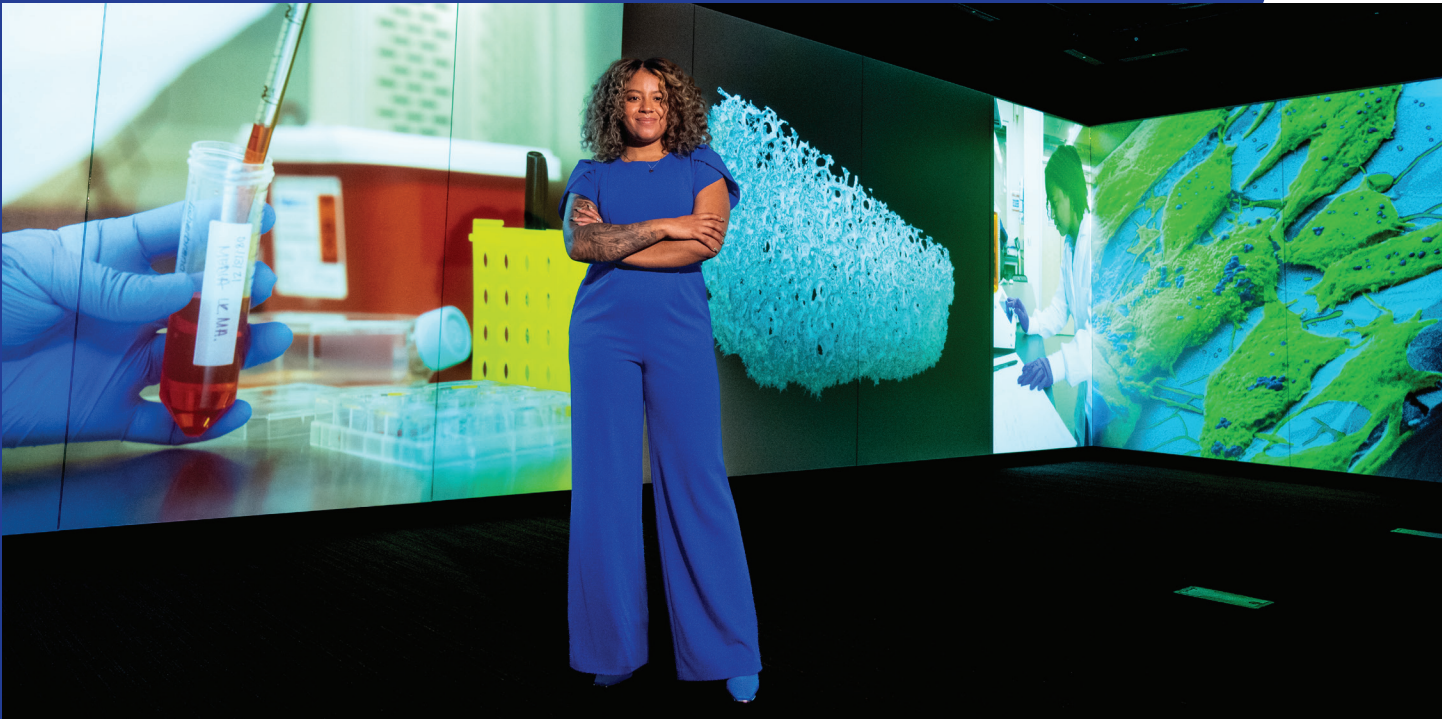


2024

DIVISION OF RESEARCH AND ECONOMIC DEVELOPMENT ANNUAL REPORT



2024: A YEAR OF GROWTH

We are excited to share this annual report from the Division of Research and Economic Development at Boise State University. This report highlights our growing research and creative activity portfolio, which saw awards exceed \$83 million this fiscal year. Expenditures nearly doubled over ten years to exceed \$70 million, showcasing our commitment to driving innovation and impactful projects across a wide range of disciplines. This document outlines the foundational expertise that elevates Boise State's research communities to new levels of creativity and collaboration.

boisestate.edu/research



BOISE STATE UNIVERSITY

DIVISION OF RESEARCH AND ECONOMIC DEVELOPMENT ANNUAL REPORT

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MESSAGE FROM THE VICE PRESIDENT: NANCY GLENN

CRAFTING SOLUTIONS, DELIVERING SUCCESS

It brings me great joy to present our inaugural Annual Report on Research and Creative Activity at Boise State University. But this isn't just a report—it's a celebration of the remarkable achievements and discoveries driven by our research and creative activity community. From the groundbreaking research initiatives undertaken this year to the substantial contributions of our faculty, staff and students, Boise State research is advancing knowledge and powering economic development in real time.

Our institution is dedicated to fostering a culture of discovery, collaboration and excellence. Through strategic investments in cutting-edge research infrastructure and strong partnerships with industry, government and other academic institutions, we continue to position ourselves at the forefront of innovation.

I am deeply grateful for the support and commitment of the Division of Research and Economic Development staff and all units across campus that contribute to and support research and creative activities. In 2024, the Division of Research and Economic Development has been instrumental in helping our campus navigate the research and creative activity process, from discovering funding and ensuring compliance to preparing and submitting extramural proposals, negotiating awards, managing ongoing projects, and sharing success stories.

As we celebrate the past year's achievements, we're energized and ready to amplify our efforts. Our campus-wide dedication to advancing the frontiers of knowledge is invaluable. Together, we will continue shaping a brighter future through research and innovation.

Go Broncos!



Nancy Glenn, PhD, P.E.

**Vice President for Research
and Economic Development**

DIVISION INTRODUCTION

Imagine a place where ideas take flight, where students and faculty explore new frontiers of knowledge, and where creativity and innovation are nurtured. This is the essence of the Division of Research and Economic Development at Boise State University.

About Us

MISSION

The Division of Research and Economic Development is committed to cultivating an environment where education through research, scholarly endeavor and creative activity thrives.

We provide comprehensive support for faculty, staff and student research and creative activity, guide research strategic directions, manage the university's intellectual property portfolio, facilitate relationships with stakeholders, and lead economic development and innovation.

VISION

Our vision is to lead the university's student-centered research and creative activity enterprise, advancing quality projects and innovative pursuits.

GUIDING VALUES STATEMENT

We will uphold the university's values through promotion of collaboration across the research enterprise, thereby building inclusive partnerships, both internally and externally.

What We Do

We remain steadfast to our three pillars of research and creative activity endeavors:

1. Technology and Innovation
2. Health and Wellbeing
3. Environment and Natural Resources

Offices within the Division

- Center for Research and Creative Activity
- Research Enterprise Services
- Office of Research Compliance
- Office of Technology Transfer



DIVISION OF RESEARCH AND ECONOMIC DEVELOPMENT STRATEGIC PLAN

Goal #1:

Operationalize and scale research support infrastructure within and beyond the Division of Research and Economic Development.

Goal #2:

Create a culture where our people are thriving in their professional roles, contributing to our mission and are proud to work at Boise State.

Goal #3:

Grow and diversify a sustained strategic portfolio that advances student excellence and funded research and creative activity.

STRATEGIC PLAN OBJECTIVES

Goal 1: Objective 1

Incentivize campus units external to the Division to operationalize research in their processes, policies and procedures

- Modernized the Division's digital presence
- Enhanced research security
- Innovated support and policy related to research and creative activity

Goal 1: Objective 2

Prepare Boise State to be competitive and compelling in the funding market

- Bolstered the Division's support teams for campus
- Strengthened research integrity for campus
- Empowered researchers with new training opportunities

Goal 1: Objective 3

Streamline and advance the quality of Division services to campus

- Streamlined research administration with innovative software systems
- Advanced Boise State data infrastructure
- Enhanced collaboration between Division units



STRATEGIC PLAN OBJECTIVES

Goal 2: Objective 1

Create a shared vision

- Strengthened strategic focus on shared goals and objectives in the Division
- Standardized hiring practices within the Division

Goal 2: Objective 2

Define and support meaningful career paths in the Division

- Laid the foundation for a thriving future through unit-wide career pathing

Goal 2: Objective 3

Develop leadership team and members

- Identified key priorities for leadership team in line with Division's Strategic Plan

Goal 2: Objective 4

Increase impact and recognition of work

- Showcased Research and Creative Activity excellence through robust communications efforts
- Recognized Division employee excellence

STRATEGIC PLAN OBJECTIVES

Goal 3: Objective 1

Innovate and grow industry and entrepreneurship in research

- Enhanced visibility of Boise State Industry Partnerships with strategic communications efforts
- Grow support programs to enable entrepreneurship

Goal 3: Objective 2

Facilitate and support industry connections

- Forged strategic alliances with key Idaho partners

Goal 3: Objective 3

Use the Center for Research and Creative Activity to grow scholarship

- Empowered faculty through informative funding workshops
- Facilitated networking for faculty and staff through mixers and connection events

Goal 3: Objective 4

Create synergistic opportunities for entrepreneurial, economic and other activities

- Enhanced community impact by forging strategic partnerships

Goal 3: Objective 5

Leverage centers, institutes and similar research facilities to drive thematic research

- Developed a Strategic Plan to support centers, institutes, recharge centers and CORE facilities



FISCAL YEAR 2024 HIGHLIGHTS

Top Award Funding Sources

59% Federal
23% Federal Flow-Through
13% State of Idaho

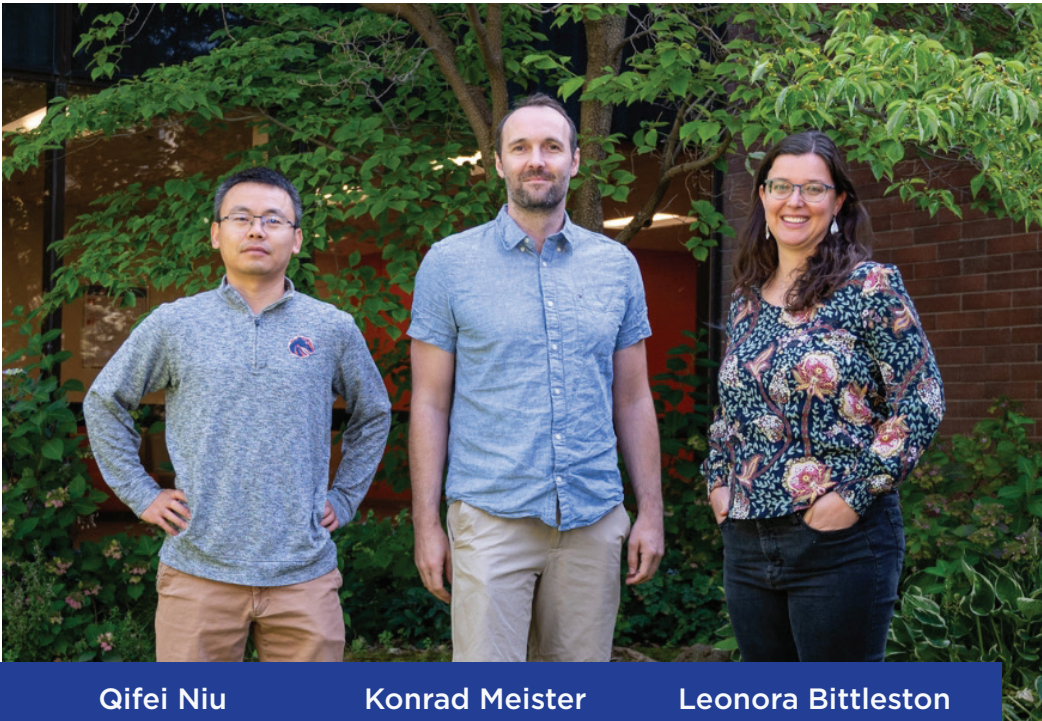
Top Federal Expenditures

27% National Science Foundation
14% U.S. Department of Education
12% National Institutes of Health/DHHS
10% U.S. Department of Energy
6% National Aeronautics and Space Administration

Awards and Expenditures

\$83+ Million Total Awards
392 Awards Received
\$70+ Million Total Expenditures
\$53 Million Research Expenditures*
**FY2023 Higher Education Research and Development (HERD) Survey Research Expenditures*

FY2024 NATIONAL SCIENCE FOUNDATION CAREER AWARD RECIPIENTS



Qifei Niu
Assistant Professor

Konrad Meister
Assistant Professor

Leonora Bittleston
Assistant Professor

TEN YEAR NSF CAREER AWARD TOTAL CAREER AWARD RECIPIENTS:

26

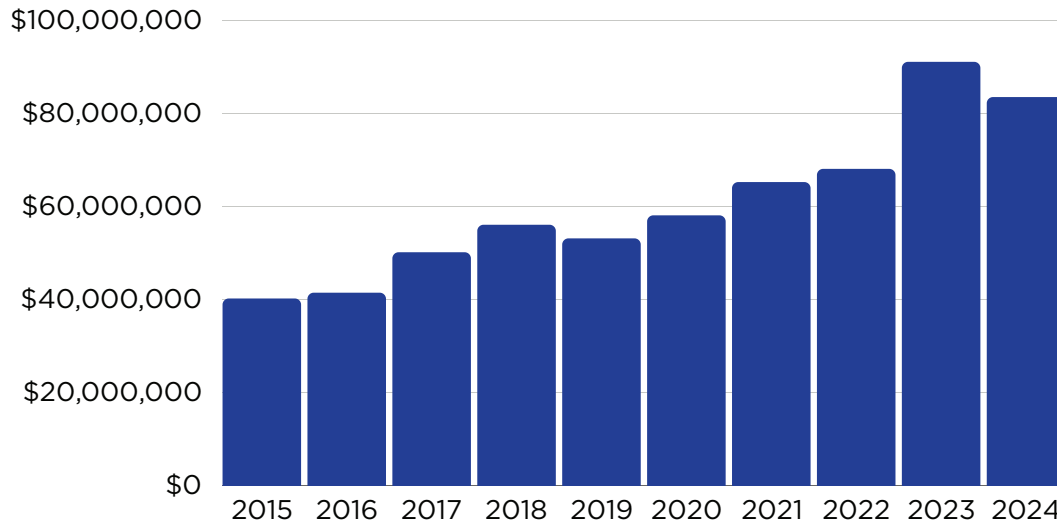
FY2024 NSF CAREER AWARDS

3

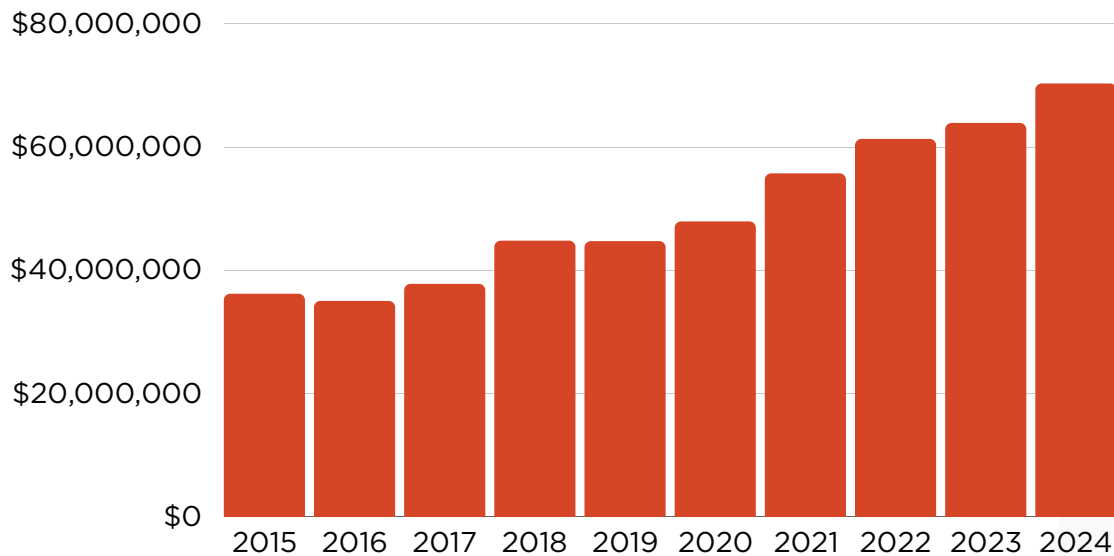


TEN YEAR GROWTH

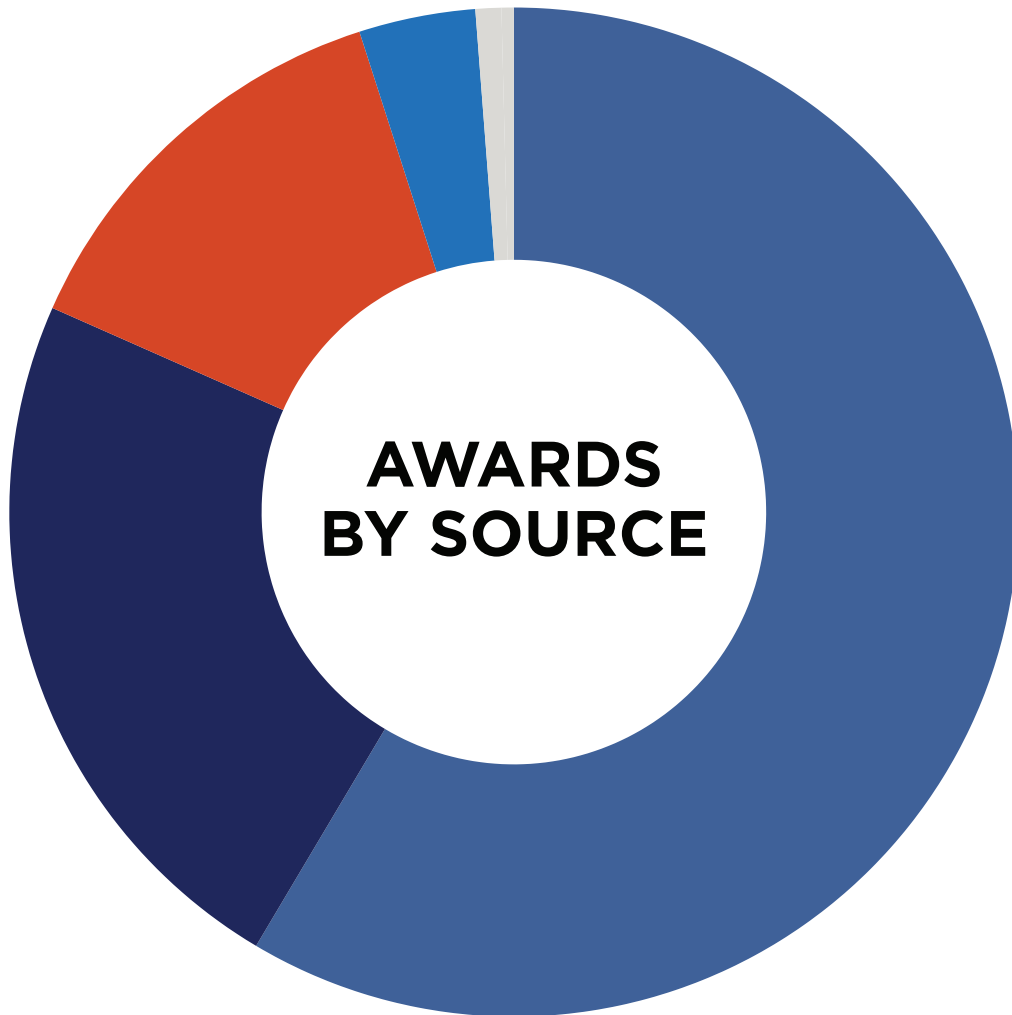
Total Awards by Fiscal Year



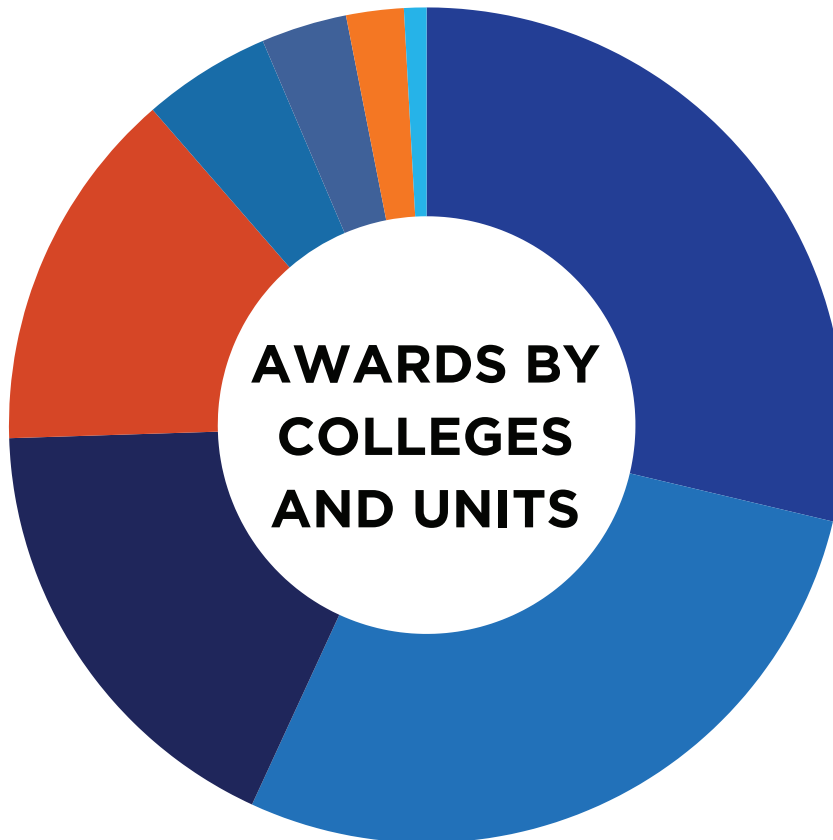
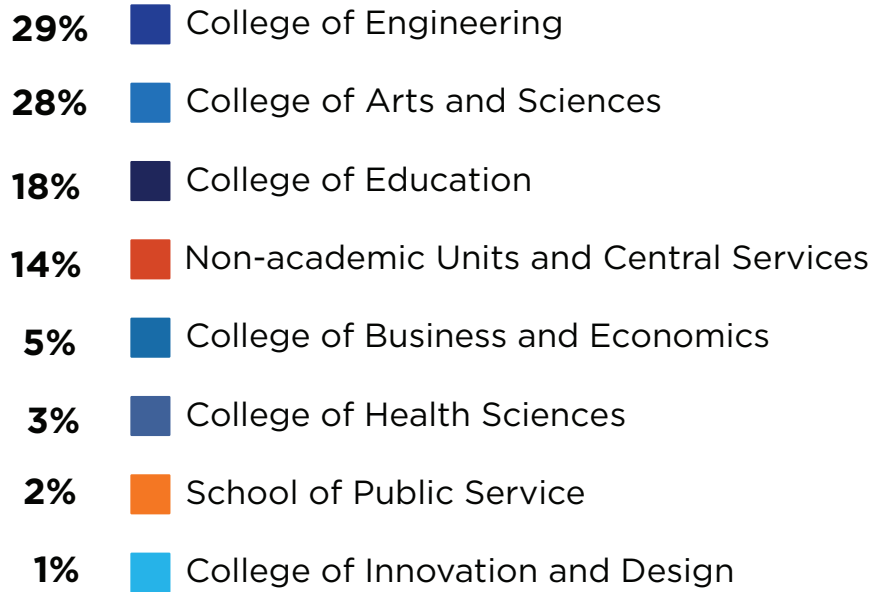
Total Expenditures by Fiscal Year



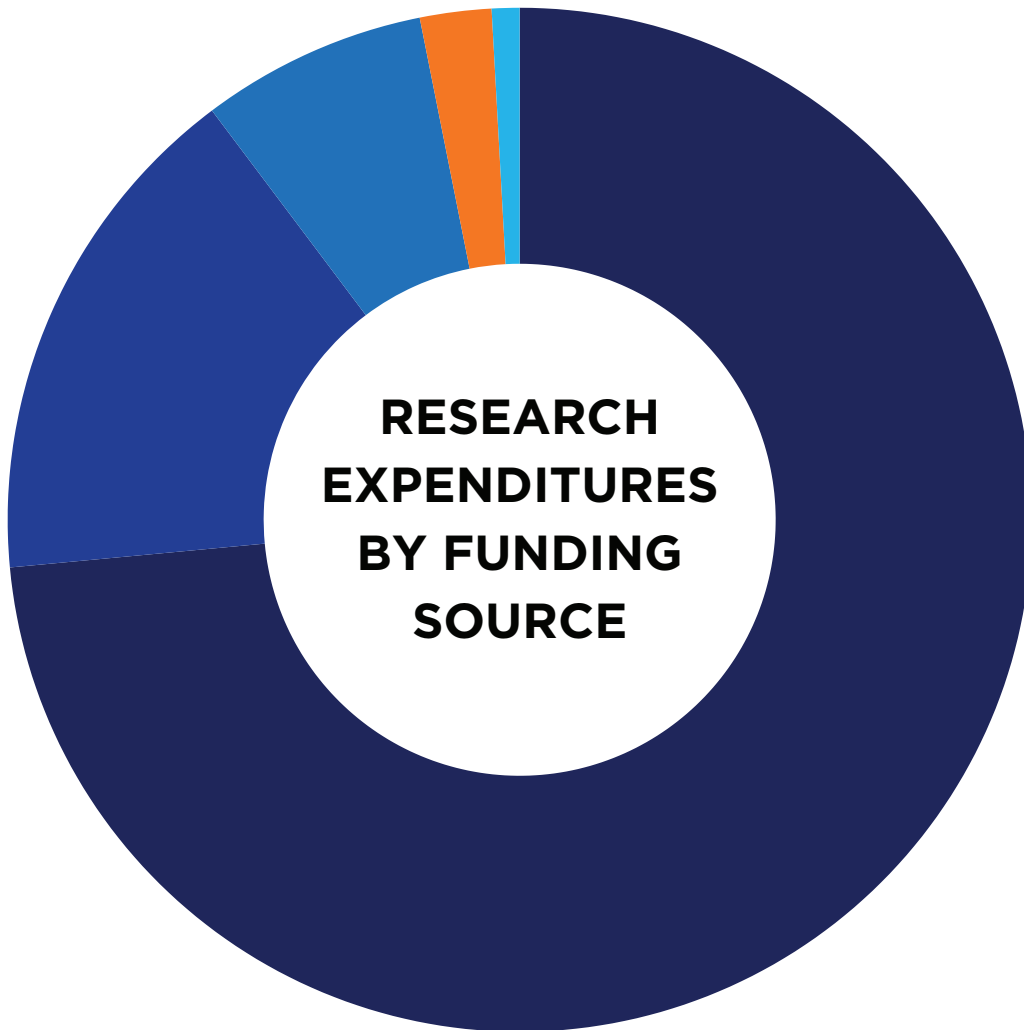
FY2024 AWARD DETAIL



FY2024 AWARD DETAIL



FY2023 HERD RESEARCH EXPENDITURES



FY2023 HERD RESEARCH EXPENDITURES





RESEARCH AND CREATIVE ACTIVITY SPOTLIGHTS

INTERDISCIPLINARY INNOVATION THAT SHAPES THE FUTURE, ONE DISCOVERY AT A TIME

Solving Grand Challenges Requires Daring Collaboration

How do we create an Idaho that is healthier for everyone? How can we make urban and rural systems more resilient and sustainable in the face of unprecedented growth and climate crises?

Grand Challenges like these are urgent, societally-relevant issues that require creativity and transdisciplinary collaboration to answer. At Boise State, we've committed to answering these questions by connecting expert scholars and creating partnerships across sectors.



Scan the code to learn more or visit boisestate.edu/research/grand-challenges

BOISE STATE FACULTY, STUDENTS, COLLABORATORS AND COMMUNITY PARTNERS ARE ENGAGED IN TWO SPECIFIC GRAND CHALLENGES: THE RESOURCE NEXUS FOR SUSTAINABILITY AND HEALTHY IDAHO.



Introducing the BlueWater Initiative at Boise State University

In Spring 2024, Boise State launched the BlueWater Initiative, an interdisciplinary effort uniting scholars across campus to build new educational programs, empower groundwater research and serve Idaho and the nation's stakeholders dedicated to preserving our most cherished resource: water.





Professor is cataloging decades of religious fashion history: His research landed him on Broadway

Scan the code to read the full story or visit boi.st/religious-fashion-history

By Anna Webb

“Doubt: A Parable,” a play by John Patrick Shanley, unfolds in the 1960s in a Catholic school in the Bronx. Sister Aloysius Beauvier, a member of the Sisters of Charity of New York who is principal of the school, suspects a charismatic priest of inappropriate behavior with a student. The story explores moral uncertainty, faith, power dynamics and gender roles. The play became a movie in 2008 starring Meryl Streep and the late Philip Seymour Hoffman.

“Doubt” is having its stage revival in New York City. Stars Tyne Daly and Zoe Kazan are wearing habits tailored by Associate Professor Darrin Pufall Purdy, director of University Theatre and Costume Design at Boise State.

The opportunity came to him thanks to his research project, writing a first-of-its-kind field guide to the traditional habits of 12 orders of American “women religious,” or nuns and sisters. The guide will help designers recreate historically accurate costumes for film, theater and television. Perhaps as significant, it will preserve elements of Catholic history, women’s history and fashion history.

Because of his familiarity with “Doubt,” Pufall Purdy reached out first to the Sisters of Charity of New York. The community invited him to the Bronx and, in 2021, with the help of a grant from the College of Arts and Sciences, he began his research. Pufall Purdy used the few remaining pieces of the historic habits in the order’s archive to create paper patterns and a faithful reproduction of the full garment. He consulted with Sister Elizabeth Vermaelen S.C., now in her 90s, who wore the habit for nearly two decades until 1968 when Vatican II allowed orders to adopt modern dress.

Pufall Purdy’s research made him an expert on the way the Sisters of Charity once dressed. So, when the producers of the New York revival of “Doubt” contacted the order in summer 2023, the sisters sent them to Pufall Purdy.

“This experience has evolved into a deeply personal journey, blending my artistic passion with the spiritual values ingrained in me from a young age,” Pufall Purdy said. “Beyond costume design, this work serves as a tribute to those devoted to a life of service. Creating the iconic habits for the first Broadway revival of “Doubt” expresses my respect for the sisters, allowing me to reflect on the person I’ve always been — a believer in faith, community, and the art of storytelling.”

Boise State University to Bolster Regional Innovation with National Science Foundation-supported TRANSFORM Project

Boise State is honored to be one of eighteen academic institutions in the nation to be selected to participate in the National Science Foundation's new Accelerating Research Translation program.

This four-year, \$6 million grant will allow Boise State's TRANSFORM project to expand support for translational research and creative activities across the university, impacting the region and nation.



A New Center Enhances Research and Opportunity for Biomedical Industry in Idaho

A five-year, \$10.2 million award from the National Institutes of Health will support the establishment of the Center of Biomedical Research Excellence in Convergent Engineering and Biomolecular Science (CEBS) at Boise State University. The grant supports collaborative projects among faculty and with industry across biomedical and engineering disciplines that focus on the development of biomedical devices, sensors and systems.



A Consortium to Advance Dairy Processing and Feed the World

Boise State leads Dairy Nutrisols, one of seven multidisciplinary teams from across the U.S. to combat hunger with a three-year award of \$5 million from the National Science Foundation Convergence Accelerator Track J: Food & Nutrition Security program.

BOISE STATE RESEARCH

In Fiscal Year 2024, **18 Boise State University experts** shared critical research and insight with the world through **27 articles** published in The Conversation U.S.

THE CONVERSATION



**GLOBAL REACH OF BOISE
STATE EXPERTISE IN 2024**

Scan the code to read Boise State's articles in The Conversation
or visit theconversation.com/institutions/boise-state-university-1983

**1,255,916
Reads**



**18
Boise State
Experts**



LEADERSHIP TEAM

Behind every successful venture stands a remarkable team



Nancy Glenn

Vice President for Research and Economic Development

Nancy Glenn leads the Boise State University research enterprise. She oversees research policy and strategy for the university, sets strategic priorities for the Division, and works with faculty, staff, community and industry partners to engage in the excitement of knowledge discovery and the research process.



Jana LaRosa

Assistant Vice President, Research Advancement and Strategy

Jana LaRosa directs the Center for Research and Creative Activity, a support center connecting faculty to responsive and integrative resources that enhance success in research mobilization, cross-campus and community connectivity, and growth and success as research leaders through tactical support in research development, education and training, and programmatic sustainability measures.



Matt Smith

Assistant Vice President, Research Enterprise Services

Matt Smith directs Research Enterprise Services, comprising two offices, the Office of Sponsored Programs and Research Administration Systems and Analytics. He is responsible for operationalizing and scaling research and creative activity support throughout the sponsored project life cycle, including customer service, personnel and systems infrastructure, compliance, reporting and growing industry, community and international partnerships.



LEADERSHIP TEAM

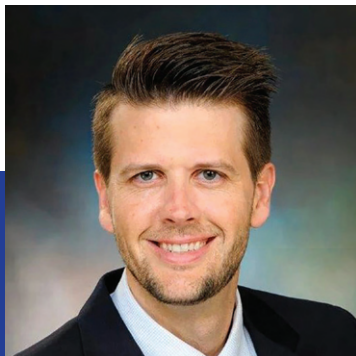
Great leadership turns vision into reality and empowers every step of the journey



Matt Lundgren

Assistant Vice President, Research Integrity and Infrastructure

Matt Lundgren leads the Office of Research Compliance guiding research integrity and compliance programs ranging from biosafety, animal care and human subjects research to research security, research integrity and research misconduct. He also supports operationalizing and scaling physical research space and infrastructure.



Brett Adkins

Director, Office of Technology Transfer

Brett Adkins leads the Office of Technology Transfer. He supports research and creative activities and manages the university's industry relations and intellectual property commercialization for Boise State University.



Roger Brown

Director, Economic Development and Community Affairs

Roger Brown manages economic development and community affairs for Boise State University. He supports economic growth and related activity with corporations, associations, government and other community organizations in support of university units, faculty, staff and students.



Megan Daigneau

Senior Business Operations Manager

Megan Daigneau leads the Division's shared Administration and Communication teams. She oversees budgetary and operations matters and assists the leadership team in identifying, developing and implementing the Division's strategic plan to achieve set goals and objectives.



THE DIVISION OF RESEARCH AND ECONOMIC DEVELOPMENT



**FOSTERING AN ENVIRONMENT
WHERE RESEARCH AND CREATIVE
ACTIVITY THRIVE BY PROVIDING
COMPREHENSIVE SUPPORT FOR
FACULTY AND STUDENTS.**



The Division of Research and Economic Development delivers a wide range of support services for research and creative activity projects at Boise State University.

(208) 426-5732

BoiseStateResearch@boisestate.edu

boisestate.edu/research

**Administration Building, Third Floor
1910 University Drive
Boise, Idaho 83725-1139**



BOISE STATE UNIVERSITY