STATE OF THE UNIVERSITY

HELPING STUDENTS, FACULTY AND STAFF SUCCEED

Dr. Christopher Maples, Interim Chancellor, Oct. 3, 2018

MISSOURI S&T

FALL 2018 BY THE NUMBERS

8,607 students: 6,848 undergrads and 1,759 grads

74% Missourians
16% out-of-state
10% international

76% men
24% women

74% white
14% minority
10% international
2% not specified

Enrollment

Legend: Undergraduates, Graduates
X-axis: 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018
Y-axis: 0, 2000, 4000, 6000, 8000
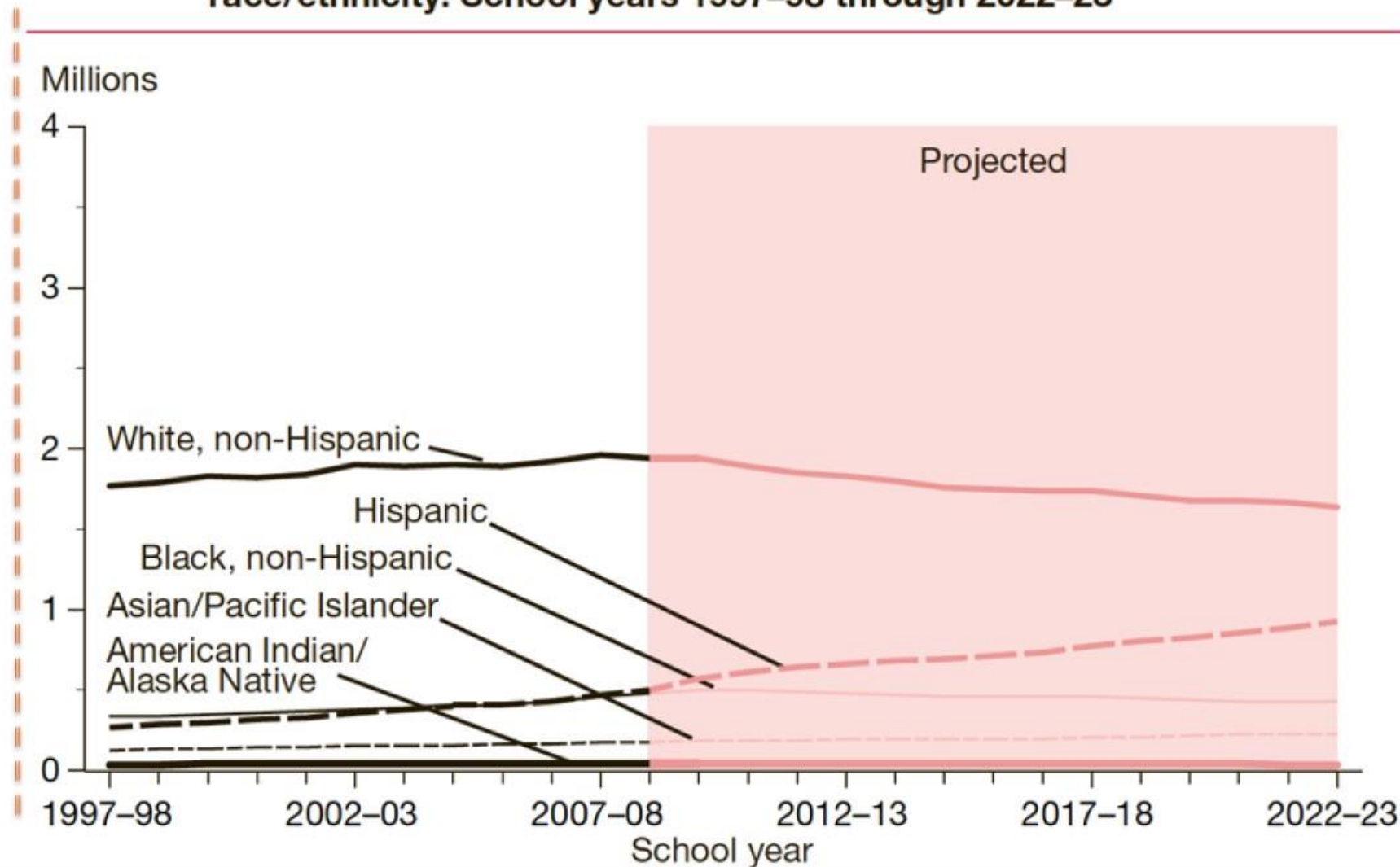
OUTLOOK FOR FUTURE ENROLLMENT

(16%) White, non-Hispanic

(14%) Black, non-Hispanic
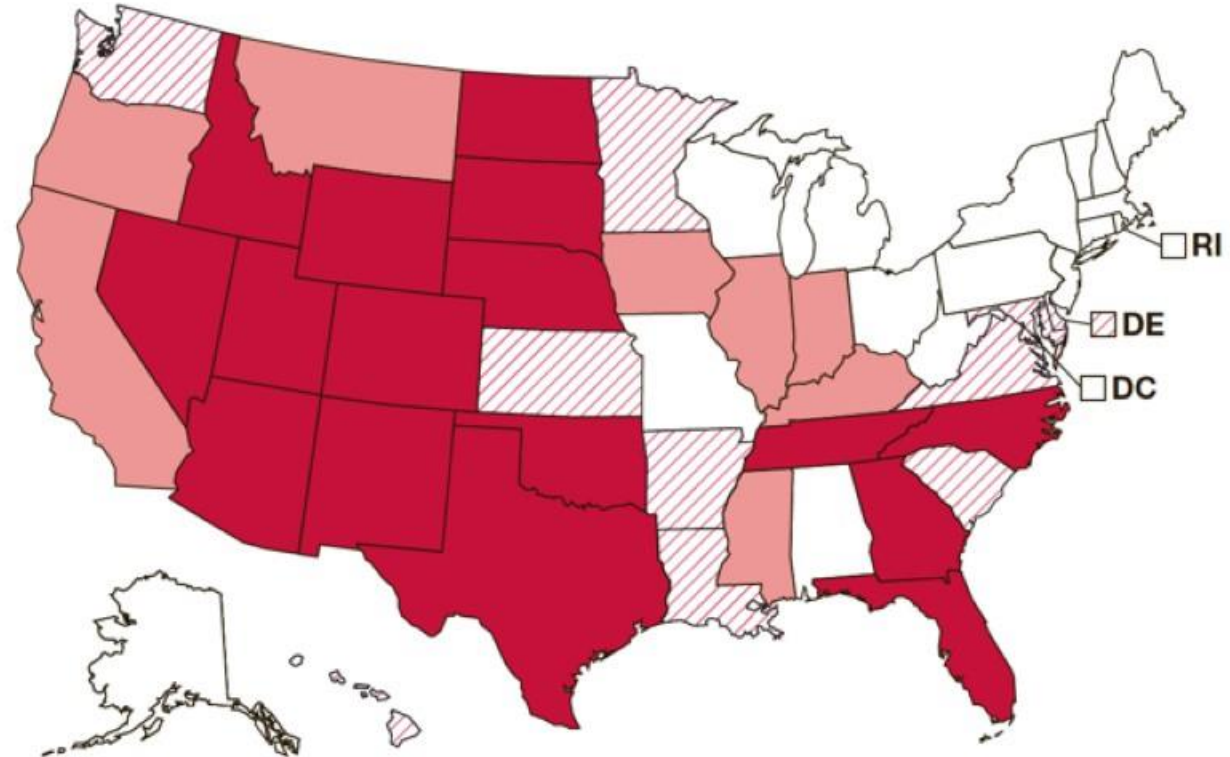
64% Hispanic

23% Asian/Pacific Islander

Figure 7. Actual and projected numbers for public high school graduates, by race/ethnicity: School years 1997–98 through 2022–23
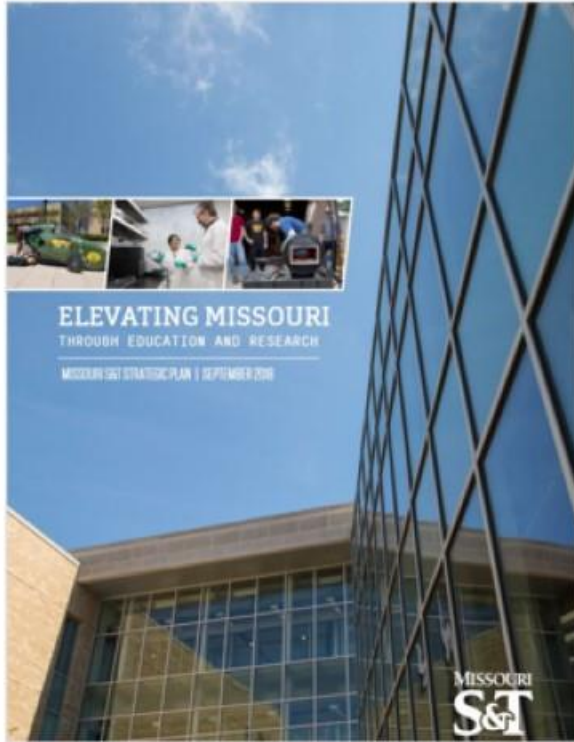
OUTLOOK FOR FUTURE ENROLLMENT

- Will have to recruit in different places
- Will have to recruit differently
- Will have to recruit different populations

Figure 8. Projected percentage change in the number of public high school graduates, by state: School years 2009–10 through 2022–23
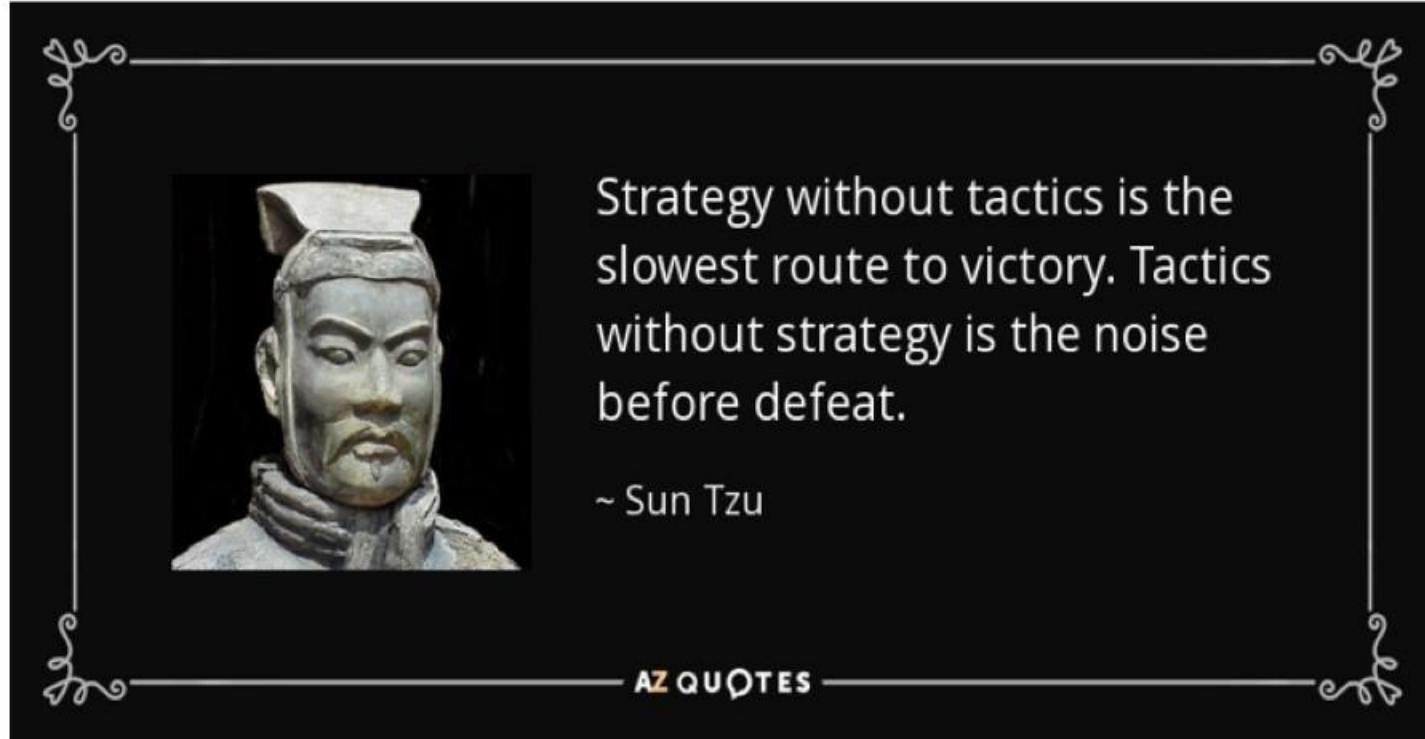

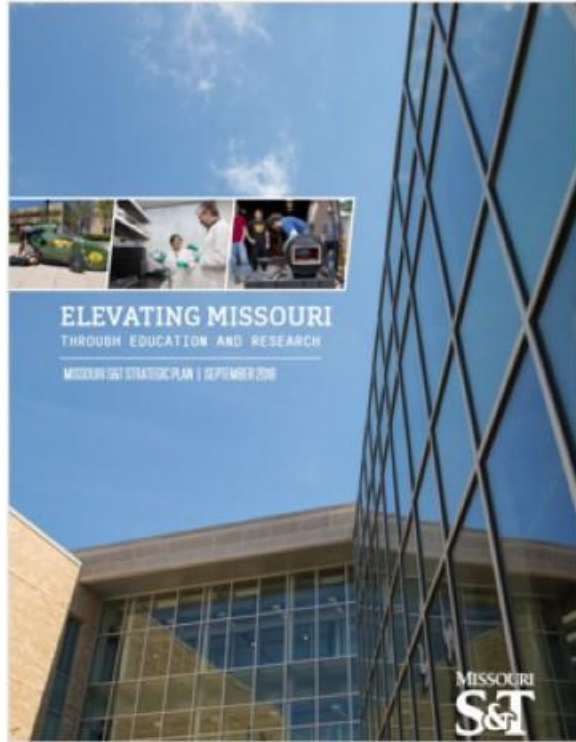- ☐ 5 percent or more lower in 2022–23 than in 2009–10
- ☐ Less than 5 percent lower in 2022–23 than in 2009–10
- ☐ Less than 5 percent higher in 2022–23 than in 2009–10
- ☐ 5 percent or more higher in 2022–23 than in 2009–10

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STRATEGIC PLAN

Strategy without tactics is the slowest route to victory. Tactics without strategy is the noise before defeat.

~ Sun Tzu

> provost.mst.edu/new-strategic-plan/
> Approved Sept. 20 by Board of Curators

STRATEGIC PLAN

Verbiage on systemness from UM System:

"It is the fundamental responsibility of UM System universities and leaders to effectively manage resources to achieve the vision and mission of the UM System. This fundamental responsibility compels all to look beyond individual universities and interests to enable the UM System to meet the needs of the people of Missouri, the nation and the world."

STRATEGIC PLAN
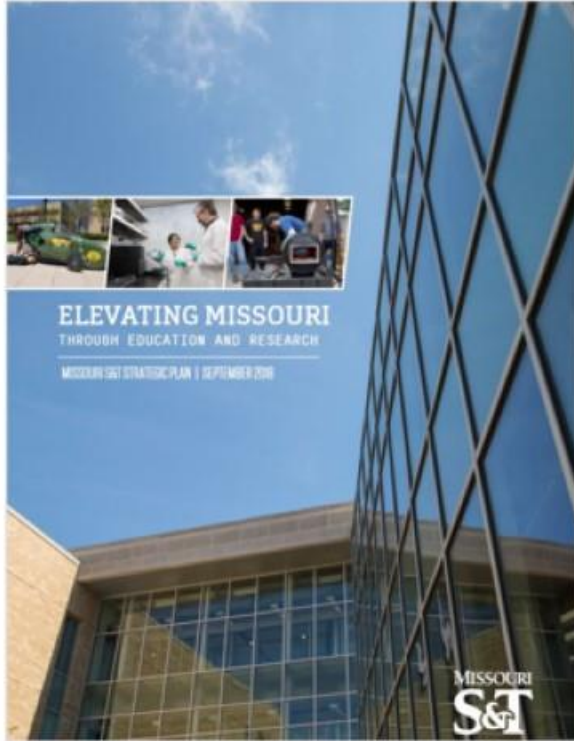
> **Student Success**

> **Research and Creative Works**

> Engagement and Outreach

> Inclusive Excellence

> Planning, Operations, and Stewardship

"To think creatively, we must be able to look afresh at what we normally take for granted."

George Keller

ENGAGEMENT & OUTREACH

GOALS FOR 2023

> 600 students attending summer camps (470 in 2017)

> 64 counties participating in Project Lead The Way (58 in 2017)

> 25% increase in patents and intellectual property licenses annually

> 20 service learning activities within 50-mile radius

> Host "Math and Science Night" at key high schools five times per year

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INCLUSIVE EXCELLENCE

GOALS FOR 2023

> Improve campus climate survey results for underrepresented groups to 80% (70% in 2017)

> 6 professional development sessions related to diversity and inclusion competencies (3 in 2017)

> Increase in diversity performance indicator in system-wide appraisal tool

> 8% URM faculty (4% in 2017) and 10% URM staff

> Double URM undergrads to 15% (7.5% in 2017)

> Double URM grad students to 15% (7.5% in 2017)

> 15 mini grants for curriculum redesign (5 in 2017)

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PLANNING, OPERATIONS & STEWARDSHIP

GOALS FOR 2023

> Develop, evaluate and communicate 5-year rolling budget plans; update annually

> Exceed facilities condition needs index target of 0.3

> Faculty salaries competitive with peer universities

> Complete a staff analysis to identify and address appropriate placement of staff in titles and grade range

> Build merit and equity pools into annual budget process

> Invest in maintenance and repair

> Exceed change in net assets target in annual budget approved by Board of Curators

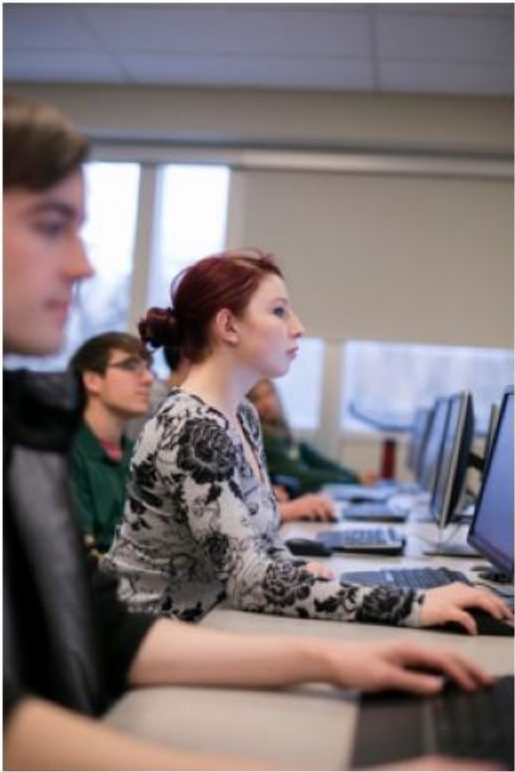MISSOURI
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STUDENT SUCCESS STARTING LINE
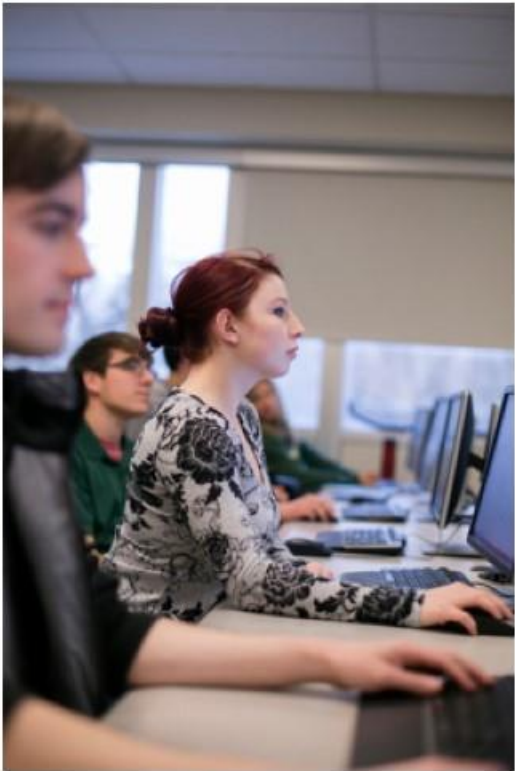
Where we are:

> High return on investment (ROI)

- 6th in nation for public & private colleges and universities

- Starting salaries: $63,892 average for undergrads, $70,000+ average for graduates

> Highly selective admissions status codified

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STUDENT SUCCESS STARTING LINE

Where we are:

> Meaningful experiential learning opportunities

> Implemented "all-majors" First-Year Experience

- Derived from freshman engineering program
- Hired two new professional advisors for beginning students

STUDENT SUCCESS STARTING LINE

> Fall Career Fair: record number of employers
- 331 employers (+5.41% from Fall 2017)
- 16 new, first-time employers
- 19 employers hiring all majors
- 23 Fortune 500 employers
- 3,673 students attended
- 57 campus volunteers
- >1,130 on-campus interviews on Wednesday

STUDENT SUCCESS

> Maintain 100% employer satisfaction w/S&T hires

> 100% undergrads participate in experiential learning

> Internships and co-ops

> Student design team

> Study abroad

> Service learning

> Undergraduate research

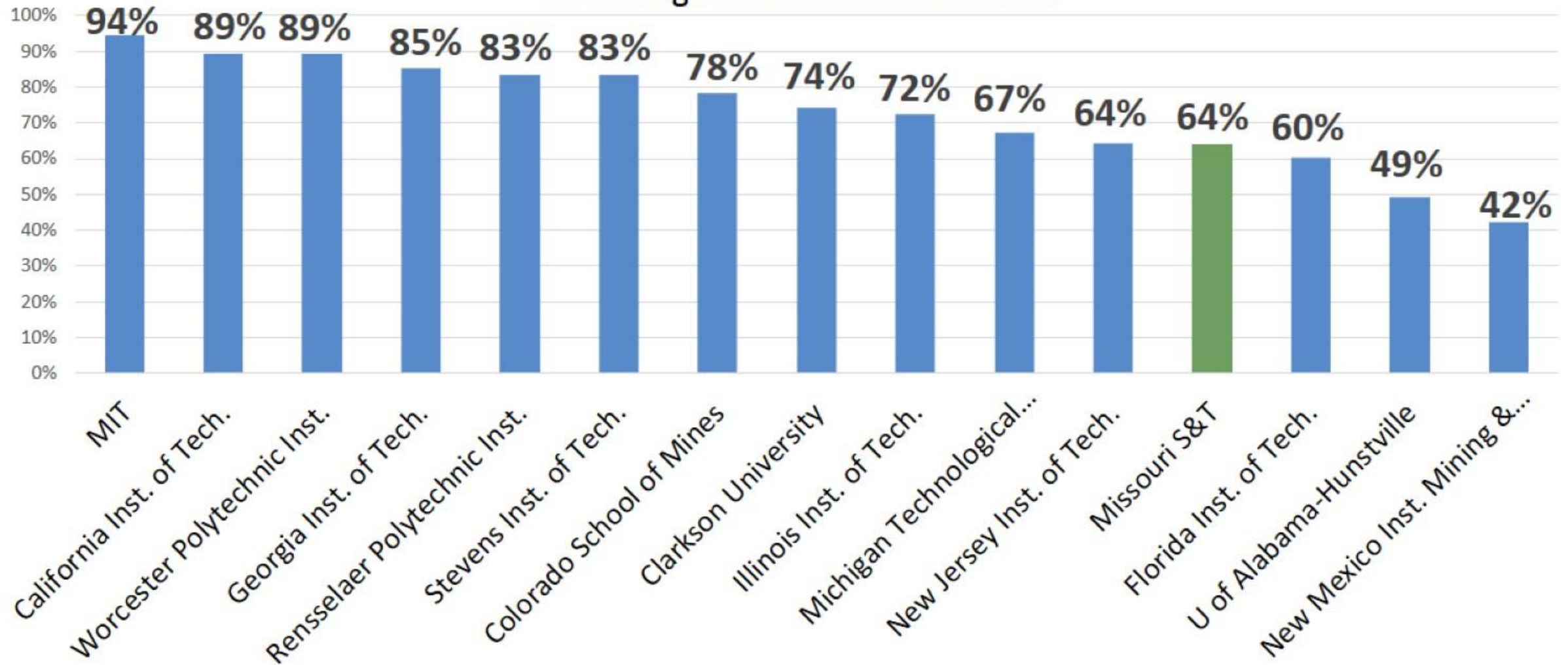**MISSOURI S&T**

STUDENT SUCCESS WHERE WE ARE
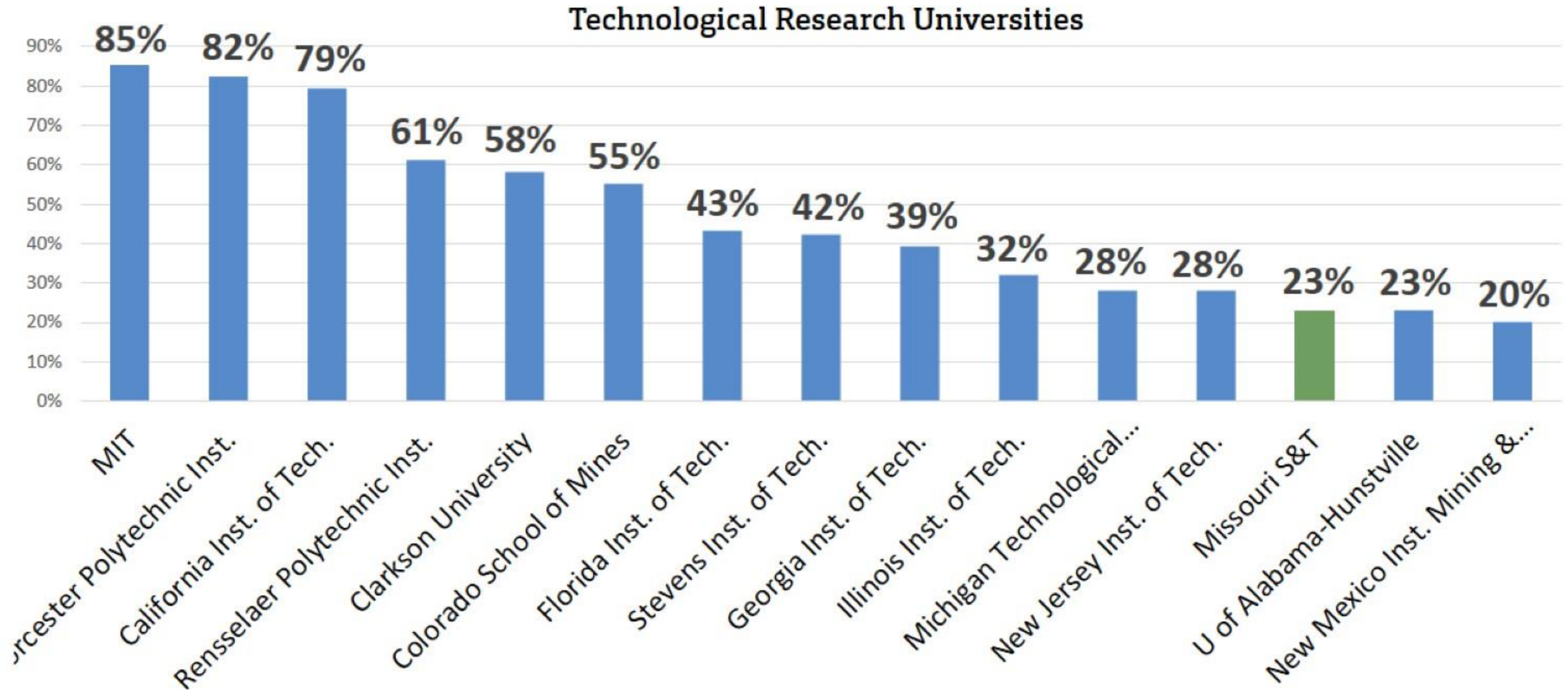
6-YEAR GRADUATION RATES

Technological Research Universities

University	Rate
MIT	94%
California Inst. of Tech.	89%
Worcester Polytechnic Inst.	89%
Georgia Inst. of Tech.	85%
Rensselaer Polytechnic Inst.	83%
Stevens Inst. of Tech.	83%
Colorado School of Mines	78%
Clarkson University	74%
Illinois Inst. of Tech.	72%
Michigan Technological...	67%
New Jersey Inst. of Tech.	64%
Missouri S&T	64%
Florida Inst. of Tech.	60%
U of Alabama-Hunstville	49%
New Mexico Inst. Mining &...	42%

STUDENT SUCCESS

WHERE WE ARE

4-YEAR GRADUATION RATES

Technological Research Universities

University	Rate
MIT	85%
Worcester Polytechnic Inst.	82%
California Inst. of Tech.	79%
Rensselaer Polytechnic Inst.	61%
Clarkson University	58%
Colorado School of Mines	55%
Florida Inst. of Tech.	43%
Stevens Inst. of Tech.	42%
Georgia Inst. of Tech.	39%
Illinois Inst. of Tech.	32%
Michigan Technological...	28%
New Jersey Inst. of Tech.	28%
Missouri S&T	23%
U of Alabama-Hunstville	23%
New Mexico Inst. Mining &...	20%

> Application fee waiver
  - All Missouri students, 2019-20 academic year

> "Finish Line" scholarships
  - Help students graduate on time, with less debt

> "Full Load to Finish" scholarships
  - Pell- and near-Pell-eligible Missouri students
  - 16 hours for price of 14 hours (12.5% tuition savings)

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CHANGING THE PIPELINE

> **Resident recruiters shared within the UM System**
  - e.g., S&T/UMSL recruiter in California

> **Minors and Emphasis Areas as Certificates**
  - Growing potential student population
  - Self-contained curricula
  - Easily modified to meet employer/student needs
  - Builds on our distinctive programs and industry connections
  - Counts towards potential State-funding metrics

BUILDING FOR SUCCESS HOW WE WILL IMPROVE

CLASSROOM LEARNING CENTER

> Originally part of Schrenk Hall renovation effort

> Two-story, 15,900-sqf addition to Computer Science Building

> 100-seat classrooms (4)

> 300-seat lecture hall (1)

> New entry lobby

> Ready for classes in Spring 2020

> R2 Carnegie Classification
  - Higher Research Activity university
> ~$36M in annual expenditures
> ~$32M graduate-student aid waived FY16–FY18
  - >$14M projected to be waived for FY19
  - Vice Chancellor for Research faculty advisory committee to evaluate graduate-student support

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> 693 Ph.D. enrollment (+4 from FS17)

> Recruitment spread among:

– Departments

– Colleges

– Graduate Studies

– International Affairs

– Distance Learning

– Others?
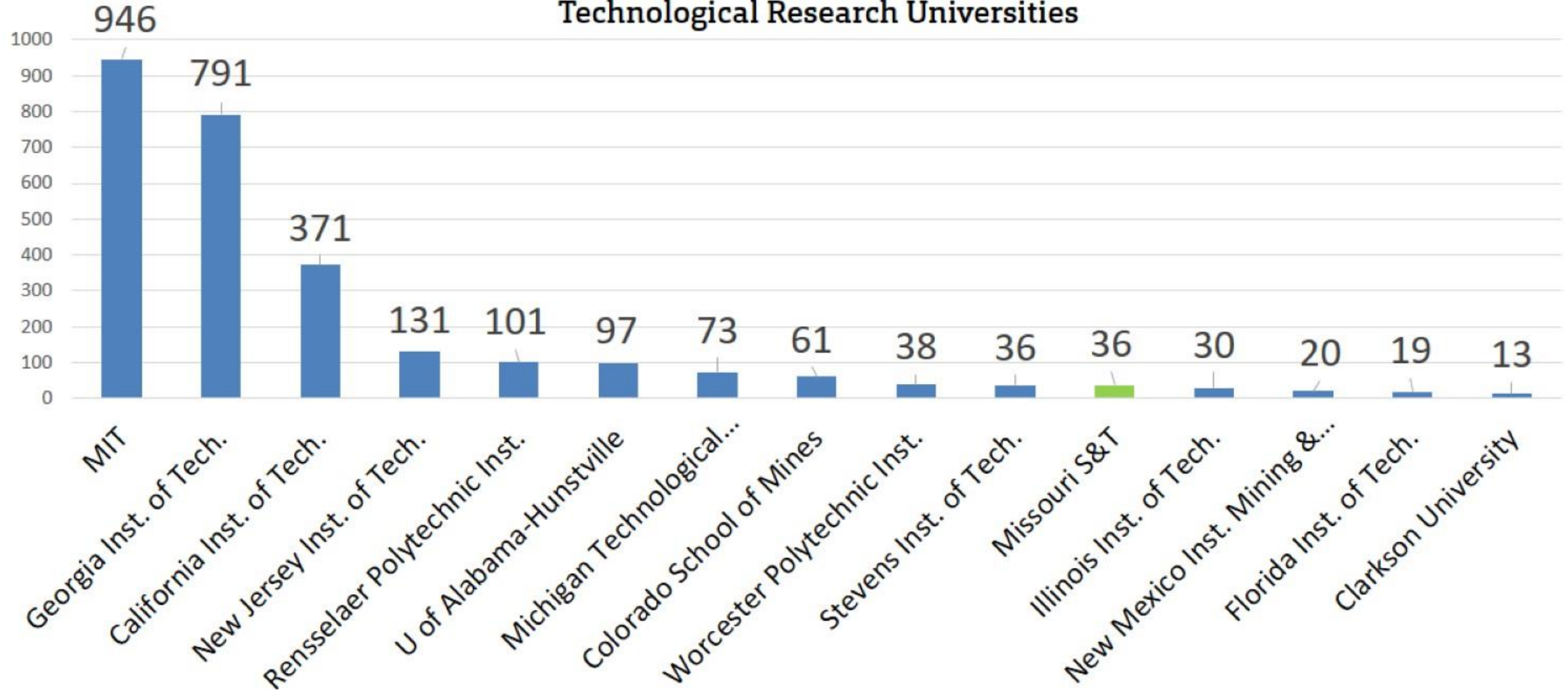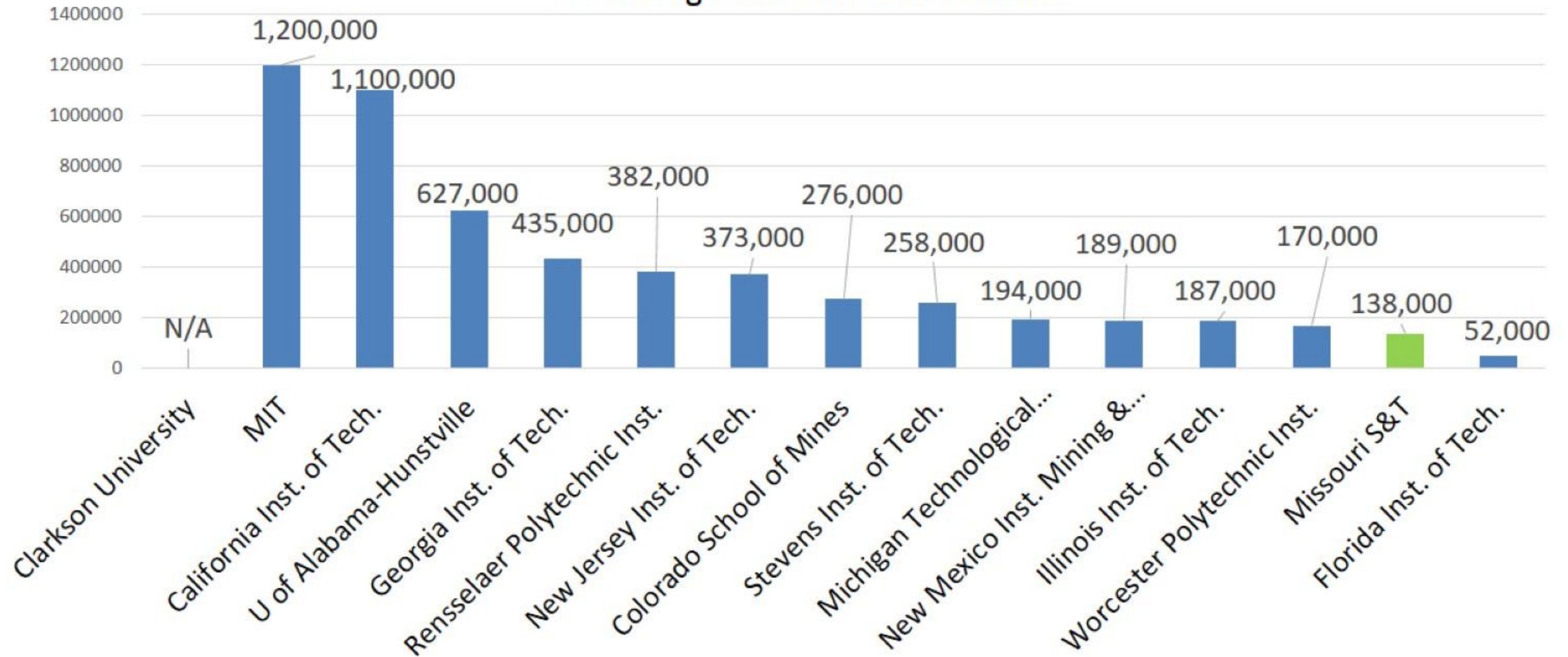
RESEARCH PROFILE

RESEARCH EXPENDITURES PER FACULTY MEMBER, ENGINEERING

Technological Research Universities

RESEARCH SUCCESS

> R1, highest classification in Carnegie Classification

> Raise S&T's research profile

> Leverage external partnerships & inter-institutional collaborations within UM System & beyond

> 10 faculty receive nationally recognized awards (e.g., NSF CAREER awards, National Academies, etc.)

> $70M annual research expenditures

> 750 Ph.D. enrollment

> Increase citations by 15%, publications by 10%

> New nationally recognized, externally funded research centers

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> Post-doctoral scientists serve as PIs on research projects
  - Successful post-docs transition to Research NTT Faculty
> Increase number of Research NTT Faculty
> Creative programs for faculty support
  - S&T Agility Program
> Break away from sameness of workload
  - My experience: really good researchers want time and ability to build programs
  - Distribute workload to facilitate more teaching or more research, as appropriate
> Increasing services from Office of Sponsored Programs, freeing faculty from administrative tasks

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> Play to our strengths to maximize success in funding opportunities

- $260M from UM System, matched with $ from universities AND philanthropy
- Collaborations, multidisciplinary proposals, interdisciplinary research (i.e., nimbleness)
- Privately funded research & IP development
- Take advantage of the clinical expertise at PCRMC and our rural setting
- Connections to industry, Ft. Wood, others?
- Collaborative proposals (higher risk, higher reward, and recognition for those efforts)

> Establish an academic identity for Missouri S&T

- We must build on our core strengths and reputation through collaborations and multidisciplinary teams to be good partners and successful in grants

MISSOURI S&T

> Second-largest fundraising year in history

- $22.6M charitable gifts and pledges in FY18

  - 53% increase over FY17

  - 112% increase over FY16

> Largest in-kind gift in university history

- $6.5M seismic data from Zion Energy LLC

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CELEBRATING FUNDRAISING SUCCESS

> Major campaigns completed

- ACML (Advanced Construction and Materials Lab)
    - $2M ClayCo Corp.
    - $300K Arco Construction Co.
- Kummer Student Design Center expansion
- Rolla Rising Scholarships

MISSOURI S&T

OUR FUTURE BELONGS TO US

- ✓ We are part of Missouri's only research university system

- ✓ We have the opportunity to work collaboratively with each other, across the system and with other research-focused universities and colleagues

- ✓ As part of a system, we can and should be a valuable, distinctive partner and collaborator

- ✓ We owe it to ourselves, our students, our alumni and our region to research, educate and apply what we learn

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THANK YOU! QUESTIONS?

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