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BENCHMARKS 2014

EECS BENCHMARKS

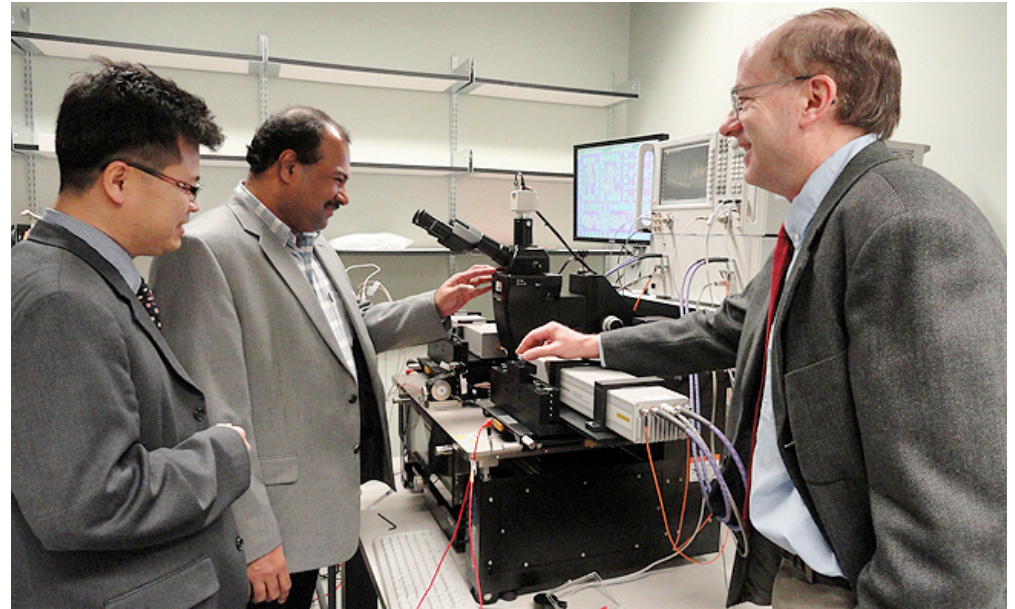
Benchmark	Goal
National rankings (Graduate programs) According to US News and World Report and National Research Council (NRC)	Top 50 by 2020
Research performance (expenditures) -- Total and per tenured and tenure track faculty	Exceed peers' median/avg
Student to faculty ratio UG: students to total instructional faculty GR: students to tenured and tenure track faculty	Better than peers' median/avg
UG degrees awarded Total and per instructional resources (TTF+NTTF+TA FTE)	Exceed Peers' median/avg
UG student placement (jobs or grad school) at graduation	75%+

PEERS

□ Land grant universities

- University of Missouri-Columbia
- University of Tennessee-Knoxville
- Colorado State University
- Virginia Polytechnic Institute and State University
- Kansas State University
- Mississippi State University
- University of Florida
- Cornell University
- Louisiana State University
- Auburn University
- University of Wisconsin-Madison
- Texas A&M University
- Oklahoma State University
- Michigan State University
- The Ohio State University
- University of Illinois at Urbana-Champaign
- Purdue University
- Iowa State University
- University of California-Davis
- University of Minnesota -Twin Cities
- Washington State University
- North Carolina State University

Both EECS and Peers' data is collected from
ASEE (<http://profiles.asee.org>)



RANKINGS BENCHMARK

GRAD PROGRAM RANKINGS (US NEWS)

- EE ranking (out of 256 EE/CE programs):

2007	2008	2009	2010	2011	2012	2013
77	68	65	79	75	72	60

Top 30%

- Colorado State, Syracuse, UC Riverside (67)
- Oregon State, NJIT, Texas Tech (76)

- CS ranking (out of 437 CS programs) – no new ranking since 2010:

2007	2008	2009	2010
N/R	N/R	N/R	79

Top 18%

- Oregon State (63), Colorado State (79), Florida State (79)

2012 NRC RANKINGS, EE@WSU

□ Overall

136 ranked by NRC

○ 46-103

- University of Maryland-College Park, Electrical Engineering
- Drexel University, Electrical and Computer Engineering
- University of Notre Dame Electrical Engineering
- Columbia University in the City of New York, Electrical Engineering
- University of Illinois at Chicago, Electrical and Computer Engineering
- **Washington State University, Electrical Engineering**
- University of Arkansas, Electrical Engineering
- University of California-Davis, Electrical and Computer Engineering
- University of Nebraska-Lincoln, Electrical Engineering
- University of New Mexico-Main Campus, Electrical and Computer Engineering
- Case Western Reserve, University Electrical Engineering

2012 NRC RANKINGS, CS@WSU

□ Overall

126 ranked by NRC

○ 50-105

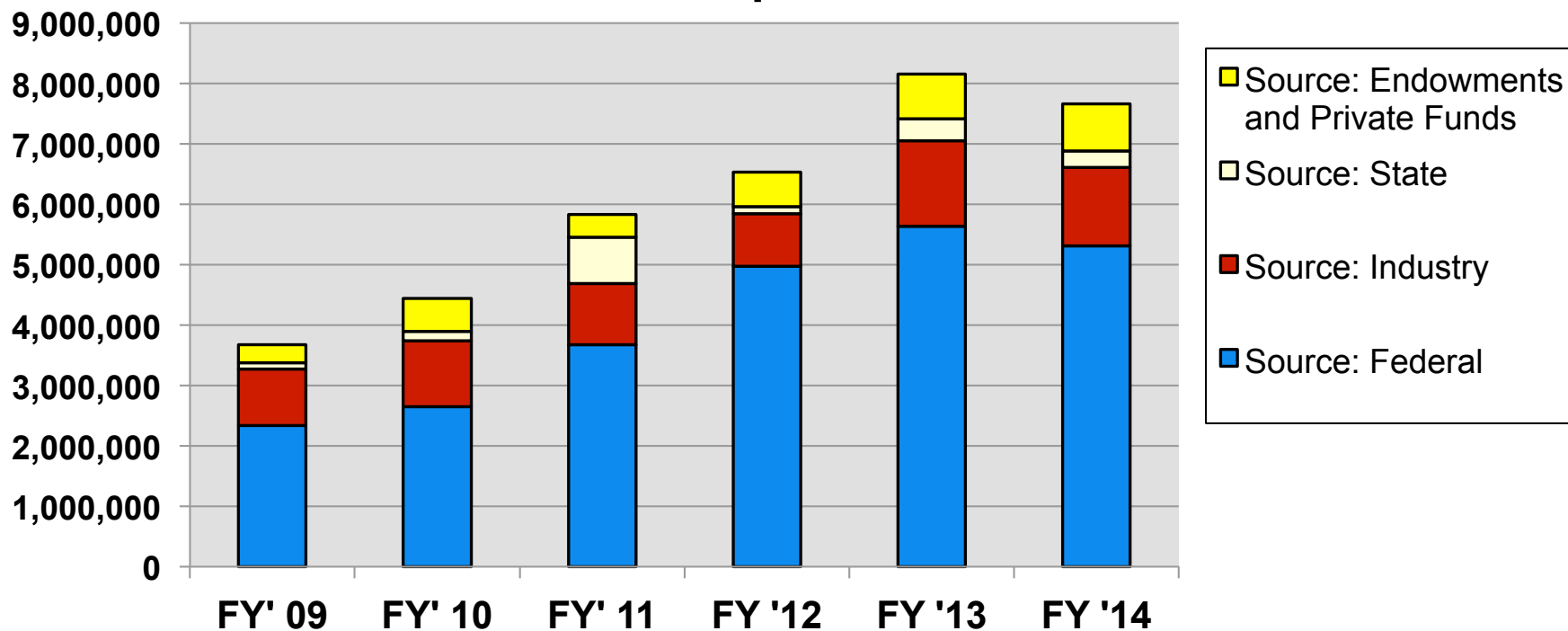
- University of Central Florida, Computer Sciences
- North Carolina State University at Raleigh, Computer Sciences
- University of Florida, Computer Engineering
- College of William and Mary, Computer Sciences
- Kansas State University, Computer Science
- **Washington State University, Computer Science**
- Oregon State University, Computer Science
- The University of Alabama, Computer Sciences
- George Washington University, Computer Science
- Western Michigan University, Computer Sciences
- University of Delaware, Computer and Information Sciences



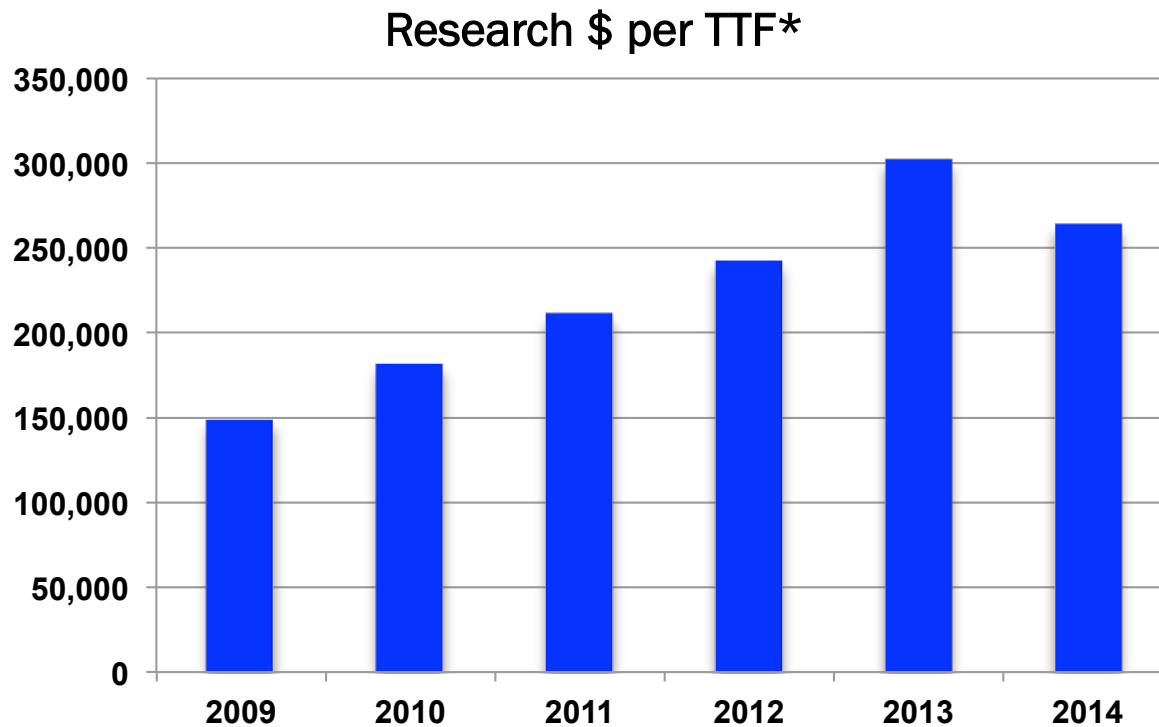
RESEARCH PRODUCTIVITY BENCHMARK

EECS RESEARCH EXPENDITURES

Research Expenditures



RESEARCH \$ PER FACULTY

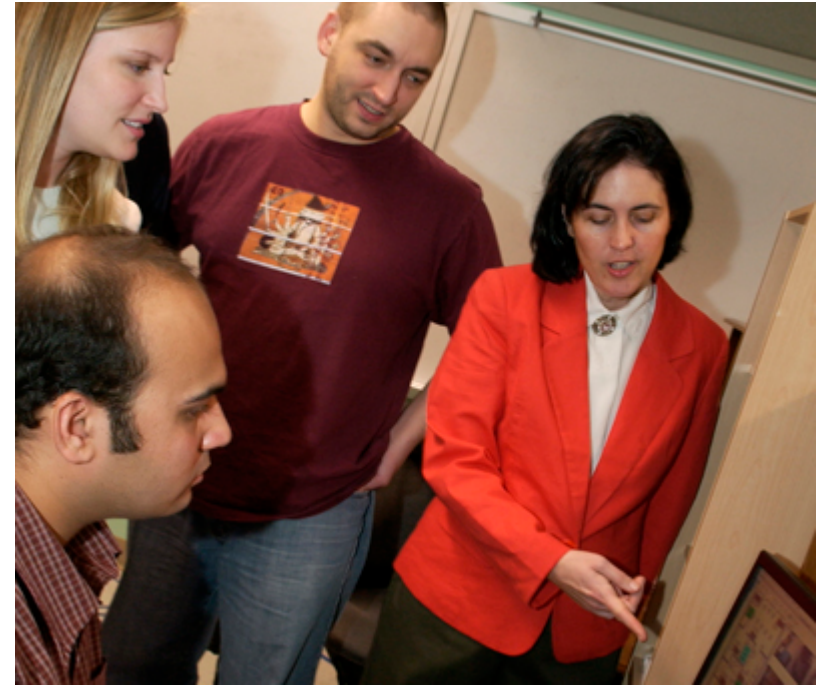


* TTF: Tenured and tenure track faculty

COMPARISON TO PEERS (2013)

	Total Research Expenditures	Rank among Peers
EECS	\$7.58M	19 out of 22
Peers Median	\$17.30M	N/A
Peers Average	\$27.06M	N/A

	Research \$ per (tenure track) Faculty	Rank among Peers
EECS	280,852	16 out of 22
Peers Median	316,717	N/A
Peers Average	376,397	N/A



STUDENT TO FACULTY RATIO BENCHMARK

EECS IN NUMBERS

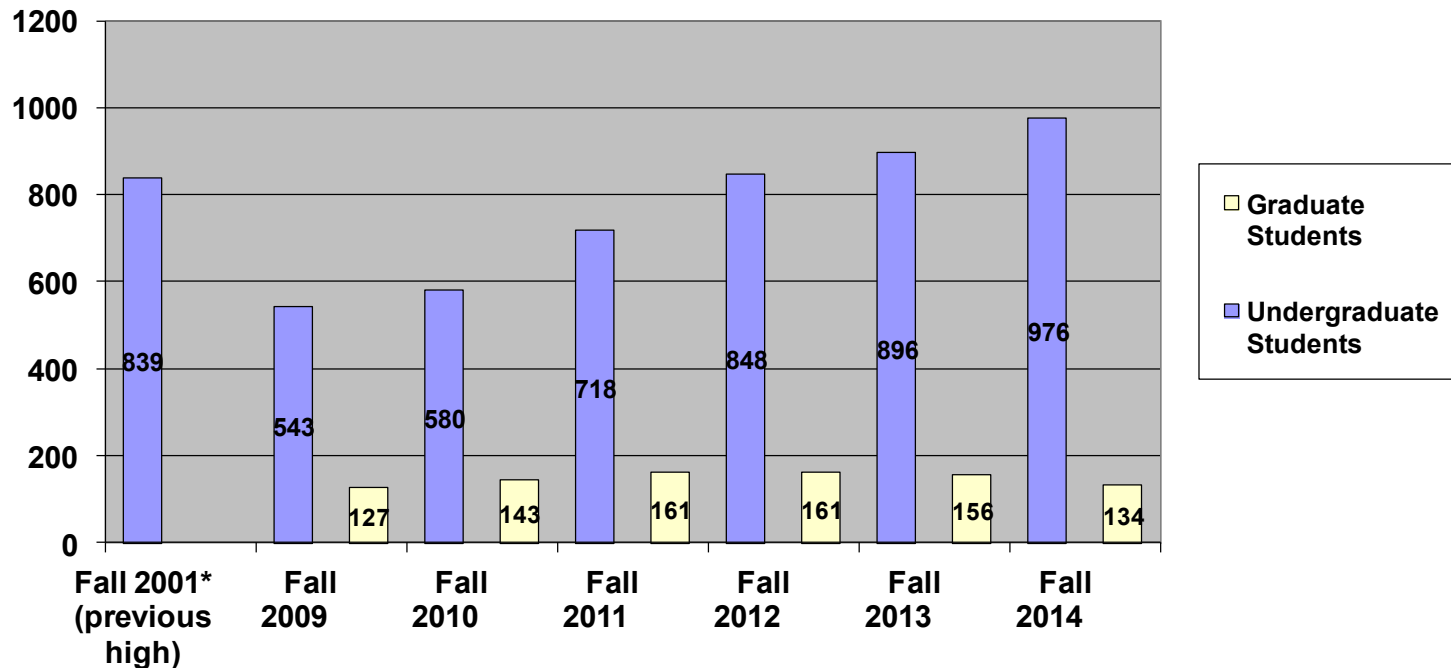
Fall 2014 Full-time, non-temporary faculty positions

	Pullman		Total
	Tenure Track	Non-Tenure Track	
Electrical Engineering	20	2	22
Computer Engineering	2	1	3
Computer Science	14	5	19
Total	36	8	44

Joining to EESC in Fall 2014 : 3 TT in EE, 1 NTT in EE, 4 TT in CptS, 1 NTT in CptS

EECS IN NUMBERS

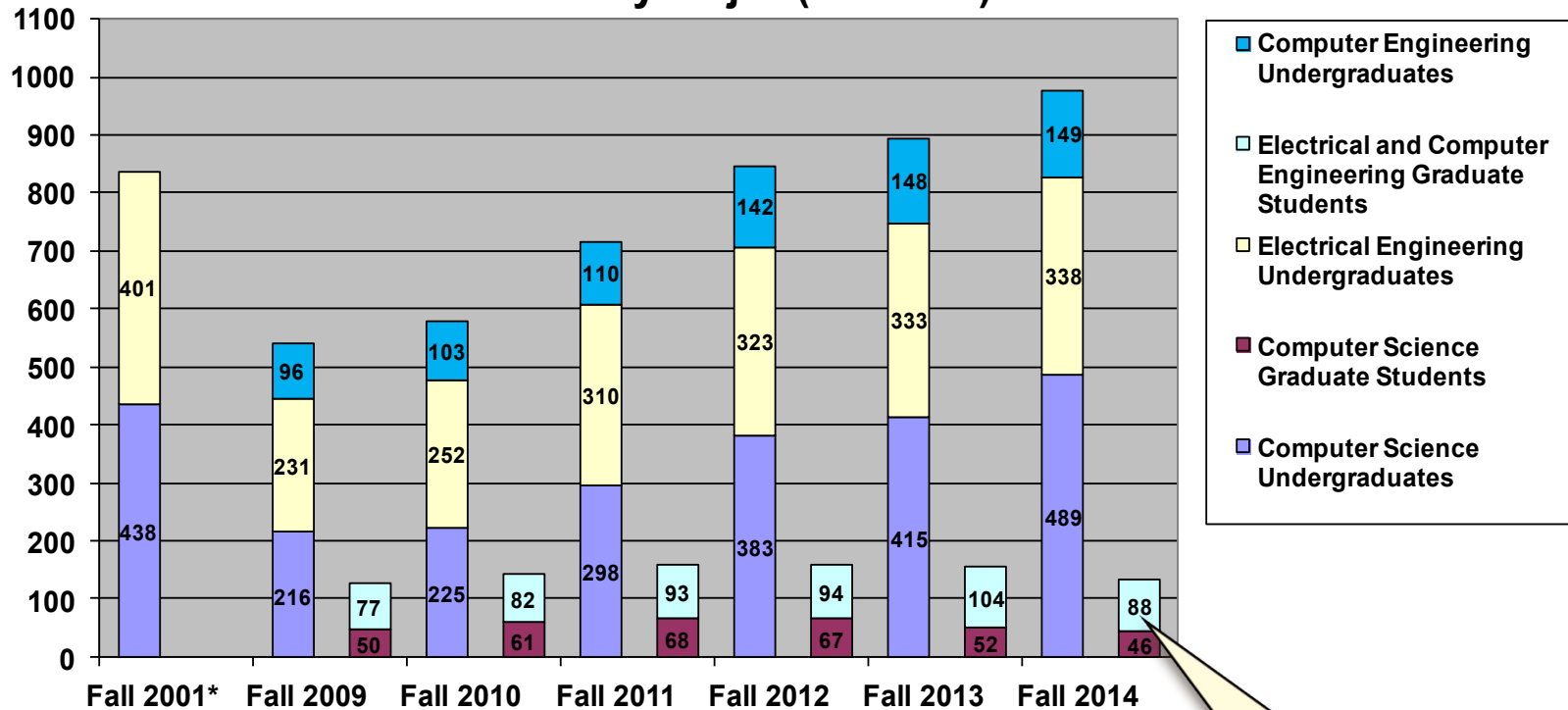
Enrollment Totals (Pullman)



* Fall 2001 also includes Tri-Cities students

EECS IN NUMBERS

Enrollments by Major (Pullman)



* Fall 2001 also includes Tri-Cities students

80% PhD

Fall 2014 Undergraduate Freshman and Transfer Students: CptS 146; EE 87; CptE 48

COMPARISON TO PEERS (2013)

	UG*/All Faculty Ratio	Rank among Peers
EECS	14.65	1 out of 22
Peers Median	8.83	N/A
Peers Average	9.33	N/A

	GR**/Tenure track Faculty	Rank among Peers
EECS	6.63	14 out of 22
Peers Median	7.77	N/A
Peers Average	7.56	N/A

* UG = total certified (Junior + Senior) students

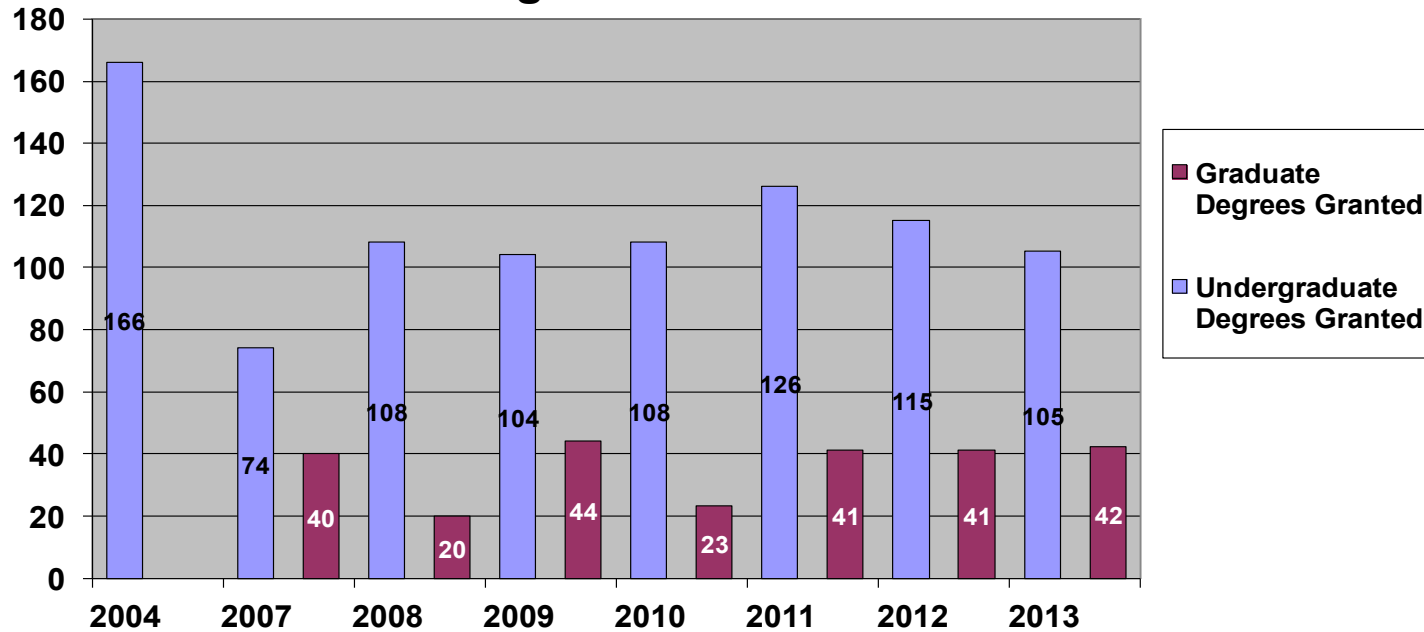
** GR = total MS and PhD students



UG DEGREES AWARDED BENCHMARK

EECS IN NUMBERS

Degrees Granted



COMPARISON TO PEERS (2013)

	UG degrees granted	Rank among Peers
EECS	120	15 out of 22
Peers Median	209.50	N/A
Peers Average	186.50	N/A

	UG degrees per teaching resources*	Rank among Peers
EECS	2.41	2 out of 22
Peers Median	1.77	N/A
Peers Average	1.74	N/A

* Teaching resources: Tenure track faculty + Non-Tenure track faculty + TA FTEs



UG STUDENT PLACEMENT BENCHMARK

UG STUDENT PLACEMENT

Based on exit interviews of EECS graduating students:

Year	With at least one job offer	Entering graduate school	Total Percentage Placed	With internships
2014	41%	1%	42%	58%
2013	44%	10%	54%	63%
2012*	61%	10%	71%	61%
2011	61%	19%	80%	53%
2010	53%	12%	65%	65%
2009	49%	13%	62%	N/A
2008	65%	16%	81%	N/A

* Exit surveys after 2012 are mandatory (voluntary before then)

UG STUDENT PLACEMENT

Based on exit interviews of EECS graduating students:

Year	With at least one job offer					Entering graduate school					Total Percentage Placed				
	CptS-BS	CptS-BA	CptE	EE	Overall	CptS-BS	CptS-BA	CptE	EE	Overall	CptS-BS	CptS-BA	CptE	EE	Overall
2014	50%	43%	46%	31%	41%	0%	0%	8%	0%	< 1%	50%	43%	54%	31%	41%
2013	70%	25%	40%	32%	44%	12%	0%	7%	11%	10%	82%	25%	47%	43%	54%

UG STUDENT PLACEMENT

Based on exit interviews of EECS graduating students:

Year	With internships	Sought employment	Have at least one job offer (among those who sought employment)
2014	58%	41%	45% (CptS BS 52%, CptS BA 50%, CptE 50%, EE 35%)
2013	63%	84%	54% (CptS BS 85%, CptS BA 33%, CptE 46%, EE 39%)

* Exit surveys after 2012 are mandatory (voluntary before then)

STUDENT PLACEMENT – BASED ON EXIT INTERVIEWS

87 hires for Spring 2012 through Summer 2013

Company	Number of Hires
SEL	9
Boeing	7
Micron	7
Microsoft	7
Isilon	7
PSE	3
Anvil Engineering	2
Apptio	2
CH2M Hill	2
Chief Architect	2
Cowlitz PUD	2
Fast Enterprises	2
Garmin AT	2
AHA - Comtech EF Data	1
Amazon	1
Applied Physics Lab at the University of Washington	1

Company	Number of Hires
Boise Inc	1
Carnegie Mellon University Robotics Institute	1
Chelan County PUD	1
Clearwater Paper	1
Colmac Coil Mfg.	1
Cowlitz County PUD	1
Decagon Devices	1
Eaton Corp	1
FUJITSU Japan	1
Garmin	1
Hawaiian Electric Company	1
HiLine Engineering & Fabrication Inc.	1
Honeywell	1
Infinium Engineering and Consulting	1
Johns Hopkins University	1
Lee & Hayes	1

Company	Number of Hires
Marchex	1
Neon Mob Obvious Corporation	1
PNNL	1
Power Engineers	1
Qumulo	1
Saudi Aramco Oil Company	1
Schenieder Electric	1
SoySource	1
TCS	1
Texas Instruments	1
Universal Avionics	1
US Air Force	1
Verizon Wireless	1
Weyerhaeuser	1

SOME KEY EECS ALUMS

- ❑ Paul Allen (co-founder of Microsoft)
- ❑ Ed Schweitzer (founder and President of SEL)
- ❑ Harold Frank (founder of Applied Magnetics)
- ❑ Gaymond Schultz (founder and VP of Engineering of Stratacom)
- ❑ Terry Heng (Senior VP at Motorola and CEO of Gridline Communications)
- ❑ Doug Allred (Senior VP at Cisco)
- ❑ Joe Jachinowski (founder of IMPAC, President and CEO of Elekta, Inc.)
- ❑ Floyd Rogers (Software Design Engineer at Microsoft)
- ❑ Judy Huie-Rogers (Boeing)
- ❑ Bill Gaines (Director of Tacoma Public Utilities)
- ❑ Gary Steele (CEO of ProofPoint)
- ❑ Clint Cole (founder and CEO of Diligent)
- ❑ C. Gus Grant (founder of Focus Systems, Inc.)
- ❑ Robert Baker (Senior VP at Intel Corp.)
- ❑ Thor Culverhouse (President and CEO of Stratavia)
- ❑ Ashok Dhawan (CEO of Mobius)
- ❑ Debbie Gracio (Division Director, Computational & Statistical Analytics Division, PNNL)
- ❑ Sara Moss (CEO and founder of The Code Works)
- ❑ Gerri Martin-Flickinger (CIO Adobe)
- ❑ Steve Seroshek (CEO and founder of Avaunt Technologies, Inc.)
- ❑ ...



SUMMARY

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- ❑ EECS has come a long way in the past 6 years
 - Research expenditures: \$2.5M to \$7.5M (3X increase)
 - GR students: from 113 to 152 (40% increase)
 - UG students: from 552 to 896 (60% increase)
- ❑ Work to do:
 - Continue to make improvements in rankings
 - Continue increasing research expenditures
 - Reduce UG student/faculty ratio by adding more faculty
 - Increase GR student/faculty ratio by increasing the PhD student population