

Academy of Computer Science

Cheryl B. Schrader, Ph.D.

October 11, 2012



MISSOURI
S&T

discover. **Create.** innovate.

Missouri University of Science and Technology

Themes

- **Develop and inspire creative thinkers and leaders**
- **Integrate teaching, learning, research, and application**
- **Enhance reputation and raise visibility**
- **Foster global competency and inclusion**
- **Advance an environment of success, support, and community engagement**
- **Achieve sustainable growth and ensure our future**

Enrollment Shifts

Fall Semester

2000

Total Students:	4,626
On-campus:	4,393
Distance/EEC:	233
Undergraduate:	3,698
Freshmen:	696
Graduate:	928

2012

Total Students:	7,647
On-campus:	6,760
Distance/EEC:	887
Undergraduate:	5,843
Freshmen:	1,125
Graduate:	1,804

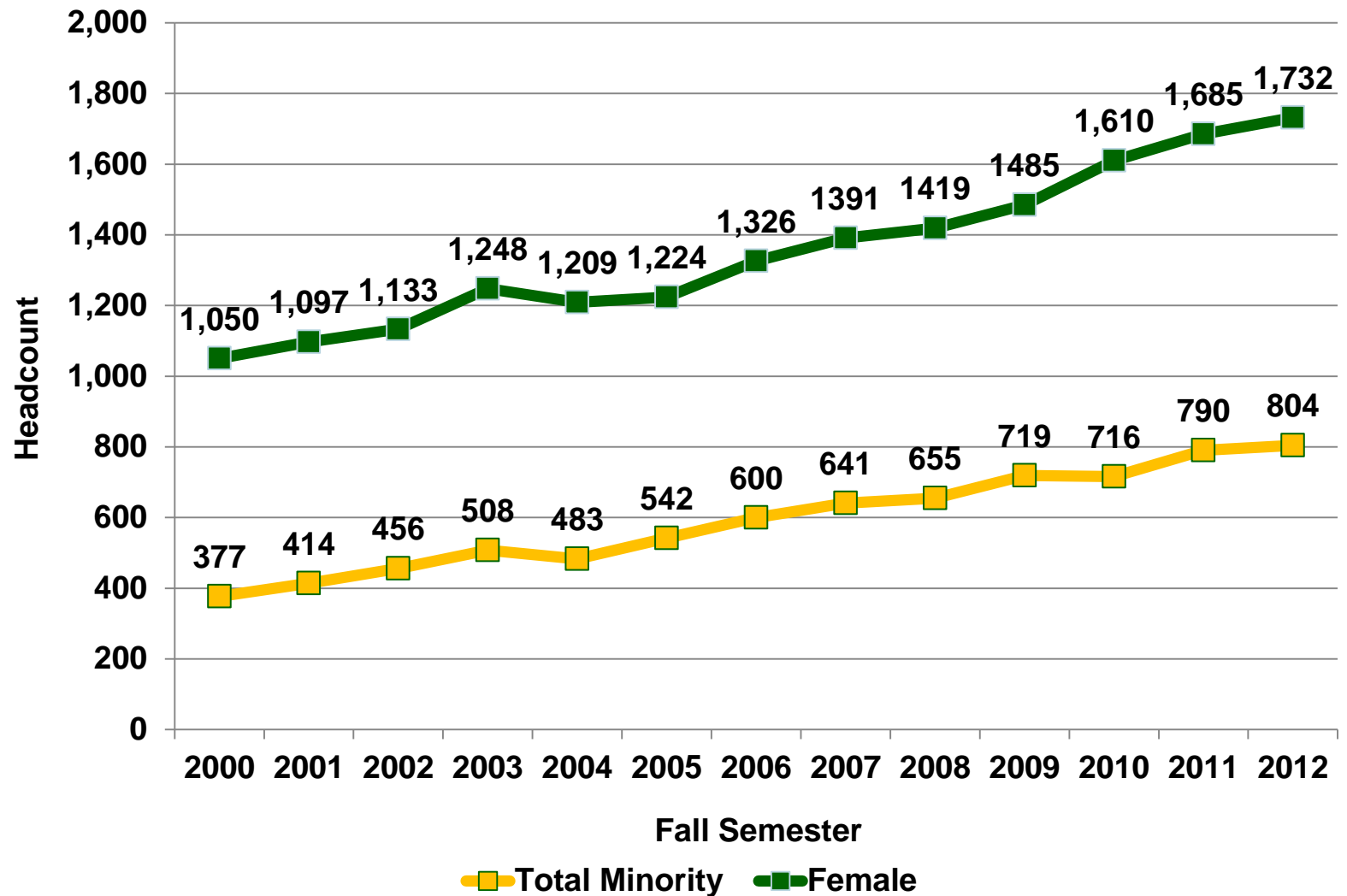
Not Your “Average Joe/Jo”



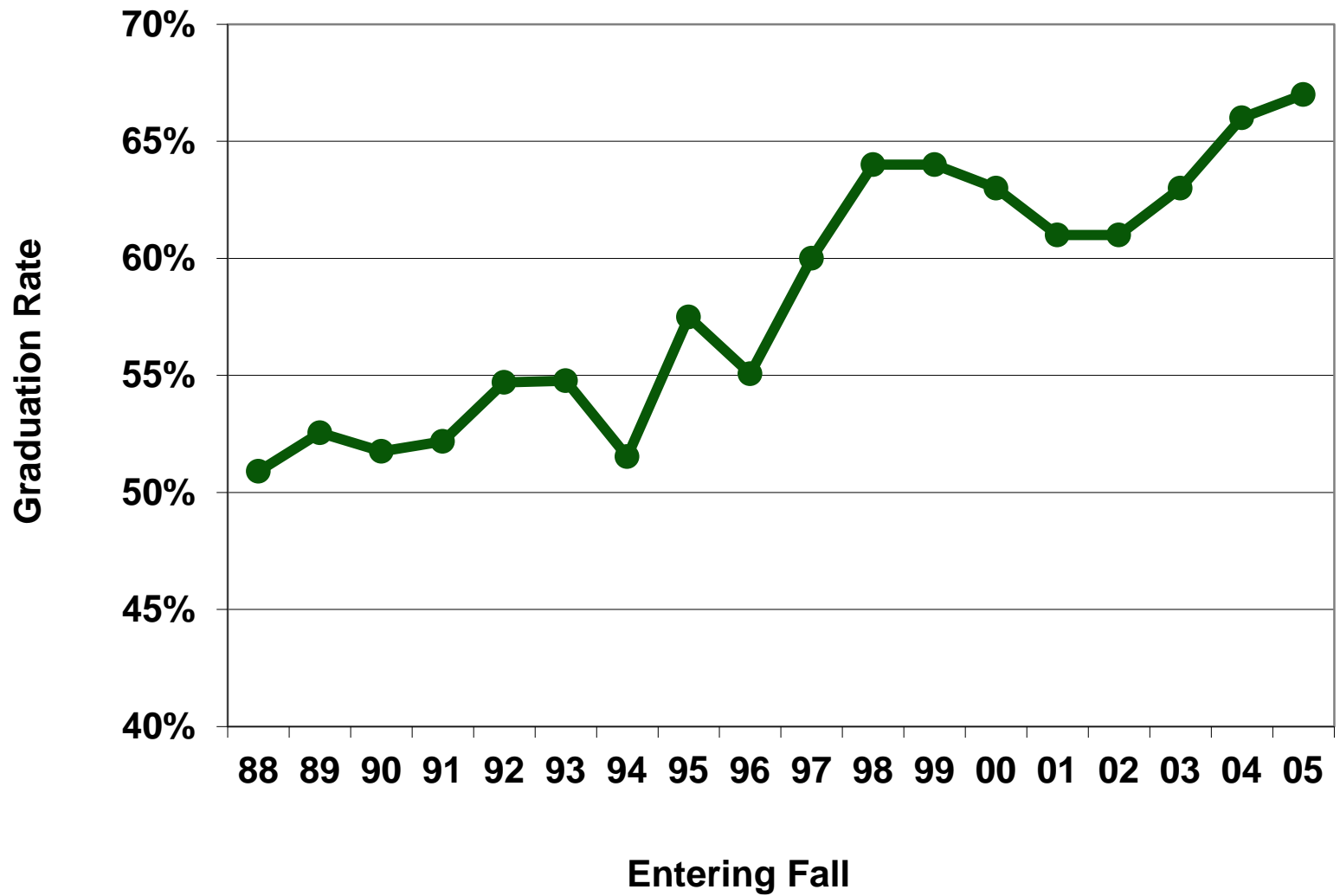
- **Average ACT: 27.9 for incoming class**
- **57 National Merit Scholars**
- **1,014 Bright Flight Scholars**
- **1,671 Access Missouri Scholars**
- **850 Curator’s Scholars**
- **1st – 2nd year retention rate is 85% (up from 83%)**

Enrollment

Diversity



Six-Year Graduation Rate

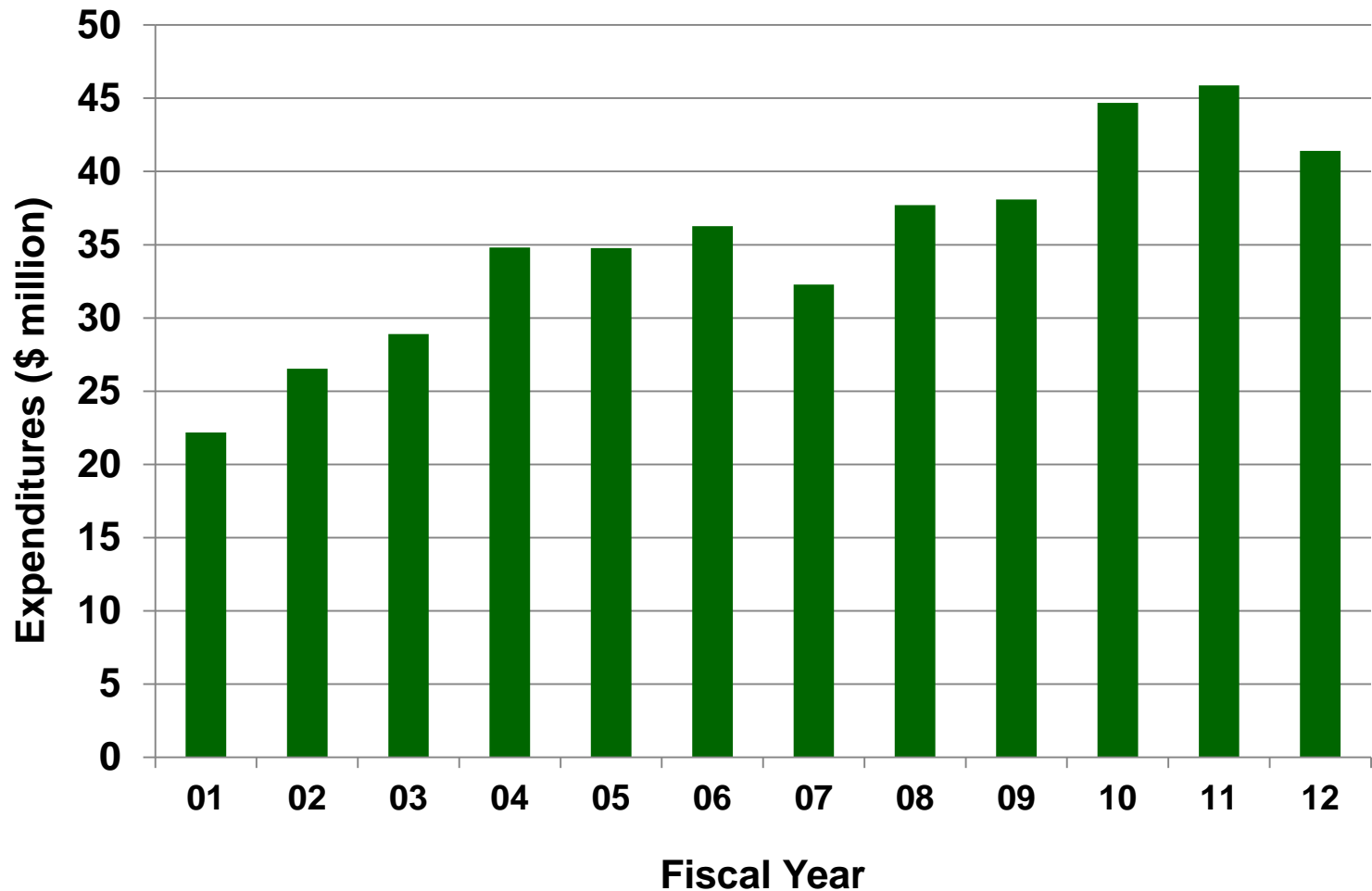


Distance Learning

- **Distance learning classes are up 77% in the last 5 years**
- **Engineering Education Center in St. Louis has a new facility**
 - 3 video classrooms
 - Over 20 courses are sent each semester to Rolla
 - Near I-270 and Manchester
 - Part of 2nd floor
 - » UMSL in rest of building



Grant and Contract Expenditures



Career Opportunities and Employer Relations

- ***The Princeton Review*** ranked our career services 11th in the nation
- **Fall 2012 Career Fair**
 - 263 registered employers (+24%)
 - 46 Fortune 500 companies
 - 3,233 students/alumni attended (+8%)



Payscale's 2011-12 Salary Report

- **2nd among Midwestern public and private universities (\$58,600)**
 - Second to Rose Hulman (\$60,700)
- **2nd in nation among public universities**
 - Second to Colorado School of Mines (\$63,400)
- **15th in nation among all universities**



Return on Investment

- **Co-ops and internships earn S&T students over \$9M a year**
 - Over \$3,000/month average salary
- **Last year over 790 students completed a co-op or internship in 34 states**



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Virtual Surface Mining Facility

Unveiled April 18, 2012



Virtual Surface Mining Facility

Unveiled April 18, 2012



James E. Bertelsmeyer Hall

Groundbreaking, April 18, 2013, 1:00 pm

- **69,630 GSF building**
- **State-of-the-art teaching and research facility**
- **Consolidation of teaching and research activities**



James E. Bertelsmeyer Hall

Exterior Rendering Looking Northwest



Kudos

- **Sustainability Tracking, Assessment and Rating System (STARS) silver designation**

- Only campus in UM System to achieve designation



- **Saudi Mining Polytechnic - \$23.4M, 5-year award to train and educate personnel for the Saudi mining industry**

- Partners include Canadian Petroleum Services, Caterpillar Global Mining, Doe Run Company, Immersive Technologies, Joy Global and Orica Inc.

Rankings

■ **Newsweek**

The Newsweek logo, featuring the word "Newsweek" in white text on a red rectangular background, flanked by horizontal lines.

- #1 in the nation among all public universities for the value to out-of-state students
- #3 in the nation among all public universities for the value to students in the state

■ **U.S. News & World Report**



- #7 among all public universities for providing the best return on investment

■ **ABC News**



- #10 on the list of universities where the starting pay beats Harvard

Popular Science

September 2010, 2011, and 2012

POPSCI GOES TO COLLEGE

COOLEST SCHOOLS

LESSON PLAN
Missouri Institute of Science and Technology professor Paul Worsley (seated) and his students detonate charges in the school's private mine.

Why subject yourself to the dull buzz of fluorescent lights and endless data sets? Play with plastic explosives instead! These schools will make you wish class would never end.

MIND-BLOWING COLLEGE LABS

BY RENA MARIE PACELLA
PHOTOGRAPHS BY JOHN B. CARNETT

52 POPULAR SCIENCE SEPTEMBER 2010

POPSCI.COM POPULAR SCIENCE 53

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Athletics

- Last spring baseball team won Great Lakes Valley Conference Western Division title
- Volleyball team is undefeated in the conference and leading their division
- 4th in nation since 2000 in Academic All-Americans



Geothermal Energy Project

- Most comprehensive initiative in higher education
- Supply energy to 15 buildings
- 600+ wells – 3 miles of trench
- \$2.8M expected in annual savings
- Complete in spring 2014

Will cut annual
energy use by



50%

Will reduce
carbon dioxide
emissions by



25,000
tons per year

Will cut
water usage by



8,000,000
gallons per year

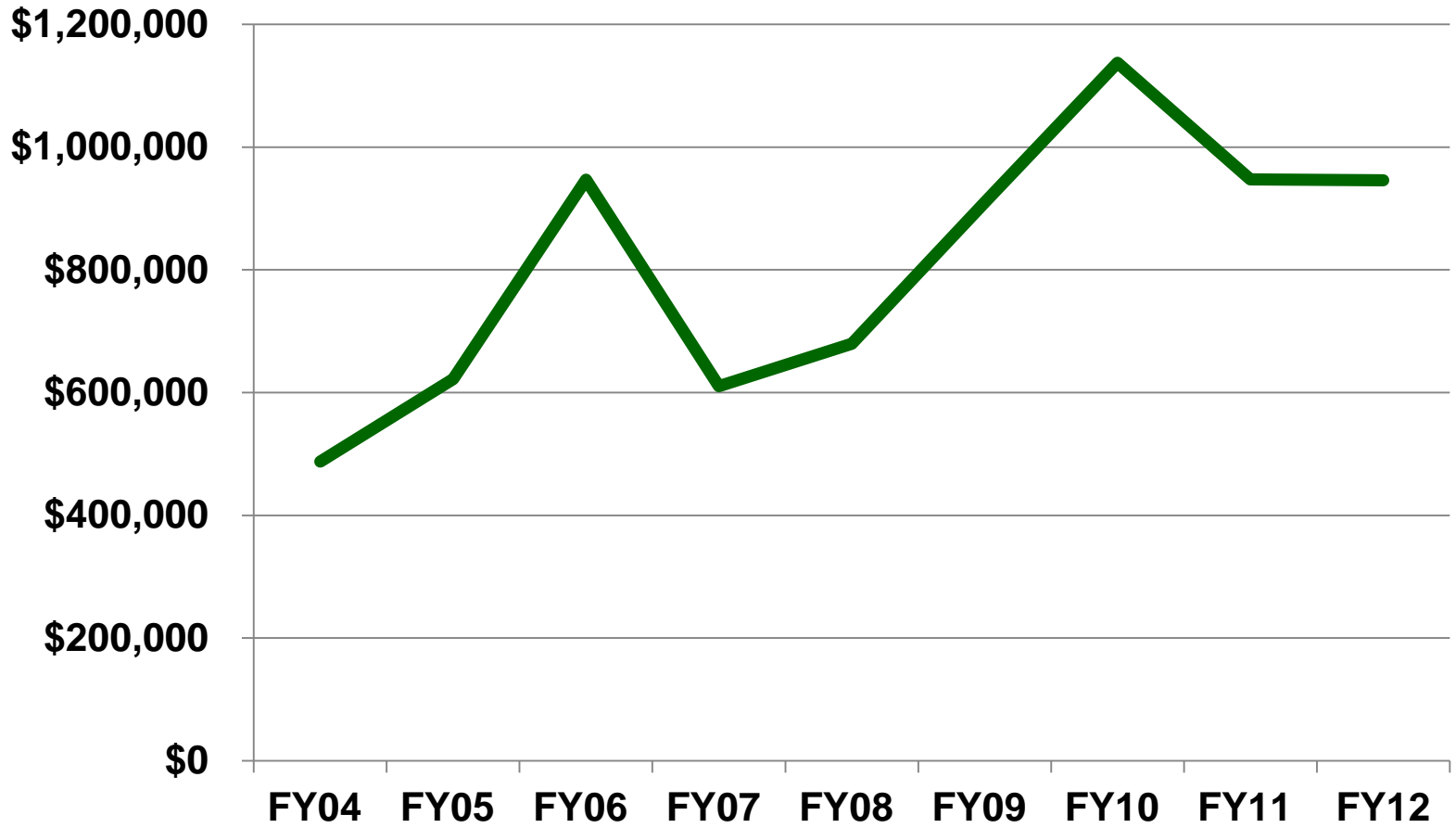
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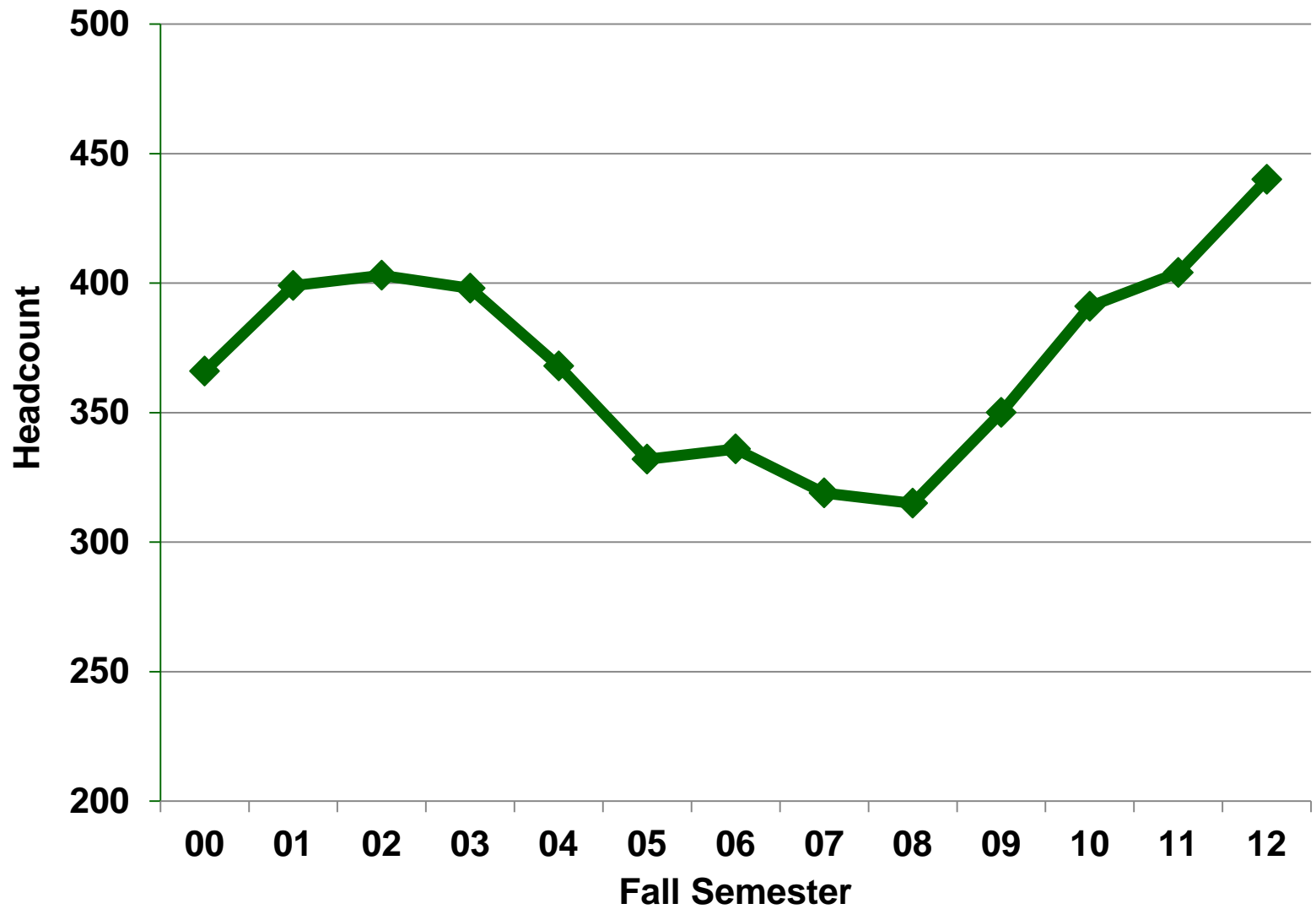
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Computer Science Research Expenditures

FY2004 – FY2012



Computer Science Enrollment



Game Changer

■ Trends in Higher Education

- Demographics, economics, environment, global education, learning, politics, disruptive technology

■ The “new normal”

- Increasing expectations
- Increasing accountability
- Dwindling resources

■ Our obligation and opportunity

- Step forward as national leader
- Discover. Create. Innovate.

Game Changer

- **Computer Science Advisory Board**
 - Consulting, ambassadorship, sponsorship
- **Challenges in the field**
 - At Missouri S&T
 - » Pervasive and mobile computing
 - » Security and privacy
 - » Decentralized computing
 - Globally

Game Changer

- **Growing industry and entrepreneurs**
- **Increase research, ties with industry, workforce development**
- **Focus on research, outreach, teacher training, technology transfer, investment**
- **Partnerships**

