



Office of Research & Creative Activity 2024 ANNUAL REPORT



WELCOME FROM THE OFFICE OF RESEARCH & CREATIVE ACTIVITY

Dear Colleagues,

I am excited to share the 2023-2024 Annual Report from the Office of Research & Creative Activity. Special thanks to the members of the WKU campus community whose efforts have contributed to this year's successes in research, creative and scholarly activities, public service, and sponsored projects.

We are proud that WKU's research activities and external funding continue to grow. In 2023-2024, WKU received external awards totaling over \$30 million. This represents more than a 36% increase in external funding from the previous fiscal year. During the same period, WKU's research expenditures increased by 20% to over \$11 million. These successes, due to the outstanding efforts and accomplishments of our faculty, staff and students, illustrate the continued expansion of WKU's research mission.

WKU demonstrates its commitment to research by investing in programs such as the Provost's Office Transdisciplinary Opportunity Grant, the Research and Creative Activities Program (RCAP), and Faculty Undergraduate Student Engagement (FUSE) grants. We will soon welcome our inaugural cohort of Distinguished First-generation Research Fellows, first-generation college students who are now WKU graduate students. During their graduate programs, these Fellows will conduct independent research under the guidance

of a faculty mentor, enhancing their research skills and gaining valuable professional development opportunities.

We celebrate all of this year's external funding awards, research outcomes, creative exhibitions, and public service initiatives. In this report, we showcase activities across campus, including Project CARES, an innovative teacher apprenticeship program led by Dr. Sue Keesey, Director of the School of Teacher Education. Our student spotlights highlight our longstanding commitment to student-centered applied research. We also celebrate an impressive example of the return on investment from our RCAP and FUSE programs via the work of Dr. Jason Stewart, Associate Professor of Biology, who received multiple funding awards from the National Institutes of Health for his DNA replication and cancer biology research following serving as a FUSE mentor and RCAP awardee.

We hope you will enjoy learning more about WKU's dedication to impactful applied research, interdisciplinary innovation, and community engagement through this year's annual report. The Office of Research & Creative Activity thanks the entire Hilltopper community for their contributions to the outstanding activities outlined in this report.



Jenni L. Redifer, Ph.D.
ASSOCIATE PROVOST FOR RESEARCH



The mission of the Office of Research & Creative Activity (ORCA) at Western Kentucky University is to provide outstanding support for the research, service, creative activities, and scholarly endeavors of our faculty, staff, and students. Our staff is dedicated to partnering with the university community to increase external support for these activities, while ensuring compliance with federal, state, local, and institutional regulations.

Our unit includes the Office of Sponsored Programs, the Office of Research Integrity, and Grants and Contracts Accounting.

The Office of Sponsored Programs (OSP), a service arm of ORCA, supports Western Kentucky University's faculty and staff in securing and administering extramural funding. Extramurally funded projects enhance faculty research, applied stu-

Office of Research & Creative Activity Services

dent research experiences, teaching, student services, creative and scholarly endeavors, public service, and community engagement, while promoting experiential learning through student involvement in research, creative projects, and service.

The Office of Research Integrity (ORI) provides guidance in the

protection of the rights, welfare, and security of faculty, staff, and students involved in research activities throughout the WKU campus system and supporting communities to ensure compliance with federal, state, and local requirements. Committed to maintaining the highest standards, ORI ensures all research at WKU adheres to institutional policies and oversight requirements mandated by law.

Grants and Contracts Accounting (GCA) oversees the post award financial management of all external grants, contracts, and agreements at WKU. For inquiries about expenditures, balances, or other financial details related to these awards, GCA serves as the primary point of contact.



By the Numbers

In Fiscal Year 2024, WKU submitted 189 external funding proposals resulting in funding totaling \$30,639,381. The dollar amount of awards received increased by \$8,410,129 million compared to the previous year, representing a 36% increase from FY23's total of \$22,229,252.



By Sponsor Type

\$24,421,274 (79.7%) of WKU's Fiscal Year 2024 external funding was awarded by federal sponsors. The largest amount of federal funding (\$14,520,090) was awarded by the U.S. Department of Health and Human Services, followed by the U.S. Department of Education (\$4,462,943).

By College

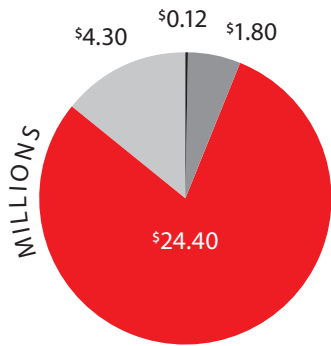
External funding supports a wide range of academic, creative, and scientific endeavors, fostering innovation and scholarship across WKU's academic colleges. Awards to the College of Education and Behavioral Sciences and the College of Health and Human Services, totaling \$13,166,598 and \$8,040,180 respec-

tively, accounted for \$21,206,778 or 69% of the total awarded dollars. External funding awarded to the Ogden College of Science and Engineering (OCSE) totaled \$4,493,580. Potter College of Arts & Letters (PCAL) received \$2,029,250 in external funding, representing a 24.6% increase from the previous year.

By Project Type

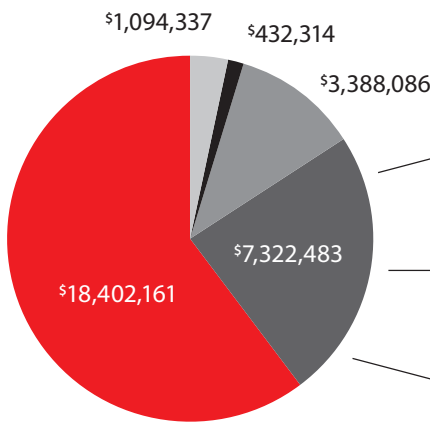
Included in the total awarded to WKU is \$3.2 million in indirect costs (Facilities and Administration). These funds support WKU's research facilities, research support units, and additional programs to support the research, creative, and scholarly activities of WKU faculty and students.

External Grant Awards by Sponsor Type



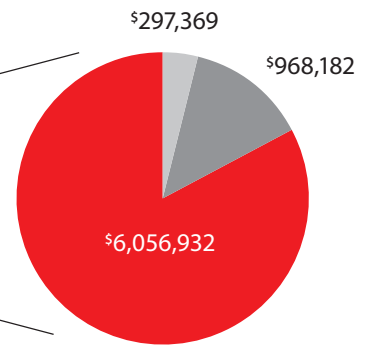
Federal State
Local Private

Awards by Project Type



Instruction Research Public Service
Student Services Equipment

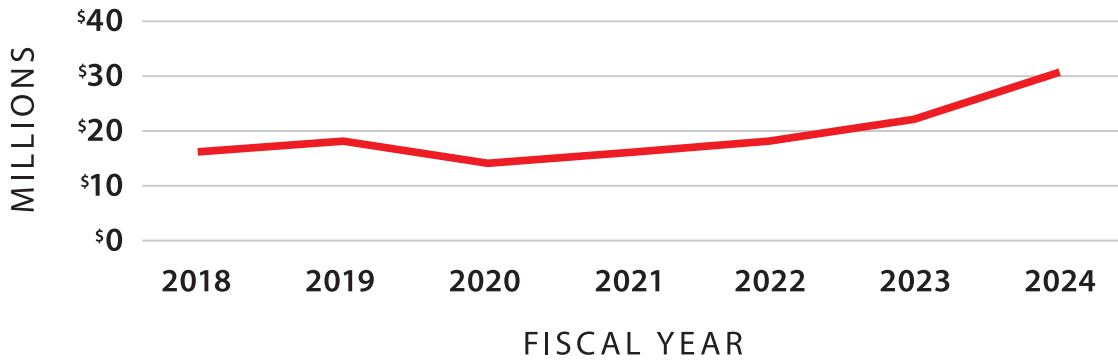
Research Awards by Project Type



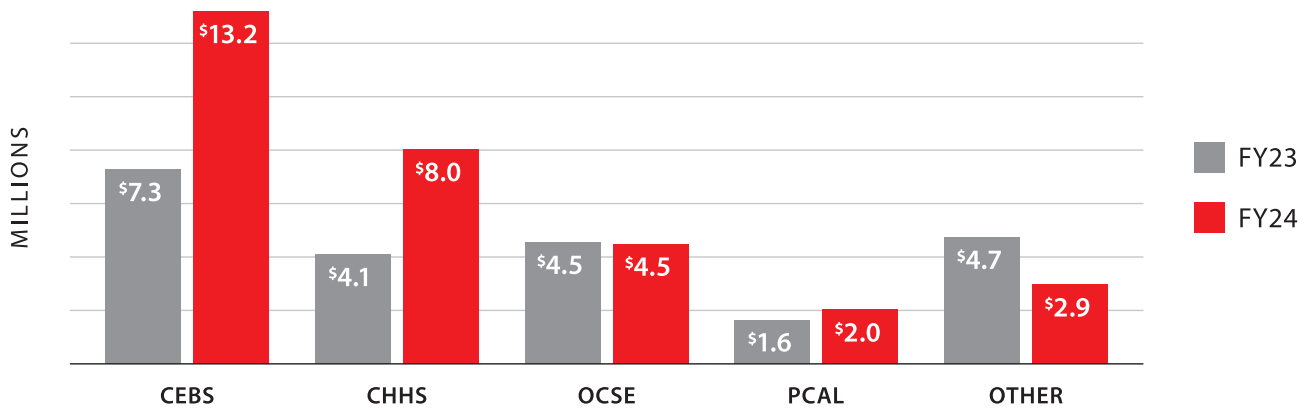
Basic Applied
Developmental



WKU External Funding FY 2018–2024



FY24 External Funding by College



Project CARE

Shaping Kentucky's Future Teachers



Project CARE (Collaborative Apprenticeships for Rural Educators), a four-year, \$2 million U.S. Department of Education grant, is revolutionizing teacher preparation in rural Kentucky. Led by Dr. Susan Keesey, Director of the School of Teacher Education, this initiative supports

high school students pursuing K-12 teaching careers through an innovative partnership with the Kentucky Community and Technical College System (KCTCS).

High school students enroll in a dual credit K-12 Teaching and Learning Early College Pathway, earning

up to 60 hours toward a bachelor's degree at WKU. Flexible coursework, clinical experiences in a residency model, and robust advising ensure student success. A unique paid Registered Apprenticeship Program allows participants to complete their degree within two years of high school graduation.

Serving fourteen Kentucky school districts, including Allen, Grayson, and Nelson Counties, Project CARE addresses the critical teacher shortage by empowering rural students to become educators in their home communities.

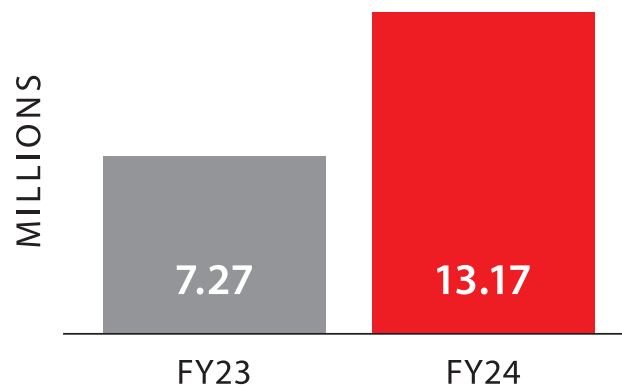
"This collaborative partnership opens opportunities for rural students to become teachers, addressing Kentucky's teacher shortage."

DR. SUSAN KEESEY
PROJECT DIRECTOR

"This project transforms how we grow future teachers. I've observed apprentices stepping into classrooms with confidence, purpose, and a deep commitment to the profession. It's an honor to support their journey."

DR. ANGELA NAGEL
PROJECT CARE CLINICAL
COORDINATOR

CEBS Funding Increase FY23 to FY24



A \$2M U.S. Department of Education Grant to Empower Rural Educators

\$2,035,668
Over 4 Years

U.S. Department of Education RPED grant (97% of project funding)



14 school districts

in Kentucky served, including Caverna Independent, Grayson County, and Nelson County

60 credit hours

students can earn toward a bachelor's degree in high school

2 years

to complete a bachelor's degree post-high school via apprenticeship

"This award helps WKU build a framework for educator apprenticeship, resolving the teacher shortage in our Commonwealth."

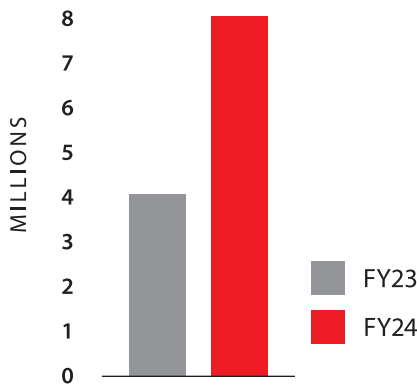
DR. CORINNE MURPHY
DEAN

Funded by the U.S. Department of Education's Rural Postsecondary and Economic Development (RPED) Program

Transforming Lives through Collaborative Research for Stronger Children

LCCWEAR: LifeSkills Center for Child Welfare Education and Research

CHHS Funding Increase FY23 to FY24



Established on June 21, 2019, the WKU LifeSkills Center for Child Welfare Education and Research (LCCWEAR) is Kentucky's first child welfare center, serving as a catalyst for transformative change. With a mission to empower child welfare professionals and improve outcomes for families, LCCWEAR focuses on rural, immigrant, and refugee communities. Through multidisciplinary partnerships, collaborative research, and innovative solutions, the center drives lasting impact for Kentucky's most vulnerable populations.

A Year of Impact: FY24 Achievements

Under the leadership of Director Dr. Austin Griffiths, LCCWEAR achieved remarkable milestones:

- Secured over \$6 million in external funding, earning Dr. Griffiths the prestigious Five Million Dollar Grant Club award.
- Submitted six external grant proposals, expanding resources for child welfare initiatives.
- Strengthened statewide partnerships to promote best practices in child welfare and health.
- By leveraging data-driven insights and fostering alliances, LCCWEAR is building a brighter future for children and families, reinforcing the belief that child welfare is a shared responsibility.

LCCWEAR awards contributed significantly to the increase in external funding in the College of Health and Human Services.

Child welfare belongs to all of us. Together, we're creating a brighter future for Kentucky's children.

DR. AUSTIN GRIFFITHS
DIRECTOR, LCCWEAR

Funding Success: \$6M+ Secured in FY24



Austin Griffiths



Daniel Boamah



Matt Woodward



Austin Weiler



Julia Johnson



Rachel Wyatt



Monica Hines

On April 6, 2024, Western Kentucky University hosted its 54th Annual Student Scholar Showcase at the Downing Student Union, highlighting student achievement across disciplines.

The event featured 287 research and creative projects, including 172 posters/exhibits, 109 oral presentations, and 6 performances by undergraduate, graduate, and Gatton Academy students.

Student presentations took place from 9 a.m. to 3:30 p.m. and were free and open to the public. Projects were organized into graduate and undergraduate sessions, grouped by subject areas such as natural sciences, social sciences and education, health and human services, arts and human-

ities, business, and interdisciplinary studies.

Funding for the annual WKU Student Scholar Showcase was provided by the Office of the Provost and Vice President for Academic Affairs and the Office of Research

and Creative Activity. The WKU Student Scholar Showcase Council coordinated the event, continuing a long-standing tradition of promoting academic excellence and student success.

WKU Celebrates 54th Annual Student Scholar Showcase



In FY24, WKU continued to drive academic excellence through its internal grant programs, including the Research and Creative Activity Program (RCAP) and the Faculty Undergraduate Student Engagement (FUSE) grants. These programs empower faculty and students to pursue groundbreaking research, creative projects, and scholarly activities, positioning WKU as a hub of intellectual discovery.

RCAP supports full-time faculty and instructors as they develop innovative projects that lay the foundation for external funding and advance scholarship, research, and the arts. One powerful example is the work of faculty member, Jason Stewart, Assistant Professor of Biology. Dr. Stewart was awarded an RCAP for his work in DNA replication, molecular biology, and cancer biology. He also mentored three FUSE grant students. Dr. Stewart will continue his work with the help of over \$100,000 in funding from the National Institutes for Health.

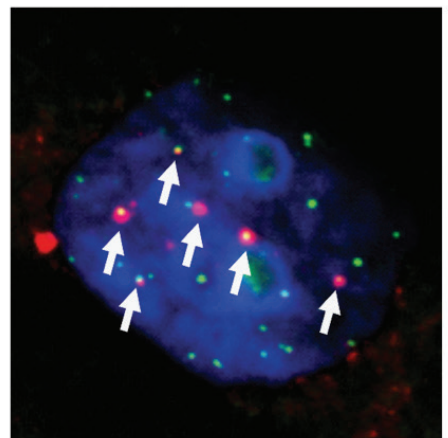
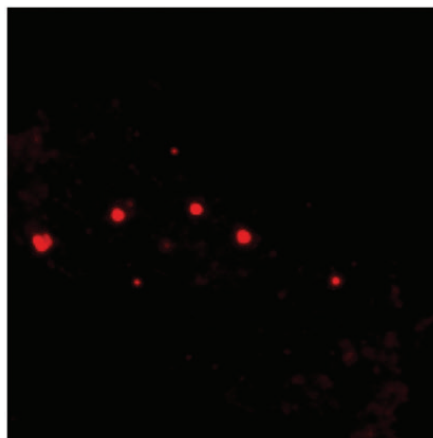
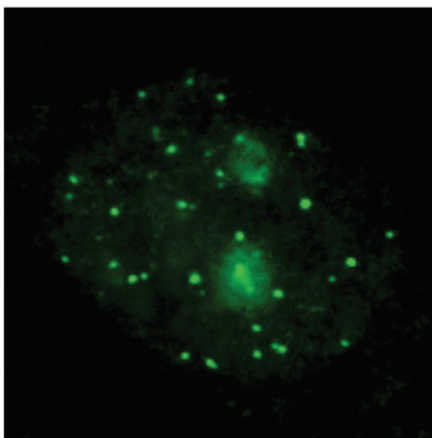
Travis Newton, Associate Professor of Film and Coordinator of the Film Program within the School

RCAP and FUSE Grants Empower Faculty and Students

WKU research, creative activities, innovation, and mentorship through internal grants, fostering a culture of inquiry and collaboration.

RCAP Awardee
Dr. Jason Stewart
secured over
\$100K
in NIH funding

of Media & Communication, was awarded RCAP funding to produce a short virtual creative piece exploring the possibilities of creating films entirely in a virtual environment. His use of cutting-edge equipment demonstrates a forward-thinking approach to filmmaking that will pave the way for student projects, enabling



From Dr. Jason Stewart's lab, fluorescence microscopy images of telomeres (green) bound by the DNA damage marker RPA (red). Blue denotes the cell nucleus. Our lab studies the CST protein complex, which helps maintain telomeres.



NKU. Alex, a Senior in the Ogden College of Science and Engineering, who is majoring in Medical Laboratory Science, completed a FUSE project entitled “Displacement of Pt(dien)Cl by 9-Ethylguanine and Silver Nitrate.” The results will help determine the stability and potential of Pt(dien)Cl as a reliable drug that prevents cell division. Alex plans to continue this research with the goal of developing a more targeted and advanced form of chemotherapy aimed at inhibiting cancer growth.

These internal investments not only advance individual projects but also strengthen our university’s broader culture of discovery and creative expression.

Transforming Ideas into Impact: FY24 Highlights

Together, RCAP and FUSE awarded over \$480,000 in FY24, supporting projects that led to national presentations, publications, and external funding. By investing in faculty and student potential, these programs strengthen WKU’s academic community and contribute to knowledge that transforms lives.

ORCA also allocates funding to Graduate Student Research Grants, Graduate Student Travel Grants, and Quick Turn-Around Grants.

Altogether, these programs, in Fiscal Year 2024, provided \$445,927 in funding to over 100 faculty members and \$309,409 to more than 120 graduate and undergraduate students.

them to incorporate motion capture technology into their films and expand the boundaries of performance into the digital realm. This initiative will not only enhance the capabilities of the film program but will also position students to be leaders in innovative storytelling.

The FUSE program engages undergraduates in research and creative activities. FUSE grants support independent research conducted by WKU undergraduate students, under the mentorship of WKU faculty. The FUSE program equips students with skills for professional success, conference presentations, and graduate studies. FUSE supported 62 students like Morgan Stansell and Alex Bentley. Morgan, an Elementary Education major and WKU Literacy Ambassador, was awarded FUSE funding for her project, “Impact of Community Engagement on Teacher



Candidate Self-Efficacy and Ability to Provide Book Access.” Morgan went on to be recognized for this research at the annual KATE Conference at

\$755,336 FY24 Total Internal Grant Funding



WKU Celebration of Research & Sponsored Activities

**Honoring Faculty and Staff Advancing
Research and Creative Endeavors**

The WKU Celebration of Research & Sponsored Activities, held on January 29, 2025, at the Eva and Jim Martens Alumni Center honored faculty and staff in their outstanding efforts towards both submitting and being awarded grant proposals for the fiscal year.

These efforts secure grant funding for research and creative activities. This annual event celebrates the incredible accomplishments of WKU faculty and staff in securing external funding for research and creative activities throughout the fiscal year.

The evening began with inspiring opening remarks from President Timothy C. Caboni, setting the stage for an awards presentation by Dr. Jenni Redifer, Associate Provost for Research. The atmosphere was energized with success as the event highlighted outstanding individuals and departments who had demonstrated exceptional dedication to scholarly and artistic endeavors.

Attendees were treated to a visually stunning showcase of select research projects displayed throughout the Robertson-Feix Grand Ballroom, underscoring the excellence of WKU's researchers. The event recognized several categories of achievement, including the First Time Lead



Award for those awarded their first external grant, the Prolific Proposer Award for those who submitted more than five proposals, and the One Million Dollar and Five Million Dollar Grant Clubs for those securing significant external funding.

In addition to honoring individuals, departments and colleges were recognized for their collective achievements, such as the department with the largest number of faculty proposals and awards, and the college with the highest amount of external funding.



FY24 Awardees: Leading the Way in Research and Creativity

First Time Lead Award (Individuals who were awarded their first external grant in FY 24)

- Lee Bledsoe
- Lynette Breedlove
- Amy Engelhoven
- Nick Fortune
- Kimberly Green
- Sungjin Im
- Bryan Jones
- Patrick Ledwidge
- Lei Li
- Joseph Marquardt
- Robert Peterson
- Stephanie Prichard
- Qingfang Song
- Ginny Steenbergen Hensley
- Jason Stewart
- Erin Warfel

Prolific Proposer Award (Individuals who submitted more than five external grants in FY 24)

- Vladimir Dobrokhotoy
- Austin Griffiths
- Kirolos Haleem
- Christina Noel
- Catherine Malin

The One Million Dollar Grant Club (Individuals who have received more than one million dollars in external grants by FY24)

- Susan Keeseey
- Kirolos Haleem
- Rachel Tinius

The Five Million Dollar Grant Club (Individuals who have received more than five million dollars in external grants by FY24)

- Austin Griffiths



Outstanding Research Administrator Award

- Wendy DeCroix

Research MVP

- Regina Allen

*Staff, you are the
unsung heroes of the
grant world. We are
indebted to you for
all you do to support
grant applications and
administration.*

DR. JENNI REDIFER

Department Award for Largest Number of Proposing Faculty

Earth, Environmental, and
Atmospheric Sciences

Department Award for Largest Number of Faculty Awardees

Chemistry and Biochemistry

College Award for Highest Amount of External Funding

College of Education and
Behavioral Sciences



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wku.edu/research