

RESEARCH 1 (VERY HIGH) AND GRADUATE RESEARCH

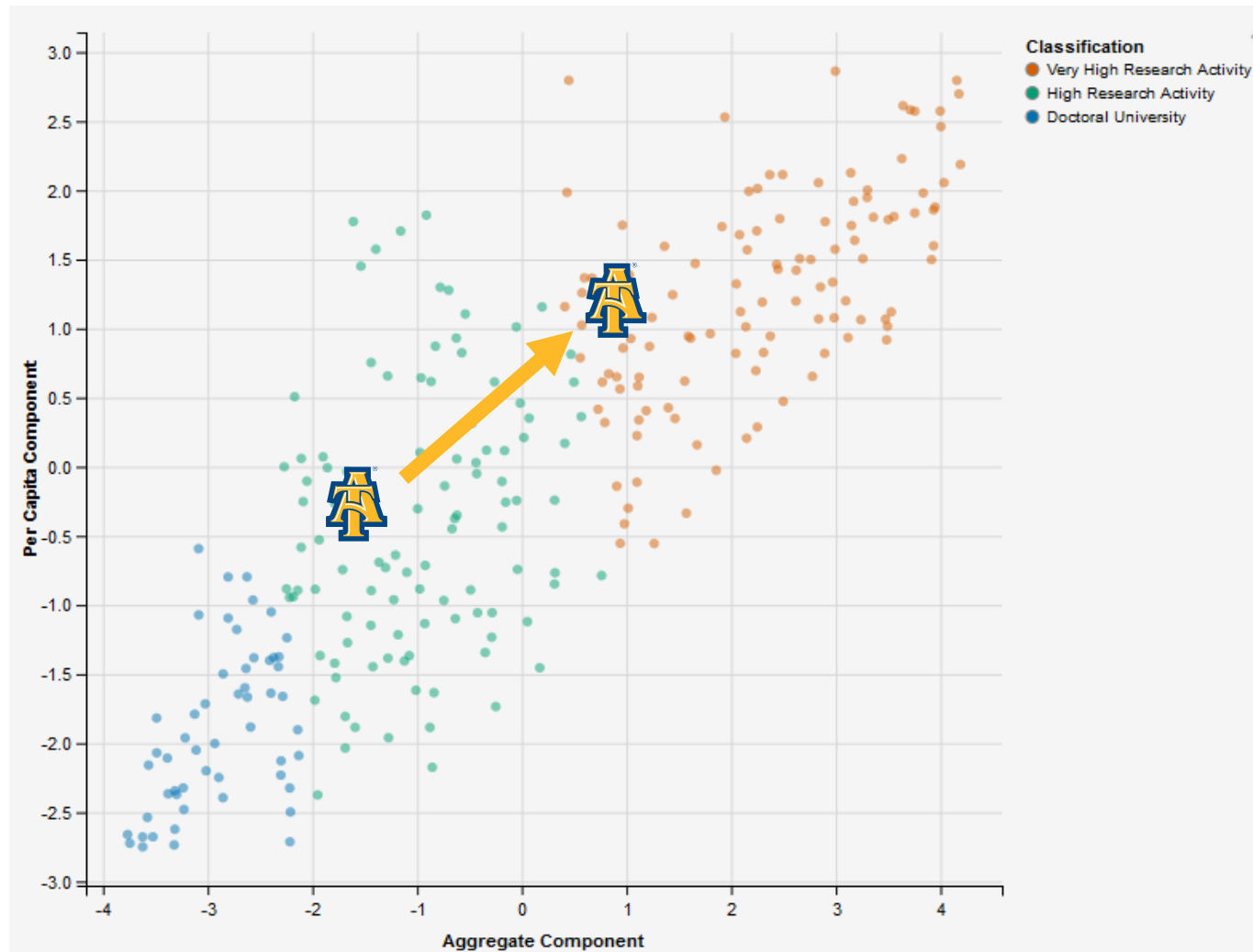


Eric R. Muth, Vice Chancellor for Research and Economic Development
Clay Gloster Jr., Vice Provost for Graduate Research and Dean of the Graduate College
Board of Trustees Meeting
2/18/2022

- Envisioning N.C. A&T's R2-R1 journey
- N.C. A&T's R2-R1 journey – Growth needed
- Summary of investments needed
- Investment strategies
 - > Invest in infrastructure
 - > Grow the research portfolio
 - > Increase doctoral degrees granted
- Questions

- R2: High Research Activity
 - > Minimum annual requirements:
 - >20 doctoral degrees granted
 - >\$5 million in research expenditures

- R1: Very High Research Activity
 - > STEM research expenditures
 - > Non-STEM research expenditures
 - > Research staff
 - > STEM doctorates conferred
 - > Humanities doctorates conferred
 - > Social Science doctorates conferred
 - > Other doctorates conferred
 - > Research faculty



	N.C. A&T (18-19)	R1 “Target”	Growth
STEM research expenditures	\$36,256,000	\$100,000,000	\$63,744,000
Non-STEM research expenditures	\$3,426,000	\$20,000,000	\$16,574,000
Research staff	23	65	42
STEM doctorates	35	70	35
Humanities doctorates	0	2	2
Social Science doctorates	6	16	16
Other doctorates	18	25	7
Research faculty	388	452	64

SUMMARY—BY 2030



**NEW
DOCTORAL
PROGRAMS**

3—5 new PhDs



**NEW FACULTY
LINES ALIGNED
WITH NEW
PROGRAMS**

Appx. 64



**FACILITIES AND
OTHER
INFRASTRUCTURE**

Significant Improvements



**SCIENTIFIC
EQUIPMENT**

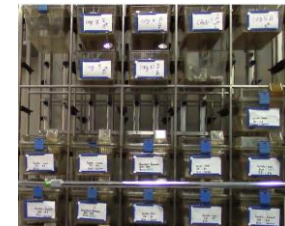
Updated Annually



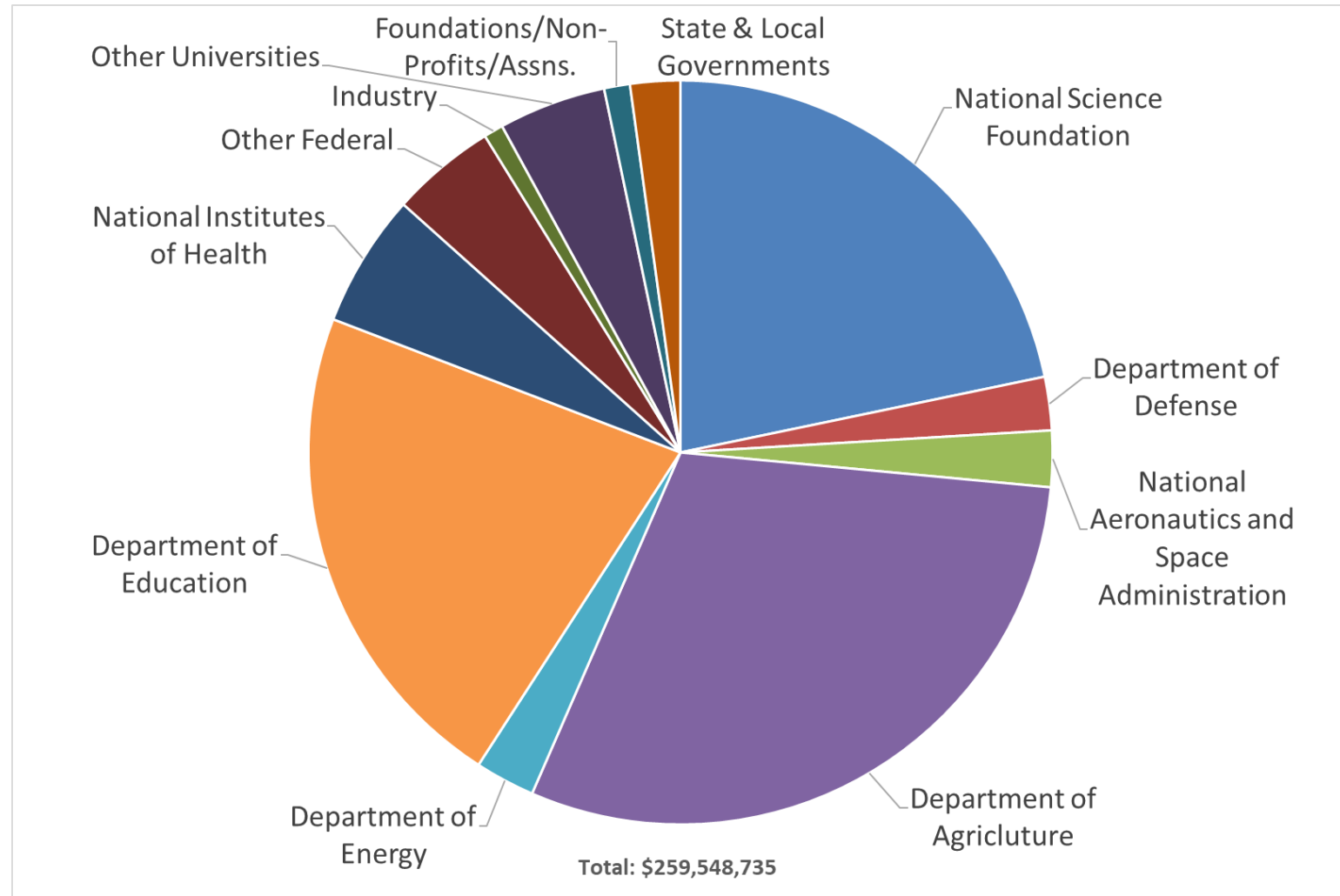
**INVESTMENT IN
DOCTORAL
ASSISTANTSHIPS**

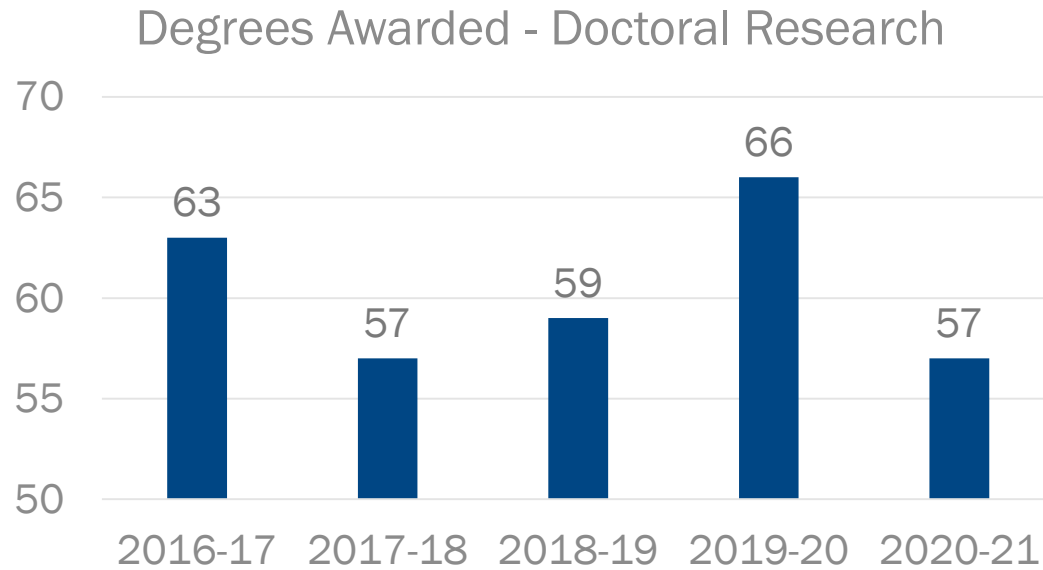
About 15 new yearly

- Engineering Research and Innovation Center (2/17/22)
 - > Opportunity for a Sensitive Compartmented Information Facility (SCIF) for performing sensitive and classified research
- Centers and institutes
 - > Centers of Excellence in Cybersecurity, Advanced Manufacturing, and Entrepreneurship and Innovation (Build Back Better initiative)
- Small animal care facilities (NIH Infrastructure grant)
- Gateway Research Park opportunities for:
 - > Academic and research programs such as the Joint School of Nanoscience and Nanoengineering (Biosafety Level 3 lab)
 - > Increased corporate engagement
 - > Entrepreneurship and innovation
- McKinsey & Company consultant space study



FY22 Total Awards	≥\$500k	<\$500K
183	27	156
Median Size of Awards		
\$105,000	for all awards	
\$954,536	for awards of ≥\$500k	
\$54,535	for awards of <\$500k	
<i>Awards as of 2-9-22, excludes de-obligations</i>		





- Intentionally increase the number of Doctoral Research degrees awarded.
- Work with external vendors to identify potential new programs with high student demand, employment demand, and impact on moving toward R1.
- Prioritize and add new Ph.D. programs with high student demand, employment demand, and impact on moving the institution to R1.
- Encourage the introduction of BS to Ph.D. degree programs rather than introducing Master's degree programs before Ph.D. programs.
- Investigate the feasibility of transforming current MS + Ph.D. programs into BS – Ph.D. programs.

Doctoral Degrees:

- AGRICULTURAL AND ENVIRONMENTAL SCIENCES (Ph.D.)
- APPLIED SCIENCE AND TECHNOLOGY (Ph.D.)
- COMPUTATIONAL DATA SCIENCE AND ENGINEERING (Ph.D.)
- COMPUTER SCIENCE (Ph.D.)
- ELECTRICAL ENGINEERING (Ph.D.)
- INDUSTRIAL AND SYSTEMS ENGINEERING (Ph.D.)
- LEADERSHIP STUDIES (Ph.D.)
- MECHANICAL ENGINEERING (Ph.D.)
- NANOENGINEERING (Ph.D.)
- REHABILITATION COUNSELING & REHABILITATION COUNSELOR EDUCATION (Ph.D.)
- SOCIAL WORK (Ph.D.) – Joint Program with UNC-Greensboro

QUESTIONS?

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