

The Carnegie Classification Process: What It Was, What It Is Now , and Why You Should Care

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Morgan State University

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Topics to be covered

- **What are HBCUs and why do they matter?**
- **What are the R1 Carnegie Classifications and why do they matter?**
- **Where are HBCUs within the Carnegie Classifications?**
- **Morgan's plan for becoming a Well-Recognized, Well-Rounded, and Well-Respected Research University**



HBCUs are located in 19 states plus the District of Columbia and the Virgin Islands. 20 are 1890 Land Grant Institutions.

At a time when many schools barred their doors to Black Americans, these colleges offered the best, and often the only opportunity for a higher education.

States with the most are North Carolina & Alabama, both with 10.

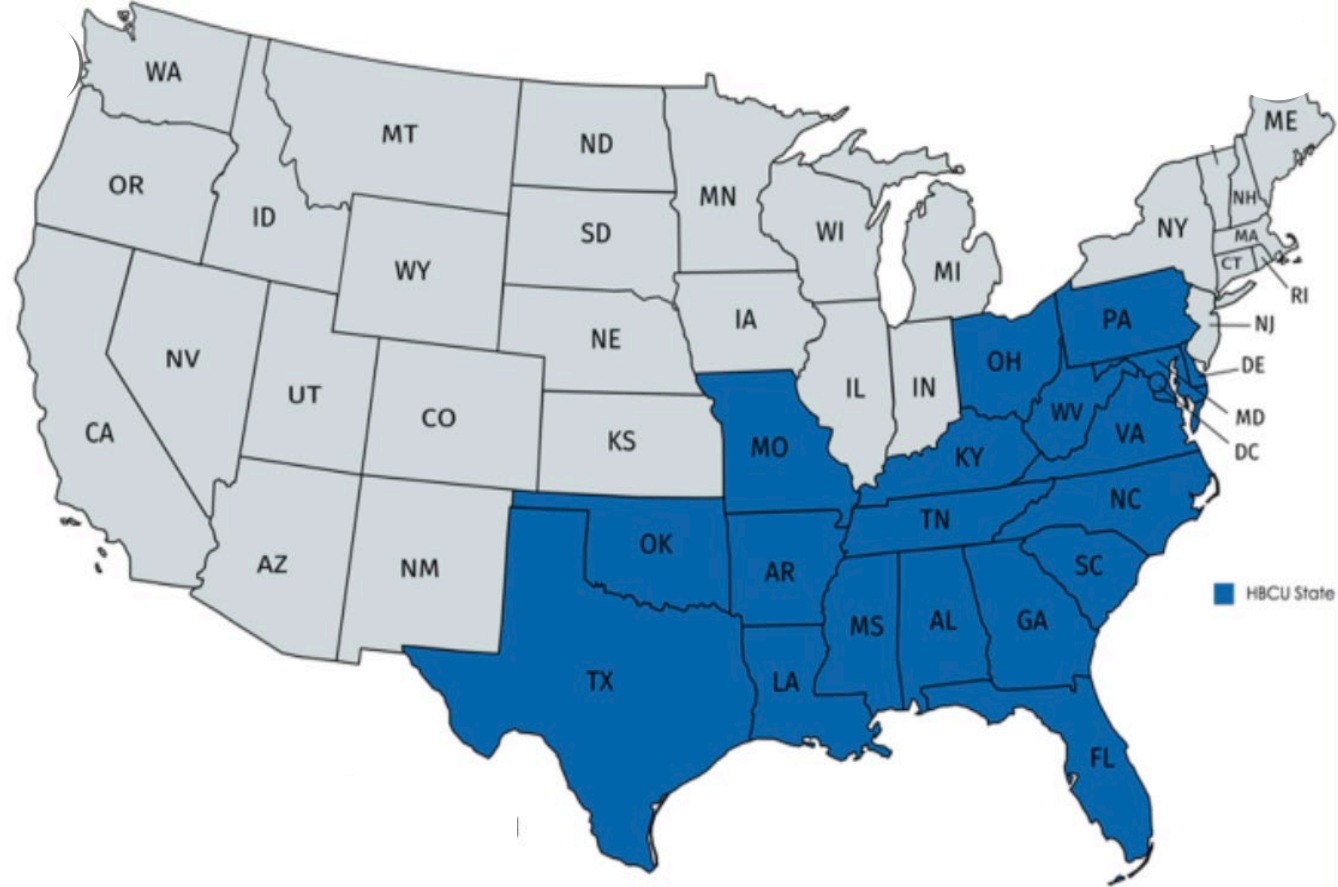
The 1965 Higher Education Act provided the HBCU designation to any institution who had a charter saying they were established before 1964 for the expressed purpose of educating African Americans.

There are currently 101 HBCUs located in 19 States.

Most were established primarily to provide education for recently freed slaves.

Today, at many HBCUs ... including Morgan

- Even a student who graduates summa cum laude at a local high school in an underfunded urban or rural school, may not have ever taken algebra, analytical statistics, calculus, macro or micro-economics, robotics, coding, etc.
- That does not make them incapable of learning;
 - It just means that their introduction to learning critical subjects required for a successful college experience may need to be taught when they arrive at college. This is an indictment of their educational system—not them!



Today HBCUs ... like Morgan... meet students where they are and take them where they need to be “to Grow the Future and Lead the World!”



“If HBCUs did not exist today, they would have to be created because they are meeting critical national needs” – Leonard Haynes

Cheyney State, founded in 1837 is the oldest.

The youngest is Mississippi Valley State, founded in 1950.



ABOUT HBCUS

	School Name	Date the University/College was Founded
(6) Have Law Schools	Howard University	1867
	Florida Agriculture and Mechanical University	1887
	Texas Southern University	1947
	University of the District of Columbia	1851
	Southern University	1880
	North Carolina Central State University	1909
(3) Have Medical Schools	Howard University	1867
	Meharry Medical College	1876
	Morehouse College	1867
(2) Are All-Women Schools	Bennett College	1873
	Spelman College	1881
(1) Is an All-Men School	Morehouse College	1867

“HBCUs are underutilized national resources”



To maintain US global competitiveness, it is in our National Best Interest to more effectively utilize HBUs and MSIs— to help address “the missing millions” in providing the U.S. STEM Workforce of the future.

-- WEM

Trends in Federal Sources of R&D Expenditures

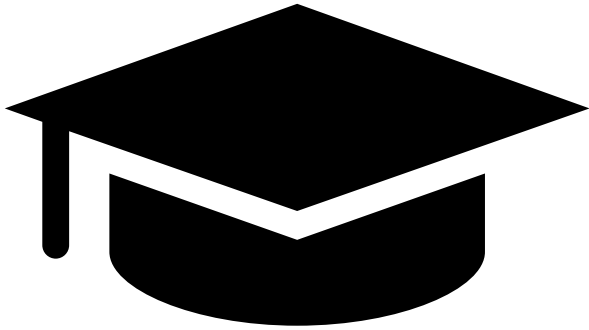
NSF Higher Education R&D (HERD) Data R&D Expenditures from Federal Sources

	2010	2019	Difference	Change
All Institutions	\$37.5B	\$44.5B	\$7.0B	19%
HBCUs	\$475.0M	\$371.1M	-\$104M	-22%
HBCU % of total	1.27%	0.83%	-0.43%	-34%

- Science & Engineering represents 94% of total R&D expenditures
- The unfavorable trend for HBCU receiving Federal Research Funding continues.... But is a change coming?

FY 2018 Science & Engineering Obligations by the Numbers

	Total Dollars	Significance
All Institutions	\$35,301,384,600	
<i>All Historically Black Colleges & Universities (HBCUs)</i>	\$319,684,000	0.9% of total federal government funding
Top Institution		
<i>John Hopkins University</i>	\$1,821,980,800	
Top HBCU		
<i>North Carolina A&T University</i>	\$24,231,000	
#100 Institution		
<i>Univ. of Texas Health Science Center</i>	\$87,620,700	~ 4 times more than highest HBCU
#33 Institution		
<i>Case Western Reserve University</i>	\$318,699,200	Slightly less than all HBCUs combined



HBCUs make up just **3%** of U.S. colleges and universities, yet they award **18%** of the bachelor's degrees to black students in STEM fields.

NSF, August 2020

According to the American Institute for Research, more than **1/3** of Blacks who received a STEM PhD earned their undergraduate degrees at an HBCU.

However, most of these students went on to earn their graduate degrees from PWIs.

Morgan president: No Black institutions are among the top research universities; here's why that must change | COMMENTARY

By DAVID WILSON

FOR THE BALTIMORE SUN | NOV 05, 2020 AT 10:23 AM



- HBCUs have been crucial for providing marginalized communities with access to higher education.
- To address systemic barriers and elevate HBCUs to R1 status, serious federal investment is needed to support their research capabilities (focusing research especially on issues impacting minority communities).
- Morgan is charting the path to R1 status with research on health disparities, equitable AI, critical urban issues, and more.



<https://www.baltimoresun.com/opinion/op-ed/bs-ed-op-1108-wilsom-morgan-r1-research-20201105-bl2ue6fhf5dtxfjs4qu4i23xsm-story.html>

1. Enhance Student Success & Well-being
2. Implement Faculty Ascendancy and Staff Development
3. Elevate Morgan's Status to R1—'Very High' Doctoral Research University
4. Expand and Improve a Campus-wide Infrastructure to Support Operational Excellence and Increase Overall Institutional Capacity
5. Serve as the Premier Anchor Institution for Baltimore City and Beyond
6. Accelerate Global Education Initiatives and Expand the University's International Footprint



STRATEGIC GOALS 2021–2030

Why R-1 Matters to a Doctoral Research University

The Carnegie Classification® has been the leading framework for recognizing & describing institutional diversity in U.S. higher education for the past four & a half decades—**the gold standard.**

U.S. News strictly mapped its categories to The Carnegie Classification of Institutions of Higher Education ... “The Carnegie classifications are **used for rankings & grant eligibility.”**

The Washington Post: ... for many, R1 is considered **“sort of the pinnacle of higher education.”**

We at Morgan embrace our mission to serve “... *the community, region, state, nation, and the world...* as an intellectual & creative resource by supporting, empowering & preparing high-quality, diverse graduates to lead the world.”

- As the university enters the 3rd decade of the 21st century, designating the attainment of the R1 Carnegie Classification as a goal, focuses our efforts on enriching & diversifying the scope & magnitude of our scholarship & creativity.
- Striving to attain R1 status requires reaching specific indicators shared by institutions who similarly seek or hold this status.
- We see attaining R1 status as a guiding principle of our commitment to Morgan’s mission as an “intellectual & creative resource... for the Black Community.”

What has been holding HBCUs back in research?

There are numerous reasons why no HBCU is currently at the apex of research institutions

- **HBCUs have disproportionately carried the mantle,** without the assistance of their peers, **in preparing African Americans to move into the middle class.**
- Teaching at so many of these institutions has been par excellence.
- **As Morgan prepares for its next era of ascendancy, teaching and community service will be intermingled with our research—not simply seen as a totally separate entities unto themselves. We will reach R-1 Status without “losing our souls!”**

Carnegie Classification for Institutions of Higher Education (CCIHE)

2021: 3,938 Institutions*; 280 Classified as Doctoral Research Universities (DRU)

140 R1 and 140 R2**

**Quick Review:
8 Inputs are
Used to
Create 10
Metric
Categories**

Seven Categories Used for the Aggregate Research Activity Index

		SOURCE	
1	S&E R&D	Science & Engineering Research & Development Expenditures (\$000)	NSF
2	NON S&E R&D	Non Science & Engineering Research & Development Expenditures (\$000)	NSF
3	PDNFR STAFF	Postdoctorates and non-faculty research staff with doctorates	NSF
4	HUM RSD	Humanities research/scholarship doctoral degrees	IPEDS
5	SOCSC RSD	Social Science research/scholarship doctoral degrees	CCIHE
6	STEM RSD	STEM research/scholarship doctoral degrees	CCIHE
7	OTHER RSD	Number of research/scholarship doctoral degrees conferred in professional fields	CCIHE

Three Categories Used for the Per Capita Research Activity Index (using FAC NUM)

8	S&E R&D/FAC NUM	Science & Engineering Research & Development Expenditures (\$000)	NSF
9	NON S&E R&D/FAC NUM	Non Science & Engineering Research & Development Expenditures (\$000)	NSF
10	PDNFR STAFF/FAC NUM	Postdoctorates and non-faculty research staff with doctorates	NSF
	• FACNUM	Number full-time of faculty in ladder rank (assistant, associate, and full professors)	IPEDS

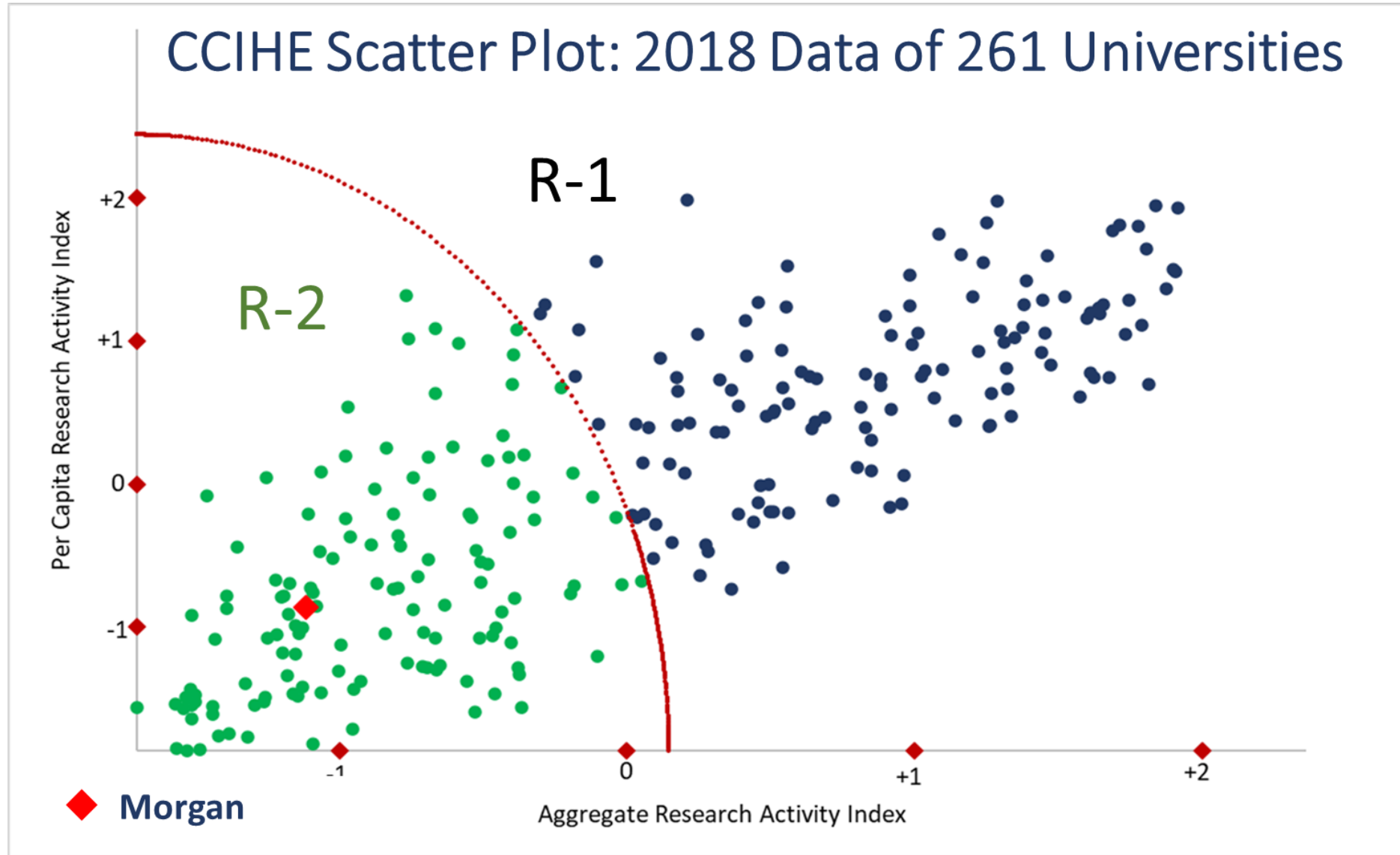
* 153,000 pieces of information. The total number of institutions decreased from 4,325 in 2018.

**2,500 DRU metric inputs to calculate 17,000 outputs to generate 554 coordinates and 277 positions on a scatter plot. Three R2 institutions were not included in CCIHE data model assessment

CCIHE Scatter Plot: 2018 Data of 261 Universities

Morgan's individual placement was obtained, by request, from the CCIHE Project Director.

- R-1
- R-2
- ◆ Morgan

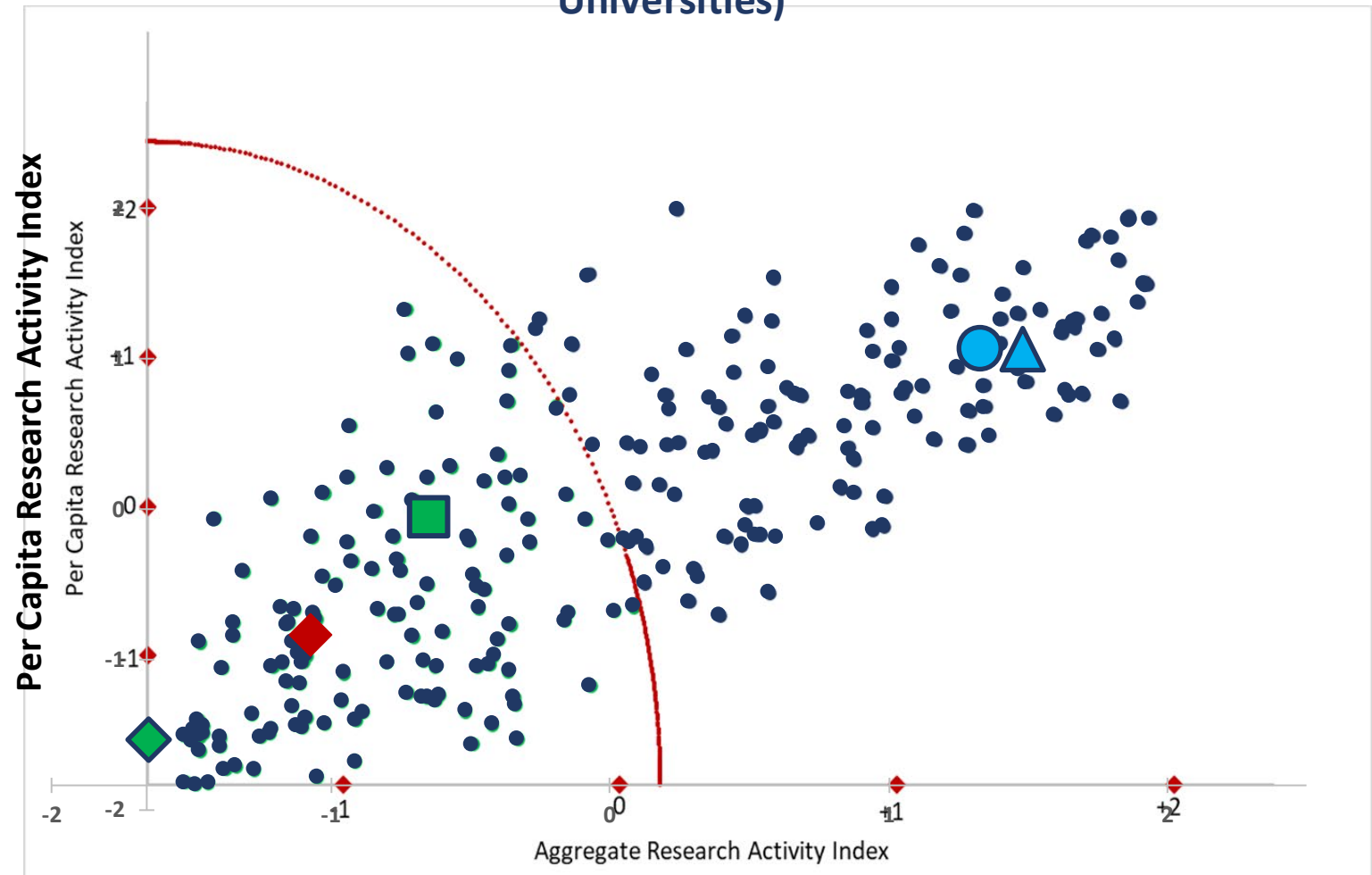




Recreation of CCIHE 2018 R-1 & R-2 Scatter Plot (261 Universities)

Maryland's Two Doctoral R-1 & Three Doctoral R-2 Research Universities

- ◆ Morgan
- ▲ UMCP
- JHU
- UMBC
- ◆ UMES



UNIVERSITY	S&E R&D	NON S&E R&D	PDNFR STAFF	FAC NUM	HUM RSD	SOCSC RSD	STEM RSD	OTHER RSD
Johns Hopkins University	\$2,556,641	\$5,666	1890	3159	47	38	346	122
University of Maryland-College Park	\$532,982	\$15,903	479	1487	73	79	311	104
University of Maryland-Baltimore County	\$69,926	\$480	104	427	0	5	69	14
University of Maryland Eastern Shore	\$7,403	\$0	3	170	0	0	7	14
Morgan State University	\$14,527	\$451	42	328	4	0	7	19 43

Recreation of CCIHE 2018 R-1 & R-2 Scatter Plot (261 Universities)

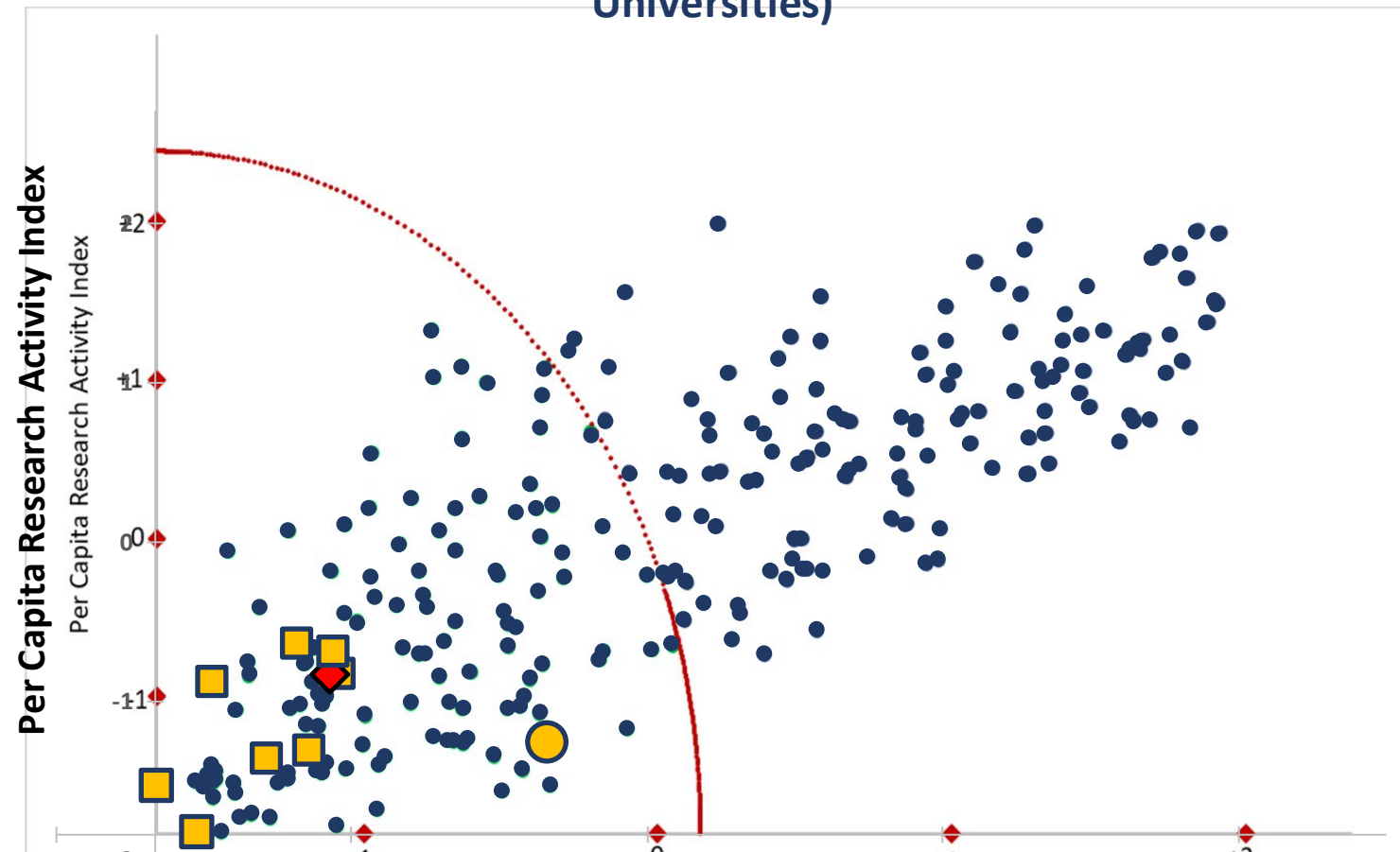
Of the 11 HBCU R-2 Doctoral Research Universities: four are clustered with Morgan; five are lower; and one (Howard) is set apart - albeit not near the threshold.

HBCUs:

● Howard

◆ Morgan

■ Other HBCUs



UNIVERSITY	S&E R&D	NON S&E R&D	PDNFR STAFF	FAC NUM	HUM RSD	SOCSC RSD	STEM RSD	OTHER RSD
Howard University	\$44,613	\$1,155	23	801	16	36	27	45
North Carolina A & T State University	\$35,285	\$2,094	19	372	0	0	54	9
Florida Agricultural & Mechanical Univ.	\$33,024	\$4,554	16	451	0	0	6	16
Jackson State University	\$21,272	\$1,518	19	295	0	0	12	79
Delaware State University	\$19,136	\$1,657	15	198	0	0	8	20
Tennessee State University	\$16,247	\$1,861	0	327	0	4	11	58
Hampton University	\$15,908	\$574	9	189	0	0	3	18
Clark Atlanta University	\$7,948	\$59	4	156	2	4	13	24
University of Maryland Eastern Shore	\$7,403	\$0	3	170	0	0	7	14
Texas Southern University	\$4,702	\$20	1	234	0	0	21	24
Morgan State University	\$14,527	\$451	42	328	4	0	7	43

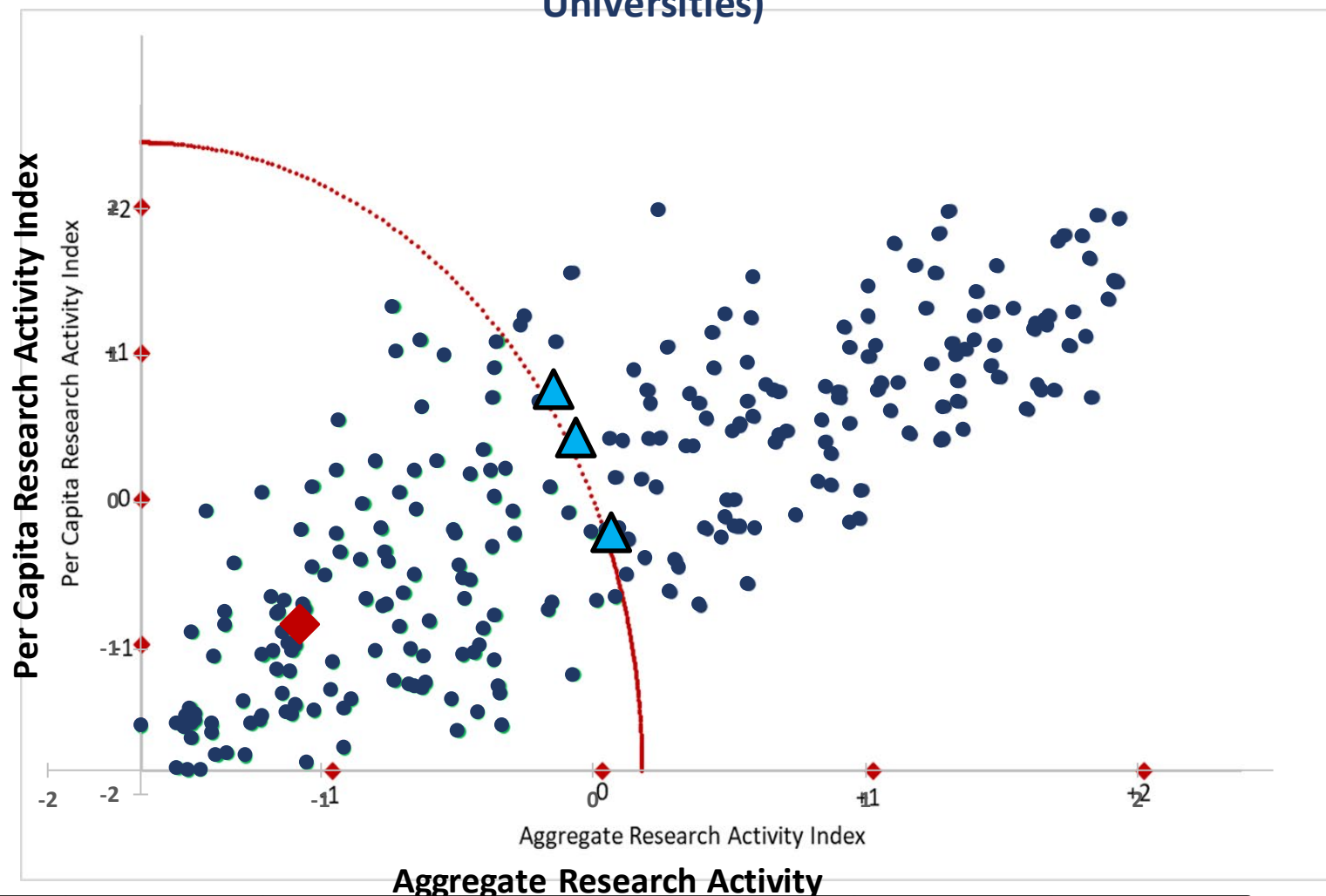
Recreation of CCIHE 2018 R-1 & R-2 Scatter Plot (261 Universities)

Three R-1 Universities:
Just Over the R-1
Threshold Line

Note the Level of R&D Expenditures for R-1, as compared to the next chart for R-2s.

◆ Morgan

▲ Just over the Line



UNIVERSITY	S&E R&D	NON S&E R&D	PDNFR STAFF	FAC NUM	HUM RSD	SOCSC RSD	STEM RSD	OTHER RSD
University of New Hampshire-Main	\$133,592	\$11,783	146	619	8	8	38	8
Binghamton University	\$88,735	\$9,354	33	638	27	28	75	20
The University of Texas at El Paso	\$83,892	\$10,673	83	511	13	8	60	25
Morgan State University	\$14,527	\$451	42	328	4	0	7	21 43



R-2 Universities with Over 10X Morgan \$R&D

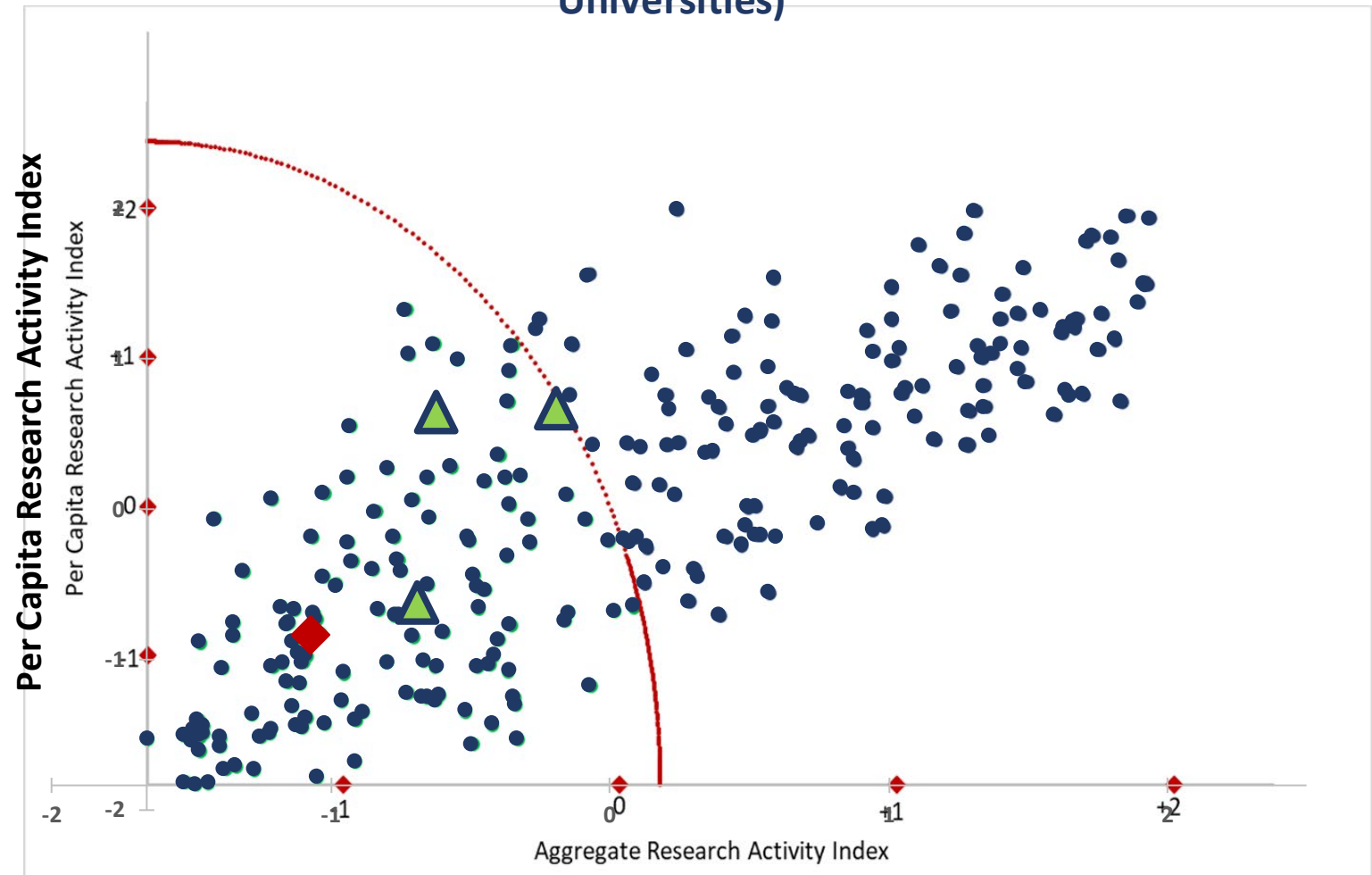
Location Nearness to R-1 Line is in reverse order of \$R&D, with NDS-Main at the R-1 threshold.

Now compare this level of S&E R&D to the next chart for R-1s.

◆ = Morgan

▲ = R-2 w/10X Higher Morgan S&E R&D

Recreation of CCIHE 2018 R-1 & R-2 Scatter Plot (261 Universities)

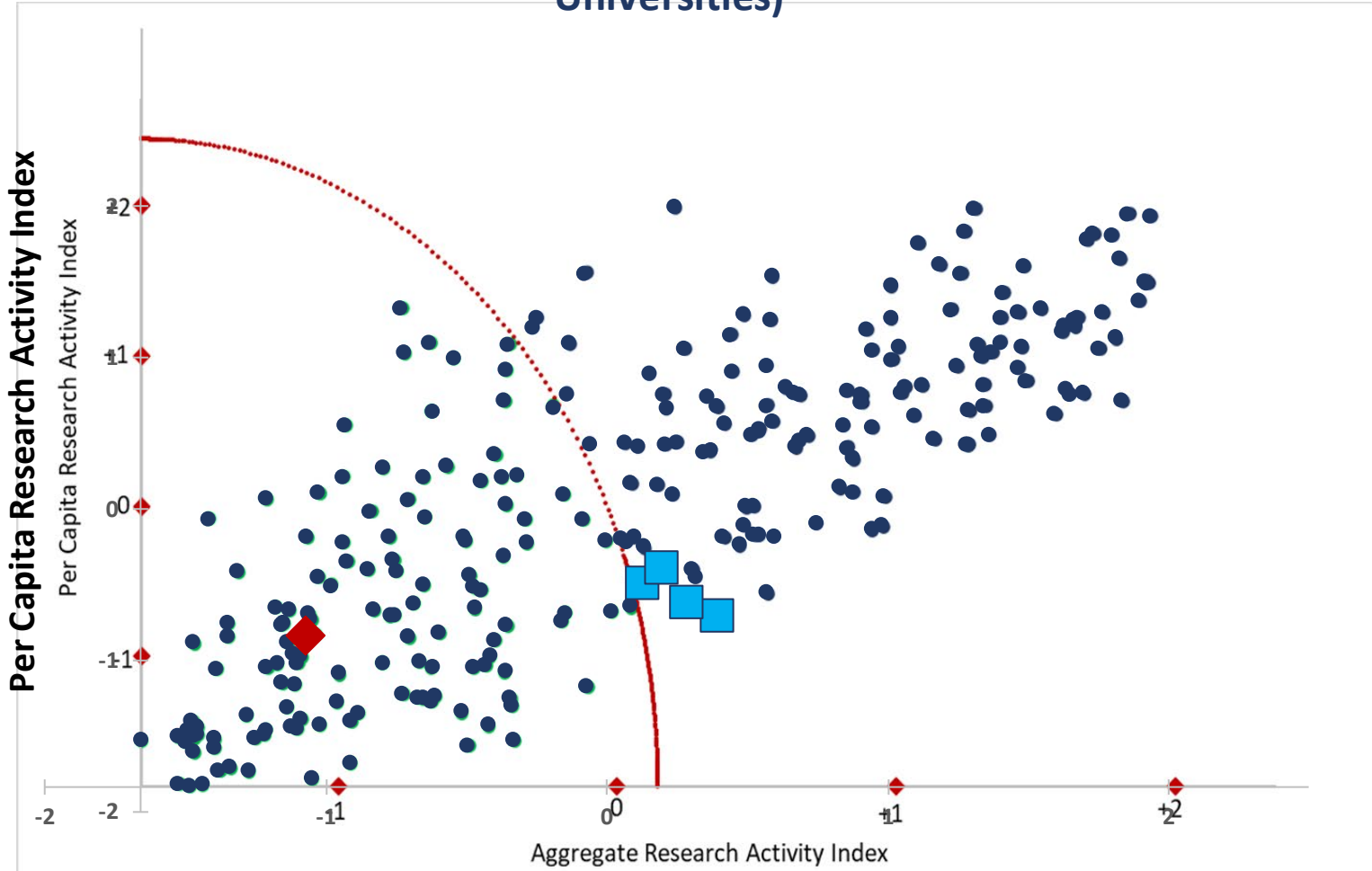


UNIVERSITY	S&E R&D	NON S&E R&D	PDNFR STAFF	FAC NUM	HUM RSD	SOCSC RSD	STEM RSD	OTHER RSD
Wake Forest University	\$181,876	\$351	156	1480	0	0	60	4
University of Alaska Fairbanks	\$150,064	\$2,630	32	288	1	6	39	3
North Dakota State University-Main	\$149,230	\$3,889	105	472	10	4	60	20
Morgan State University	\$14,527	\$451	42	328	4	0	7	43

Recreation of CCIHE 2018 R-1 & R-2 Scatter Plot (261 Universities)

Four R-1 Universities with the Lowest R&D Expenditures - within Morgan's Reach

- ◆ Morgan
- Lowest R-1 R&D Expenditures

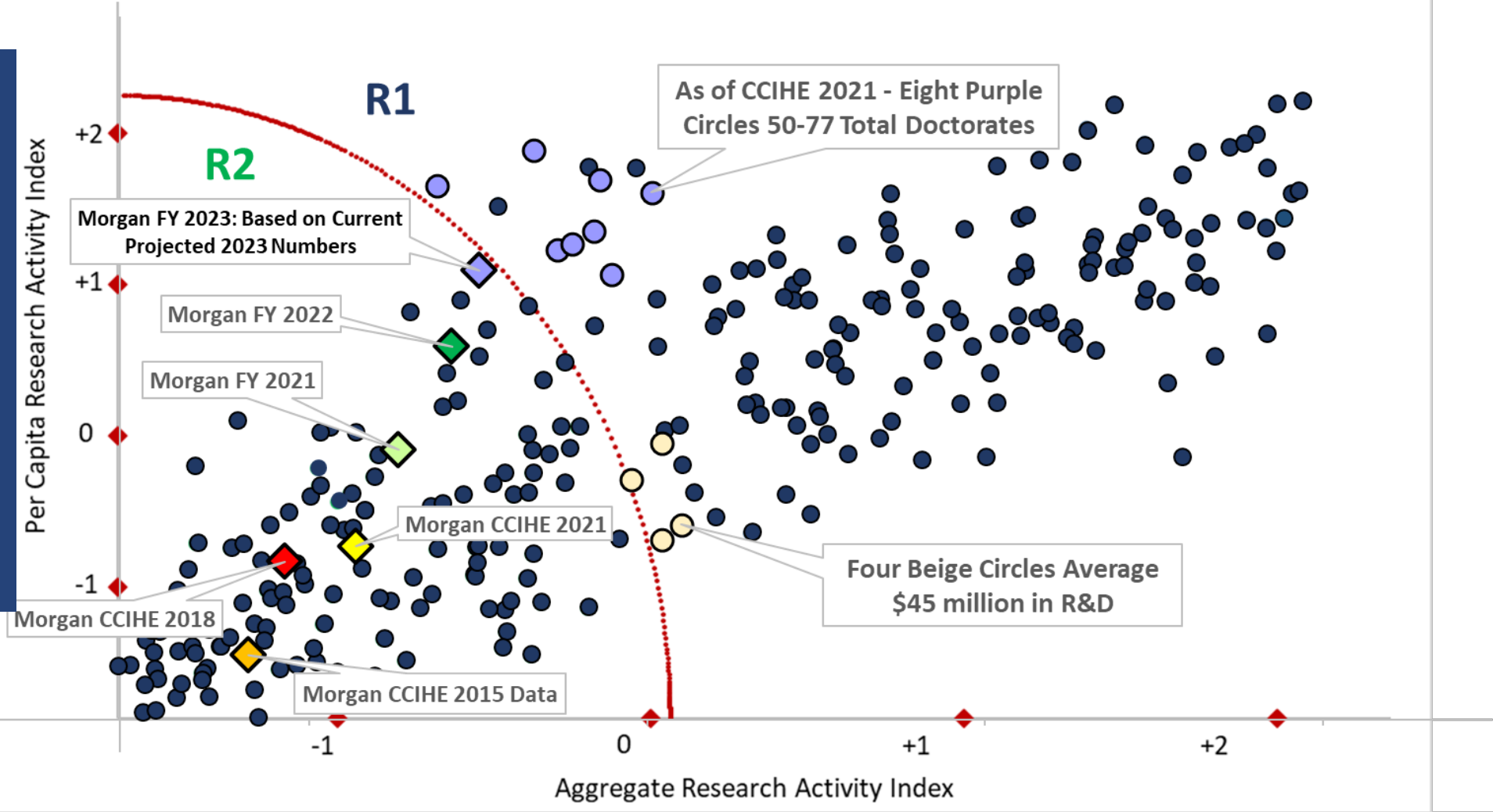


UNIVERSITY	S&E R&D	NON S&E R&D	PDNFR STAFF	FAC NUM	HUM RSD	SOCSC RSD	STEM RSD	OTHER RSD
University of Nevada-Las Vegas	\$53,073	\$13,212	79	1014	24	19	25	87
The University of Alabama	\$52,151	\$11,131	63	1109	28	28	93	96
University of Wisconsin-Milwaukee	\$48,017	\$6,164	93	762	23	38	73	46
University of North Texas	\$35,443	\$8,346	55	767	62	19	64	123
Morgan State University	\$14,527	\$451	42	328	4	0	7	²³ 43

CCIHE 2021 Scatter Plot (2019/2020 Data) - Morgan Twin

All Data Confirmed for FY 2021 & FY 2022

Current Estimated Coordinates for FY 2023 as of 11/1/2023 - Non-Final 2023 R&D Expenses



Position as of
11/1/2023

Note R1s:
With <80 Doctorates
With \$40-\$50 Million
in R&D Expenditures

2025 CARNEGIE RESEARCH DESIGNATIONS

Research 1: Very High Research Spending and Doctorate Production

- Spent at least **\$50 million** in total R&D in a year, as reported to the NSF HERD Survey

AND

- Awarded at least **70 research/scholarship doctorates** in a year, as reported to IPEDS

Research 2: High Research Spending and Doctorate Production

- Spent at least **\$5 million** in total R&D in a year, as reported to the NSF HERD Survey

AND

- Awarded at least **20 research/scholarship doctorates** in a year, as reported to IPEDS

Research Colleges and Universities

- Spent at least **\$2.5 million** in total R&D in a year, as reported to the NSF HERD Survey
- *Does not include institutions designated R1 or R2*

For the 2025 classifications, institutions will receive the higher of either:

- Three-year average (2021, 2022, 2023)
- Most recent single year (2023)

MORGAN STATE UNIVERSITY

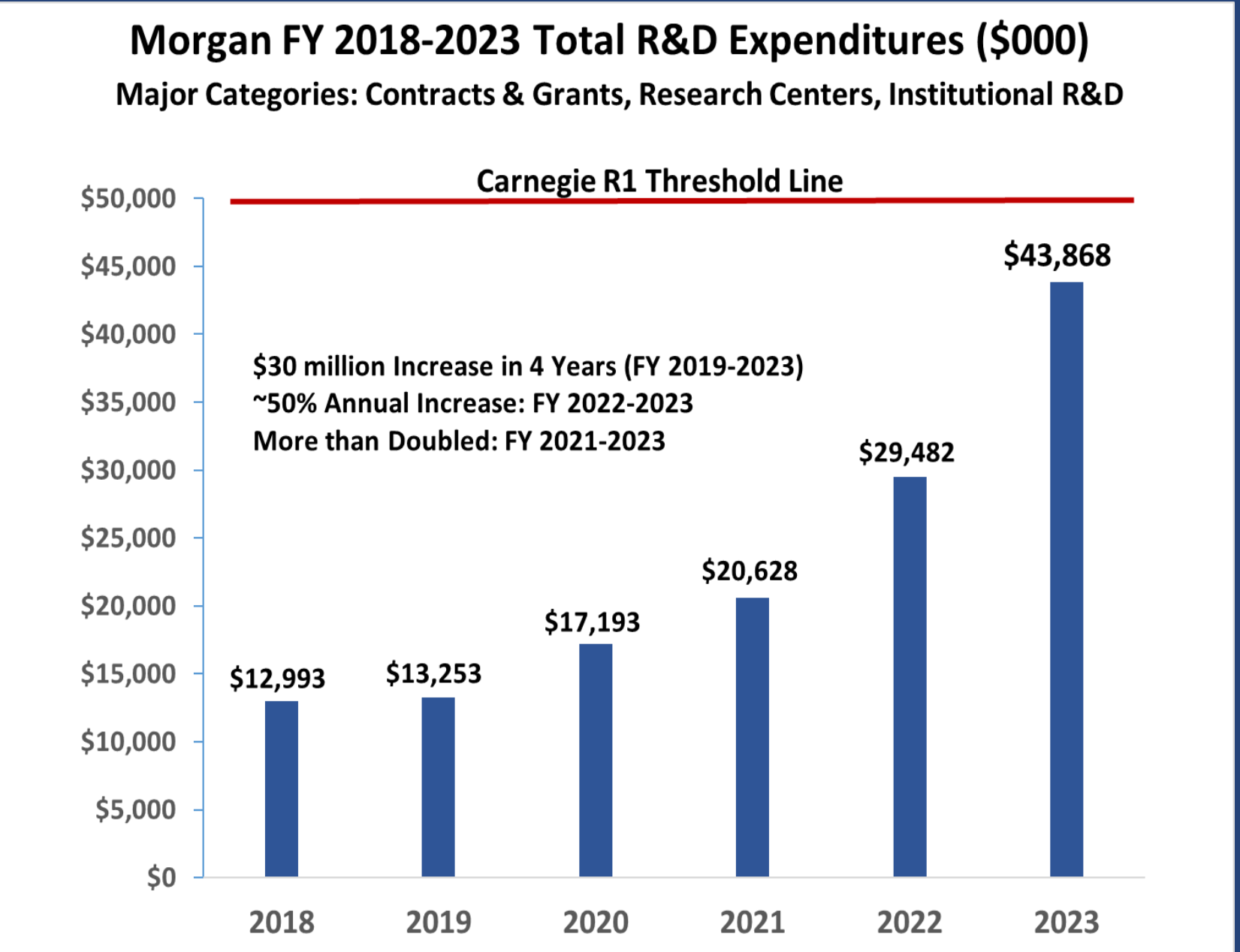
QUICK FACTS

- **A Historically Black University, founded in 1867**
- Doctoral Research University (R2 by Carnegie Classification)
- Maryland's Preeminent Public Urban Research University (2017 designation by the State Legislature)
- ~9,800 Students (18% Graduate)
 - 62% Female; 38% Male
 - 81% African American; 4% Hispanic; 3% White; 14% International
- 28 Doctorate, 47 Master's and 66 Bachelor's Programs
- Workforce: ~320 Tenure/Tenure-Track Faculty; 1570 Staff
- Contributes ~1.2 Billion to State Economy Annually

Morgan continues to grow its research project portfolio, as indicated by the substantial increase in R&D expenditures.

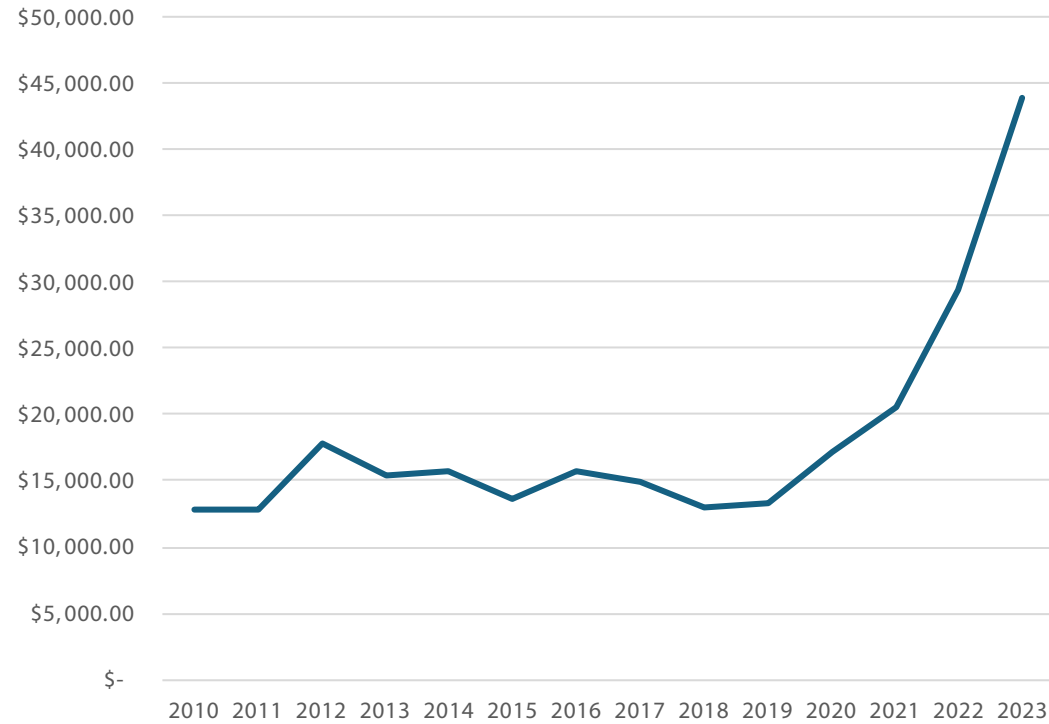
Carnegie R1 Threshold and Morgan Status

Morgan's 3-year average of R&D expenditures for FY 2024-2026 are projected to surpass Carnegie's R1 Threshold for the 2027 classification.

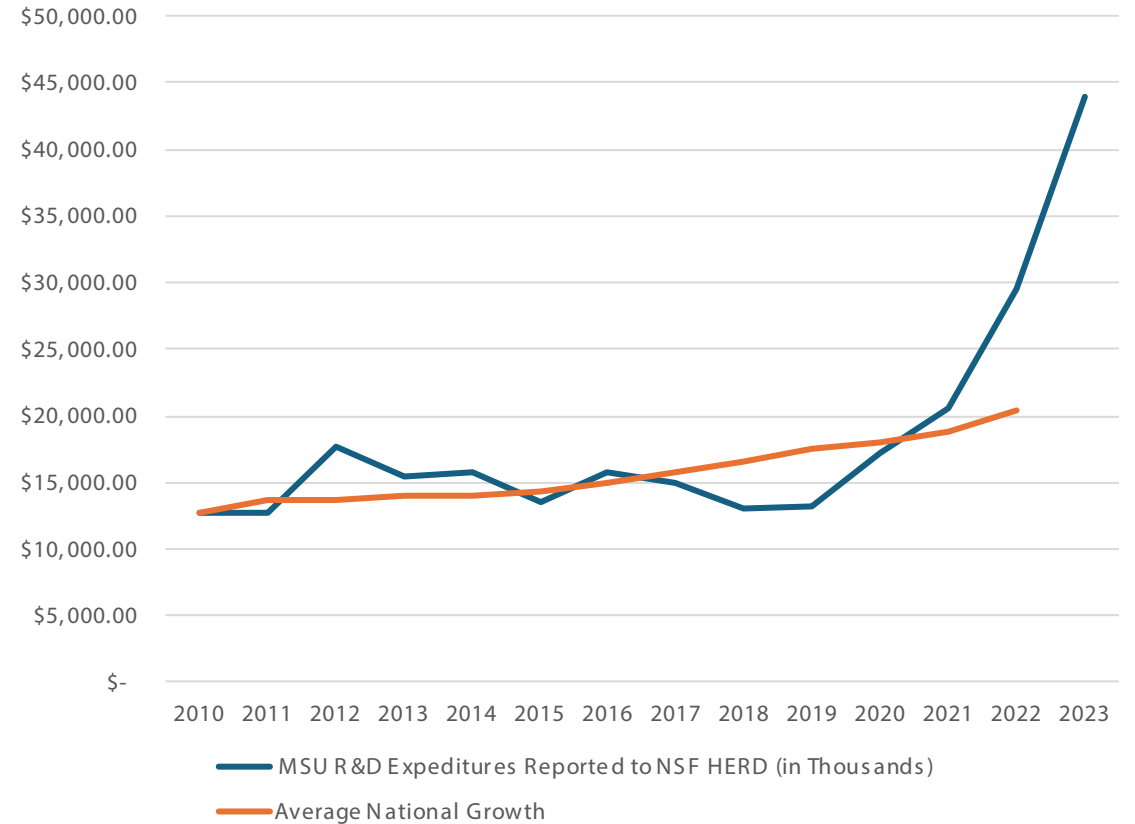


MSU R&D NSF HERD Expenditures (2010-2023)

MSU R&D Expenditures Reported to the NSF HERD
(in Thousands)

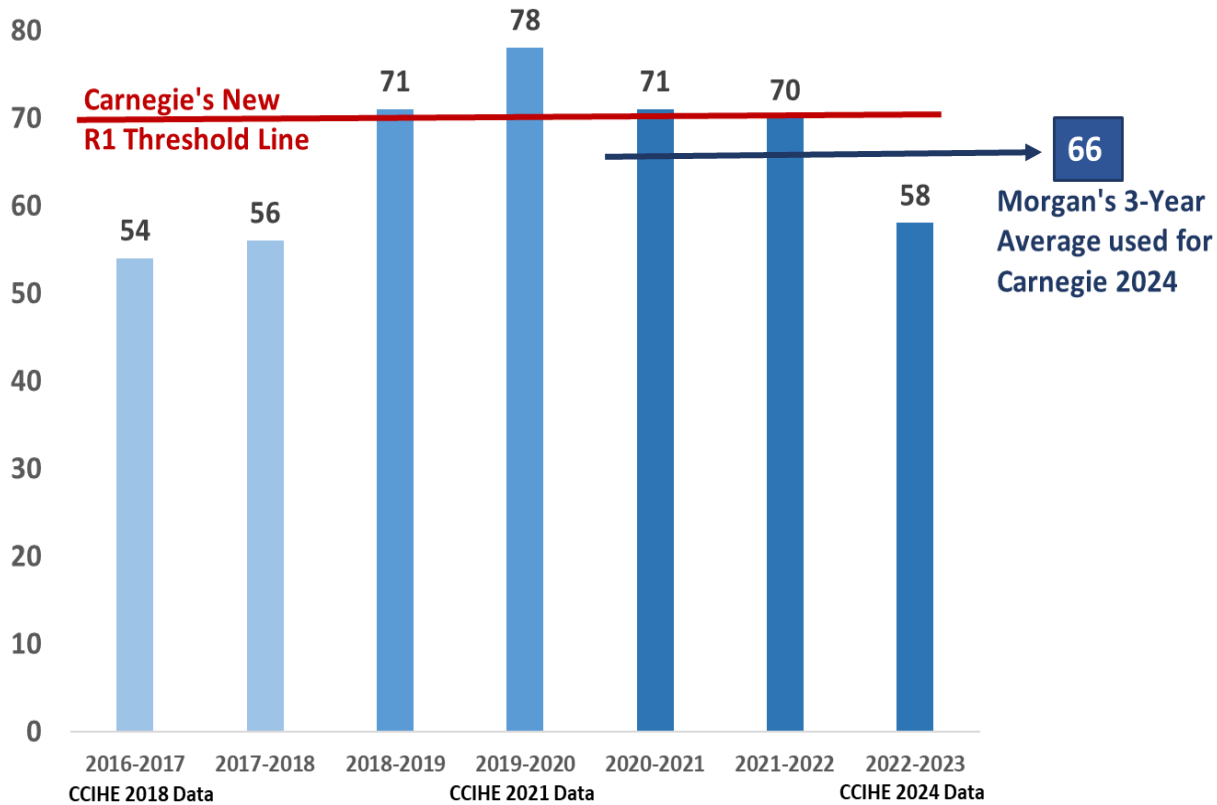


MSU's Growth Compared to
Average National Growth

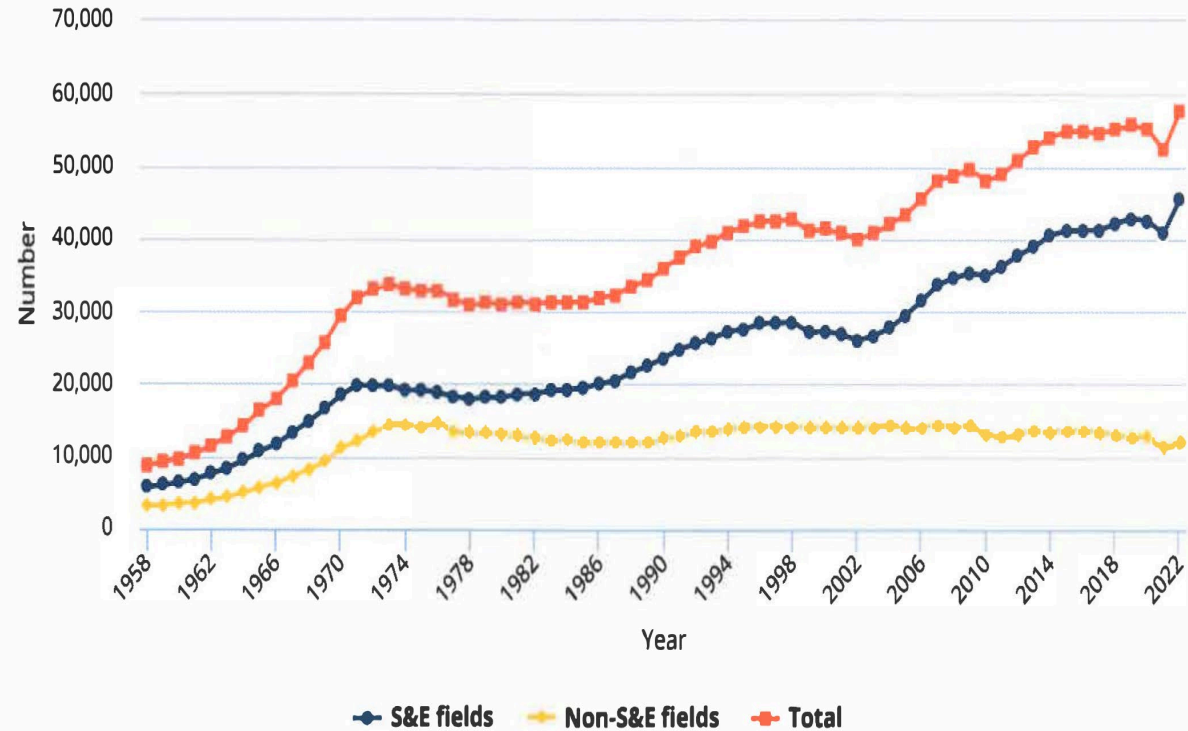


Morgan State University Total Research & Scholarship Doctoral Conferrals

(Source: MSU Banner)



Doctorates awarded by U.S. colleges and universities: 1958-2022



Morgan's Doctoral Conferrals

FROM THE CHRONICLE OF HIGHER EDUCATION

If we were to use the New Criteria, we'd have



The usual
Suspects

Institution Name	Fall 2021 Enrollment	Doctoral degrees	R&D Expenditures
Johns Hopkins U Private R1 Doctoral	32,049	605	\$3.18 B
U of California, San Francisco Public Special Focus Four-Year Research <small>NEW</small>	3,165	158	\$1.71 B
U of Michigan, Ann Arbor Public R1 Doctoral	50,278	892	\$1.66 B
U of Pennsylvania Private R1 Doctoral	28,038	649	\$1.63 B
U of Washington Public R1 Doctoral	52,434	657	\$1.49 B
U of California, Los Angeles Public R1 Doctoral	46,116	856	\$1.45 B
U of California, San Diego Public R1 Doctoral	41,885	585	\$1.43 B
U of Wisconsin, Madison Public R1 Doctoral	47,016	780	\$1.38 B
Stanford U Private R1 Doctoral	17,680	837	\$1.27 B
Harvard U Private R1 Doctoral	31,345	791	\$1.25 B

But some
Newcomers
including at
least one
HBCU!

Institution Name	Doctoral degrees	R&D Expenditures
Indiana U-Purdue U, Indianapolis Public R2 Doctoral <small>NEW</small>	101	\$67.91 M
U of Massachusetts, Boston Public R2 Doctoral <small>NEW</small>	88	\$63.72 M
Florida Atlantic U Public R2 Doctoral <small>NEW</small>	97	\$58.47 M
East Carolina U Public R2 Doctoral <small>NEW</small>	78	\$55.03 M
Missouri U of Science and Technology Public R2 Doctoral <small>NEW</small>	117	\$54.44 M
U of Toledo Public R2 Doctoral <small>NEW</small>	118	\$54.09 M
Howard U Private R2 Doctoral <small>NEW</small>	100	\$52.41 M
U of North Carolina, Charlotte Public R2 Doctoral <small>NEW</small>	165	\$51.88 M

**As we strive
for ascension
to R1 Status**

—

**without
Losing our
soul!**

Morgan must become a well-recognized, well-rounded, and well-respected research university.

We need:

- **World-Class Research Facilities and Programs**
- **More effective administrative infrastructure to support research**
- **Well-respected and recognized Research Faculty with reduced teaching loads**
 - Allow some Faculty to specialize in teaching and/or research; reward them based on how well they carry out their responsibilities
- **Effective Tech Transfer and Intellectual Property Management**

BLUE RIBBON PANEL for STEM Program Expansion



Eugene DeLoatch
Morgan State
University, Retired



Carol Espy-Wilson
University of
Maryland



Rhonda Franklin
Univ. Minnesota



Sylvester J. Gates, Jr.,
University of Maryland



Juan E. Gilbert
Univ. Florida



Craig McLean
NOAA, Retired



Mahlet N. Mesfin
U.S. Dept. of State



William D. Phillips
NIST/UMCP



Claudia Rankins
NSF, Retired



Landon Taylor
Base11 Foundation



Hrach G. Semerjian
NIST, Retired



Isiah M. Warner
LSU, Retired

INITIAL CHARGE:

IDENTIFY “PEAKS OF EXCELLENCE” IN A LIMITED NUMBER OF AREAS SUCH AS.....

- ADVANCED MANUFACTURING
- ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING
- BIOTECHNOLOGY/ENGINEERING BIOLOGY
- BRAIN SCIENCE
- CLIMATE SCIENCE
- COMMERCIAL ROCKETRY AND HYPERSONICS
- CYBERSECURITY FOR IOT DEVICES
- DATA ANALYTICS
- QUANTUM EDUCATION/LITERACY
- URBAN HEALTH EQUITY

WHERE WITH SUFFICIENT INVESTMENTS, MORGAN COULD BECOME A NATIONAL LEADER

Morgan State-Supported Research Centers

Center	Director	Established	State Investment/Yr. (Million)
Cybersecurity Assurance & Policy Center	Prof K. Kornegay	2018	\$2.0 8 Faculty Lines
Center for Urban Health Equity	Dean K. Sydnor	2021	\$3.0 7 Faculty Lines plus 2 Post Docs
Center for Data Analytics & Sports Gaming Research	Prof A. Emdad	2022	\$1.5 5 Faculty Lines
Center for Equitable AI & Machine Learning Systems	Prof K. Nyarko	2022	\$3.1 14 Faculty Lines
Center on Urban Violence and Crime Reduction	Prof. V. Nebbitt	2022	\$2.0 10 Faculty Lines
National Center for the Elimination of Educational Disparities	Dean G. Prime, Acting	2023	\$3.6 14 Faculty Lines
Center for Research and Education in Microelectronics	Prof. M. Spencer	2023	\$3.1 7 Faculty Lines
Center for Urban and Coastal Climate Science Research	TBD	2024	\$3.0 10 Faculty Lines

Morgan as a Carnegie Doctoral Research University: Well-respected, Well-known, and Well-rounded (Well-3)

The Well-3 Project

- Increase awareness of Morgan in regional, national and international communities, as a Well-respected, Well-known and Well-rounded institution; and
- Highlight Morgan's Research and Education Programs as an R2 Carnegie Doctoral Research University and provide foundational support ahead of achieving R1 status; and
- Support long-term increases in Carnegie metrics through increased visibility of the institution.

Well-3 2024 Project

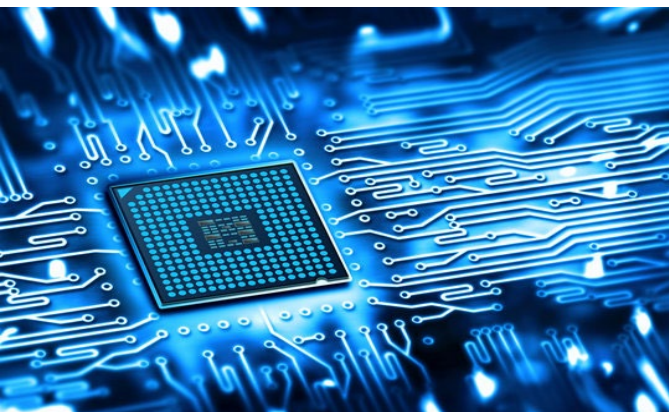
Promote Morgan in six online and print publications in **Science Magazine** - which has broad U.S. and international reach. **The 2024 series in Science highlights 10 science & engineering and non-science & engineering research centers, their directors, and Morgan's cutting-edge research and educational programs.**

Helping Become: Well-respected, Well-known, and Well-rounded



“Making AI and cybersecurity more accessible” – Published February 2, 2024 – Highlights the CAP Center and CEAMLS.

“Putting community health at the center of city life” – Published March 29, 2024 – Highlights the Center for Urban Health Equity and Morgan’s RCMI Center for Urban Health Disparities Research and Innovation



“Engineering solutions to microelectronics and transportation challenges,” - to be published May 17th - Highlights the Center for Education and Research in Microelectronics and the Sustainable Mobility and Accessibility Regional Transportation Equity Research (SMARTER) Center.

Listed Among Top 2% World Scientists (Stanford University)



Paul Tchounwou
Prof - Biol/Dean



Farin Kamangar
Prof-Biol/AVP



Gloria Hoffman
Prof-Biol (Recently Ret)



Ganesh Bhatt
Prof - Inf. Sci.



Yucheng Lan
Prof - Phys.



Hongtao Yu
Prof - Chem/Prov.



Gaston N'Guerekata
Univ. Dist. Prof - Math



Alexandr Pankov
Prof - Math (Ret)



Olaniyi Iyiola
Assoc Prof - Math



Michael Spencer
Prof/Interim Chair, EE

Current National Society and Academy Fellows



Gaston N'Guerekata
AMS/TWAS Fellow



Jiang Li
ASCE Fellow



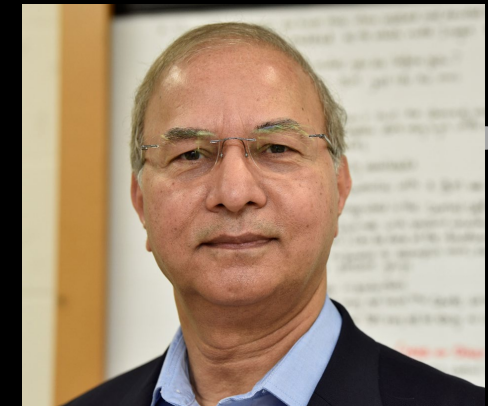
Anthony Saka
ASCE Fellow



Oscar Barton
ASME Fellow



David K. Wilson
Elected Member
AAA&S



Ramesh Budhani
APS Fellow

Current National Society and Academy Fellows Cont'd



Christine Hohmann
AAAS Fellow



Farin Kamangar
AAAS Fellow



Kevin Kornegay
AAAS Fellow



Willie E. May
ACS & AAAS Fellow
President, AAAS



Paul Tchounwou
AAAS Fellow

HBCUs with the Highest Number of Top Scientists

Ranking	University	Number of Top Faculty
1	North Carolina A&T	28
2	Howard	22
3	Morehouse SoM	16
4	Morgan State	14
5	Jackson State	13
6	Tennessee State	11
7	Prairie View A&M	11
8	Florida A&M	10
9	Texas Southern	10
10	Meharry Medical Center	10

Methodology

- We used Google Scholar to review citations and H-Index for faculty members from 16 HBCUs.
 - These 16 institutions included
 - all 11 R-2HBCUs,
 - 2 other HBCUs with medical schools, as well as
 - Morehouse College, Spelman College, and Xavier University.
 - We listed all faculty members who had at least 3000 citations and an H-Index of at least 20 .
- There were 160 such “top scientists” in these 16 HBCUs.

Top 10 HBCU Researchers

Rank	Name	University	Field	Number of Citations	H-Index
1	Barney S Graham	Morehouse SoM	Virology	95,071	144
2	Jerzy Leszczynski	Jackson State	Computational Chemistry	43,014	99
3	George Japaridze	Clark Atlanta	Physics	38,702	98
4	Farin Kamangar	Morgan State	Cancer Epidemiology	34,326	80
5	Paul Tchounwou	Morgan State	Molecular Toxicology	31,976	72
6	David C Yen	Texas Southern	Business	29,455	82
7	Robert D Bullard	Texas Southern	Environmental Science	26,404	58
8	Rick A Kittles	Morehouse SoM	Cancer Genetics	25,916	77
9	Matthew Blair	Tennessee State	Plant Genetics	24,093	79
10	Hongxia Wang	Morehouse SoM	Microbiology	22,223	77

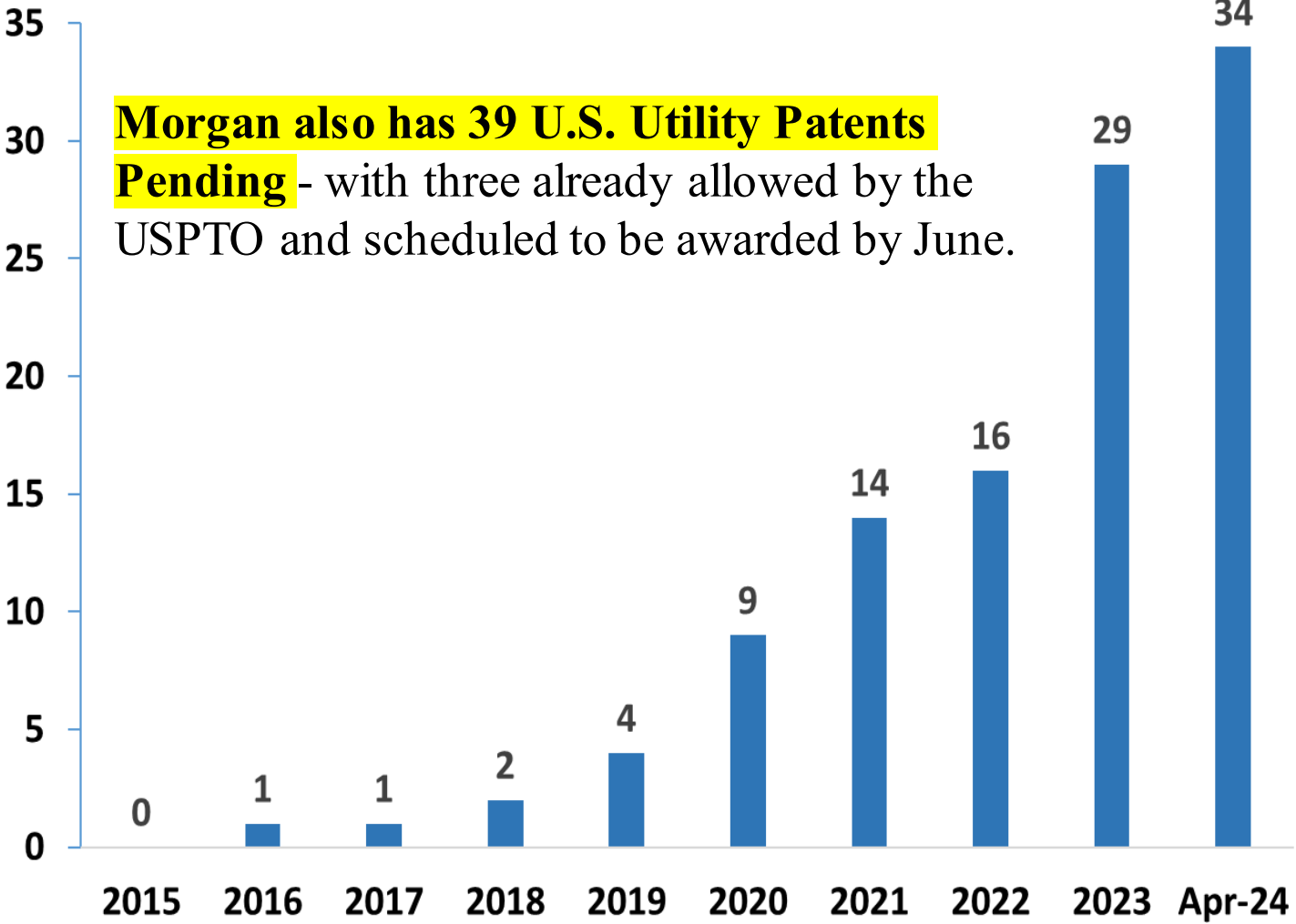
In 2023, Morgan was the #1 HBCU in U.S. Utility Patents Awarded by the USPTO.

The total of 13 patents was the highest total ever for an HBCU in a single year.

Morgan has been awarded a total of 34 U.S. Patents.

In 17 months since December 2022, Morgan has been awarded 19 U.S. Utility Patents – a little over one per month.

Morgan State University: U.S. Utility Patents Awarded
Calendar Year Cumulative Total: U.S. Utility Patent Portfolio
CY 2024: Five U.S. Patents Awarded January-April 2024



Morgan also has 39 U.S. Utility Patents Pending - with three already allowed by the USPTO and scheduled to be awarded by June.

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Questions ?



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