



Academic Affairs Committee

March 17, 2026

Information Item

AAC-3 Update on Research and Engagement

The UNCG Division of Research and Engagement provides strategic direction and guided support to faculty, research staff and students for research, scholarship and creative endeavors resulting in funded grants, contracts, innovation, and community engagement leading to knowledge production, student experiences, public impact, and economic prosperity.

1. FY24 HERD Survey Results and UNCG's Current Standing

The Higher Education Research and Development (HERD) Survey, administered annually by the National Science Foundation, is the nation's official benchmark for measuring research expenditures across U.S. universities. HERD data are used to assess institutional competitiveness, inform federal policy decisions, and determine national research rankings. The latest HERD survey results were released on December 23, 2025. For the first time, UNCG's research expenditures have surpassed the threshold (\$50M/Year) required for R1 classification. In the latest survey, UNCG's research expenditures were \$77.37M. This reflects an increase of 87% in the past two years. This increase elevates the ranking of UNCG amongst all universities, from #237 to #199 in the past one year. Amongst public universities, it ranks #143. Also worth highlighting is that it ranked first for research in education. in the range of approximately \$75M, sustaining the momentum we have built over the past several years.

While the national funding landscape is shifting, our HERD performance demonstrates that UNCG remains competitive and strategically aligned with federal priorities. Our trajectory keeps us on track toward R1-level competitiveness, with sustained investments in infrastructure, faculty development, and large-scale proposal activity.

2. Research Highlights

a. Opening of the First Spark Hub at a University campus

UNCG recently celebrated the opening of the Spark Hub in partnership with SparkNC and Guilford County Schools and is the first Spark Hub located on a university campus in North Carolina. Housed within the Center for Applied Research in Computer Arts, Digitization, and Esports (ARCADE) in the Division of Research and Engagement, the Hub is intentionally embedded in a research-active environment, integrating advanced digital innovation, artificial intelligence, immersive computing, and esports technology into the K–12 learning experience.

The Spark Hub expands access to high-technology education for high school students across Guilford County, providing exposure to artificial intelligence, cybersecurity, software development, robotics, and digital design. By situating students within a university setting, the initiative creates a clear and tangible pathway from K–12 engagement to undergraduate study and research participation.

This partnership strengthens UNCG’s role as a regional workforce development leader by building an early talent pipeline aligned with North Carolina’s growing technology and innovation sectors. The collaboration among SparkNC, Guilford County Schools, and UNCG represents a scalable model for university engagement in emerging technologies while advancing economic mobility and long-term competitiveness across the state’s commitment to economic mobility and innovation within North Carolina.

b. \$650K USDA NIFA Award to Dr. Hemali Rathnayake

Dr. Hemali Rathnayake has been awarded \$650,000 from the USDA National Institute of Food and Agriculture (NIFA), with the U.S. Department of Agriculture serving as the prime sponsor. The project is titled “*Innovative Bio-Based Sorbent Approach for Brackish Water Remediation and Agricultural Resilience*” and aims to advance work within the BRIGHT Institute on developing sustainable, bio-based materials to remove salts and contaminants from brackish water. Brackish water and soil salinity are increasing challenges for agriculture, particularly in coastal and drought-prone regions. Excess salinity reduces crop yields, degrades soil health, and threatens long-term food security. Traditional desalination technologies are energy-intensive and costly.

Dr. Rathnayake’s team is developing novel, bio-derived sorbent materials capable of selectively removing salts and pollutants from water in a more energy-efficient and environmentally responsible manner. This work is expected to improve irrigation water quality for farmers, enhance crop resilience and soil sustainability, reduce environmental footprint compared to conventional treatment systems and integrate advanced materials science with agricultural systems.

c. \$417K Award to Renee Norris for Eviction Mediation

Renee Norris in the Center for Housing and Community Studies has been awarded \$417,000 from Guilford County to expand eviction mediation services within the region. This funding will support the housing crises in the region by strengthening early-intervention mediation between landlords and tenants, reducing formal eviction filings, stabilizing housing outcomes for vulnerable populations and decrease strain on local courts and social services. Research will focus on how housing stability is directly linked to workforce participation, educational continuity, and public health outcomes. The work shows UNCG’s role as a research-informed partner to local government and demonstrates the tangible community impact of our applied research enterprise.

d. \$125K American Chemical Society Award to Dr. Kim Petersen

Dr. Kim Petersen, faculty member in the Department of Chemistry and Biochemistry and Dean of the Honors College and has been awarded a prestigious grant in the amount of \$125,000 from the American Chemical Society for her project titled “*Development of Novel Insertion Reactions into 1,2-Oxazetidines to Yield Interesting Heterocycles.*” The ACS Petroleum Research Fund supports fundamental chemistry research that helps scientists better understand how molecules are built and how they

behave. Dr. Petersen's work focuses on discovering new ways to construct complex molecules by developing innovative chemical reactions. In simple terms, her lab studies how small building blocks can be combined in new and efficient ways to create unique molecular structures.

Although this is basic research, it lays important groundwork for future advances in areas such as energy, advanced materials, and pharmaceuticals. By expanding the fundamental "toolkit" chemists use to build molecules, her work contributes to the broader chemical sciences community. The award also supports hands-on research training for undergraduate students, strengthening UNCG's role in preparing the next generation of scientists.

3. Federal Landscape and Research Outlook

The Division of Research and Engagement continues to advance UNCG's research enterprise, expanding opportunities for faculty, staff, and students to engage in high-impact scholarship and discovery. Research activity in FY26 Quarter 2 demonstrates strong faculty engagement and resilience, even amid a challenging national funding climate. While total award dollars (\$23.4M) and the number of awards (106) were lower than FY25 Q2 (\$40.8M; 149 awards), proposal submissions increased from 204 to 234, reflecting sustained momentum and continued pursuit of external funding.

The decrease in awarded funding is largely attributable to broader external factors, including shifts in federal agency priorities, program eliminations, and a reduction in large-scale funding opportunities. These challenges were compounded by a federal government shutdown that extended more than 40 days, delaying review cycles and funding decisions. In addition, many funding opportunities available during this quarter were foundation-based, typically offering smaller award amounts. Despite these headwinds, the increase in proposal activity underscores the strength, determination, and forward trajectory of UNCG's research community.

Given ongoing changes in the federal funding environment including shifting agency priorities, delayed appropriations cycles, and tighter discretionary allocations, we are observing a reduction in award volume relative to the past five years. This trend was anticipated and is consistent with national patterns. The focus moving forward will be on maintaining competitiveness amongst our researchers and strengthening partnerships to position UNCG to capitalize on emerging opportunities as federal stability improves.



J. Alan Boyette
Provost & Executive Vice Chancellor

UNCG Research Productivity and National Positioning: *FY24 NSF HERD Analysis*

Sherine O. Obare, PhD

Vice Chancellor for Research and Engagement



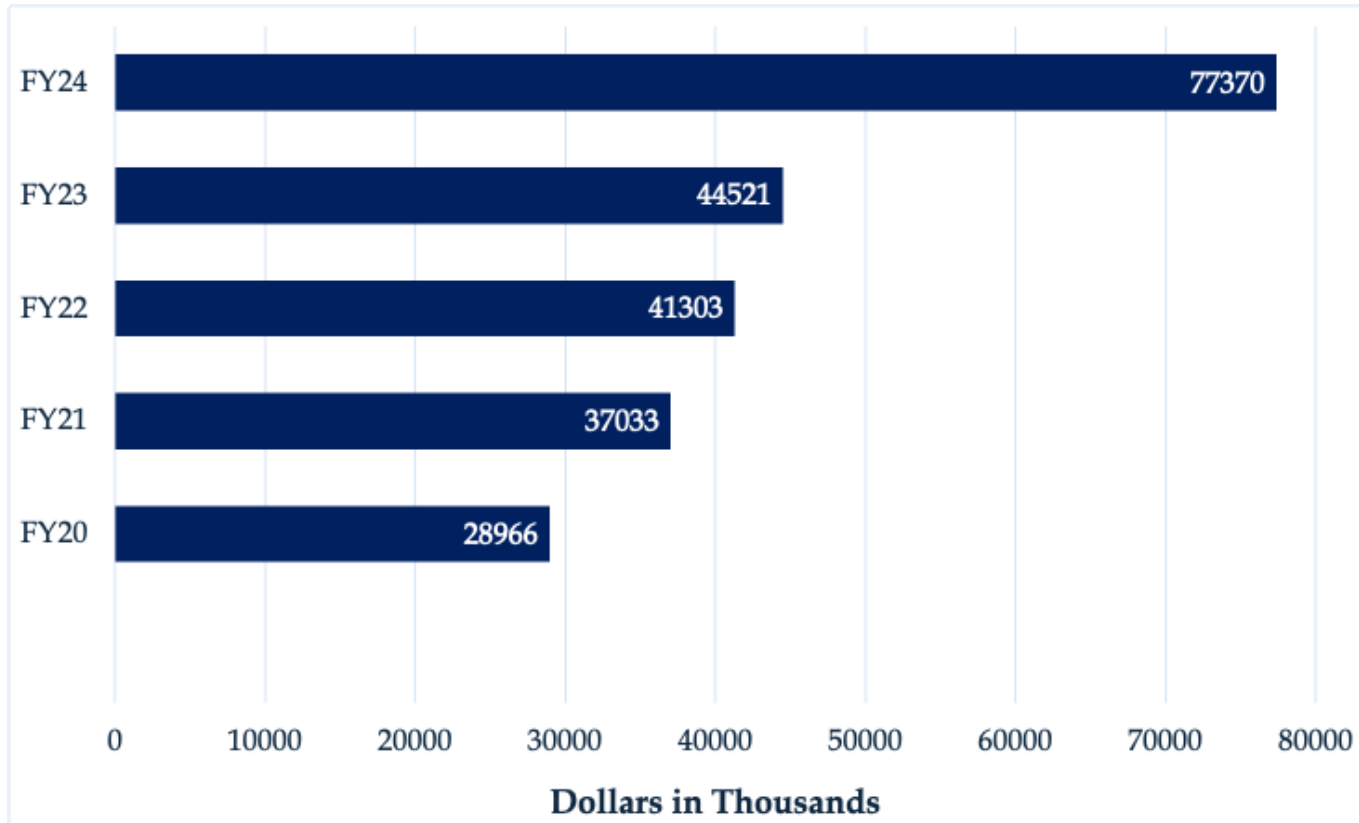
UNC
GREENSBORO

Research *and* Engagement

HERD SURVEY

- The HERD Survey is the primary source of information on research and development expenditures at U.S. colleges and universities that expended at least \$150,000 in separately accounted for R&D in the fiscal year.
- The most recent survey is for FY2024 and was released on December 23, 2025.
- The latest report shows 925 institutions.

UNCG HERD Data FY20-FY24



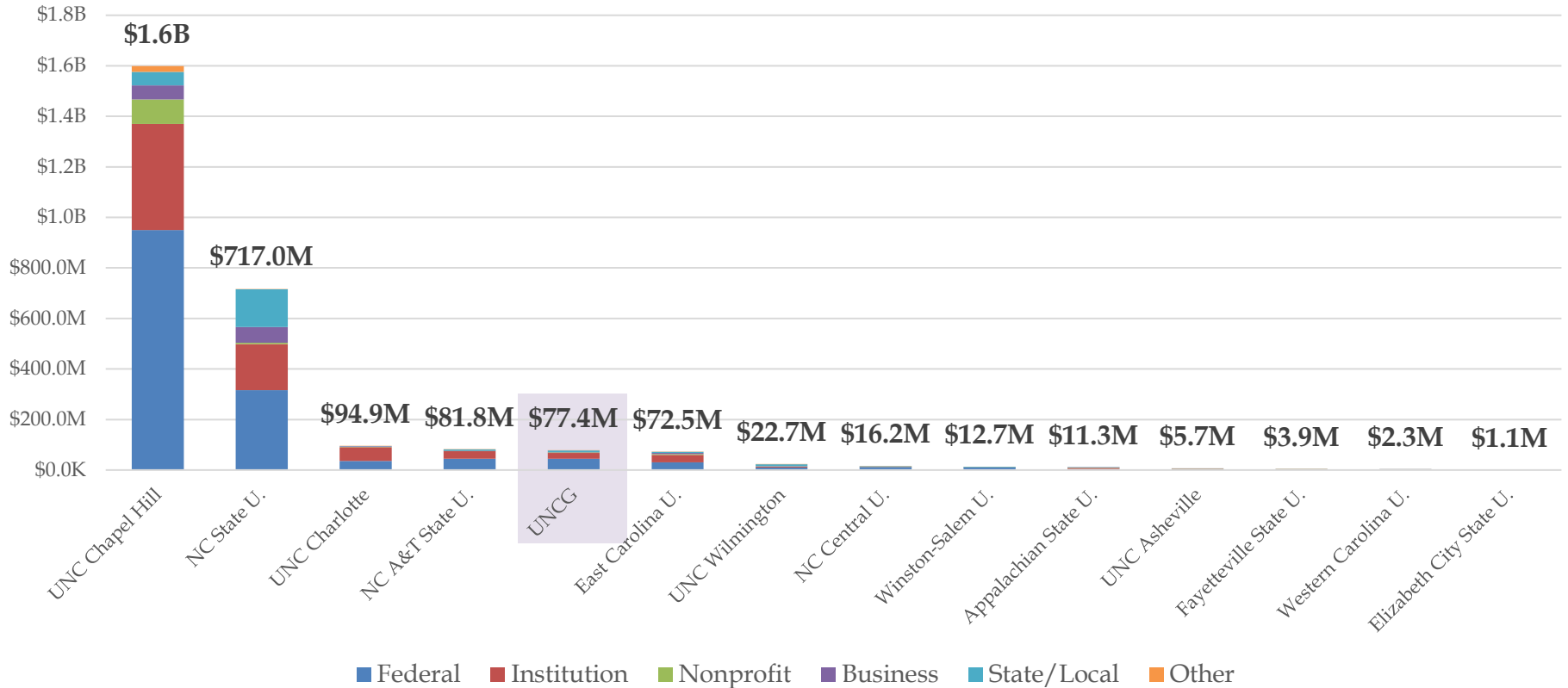
	National Ranking	UNC System Ranking
FY20	239	6
FY21	229	6
FY22	229	6
FY23	237	6
FY24	199	5

Comparative Analysis

- Total R&D by Source
- Federal R&D by Agency
- Non-S&E R&D by Field
- Selected Peer Groups
- Our Strategic Plan Goal

Total R&D by Source

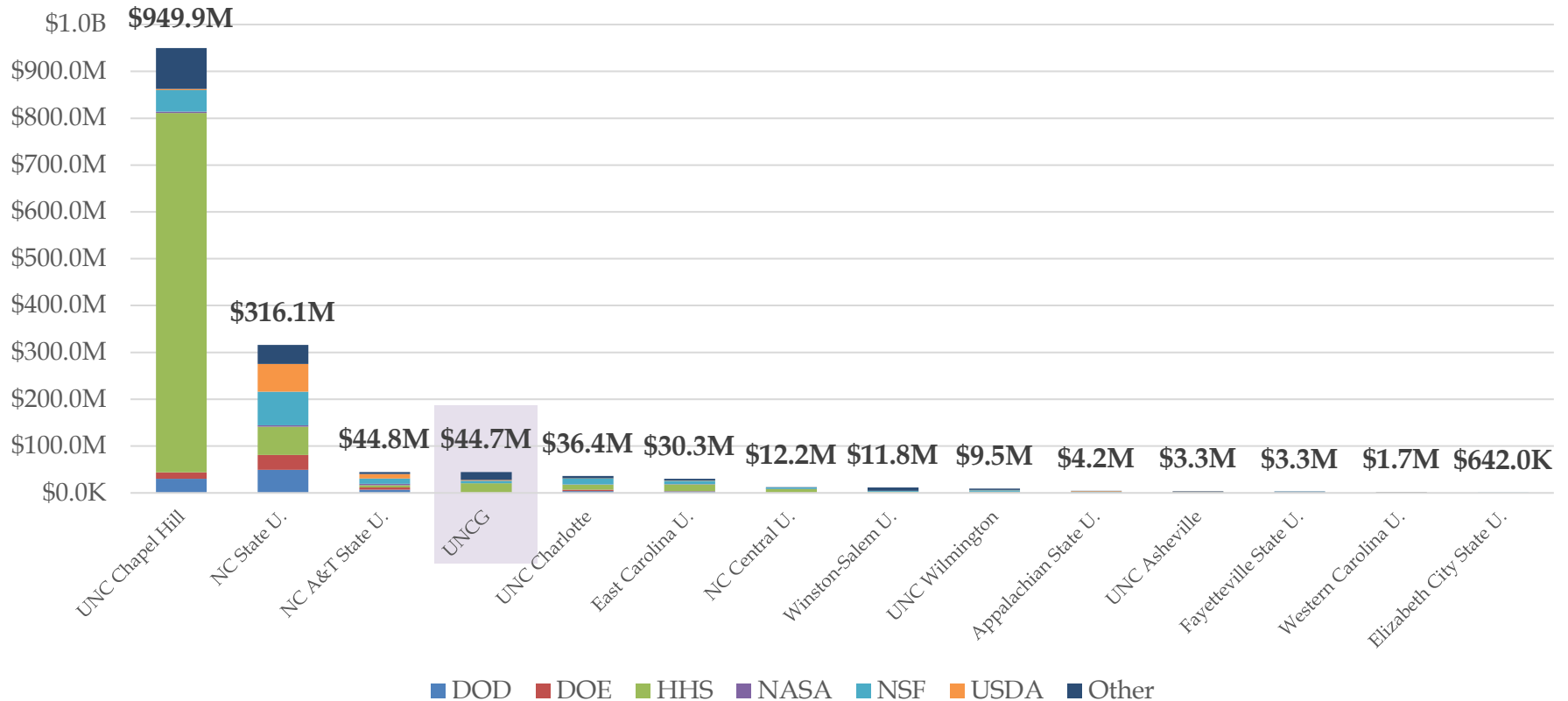
FY24



**UNC System R&D is largely dominated by UNC-Chapel Hill and NC State U.
UNCG is fifth in the System**

Federal R&D by Agency

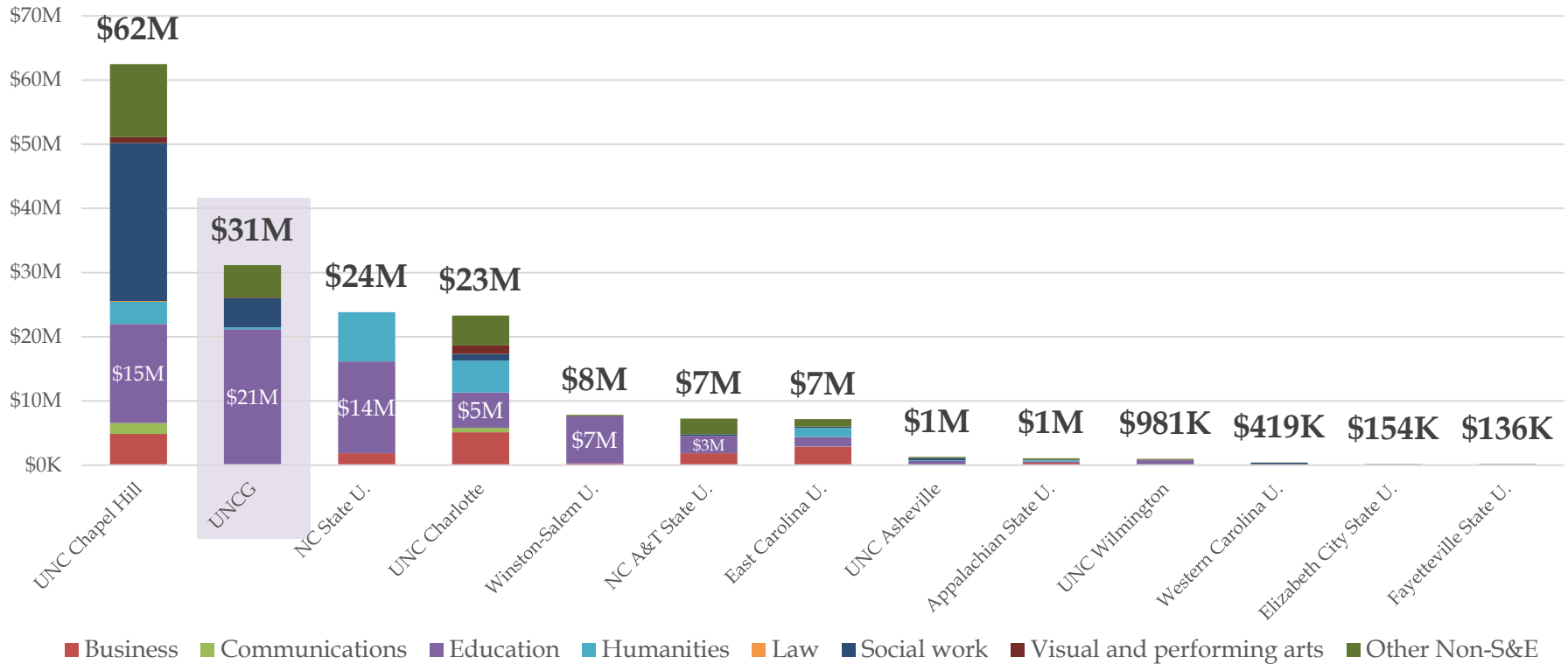
FY24



UNCG is fourth in the System for Federal R&D; one place better than its ranking for Total R&D.

Non-S&E R&D by Field

FY24, "S&E" = "Science & Engineering"



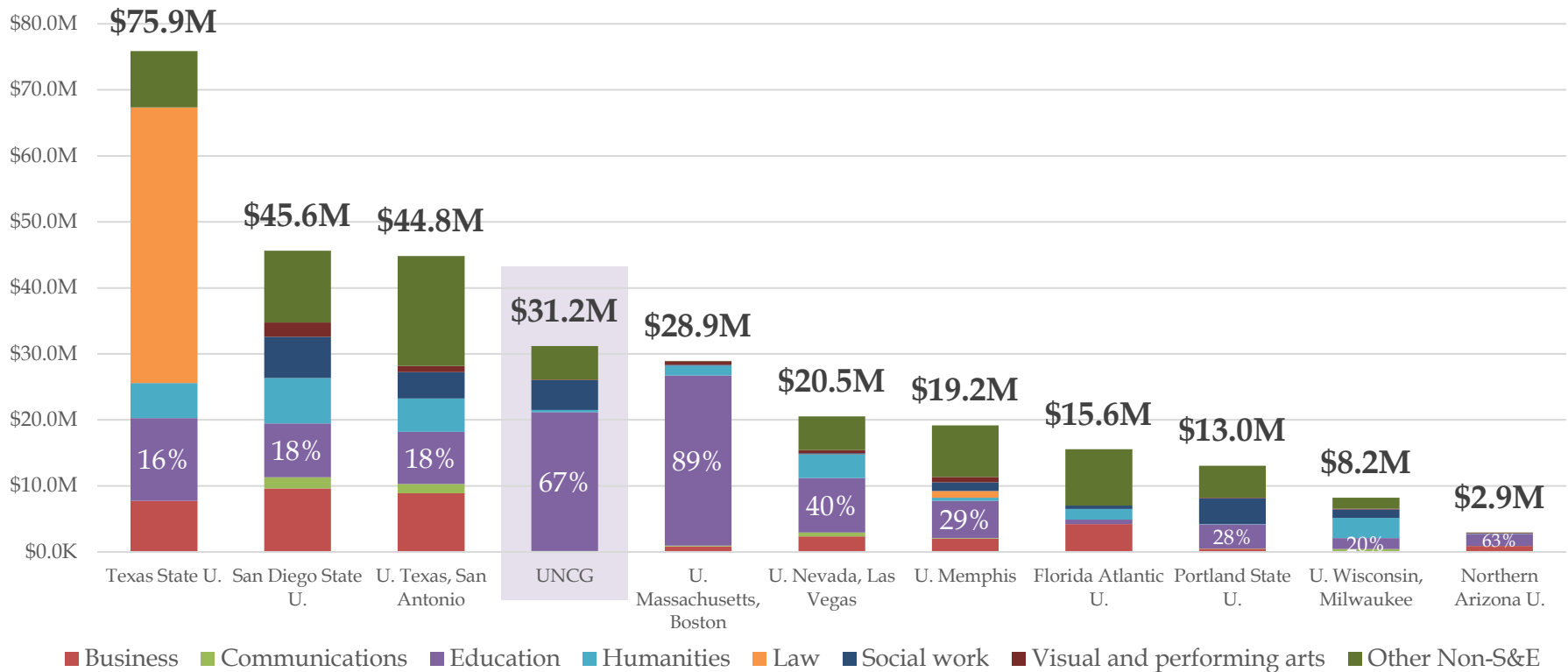
UNCG is second in the System in non-science & engineering R&D expenditures, with the highest Education R&D among all System institutions (\$21M)

Note: NC Central U. is excluded from the chart as they have \$0 in Non-S&E R&D

Comparing UNCG to its Peers

Non-S&E R&D by Field

FY24, "S&E" = "Science & Engineering"



UNCG is particularly strong in Education R&D, representing 67% of all non-science & engineering R&D expenditures, the second highest percentage among peers.

Our Carnegie Classification as a Research University

New Classification	Expenditures Required to Meet Criteria	Number of PhD Graduates Required to meet Criteria
R1 “Very High Research Spending and Doctorate Production”	\$50 M	70
R2 “High Research Spending and Doctorate Production”	\$5 M	20
Research Colleges and Universities	\$2.5 M	0

- In 2025, we were classified as a R2 University; based on FY23 data
- The next Carnegie designations will be 2028 and will be based on FY24, FY25 and FY26 data.

**PILLAR #2: ENHANCE
RESEARCH
EXCELLENCE AND
CREATIVE ACTIVITY
TO SUPPORT
DISCOVERY AND
SOCIETAL IMPACT**

Target 2030: Achieve
R1 Carnegie
classification and \$70
million research
expenditures.

**FORWARD
TOGETHER** 

UNC GREENSBORO
STRATEGIC PLAN
2025-2030

