

2024-2025 Research Report to UKRF Board of Directors

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University of Kentucky Research Mission

The University of Kentucky supports and empowers innovative research in all forms practiced across our campus, varied disciplines and 70+ centers and institutes.

UK faculty, staff and student researchers create, discover and apply new knowledge, and explore the most complex problems facing Kentucky, the nation and the world.

Our collaborative, cross-disciplinary research environment provides a rich training ground for the next generation of thinkers, creators and leaders.

University of Kentucky Research Foundation Budget

- Facilities and administrative (F&A) costs from external grants and contracts are the primary source of funding for the UKRF budget.
- These are costs that the university has incurred because of the research within a given grant or contract, which took place at UK, and for which the government reimburses UK.
- Our current negotiated F&A research rate is 54%, meaning for each \$1 that comes to the institution for specific research within a grant the institution receives an additional \$0.54. Not all expenditures on grants and contracts accrue F&A; our **actual rate** for FY24 was approximately **\$0.25/\$1** in direct costs.

University of Kentucky Research Foundation Budget

Recent executive orders have presented challenges for federally funded research.

- Significant changes to federal funding for Diversity, Equity and Inclusion (DEI) research have led to grant terminations and funding pauses.
- In February, the National Institutes of Health (NIH) announced a policy capping F&A costs at 15% for all new and existing research grants.
- In April, the Department of Energy (DOE) announced they would also implement a 15% F&A cap for institutions of higher education.
- In May, the National Science Foundation (NSF) announced a 15% F&A cap on all new awards effective May 5.
- The proposed rates are the subject of litigation, although we expect that some adjustments on indirects could be codified in agency budgets.

University of Kentucky Research Foundation Budget

Despite uncertainty, we will continue to advance Kentucky and improve the quality of life in our communities by seeking answers to critical questions.

- We will continue to see the impact of our work in the fundamental discoveries that change the way we understand the challenges facing the Commonwealth.
- We will continue to create new knowledge and train the next generation of investigators.
- We will continue to see the impact of our work in innovations that become new therapies and treatments for patients across UK HealthCare.
- We will continue to see spin-off companies that are born from ideas, fostered by collaborations with colleagues across disciplines, and molded into products and devices that change the way we interact with our world.

University of Kentucky Research Highlights

**From flooding to critical elements to cancer treatment,
UK research is helping Kentucky and the nation.
Indirect costs provide pilot funding to seed new ideas that
become impactful solutions and enable to UK to lead Kentucky
in research, care and workforce development.**

University of Kentucky Research Highlights

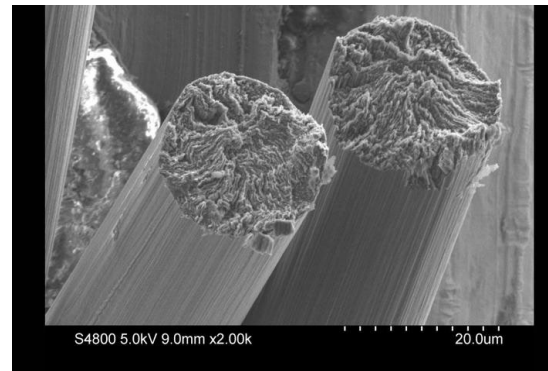
Tapping domestic sources of critical elements

With \$5 million from the Department of Energy (DOE), Rick Honaker leads a UK engineering team working to extract and purify rare earth elements and then convert them into metal products. These elements, used in magnets, batteries and electronic devices, are essential to modern technologies, clean energy and economic security but vulnerable to global supply chain disruptions. Honaker's efforts are critical to domestic production of these valuable materials.



Turning coal waste to strategic materials

With \$11 million from the Department of Energy, researchers at the Center for Applied Energy Research (CAER) are engaged in the C4WARD project to create energy-efficient, cost-effective processes to manufacture carbon fibers and graphite from waste coal. This technology is essential to energy transition and will create new jobs and boost economic opportunities in Kentucky coal communities as demand continues to grow.



University of Kentucky Research Highlights

Predicting extreme weather events and flooding

UK is leading a \$20 million, five-year collaborative CLIMBS project to protect Kentucky from extreme weather events. Researchers are partnering with civil engineers, environmental and social scientists across the state to address flash floods in Appalachia. Using “big data” research can enhance prediction and bolster community-level disaster response. With funding from the National Science Foundation’s Established Program to Stimulate Competitive Research (NSF EPSCoR), UK leads the eight-institution collaboration.



Producing hope in healing for Parkinson’s

After being diagnosed with Parkinson’s Corky Ball received deep brain stimulation and an experimental nerve-grafting procedure, called DBS plus. Thanks to the foundation set by pilot funding from the Center for Clinical and Translational Science, the UK research team led by Craig Van Horne is now conducting a clinical trial, with National Institute on Aging (NIA) support, expanding this treatment and giving hope to more patients like Ball.



University of Kentucky Research Highlights

Providing advanced cancer care

Kentucky has the highest cancer incidence rate in the U.S. Kentucky's only Comprehensive Cancer Center designation by the National Cancer Institute (NCI), the Markey Cancer Center provides access to new treatments like the one Tollesboro resident Jenn Highfield received. Her stage 4 colorectal cancer nearly took her life at age 38, before she gained access to an early-phase clinical trial through Markey's Precision Medicine Clinic. Those trials rely on indirect costs, a direct lifeline to keep labs running, equipment maintained and support technology and training programs.



Offering hope for the golden years

More than 80,000 people are living with Alzheimer's at a cost of nearly \$1 billion to Kentucky's Medicaid program. For years, researchers at the Sanders-Brown Center on Aging, funded by the National Institute of Aging (NIA), have been studying lecanemab, the first-ever FDA-approved drug to treat Alzheimer's. UK was the first clinical trial location and directly benefitted Morehead residents Jim Jackson and Mike Brown who travelled to UK every two weeks with their wives to participate in this trial.

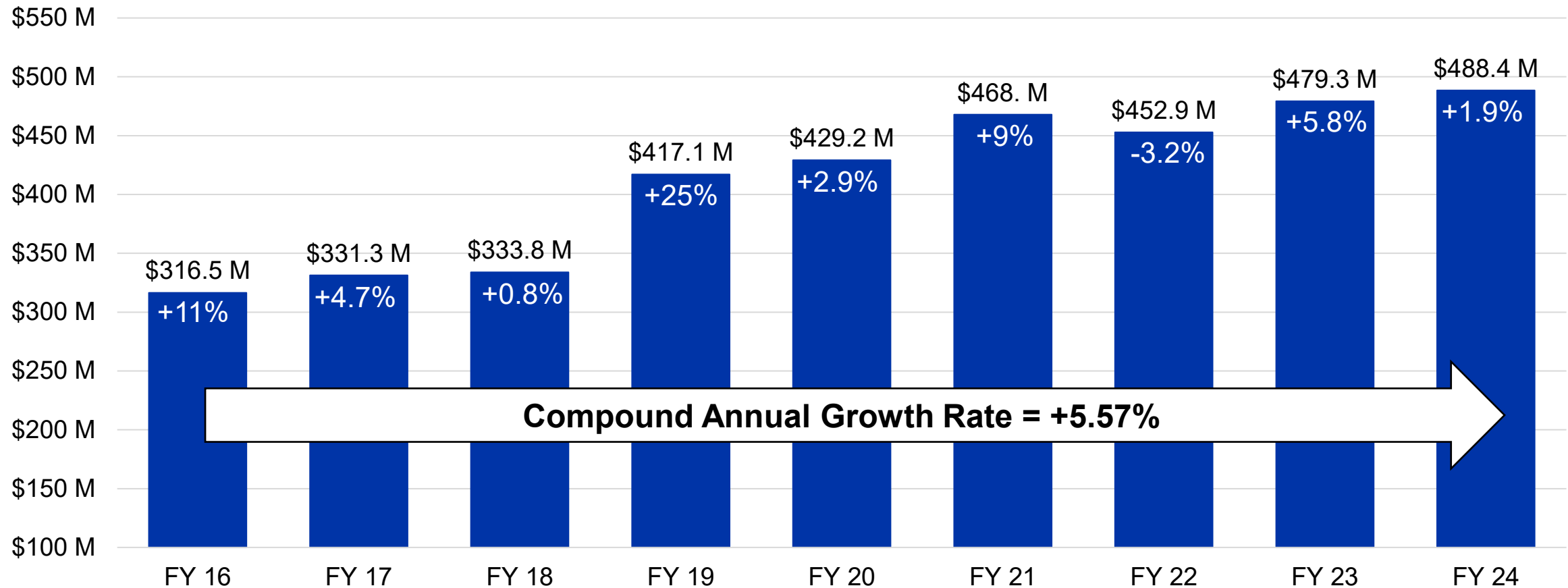


UK Awarded Grants and Contracts

FY24

Progressive Growth in UK External Grant and Contract Awards

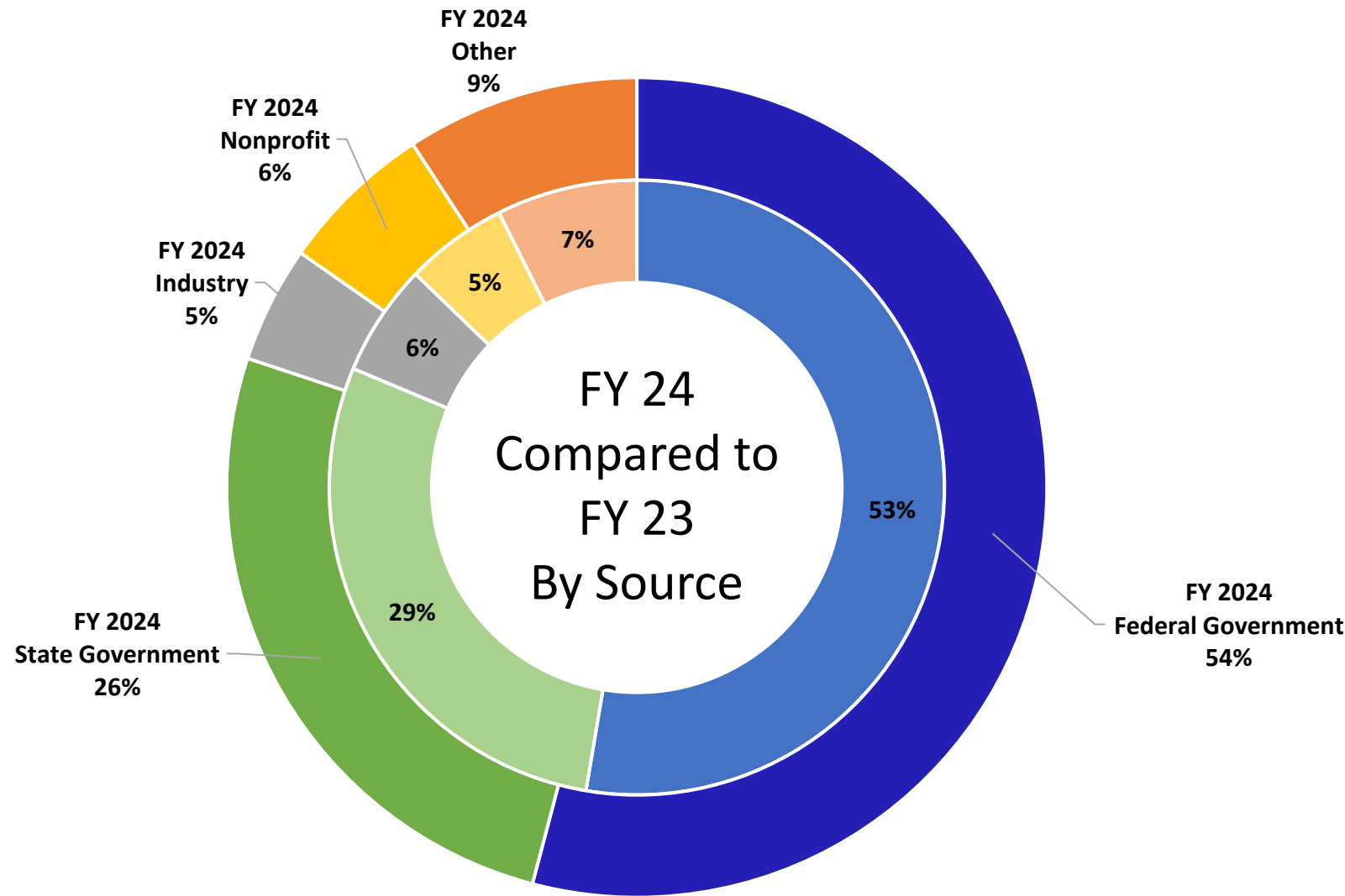
54.3% Growth
FY 16 – FY 24



Source: University of Kentucky, Office of Sponsored Projects Administration Database

UK Grant and Contract Awards by Source

Federal funding is the largest source of support



Source: University of Kentucky, Office of Sponsored Projects Administration Database

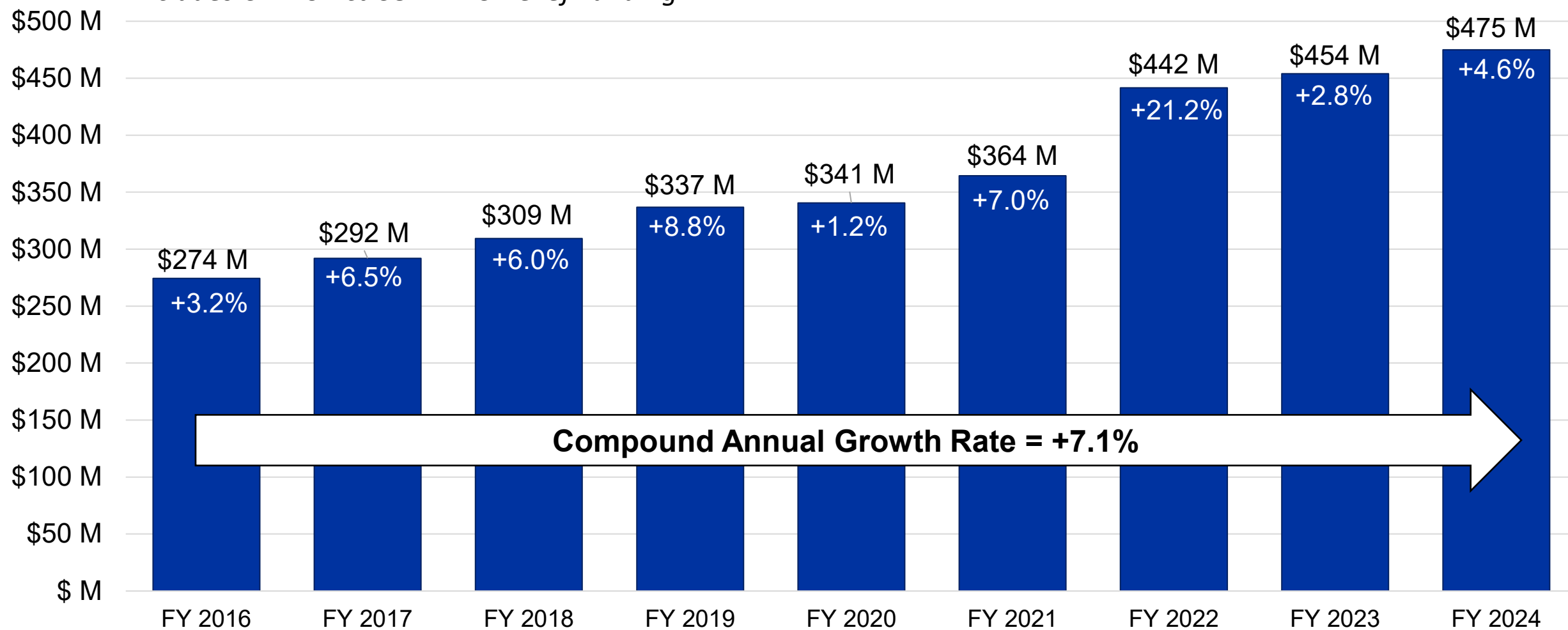
UK R&D Expenditures

FY24

Progressive Growth in UK R&D Expenditures

73% Growth
FY 16 – FY 24

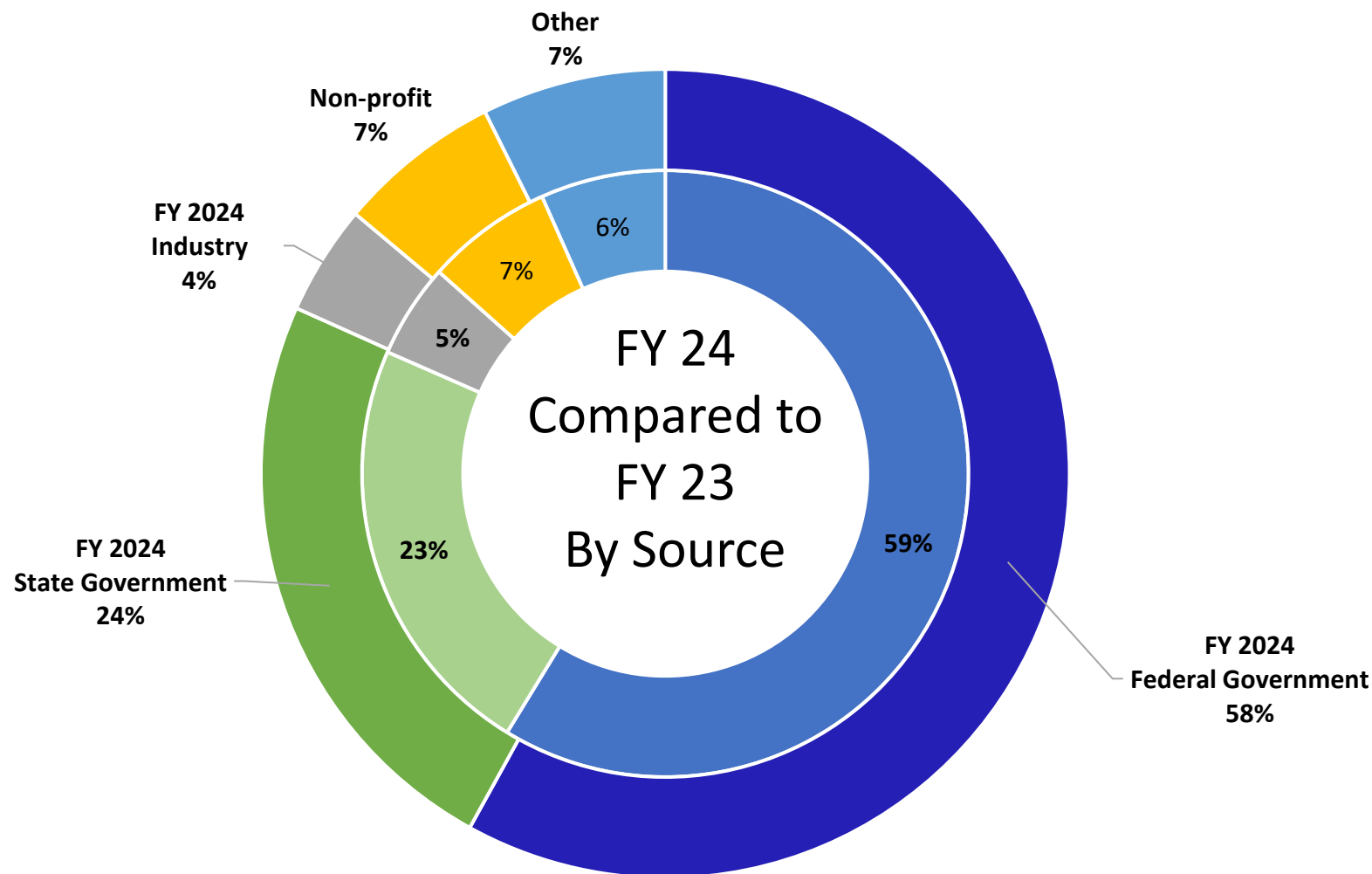
Excludes CARES Act COVID-19 Relief Funding



Source: University of Kentucky, Office of Sponsored Projects Administration Database

UK R&D Expenditures by Source

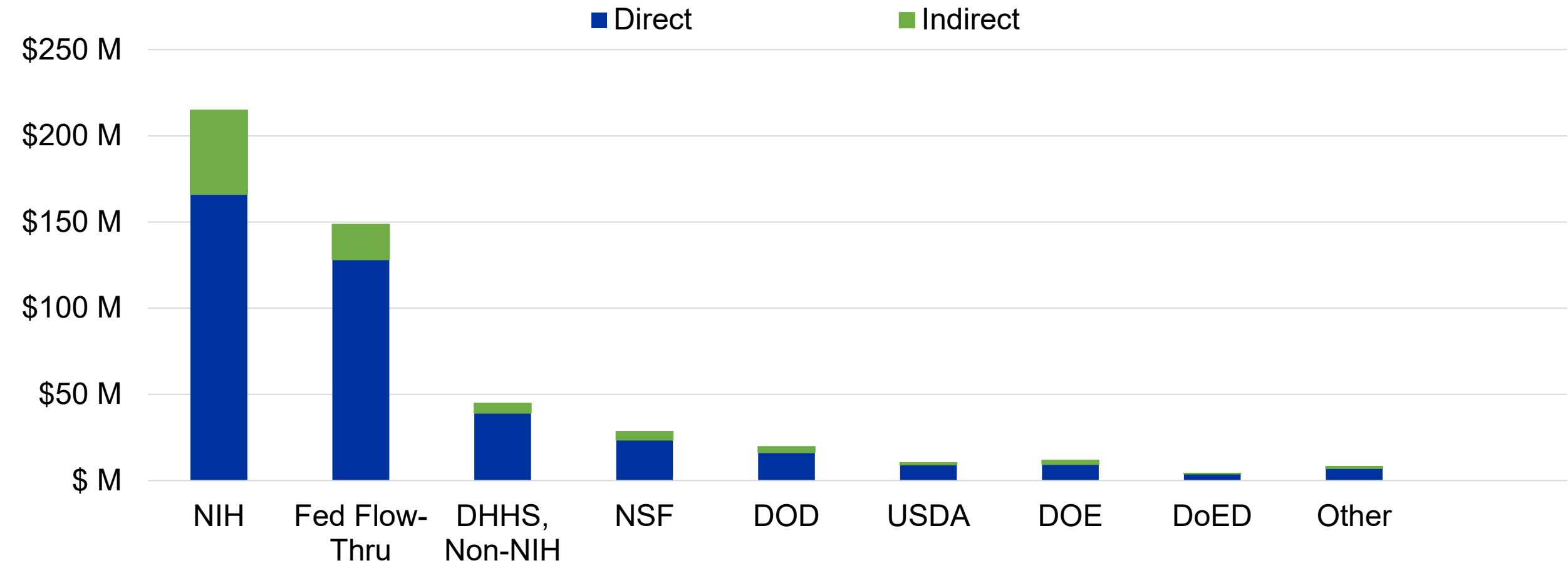
Federal R&D is the largest Source



Source: University of Kentucky, Office of Sponsored Projects Administration Database

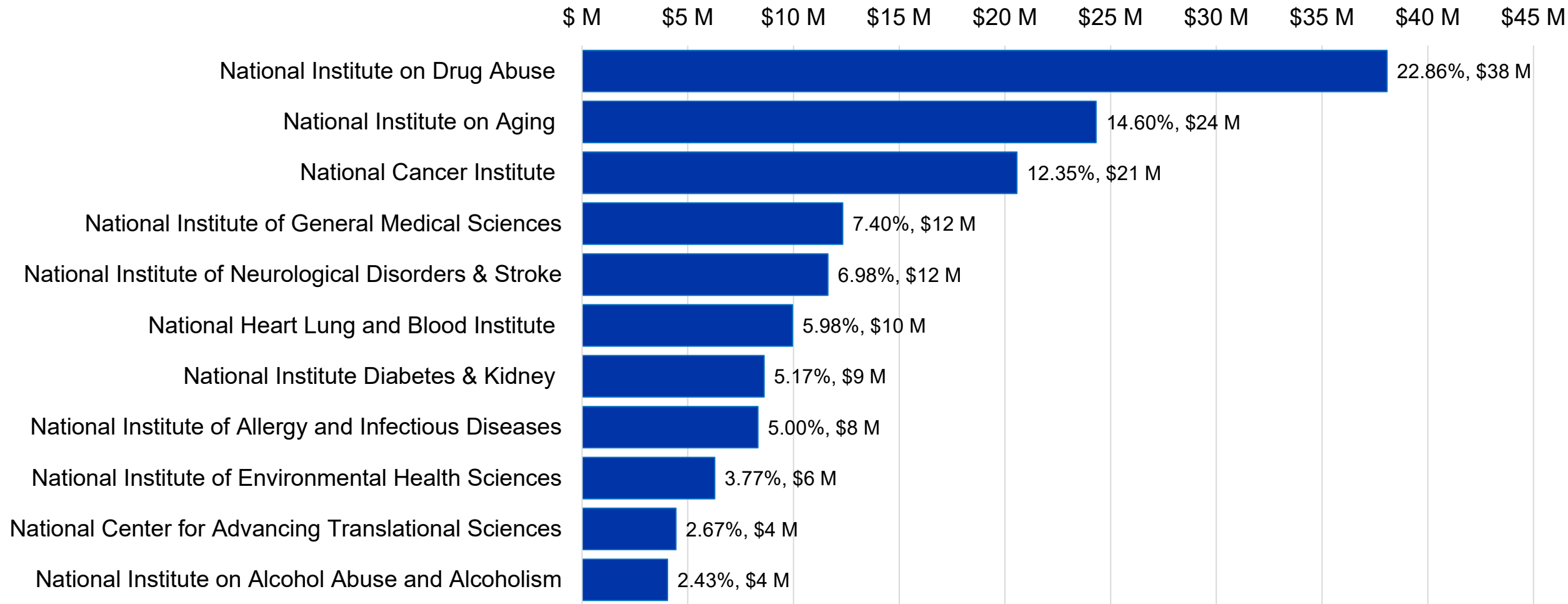
National Institutes of Health (NIH) is the largest federal source

R&D expenditures by UK researchers FY24



Source: University of Kentucky, Office of Sponsored Projects Administration Database

UK R&D Expenditures by NIH Institute FY24



Source: University of Kentucky, Office of Sponsored Projects Administration Database

UK National Rankings: NSF Higher Education R&D Expenditure Survey

FY16 to FY23 Growth

+44% Percent Change

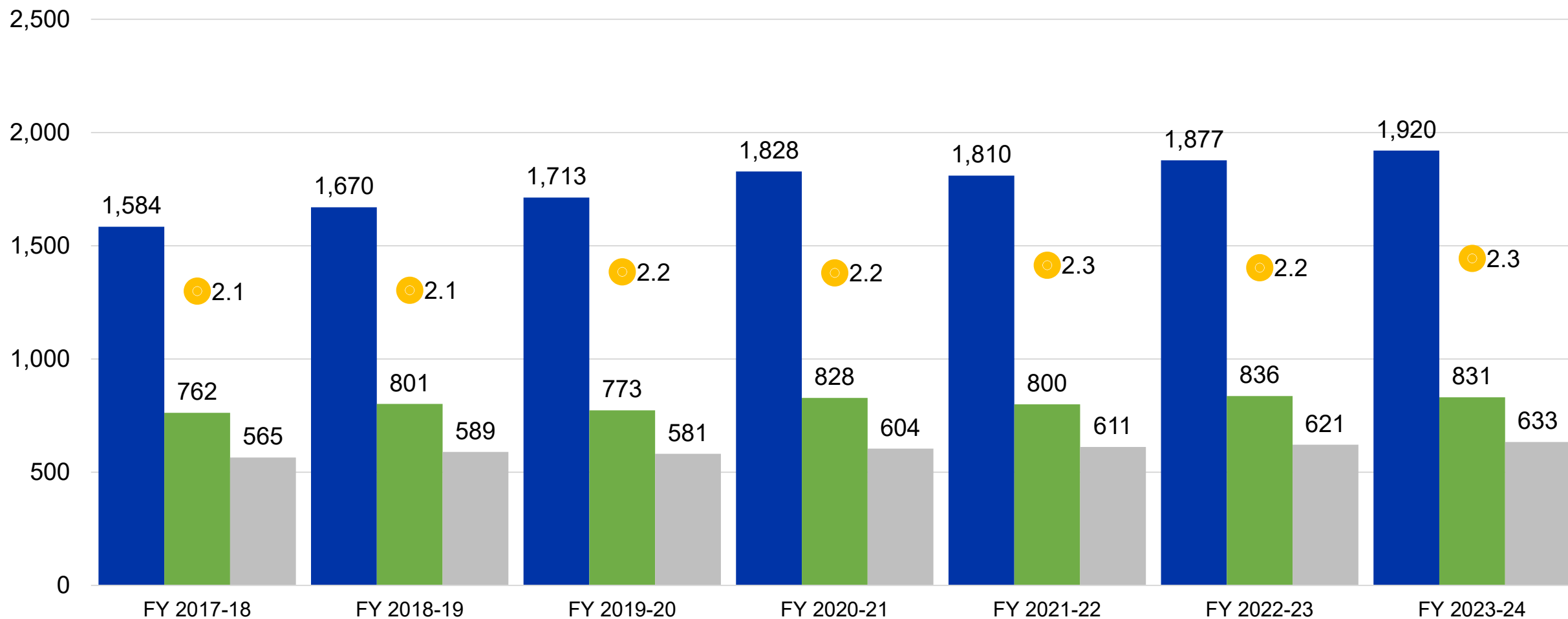
+5.3% Compound Annual Growth Rate

Ranking is top 10% among public universities



Awards/PI: More productivity and success by UK researchers

■ # of Awards ■ # of PIs ■ # of Sponsors ● Awards per PI



Source: University of Kentucky, OSPA Database

UK Grant and Contract Award Progress Year-to-Date

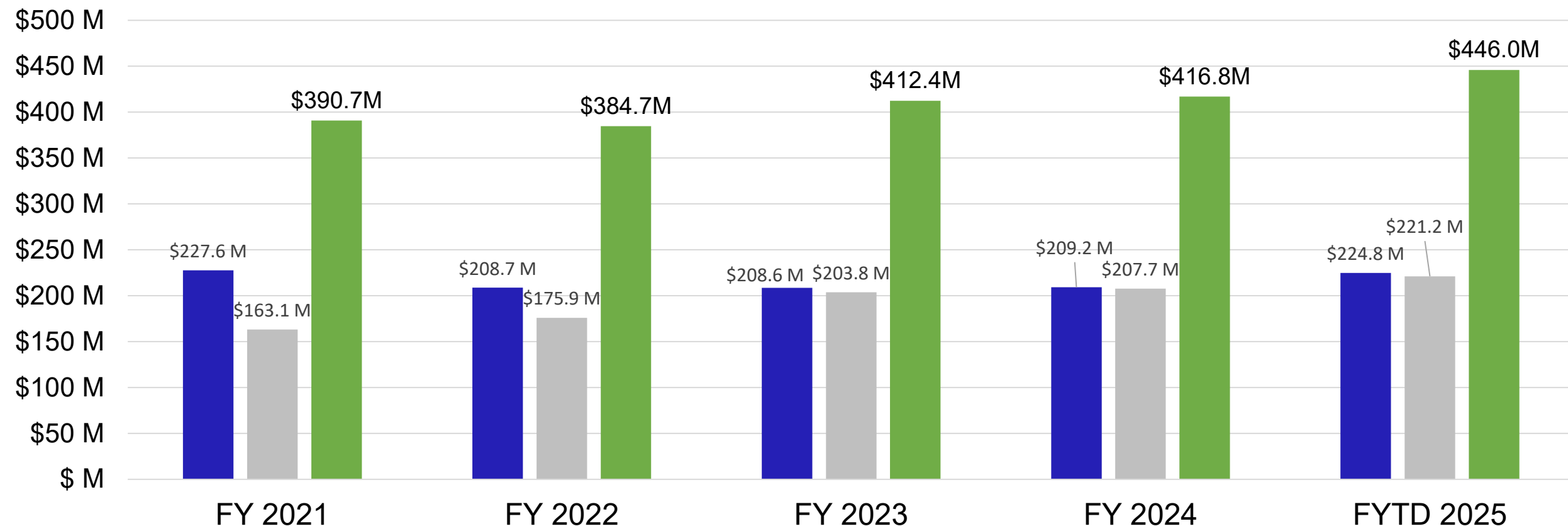
FY25

FY25 UK Grant and Contract Awards through April 30

July 1 – April 30 of Each Year

Federal Non-Federal Total

+7.0% ↑



Source: University of Kentucky, Office of Sponsored Projects Administration Database

UK-PURPOSE, Research and the UKRF Budget

Following our Strategic Plan

Putting Students First:

Support for Graduate and Undergraduate Students

Putting Students First: Supporting Graduate Training

Research Assistants (RAs) are an important part of our research workforce and the future of research. Most RAs are supported from external grants and contracts with the Principal Investigators (PIs) or co-investigators as their mentors.

- The university's policy is that grants that support a RA must cover the Universal Tuition Rate, which is the in-state tuition. The out-of-state tuition is covered by a Tuition Scholarship.
- The OVPR has partnered with The Graduate School to provide funding for these tuition differentials.

Postdoctoral Fellows engaged in research or scholarly training gain experience, deepen expertise and develop skills before transitioning into more permanent academic, industry or research positions.

- UKRF supports several postdoctoral fellows by providing funds for stipends and research support expenses.

Teaching Assistants (TAs) to gain professional experience.

- UKRF has a long-standing commitment to provide support for TAs in the College of Arts and Sciences.

Putting Students First: Supporting Undergraduate Researchers

The Office of Undergraduate Research (OUR) promotes research as a high-impact student experience to foster student success and enhance readiness to succeed in future careers. UKRF provides funding to ensure undergraduates have research opportunities across all disciplines.

In 2024-2025, OUR:

- Supported **166*** 2024-25 academic year undergraduate fellowships for research and travel **data still being gathered*
 - 31 first-generation students awarded
 - 50 honors students awarded
 - 13 Parker Scholars awarded
 - 109 faculty across 17 colleges participated
- Hosted **134** events, including 10 workshops, 20 tabling events, 22 drop-in peer advising events, and 20 student organization/class presentations
- Organized the 19th Annual Showcase of Undergraduate Scholars: **420** presentations by **509** students, and recognition of 5 Outstanding Faculty Mentors



Putting Students First: Supporting Undergraduate Researchers

In 2024-2025, OUR:

- Organized **72** presentations and travel for UK undergrads at the National Conference on Undergraduate Research (NCUR)
- Led **15** OUR Undergraduate Research Ambassadors who gave **662** service hours
- Managed several undergraduate research fellowship programs: **2** Beckman Scholars, **14** Commonwealth Undergrad Research Experience (CURE) Fellows, **5** UK Sustainability Fellows
- Expanded use of ForagerOne software platform for students to seek out mentors; **2,543** students and **471** faculty engaged
- Produced **6** OUR Podcast episodes and published the **2nd edition** of Aperture: UK Journal of Undergraduate Research



UK-PURPOSE, Research and the UKRF Budget

Following our Strategic Plan

Taking Care of our People: Research Support Units

Taking Care of our People: Research Support Units

Continued funding for offices that provide support to Principal Investigators (PI) throughout the grant lifecycle.

- Office of the Vice President for Research
- Research Administrative & Fiscal Affairs
- Office of Sponsored Projects Administration
- Collaborative Grant Services
- Proposal Development Office
- Office of Research Integrity
- Research Information Services
- Office of the Attending Veterinarian
- Clinical Research Support Office
- Research Communications
- Federal Relations
- UK Innovate

Creation of Office of Controlled Technology & Data Security to oversee export controls and sanction compliance.

UK-PURPOSE and Research

Following our Strategic Plan
Inspiring Ingenuity: Internal Research Support Programs

Inspiring Ingenuity: Research Program Offerings

- **CURATE: Celebrating University Research Across the Enterprise** provides funding for nine-month colleges with less than \$10 million in R&D expenditures.
- **Igniting Research Collaborations** is a cross-college transdisciplinary pilot support program, networking, grant write-up follow through. In FY24, 50 proposals were submitted & reviewed by ADRs, 18 proposals (49 faculty from 15 colleges) were awarded & funded by both the OVPR and participating colleges.
- **UKinSPIRE: Seeding Partnerships for International Research Engagement** provides funding to stimulate high-impact research projects linking UK faculty and international collaborators.
- **Conference Support Grants** provide funding for professional organizational conferences and workshops that highlight UK's experts and are held locally.

Inspiring Ingenuity: Research Priority Areas (RPAs)

Criteria for RPAs:

- **Local relevance** of the research, global impact
- **Existing faculty strength** and research leadership
- Disciplinary **research collaboration**
- Potential interconnections of research with **educational opportunities**
- **Impact** of research on UK and the Commonwealth
- **Sustainability** of research



Inspiring Ingenuity: UK Innovate

Since 2016 OTC/UKI has...

600+

Live patents worldwide

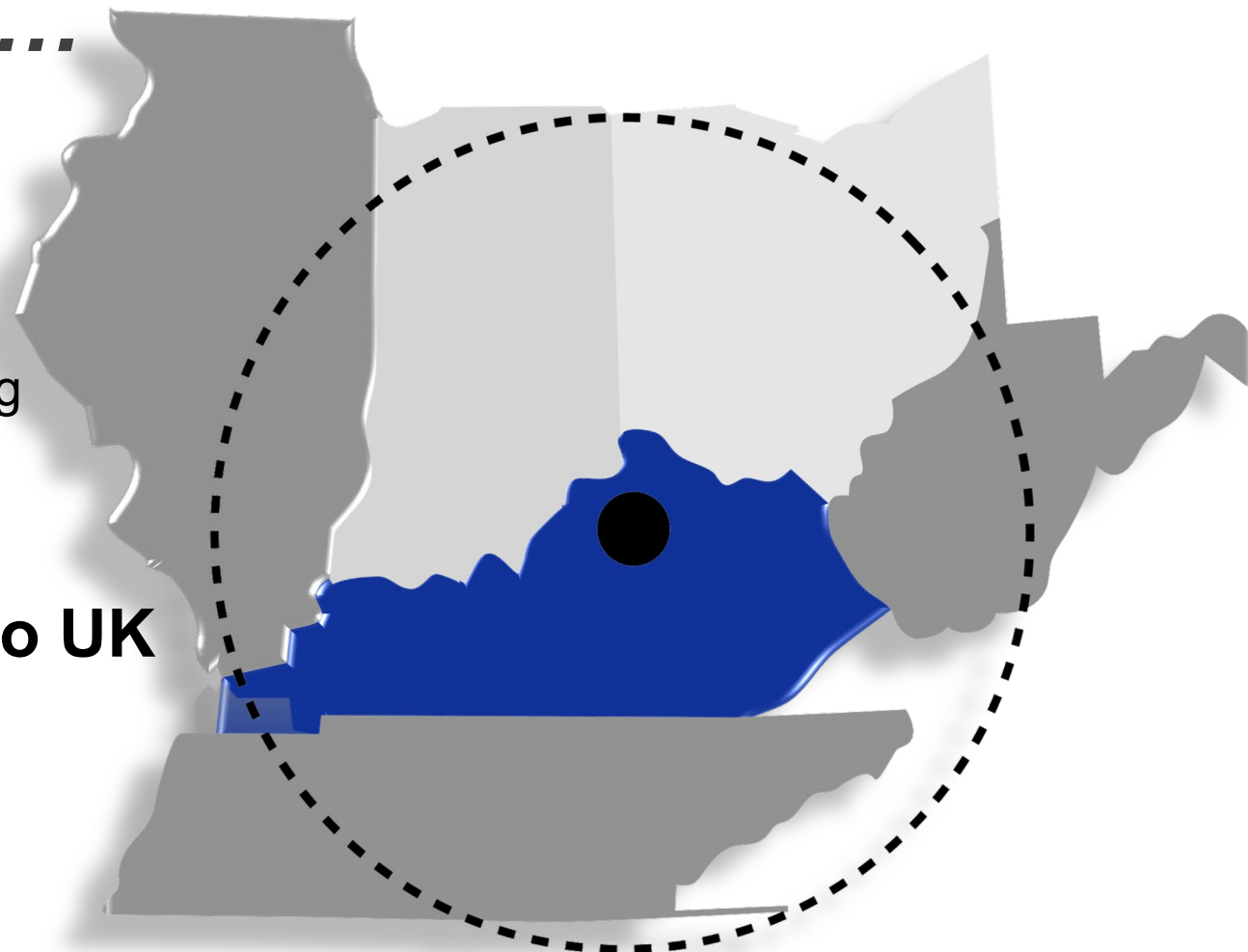
Led or partnered on extramural awards totaling

\$45.16M

Resulting in **\$15.23M** awarded to UK

Currently have pending proposals for

\$181M



Inspiring Ingenuity: UK Innovate

PATENTS, LICENSES, AND STARTUPS: GROWING THE OPPORTUNITY PIPELINE

Capturing More Innovation; Transferring More Technology

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
INVENTIONS DISCLOSED	54	101	104	117	99	91	114	126
IP APPLICATIONS FILED	39	62	85	165	157	143	161	154
PATENTS ISSUED	20	23	26	33	22	32	32	35
LICENSES & OPTIONS EXECUTED	13	29	30	29	27	30	37	55
NEW STARTUPS FORMED	4	6	4	6	6	4	5	6

Inspiring Ingenuity: UK Innovate



UK-PURPOSE, Research and the UKRF Budget

Following our Strategic Plan
Trust, Transparency and Accountability

Trust, Transparency and Accountability in Research

UK is committed to conducting research at the highest ethical level and in compliance with federal, state and institutional regulations.

- Through our Research Administration units and with investments into research infrastructure, UKRF supports research compliance with human and animal research subjects, responsible conduct of research, conflict of interest, export controls, and data management and security.
- In January 2025, the National Institutes of Health (NIH) revised their requirements for computing environments when handling controlled-access human genomic data. UKRF and the College of Medicine provided \$2.8M towards the purchase of servers to meet these new security standards.
- The creation of the Controlled Technology & Data Security department will allow the university to collaboratively manage compliance across UK.

The OVPR communicates regularly & transparently through multiple platforms.

- The UK Research website serves as a centralized, comprehensive resource for the campus community.
- The Impact Kentucky monthly newsletter provides policy announcements for PIs, highlights research conducted at UK and commends researchers on recent successes.
- The Research Data Portal provides on-demand data for research awards, expenditures and collaborations.

UK-PURPOSE, Research and the UKRF Budget

Following our Strategic Plan
Many People, One Community

Many People, One Community of Research

- UNITE program offerings span undergraduates, graduate students, postdocs, faculty to the community.
- UKinSPIRE is an international research pilot/seed support, in its second year in partnership with the UK International Center.
- Extensive support of large, programmatic grants that have broad impact = NIH CTSA, NCI-designated comprehensive cancer center, NIH HEALing Communities Study, NIH Alzheimer's Disease Research Center, NIH UK-CARES for environmental impact across the Commonwealth, NIH KYNETIC, NIGMS Innovator Hub, NSF EPSCoR Program, AppalTRuST, and training grants.

UKRF Budget

Proposed FY26 Budget

UKRF Budget

- FY25 budgeted \$73M of anticipated F&A income, representing a 4% increase from the previous year based on growth in extramural grants and contracts
- FY26 proposes a budget of \$48.9M in F&A income, a 33% income reduction in anticipation of significant changes to reimbursements through F&A

Budget Summary

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- Total Revenue: \$165,292,081
 - Representing a decrease of \$10,951,674
- Total Transfers and Expenditures: \$165,292,081
 - Transfers of \$37,564,800 to the institution
 - Expenditures of \$127,727,281

I. Transfers to General Fund (major changes)

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A. Transfers to University Wide

A.2. Service assessment, +\$87,794

A.8. VP University Relations, Research Communications, +\$80,200, additional position

A.9. Federal Relations, +\$342,346, department transfer to President's area

A.10. Research Data Analytics, +\$209,405, department transfer to Student Success

A.11. SAP Upgrade, +\$208,500, assessed by university for UKRF's access to SAP

B. Research Administration Personnel

B.1. Research Administration Personnel, +\$1,670,500, transfer & increase of CRSO from Research Programs, OSPA positions, & FY26 salary + benefits increase, creation of Research Data Security Office

B.2. Collaborative Grant Services, +\$53,600, FY26 salary + benefits increase

B.3. Office of Technology Commercialization, +\$50,500, FY26 salary + benefits increases

C. Sponsored Projects Transfers

C.1. Fixed Price Agreement Residuals, +\$400,000 increase in Provost area FPR

II. Expenditures, A. Operating expenses

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A. Operating Expenses, Research Administration

- A.1. Contractual Services: +\$480,000, increase in insurance costs for OVPR-assigned space/buildings
- A.2. RIS Operating & Software: +\$20,400, increase in research computing software costs
- A.3 OSPA: +\$7,000, increase in training
- A.4. Federal Relations: +\$34,800, increase in Federal Relations consulting fees
- A.5. OTC: -\$29,600, realignment of funding for technology commercialization
- A.7. Discretionary Accounts: -\$1,400, decrease in discretionary needs for Research Administration
- A.9. OAV: +\$25,600, increase in cost of mandatory occupational health medical questionnaires
- A.11. Research Admin Facilities Management: +\$20,000, increased maintenance for aging facilities
- A.13. Proposal Development Office: +\$10,600, Asana software seats & increase in cost of Pivot-RP
- A.15. Research Financial Services: -\$75,000, F&A rate consultant only needed in negotiation years
- A.17. CGS Operating: -\$40,600, align with actual operating needs
- A.18. Research Data Security: +\$20,000 estimated operating costs for new department

II. Expenditures, B. Other activity

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B. Other Activity

B.1. Contingency reserve: -\$2,409,000, 10% of F&A estimate required by bylaws

B.2. Private gifts/endowments: +\$76,725, colleges are anticipating an increase in gift/endowment expenditures

B.3. Intellectual Property License Expenses: +\$500,000, estimates of patent/license costs

B.4. Intellectual Property Royalty Sharing: -\$400,000, fund balance carryforward lower than last year

B.5. UK Innovate Royalty Sharing: -\$177,000, fund balance carryforward lower than last year

B.6.a Clinical Research Support Office fees: +\$20,000, increase in fees

B.6.b. Viticulture Sales: +\$20,000, increase in viticulture sales

B.6.c. Estate Whiskey Alliance: +\$134,000, first full year receiving alliance memberships

II. Expenditures, C. Research Programs

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C. Research Programs

C.1.a. Formulaic start-up: -\$4,818,000, proportionally decreased with the F&A income estimate

C.1.b. Non-formulaic start-up: +\$737,100, committed start-up for new faculty

C.2.a-c. Research Activity/Enrichment return programs to colleges/centers: -\$7,318,944, Enrichment return programs will decrease proportionally with the F&A income estimate

C.3.a. Faculty Research Support: -\$610,000, pausing Research Leadership Academy. Completed commitment to Kentucky Research Data Center

C.4. Grant Related Support: -\$150,700, fewer requests for grant support were submitted than FY25

C.6. University Wide Initiatives, -\$873,000, CRSO moved to Research Administration & not funding SERCAT Beamline

C.7.a-c. Strategic Investment Fund: -\$4,000,000, no new funding to Research Priority Areas

C.8.a. Fund Balance Carryforward Estimate: +\$5,000,000, fund balance across departments, colleges, centers

II. Expenditures, D. Student/Training Support

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D. Student/Training Support

D.2. LTJ Postdoctoral Fellowship: -\$150,000, honoring commitment to current LTJ Fellows, pausing new postdoctoral fellows

D.3. University Research Postdoctoral Fellowship: -\$150,000, honoring commitment to current University Research Fellows, pausing new postdoctoral fellows

D.4. Graduate School Program Support: +\$42,500, increase in out-of-state tuition differential

University of Kentucky Research Foundation Budget

- The FY26 UKRF budget reflects our pledge to continue to advance Kentucky through the principles of UK-PURPOSE.
- We are dedicated to advancing high-impact research and ensuring that our principal investigators have the infrastructure and resources they need to thrive.
- As we navigate a period of uncertain funding, we are committed to transparency and frequent communication to keep our research community informed and engaged.