

# Joint Board of Advisors Meeting

Report on the School  
Purdue School of Engineering and Technology

IUPUI University Library  
Lilly Auditorium  
October 29, 2010

# Topics

- Leadership changes
- First impressions
- Vision
- Enrollment overview
- Roadmap forward

# Leadership Changes

- David Russomanno, dean
- Razi Nalim, interim associate dean for research and graduate programs
- Ongoing search, director of the Richard G. Lugar Center for Renewable Energy
- Ongoing search, assistant dean for development and external relations

# Russomanno's Background

- Joined IUPUI on July 1, 2010 as dean of the Purdue School of Engineering and Technology and Professor of Electrical and Computer Engineering
- 17 years as a faculty member at the U. of Memphis
  - 6 years as chair of electrical and computer engineering
  - 1 year as interim director of the Center for Advanced Robotics at the FedEx Institute of Technology on the campus of U of M
  - 5 years as coordinator of computer engineering
- Previous industrial experience as a design engineer
  - Pratt and Whitney Aircraft (Defense)
  - Michelin Tire Corporation (Manufacturing)
  - Intergraph Corporation (Commercial)

# First Impressions

**“It was the best of times, it was the worst of times”**

Charles Dickens

***“The Times They Are a-Changin’”***

Bob Dylan

# Best of Times

- Improving national image and reputation
- Record extramural awards this past fiscal year
- Strong enrollment
- New high-profile programs that address contemporary issues
- New science and engineering research building

# Best of Times

## Best Colleges: Up-and-coming National Universities

In spring 2010, for the third year in a row, U.S. News asked the experts who respond to our annual peer assessment survey to identify institutions in their U.S. News ranking category that are making the most promising and innovative changes in the areas of academics, faculty, and student life. The 68 that received the most nominations in their ranking peer group for being up-and-coming are listed here.

	Rank
<b>University of Maryland--Baltimore County</b>   Baltimore, MD	1
<b>Arizona State University</b>   Tempe, AZ	2
<b>Drexel University</b>   Philadelphia, PA	2
<b>Northeastern University</b>   Boston, MA	2
<b>George Mason University</b>   Fairfax, VA	5
<b>Indiana University-Purdue University--Indianapolis</b>   Indianapolis, IN	5
<b>University of Central Florida</b>   Orlando, FL	7
<b>University of Delaware</b>   Newark, DE	8
<b>Clemson University</b>   Clemson, SC	9
<b>Wake Forest University</b>   Winston-Salem, NC	9
<b>Binghamton University--SUNY</b>   Binghamton, NY	11
<b>University of Cincinnati</b>   Cincinnati, OH	11
<b>University of Denver</b>   Denver, CO	11
<b>University of Georgia</b>   Athens, GA	11
<b>University of Southern California</b>   Los Angeles, CA	11
<b>Ohio State University--Columbus</b>   Columbus, OH	16



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# Best of Times

	Rank	High School Counselor score (out of 5):
<b>University of Virginia</b>   Charlottesville, VA	30	4.3
<b>Wake Forest University</b>   Winston-Salem, NC	30	4.3
<b>Boston University</b>   Boston, MA	35	4.2
<b>Colorado School of Mines</b>   Golden, CO	35	4.2
<b>George Washington University</b>   Washington, DC	35	4.2
<b>Purdue University--West Lafayette</b>   West Lafayette, IN	35	4.2
<b>Rensselaer Polytechnic Institute</b>   Troy, NY	35	4.2
<b>University of California--Davis</b>   Davis, CA	35	4.2
<b>University of Texas--Austin</b>   Austin, TX	35	4.2
<b>Brandeis University</b>   Waltham, MA	42	4.1
<b>Pepperdine University</b>   Malibu, CA	42	4.1
<b>University of California--Irvine</b>   Irvine, CA	42	4.1
<b>University of California--San Diego</b>   La Jolla, CA	42	4.1
<b>Virginia Tech</b>   Blacksburg, VA	42	4.1
<b>American University</b>   Washington, DC	47	4.0
<b>Fordham University</b>   New York, NY	47	4.0
<b>Indiana University-Purdue University--Indianapolis</b>   Indianapolis, IN	47	4.0
<b>Northeastern University</b>   Boston, MA	47	4.0
<b>Pennsylvania State University--University Park</b>   University Park, PA	47	4.0
<b>Syracuse University</b>   Syracuse, NY	47	4.0
<b>Texas A&amp;M University--College Station</b>   College Station, TX	47	4.0
<b>Tulane University</b>   New Orleans, LA	47	4.0

## Touch Points!

Every encounter is an opportunity to enhance our image and reputation with the students, with our colleagues, and with the community we touch.







## Rankings

# Best Engineering Schools

Ranked in 2010

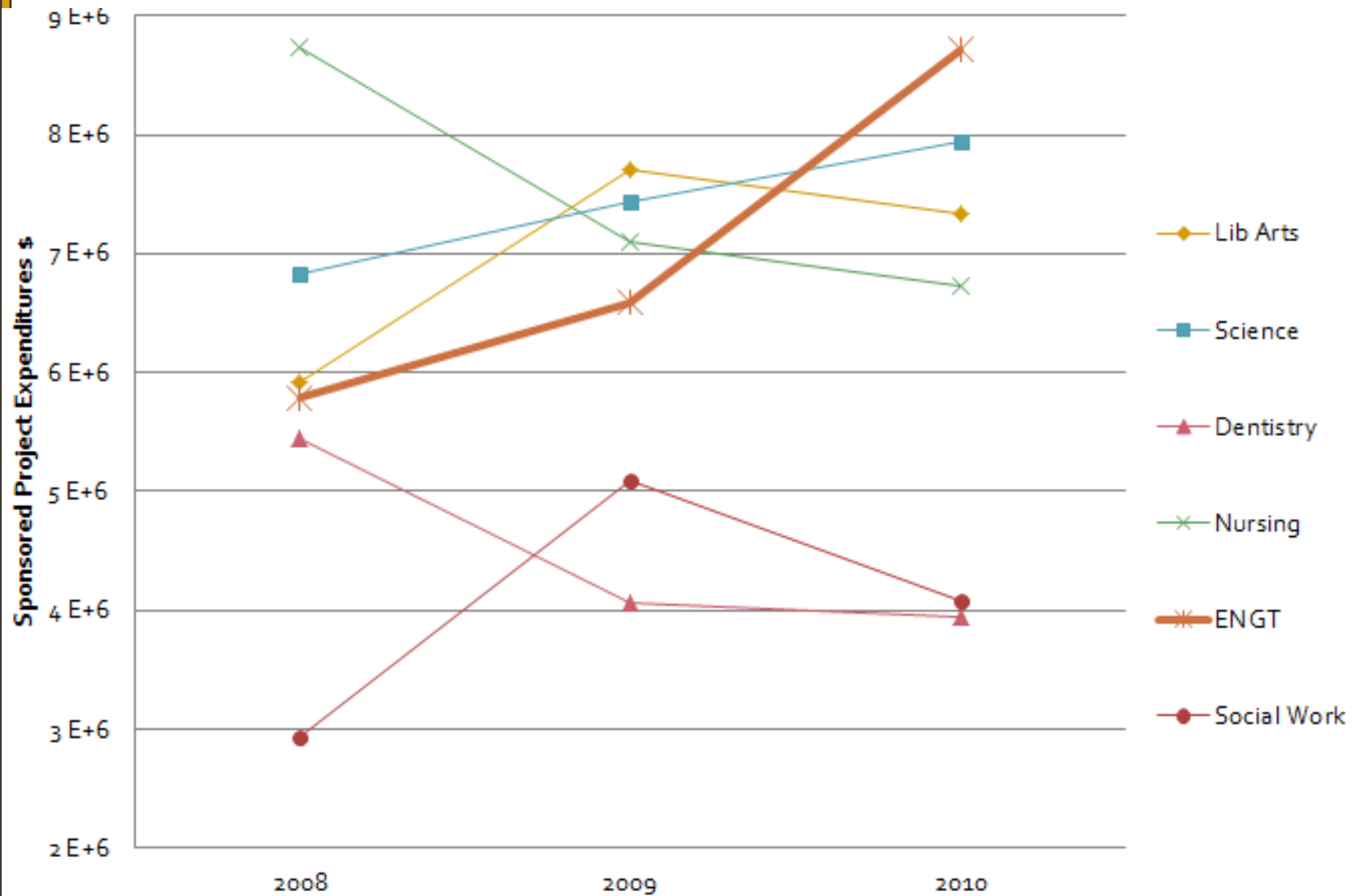
U.S. News surveyed 198 programs to get the information used in the ranking of top engineering schools.

[Compare]

- Rank107 [George Washington University](#)  
Washington, DC  
20 Full-time: \$1,118 per credit
- Rank107 [Indiana University-Purdue University--Indianapolis](#)  
Indianapolis, IN  
20 In-state, full-time: \$316 per credit, Out-of-state, full-time: \$904 per credit
- Rank107 [Tulane University](#)  
New Orleans, LA  
20 Full-time: \$39,000 per year
- Rank107 [University of Alabama--Huntsville](#)  
Huntsville, AL  
20 In-state, full-time: \$6,296 per year, Out-of-state, full-time: \$15,078 per year
- Rank107 [University of Maryland--Baltimore County](#)  
Baltimore, MD  
20 In-state, full-time: \$445 per credit, Out-of-state, full-time: \$736 per credit
- Rank113 [University of Alabama](#)  
Tuscaloosa, AL  
19 In-state, full-time: \$7,000 per year, Out-of-state, full-time: \$19,200 per year

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# Extramural Expenditures



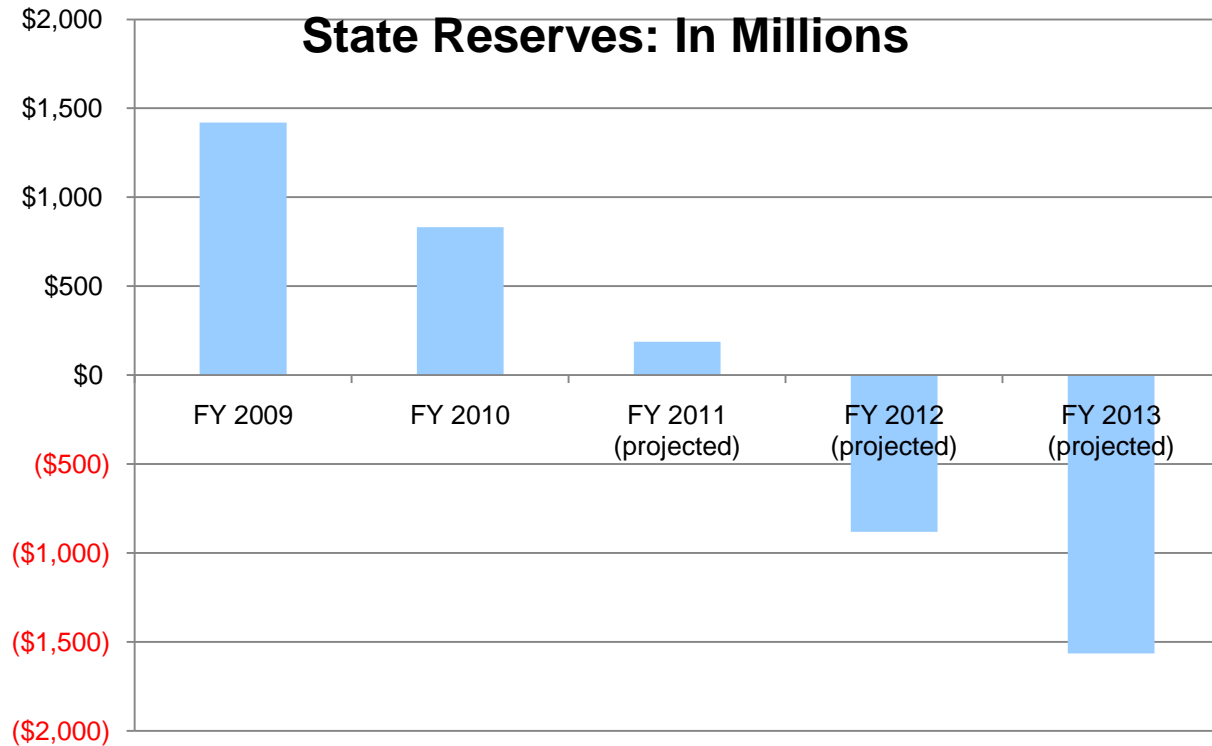
# Worst of Times

- Budget
  - Declining State revenues
  - Trend toward privatization of State universities
  - Rapidly increasing health care costs
  - Freeze on salary increases (recently lifted, 3% merit pool)

# Budget Challenges

- Indiana has > \$1 billion structural deficit that, in the absence of further stimulus, will need to be addressed in the 2011-13 biennium

# Budget



State highly unlikely to end FY 2011 with a currently projected reserve < \$200 M

- Given the reality of declining State financial support and the need to do more with less
  - we must seek out ways to increase our efficiency
  - we must continuously improve our programs and student outcomes

- Strive to compete at the highest levels in all that we do!

- Ensure new programs are successful
- Support interdisciplinary initiatives that leverage our strengths and prior investments
- Ensure our research enhances a student-centered experience
- Invest in people
- Build productive partnerships
- Connect to community
- Enhance image and reputation



# Invest in People

- Increase scholarships and fellowships for our students
- Increase research experiences for undergraduates
- Reduce faculty salary gaps with peer groups
- Provide research incentive plan
- Increase named professorships
- Provide release time for proposal preparation
- Provide release time for other activities that increase revenue streams
- Support faculty and staff development

# Competing at the Highest Levels

Lauren Christopher, assistant professor of electrical and computer engineering, 2010 Inductee into the Consumer Electronics Hall of Fame



# Competing at the Highest Levels

Dong Xie, associate professor of biomedical engineering, awarded prestigious NIH challenge grant for high-performance dental restorative system



# Competing at the Highest Levels

- Charles Feldhaus, associate professor of organizational leadership and supervision, and Stephen Hundley, associate dean for academic affairs and undergraduate programs, awarded a National Science Foundation STEM Talent Expansion Grant as Co-Investigators
- Grant focuses on the recruitment and retention of undergraduate STEM students



# Competing at the Highest Levels

- Motorsports Engineering named a top 10 automotive engineering program in the U.S. by Edmonds, Inc.



- Sustaining and Growing Extramural Funding
  - IU received \$62M in ARRA funds out of \$603M research award total in FY 2010 (~10%)
  - E & T received \$2.37M in ARRA funds out of \$10.3M in FY 2010 (~23%)
  - Awards are highly concentrated with a few investigators within E & T
  - Must grow graduate programs (particularly PhD students)

# Accreditation Update

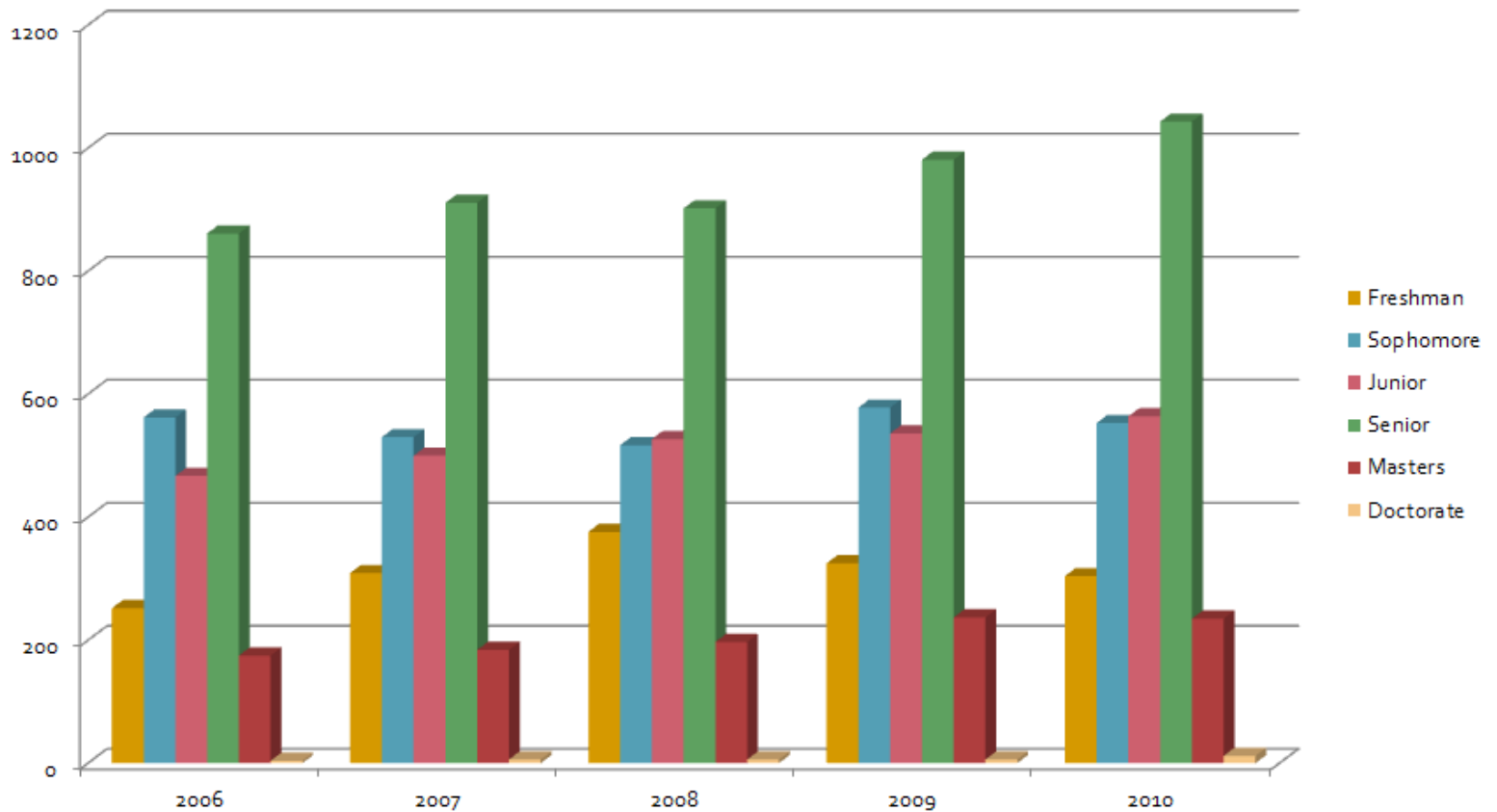
- Music and Arts Technology
  - NASM on-site visit in Fall 2009
  - Deferral (a few issues need to be addressed concerning the Master of Science in Music Technology)
- CGT and CIT
  - CAC of ABET on-site visit in Fall 2009
  - Initial accreditation received through 2012
  - Interim report due next year
- BME, CmpE, EE, and ME
  - EAC of ABET on-site visit September, 2010
  - BME had 1 concern at exit statement (6 years highly likely)
  - CmpE, EE, ME had some concerns and weaknesses (may require interim action)

# Accreditation Update

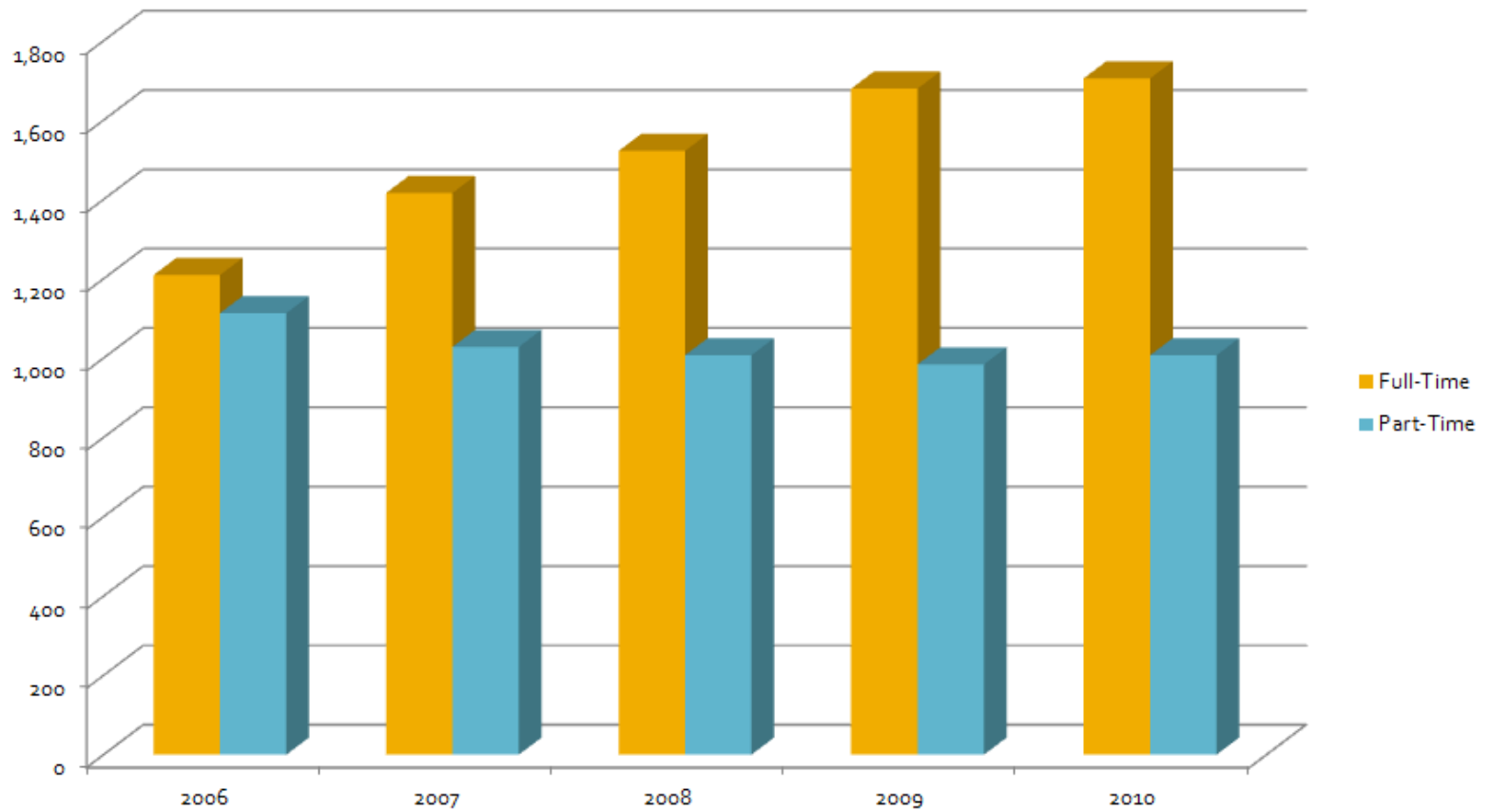
- IUPUI campus is regionally accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools
- 10 year reaffirmation visit in 2012
- Several campus-wide events will begin in AY 2010-11 to prepare for the visit
- E&T will support this effort



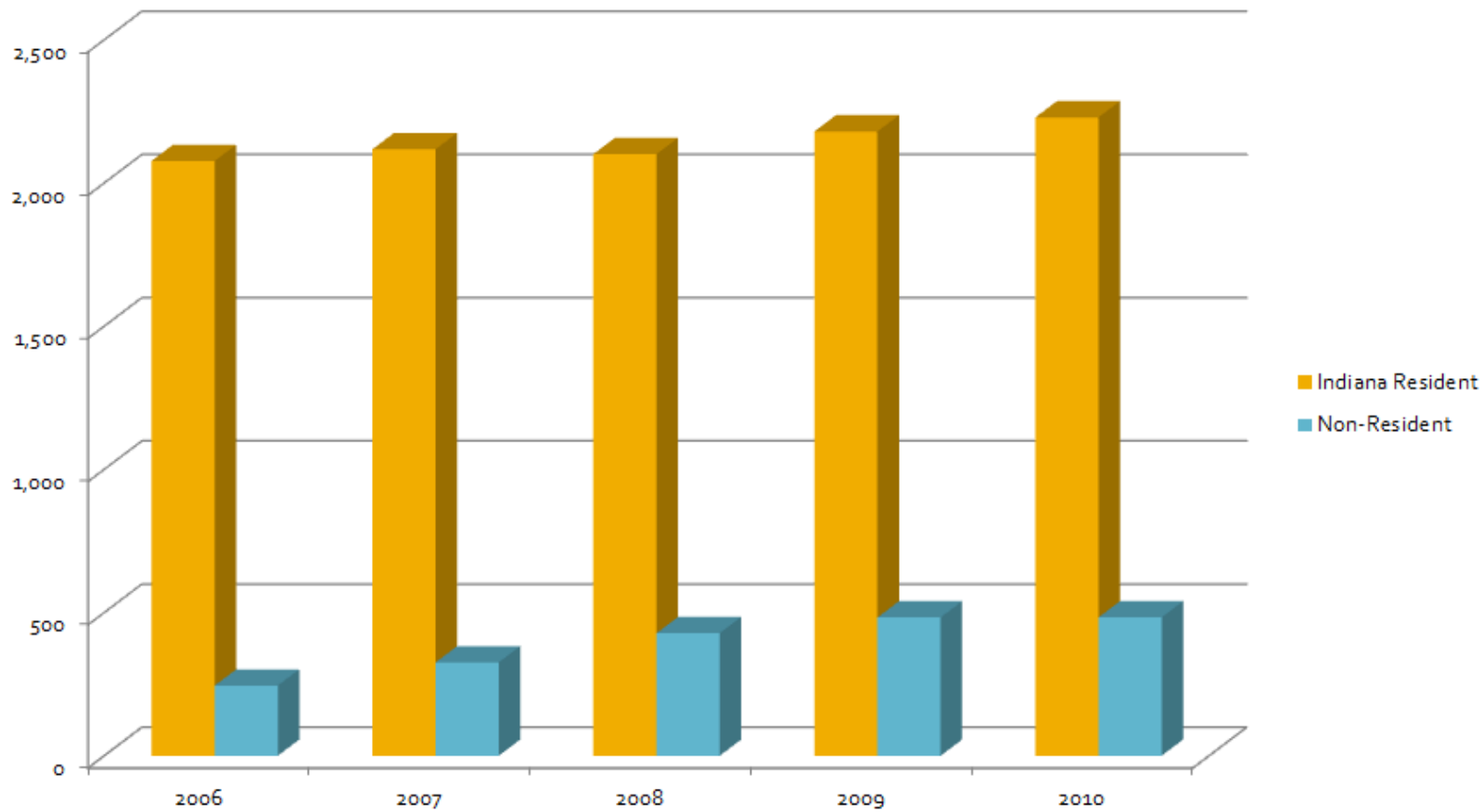
# Headcount



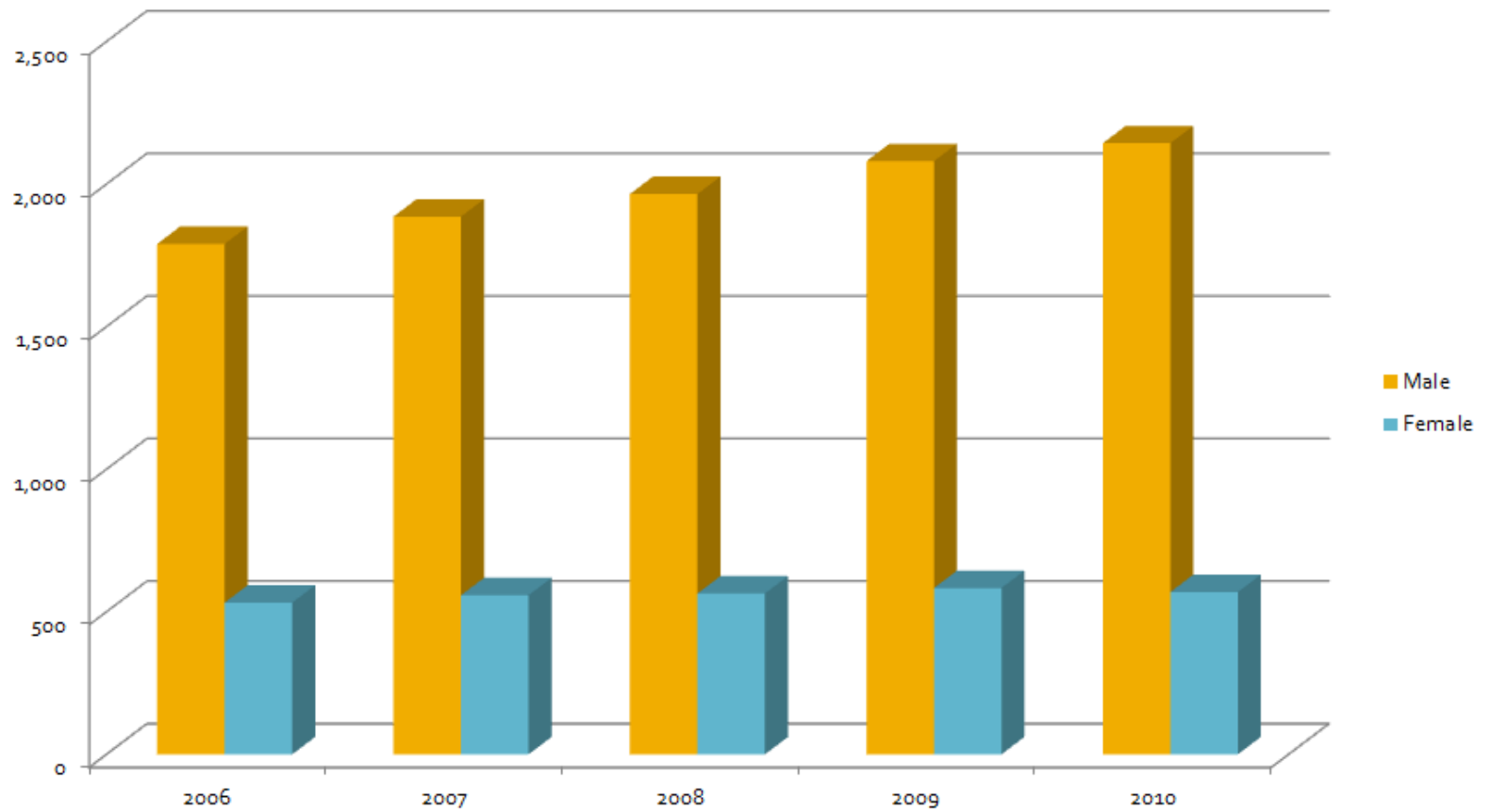
# Full vs. Part-Time



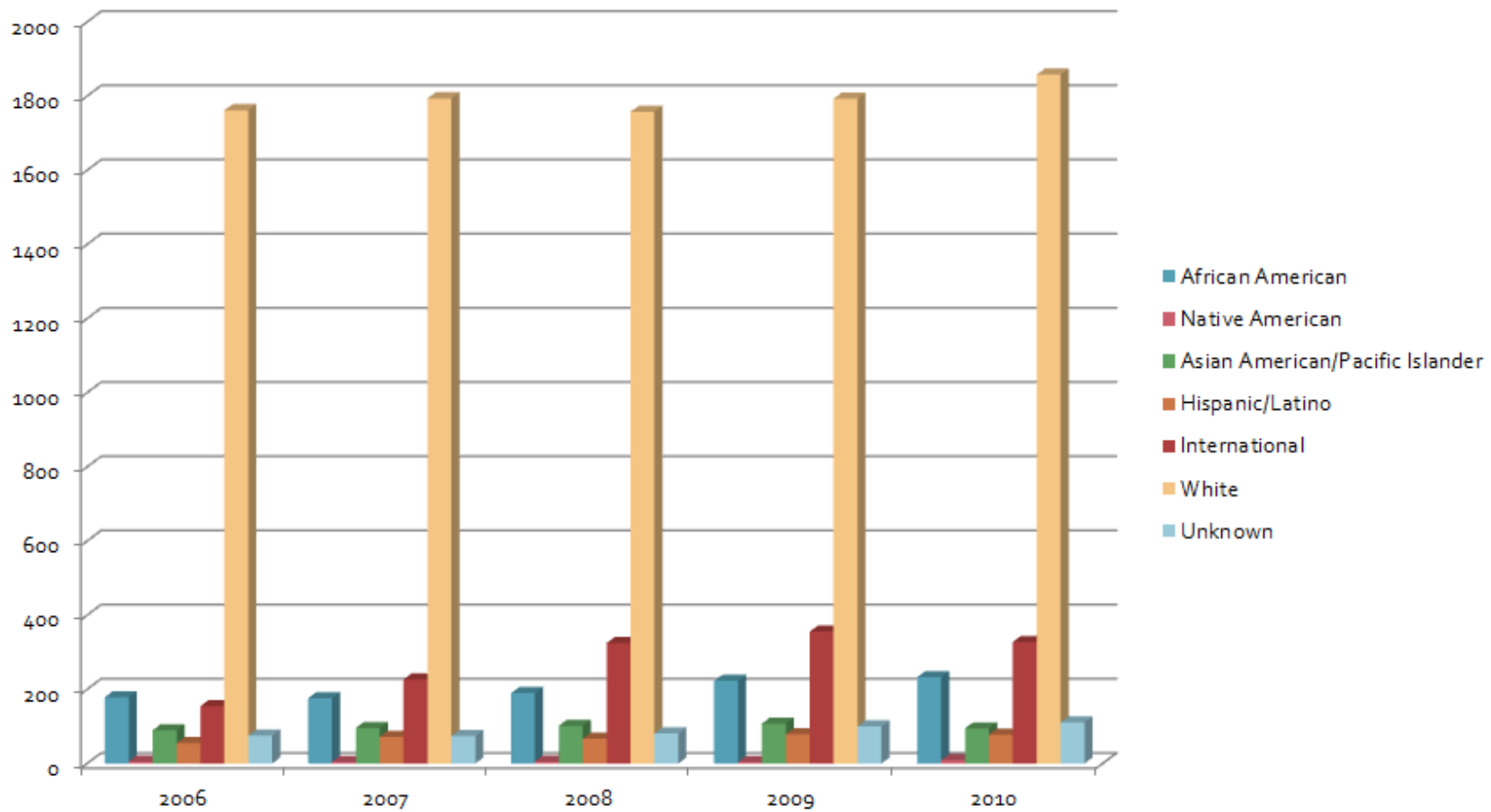
# Resident vs. Non-Resident



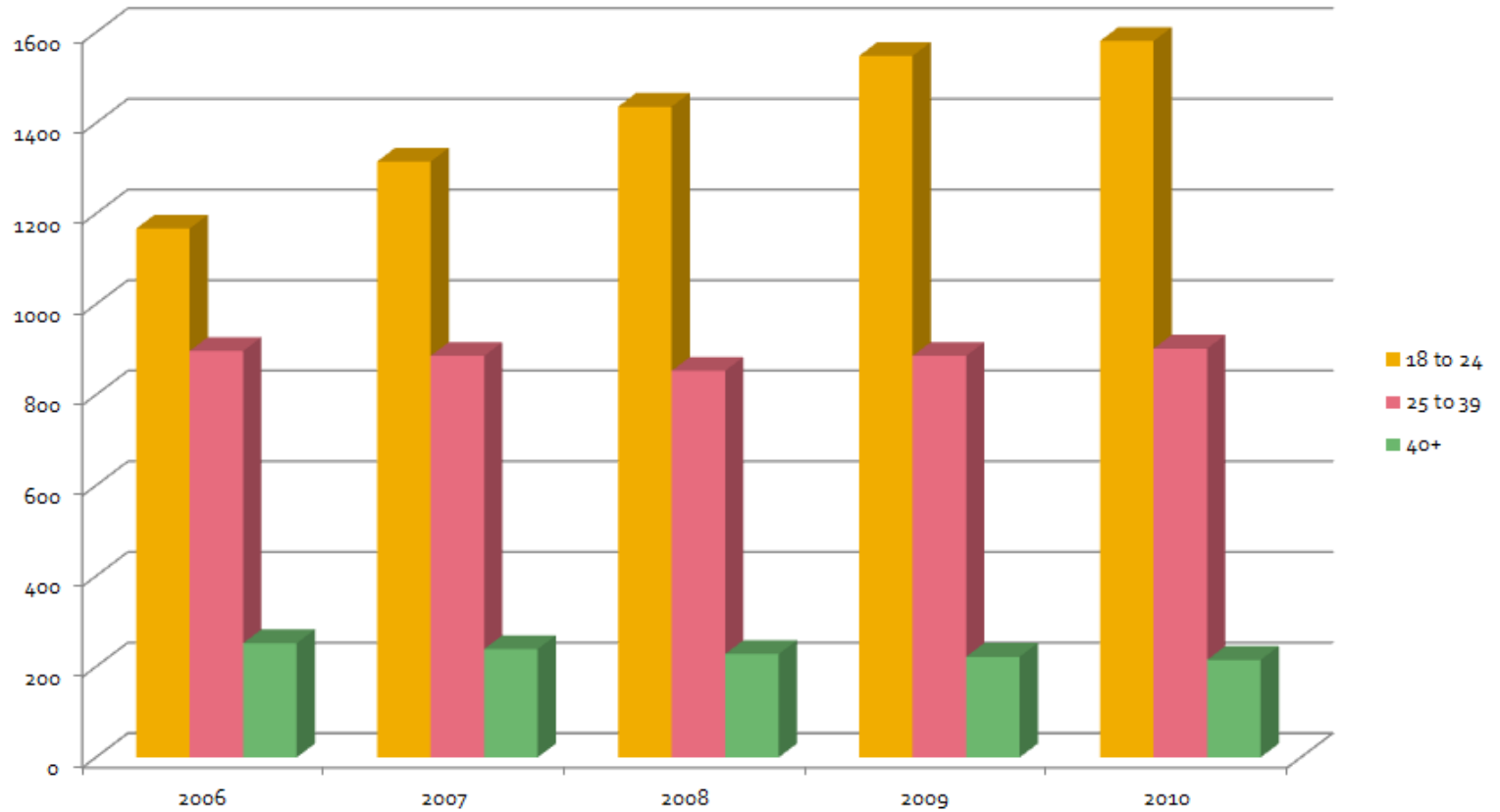
# Gender



# Ethnicity



# Age Group



- Review and update program, department, and School's strategic plan
  - Strive to compete at the highest levels in all that we do!
  - Define what that means for each program
  - Define what that means for faculty teaching, scholarship, and research
  - Define what the means in terms of student outcomes
- Review base budget expenditures by function
- Align budget with priorities and strategic plan
- Assertively pursue opportunities provided by the IUPUI IMPACT campaign

- Campus Goals

- Support extraordinary student success
- Excel as a center for the health and life sciences
- Champion civic engagement
- Thrive as an urban research campus

- Actions

- Endowed faculty chairs
  - campus will match the income from each endowed chair
- RISE (research, international service, service learning, or experiential learning) undergraduate scholarships
  - campus will match 50% of the income from each RISE endowed scholarship



**IUPUI**

**SCHOOL OF ENGINEERING  
AND TECHNOLOGY**

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**A PURDUE UNIVERSITY SCHOOL**

Indianapolis