

# Annual Report of Graduate Education and Research Activity

Joshua A. Robinson

Office of the Associate Dean for  
Graduate Education and Research  
2022/23



**PennState**  
College of Earth  
and Mineral Sciences



# 2023 Graduate Student NSF- Fellows



## Awardees

- Haley Jones, materials science and engineering
- Juliana Drozd, geosciences
- Jessica Sly, materials science and engineering
- Ava Spangler, geosciences
- Aiden Ross, materials science and engineering

## Honorable mention

- Frances Meyer, geosciences
- Erik Schoonover, geosciences
- Ryan Spangler, materials science and engineering
- Lydia Spychalla, meteorology and atmospheric science
- Michael Thomas, materials science and engineering



# Faculty Awards

NSF CAREER Award

**Kimberley Van Meter** and **Feifei Shi**

---

## **Jose Fuentes**

- 2022-2023 Fulbright Scholar
- American Geophysical Union's Ambassador Award
- Named an AGU Fellow "for seminal contributions to advancing the understanding of the processes controlling gas exchange between vegetation and the atmosphere"

## **Cynthia Brewer**

- International Cartographic Association 2023 Carl Mannerfelt Gold Medal

## **Kimberly Lau**

- 2023 Sloan Research Fellowship

## **Shimin Liu** and **Guijie Sang**

- Society of Petroleum Engineer Rossiter Raymond Award



# Faculty Awards

## John C. Mauro

- Academician of the World Academy of Ceramics

## Long-Qing Chen

- Elected as a foreign member of the Academia Europaea

## Zi-Kiu Liu

- Honorary symposia, TMS, “Materials Genome, CALPHAD, and a Career over the Span of 20, 50, and 60 Years: An FMD/SMD Symposium in Honor of Zi-Kui Liu”

## Dipanjan Pan

- College of Fellows, American Institute for Medical and Biological Engineering (AIMBE)

## Russell Johns

- Society of Petroleum Engineer SPE Anthony F. Lucas Gold Medal for Technical Leadership

## Barbara J. Arnold

- Society for Mining, Metallurgy, and Exploration Howard N. Eavenson Award "in recognition of her unsurpassed contributions to the coal industry."



# Faculty Awards

## Major PSU Awards

### **Christopher Fowler**

- Penn State Award for Faculty Outreach

### **Peter Heaney**

- Penn State Atherton Award for Excellence in Teaching

### **Jon-Paul Maria**

- Penn State Faculty Scholar Medal for Engineering

+ many more regional and university awards.

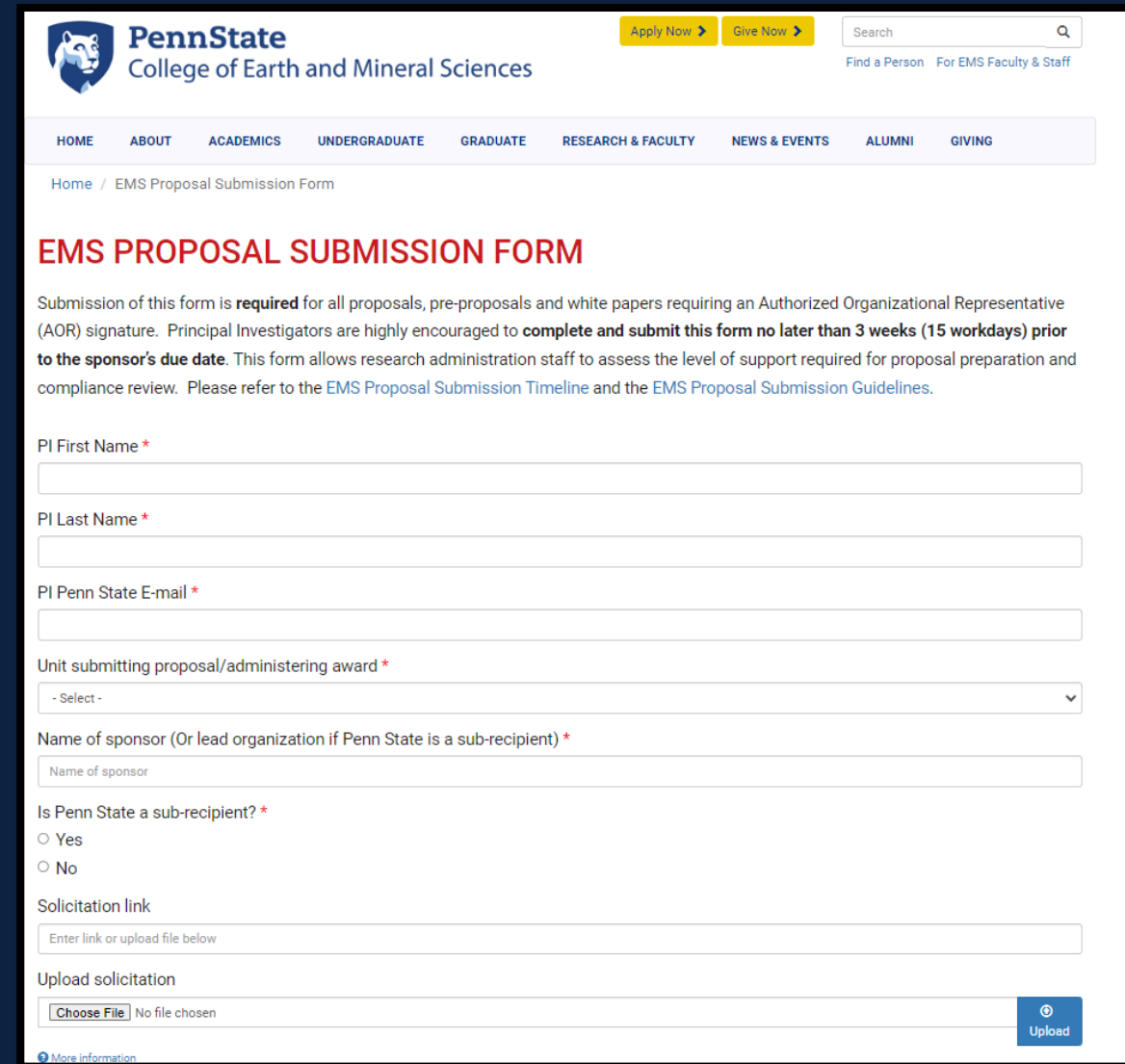


# EMS Proposal Submission

- PIs must **submit EMS Proposal Submission Form >3 weeks before** the submission date.

Gives ADGER staff time to ensure guidelines are followed, budgets adhere to RA21, approvals are secured, and all forms, representations, and certifications are accurate and complete.

- PIs are expected to **submit final version** of all required proposal documents to the EMS Research Office at least **>5 workdays before** the due date.



The screenshot shows the Penn State College of Earth and Mineral Sciences website. The header includes the Penn State logo, navigation links (HOME, ABOUT, ACADEMICS, UNDERGRADUATE, GRADUATE, RESEARCH & FACULTY, NEWS & EVENTS, ALUMNI, GIVING), and a search bar. The main content area is titled "EMS PROPOSAL SUBMISSION FORM". Below the title, a paragraph states: "Submission of this form is **required** for all proposals, pre-proposals and white papers requiring an Authorized Organizational Representative (AOR) signature. Principal Investigators are highly encouraged to **complete and submit this form no later than 3 weeks (15 workdays) prior to the sponsor's due date**. This form allows research administration staff to assess the level of support required for proposal preparation and compliance review. Please refer to the [EMS Proposal Submission Timeline](#) and the [EMS Proposal Submission Guidelines](#)." The form fields include: "PI First Name \*", "PI Last Name \*", "PI Penn State E-mail \*", "Unit submitting proposal/administering award \*" (a dropdown menu), "Name of sponsor (Or lead organization if Penn State is a sub-recipient) \*" (a text field), "Is Penn State a sub-recipient? \*" (radio buttons for Yes and No), "Solicitation link" (a text field), and "Upload solicitation" (a "Choose File" button and an "Upload" button). A "More information" link is at the bottom left.

# EMS Graduate Education & Research, 2022/23

**798**

FALL ENROLLED  
GRADUATE STUDENTS  
(-2.9%)

**61**

DOCTORAL  
DEGREES  
CONFERRED  
(-11.6%)

**155**

MASTER'S  
DEGREES  
CONFERRED  
(+6.9%)

**\$160.1M**

PROPOSALS  
TOTAL (+11.6%)

(360 PROPOSALS SUBMITTED)

**\$48.7M**

AWARDS  
TOTAL (-9.2%)

**\$46.6M**

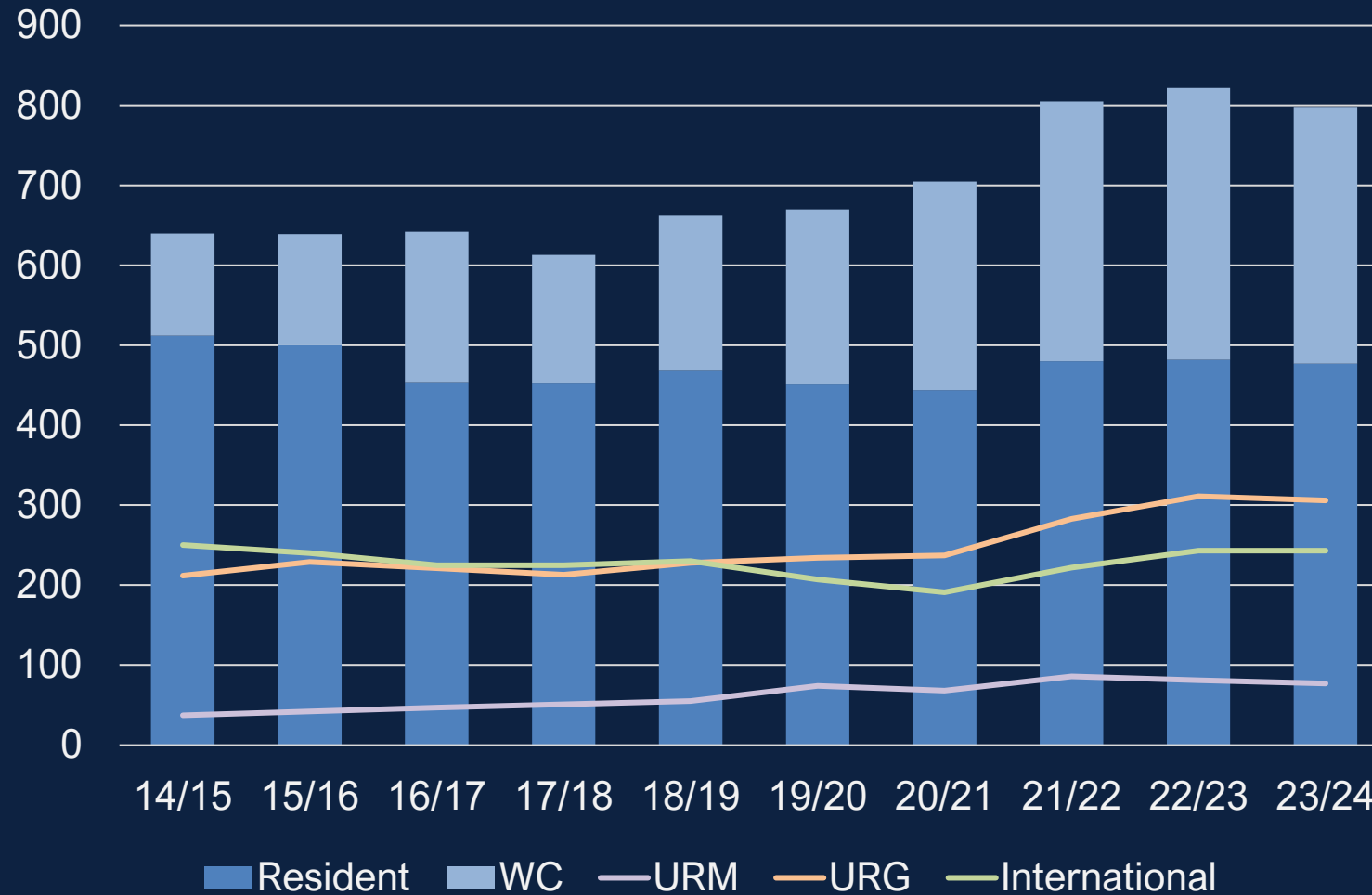
DIRECT FACULTY  
EXPENDITURES  
(+5.0%)

Proposals, Awards and Expenditures follow assignment of credit by  
faculty home unit for all research activities across the university



**PennState**  
College of Earth  
and Mineral Sciences

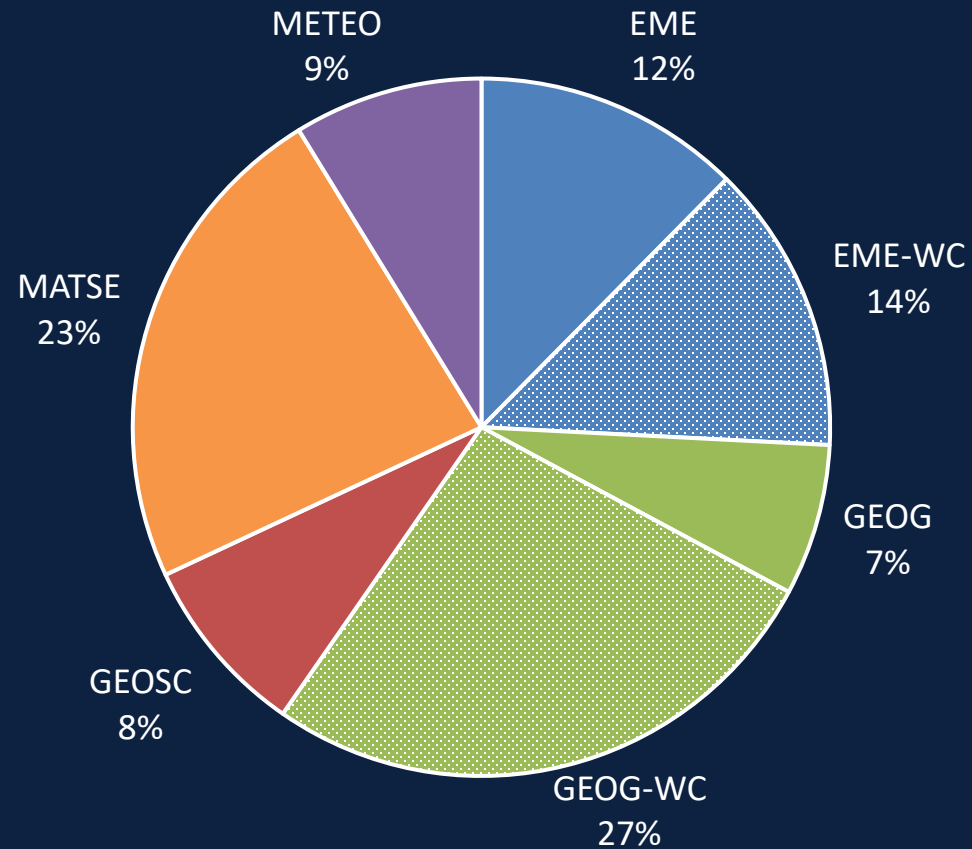
# Fall Graduate Student Enrollment, 2014-2023



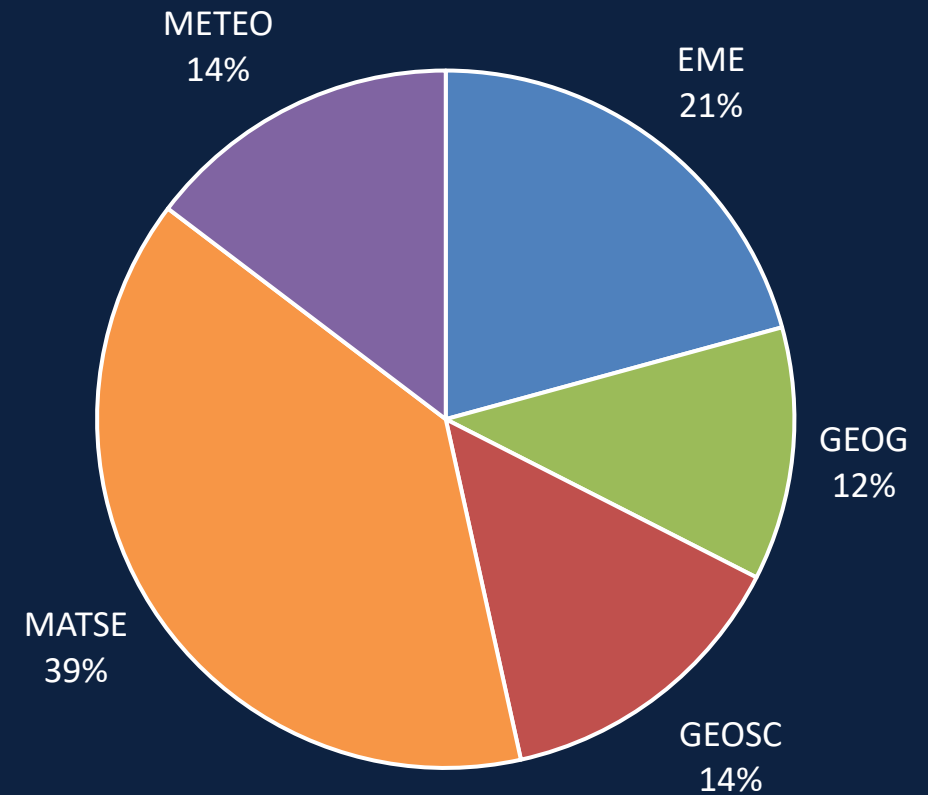


# Fall 2023 Graduate Enrollment by Department

**798** TOTAL GRADUATE  
STUDENTS

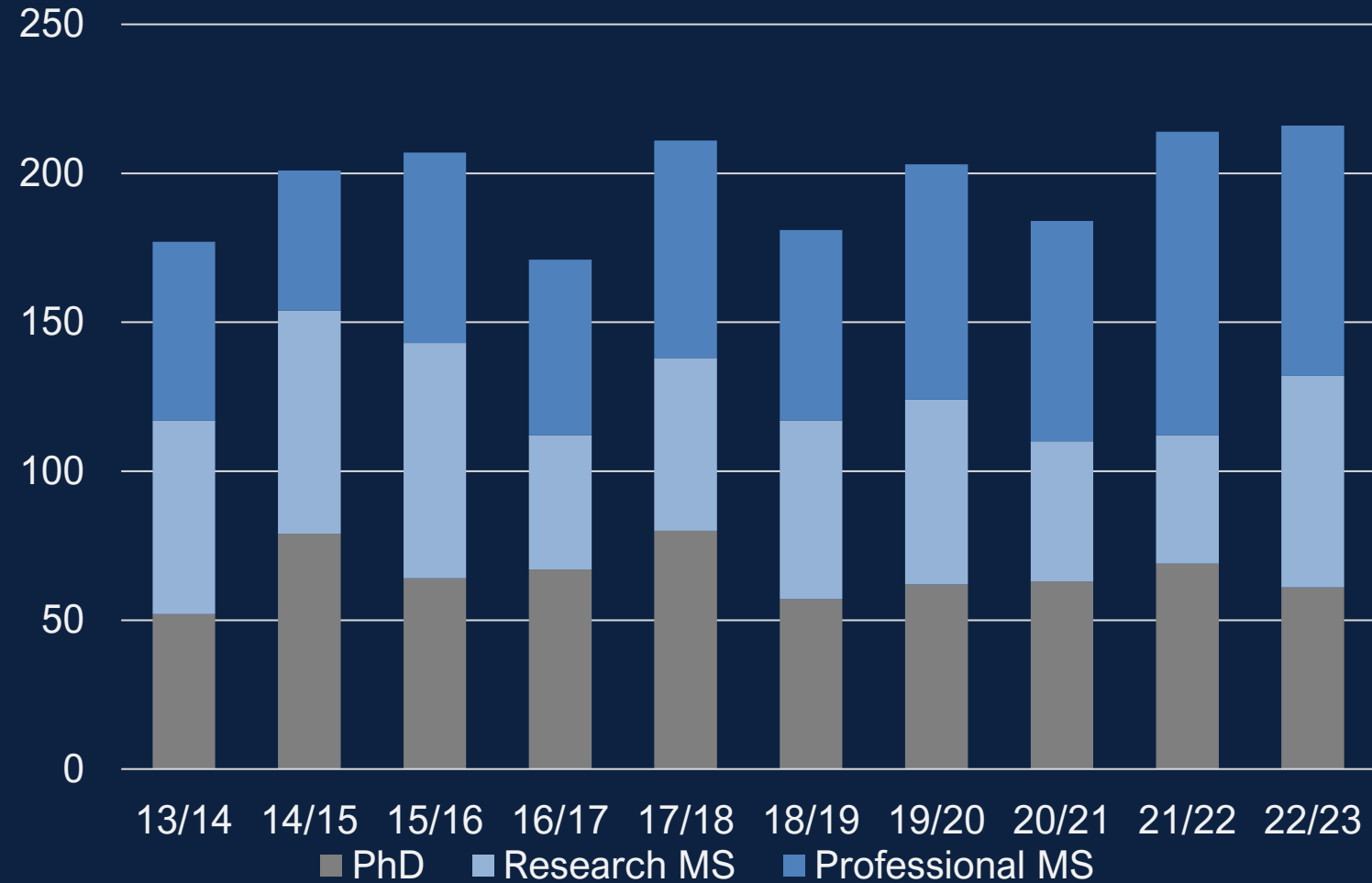


**477** RESIDENT GRADUATE  
STUDENTS

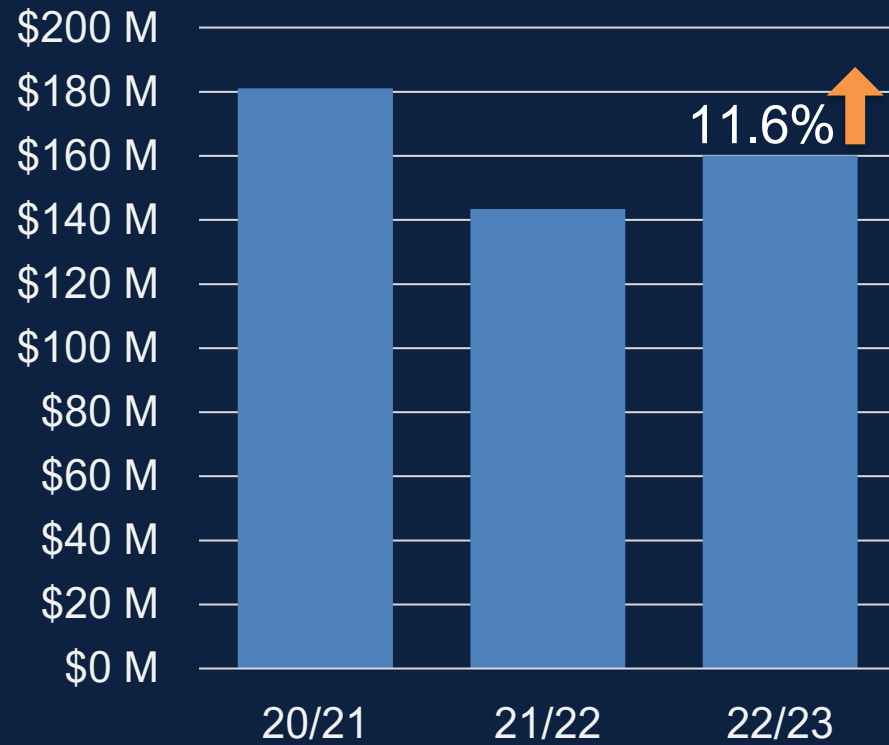


# Graduate Degrees Conferred, 2013-2022

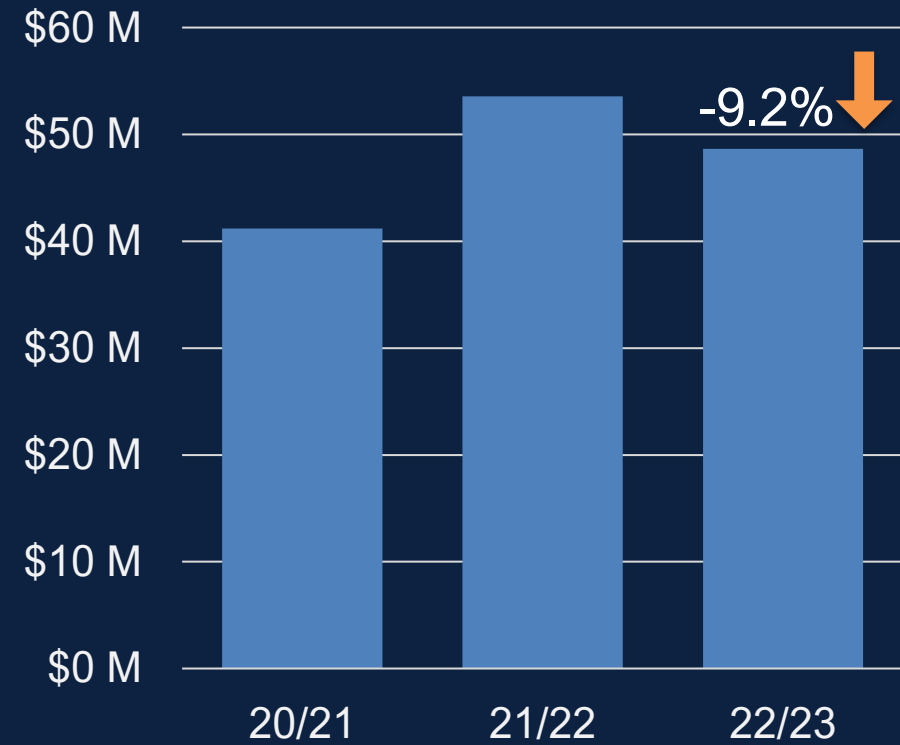
**216**  
GRADUATE  
DEGREES  
2022/23



# Research Proposal and Award Trends

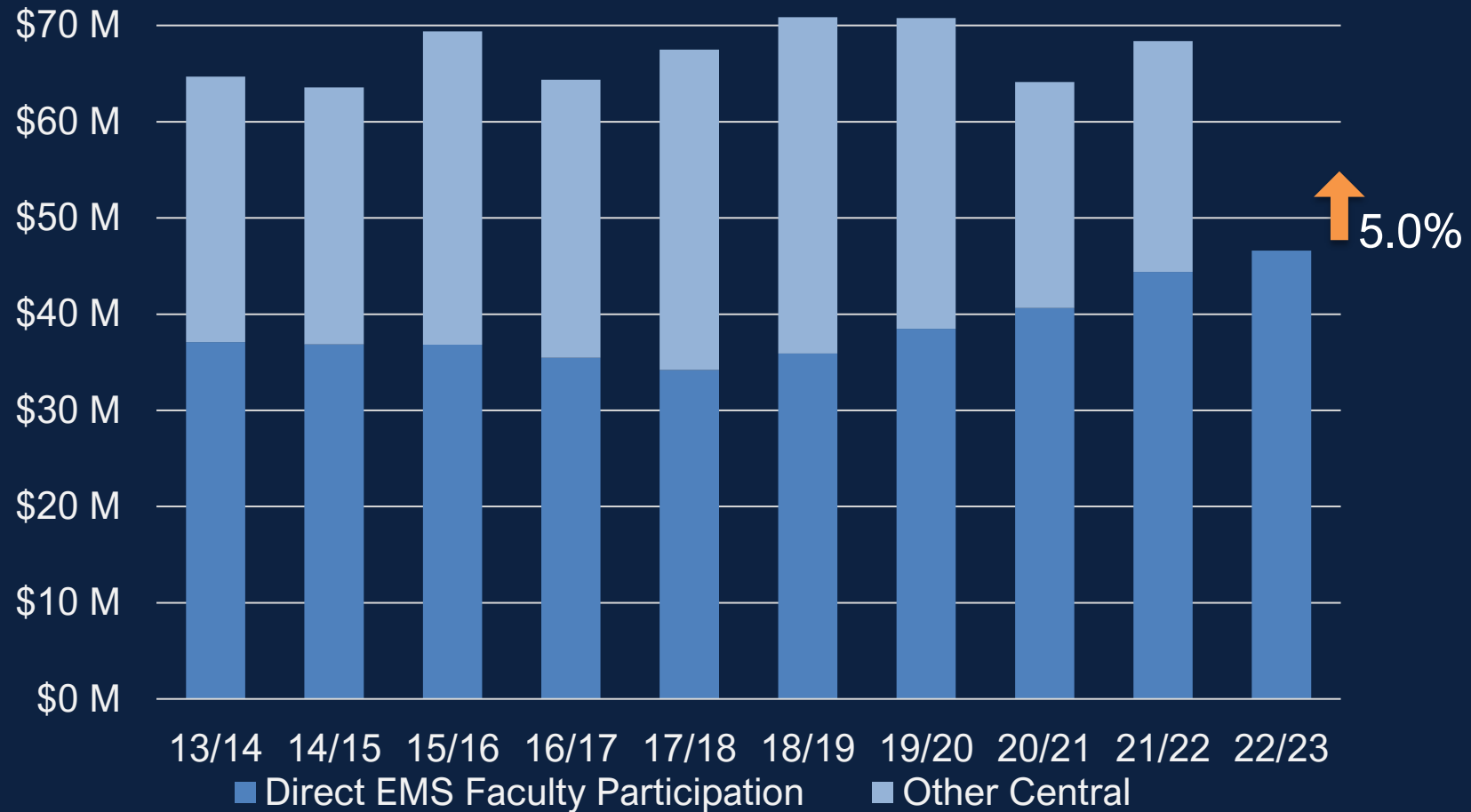


Proposals



Awards

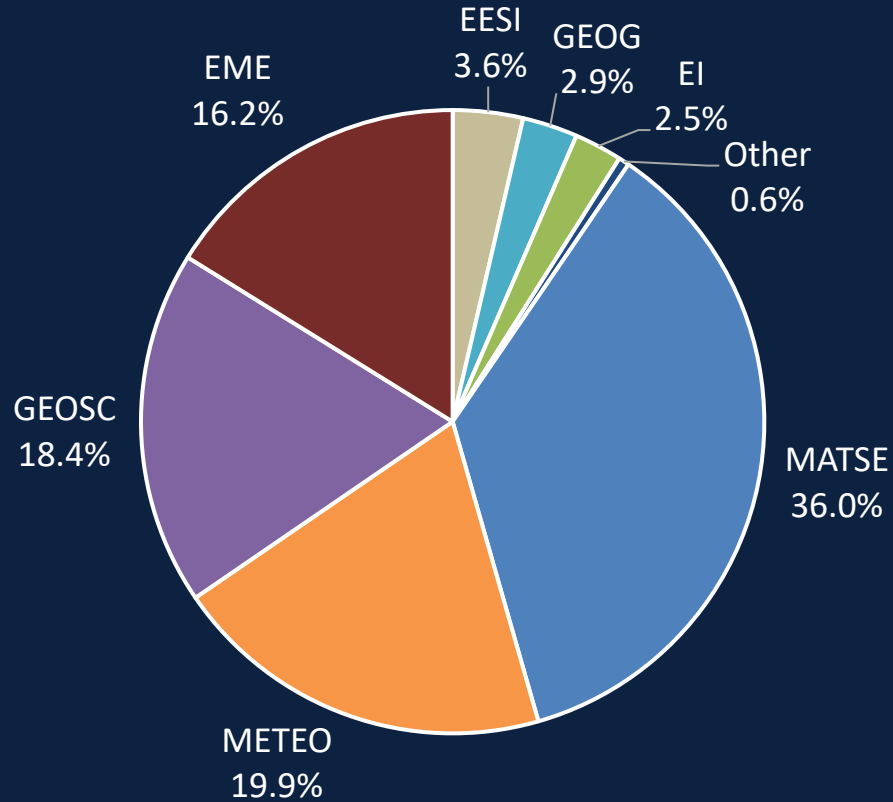
# Total Research Expenditures, 2014-2023



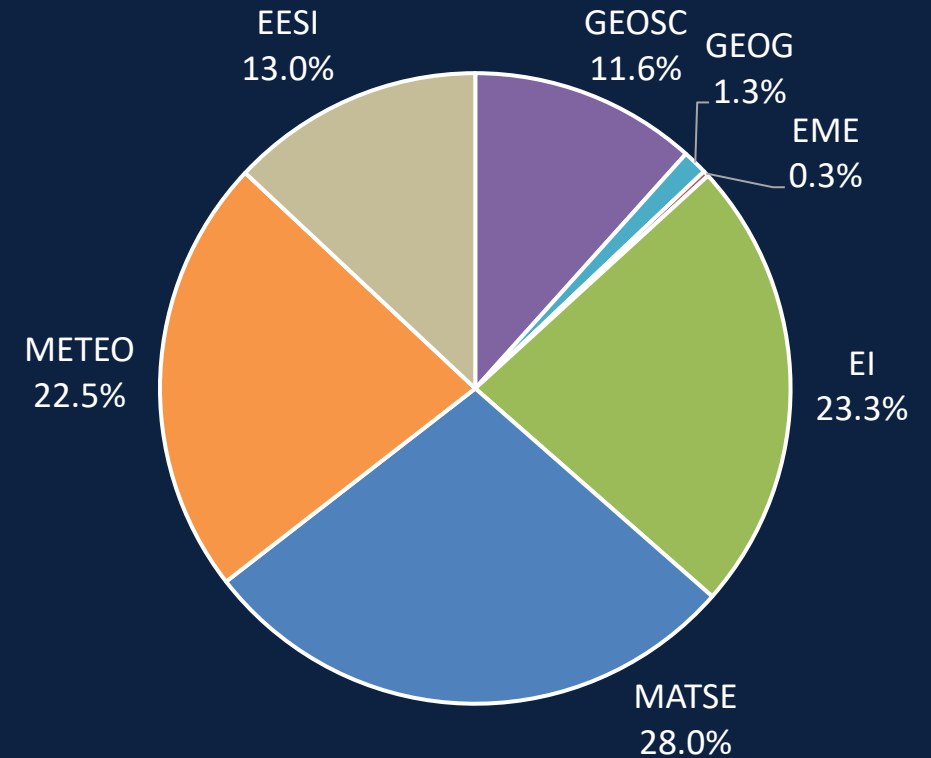


# Research Expenditures FY23

**\$46.6M** DIRECT FACULTY  
EXPENDITURES



**\$43.8M** EXPENDITURES  
MANAGED BY SUBUNIT

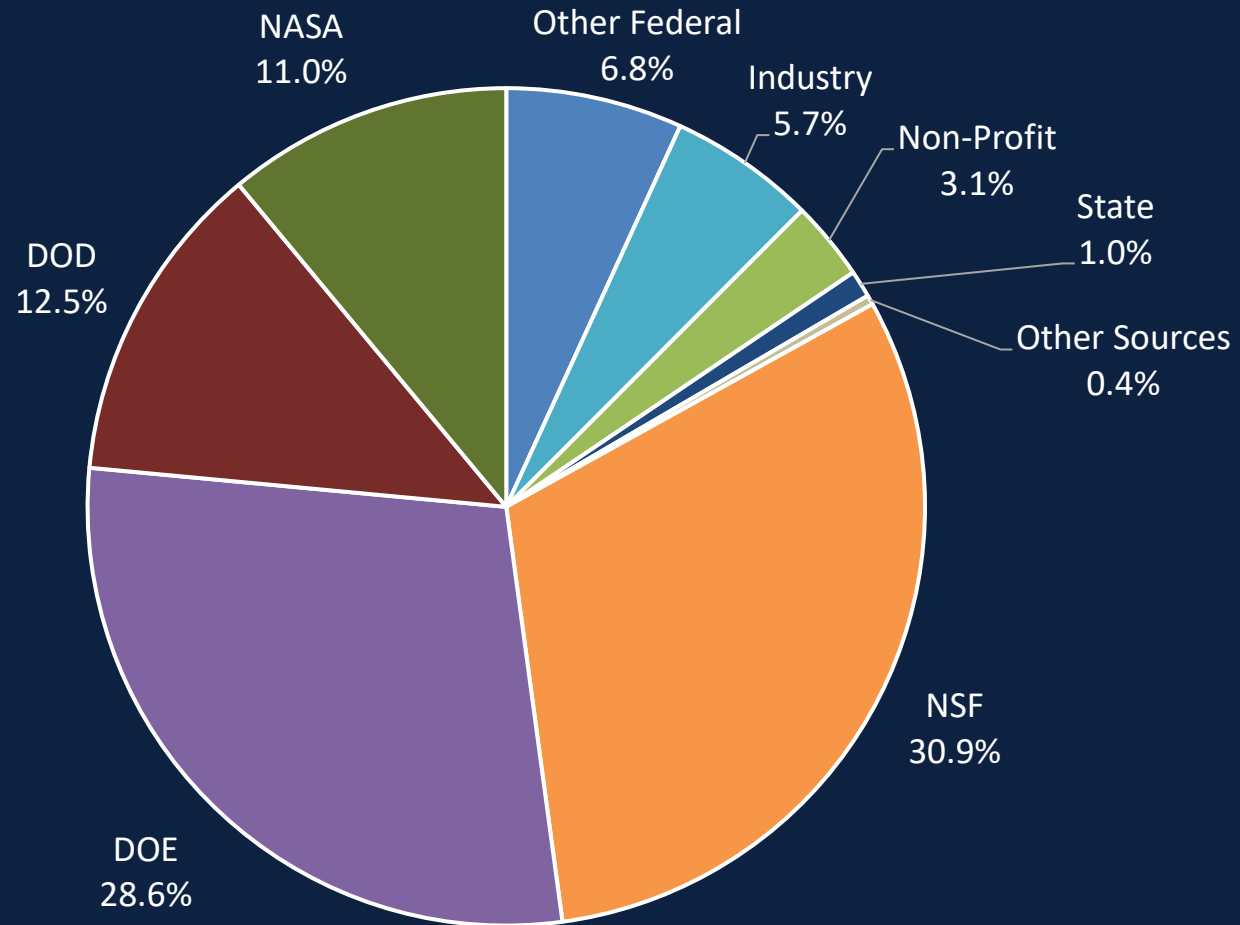


Proposals, Awards and Expenditures follow assignment of credit by faculty home unit for all research activities across the university



# FY23 Expenditures by Funding Source

**\$46.6M**  
DIRECT FACULTY  
EXPENDITURES



# Thank you!

