

UK Mining Engineering Foundation Meeting



Departmental Statistics and
Activity Report

Rick Honaker
Executive Director & Chair



April 18, 2013





Department Highlights

- ❑ 37 total graduates in 2012-13 which is the largest in the history of the department.
 - 28 B.S. graduates
 - 7 M.S. graduates
 - 2 Ph.D graduates
- ❑ 90% placement into full positions.
- ❑ Total undergraduate spring enrollment is 190.
- ❑ Scholarships awarded in 2012 – 2013 = \$689,000.
- ❑ Fall 2013: 68 accepted into Mining Engineering; 44 accepted scholarship offers.
- ❑ Over \$1.4 million received in new research funding.





Faculty Recruitment

- ❑ Approval for the hiring of two faculty members was awarded in fall 2012.
- ❑ Applications were reviewed and on-campus interviews conducted in spring 2013.
- ❑ Two offers have been issued for tenure-track Assistant Professor positions.
- ❑ Dr. Jhon Silva has accepted a position and will start August 15, 2013.



PhD, University of Kentucky
M.Sc., Universidad Nacional de Columbia
B.S., CE, Universidad Nacional de Columbia

13 years of Industrial Experience
Part Time Instructor at UK



B.S. Graduates



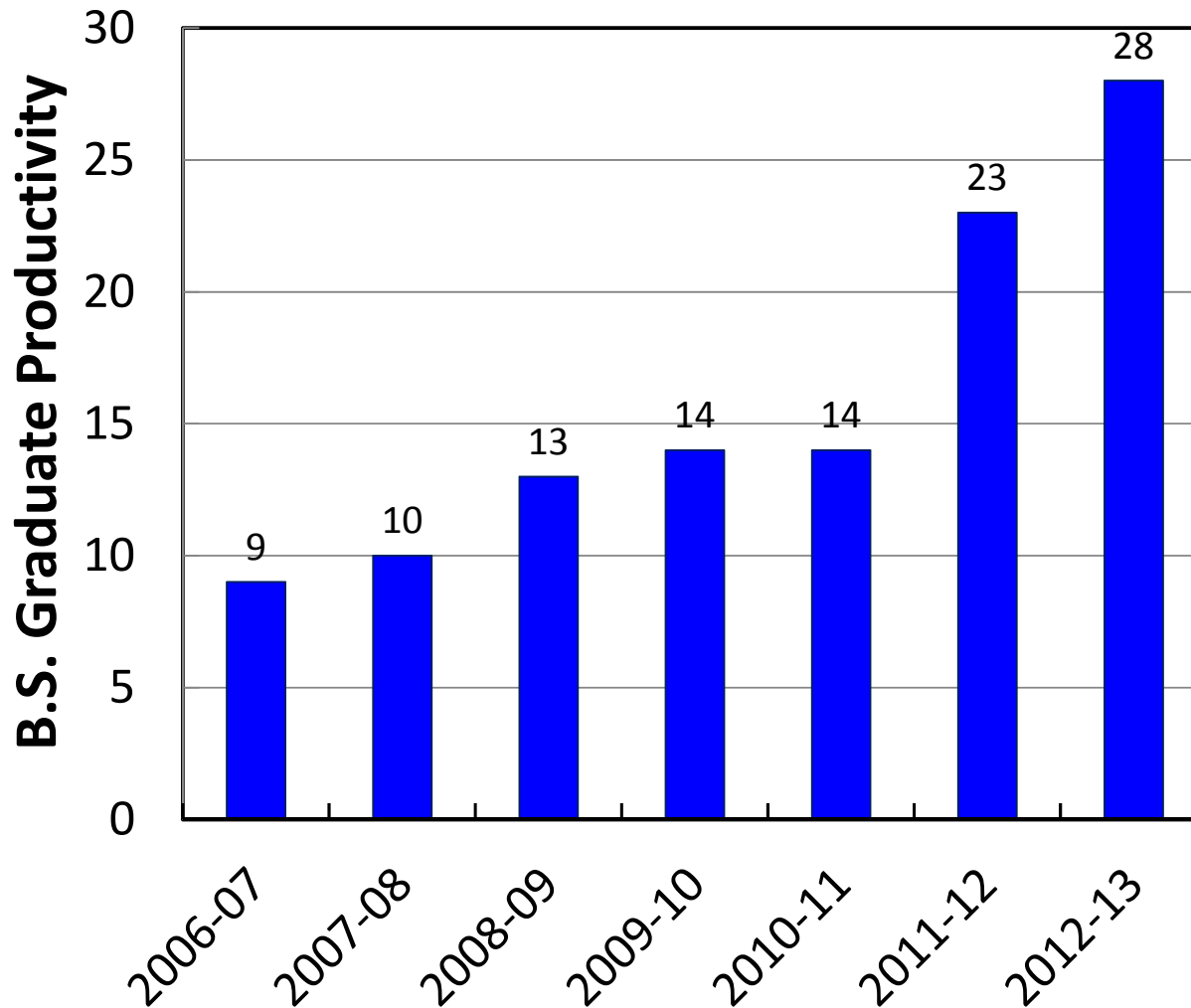
2012-13 B.S. Graduates

- ❑ 28 total
 - 6 December
 - 22 May
- ❑ 4 (14.3%) Females
- ❑ Original Program Enrollment
 - 14 (50%) Freshmen
 - 8 (28.6%) Internal Transfers
 - 6 (21.4%) External Transfers
- ❑ Average UK GPA = 3.10
- ❑ Average 4.5 year completion
 - 10 four-year graduates
- ❑ 90% are placed in permanent employment
 - 12 with Coal Producers
 - 5 with Hardrock/Non-metal Producers





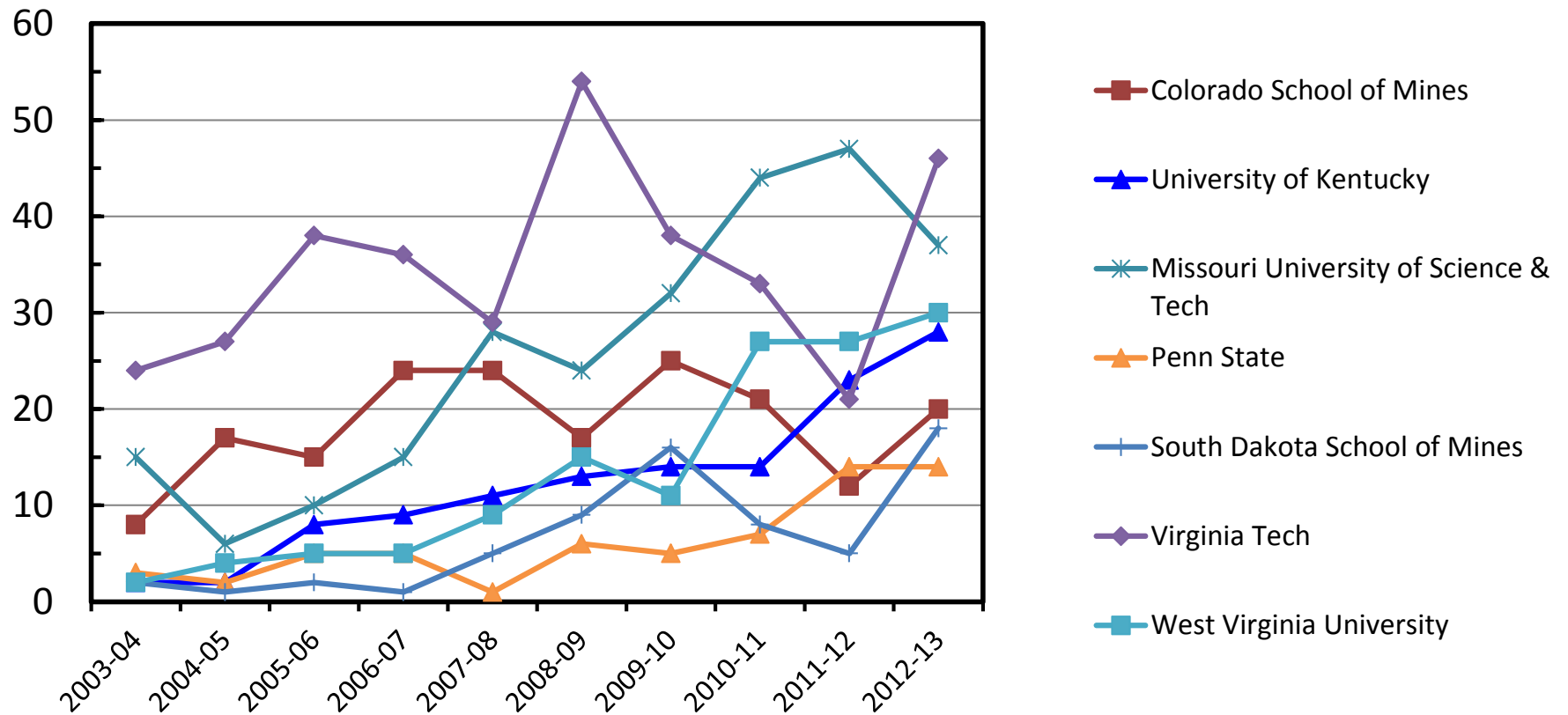
B.S. Graduate Production



Estimated 2013-14 B.S. Graduates = 34



Annual B.S. Graduate Production



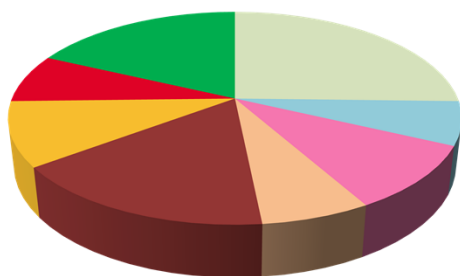
	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
U.S.	67	83	103	120	128	171	169	159	?	258
U.K.	2	2	8	9	11	13	14	14	23	29



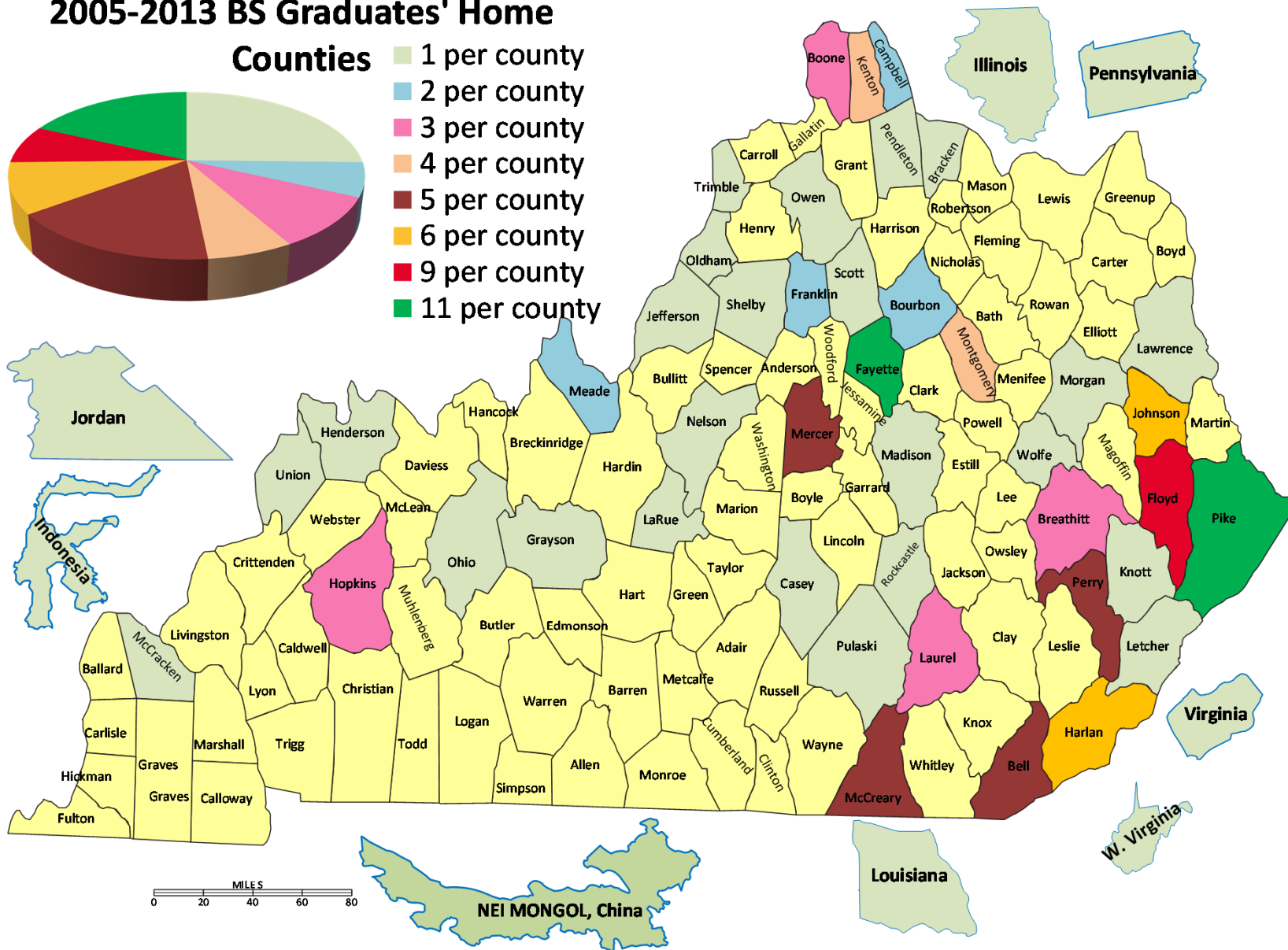
2005–13 B.S. Graduates' Home Counties

2005-2013 BS Graduates' Home

Counties



- 1 per county
- 2 per county
- 3 per county
- 4 per county
- 5 per county
- 6 per county
- 9 per county
- 11 per county



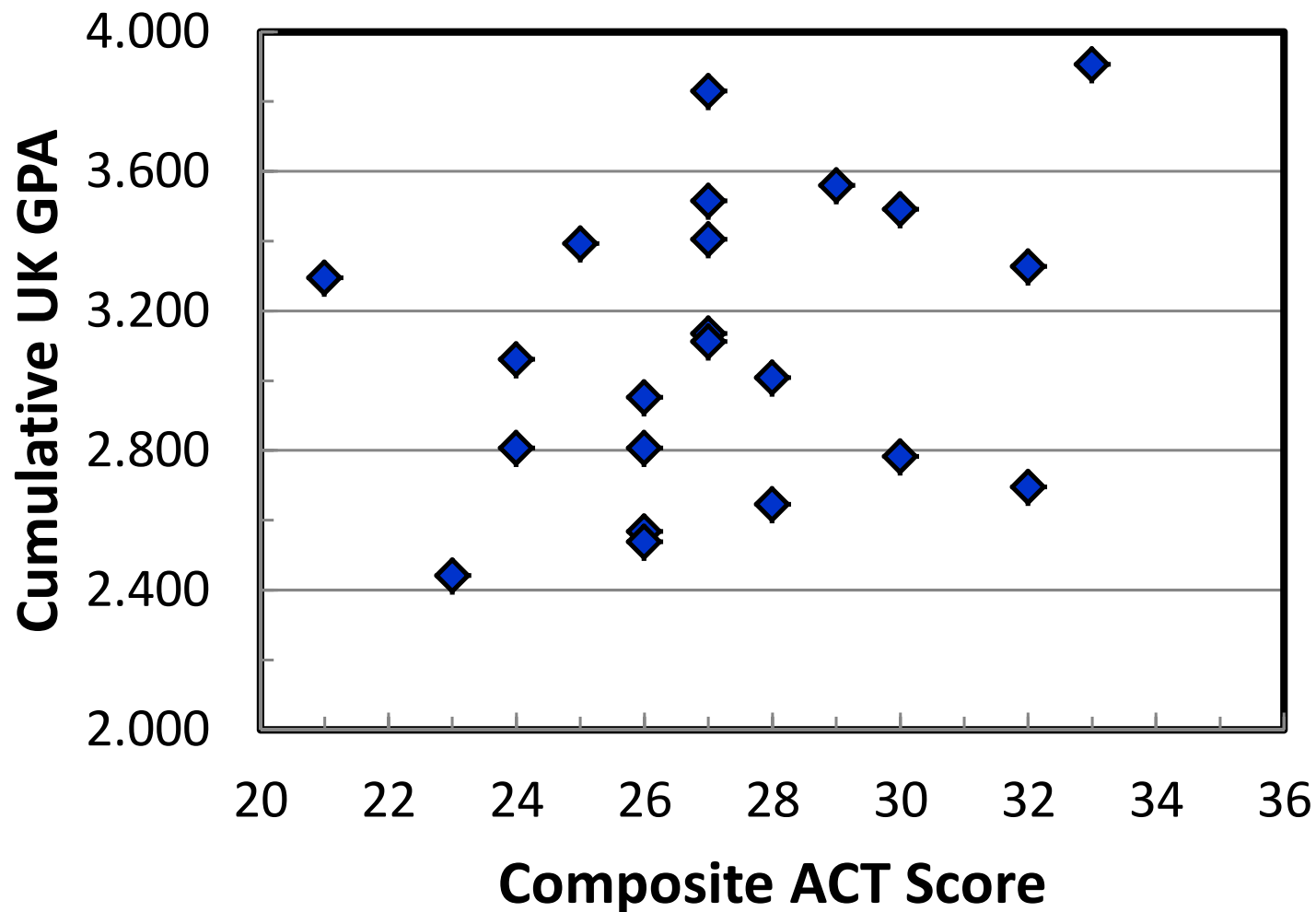


2012-13 B.S. Graduate Employment

Employer	Number Employed
Consol Energy	3
Alpha Natural Resources	2
Patriot Coal	1
Armstrong Coal	2
Alliance Coal	1
Walter Energy	1
Metinvest	1
Newmont Mining	1
Jennmar	2
Asarco	1
Arch Coal	1
Mozaic	2
Taggart Global	1
Rio Tinto	1
ERMC ²	1
Graduate School	4
Total	25



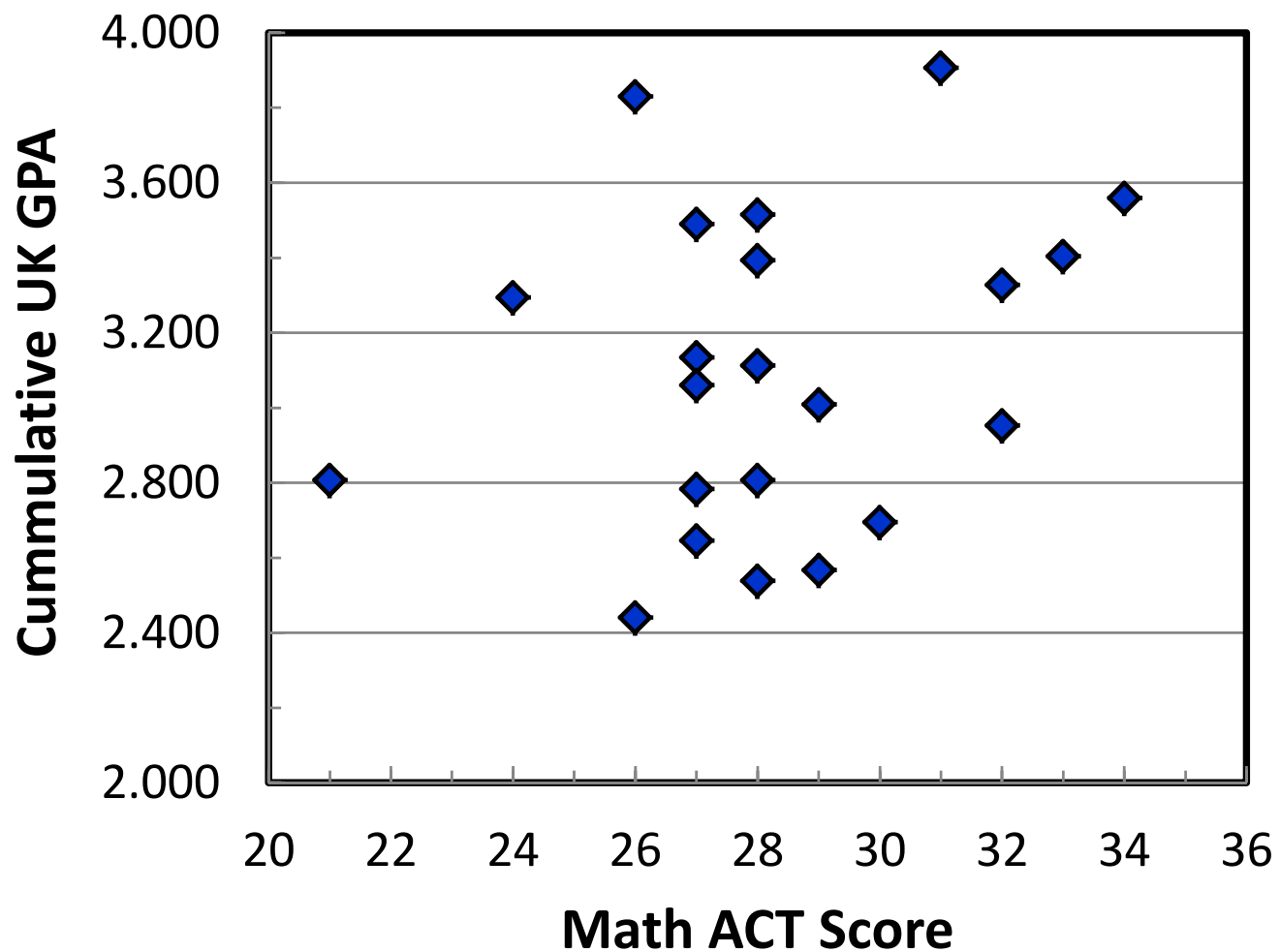
Graduates GPA versus ACT Composite



Average ACT Composite = 27.18



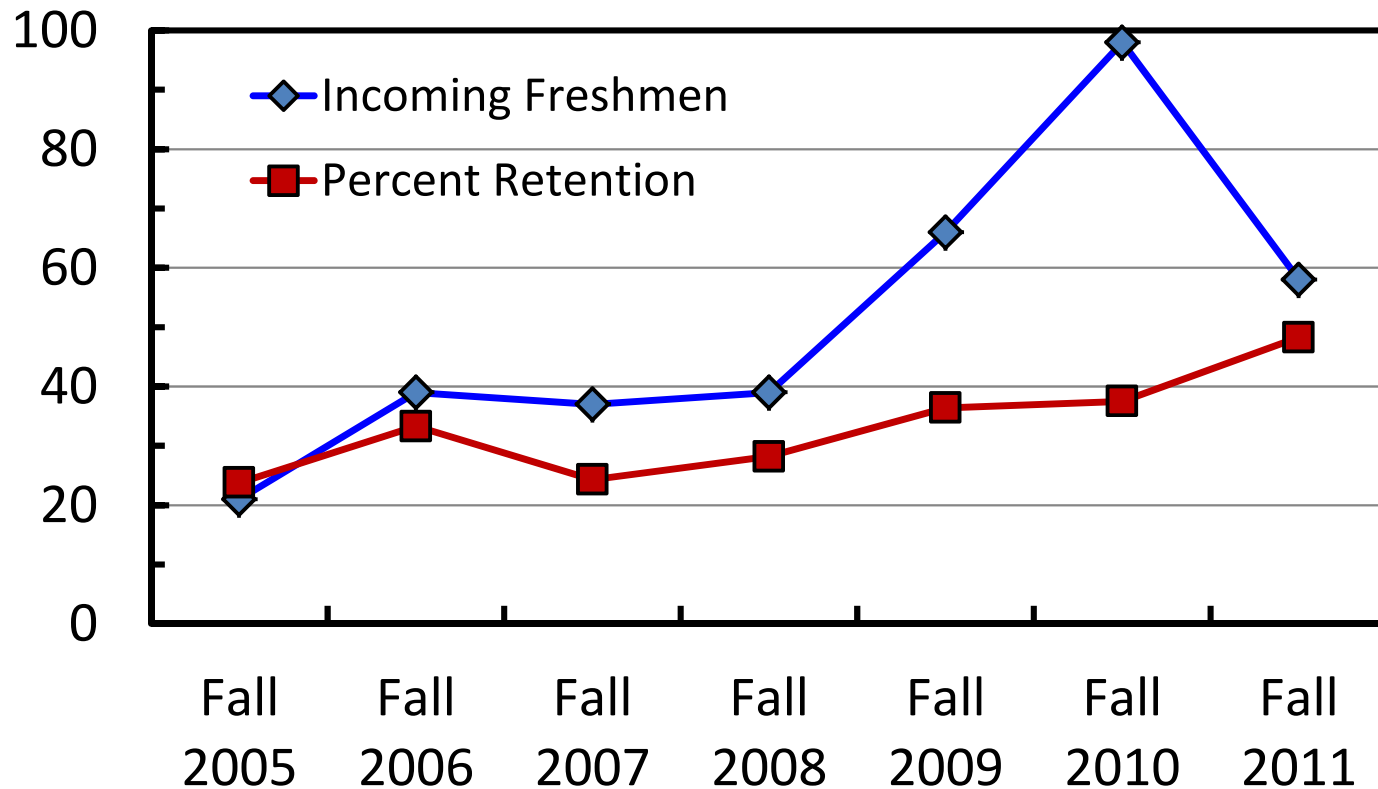
Graduates GPA versus ACT Math



Average ACT Math = 28.27



Freshmen Enrollment & Retention



□ Fall 2010 Freshmen Class

- 37.5% in mining engineering
 - 54.2% in engineering
 - 69.8% enrolled at UK
-



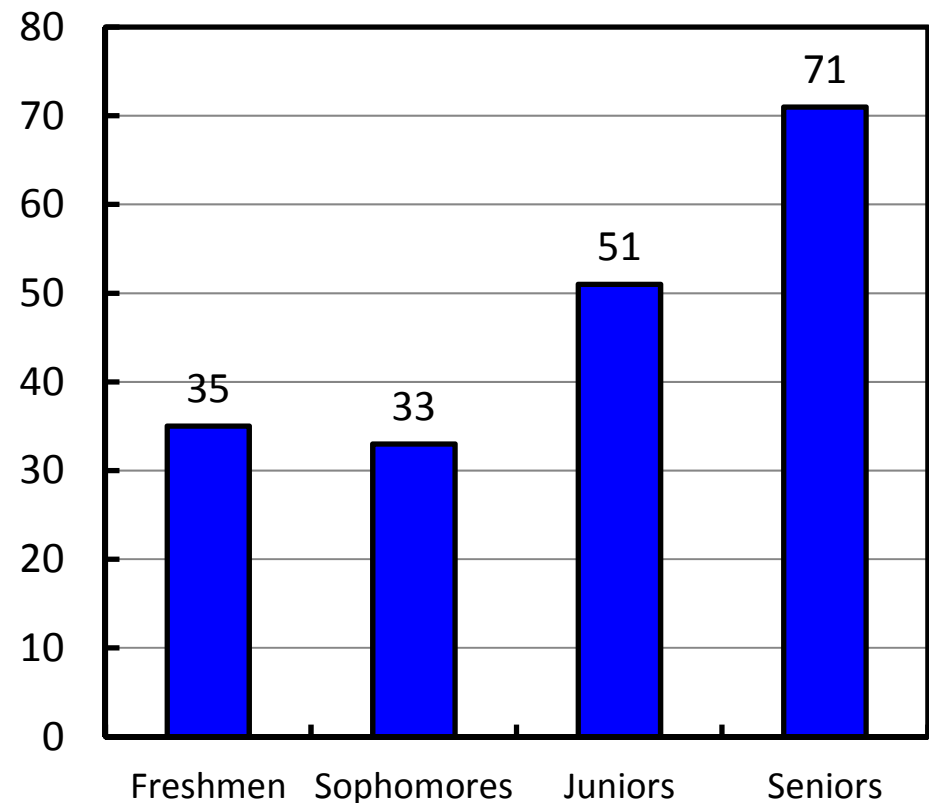
Undergraduate Program





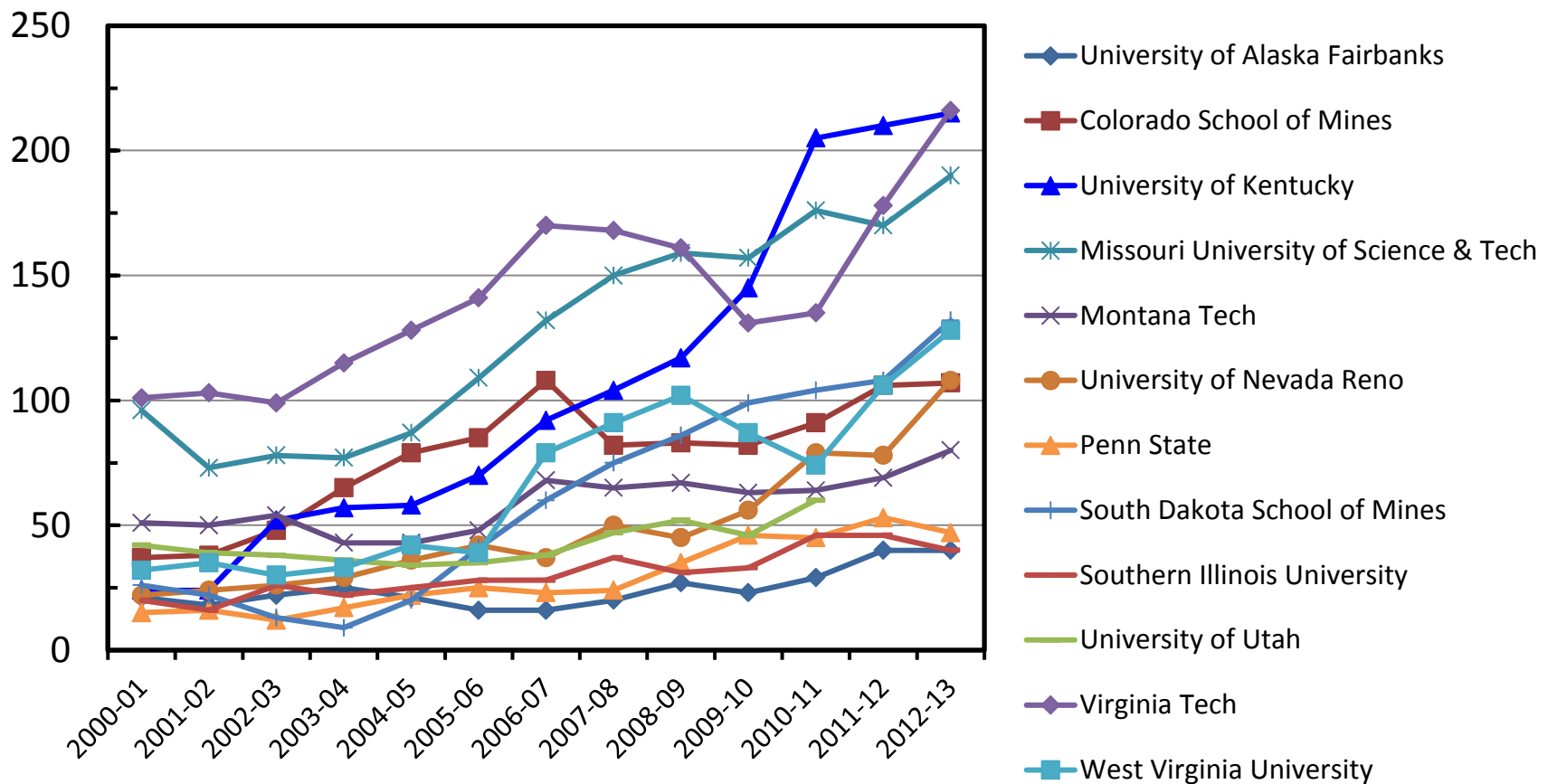
Spring Undergraduate Enrollment

- 190 total enrollment
 - 11.6% Female
 - 6 internationals
- 22 Total Females
 - 9 Seniors
 - 3 Juniors
 - 4 Sophomores
 - 6 Freshmen
- Average GPA = 3.00
 - Seniors = 3.07
 - Juniors = 3.09
 - Sophomores = 3.04





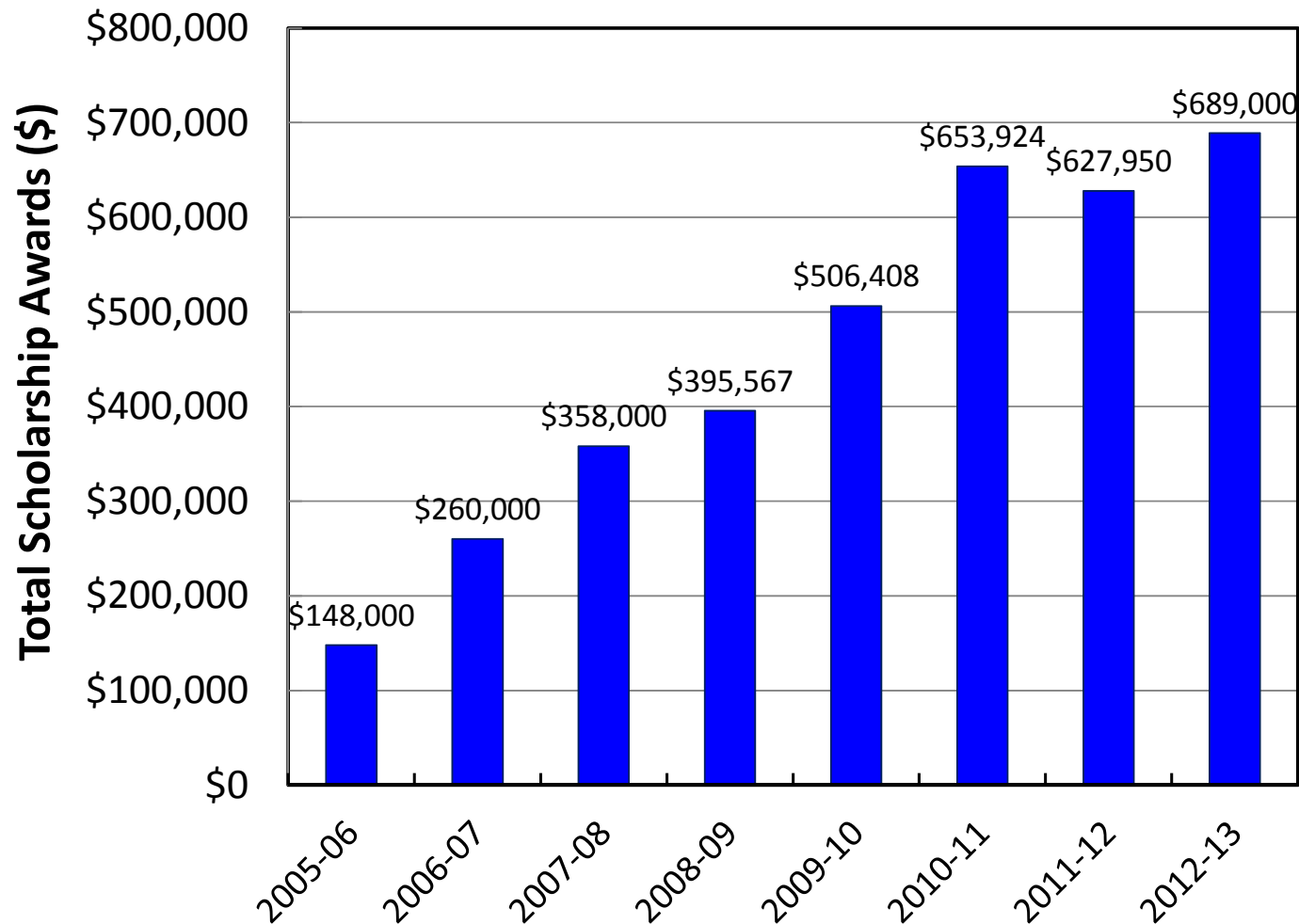
U.S. Undergraduate Enrollment



	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
U.S.	498	528	595	679	851	913	965	968	1108	1164	1487
U.K.	52	57	58	70	92	104	117	145	205	210	215



Scholarships



- Total Scholarship Awards over the 2005-13 period is approximately \$3.64 million.
-



National Scholarship Awards

Colton Parsons

- 2012-2013 McIntosh Engineering Scholarship: \$12,000

- John Sidney Marshall: \$1,500

William Walker

- SME Foundation Scholarship: \$4,000

- John Sidney Marshall: \$1,500

Austin Brock

- Coal & Energy Scholarship: \$2,500

WAAIME Scholarships = \$39,500

Friends of Coal = \$83,000





Field Trip Activities

- ❑ MNG 264: Mining Methods
 - Nyrstar zinc mine & processing plant, Gordonsville, Tennessee
 - Arch's Leer Mining Complex, Grafton, West Virginia
 - Aggregate Mine, Georgetown



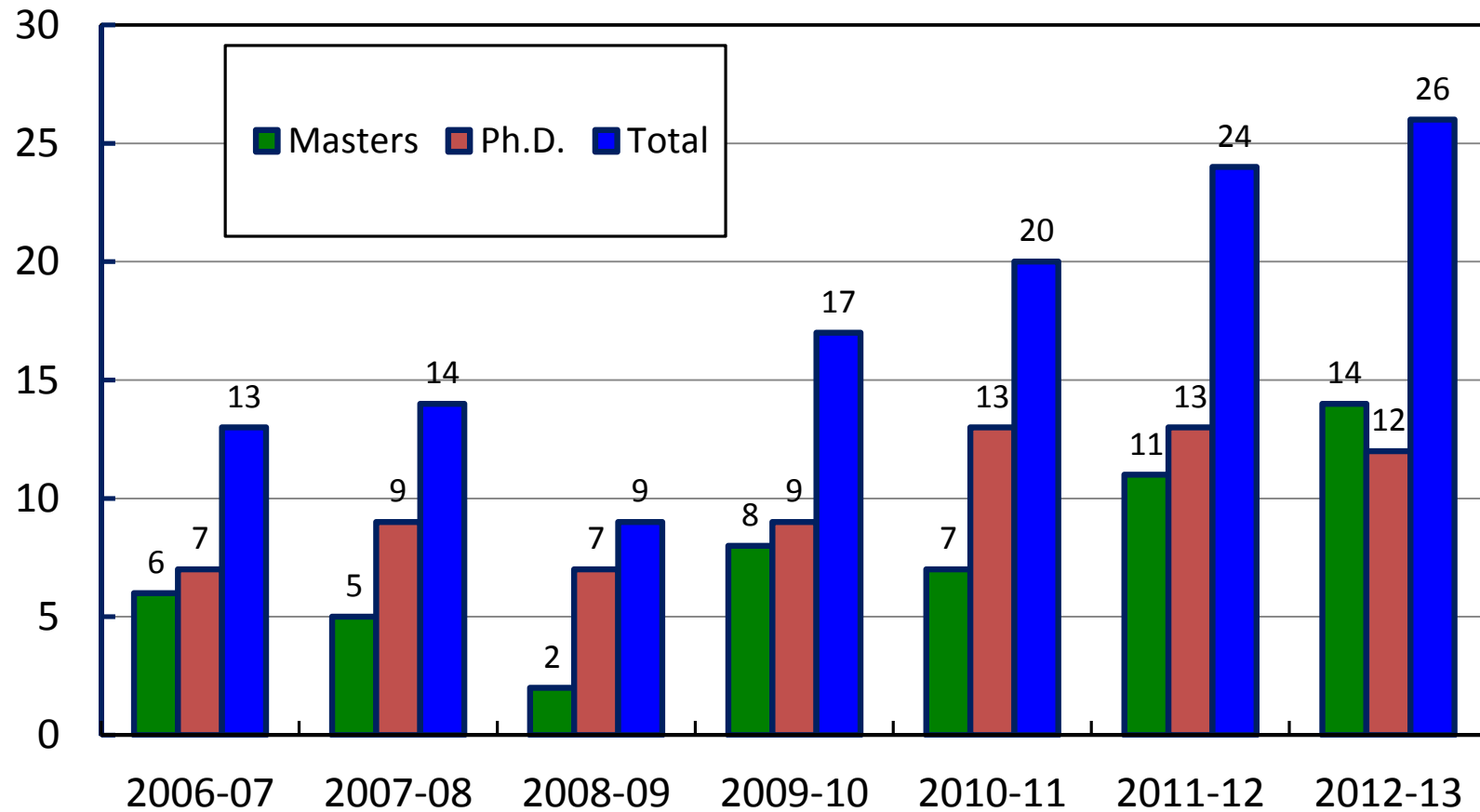


Graduate Program



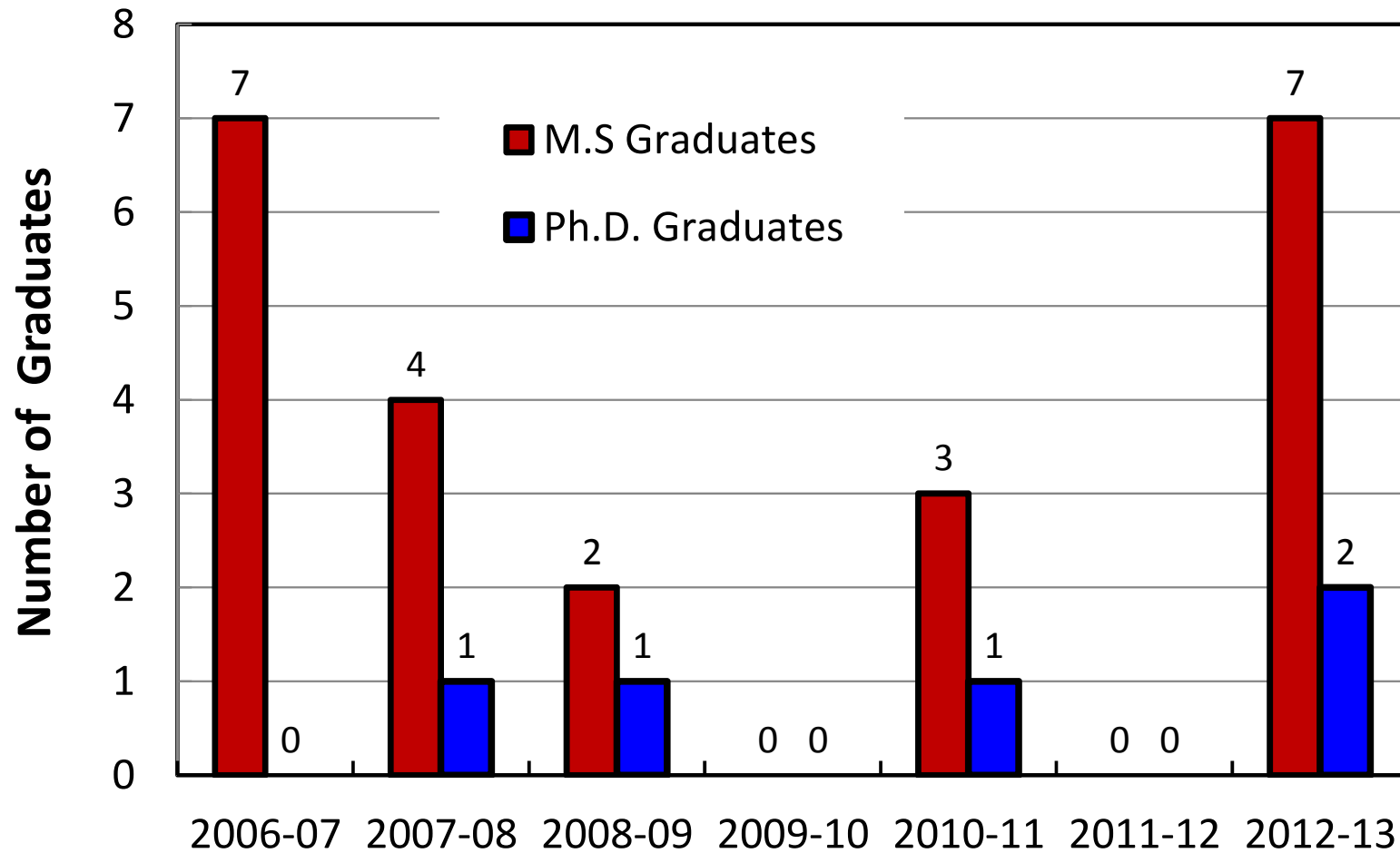


Graduate Program Enrollment





Ph.D. and M.S. Production





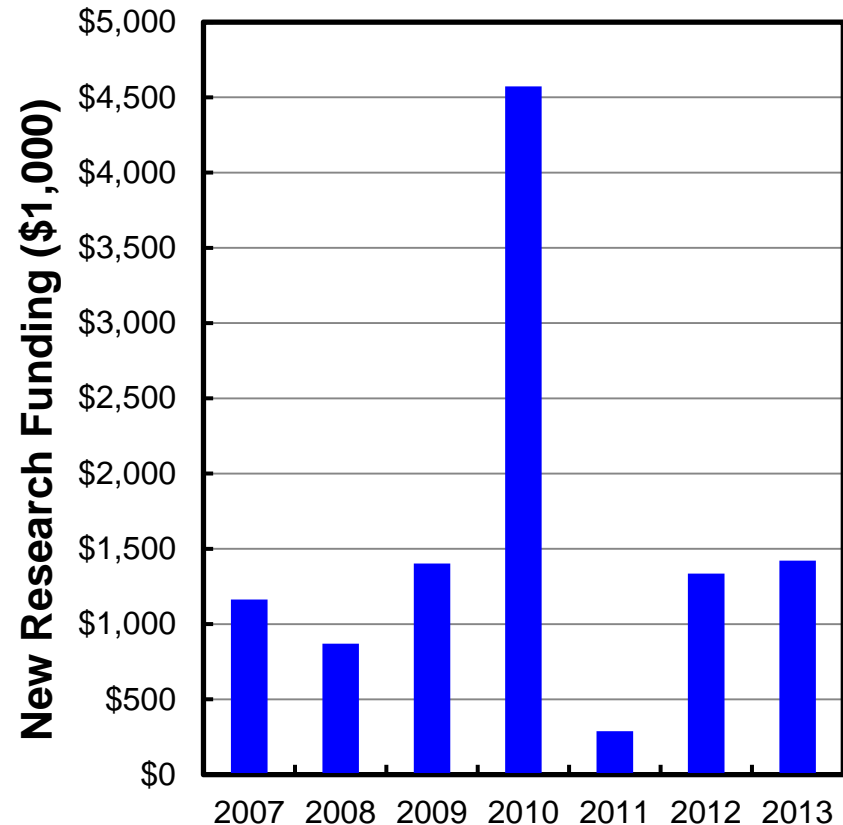
Department Research





Department Research

- ❑ 2012-13 Research Funding = \$1.42 million
- ❑ \$203,000/FTE
- ❑ Goal is \$2 million annually
- ❑ Published Products:
 - 18 Peer-Reviewed Journals
 - 22 Conference Papers
 - 7 Book Chapters
 - 12 Research Reports
 - 1 Patent





New 2012-13 Research Projects

Principal Investigator	Project Title	Funding Agency	Department Amount
Sottile/Honaker	Central Appalachian Regional Education Research Center	NIOSH	\$116,305
Novak	Underground Coal Mine Communications & Tracking Systems Performance & Maint.	CDC/NIOSH	\$103,451
Lusk	Blasting Effects on Coal Refuse Impoundment Structures	KY Energy Environment Cabinet	\$200,000
Tao	Innovative RTS Tech for Efficient Separation of Dolomite from Phosphate	Florida Institute for Phosphate Res	\$10,000
Subtotal New 2011-2012 Research Funding			\$429,756



New 2012-13 Research Projects

Principal Investigator	Project Title	Funding Agency	Department Amount
Lusk	Assessment of Technology for Non-destructive Testing of In-Situ Underground Mine Seals	NIOSH/ Marshall Miller	\$151,377
Wala/Honaker	Advancing Critical Health & Safety Aspects of Mine Ventilation Through Technical Development	CDC/NIOSH	\$205,537
Tao	SBIR: Advanced Separation Technology for Extraction of Rare Earth Elements	Spectrum Magnetics	\$40,000
Subtotal New 2011-2012 Research Funding			\$396,914



New 2012-13 Research Projects

Principal Investigator	Project Title	Funding Agency	Department Amount
Perry/Unrug	Identification of Potential Roof Problems Using LED Lighting & Numerical Modeling	CDC/NIOSH	\$246,033
Lusk/Honaker/ Novak/Perry	UK Experimental Mine Feasibility Study	KY Energy Environmental Cabinet	\$350,000
Honaker/Lusk	Appalachian Research Initiative for Environmental Sciences	Virginia Tech	\$134,680
Subtotal New 2011-2012 Research Funding			\$730,713
Total New 2012-2013 Research Funding (to-date)			\$1,557,383



Approved 2012-13 Research Projects

Principal Investigator	Project Title	Funding Agency	Department Amount
Perry/Lusk	Modern Rock Dust Development and Evaluation	CDC/NIOSH	\$404,457
Honaker/Parekh	Dry Cleaning of Korean Coals	Korea Institute of Geosciences	\$46,369
Subtotal Approved 2011-2012 Research Funding			\$450,826
Total 2012-2013 Research Funding (to-date)			\$2,008,209



Questions

