

Behrooz Shirazi  
School of EECS

# BENCHMARKS 2015

# 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/average
Student to faculty ratio UG: students to total instructional faculty GR: students to tenured and tenure track faculty	Better than peers' median/average
UG degrees awarded Total and per instructional resources (TTF+NTTF+TA FTE)	Exceed Peers' median/average
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	2014	2015	Top 30%
77	68	65	79	75	72	60	77	66	

- Colorado State, University of Tennessee— Knoxville, UT Arlington (66)
- Auburn, UC Riverside, Tufts, Univ. of Illinois— Chicago (58)

- CS ranking (out of 437 CS programs) – no rankings 2011-13:

2007	2008	2009	2010	2014	2015	Top 18%
N/R	N/R	N/R	79	70	N/R	

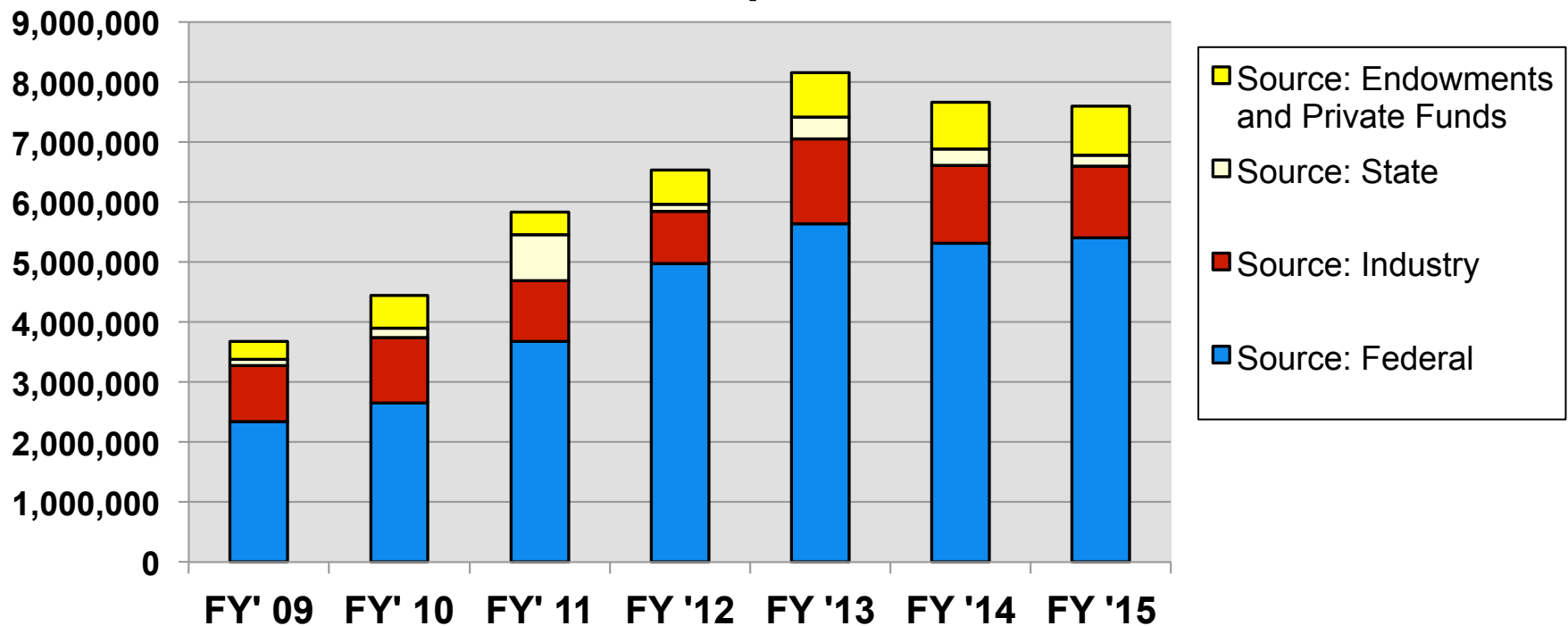
- 2014 : Oregon State (67), Colorado State (70), Florida State (82)



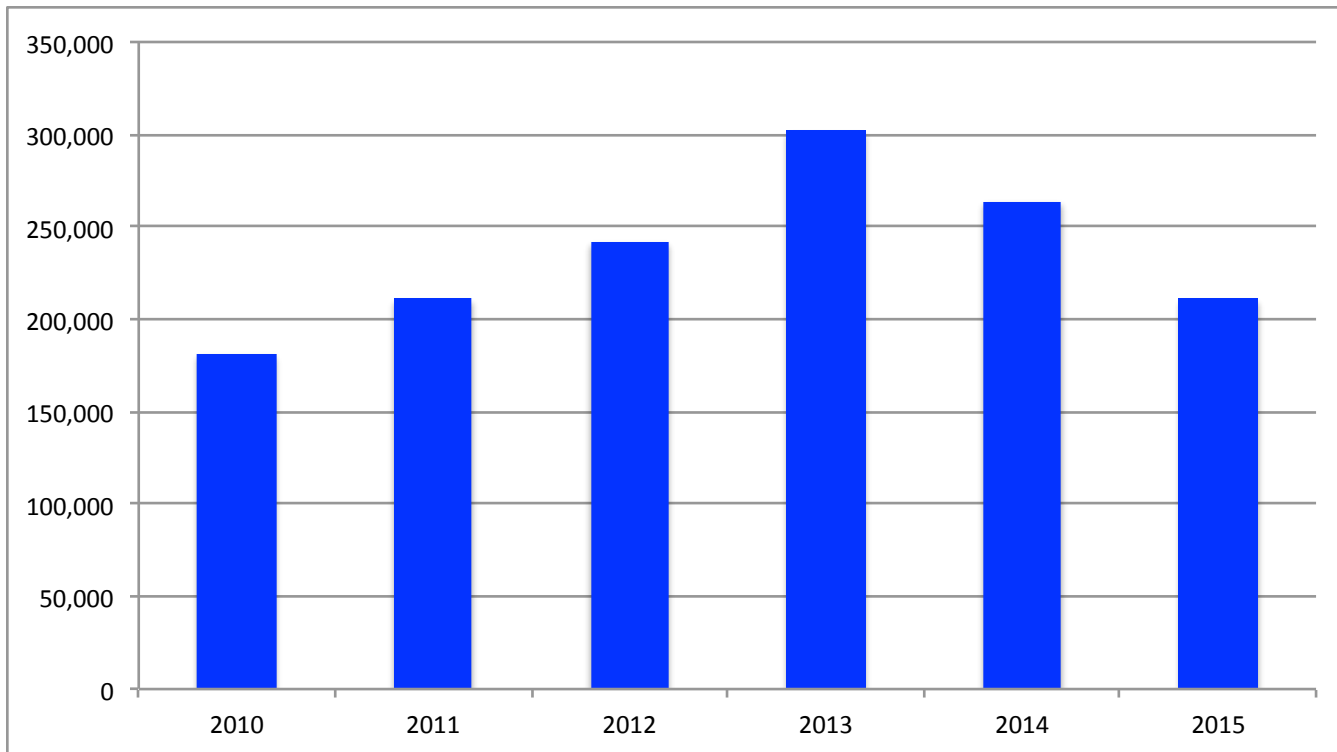
# RESEARCH PRODUCTIVITY BENCHMARK

# EECS RESEARCH EXPENDITURES

## Research Expenditures



# RESEARCH \$ PER TT FACULTY



# COMPARISON TO PEERS (2013-2014)

	Total Research Expenditures	Rank among Peers
EECS	\$7.60M	19 out of 22
Peers Median	\$17.20M	N/A
Peers Average	\$24.95M	N/A

	Research \$ per (tenure track) Faculty	Rank among Peers
EECS	211,150	19 out of 22
Peers Median	317,873	N/A
Peers Average	336,489	N/A



# STUDENT TO FACULTY RATIO BENCHMARK

# EECS IN NUMBERS

## Fall 2015 Full-time, non-temporary faculty positions

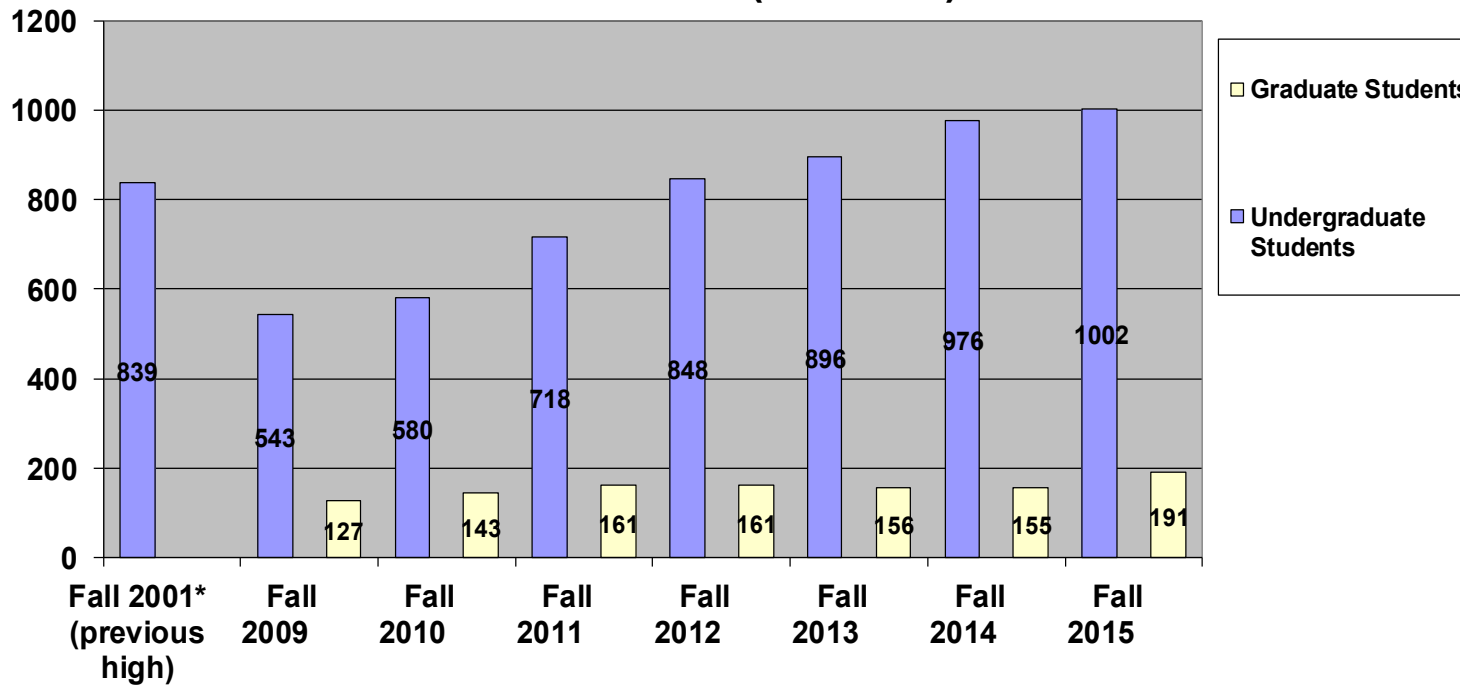
	Pullman		Total
	Tenure Track	Non-Tenure Track	
Electrical Engineering	18	4	22
Computer Engineering	2	1	4
Computer Science	16	6	22
<b>Total</b>	<b>36</b>	<b>12</b>	<b>48</b>

Joined EECS in Fall 2015 : 2 TT in CptS; 2 NTT in EE; 1 NTT in CptS

John Ringo and George LaRue have retired in 2015

# EECS IN NUMBERS

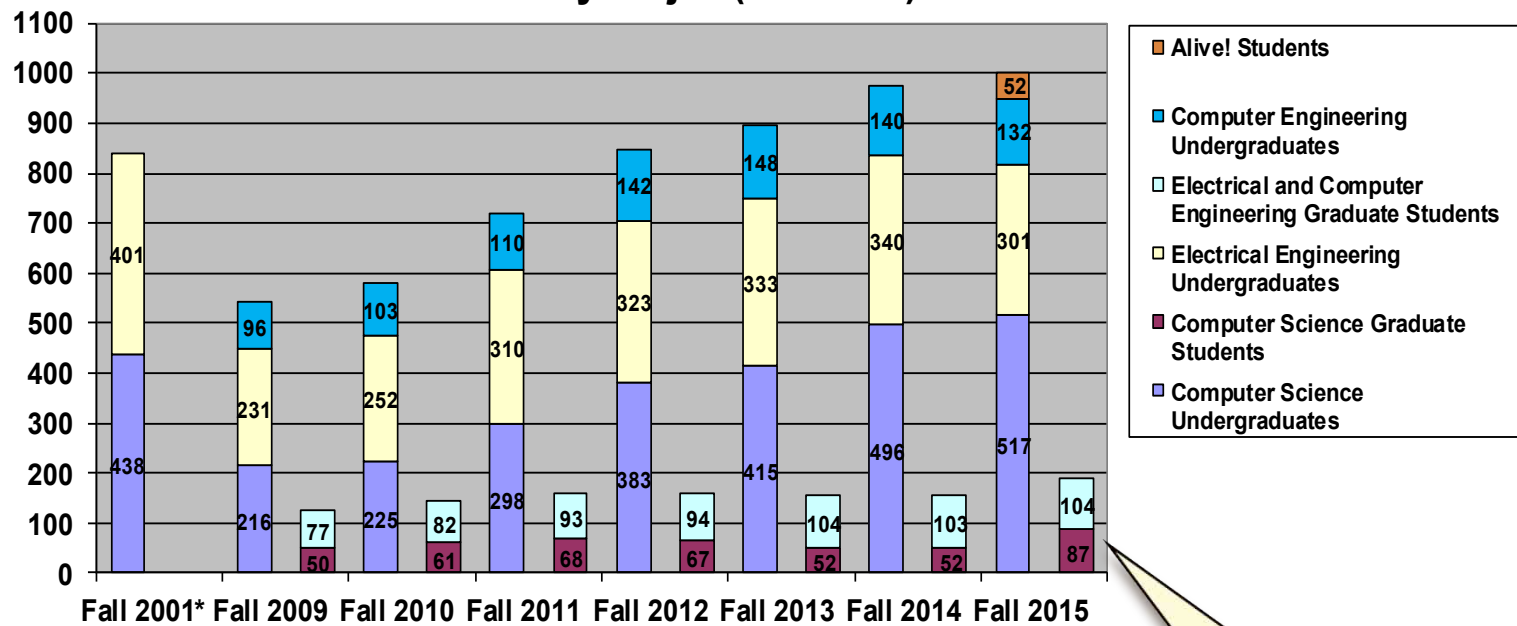
## Enrollment Totals (Pullman)



\* Fall 2001 also includes Tri-Cities students

# EECS IN NUMBERS

## Enrollments by Major (Pullman)

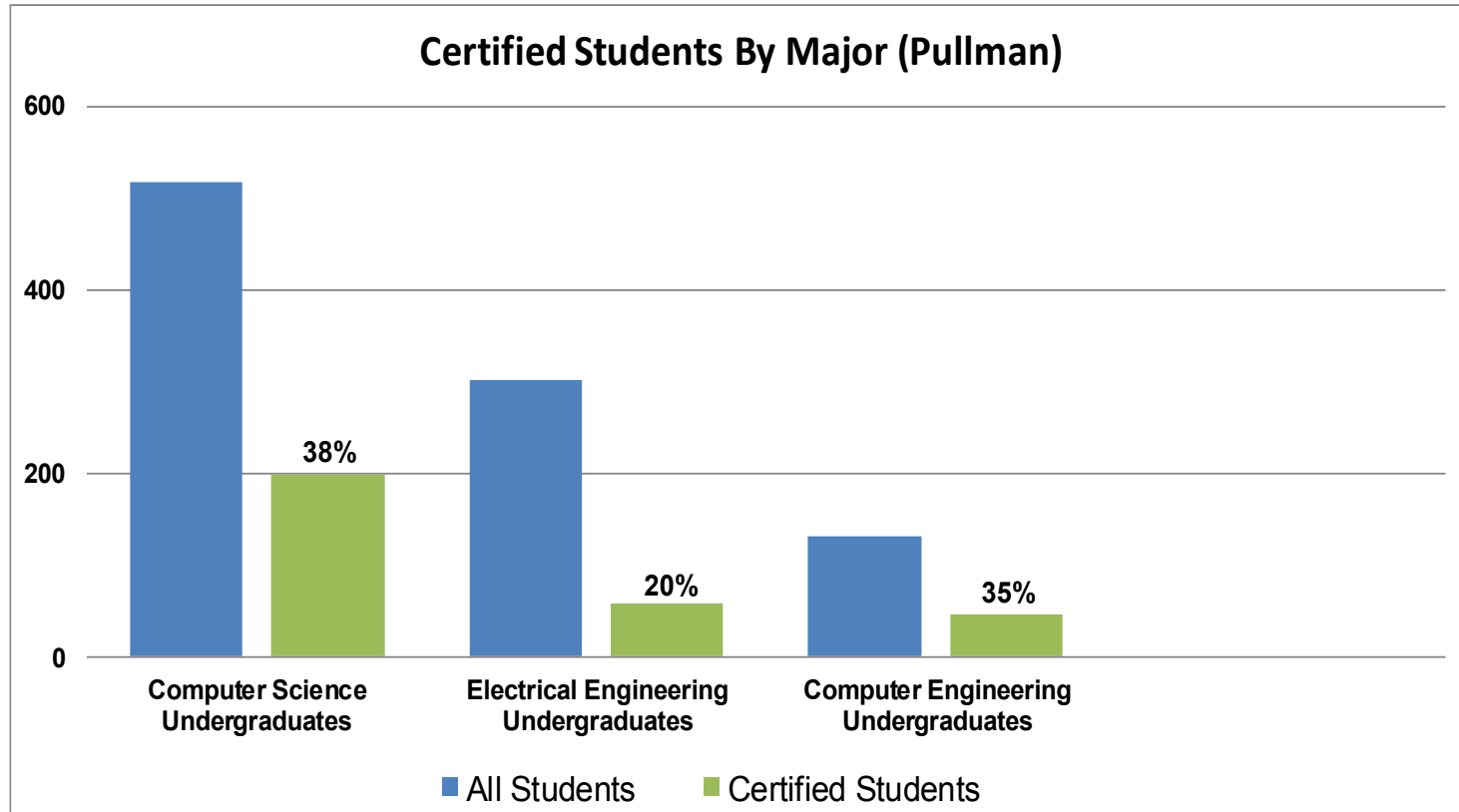


\* Fall 2001 also includes Tri-Cities students

70% PhD

Summer/Fall 2015 Undergraduate Freshman and Transfer Students: 257

# EECS IN NUMBERS



Number of certified students as of Spring 2015

# COMPARISON TO PEERS (2013-2014)

	UG*/All Faculty Ratio	Rank among Peers
EECS	10.96	4 out of 22
Peers Median	8.77	N/A
Peers Average	9.48	N/A

	GR**/Tenure track Faculty	Rank among Peers
EECS	4.22	22 out of 22
Peers Median	7.55	N/A
Peers Average	7.79	N/A

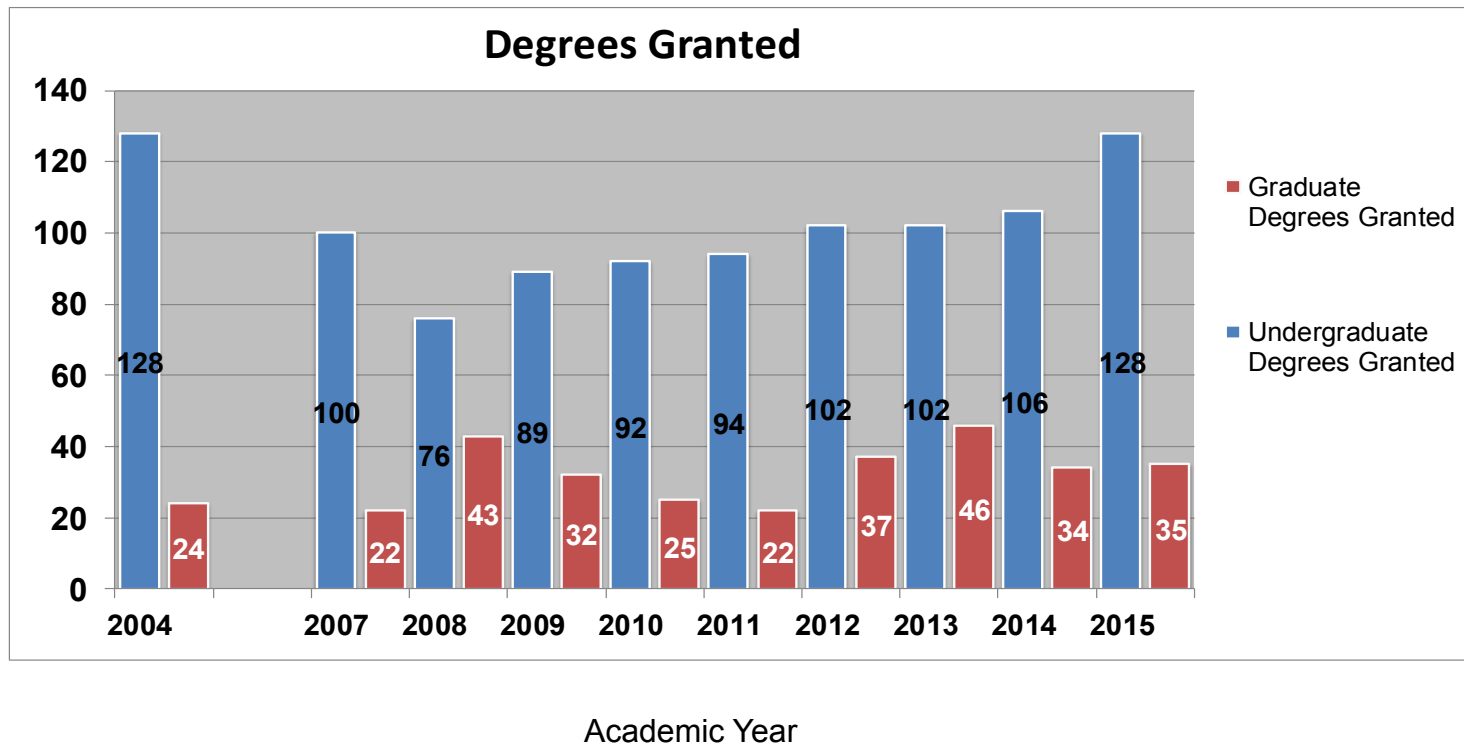
\* UG = total certified (Junior + Senior) students

\*\* GR = total MS and PhD students

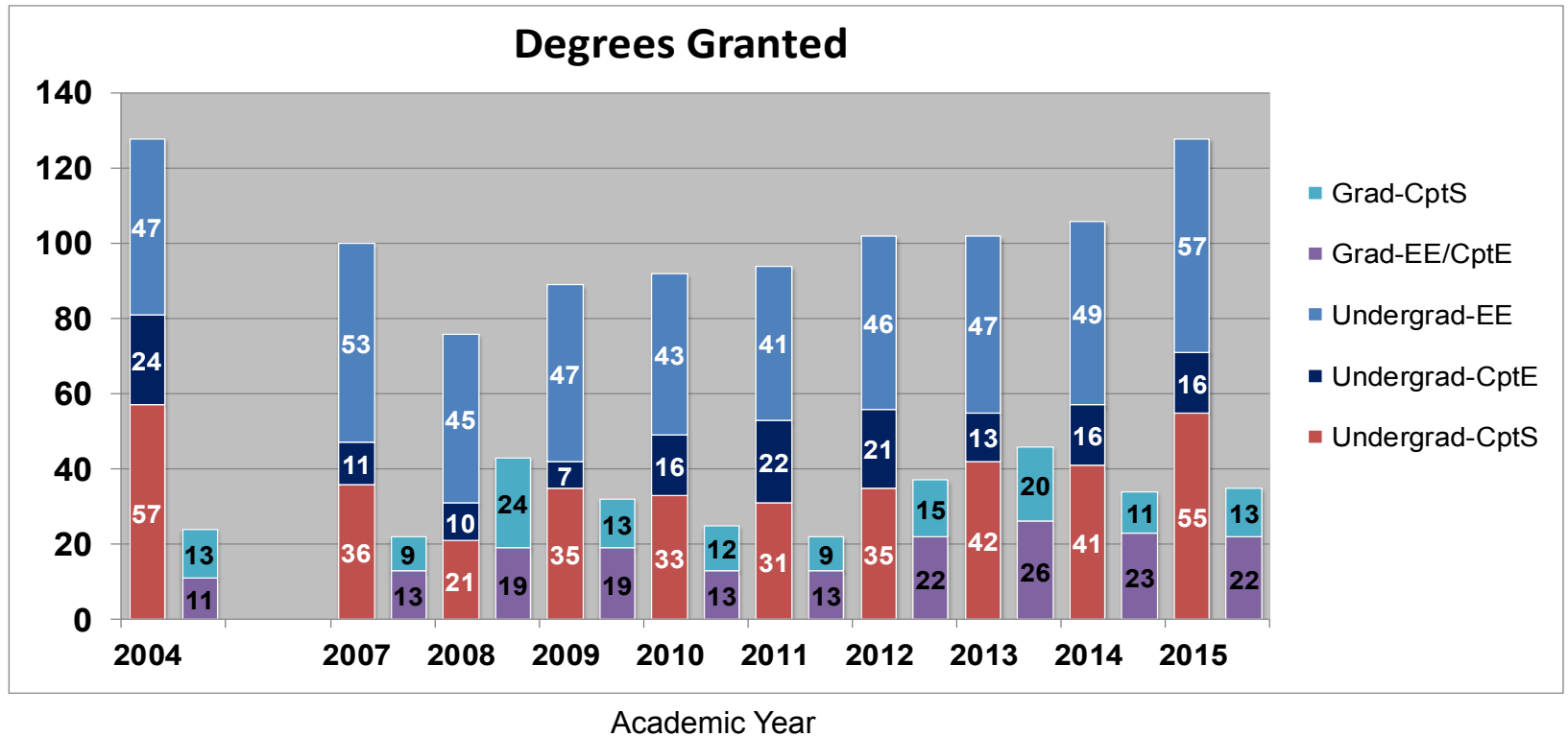


# UG DEGREES AWARDED BENCHMARK

# EECS IN NUMBERS



# EECS IN NUMBERS



# COMPARISON TO PEERS (2013-2014)

	UG degrees granted	Rank among Peers
EECS	128	15 out of 22
Peers Median	175.50	N/A
Peers Average	227.50	N/A

	UG degrees per teaching resources*	Rank among Peers
EECS	2.56	7 out of 22
Peers Median	2.75	N/A
Peers Average	2.91	N/A

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



# PLACEMENT AND DEMOGRAPHICS

# UG STUDENT PLACEMENT BEFORE GRADUATION

All students:

AY	With at least one job offer			Entering graduate school			Total Percentage Placed		
	CptS	EE, CptE	Overall	CptS	EE, CptE	Overall	CptS	EE, CptE	Overall
2015	73%	52% (EE 54% ; CptE 47%)	61%	5%	6% (EE 5% ; CptE 6%)	5%	78%	58% (EE 59% ; CptE 53%)	66%
2014	53%	37%	43%	10%	5%	7%	63%	42%	50%
2013	71%	33%	49%	2%	7%	5%	79%	39%	54%

Students who sought employment or entering grad school:

AY	Percentage Looked			Percentage Placed		
	CptS	EE, CptE	Overall	CptS	EE, CptE	Overall
2015	89%	84% (EE 86% ; CptE 76%)	86%	83%	65% (EE 65% ; CptE 64%)	73%
2014	84%	88%	86%	71%	50%	60%
2013	78%	82%	80%	94%	49%	67%

# UG STUDENT PLACEMENT STARTING SALARY

2015 Survey	EE	CptS	CptE
Unknown	4	11	2
Less than \$50K	0	0	0
\$50 – 60K	3	4	2
\$60 – 70K	18	6	0
\$70 – 80K	4	10	3
\$80 – 90K	1	0	0
\$90 – 100K	0	0	0
More than \$100K	0	9	1
<b>Average</b>	<b>\$61 K- 71K</b>	<b>\$75 K- 85K</b>	<b>\$68 K- 78K</b>

Average: \$68K - \$78K

# STUDENT PLACEMENT – BASED ON EXIT INTERVIEWS

□ 168 hires for Summer 2013 through Spring 2015

Company	2015	Total
Schweitzer Engineering Labs	8	18
EMC Isilon	8	15
Microsoft	2	9
HP	5	8
Micron Technology	2	8
The Boeing Company	1	8
Anvil Corporation	2	4
Eaton Corporation	1	4
Digilent Inc.	2	3
Fast Enterprises	1	3
Puget Sound Naval Shipyard (PSNS)	3	3
TATA (TCS)	1	3
Apptio	1	2
CDK Global	2	2
Chief Architect	0	2
Garmin	0	2
NAVAIR	0	2
NAVSEA	0	2
Puget Sound Energy	0	2
Tri-State Generation & Transmission	2	2
Tyler Technologies	1	2
WSU IT	2	2
Act-On	0	1
Appature	0	1
Astronics AES	1	1
Axia Home Loans	1	1
Bechtel Corporation	1	1
Blue Origin	0	1

Company	2015	Total
BNSF	0	1
Boise Inc	0	1
Carnegie Mellon Robotics Institute	0	1
Cisco	1	1
Clearwater Paper	0	1
Cobalt	1	1
Coffman Engineers	1	1
Colmac Coil Mfg.	0	1
Divinsa, LLC	1	1
Enercon	1	1
ESPN Broadcast Media	1	1
ExtraHop Networks	0	1
F5 Networks	1	1
FlowPlay	1	1
FUJITSU Japan	0	1
Grays Harbor PUD	1	1
Haier America	0	1
Hill Air Force Base	0	1
Honeywell	0	1
Industrial Enet	1	1
Itron	1	1
Jay Dee constructions	1	1
K2 Software	1	1
Kadlec	0	1
LexisNexus	0	1
Marchex	0	1
McCauley Sound	1	1
MITRE Corp	1	1

Company	2015	Total
Neon Mob Obvious Corporation	0	1
Olark	1	1
Philips Healthcare	1	1
PNNL	1	1
Potelco	0	1
Power Engineers	0	1
Public Consulting Group	1	1
Public Partnership Limited	1	1
Qumulo	0	1
RackChat	0	1
Razor Planet	0	1
Revenue Solutions Inc	1	1
Salas O'Brien	1	1
Saudi Aramco	1	1
Schenieder Electric	0	1
Simplexity Product Development, Inc.	1	1
Slalom Consulting	1	1
Slaughterhouse Gaming	1	1
Syntel	1	1
U.S. Air Force	0	1
Umatilla Electric Cooperative	0	1
United States Navy	1	1
Universal Avionics	0	1
US Air Force	0	1
Verizon Wireless	0	1
Westower	1	1
WSU ESIC	1	1
Zillow	1	1

# 2013-2014 DEMOGRAPHICS

## Undergraduate

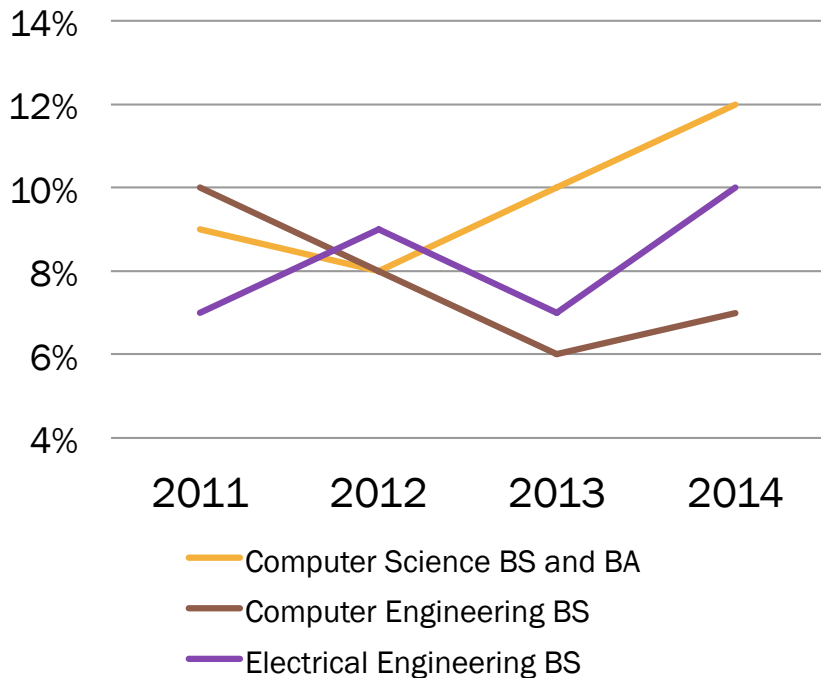
	Gender		US-Int'l		Race		
	Men	Women	US	Int'l	White	Non-White	Unknown
CptS	88%	12%	94%	6%	67%	31%	2%
EE	90%	10%	91%	9%	70%	29%	1%
CptE	93%	7%	89%	11%	66%	34%	0%
<b>Total</b>	<b>89%</b>	<b>11%</b>	<b>92%</b>	<b>8%</b>	<b>68%</b>	<b>31%</b>	<b>1%</b>

## Graduate

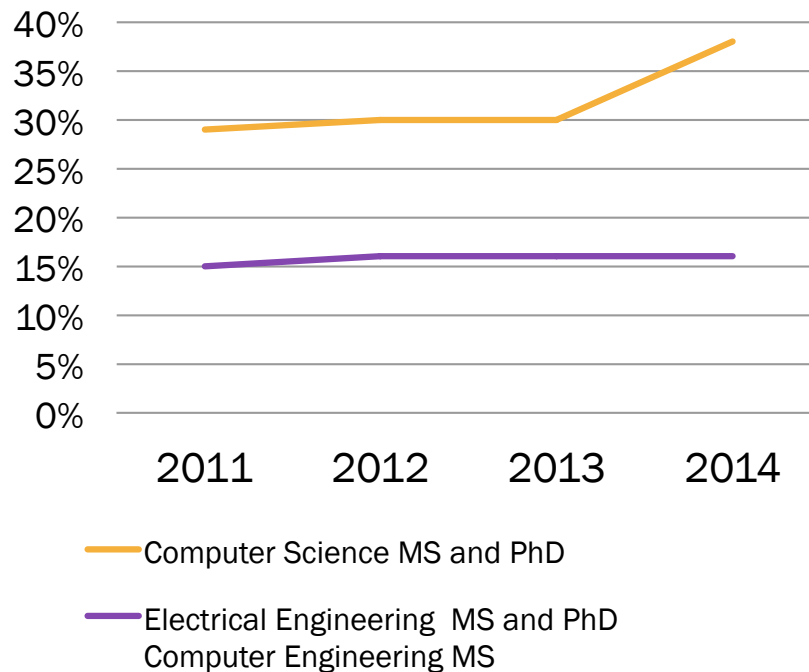
	Gender		US-Int'l		Race		
	Men	Women	US	Int'l	White	Non-White	Unknown
CptS	62%	38%	53%	47%	66%	25%	9%
EE-CptE	84%	16%	28%	72%	75%	16%	9%
<b>Total</b>	<b>76%</b>	<b>24%</b>	<b>37%</b>	<b>63%</b>	<b>70%</b>	<b>21%</b>	<b>9%</b>

# 2013-2014 DEMOGRAPHICS

% of Undergraduate Women



% of Graduate Women





# SUMMARY

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- ❑ Rankings: stagnant
- ❑ Research expenditures: flat
- ❑ Both UG and Grd enrollment increasing
  - Shrinking EE enrollment a concern
- ❑ Student/faculty improving
- ❑ Need to expand graduate programs
  - PhD – high priority
  - Self-paying MS students – lower priority
- ❑ Improve placement of the graduating students