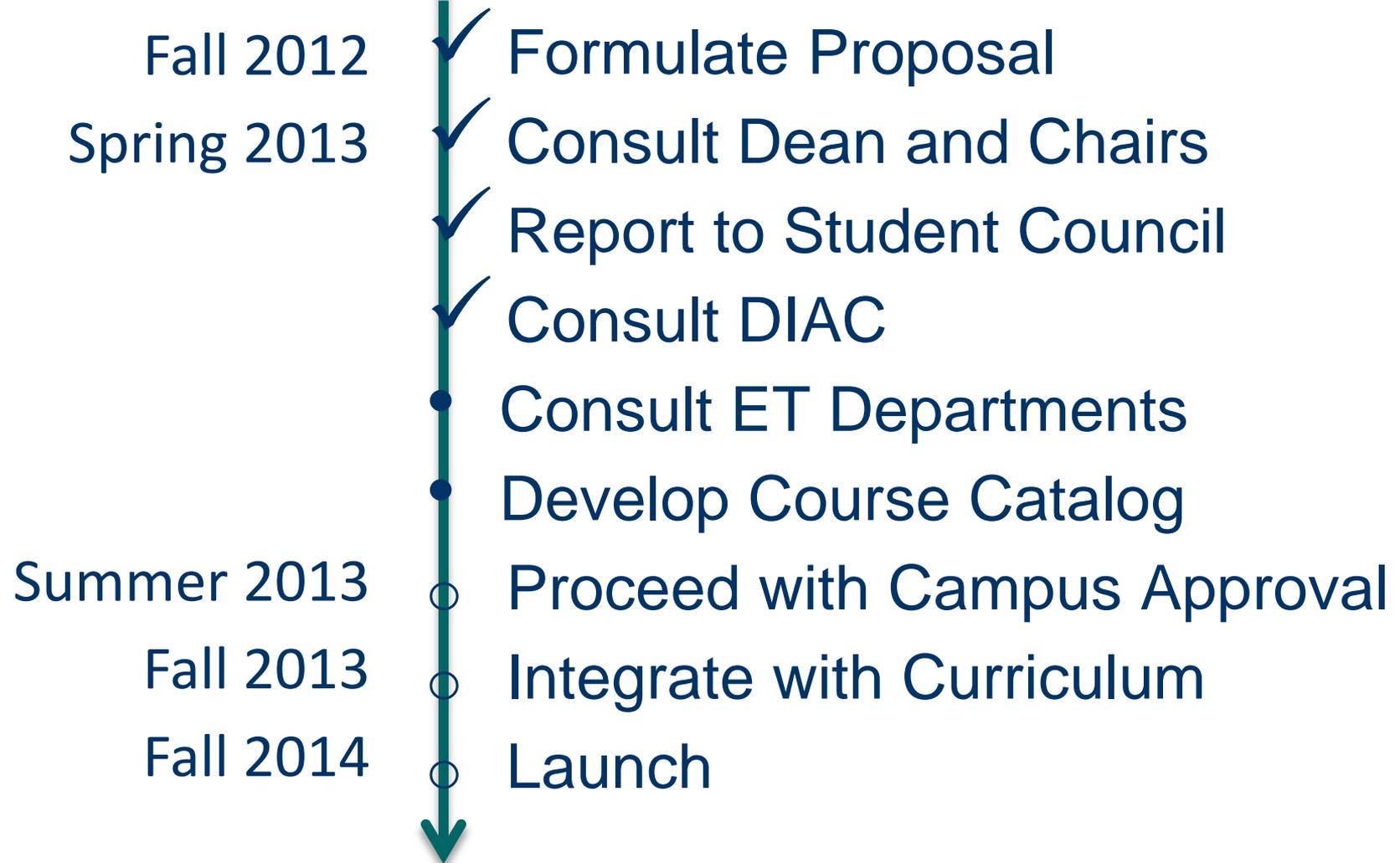
## Students

- No Additional Credits
- Gain Marketable Abilities
- Prepare for Innovation or Executive Leadership
- Integrate Professional Skills with Technical Competence
- Utilize Campus Resources (TLC and Kelly Sch. of Bus.)

## School

- Serve Industry Partners
- Minimal Investment
- Foster ABET Soft Skills
- Recruit and Recognize High Achieving Students
- Utilize TCM and OLS
- Enroll Informatics and Science Students
- Aid Post-Graduates

# Timeline



## Feedback?

Is this valuable training?

What elements are missing?

Are requirements sufficient?

Possible improvements?

Marketable name?

## Elements

- Leadership
- Professionalism
- Innovation
- Engineering
- Technology
- STEM
- Others?

## Working Title

STEM Professionalism Certificate

# **Break & Networking**

# **Linkage to Department IABs**

# Dean's Report to the DIAC

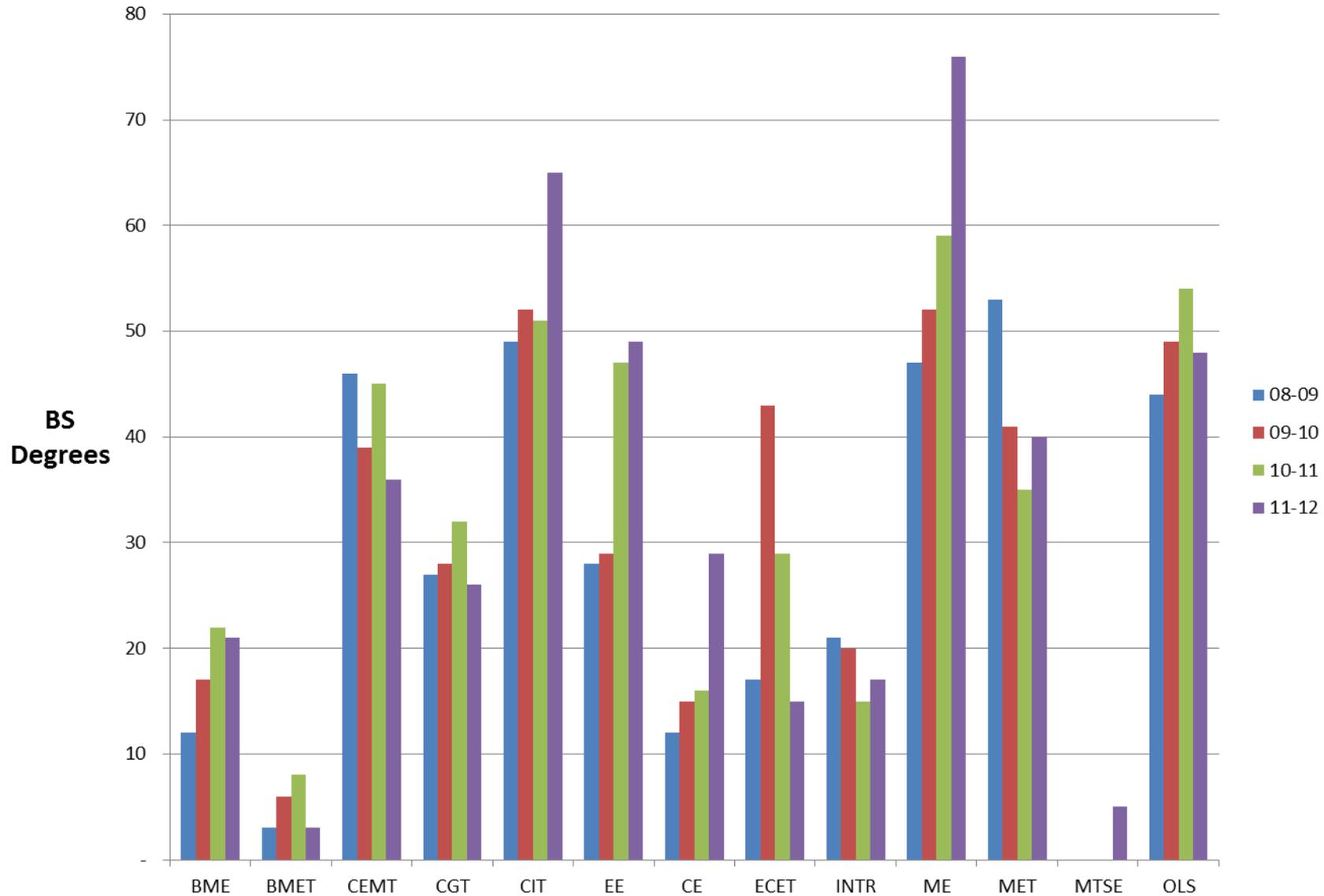
Purdue School of Engineering and  
Technology, IUPUI

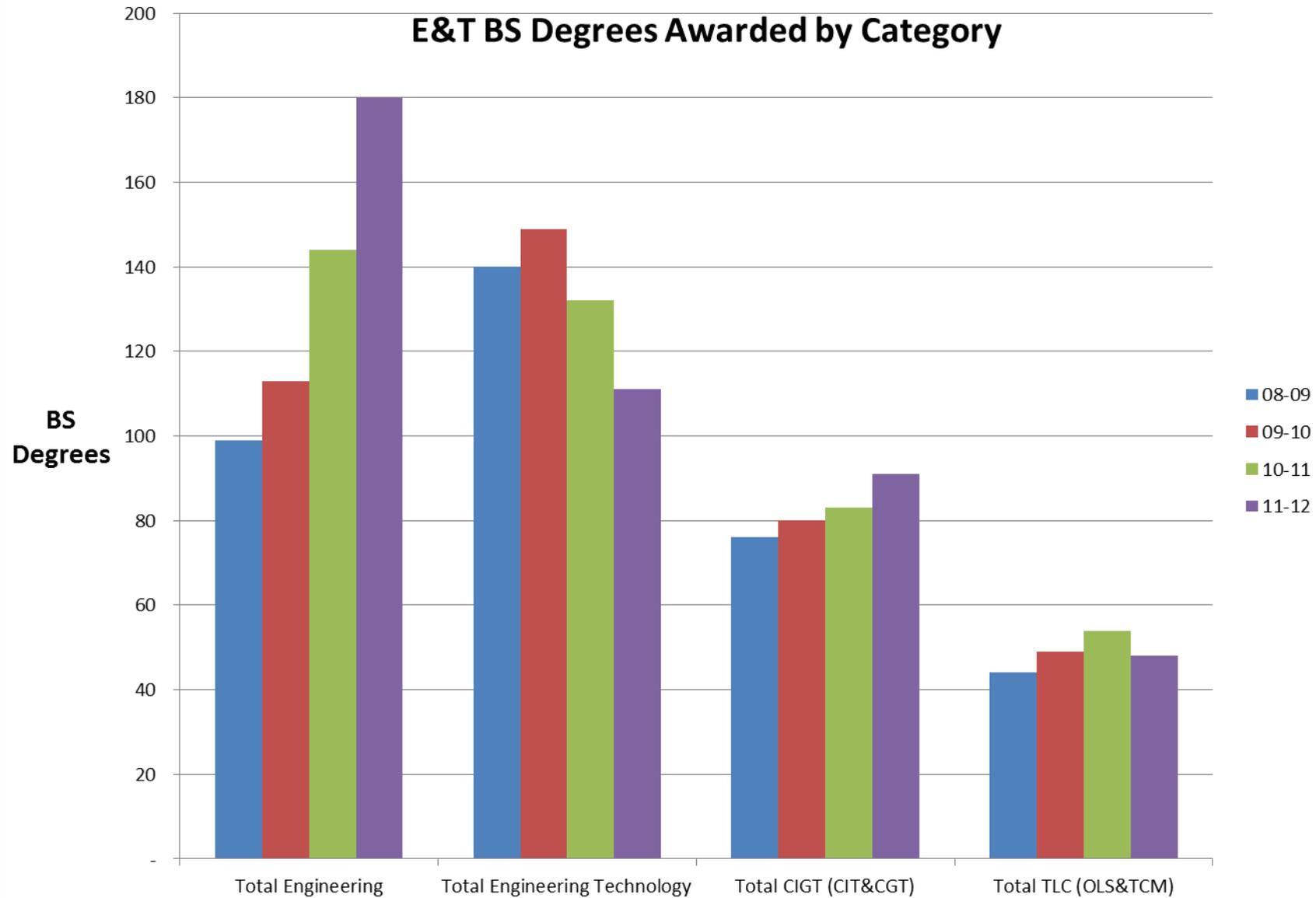
March 7, 2013

# Reflection & Planning

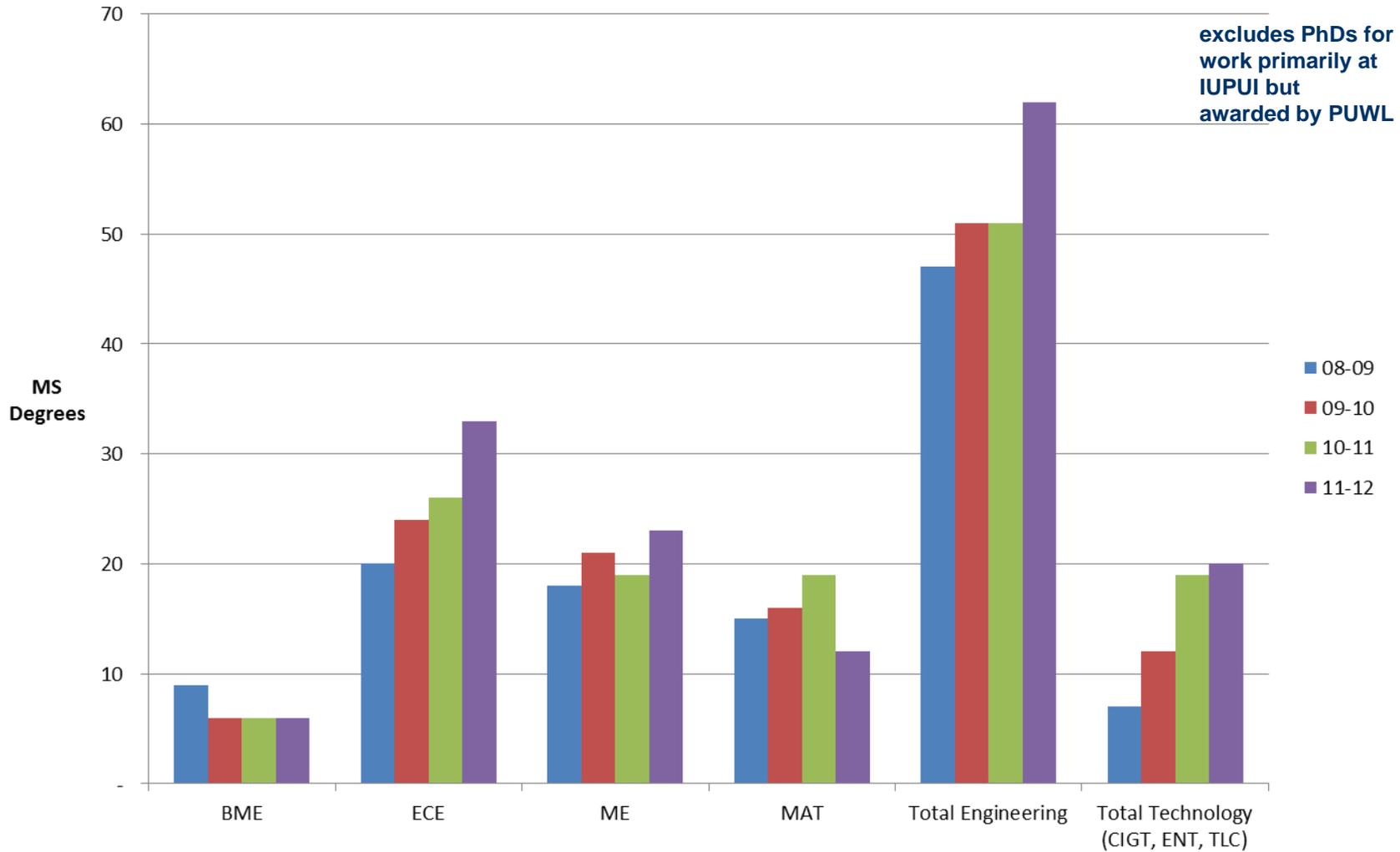
- As part of an annual budget hearing process, Schools at IUPUI have been asked to reflect on enrollment and research trends over the past four years and to provide feedback to the campus regarding enrollment and research projections.
- The following slides summarize some trends, challenges, and opportunities going forward, which will be included in E&T's response to the campus.

## E&T BS Degrees Awarded by Program

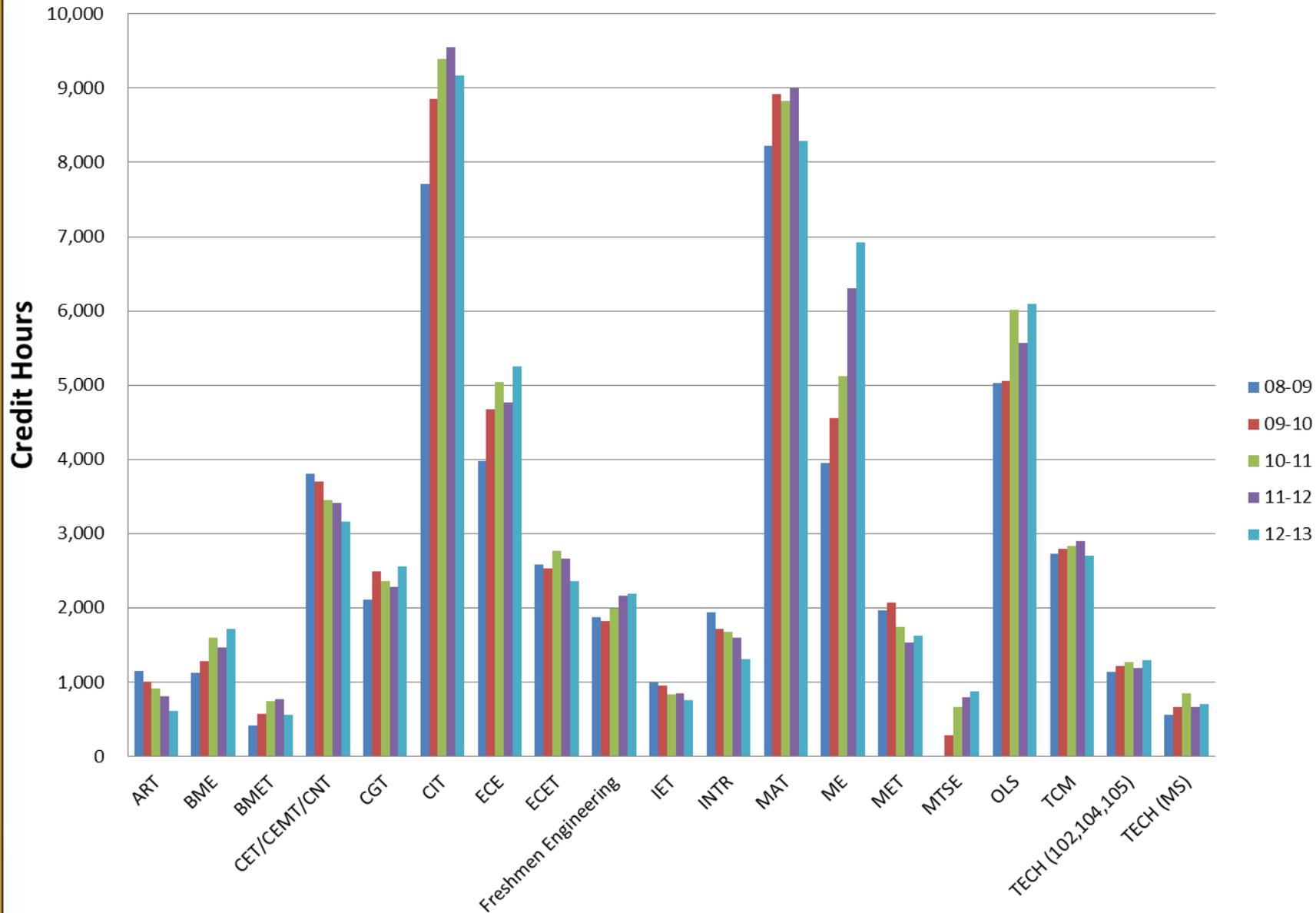


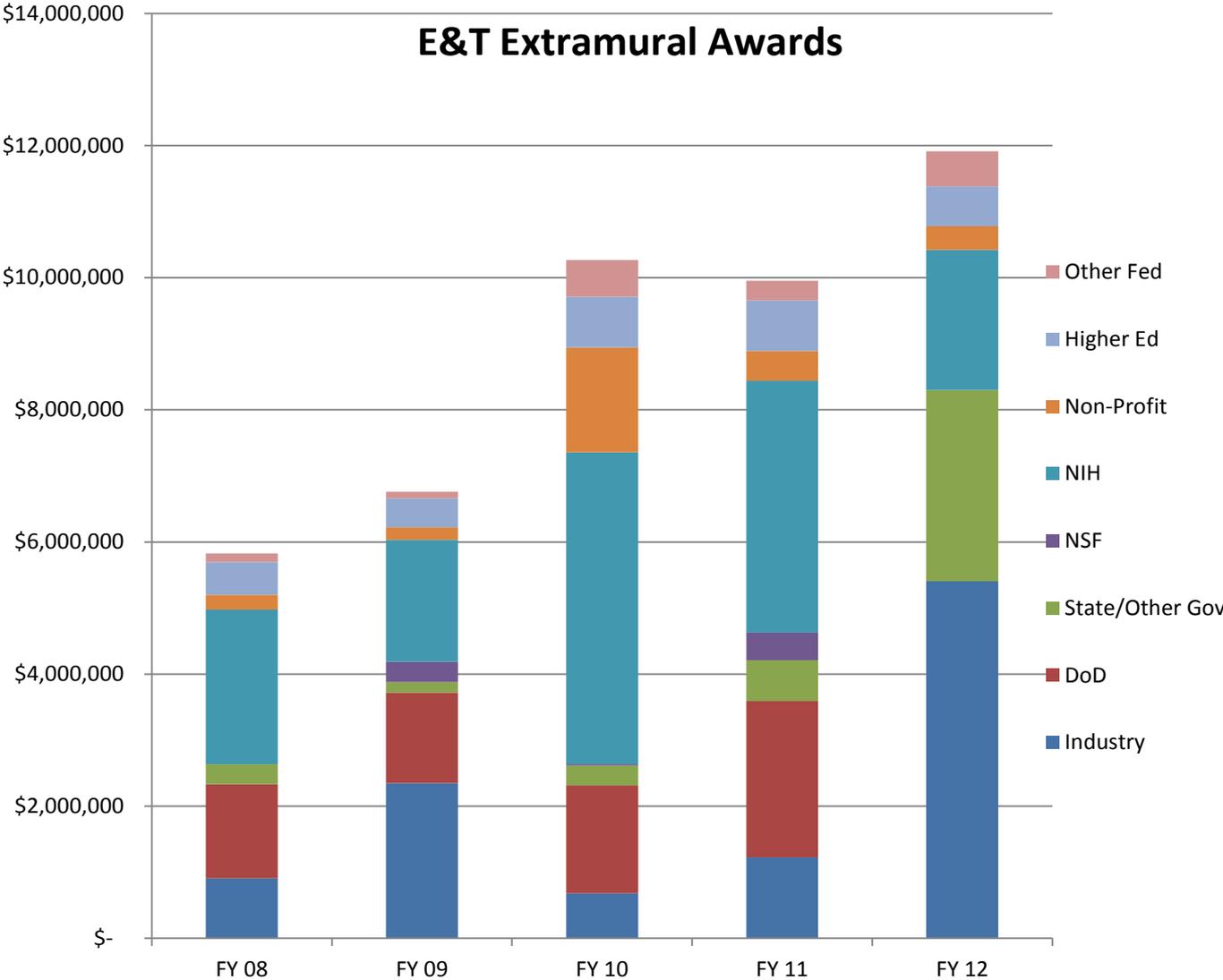


### E&T MS Degrees

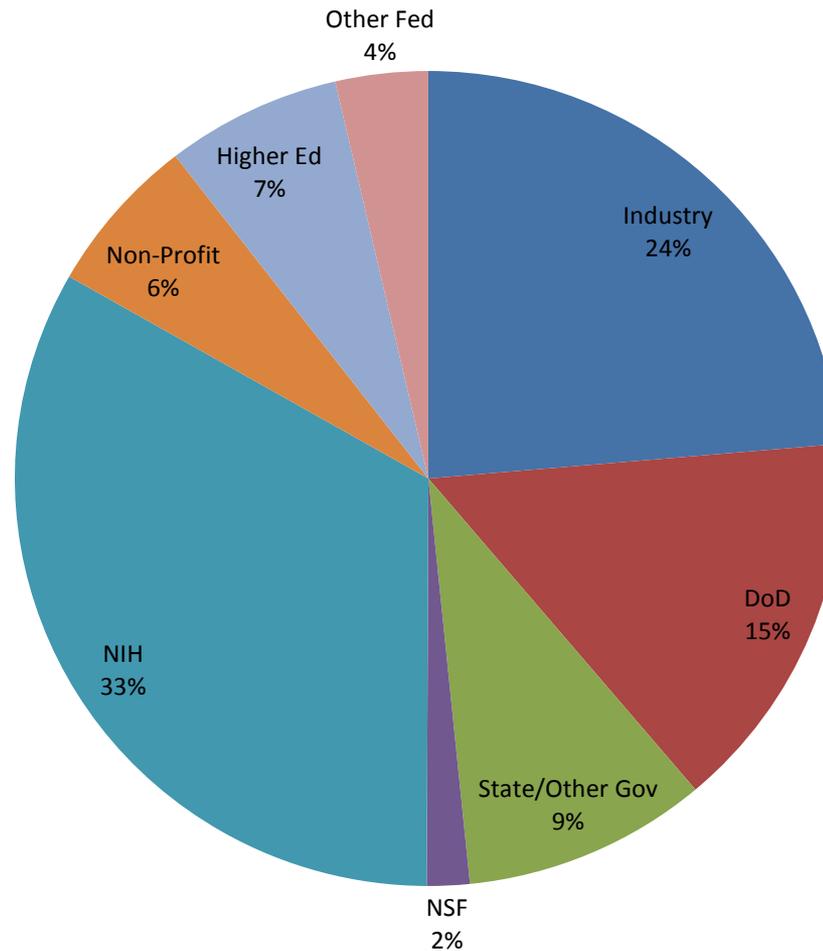


### E&T Credit Hours (Undergraduate + Graduate) By Program





## E&T Extramural Awards Last 5 Years \$44.72M



# Enrollment Projection Challenges

- Upcoming 30-hour common core mandate
  - how will it impact E&T's service offerings (MAT, OLS, TCM)?
- Upcoming 120-hour mandate
  - impacts engineering technology programs, as the majority of those programs reduced hours to meet the mandate
  - engineering programs followed PUWL's lead to seek exceptions

# Research Projection Challenges

- What will be the impact of reductions at the Federal level?
  - E&T has accumulated some 'cash' to provide continuity funding to bridge the gaps in reduced federal funding for those with a strong track record of external funding from federal sources and whose programs continue to be in areas of national need and high priority

# Some Opportunities

- Grow BME
  - BME is the largest undergraduate program at Georgia Tech yet it is our smallest engineering program despite our health and life sciences campus designation
- Continue to grow graduate programs, including value-added corporate programs
- Reverse enrollment trend in undergraduate engineering technology programs through enhanced recruitment and retention efforts
- Increase enrollment from partnerships with other academic institutions, e.g., SYSU ('2+2', '2+3' programs), Butler, Marian, etc.
- ...

# Some Opportunities

- Continue to support research foci that build upon faculty talent, established track records, and prior investments. For example,
  - Continue to partner with other Schools on multidisciplinary funding opportunities that leverage the IUPUI health and life sciences designation and resources by strengthening capabilities in biomaterials, biomechanics, cardiovascular engineering, nanotechnology, and health-related information technology.
  - Strengthen Indiana’s long tradition of being a leader in automotive manufacturing and assembly by enhancing automotive research capabilities, including automotive-safety research through the Transportation Active Safety Institute (TASI) and advanced manufacturing engineering and technology expertise.
  - Support research and development broadly in information technology, including: i) innovative online learning software through the Cyberlab; ii) information assurance; and iii) intelligent sensing and imaging.

# Some Opportunities

- Continue to support the School's research incentive plan to reward faculty members with incentive pay up to 20% of the amount of base salary 'recovered' from extramural funding sources.
- Continue to maintain adequate cash reserves to provide sufficient funds for cost share for research proposals that require it.
- Use cash reserves to renovate space to better support those initiatives that have successfully secured external funding and who have strong promise to build upon their success (e.g., the Industrial Energy Assessment Center funded by the Department of Energy, TASI supported by Toyota, etc.).
- Maintain or increase (through reallocation) departmental base budget support for graduate assistantships, including maintaining the non-resident tuition remission policy for fully funded graduate assistants, which was recently established.
- Aggressively respond via counter offers to retain the School's most productive researchers.
- Continue mentoring faculty members in sponsor-focused interest groups, in which investigators provide feedback to each other to improve the quality of subsequent proposals and win grants at higher rates.

IUPUI

# SCHOOL OF ENGINEERING AND TECHNOLOGY

A PURDUE UNIVERSITY SCHOOL

Indianapolis



## Important Dates 2013

- March 7, Thursday: DIAC Meeting, 3:30 – 5:30 p.m.
- *April 26, Friday: School of Engineering and Technology Honors Convocation & Dinner, at The Conrad*
- June 6, Thursday: DIAC Meeting, 3:30 – 5:30 p.m.
- **October 18**, Friday: Joint Board of Advisors Retreat, 12:00 p.m. – 4:00 p.m.
- *September 16, Monday Afternoon: Alumni Golf Outing*
- December 5, Thursday: DIAC Meeting, 3:30 – 5:30 p.m.

***Thank You For Your Contributions  
To Our School!***