



# College of Engineering





# Engineering at a Glance

- Faculty
  - 105 Tenured/tenure track
  - 10 Non tenure-track
- Students
  - 1,182 Undergraduate
  - 223 Masters
  - 330 Doctoral
- Sponsored Research
  - \$49 million



# Departments and Divisions

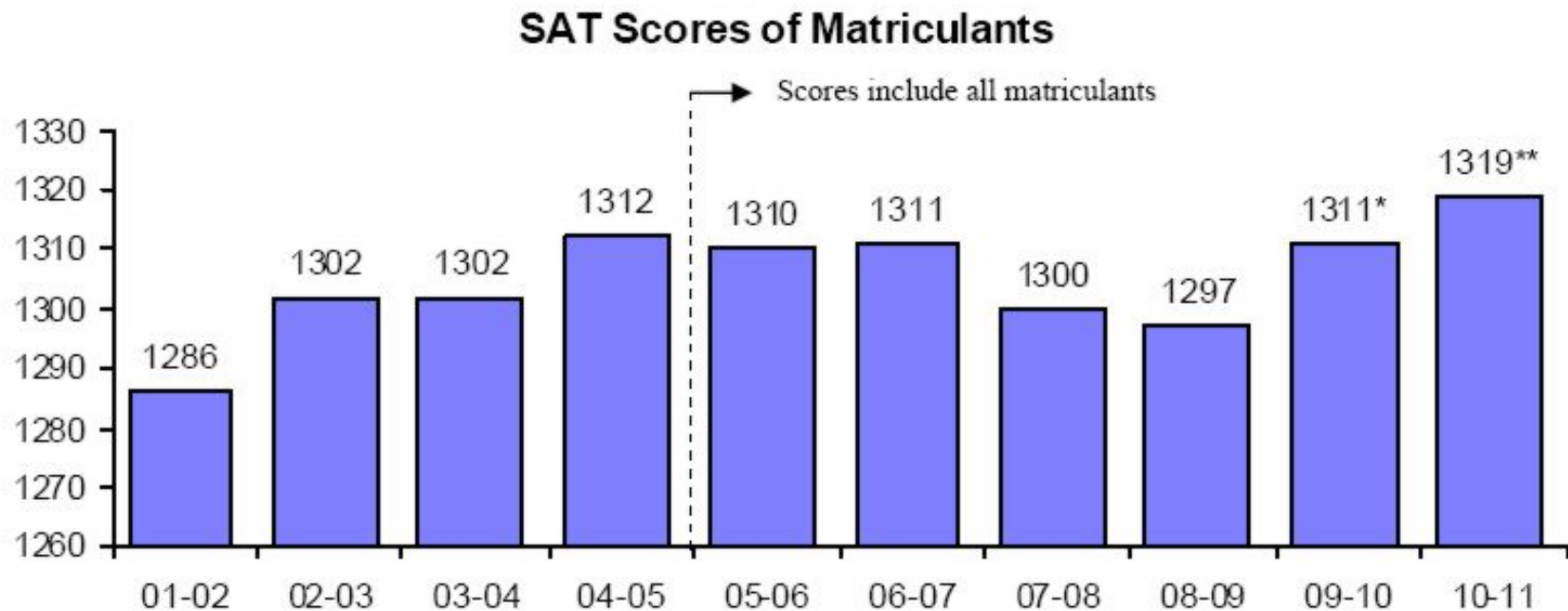
- Departments
  - Biomedical Engineering
  - Electrical and Computer Engineering
  - Mechanical Engineering
- Divisions
  - Material Science and Engineering
  - Systems Engineering



# Undergraduate Degree Programs

<b>Program</b>	<b># of Students</b>
Aerospace Engineering:	82
Biomedical Engineering:	434
Computer Engineering:	75
Electrical Engineering:	110
Interdisciplinary/Undecided:	108
Manufacturing Engineering:	33
Mechanical Engineering:	340
<i>Total:</i>	1,182

# Engineering SAT Scores



SAT scores after AY04-05 include all matriculants to the College of Engineering. Scores prior to AY05-06 exclude verbal scores of students submitting the TOEFL exam.



# Engineering MS/PhD Students

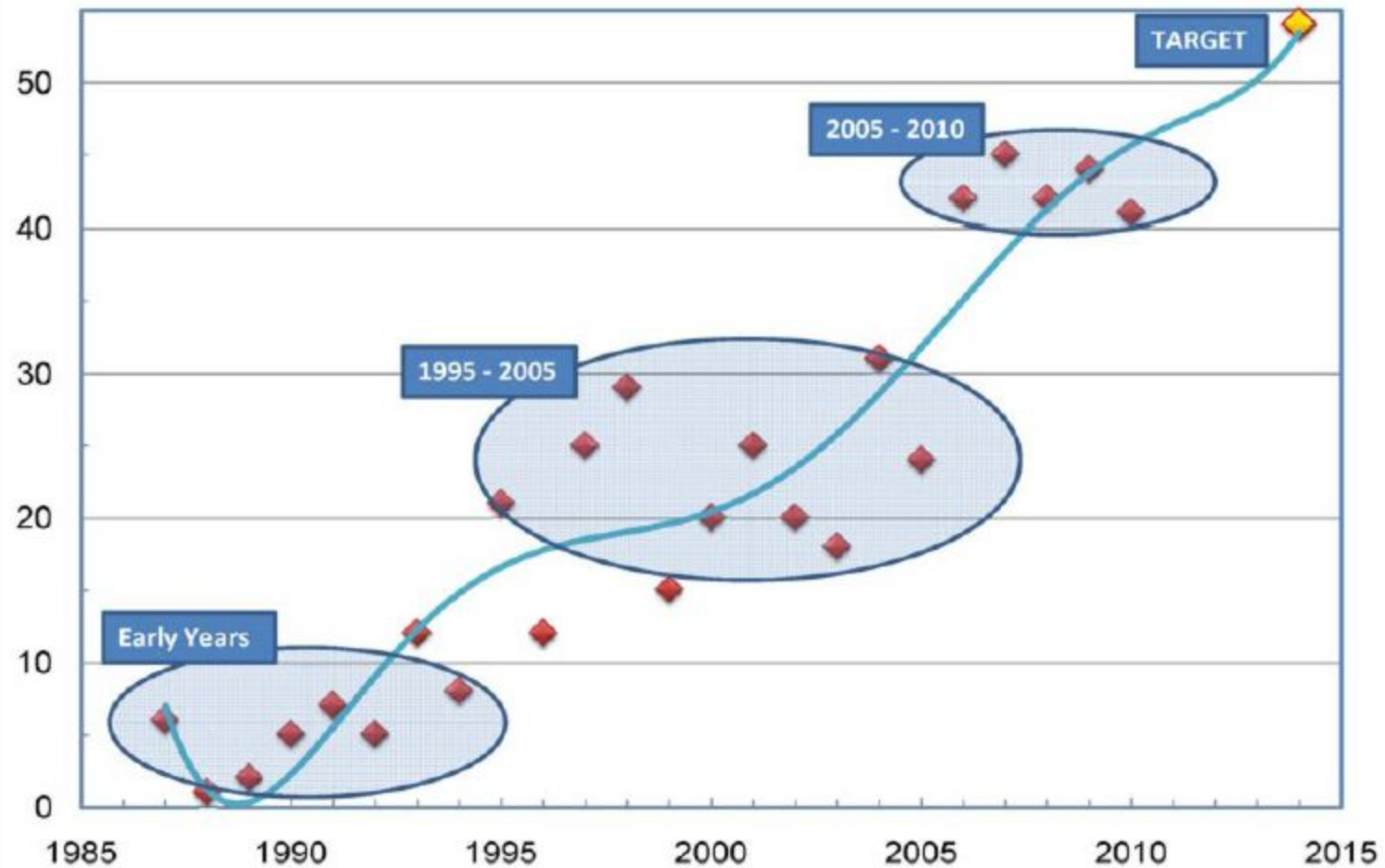
Aerospace Engineering:	4
Biomedical Engineering:	144
Computer Engineering:	24
Computer Systems:	15
Electrical Engineering:	125
General Engineering:	0
Global Manufacturing:	0
Late Entry Program:	39
Manufacturing Engineering:	8
Mechanical Engineering:	74
Materials Science	21
MS/MBA:	2
Photonics:	2
Systems Engineering:	33
<i>Total:</i>	491



# Average GRE scores of Post-BS and Post-MS PhD students

Program	# Students	Verbal	Quantitative	Anal. Writ.
ME	12	515	777	4.2
BME	24	612	783	4.5
ECE	17	504	778	3.9
MSE	6	515	768	4.2
SYS	7	476	779	3.8
All	66	543	779	4.2

# ENG PhD Degrees per year





# Engineering Strategic Plan

- **Goal 1**: To transform undergraduate engineering education into an “experience” that creates a “Societal Engineer” ensuring opportunity, passion, and ambition for innovation, leadership and life-long impact.
- **Goal 2**: To enhance basic-thru-translational research impact by:
  - a) focusing on important problems and on societal challenges;
  - b) enhancing cross-disciplinary areas that leverage and amplify the impact of Boston University as a whole; and
  - c) implementing programs and infrastructure that support technology innovation and transfer.
- **Goal 3**: To strengthen and catalyze (interdisciplinary) graduate programs that prepare students for leadership in research and/or technology development.
- **Goal 4**: To retain a diverse community of students and faculty with a commitment to the advancement of STEM education in K-12.
- **Goal 5**: To engage alumni, leadership and visiting boards for visionary advice and help in acquiring the crucial resources for sustaining excellence at BU and impact on society.



# The Societal Engineer

- The Societal Engineer has a sense of purpose and appreciation for how engineering education and experiences are excellent foundations for improving society.
- The Societal Engineer embraces navigation of careers and people from management, finance, government, medicine, law, etc.
- The Societal Engineer appreciates the opportunity and process to improve quality of life & address society's challenges via innovation.

# Major Initiatives

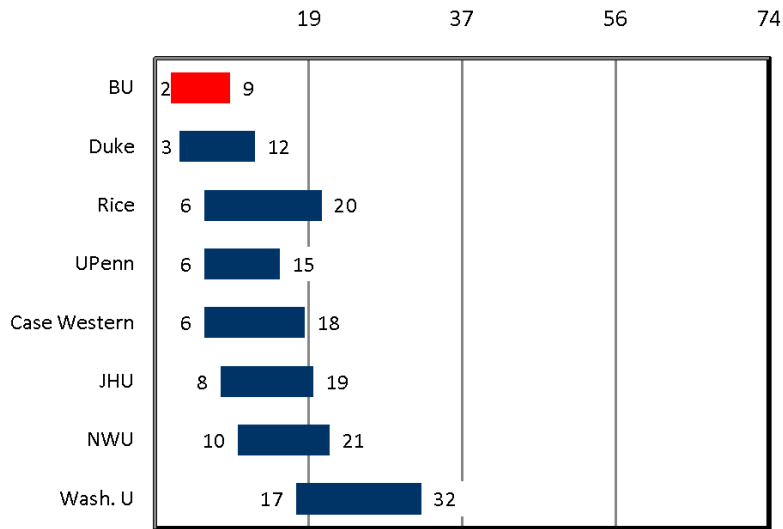
---

- Engineering's Systems and Synthetic Biology
- Clean Energy & Sustainability
  - Smart Grid and Energy Adoption
  - UG Minors; Graduate Certificates
- Education Concentration: Technology Innovation
- **Nucleating Concepts:** *Cyber-Security & Power Systems*

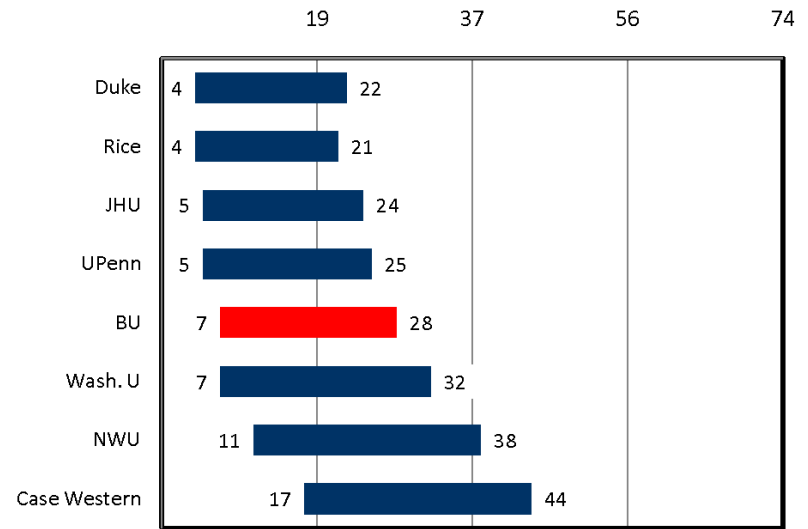


## NRC Rankings -- Peer Analysis Biomedical Engineering

### R (Regression) Based Rankings

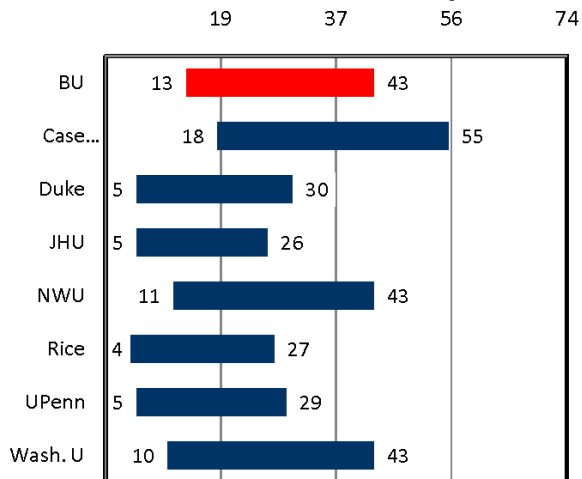


### S (Survey) Based Rankings

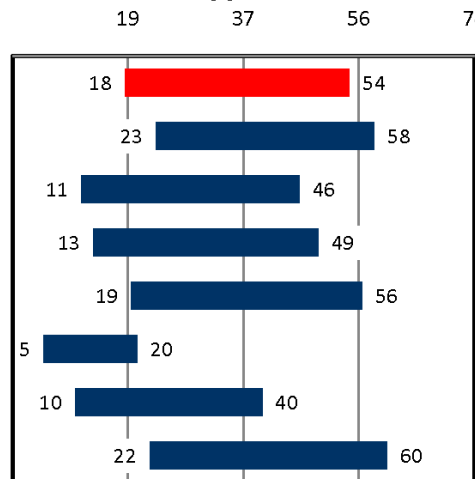


### Dimensions:

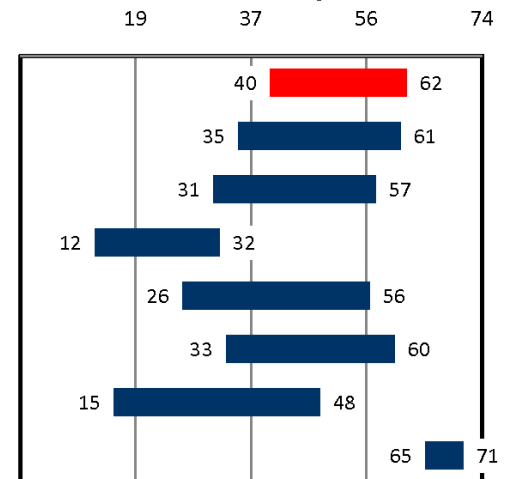
#### Research Activity



#### Student Support & Outcomes

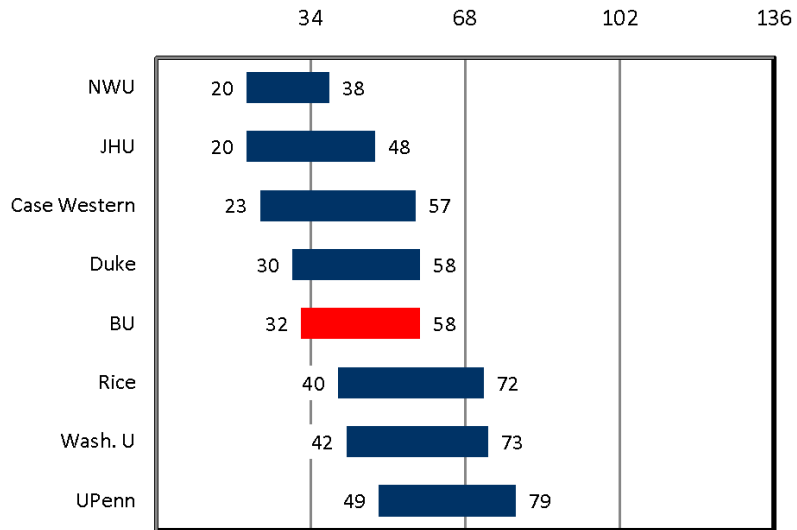


#### Diversity

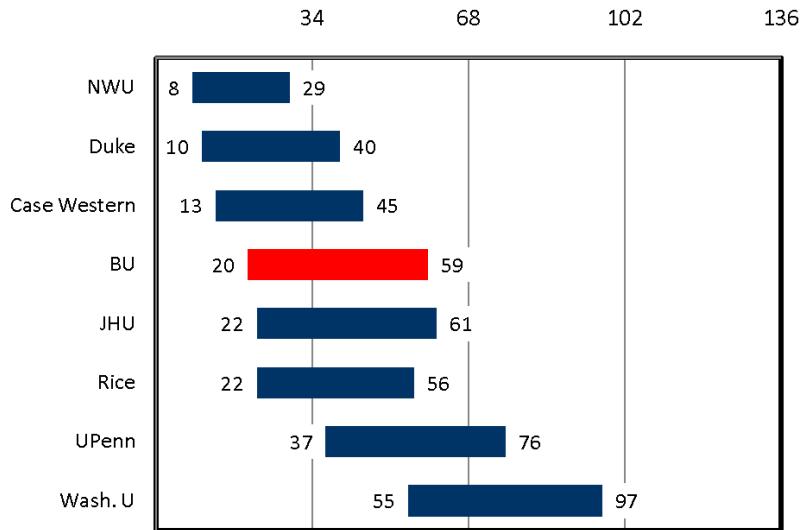


# NRC Rankings -- Peer Analysis Electrical Engineering

### R (Regression) Based Rankings

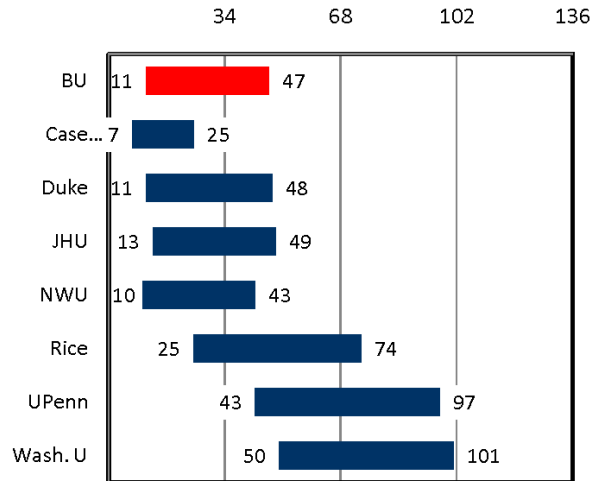


### S (Survey) Based Rankings

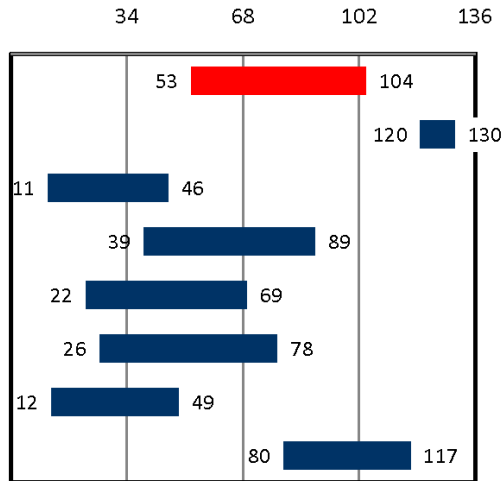


### Dimensions:

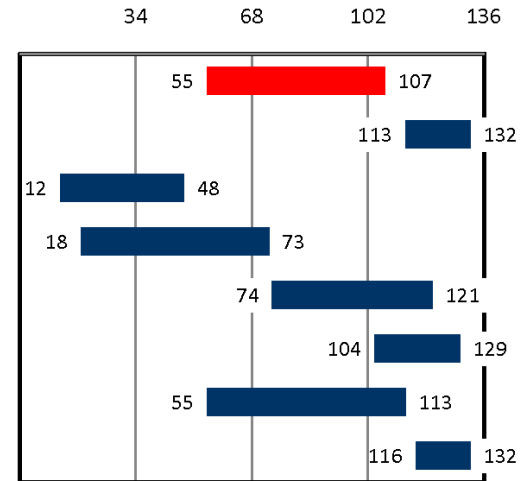
#### Research Activity



#### Student Support & Outcomes



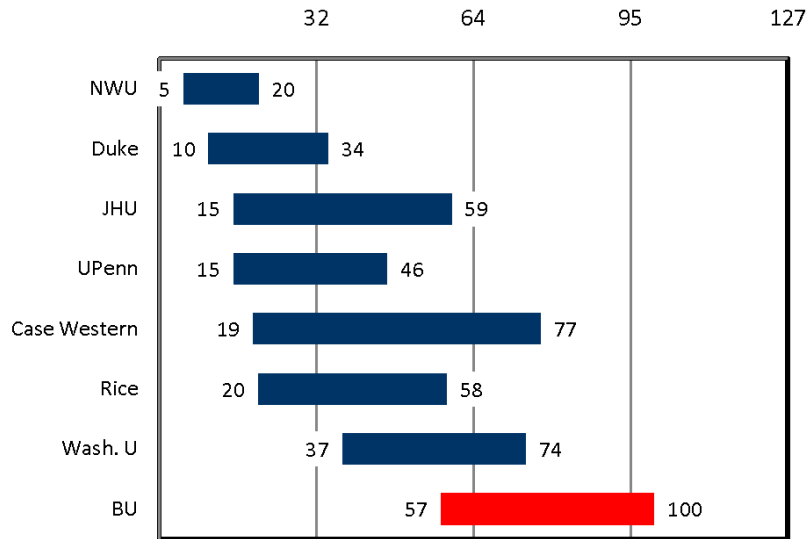
#### Diversity



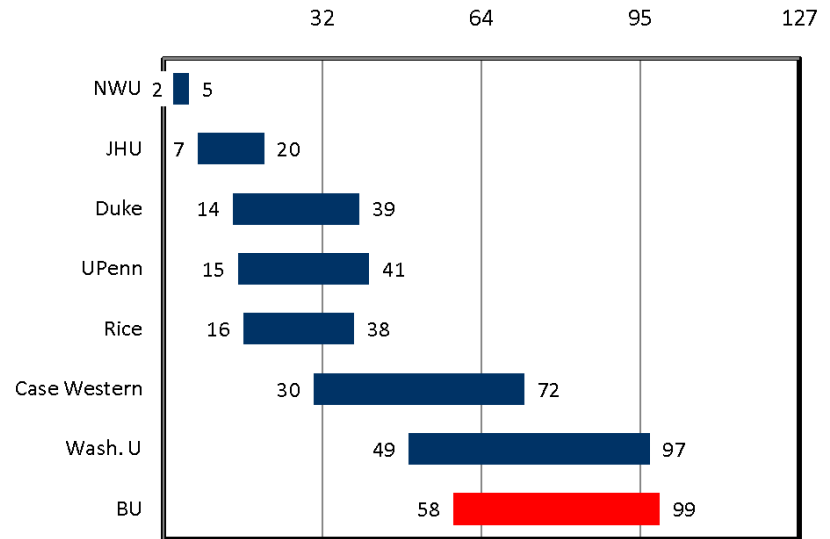
# NRC Rankings -- Peer Analysis

## Manufacturing & Mechanical Engineering

**R (Regression) Based Rankings**

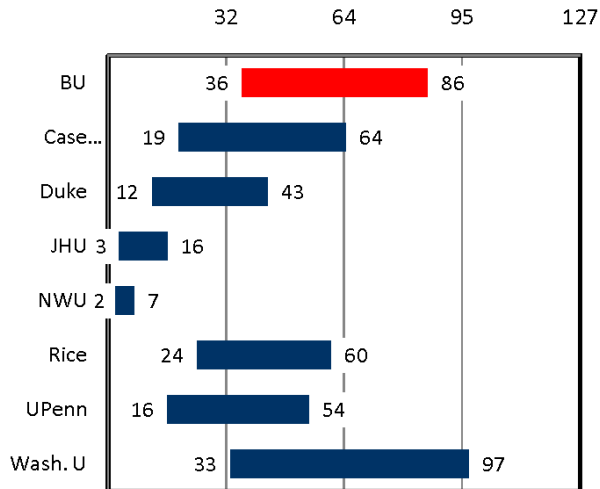


**S (Survey) Based Rankings**

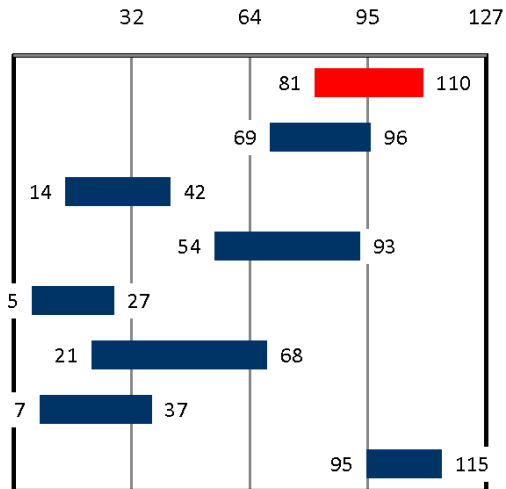


**Dimensions:**

**Research Activity**



**Student Support & Outcomes**



**Diversity**

