State of the Research Enterprise at NC State University

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Vice Chancellor for Research and Innovation

Reflections from My First Four Months

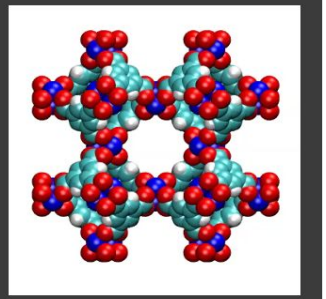
I am a faculty-focused research leader

- Previous role was associate vice president for research operations and infrastructure at Georgia Tech
- Professor of chemical and biomolecular engineering
- Was the founding director and lead PI of Georgia Tech's DOE Energy Frontier Research Center and associate dean for research in their college of engineering
- Expertise in adsorption science and porous materials
- B.S. in chemical engineering from Alabama-Huntsville and Ph.D. in chemical engineering from Vanderbilt University
- Grew up in Alabama on the farm where my family still grows sod, wheat, soybeans and other row crops

BY THE NUMBERS

THE WALTON GROUP

- Synthesis and scale up of new porous materials
- CO_2 capture
- Atmospheric water harvesting



30
PhDs Graduated

>145
Peer-Reviewed Publications

21
Postdocs and Research Scientists

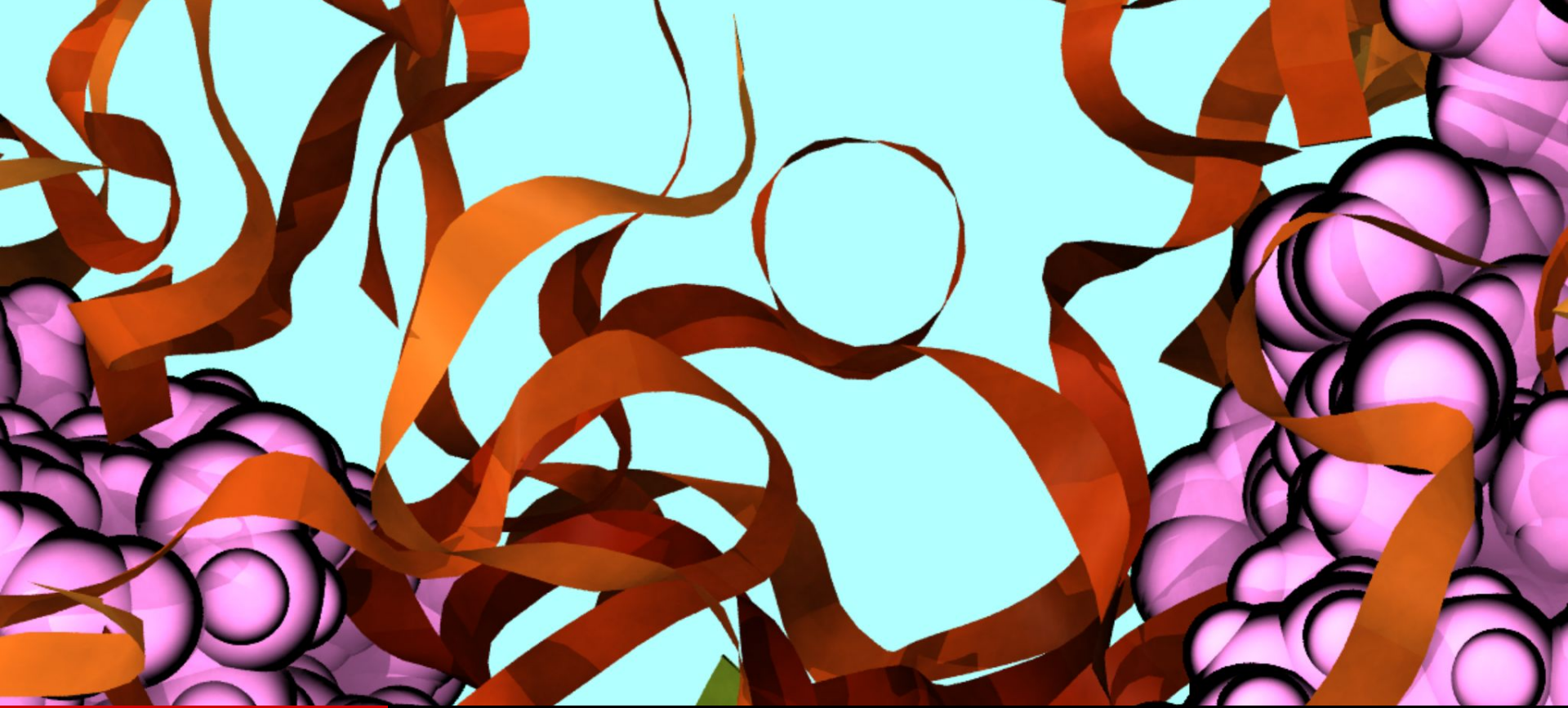
65
h-index

$36M
External Research Awards as Lead PI

3
Start-up Companies

@walton_lab

The Walton Group



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Improving Research Support

Scaling Research Infrastructure to Support Future Growth

- **Open letter and RLA memo Dec 2023/early 2024**
  - Identified 8 major concerns including post-award, HR, pre-award,institutional support, procurement

- RASS Task Forces: Sponsored Programs; Research Implementation; Culture, Collaboration and Communication
  - 9 pilot projects selected

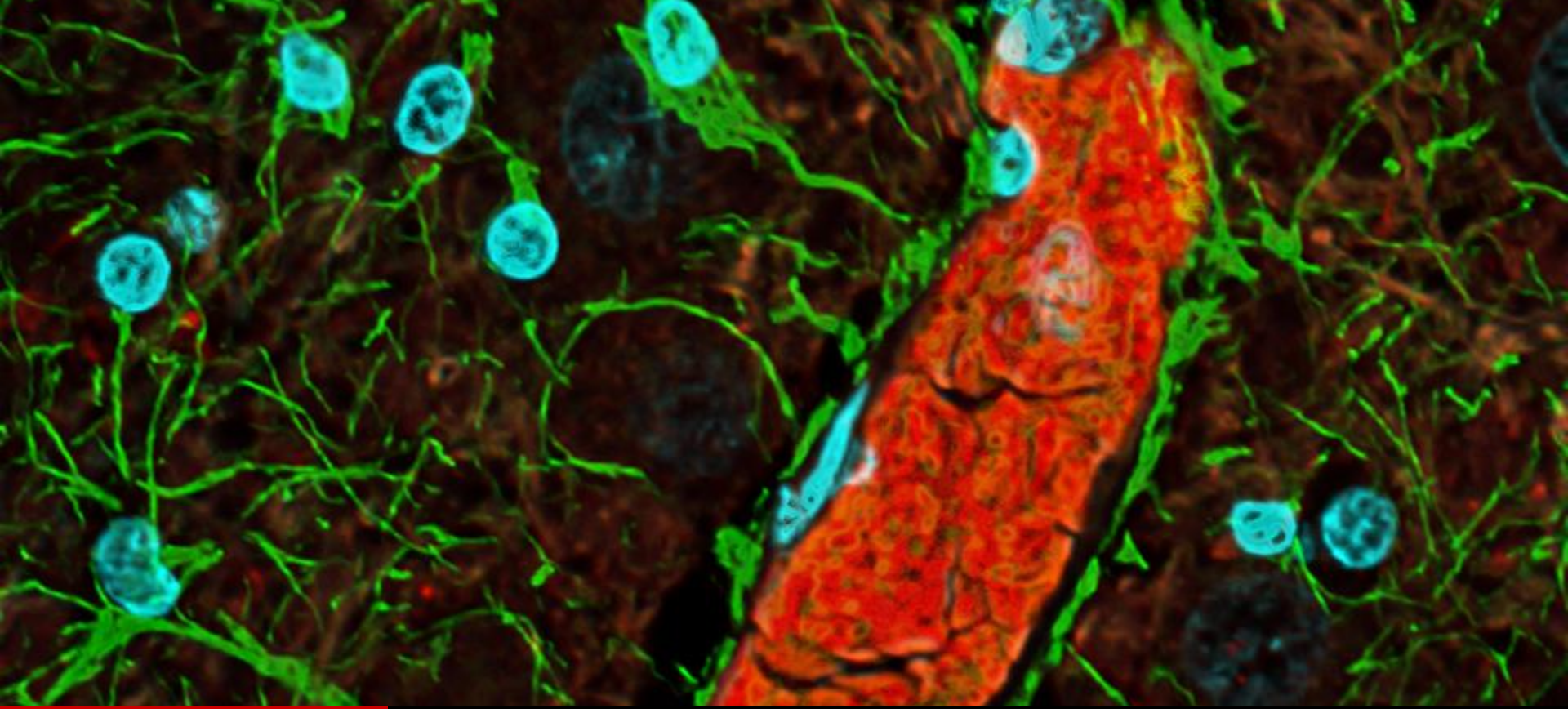
NC State has engaged Huron Consulting Services to strategically assess research infrastructure *across campus*

This assessment will clarify our research infrastructure needs and provide actionable recommendations to support sustainable growth, operational excellence and enhanced competitiveness in the national research landscape.

The assessment will:

- Focus on evaluating governance, organizational structure, pre/post awards, staffing, and commercialization activities
- Ensure NC State is positioned for continued excellence and scalability in research operations
- Benchmark against peer and aspirational institutions to identify opportunities for improved efficiencies

Timeline: Work begins soon and is expected be completed this academic year.



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Research Activity

Research Activity To Date

	This Fiscal Year to Date	Last Fiscal Year to Date	5-Year Average
Award Amount	$208,184,416	$254,038,195	$215,133,650
Number of Awards	774	880	799
Proposal Amount	$533,959,583	$564,115,360	$630,226,399
Number of Proposals	1,076	1,184	1,142

As of 10/23/2025

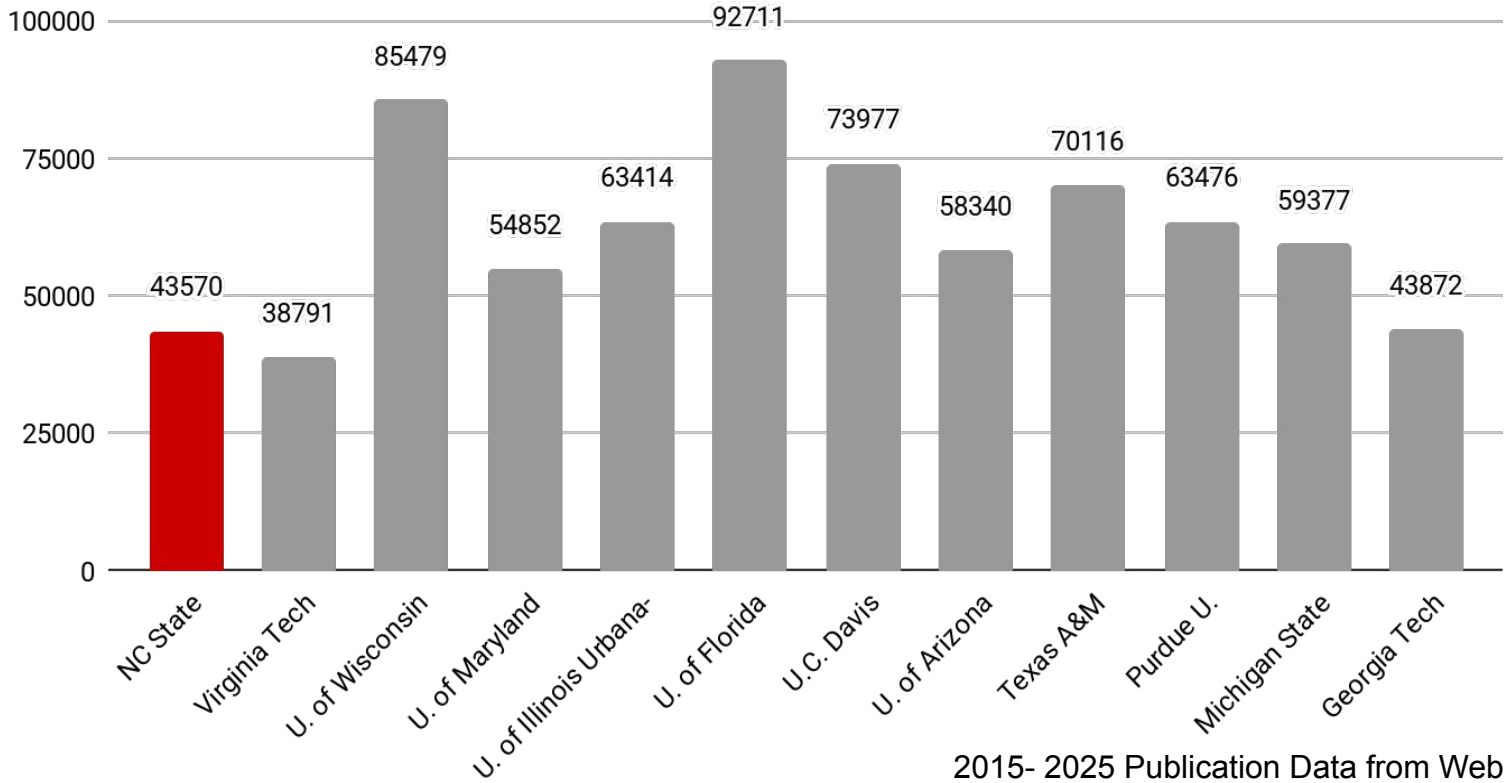
FY23 Research Expenditures Against Official Peers

Institution	T/TT Faculty	ALL Research Expenditures	Research Expenditures w/o medical	ALL Research Expenditures Per T/TT Faculty
Georgia Tech	1,034	$1,435,218		$1,388
Maryland, College Park	1,387	$1,385,302	$843,731	$999
Minnesota, Twin Cities*	1,518	$1,320,183		$870
Texas A&M*	1,993	$1,277,814	$1,221,049	$641
California, Davis*	1,572	$962,399	$700,090	$612
Arizona*	1,464	$955,424	$668,877	$653
Purdue	1,781	$844,570		$474
Michigan State*	1,744	$844,076	$727,411	$484
Rutgers*	1,774	$831,719	$385,891	$469
Illinois, Urbana-Champaign*	1,804	$821,023	$820,053	$455
NC State	1,433	$633,251		$442
Virginia Tech	1,518	$598,113		$394
Georgia	1,678	$570,956		$340

*Have a medical school

All dollar amounts are in thousands

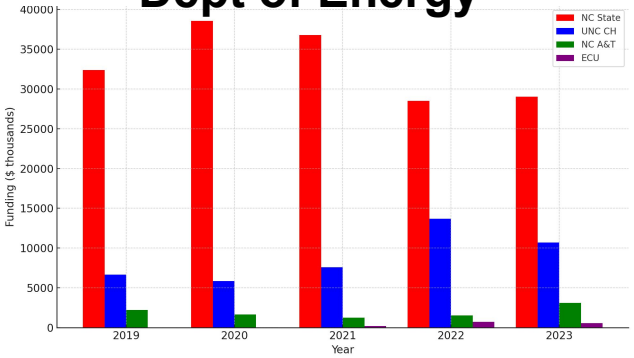
Ten Year Publication Data Against Peers



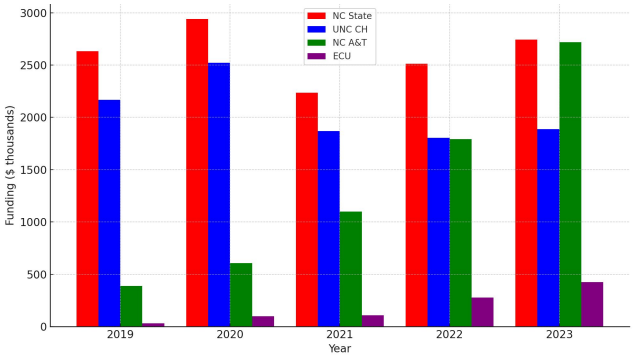
2015- 2025 Publication Data from Web of Science

NC State leads the system in every federal research portfolio outside of health; this breadth is our strength

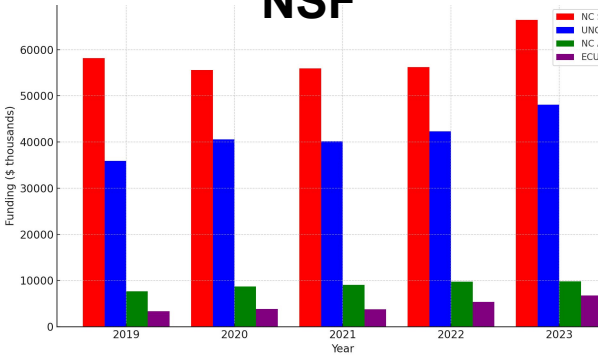
Dept of Energy



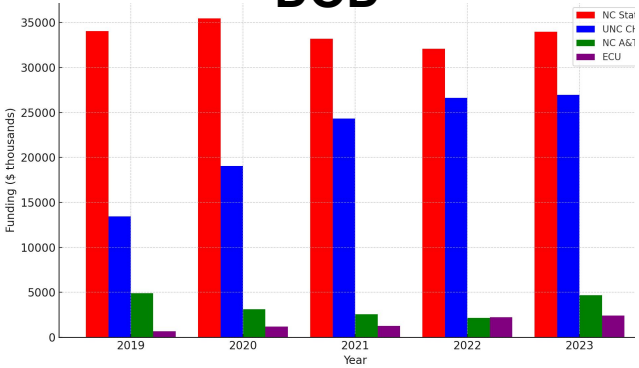
NASA



NSF



DOD



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Federal Transitions

Federal Actions Causing Uncertainty in Research

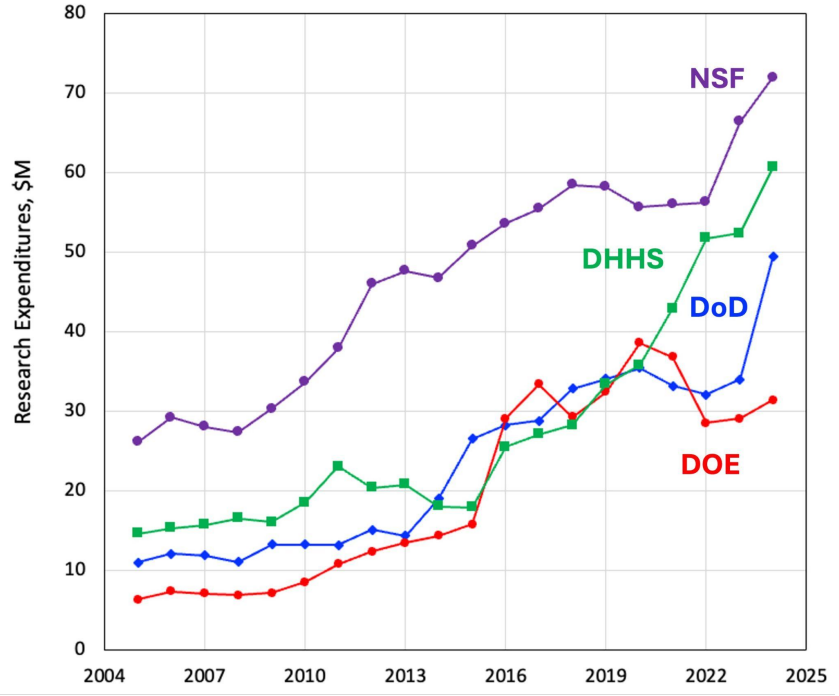
- Shifting agency priorities and federal funding slowdowns have impacted our growth
- Federal bodies have different plans than the major agencies for how the future of federal funding will look
- Focus shifting towards shorter term impacts and research driven by industry
- Many of the largest reductions to indirect cost rates are still in litigation and have been halted in the courts; however, if reductions stand, NC State's research enterprise will be significantly affected
    - Current F&A rate is 52% for externally funded research on campus
    - OMB and Executive Orders seek to cap F&A at 15% across all agencies at all universities

FY 2026 Federal Research Funding

Agency	FY25	President (FY26)	House	Senate
NSF	$9 B	$3.9 B	$7 B	$9 B
NIH	$48.6 B	$27 B	?	$49 B
NASA	$7.3 B	$3.9 B	$7 B	$9 B
NOAA	$656 M	0	$667 M	$657 M
NIST	$173 M	0	$175 M	$175 M
DOE	$8.2 B	$7 B	$8.4 B	?
NIFA	$445.2 M	$405 M	$445 M	$445 M
NEH	$207 M	$38 M	$135 M	$207 M

Future Opportunities: Expanding Our Portfolio

- Largest source of federal funding is NSF
- DHHS funding has increased substantially in past 5+ years
- DoD and DoE funding has been relatively flat until recent CLAWS DoD Hub
- Federal cuts to NSF and DHHS will have significant impact on expenditures
- Even if agencies maintain FY25 level investment, we cannot maintain growth trajectory without expanding our portfolio to other areas



Key Takeaways

- **NC State punches above its weight**
  - Our investments per faculty are similar to universities with much higher research expenditures.
  - We have the largest NSF, DOE, DOD, and USDA funding in North Carolina.
- **We are investing in research infrastructure**
  - We are responding to campus feedback that improvements are needed and have begun an external assessment
- **Federal funding uncertainty is a risk**
  - To date, our funding has not been impacted at the same level as our regional peers.
  - Expect changes to F&A policy and agency priorities
- **Industry and philanthropic partnerships will have growing importance**
  - Increased focus on shorter term impacts and economic outcomes

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Questions?