



# State of the Russ College

**Dennis Irwin, Ph.D., P.E.**  
**Dean and Moss Professor of**  
**Engineering Education**

**December 3, 2007**



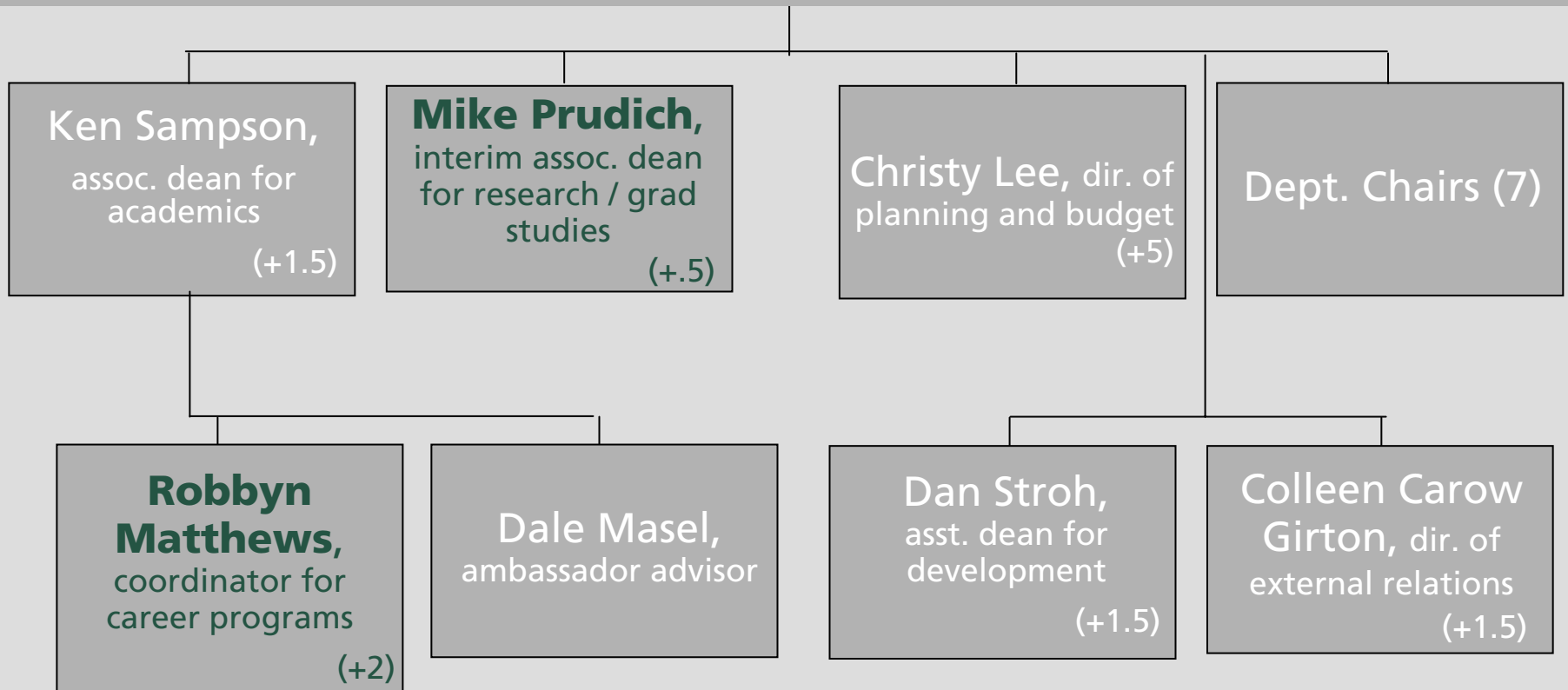
# State of the Russ College

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- Organization and Facilities
- Research
- Administration
- Academic Honesty
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- Faculty and Students
- Alumni
- Financials
- Fund Raising
- Challenges
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# Dean's Organization

## Dennis Irwin, Dean



# Departments

- Department of Aviation
- Department of Chemical and Biomolecular Engineering
- Department of Civil Engineering
- School of Electrical Engineering and Computer Science
- Department of Industrial and Systems Engineering
- Department of Industrial Technology
- Department of Mechanical Engineering

# Academic & Research Center



- \$30 million, 100,000 square feet
- Groundbreaking held Sept. 29
- Construction begins Jan. 2, 2008; expected to conclude for fall quarter 2009
- Funding
- \$27.5M: Private, state appropriated, and state capital funds
- \$2.5M: Russ College and College of Osteopathic Medicine funds
- *\$2.5M : Needed to finish 3rd floor or lessen College obligation*
- A proposal ...

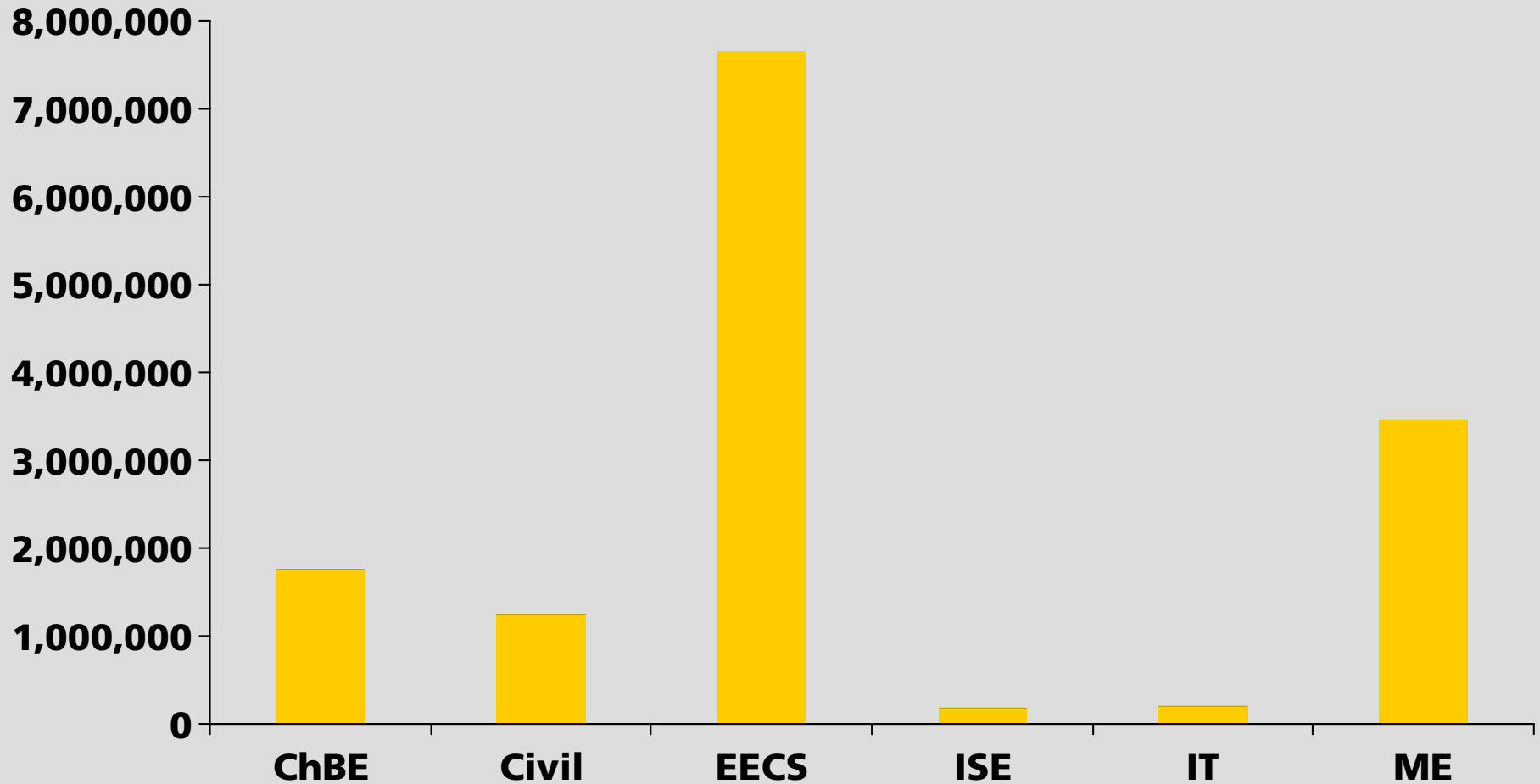


**State of the Russ College:**  
Research

# Research Awards



# FY07 Research Awards



# FY07 Russ College Research by Dept.

Department	FY07 Funding	/Faculty Member *
Chemical	\$1.77M	\$176,700
Civil	\$1.24M	\$103,200
EECS	\$7.67M	\$255,800
ISE	\$0.18M	\$22,200
Industrial Tech.	\$0.20M	\$28,800
Mechanical	\$3.46M	\$288,000
<b>College Total</b>	<b>\$14.7M</b>	<b>\$177,500</b>

\* Includes all Group I faculty

# Peer Institution Research Comparisons (in Engineering Colleges)

Unchanged Since Dec. 2006 (new numbers to be released in '08)

Institution	FY06 Funding	/Faculty Member *
UNC-Chapel Hill	\$9.8M	\$288,000
U. of Delaware	\$39.3M	\$347,800
UT-Knoxville	\$39.2M	\$502,600
Wash. State	\$15.3M	\$231,800
U. of Conn.	\$20.8M	\$248,000
Auburn	\$36.3M	\$240,400
<b>Russ College</b>	<b>\$14.2M</b>	<b>\$284,000</b>
Clemson	\$29.6M	\$196,000
UM-Columbia	\$18.4M	\$184,000

\* Based on number of faculty engaged in externally funded research

# Top 10 Grants for FY2007

- **\$2,845,295, FAA** – Avionics, “FAA Contract DTFA01-01-C-00071”
- **\$1,275,138, Ohio Air Quality Development Authority** – Ohio Coal Research Center, “Ohio Coal Research Center Management”
- **\$1,141,945, U.S.D.O.E.** – Ohio Coal Research Center, “Adapting Planar Solid Oxide Fuel Cells for use with Solid Fuel”
- **\$693,334, various oil and gas companies** – Institute for Corrosion and Multiphase Technology, “Corrosion Center Oil and Gas Section”
- **\$500,000, FAA** – Avionics, “Local Area Augmentation System R&D”

# Top 10 Grants for FY2007

continued

- **\$418,391, Ohio Air Quality Development Authority** – Center for Advanced Materials Processing, “Pilot-Testing of Sieving Electrostatic Precipitator”
- **\$416,924, University of Dayton Research Institute** – Center for Advanced Materials Processing, “Low-Cost Polymer Nanocomposite Tooling for Agile Manufacturing”
- **\$350,000, various oil and gas companies** – Institute for Corrosion and Multiphase Technology, “Water-Wetting Joint Industrial Project”
- **\$331,679, National Science Foundation** – EECS, “STEAM: Track 1, GK-12, Science and Technology Enrichment”
- **\$302,613, Ohio Department of Transportation** – ORITE, “Modeling and Monitoring of Pavement Response and Performance”



# **State of the Russ College:** Administration

# New Faculty Hires

- Aviation (1, interim chair)
- Industrial Technology (1)
- Freeze on open positions as of February 2007
  - Russ College
  - In effect until budget situation is known and position realignment processes can be implemented
  - Some exceptions (Mechanical, Civil, Industrial and Systems)

# External Relations Projects



- Media relations
  - Student issues
  - News stories since Jan.: 124 positive, 104 negative (student issues, legal issues, dean's evaluations), 64 academic honesty
- Events
  - Bert Fung lecture (Russ Prize), Sept. 27



# External Relations Projects

continued



- Events, *continued*
  - Tim Dodd lecture (academic honesty), May 24
  - Academic & Research Center groundbreaking, Sept. 29
  - Congressman Charlie Wilson press conference, Nov. 28
  - December BOV meeting, Dec. 2-3
- *Ingenuity 2007*



## **State of the Russ College:**

Faculty and Students

# Faculty / Staff Accomplishments



- **Gerri Botte**, *Chemical and Biomolecular Engineering*: Ammonia-to-hydrogen electrolysis process was commercially licensed by American Hydrogen Corp.

- **Khairul Alam**, *Mechanical Engineering*
  - Named a fellow of the American Society of Mechanical Engineers
  - Sharing a \$1.6 million appropriation for carbon fiber foam research

# Faculty / Staff Accomplishments

continued

- **Srdjan Nestic**, *Chemical and Biomolecular Engineering*: Named a fellow of NACE International (corrosion organization)
- **Kevin Berisso**, *assistant professor, Industrial Technology*: Earned Comptia RFID+ Certification
- **Laquetta Cortner**, *coordinator for minority, women and outreach programs*: Earned Ph.D. in higher education; received Ohio University's NAACP Advisor of the Year Image Award
- **David A. Quinet**, *senior program engineer, Avionics Engineering Center*: Received FAA's Navigation Services Superior Performance Award

# Student Achievements

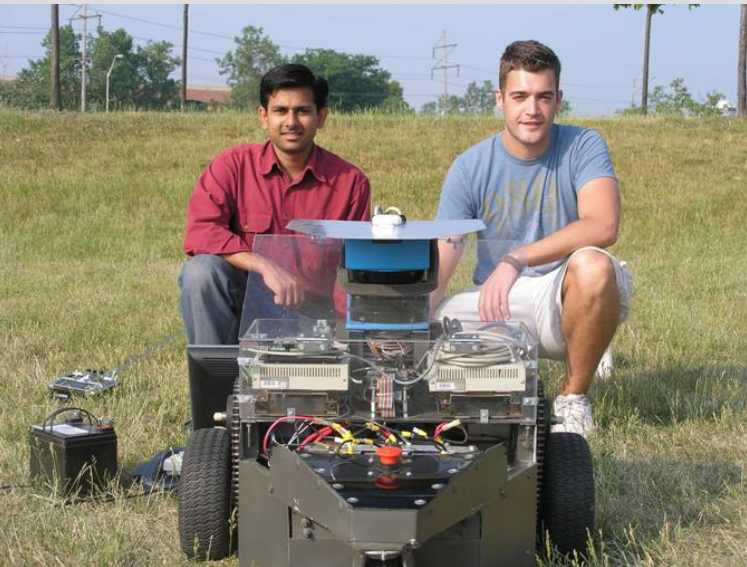


- **Chemical and Biomolecular Engineering students** won second place in the Chem-E-Car competition at the North Central AIChE Regional Conference with their "Shoe-Sized Ammonia Powered Automobile"
- **Christian Canto** and **Vanessa Fajardo**, *Chemical and Biomolecular Engineering (Ph.D.)*: Received 2007 Roberto Rocca Fellowships

# Student Achievements

continued

- **Civil Engineering students** won first place in the Intercollegiate Asphalt Mixture Performance Contest, for their asphalt mixture, test specimens, and written report
- **Damilola Daramola**, *Chemical and Biomolecular Engineering (M.A.)*: Won a National Society of Black Engineers Board of Corporate Affiliates Scholarship



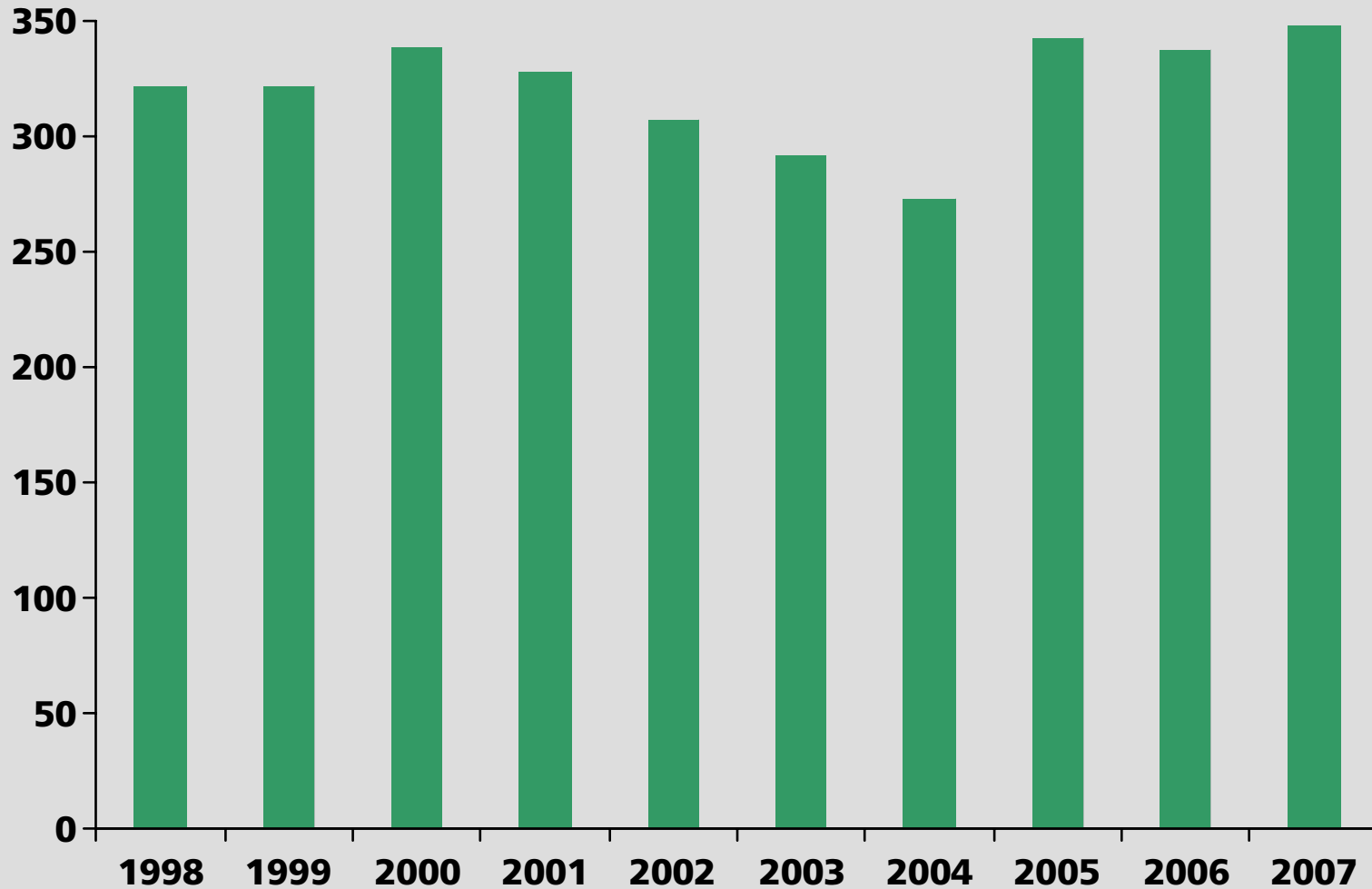
- **Electrical Engineering students** tied for third place in the Annual Institute of Navigation's Autonomous Lawn Mower Competition

# Student Achievements

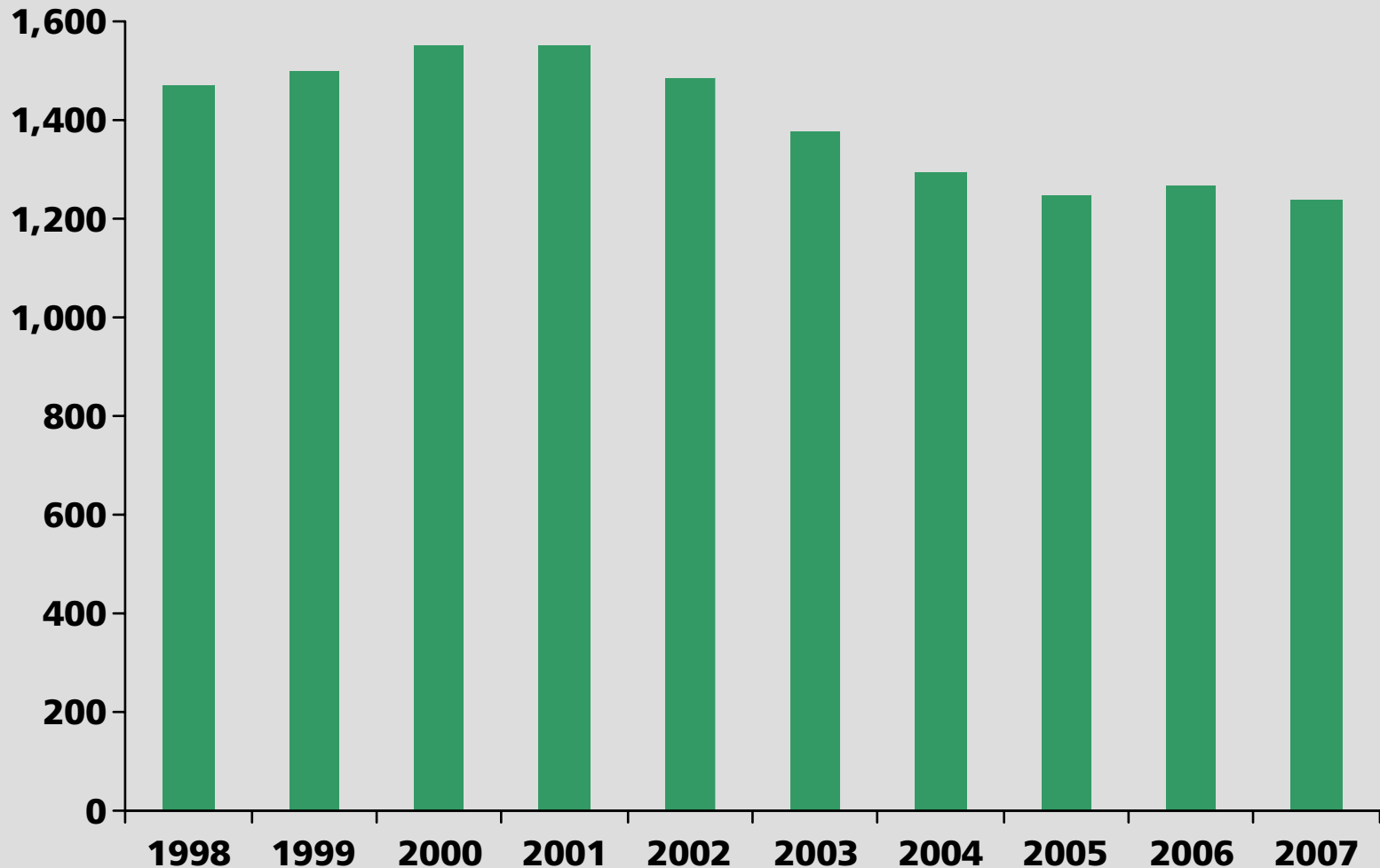
continued

- Three **Electrical Engineering students** won second place in the Student Ethics Competition at the IEEE Region II Student Activities Conference
- **Slave Jovanovski**, *BSCS '07*: Placed second overall in the "Sponsor Track" of the TopCoder Open Competition hosted by Ohio University (now employed at VeriSign)
- **Greg Smith**, *Industrial and Systems Engineering*: Was among 24 students to attend the 14th annual National Character and Leadership Symposium, held at the U.S. Air Force Academy
- **Amy Weber**, *Industrial and Systems Engineering*: Won first place in the paper competition at the North Central AIChE Regional Conference with her presentation "Feasibility Study on the Use of Ammonia Electrolysis for On-Board Hydrogen Production"

# Russ College + Pre-Engineers Freshman Enrollment

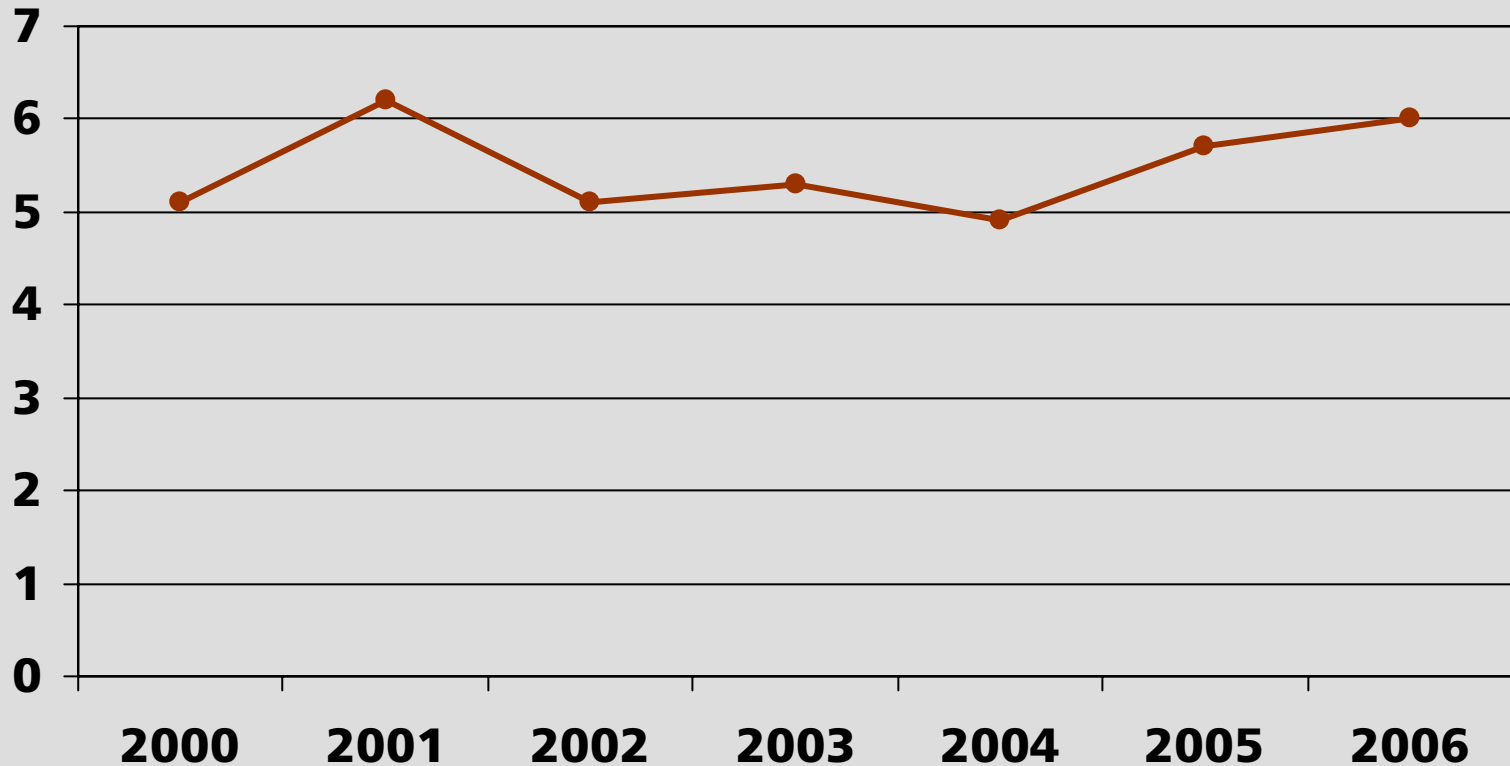


# Russ College + Pre-Engineers Total Undergraduate Enrollment

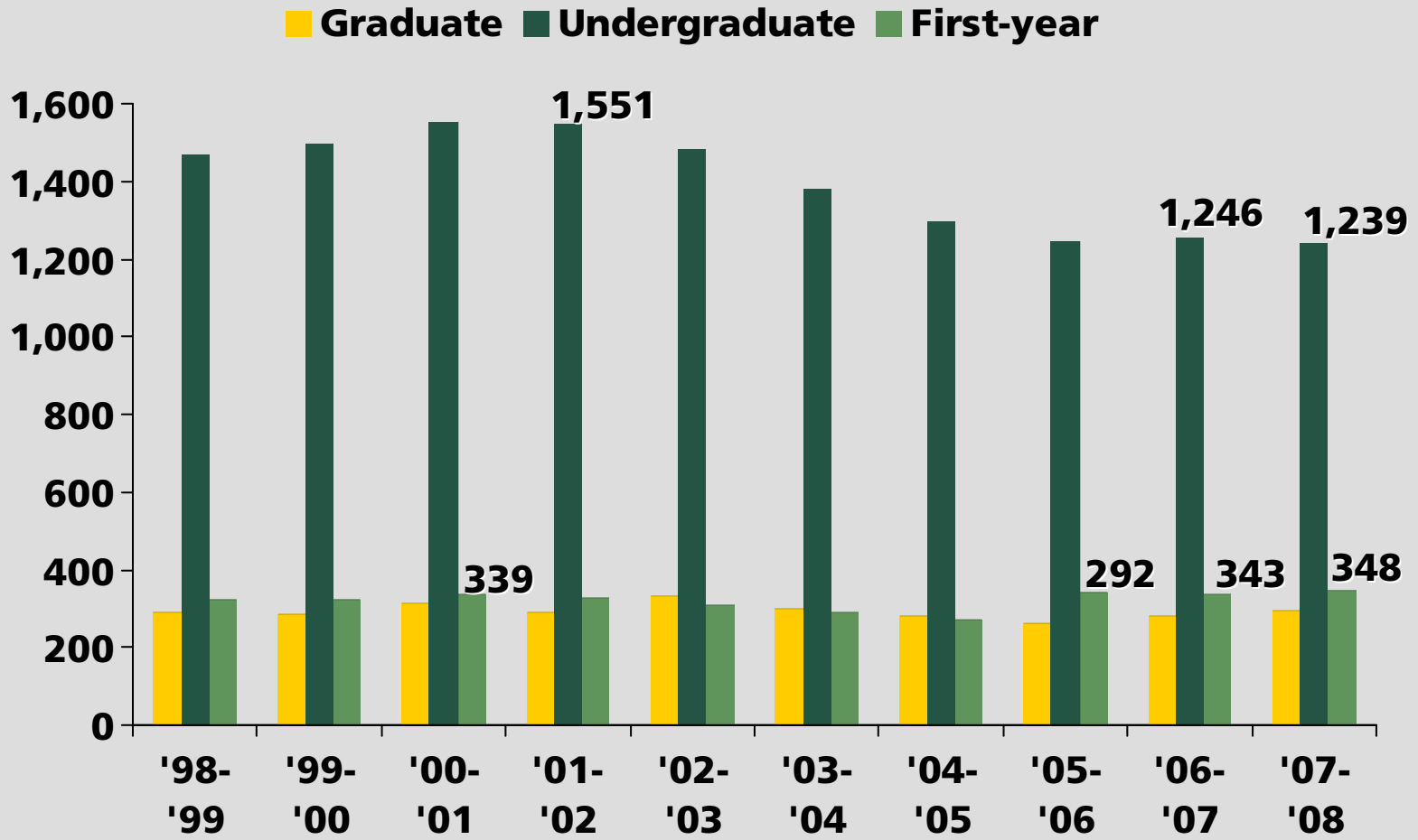


# Russ College Ohio Market Share

Undergraduate, by Percent



# Enrollment



*(Undergraduate and first-year totals include pre-engineering)*

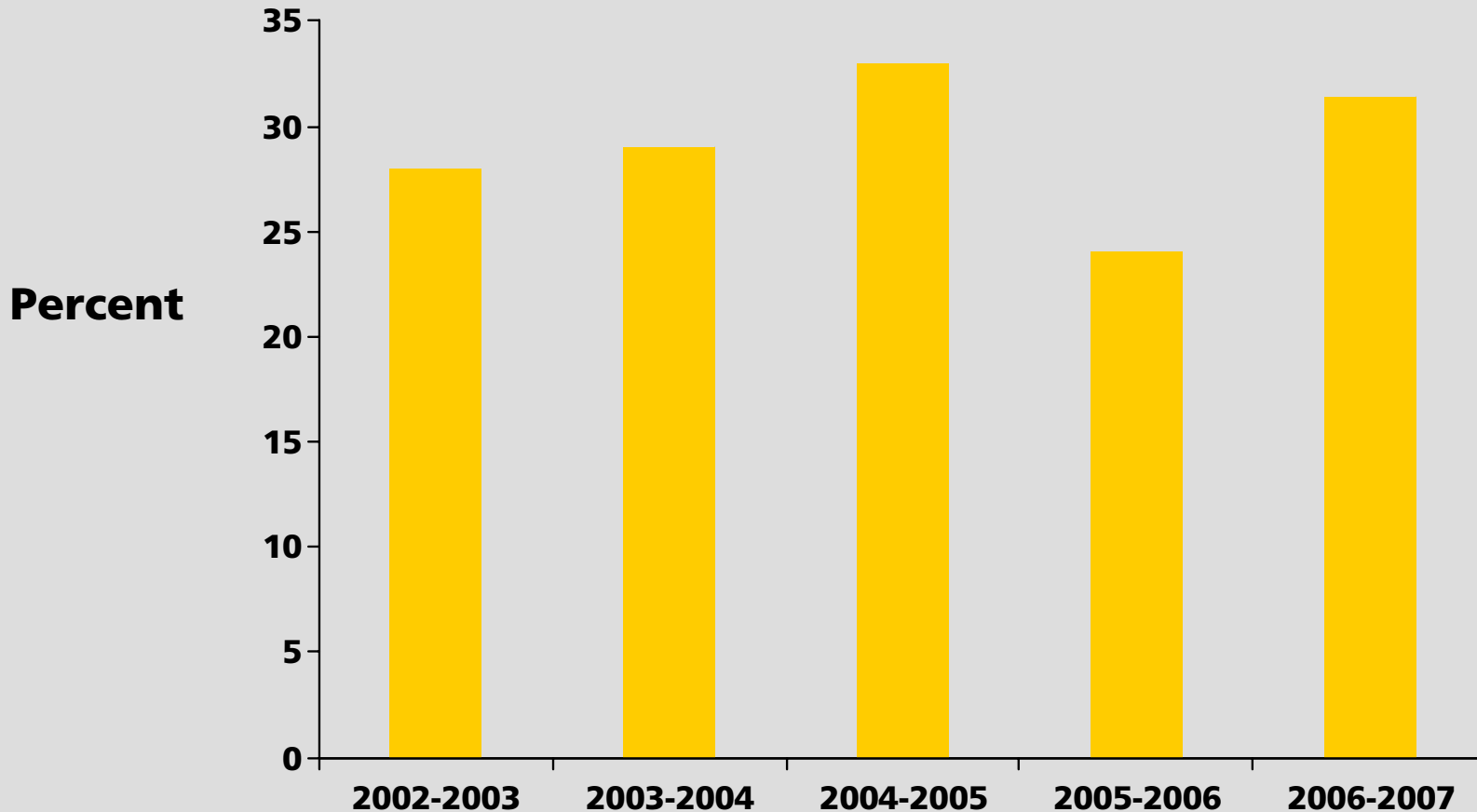
# New Student Initiatives

- New math placement process
  - Students know placement after they pay housing deposit, normally by May 1
  - Uses ACT/SAT score
  - Results are more accurate
- Early start program
  - Few takers
  - Hope to offer Math 113 (algebra) and 115 (pre-calculus) online, summer 2008

# Cooperative Education

Also see Dean's Metrics Presentation

## Graduates with at Least One Quarter of Co-op





## **State of the Russ College:**

Academic Honesty

# Ohio University Academic Integrity Research

- Between 2006 and 2006, self-reported academic misconduct at Ohio University decreased:
  - From 45% to 22% for undergraduates
  - From 18% to 14% for graduate students
- Students are more likely to cheat if they:
  - Are under a lot of time pressure
  - Think they will benefit from cheating
  - Don't understand the course material or how to properly cite sources
  - Don't have a relationship with the faculty
  - Believe others are cheating

# Ohio University Academic Integrity Research

continued

- Cheating influencers:
  - Course size
  - Course relevance
  - Course difficulty
  - Assignment type
  - Instructor caring
  - Priority shift away from learning

# Education and Culture Change

- Student and faculty honor councils
- Academic integrity Web site
- Faculty workshops and brownbag series
- ET 502: Technical Writing Seminar
- Graduate courses on teaching engineering
- Honor code is complete and will include:
  - Honor pledge
  - Statement of Student Responsibility
  - Statement of Faculty Responsibility
- Center for Academic Integrity Conference presentation and roundtable

# Honor Pledge

**“We members of the Russ College pledge to act with integrity and expect the same from each other.”**

- Complete honor code is currently being approved
- Will be signed and made official at start of winter quarter

*– See Board of Visitors binder for Statements of Responsibility –*



# **State of the Russ College:** Online Evaluation Tools

# Overview

- University-wide needs
  - Faculty activity reports
  - Teaching evaluations
  - Administrative employee evaluations
  - Academic advisor evaluations
  - Survey tool
  - Prospective student contact manager

# Overview

- Dean leading group of administrators to implement on-line tools
  - Interim solutions for Russ College include
    - On-line teaching evaluations (implemented)
    - Administrative employee evaluations (implemented)
  - Likely comprehensive solutions from a single vendor without need to use bid process

# Administrative Staff Evaluation Tool

## Current Status

- No 360-degree feedback tool exists at Ohio University
- Used to evaluate Dean's Office staff
- Will be used to evaluate college-wide administrative staff winter 2008
- Other University units have expressed interest

# Administrative Staff Evaluation Tool

## Important Features

- Secure system
- Can configure manager-employee relationship
- Can create list of reviewers for an employee
- Email notifications sent to reviewers
- Reports immediately available online
- Design supports trend analysis (not yet implemented)



## **State of the Russ College:**

Alumni

# Upcoming Alumni Activities

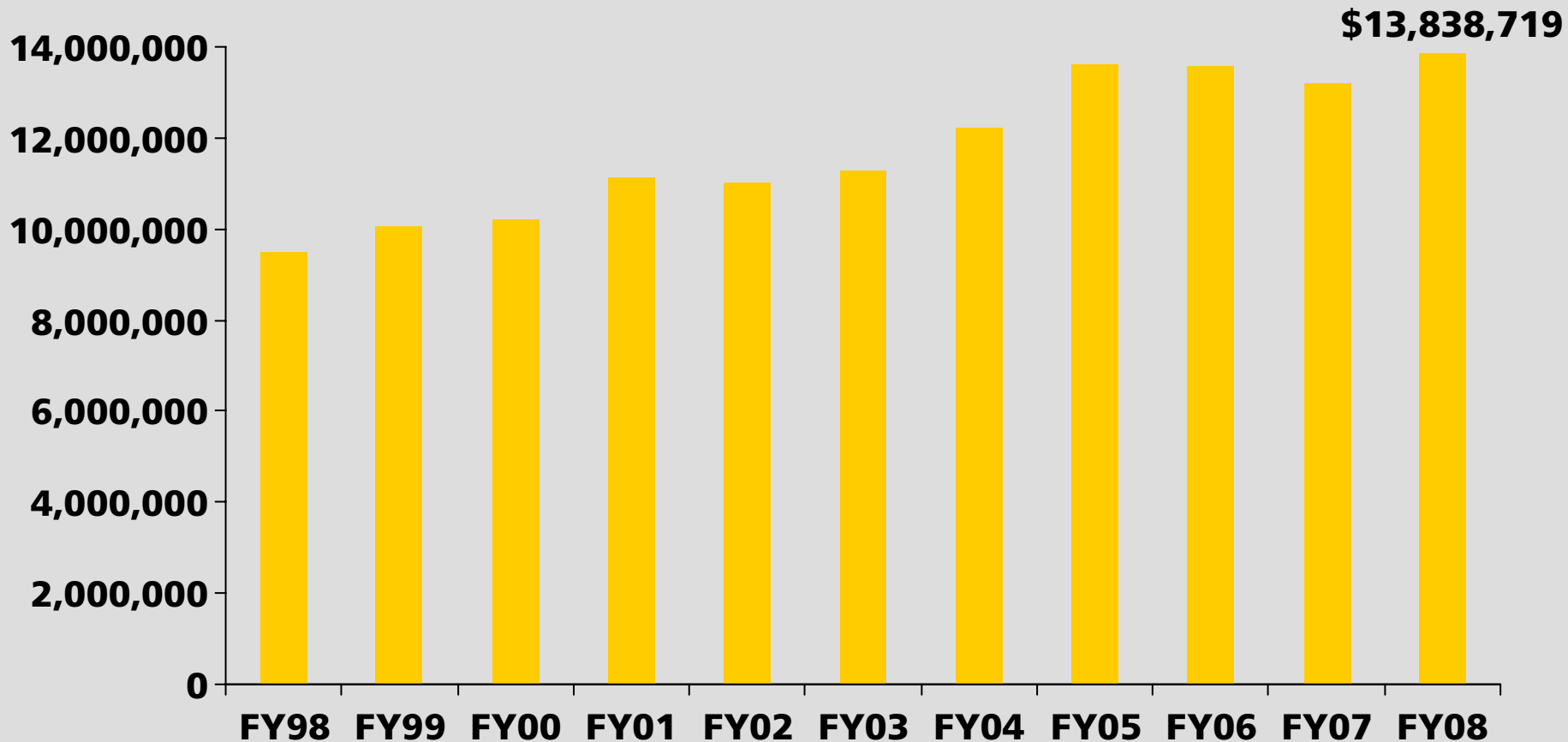
- Homecoming, Oct. 13
  - Mark Arnold, Medal of Merit
  - Louis Smoot, Honorary Alumnus Award
- Carla Lucchino campus visit, Oct. 25
- Alumni reception, Dec. 2



# **State of the Russ College:** Financials

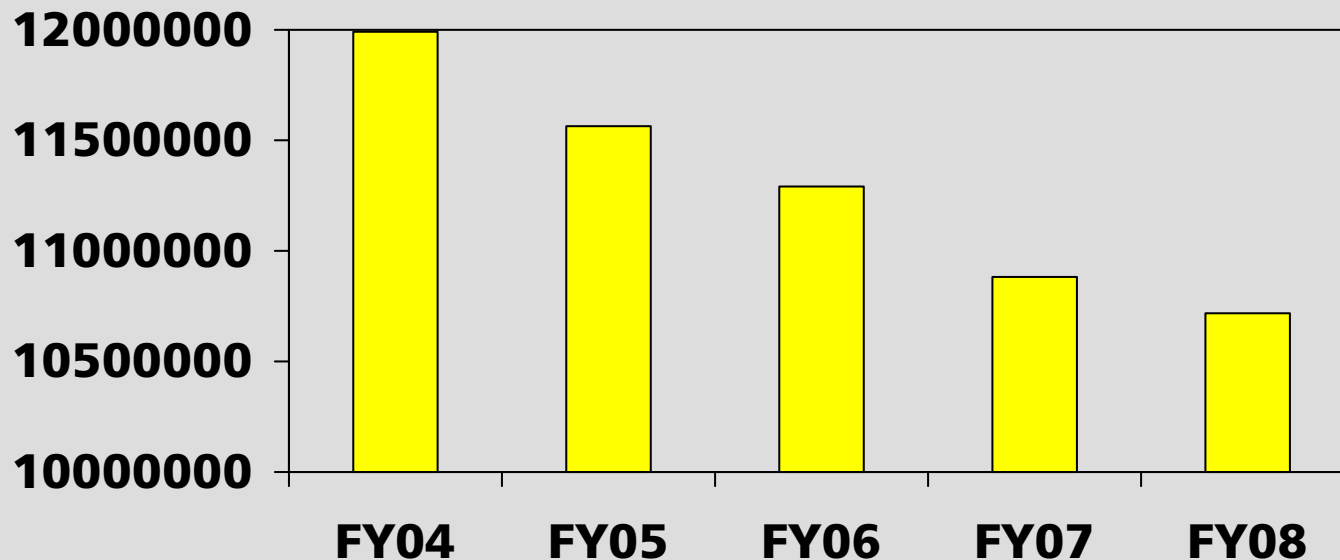
# Operating Financials

■ Spending authorization



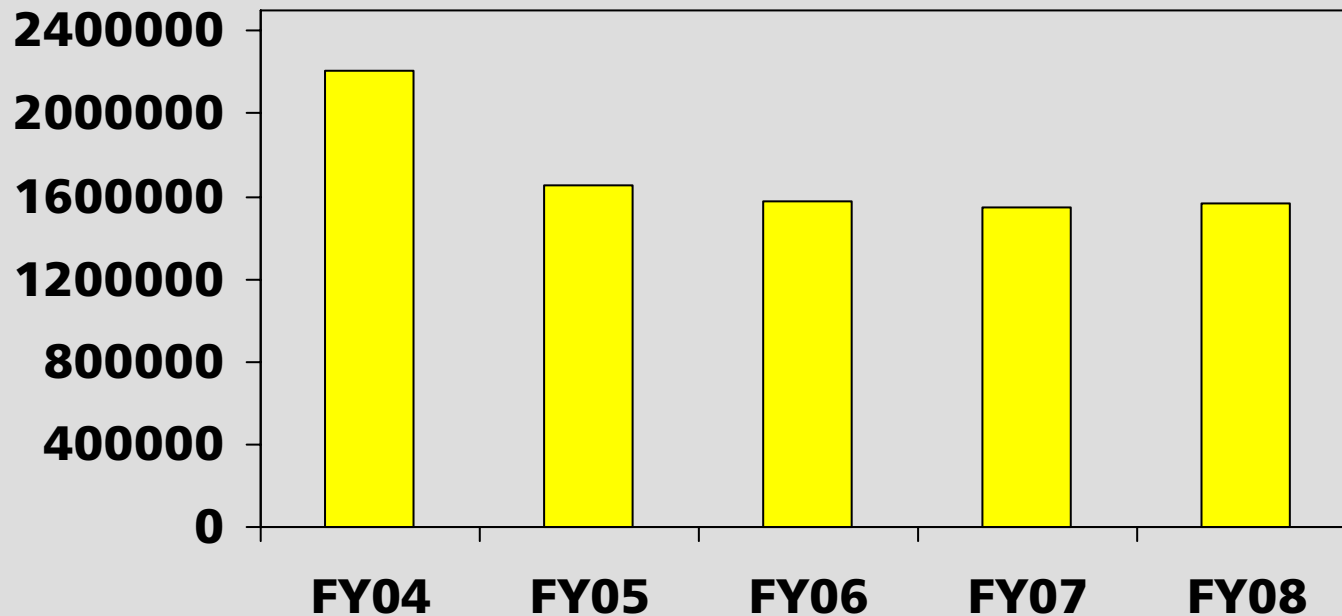
# Operating Financials

## Operating Funds Adjusted for Raises



# Endowment Financials

## Endowment Income



# Magnitude of Cuts

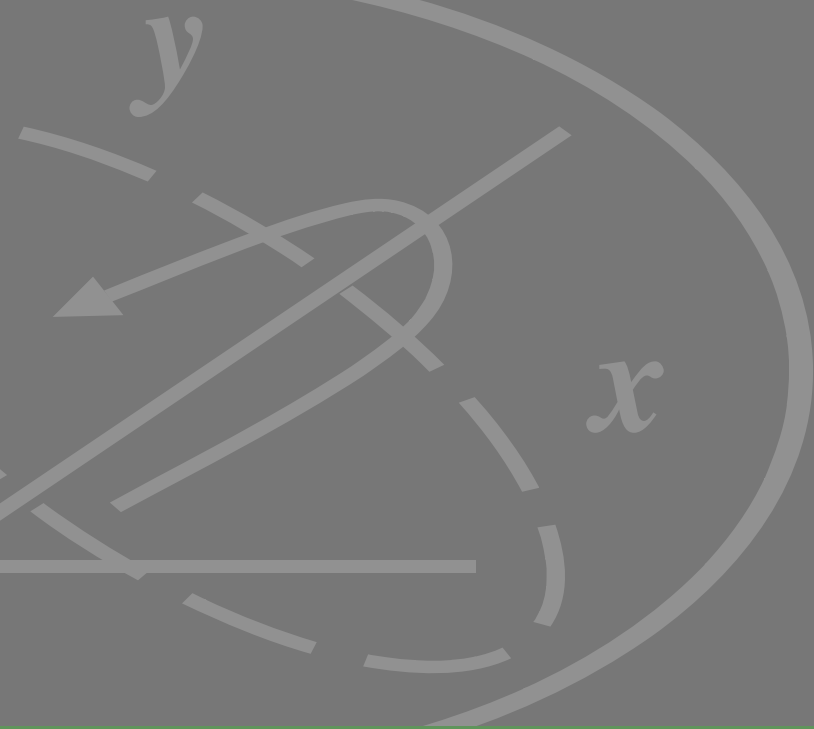
- Loss of \$1.27M due to General Fund cuts
- Loss of \$0.64M in endowment income
- Total loss of \$1.91M in income
  - Discretionary research funds
  - Technician support
  - Clerical support
  - Faculty

# Underwater Account Progress

- 12/31/05: 19 accounts underwater
- 6/30/06: 9 accounts underwater
- 6/30/07: 3 accounts underwater
- Projections for 6/30/08: 1 account underwater
- Projections for 6/30/09: 0 accounts underwater

# Budget

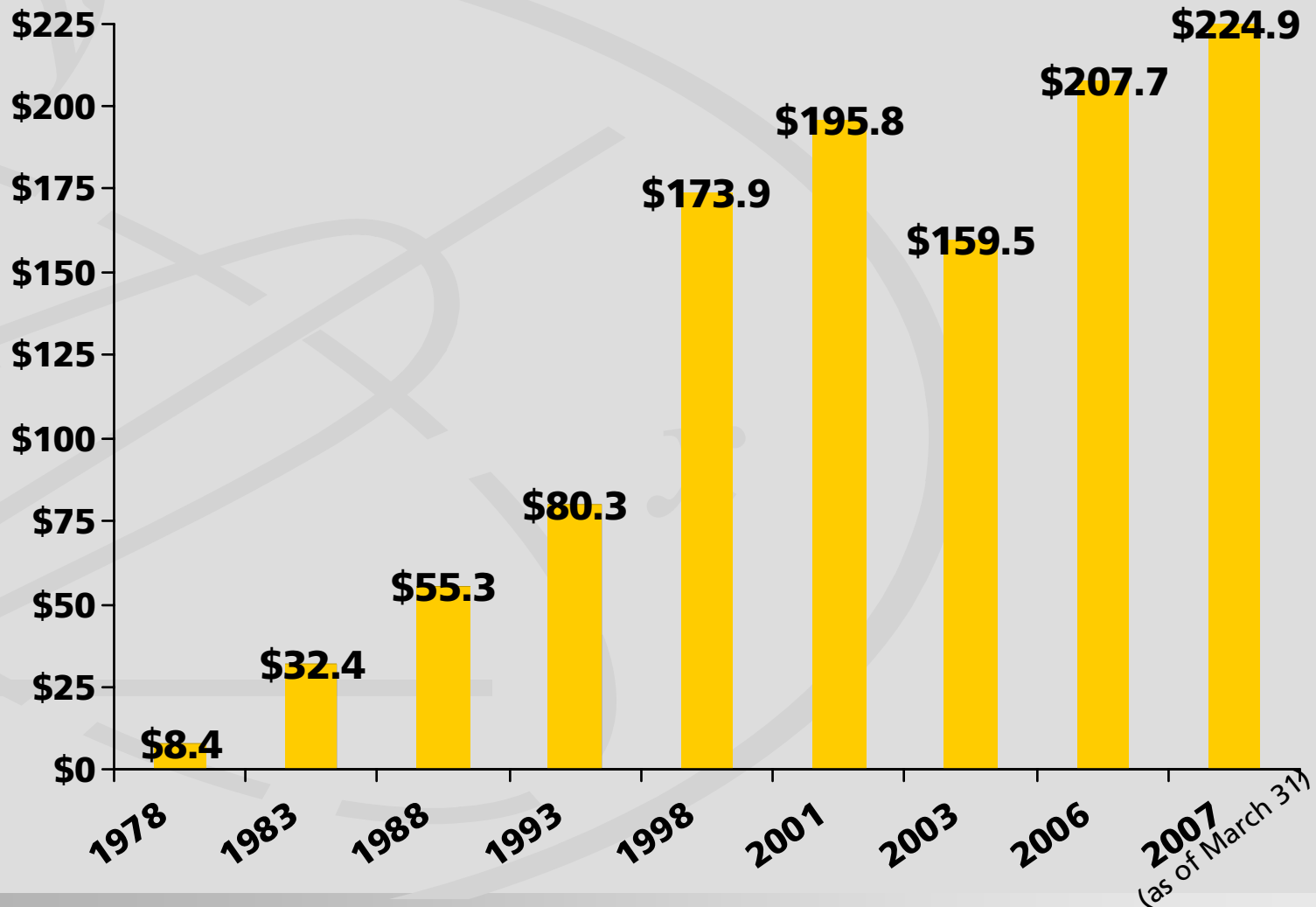
- State budget
- Raises:
  - Faculty
    - ~5 % **merit** raise **pool**
  - Clerical
    - 3 percent across-the-board raise
  - Administrative
    - 3 percent **merit** raise **pool**



**State of the Russ College:**  
Fund Raising

# Endowment Market Value

In millions



# Russ College Potential

Prospects rated 1-4 by stage

Stage	#
<b>Stewardship</b>	<b>17</b>
<b>Ask</b>	<b>14</b>
<b>Cultivation</b>	<b>34</b>
<b>Qualification</b>	<b>95</b>
<b>Monitor</b>	<b>7</b>
	<b>167</b>

# Alumni Participation

FY07

## Ohio University

- 17,414 alumni donors
- 11.7% of mailable alumni making a gift

## Russ College

- 1,292 donors
- 10.4% of mailable alumni making a gift

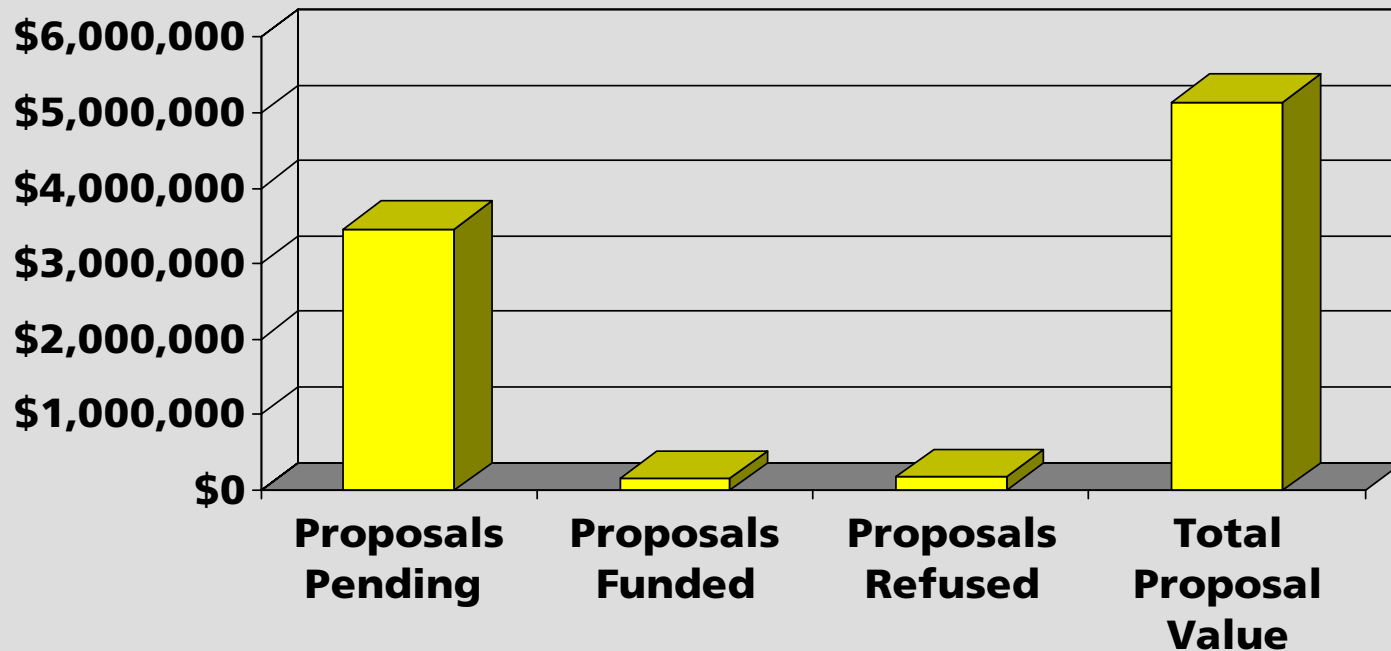
# Alumni Participation

continued

	<b>FY06</b>	<b>FY07</b>
<b>Total Alumni Donors</b>	18,008*	17,414
<b>Russ College Alumni Donors</b>	1,282	1,292

*\* FY06 was the largest year in terms of total alumni donors in university history*

# Proposals



•For the period 7/1/07-11/13/07

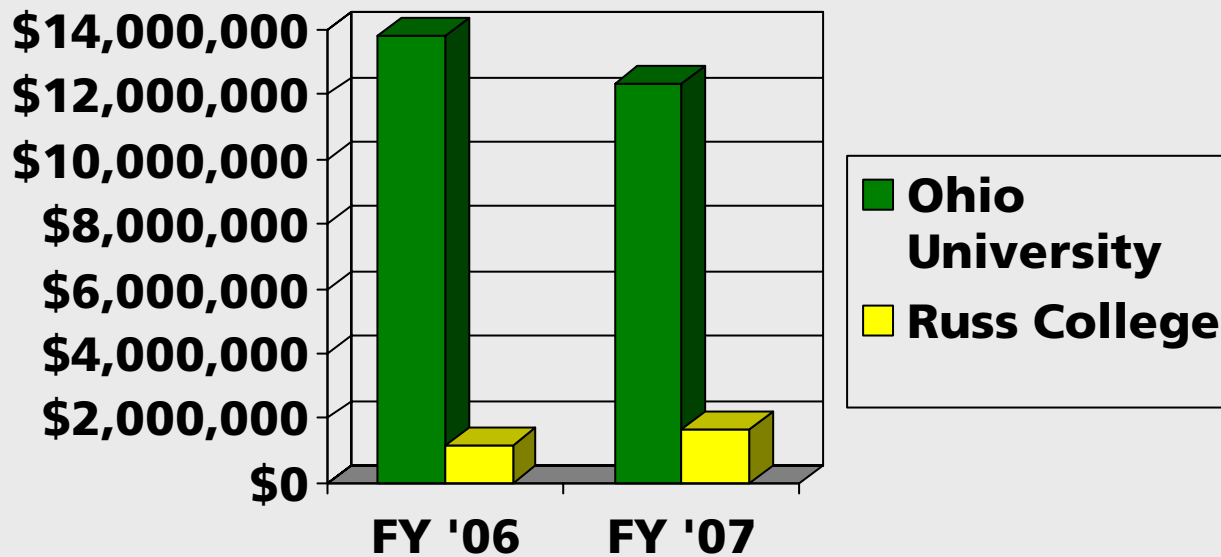
•Total Proposal Value includes \$1.5 million proposal that was agreed to but cannot be counted as a charitable gift due to being sponsored research

# Fundraising for New Building

College	ARC proposals since July 1, 2007	ARC proposal value since July 1, 2007
Russ College of Engineering and Technology	13	\$3,505,000
College of Osteopathic Medicine	9	\$535,000

- **\$27.5M** Private, state appropriated, and state capital funds
- **\$2.5M** Russ College and College of Osteopathic Medicine funds
- **\$2.5M** *Needed to finish 3<sup>rd</sup> floor or lessen College obligation*

# Total Gifts and Commitments





# **State of the Russ College:** Challenges

# Challenges

- Enrollment
- Enrollment
- Enrollment



# **State of the Russ College:**

## Goals and Plans

# Goals and Plans

- Begin tracking Russ College metrics
- Develop department/school metrics
- Modify faculty merit evaluation processes
- Update Strategic Plan
- Develop Position Reallocation Policy
- Develop Workload Policy
- ABET Retreat
- Evaluate and address communication concerns

# Goals and Plans

- Ph.D. in civil engineering (pending Board of Regents' approval)
  - More detailed collaboration agreement with Case
  - More political approach
  - EVPP to attend voting RACGS meeting
- Master's in Engineering Management (possibly in collaboration with U. of Cincinnati)
  - Pending University Curriculum Council and Graduate Council approval

# Goals and Plans

## continued

- Public policy senior course initiatives
  - Outcomes surveyed; courses designed to align with ABET; departments agreed to offer engineering elective credit
  - Courses will be submitted to UCC for approval
- Continue planning for the new building
- Continue increase in freshman class to achieve 1,450 undergraduate in steady-state
- Continue increase in graduate enrollment to 350



[www.ohio.edu/engineering](http://www.ohio.edu/engineering)



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