REIMAGINING HIGHER EDUCATION CLASSIFICATION

Fall 2023

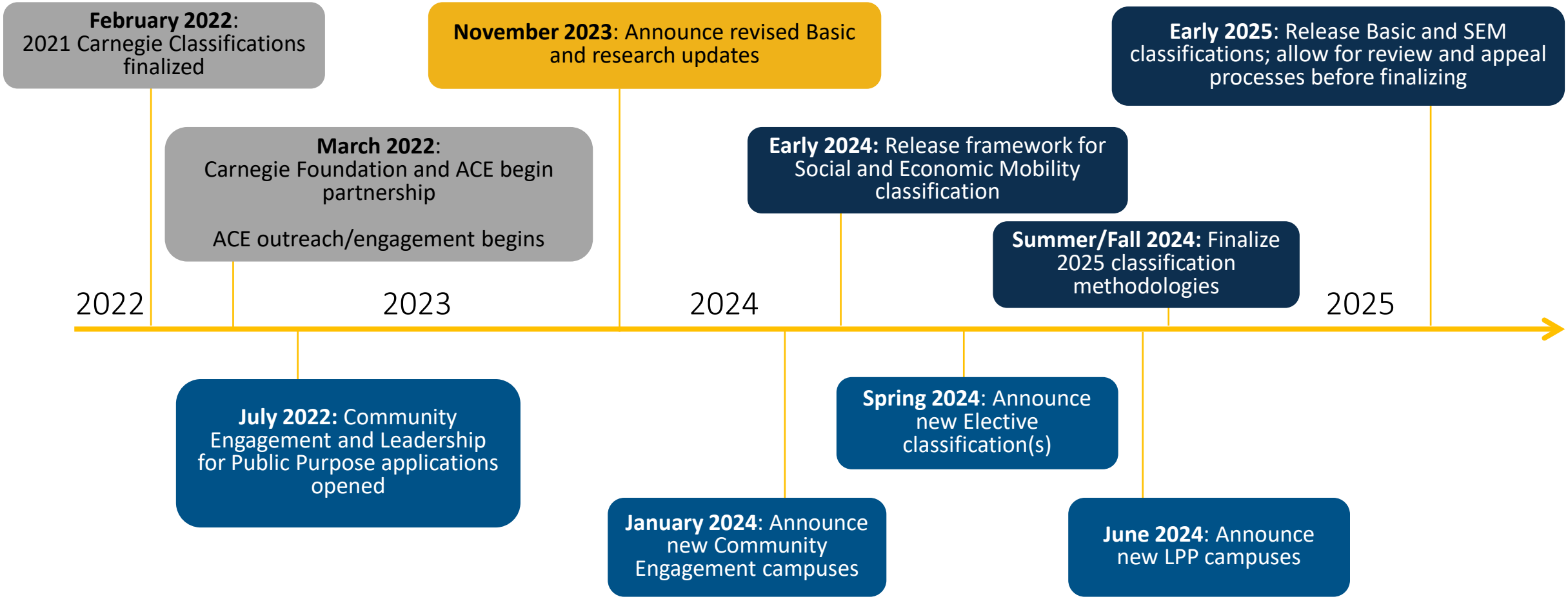
American Council on Education®

Carnegie Foundation for the Advancement of Teaching

VISION

Redesign the Carnegie Classifications to be more usable and modern, better describing the diverse landscape within higher education and incentivizing actions that benefit students.

THREE-YEAR TIMELINE



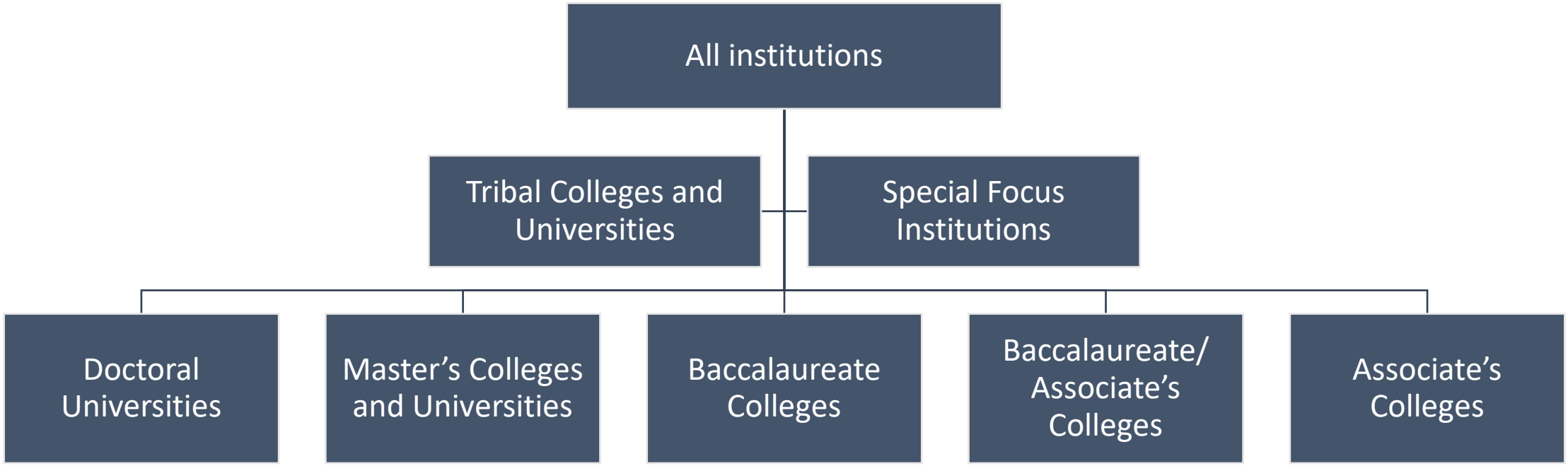
NOVEMBER 1 ANNOUNCEMENT

- In the 2025 Carnegie Classifications, we will shift the Basic Classification to be more multi-dimensional, better reflecting the breadth of missions across higher education.
- We are making improvements to the research methodology:
  - More transparent, clear, and easy-to-replicate information about how the R1 and R2 groups are determined
  - New designation to identify research happening at all types of colleges and universities

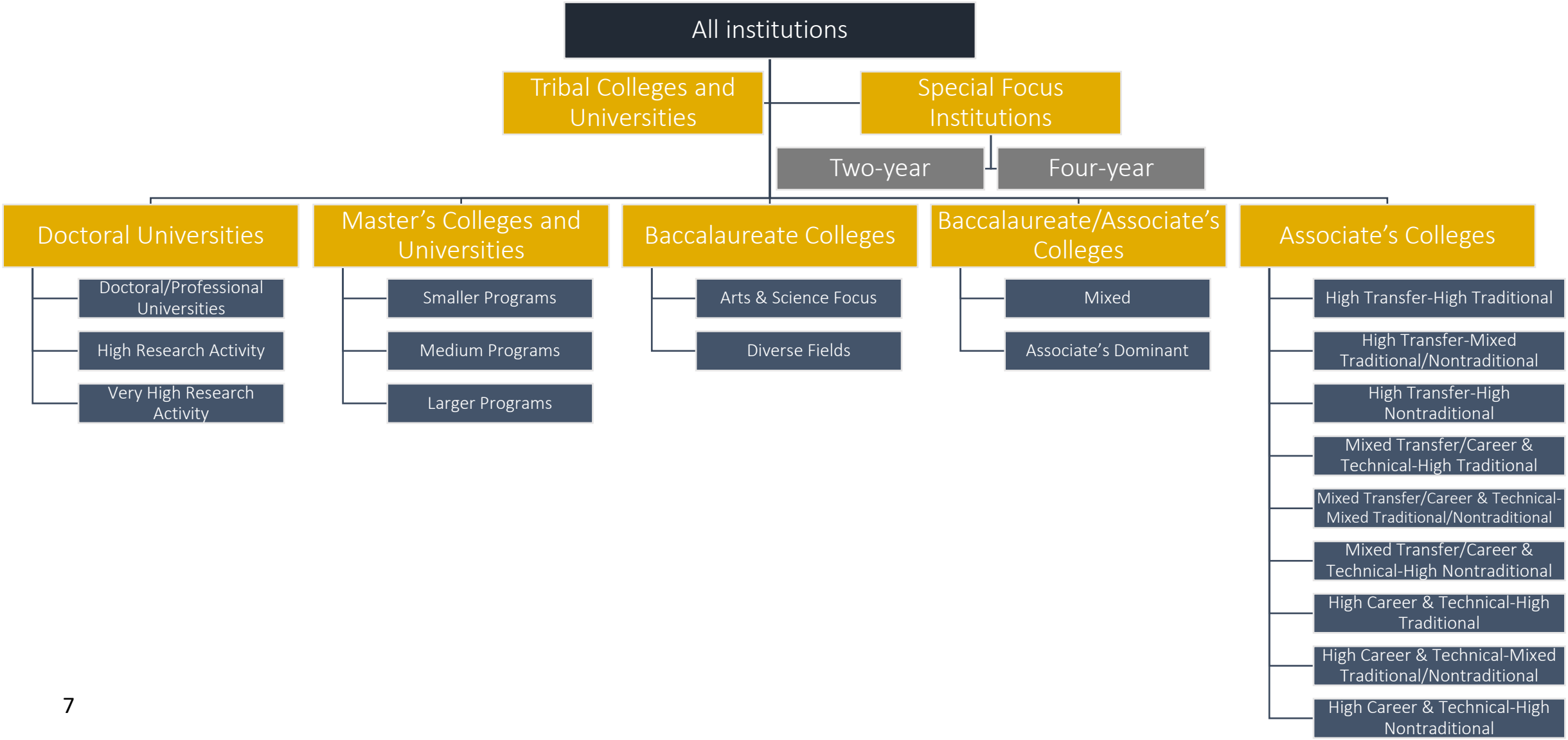
CONTEXT ON THE CURRENT CARNEGIE CLASSIFICATION FRAMEWORK

STRUCTURE FOR THE BASIC CLASSIFICATION

IN TOTAL, THERE ARE 33 CLASSIFICATIONS



CURRENT BASIC CLASSIFICATION



CARNEGIE CLASSIFICATIONS ARE USED THROUGHOUT HIGHER EDUCATION

- State performance funding and/or state agency reporting and benchmarking
- Federal reporting and legislation
- Media organizations, including US News rankings and Washington Monthly rankings
- Institutional planning, strategic goalsetting, and benchmarking
- Faculty pay and recruitment
- Institutional research
- Philanthropic grant-making
- Part of eligibility criteria for other organizations and associations
- Judicial arguments and decisions, including U.S. District Courts and state courts

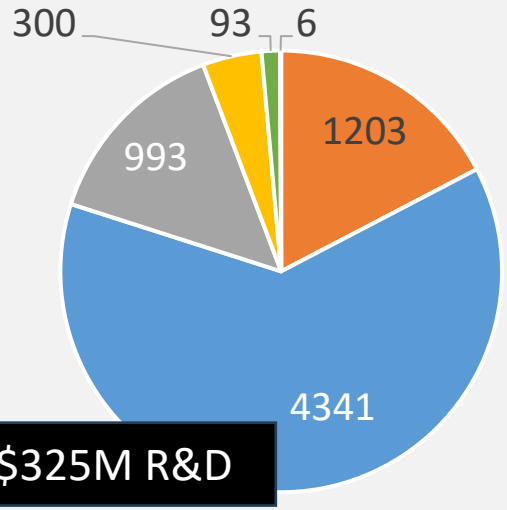
HOW THE CARNEGIE CLASSIFICATIONS ARE USED BY US NEWS

Doctoral Universities	National Universities
Master’s Colleges and Universities	Regional Universities
Baccalaureate Colleges: Arts and Sciences	National Colleges
Baccalaureate Colleges: Diverse Fields	Regional Colleges
Baccalaureate/Associate's Colleges: Mixed Baccalaureate/Associate's Colleges	
Baccalaureate/Associate's Colleges: Associate's Dominant	

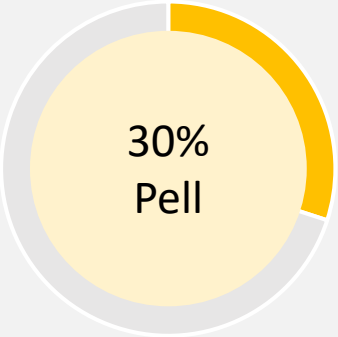
LIMITATIONS OF A SINGLE DIMENSION

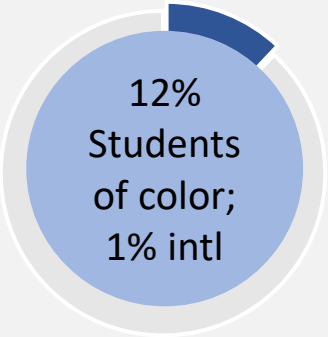
ALL OF THESE INSTITUTIONS HAVE THE SAME CARNEGIE CLASSIFICATION

UTAH STATE UNIVERSITY

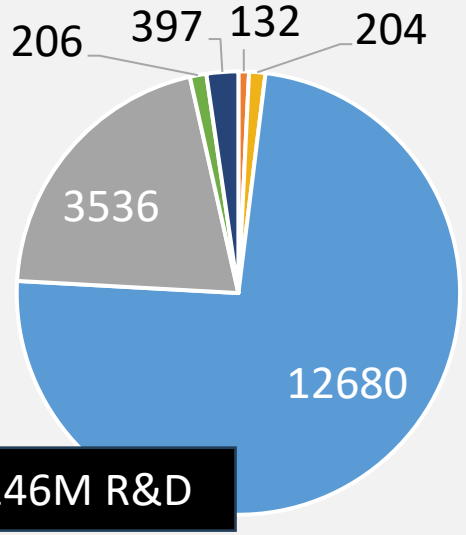


$325M R&D

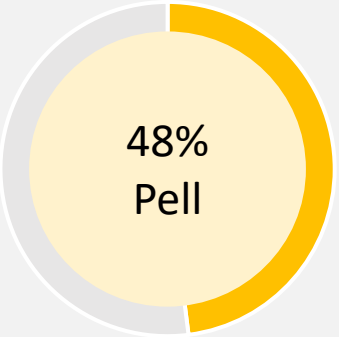


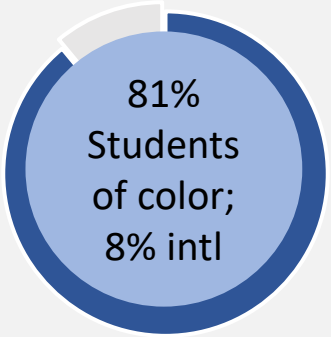


FLORIDA INTERNATIONAL U.

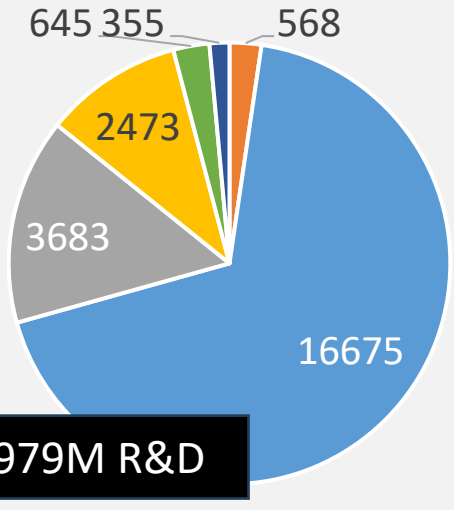


$246M R&D



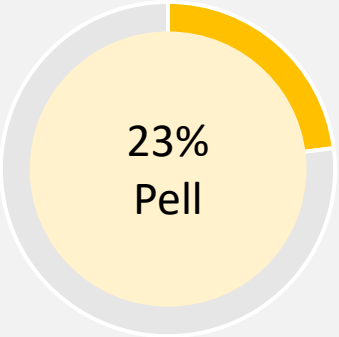


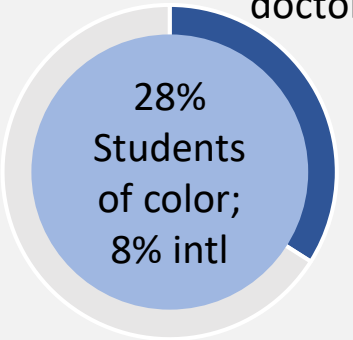
PENNSYLVANIA STATE UNIVERSITY



$979M R&D

- Associates
- Bachelor's
- Master's
- Certificates
- Research doctorates
- Professional practice doctorates

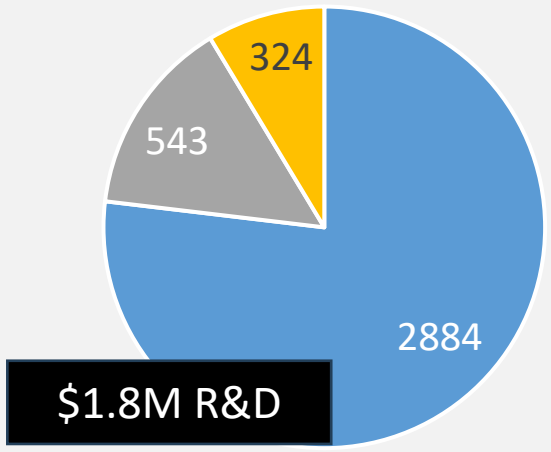




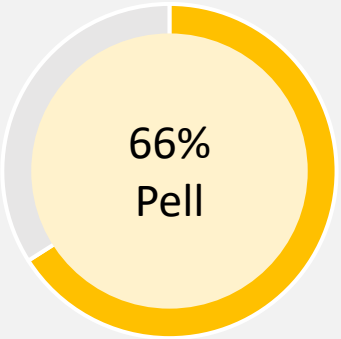
LIMITATIONS OF A SINGLE DIMENSION

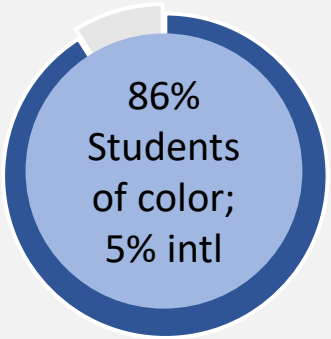
ALL OF THESE INSTITUTIONS HAVE THE SAME CARNEGIE CLASSIFICATION

UNIVERSITY OF HOUSTON-DOWNTOWN

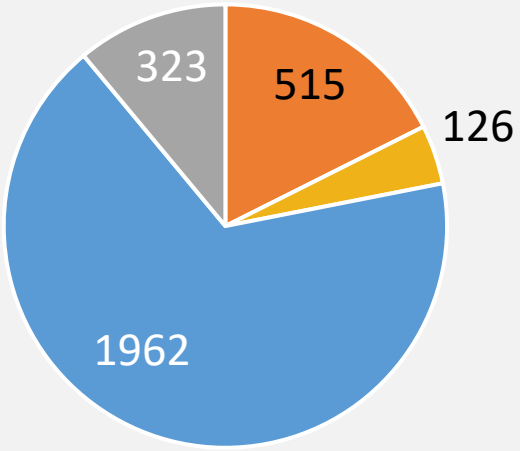


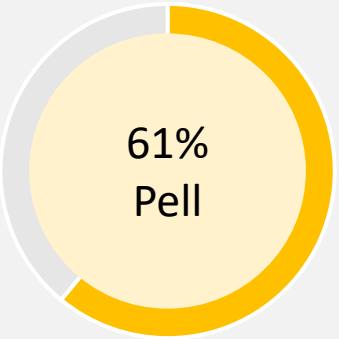
$1.8M R&D

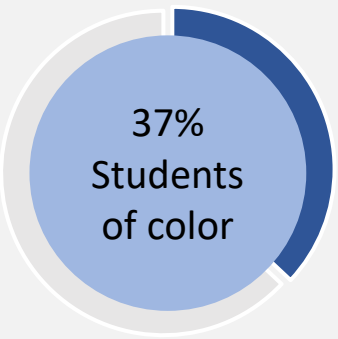




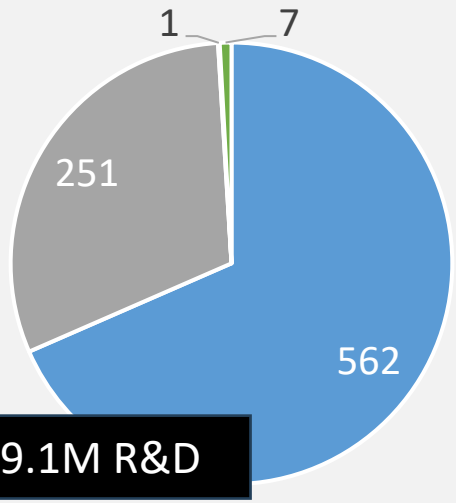
SUNY EMPIRE STATE COLLEGE





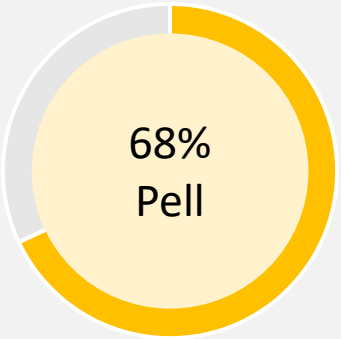


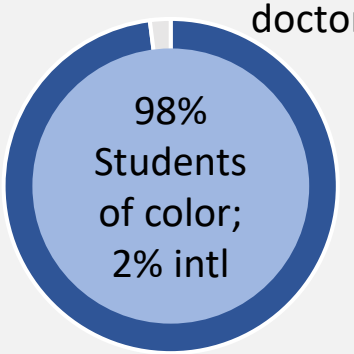
ALABAMA A&M UNIVERSITY



$9.1M R&D

- Associate's
- Bachelor's
- Master's
- Certificates
- Research doctorates
- Professional practice doctorates





POTENTIAL MULTI-DIMENSIONAL CLASSIFICATION FOR THE 2025 BASIC*

EXAMPLE A

Degree and certificate mix	Instructional program mix	Size

EXAMPLE B

Instructional program mix	Primary degree awarded	Highest degree awarded	Size	Location type

EXAMPLE C

Size	Primary degree awarded	Residential-ness	Instruct. program mix	Location type	Distance learning/ learning modality	Transfer

SEPARATE LISTINGS

Research

Potentially use different characteristics based on primary degree awarded

POTENTIAL MULTI-DIMENSIONAL BASIC CLASSIFICATION: UNIVERSITY 1

2021: Doctoral U.: Very High Research Activity

PRIMARY DEGREE AWARDED

Bachelor's Degree

HIGHEST DEGREE AWARDED

Doctorate

PROGRAM MIX

Comprehensive

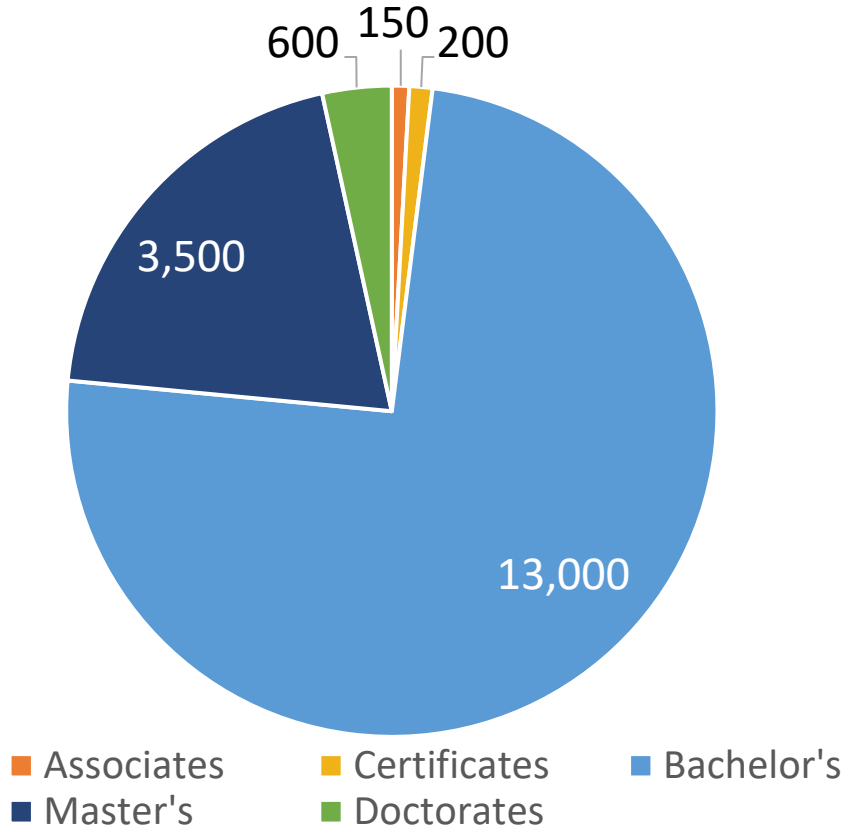
SIZE

Very Large

RESEARCH DESIGNATION

$250M R&D spending
200 research doctorates

DEGREE AND CERTIFICATE PROFILE (# DEGREES AND CERTIFICATES AWARDED)



POTENTIAL MULTI-DIMENSIONAL BASIC CLASSIFICATION: COMMUNITY COLLEGE 1

2021: Baccalaureate/ Associate's Colleges: Associate's Dominant

PRIMARY DEGREE AWARDED

Associate Degree

SIZE

Medium

HIGHEST DEGREE AWARDED

Bachelor’s Degree

LOCATION TYPE/LOCALE

City

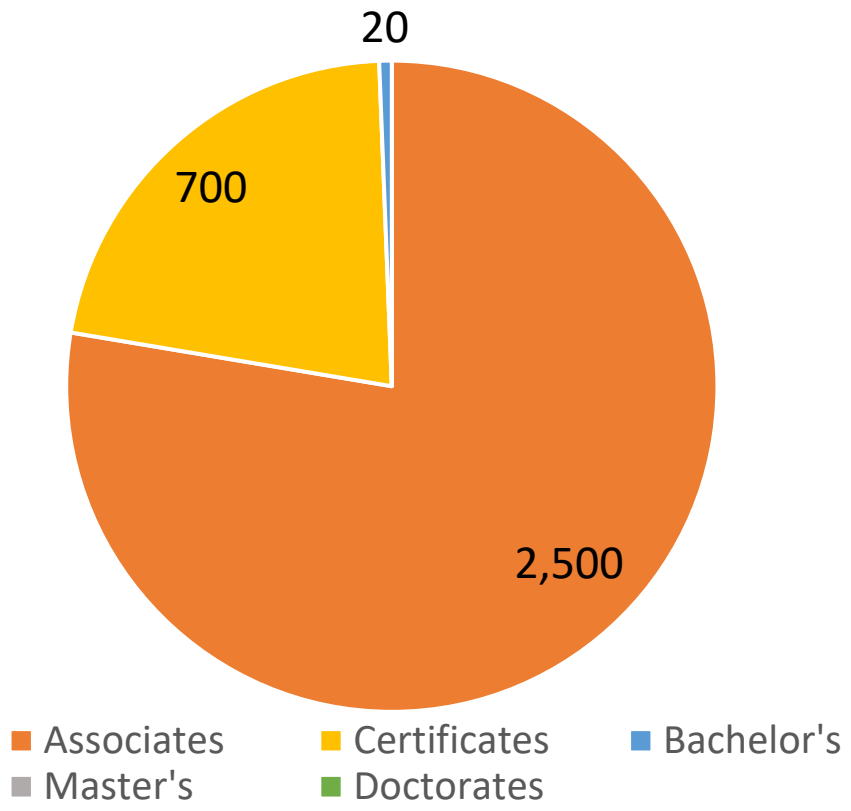
PROGRAM MIX

Comprehensive

TRANSFER

High transfer

2021 DEGREE AND CERTIFICATE PROFILE (# DEGREES AND CERTIFICATES AWARDED)



OVERVIEW OF THE RESEARCH METHODOLOGY

WHAT WE HAVE HEARD AND LEARNED ABOUT THE RESEARCH METHODOLOGY

- R1/R2 chase is real
- Perceived to measure research quality/impact
- Methodology is complex and not well understood
- It rewards comprehensiveness
  - Spurs institutions to manipulate reporting or launch un-needed doctorate programs
  - Furthers systemic inequities and elitist view of higher education
- Research staff number is unreliable and game-able
- R1 cut is normative, relative, and arbitrary – simply splitting the group in half
  - Not possible to state definitively how an institution can become R1
- Does not capture other forms of research (professional, undergraduate, etc.)

QUICK HISTORY OF THE RESEARCH INDEX METHODOLOGY

1973 & 1976

R1: Top 50 by federal research grants (if awarded 50+ Ph.Ds)

R2: Top 100 by federal research grants (if awarded 50+ Ph.Ds)

1987 & 1994

R1: Receive at least $33.5M (1987) or $40M (1994) in federal research grants and award 50+ Ph.Ds

R2: Receive $12.5– $33.5M (1987) or $12.5–$40M (1994) in federal research grants and award 50+ Ph.Ds

2000

Research – Extensive: Award 50+ Ph.Ds across 15+ disciplines

Research – Intensive: Award 10 Ph.Ds across 3+ disciplines or 20+ overall

2005 to today

Very High – very high level research activity; awarded 20+ Ph.Ds (spent $5+ million starting in 2018)

High – high level of research activity; awarded 20+ Ph.Ds (spent $5+ million starting in 2018)

“BRIEF” VERSION OF THE 2021 METHODOLOGY

1a. Calculate the aggregate index score:

- Rank each of the 7 measures individually in ascending order, where low = 1
- For each of the 7 measures, multiply the rank by the appropriate PCA coefficient (right) to create a weighted rank
- Sum the weighted ranks to create a single number for each institution
- Create a version of the index that starts at zero (subtract the minimum value from each score)

1b. Calculate the per capita index score:

- Rank each of the 3 measures individually in ascending order, where low = 1
- For each of the 3 measures, multiply the rank by the appropriate PCA coefficient (right) to create a weighted rank
- Sum the weighted ranks to create a single number for each institution
- Create a version of the index that starts at zero (subtract the minimum value from each score so the resulting minimum value is 0)

2. Calculate distance to origin for each index pair

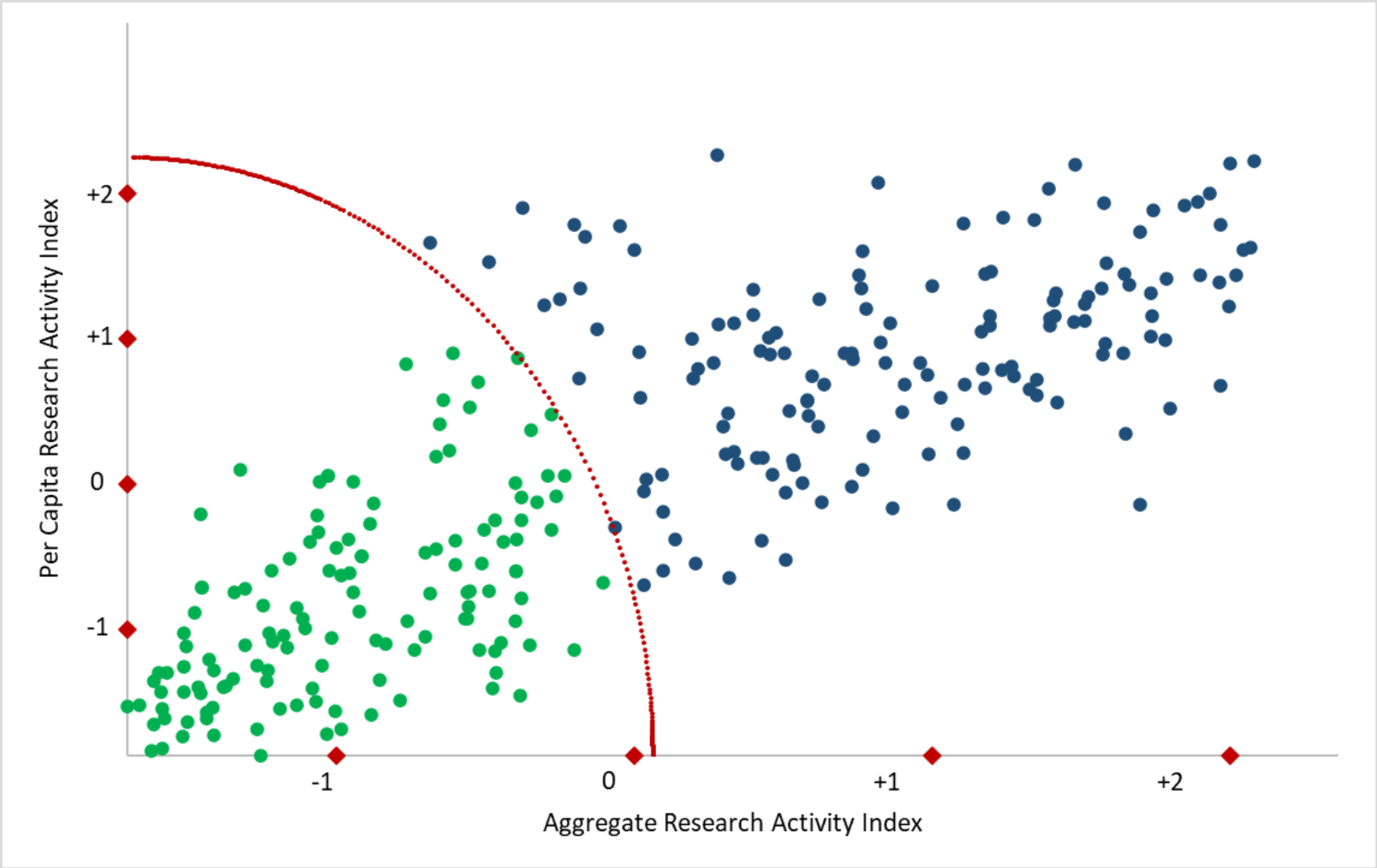
3. Convert to standardized form (subtract overall mean and divide by population standard deviation) **and rank from highest to lowest**

4. Determine cutoff: Largest “gap” between points below median

Aggregate analysis (first principal component explained 70% of the total variance)	
S&E R&D Expenditures	0.905
Non-S&E R&D Expenditures	0.809
S&E Research Staff	0.913
Doctorates: Social Sciences	0.880
Doctorates: Humanities	0.846
Doctorates: STEM	0.920
Doctorates: Other Fields	0.597
Per-capita analysis (first principal component explained 71% of the total variance)	
Per-capita S&E R&D Expenditures	0.931
Per-capita Non-S&E R&D Expenditures	0.643
Per-capita S&E Research Staff	0.939

THE RESEARCH ACTIVITY INDEX RESULTS IN A RELATIVE RANKING,
WITH ROUGHLY HALF OF THE INSTITUTIONS IN R1 AND HALF IN R2

WHAT THIS DISTRIBUTION LOOKS LIKE



2025 CARNEGIE RESEARCH DESIGNATIONS

Research 1: Very High Research Spending and Doctorate Production	Research 2: High Research Spending and Doctorate Production	Research Colleges and Universities
• 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	• 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	• 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)

QUESTIONS?

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