



Vice President for Research & Partnerships

Town Hall

August 18, 2022



Our Strategic Plan and Research

Pillar 1 • Become a Top-Tier Public Research University

- Meet Association of American Universities-quality benchmarks to position OU among the top public universities in the U.S.

Pillar 5 • Enrich and Positively Impact Oklahoma, the Nation, and the World through Research and Creative Activity



NORMAN CAMPUS

RESEARCH HIGHLIGHTS

RECORD-BREAKING SPONSORED EXPENDITURES

Source: OU ResFS MMR

FY22



\$10.8M U.S. DEPT OF DEFENSE

58% ↑

\$16.7M NATIONAL SCIENCE FOUNDATION

46% ↑

\$54.4M STATE OF OKLAHOMA

25% ↑

\$10.1M U.S. DEPT OF HEALTH & HUMAN SERVICES

11% ↑

RECORD-BREAKING PROPOSALS SUBMITTED

Source: OU ORS

1,119 PROPOSALS SUBMITTED

\$812.5 MILLION TOTAL

819 PROPOSALS AWARDED

\$231.5 MILLION TOTAL

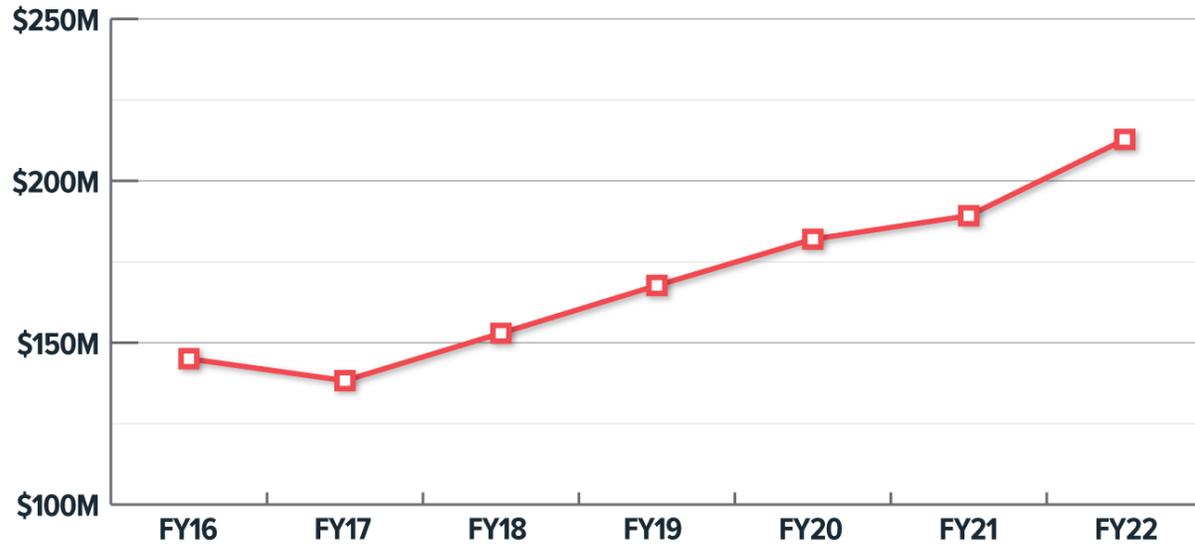
34% OVER FY21

OU Research Expenditures

NORMAN CAMPUS

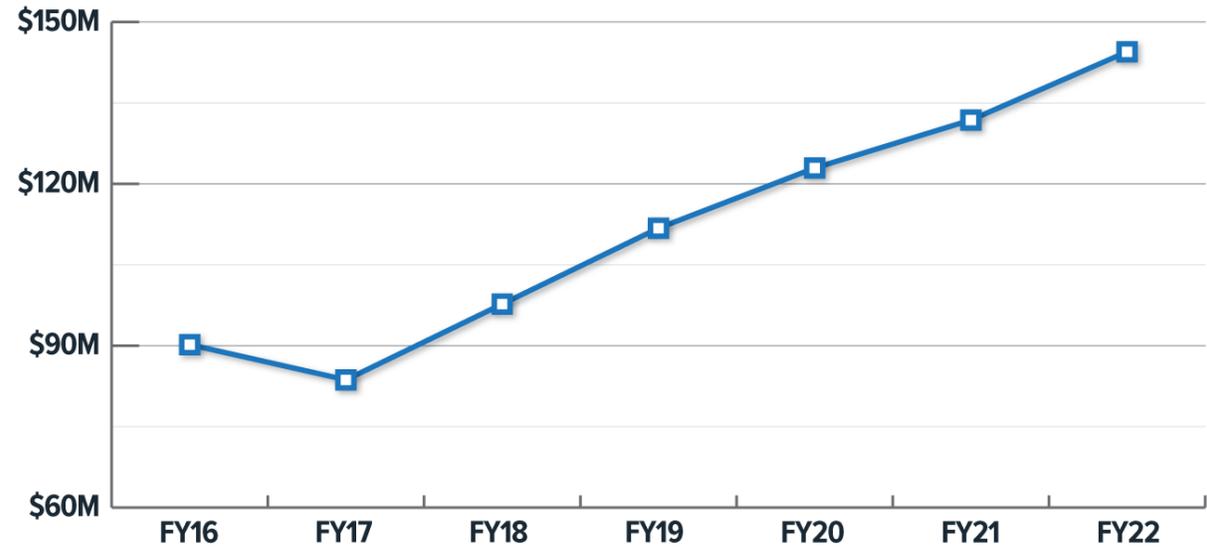
P5, S1, T2

Sponsored Research Expenditures*



* Source: OU RFS

Federal Sponsored Research Expenditures*

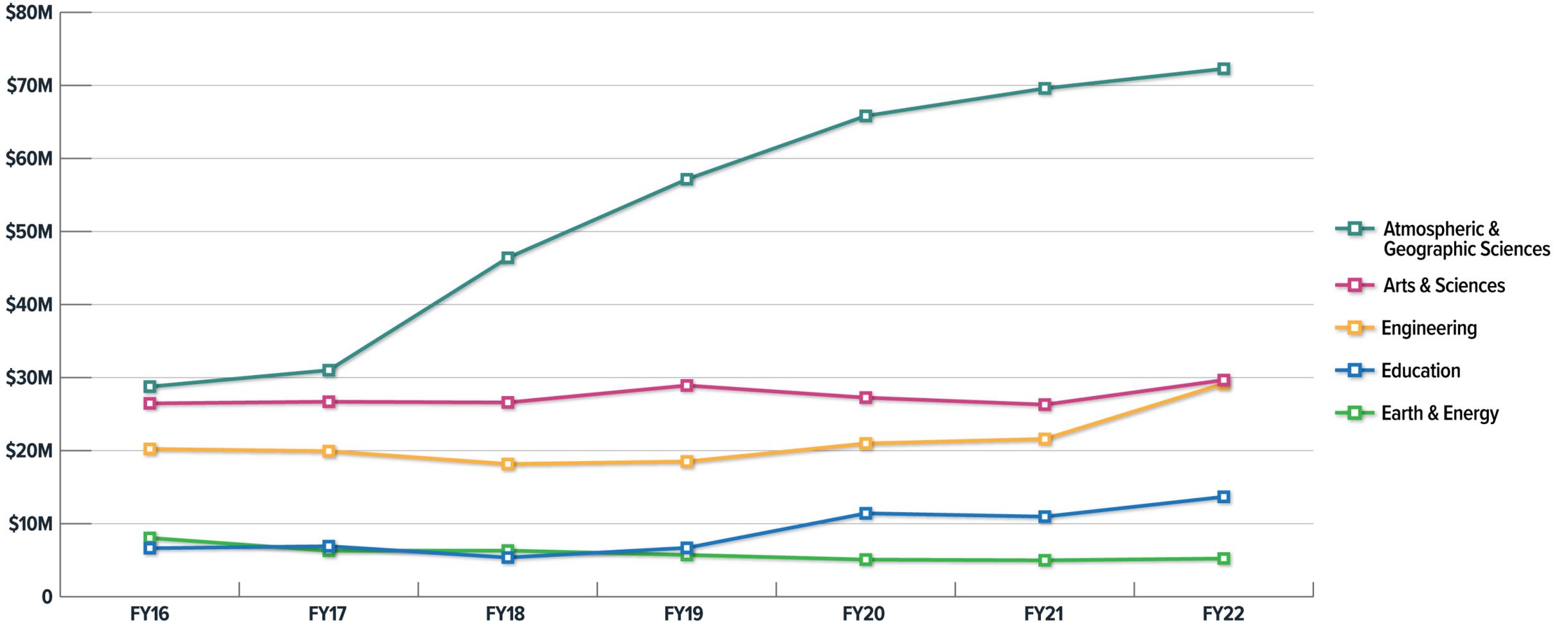


* Source: OU RFS

OU Research Expenditures

NORMAN CAMPUS

Sponsored Research Expenditures by College*



* Source: OU RFS

How are we doing relative to AAU indicators?

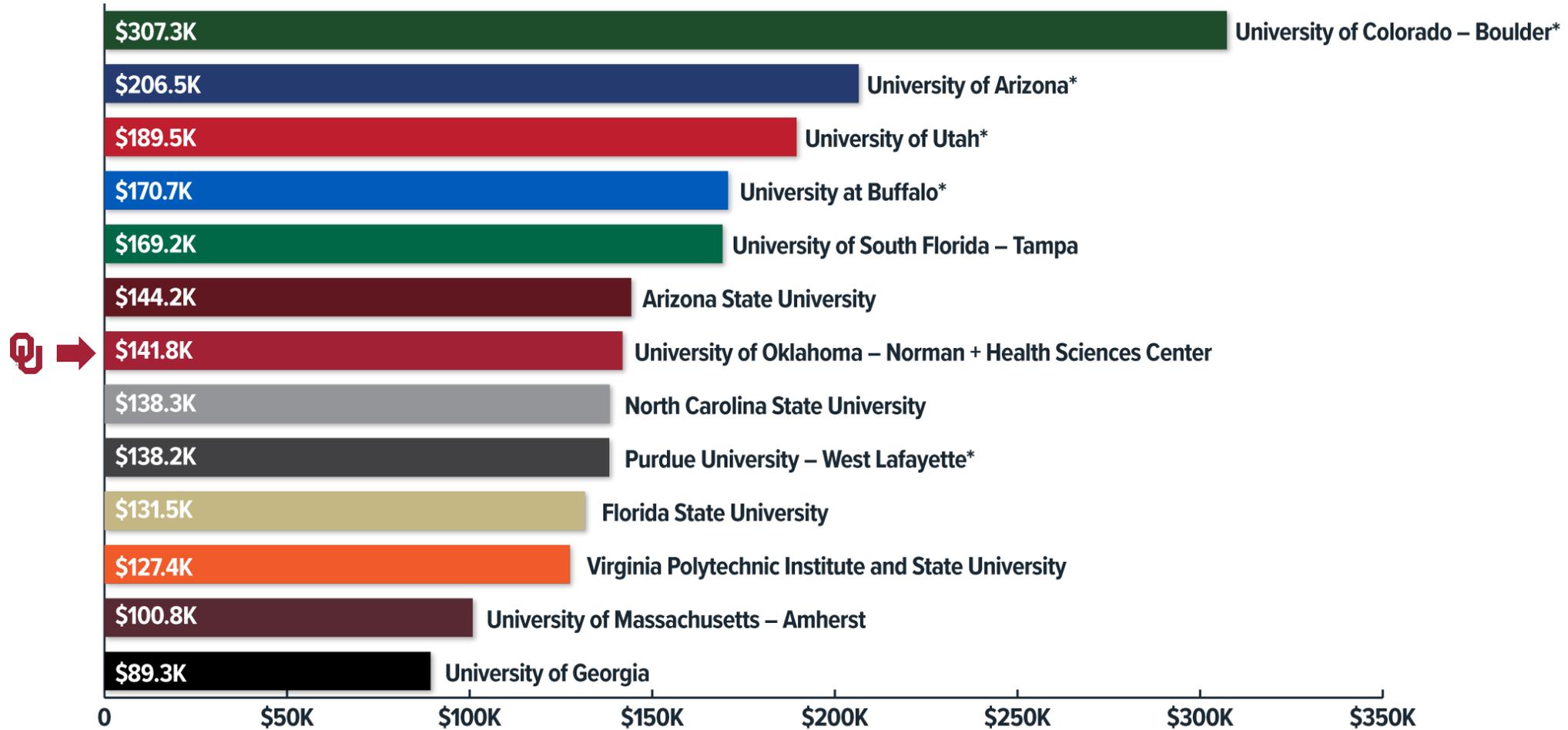
AAU Criteria Report Card Compiled on August 5, 2022			
	INDICATOR (Data Source)	NORMALIZED	
		Rank (90 members and competitors)	Change in Rank From Previous FY
Phase 1 [^]	Competitively Funded Federal Research Expenditures Support, in thousands (NSF), 2018 - 2020	68	 8
	Members of the National Academies (CMUP) [†] , 2017 - 2019	88	 2
	Faculty Awards, Fellowships, and Memberships (CMUP) [†] , 2017 - 2019	88 (tie)	 1
	Citations (Clarivate Web of Science Report) [‡] , 2014 - 2020	68	N/A
Phase 2 ^{^^}	USDA, State and Local, and Industrial Research Funding, in thousands (NSF), 2018- 2020	41	 3
	Doctoral Education - Doctoral Degrees Conferred (IPEDS) [§] , 2018 - 2020	82	 0
	Number of Postdoctoral Appointees (NSF) [§] , 2018 - 2020	67	 4
*U.S. members only. Prospective members should place among the third quartile of current members in most criteria to be competitive for invitation to the AAU.			
†Normalized figures specify number of tenured/tenure track faculty members per National Academy member or faculty award winner.			
‡Figures are the average of three five-year rolling periods, CY 2014-2018, 2015-2019, and 2016-2020. Normalized figures are citations per tenured/tenure-track faculty member.			
§Normalized figures specify number of tenured/tenure track faculty members per doctoral degree conferred or postdoctoral researcher.			
^Phase 1 metrics are primary indicators for viability and reflect institutional breadth and quality in research and education. Phase 2 metrics offer additional evidence of research and education.			
^^Phase 2 includes an assessment of undergraduate education that may be guided by unspecified input- and output-based metrics.			

- Generally doing well and moving up in ranking in the sector of research expenditures
- Generally doing well in number of post doctoral appointees
- Ranking is far too low (88/90) in number of doctoral degrees conferred
- Ranking is too low (88/90) in members of the NASEM and recipients of NRC highly prestigious awards

Peer Comparison of Federal Research Expenditures per Tenured/Tenure-Track Faculty

AAU Phase 1 Indicator

FY18-FY20 average



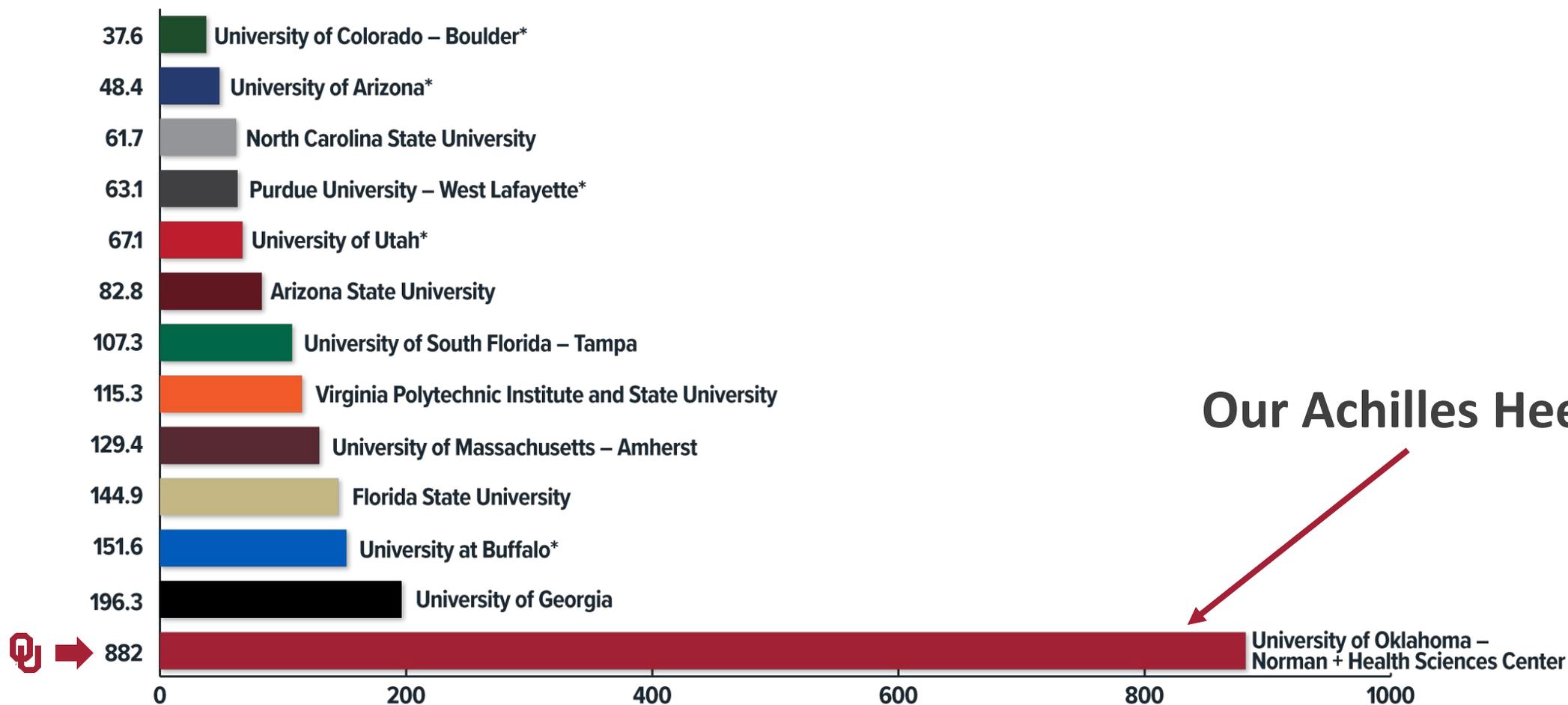
*Current AAU member

Source: NSF HERD Survey

Peer Comparison of Tenured/Tenure-Track Faculty per Academy Member

AAU Phase 1 Indicator

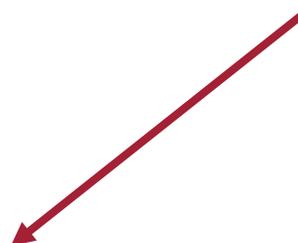
2017-2019 Average



*Current AAU member

Source: CMUP, Active and Emeritus Members

Our Achilles Heel



2022 Faculty Honorifics Committee (P5, S1, T5) Chartered by FSEC, Provost and VPRP



**Georgia
Kosmopoulou**
Chair



**Sarah
Ellis**



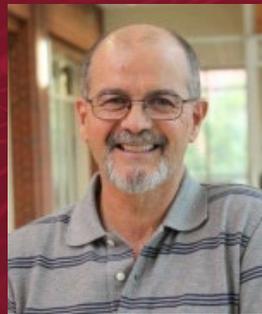
**Kyle
Harper**



**Diane
Horm**



**Greg
McFarquhar**



**Daniel
Resasco**



**Lynn
Soreghan**



**Caryn
Vaughn**



**Helen
Zgurskaya**

Research Strategy – Pillar 5, Strategy 2, Tactics 1,2,3

STRATEGIC RESEARCH VERTICALS

AEROSPACE, DEFENSE, AND GLOBAL SECURITY

Oklahoma Aerospace and Defense
Innovation Institute (OADII)



Gene Kirkland,
Executive Director

ENVIRONMENT, ENERGY, AND SUSTAINABILITY

Institute for Resilient Environmental
and Energy Systems (IREES)



Tim Filley, Director

THE FUTURE OF HEALTH

Integrative Life Sciences Institute
(ILSI)

Director to be
appointed in FY23

SOCIETY AND COMMUNITY TRANSFORMATION

Institute for Community and Society
Transformation (ICAST)



Shane Connelly,
Director

CROSS CUTTING FOUNDATIONS



> **Data Institute for Societal
Challenges (DISC)**

David Ebert, Director



> **Institute for Public Policy Research and
Analysis (IPPRA)**

Hank Jenkins-Smith, Co-Director | Carol Silva, Co-Director



> **Center for Quantum Research
and Technology (CQRT)**

Venky Venkatesan, Director



> **Advanced Radar Research Center (ARRC)**

Robert Palmer, Executive Director

Oklahoma Aerospace & Defense Innovation Institute (OADII)



Developed partnerships with Oak Ridge National Lab, Air Force and Army

Received a **\$25M** investment to develop advanced research facilities on campus and a presence in the OKC Innovation District

Project Creation & Management

- **\$5M** Tinker/OC-ALC sustainment/modernization
- **\$10M** Additive Manufacturing
- **\$3M** Supply Chain Risk Management
- **\$120M** Radar Innovations (expected over next few months)
- **\$3M** Autonomous vehicles (\$5M additional expected)
- **\$10M** expected on c-UAS



Institute for Resilient Environmental & Energy Systems (IREES)

Project Creation & Management

- **Energy & Infrastructure**

Hydrogen Economy; Carbon Capture and Storage; Sustainable Transportation (DOE, NSF, DOT)

\$4M awarded; \$45M pending

- **Earth Systems**

Urban Integrated Field Laboratory; Integrated Soil-Crop-Weather Monitoring Network in the Peruvian Amazon (DOE, USAID)

\$1.5M awarded; \$25M pending

- **Latin America Sustainability Initiative**

4 new MOUs with Peruvian universities

\$2M awarded; \$4M pending



Integrative Life Sciences Institute (ILSI)

- ILSI director search will launch in Fall 2022
- New grant awards in FY22 align well with the ILSI strategic vertical plan:
 - **\$27M** in NIH awards (Phase 1 COBRE in medical bioimaging, Phase 3 COBRE in structural biology, 5 new R01 awards)
 - **\$2M** in NSF awards (2 Pandemic Prevention awards)



Institute for Community & Society Transformation (ICAST)

- Center for the Ethics of Indigenous Genomic Research (CEIGR) grant award
- NSF Safe and Trustworthy Computing (SaTC) grant award
- Multiple proposals submitted to the Administration for Children and Families on evaluating Head Start early childhood education programs
- ICAST awarded 4 seed grants (20K to 30K) in partnership with DISC from pool of 23 outstanding applications



Data Institute for Societal Challenges (DISC)

- Awarded \$240,441 in seed funding to 23 OU research teams from six colleges across OU including partnerships with OUHSC.
- Engaged more than 704 faculty and administrators through a variety of research team development activities.
- Launched 6 communities of practice that connect researchers to work on important topics impacting society.



Center for Quantum Research & Technology (CQRT)

- Increased CQRT faculty from 15 to 19 and established a Quantum Engineering Program
- CQRT faculty involved in two **\$1M** grants (Keck Foundation and NSF PIPP)
- Submitted proposals for NSF MRSEC, DOE EFRC, and NSF MIPS
- Initiated collaborations with IIT Madras, Imperial College, and KIT
- Held inaugural Quantum Workshop



Institute for Public Policy Research & Analysis (IPPRA)

Project Creation & Management

- Partnered on awards totaling more than **\$7M** to date for FY22-23 including:
 - Two projects partnering with Sandia National Labs
 - Projects with the DOE, EPA, NSF, NOAA and NYC



Advanced Radar Research Center (ARRC)

- The ARRC has become an NSF “Community Instruments and Facilities” center
- Radar Innovations Lab building 1.6 is in design with completion planned for summer 2023
- ARRC radars have recently supported several important field programs for NASA and NOAA
- The nation’s largest near-field scanner will soon be installed at the ARRC



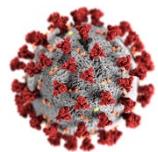
VPRP Seed Funding in Alignment with Lead On Strategic Plan

Pillar 5, Strategy 2, Tactic 5

VPRP Internal Investments to Seed Growth (2020 – present)

- COVID-19 Related Research Seed Grant, Spring 2020, \$357K
- Inequities in Academic Research, Summer 2020, \$199K
- Big Idea Challenge (BIC)*, Spring 2021, \$630K
- Strategic Equipment Investment Program (SEIP), Summer 2021, \$152K
- Social Sciences, Humanities, and Arts Seed Grant Program (SSHA), Summer 2021, \$148K
- Match Program in Support of Postdoctoral Researchers, Fall 2021, \$134K
- Significant Impact Research Grant Program*, Fall 2021 - present, \$39K

**In Progress*



Research Council Faculty Investment Program (FY19 & FY20)

21 awarded in FY19 out of 52 total submissions

17 grants awarded in FY20 out of 39 total submissions

- Grants are awarded monthly during the academic year for a 1-year award period
- OU investment: \$293K in FY19, \$245K in FY20

Outcomes --- X21 ROI in grant awards

- 19 published peer-reviewed articles and 5 manuscripts under review
- 54 total external proposal submissions with 23 grant awards of ~\$7.7M
- 71 conference presentations or invited talks
- 2 books published and 1 book under contract
- 3 exhibits/performances
- 1 MS thesis, 1 PhD dissertation
- 1 symposium organized (Tulsa Race Massacre Centennial)

**Congressional and State Affairs
Hollye Hunt, Executive Director**

Pillar 5, Strategy 1, T3 / Strategy 2, T3

Congressional & State Affairs (P5, S1, T3 / S2, T3)

- **Strong Interactions with Congressional Delegation with Focus on Federal Funding**
- **Support in DC from various firms**
 - Lewis-Burke Associates (NSF, DOE, EDA, NIH)
 - Clark Hill (NOAA, NASA)
 - Steptoe (DoD)
 - Cornerstone (DoD)
- **Close partnership with State Legislature and Governor's Office to Advance OU Research interests**

LEWIS-BURKE

ASSOCIATES LLC

(NSF, DOE, EDA and NIH)

CLARK HILL

(NOAA, NASA)

Steptoe

(DoD)

 CORNERSTONE
AN EMPLOYEE-OWNED COMPANY

(DoD)

**Center for Faculty Excellence
Research and Creative Activities Team**

Pillar 5, Strategy 1, Tactic 4

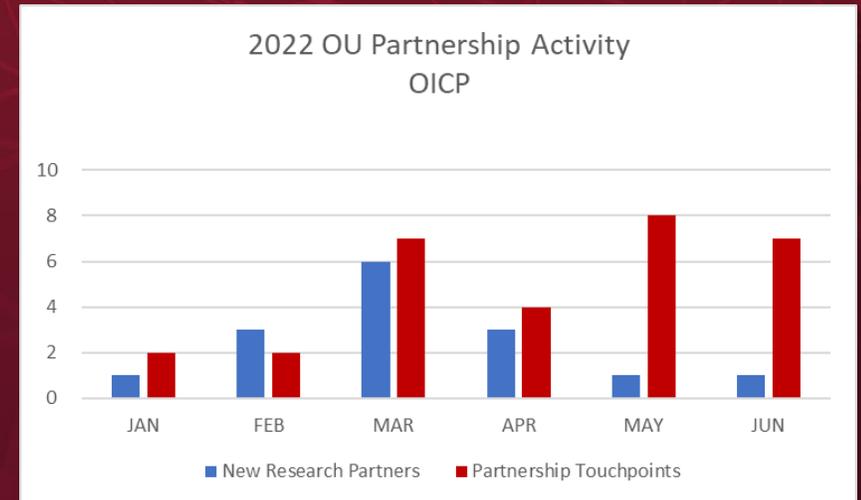
Research Focused Events with the OU Center for Faculty Excellence

- Informational
 - OU research systems
 - Research compliance
 - Federal agency systems
- Faculty Workshops with Lewis Burke to learn about Federal Agency Direction and Opportunities
- Monthly OU Networking events with Strategic Verticals and Foundational Institutes
- Proposal development workshops

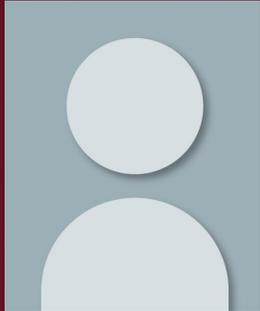


Office of Innovation & Corporate Partnerships (OICP) Pillar 5, S1, T6,8

- Increased annual rate of disclosures by 24%, from 49 to 65.
 - Simplified process to file disclosures to accelerate filings.
 - Launched disclosure information campaign
- Launched and conducted two iPath cohorts - a training and support resource for researchers to ideate and develop capital strategies.
 - 12 total innovations
 - 58% OU IP
 - 75% OU IP or “Know-How”
 - 100% OU personnel
- Corporate Partnerships section involved in 15 new partnership agreements from start of calendar year.



2022 Faculty Senate Research Advisory Committee



Emily Johnson

Chair, Modern Languages



Steven Crossley

Chemical, Biological, & Materials Engineering



Kalenda Eaton

African & African American Studies



Nathan Goodman

Electrical & Computer Engineering



Richard Lupia

Geosciences / SNOMNH



Elinor Martin

Meteorology



Tamera McCuen

Construction Science



Amy McGovern

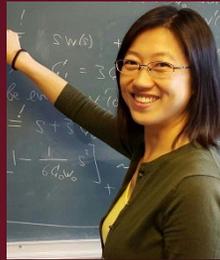
Computer Science



Helen Zgurskaya

Chemistry & Biochemistry

Research Council Members 2023



Ying Wang

Chair, Math



Mohammad Almasri

MLLL



Elizabeth Avery

Music



Firat Demir

Econ



Ellen Greene

Classics & Letters



Russell Jones

Philosophy



Kimberly Marshall

Anthropology



Sarah Robbins

Univ. Libraries



Uldarico Sarmiento

Drama



Lara Souza

Micro/Plant



Catalin Teodoriu

PGE



Kendra Williams-Diehm

Ed Psych



Michael Wimberly

Geography & Env.



VICE PRESIDENT FOR
RESEARCH AND PARTNERSHIPS
The UNIVERSITY of OKLAHOMA

RESEARCH AND CREATIVE ACTIVITY AWARDS BANQUET

2022

Pillar 5, Strategy 5, Tactic 7

Early Career Awards

Annual Award for Excellence in Research Grants

Award for Excellence in Research in Engineering and Applied Science

Award for Excellence in Research in the Natural Sciences

Award for Excellence in Research, Design, and Creative Expression in
the Humanities and the Fine Arts

Award for Excellence in Research in the Social Sciences

Award for Excellence in Transdisciplinary, Convergent Research

Award for Excellence in Research Service and Administration



What to Expect in FY23

- Standing up the Integrative Life Sciences Institute
- Continue Enhanced Support for Center-Scale, Nationally Competitive Proposals to NSF, DOE, NIH and other Federal Agencies
- Continue Internal Seed Funding Initiatives through VPRP and related centers and institutes
 - New COVID-19 Relief Program (to be conducted through the Research Council)
 - Research Council Faculty Investment Program
 - Research Council Junior Faculty Fellowship Program
 - Strategic Equipment Investment Program (3rd offering)
 - Match Program in Support of Postdocs to Stimulate Research and Creative Activities (2nd offering)
 - Significant Impact Research Grant Program – teaching buyout for Spring 2023
 - Others TBA
- Research and Creative Activity Awards – launch process September 15