

College of Natural & Agricultural Sciences

STATE OF THE COLLEGE

Tuesday, January 31, 2023



UCR RANKINGS

- No. 1 public university in the U.S. for social mobility four years in a row – U.S. News & World Report
- No. 1 for Hispanic enrollment among selective universities – Urban Institute
- No. 2 in the country for financial aid – Business Insider
- No. 2 in Entomology research in the world – Center for World University Rankings
- No. 3 in Hispanic STEM graduates in the nation – National Science Foundation
- No. 4 for Pell Grant student performance – Washington Monthly
- No. 9 among public universities for sustainability – Princeton Review
- No. 11 most diverse medical school – U.S. News
- Top 12 public university – Forbes "America's Best Value Colleges"
- No. 14 public university – CNBC "Colleges That Pay Off the Most"
- No. 20 public university – Princeton Review Best Schools for Making a Public Impact
- No. 31 in the world in plant and animal sciences – U.S. News & World Report



CNAS RANKINGS

- Top 1% for Most Popular Colleges for Mathematics – College Factual, 2022
- 4th for Highest Paid Bachelor’s Degree General Physics Graduates in California – College Factual, 2022
- Top 4% for Best Global Universities Subject Rankings in Plant and Animal Science – U.S. News & World Report, 2022
- Top 9% for Best Global Universities Subject Rankings in Chemistry – U.S. News & World Report, 2023
- 10th for Most Popular Colleges for Biochemistry, Biophysics & Molecular Biology – College Factual, 2022
- Top 13% of all ranked world universities for life sciences – Times Higher Education World University Rankings, 2022
- Top 14% of Best Colleges for Biology in America – Niche College Rankings, 2023
- Top 16% for physical sciences – Times Higher Education World University Rankings, 2022
- Top 18% for Best Global Universities Subject Rankings in Environment/Ecology – U.S. News & World Report, 2023
- Top 21% for Best Global Universities Subject Rankings in Materials Science – U.S. News & World Report, 2023
- Top 21% for Best Global Universities Subject Rankings in Physics – U.S. News & World Report, 2023
- Top 23% for Best Global Universities Subject Rankings in Geosciences – U.S. News & World Report, 2023
- Top 24% for Best Global Universities Subject Rankings in Physical Chemistry – U.S. News & World Report, 2023

CNAS MISSION

**To transform lives through
discovery, communication,
translation, application, and
preservation of knowledge.**

CNAS VISION

To enhance our position as a preeminent research college that epitomizes excellence in all that we do:

- Advancing and communicating knowledge
- Developing and inspiring future leaders
- Transforming communities
- Demonstrating that diversity is both a measure of excellence and a means of achieving it

CNAS DEAN'S VISION

Excellence in Inclusivity: Enhancing our diversity, equity, and inclusion efforts in CNAS and across campus

Graduate Programs: Strengthening support and resources for students in our graduate programs

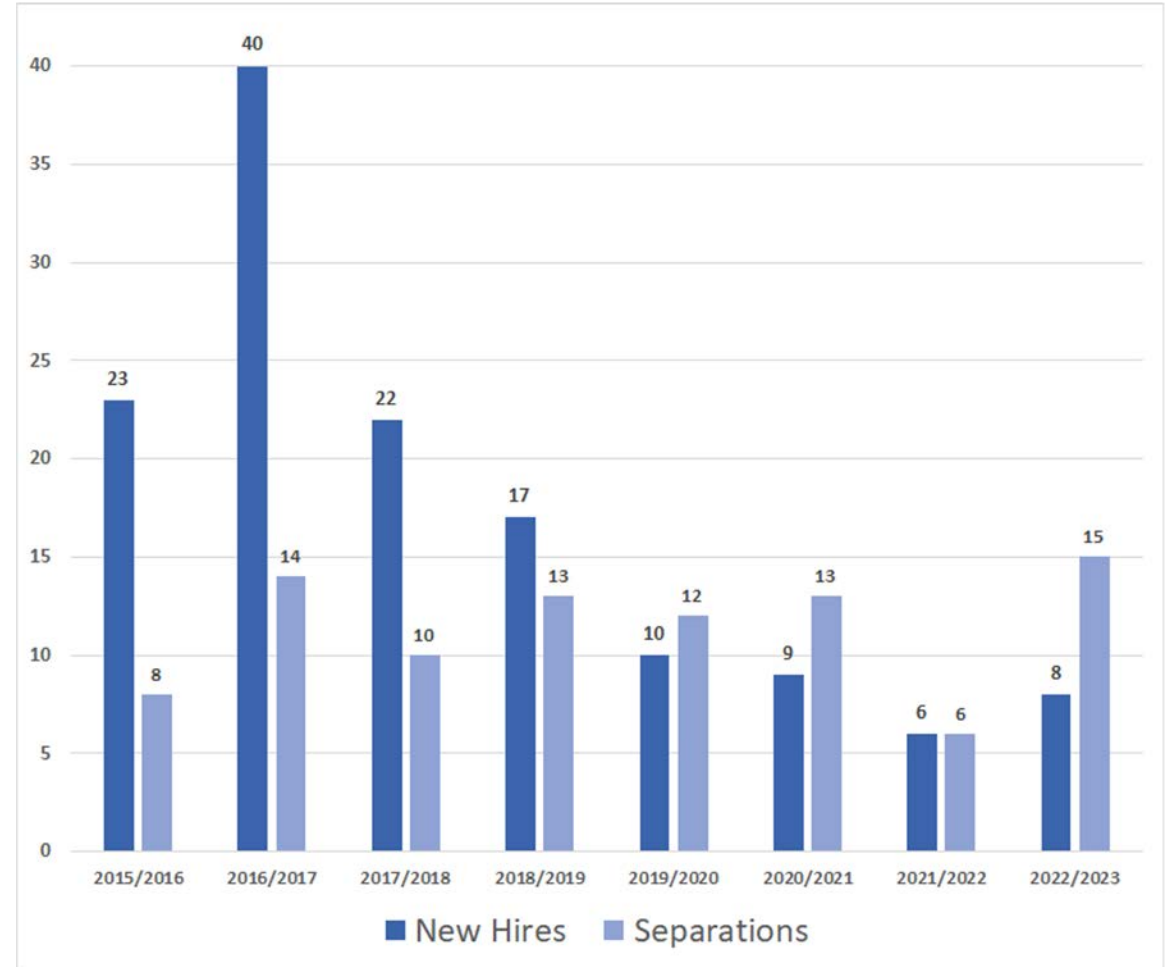
Science of Sustainability: Sharing, educating, and informing our local, regional, and global communities of our research to improve the world we live in



FACULTY

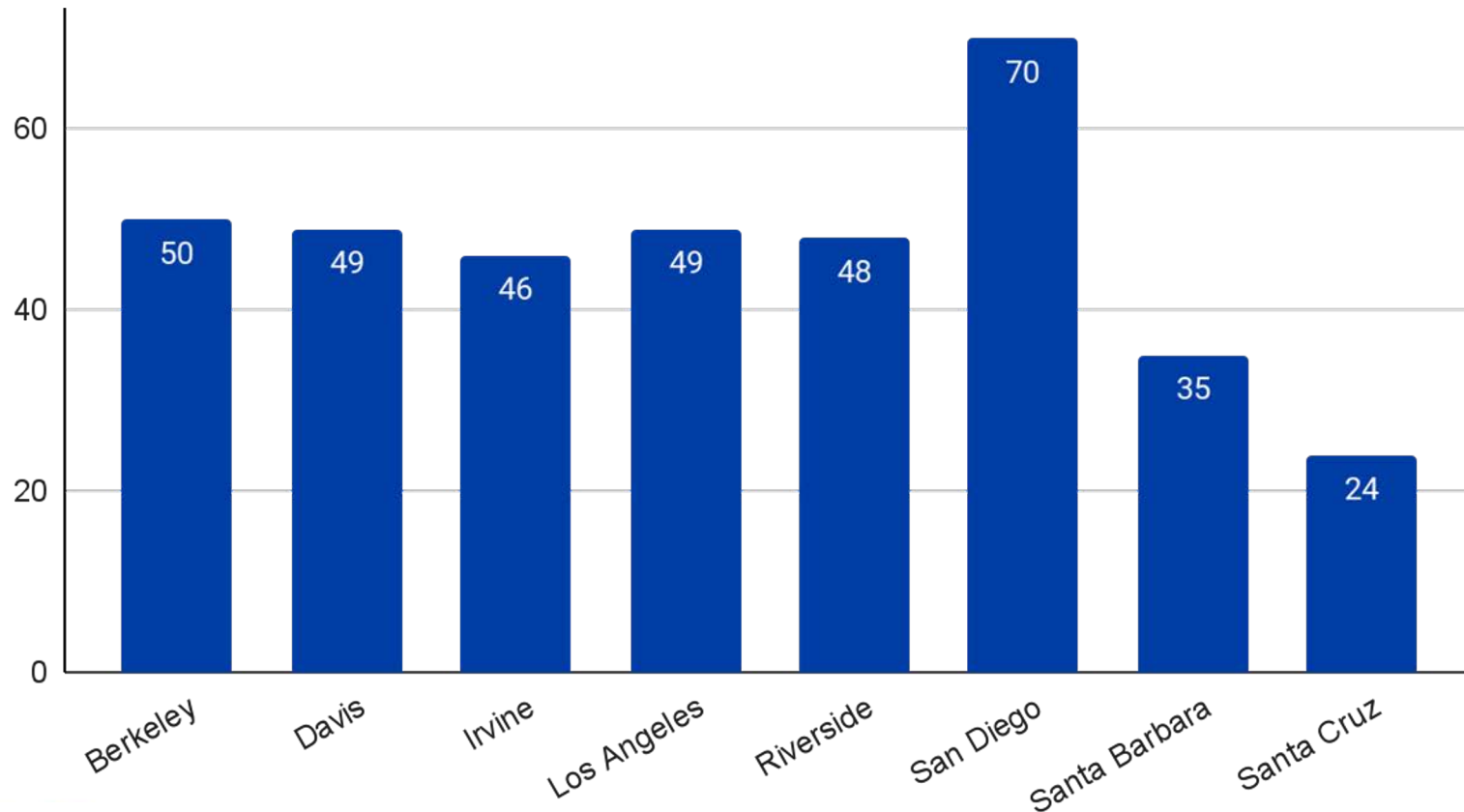
FACULTY START DATES VS SEPARATION DATES FY22

(as of January 31, 2023)



UNIVERSITY OF CALIFORNIA NSF CAREER AWARDS

Active University of California NSF CAREER Awards



Ladder Rank Faculty Headcount

Berkeley: 1,558 (3.2%)

Davis: 1,702 (2.9%)

Irvine: 1,497 (3.1%)

Los Angeles: 1,996 (2.5%)

Riverside: 860 (5.6%)

San Diego: 1,648 (4.2%)

Santa Barbara: 933 (3.8%)

Santa Cruz: 624 (3.8%)

Ladder Rank Faculty based off of current data from UCOP

CNAS NSF CAREER AWARDS

In the 2021 NSF CAREER cycle, 11 proposals were submitted, and the following faculty were awarded.



Yongtao Cui, Associate Professor, Department of Physics and Astronomy

Project Title: "Study of Electronic and Magnetic Topological Phenomena in Two Dimensional Quantum Materials with Scanning Probe Microscopy"



James Davies, Assistant Professor, Department of Chemistry

Project Title: Exploring the Physical and Chemical Properties of Light-Absorbing Aerosol: A Single Particle Approach



Boerge Hemmerling, Assistant Professor, Department of Physics and Astronomy

Project Title: "Laser-Cooled Molecules in an AC-Storage Ring"



Nicole Rafferty, Assistant Professor, Department of Evolution, Ecology & Organismal Biology

Project Title: Testing the mismatch hypothesis for climate change-driven mutualism breakdown

In 2022, 11 proposals were submitted, and the following faculty have already been awarded. Additional awards are forthcoming.



Ana Bahamonde, Assistant Professor, Department of Chemistry

Project Title: Advancing Light-mediated Ni Catalysis using Data Science and Physical Organic Techniques



Wei Liu, Assistant Professor of Climate Change and Sustainability, Department of Earth and Planetary Sciences

Project Title: Unraveling the Role of the Varying Ocean Circulation in Climate Change

FACULTY HONORS & AWARDS

Gail Hanson, a distinguished professor emerita of physics and astronomy, is ranked **eighth top female scientist in the world** by research.com.

Cell biologist **Manuela Martins-Green** and parasitologist **Adler Dillman** are this year's recipients of UC Riverside's **Chancellor's Award for Excellence in Undergraduate Research and Creative Achievement**.

The National Academy of Inventors has bestowed its top honors to CNAS professors: **Richard Schrock** and **Sean Cutler** have been elected as **fellows**, and **Hailing Jin** and **Anandasankar Ray** have been elected **senior members of the academy**.

Christopher Clark, associate professor from the Department of Evolution, Ecology, and Organismal Biology, was chosen to receive a **Fulbright U.S. Scholar fellowship**.

HIGHLY CITED RESEARCHERS LIST

2022 Clarivate Analytics



Julia Bailey-Serres

University of California MacArthur Foundation
Chair and Distinguished Professor of Genetics
(plant and animal science category)



Timothy Lyons

Distinguished Professor of Biogeochemistry
(geosciences category)

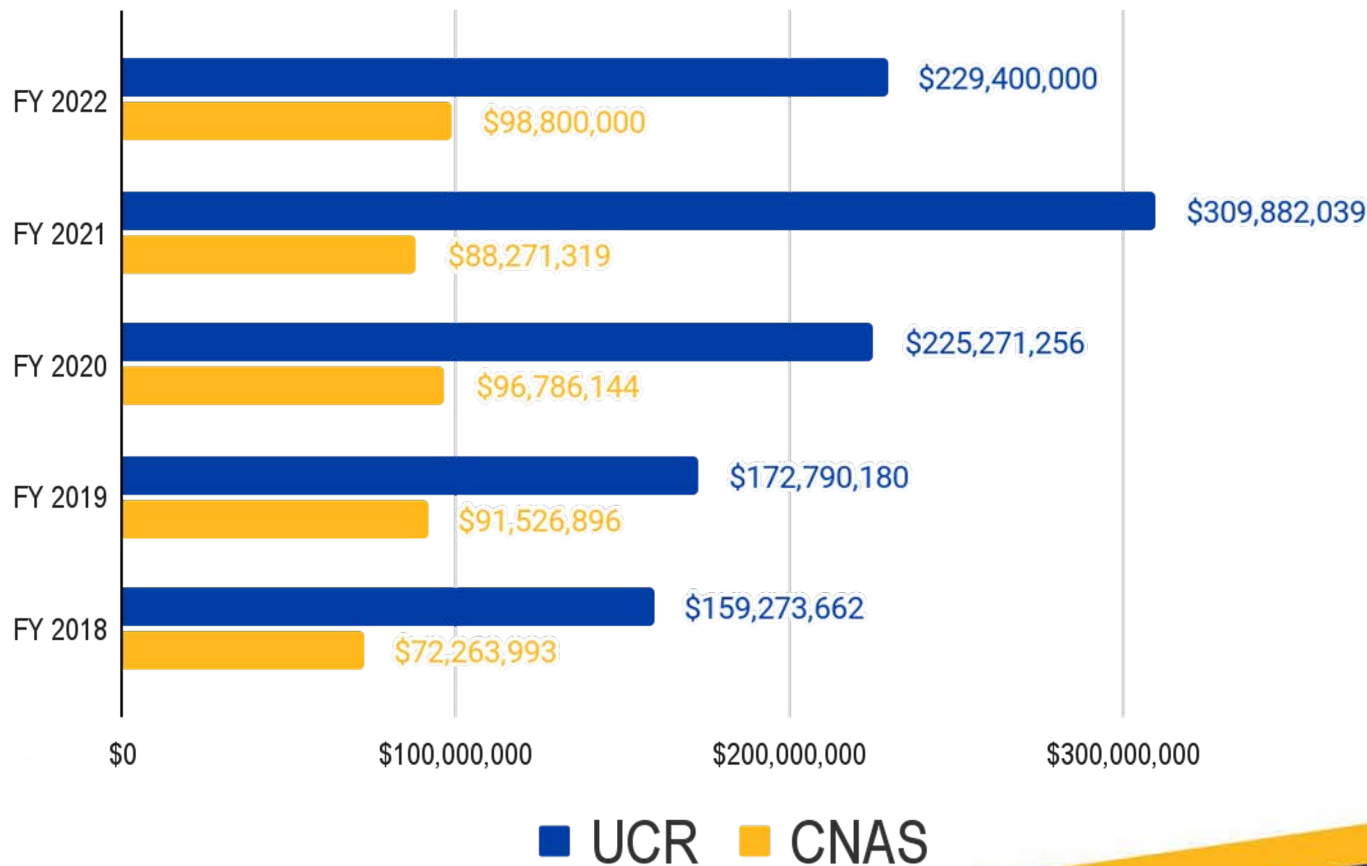


Prue Talbot

Professor of Cell Biology
(social sciences category)

GRANTS

UCR & CNAS GRANT AWARDS FY18-FY22



FY22

Campus-wide: received \$229.4 million in grants

CNAS: PIs received \$98.8M in grants
(43% of grant funding across campus)

CNAS had a 42.9% funding rate across all submitted proposals

CNAS RESEARCH GRANT HIGHLIGHTS



PI: Paul Larsen, Professor of Biochemistry, Department of Biochemistry

Title: Novel Mutations to Improve Carbon Fixation in Plants

Amount: \$1,540,893

Funder: Grantham Foundation for the Protection of the Environment



PI: Meng Chen, Professor and Cell Biologist, Department of Botany and Plant Sciences

Title: Perinuclear Positioning of Active Genes in Arabidopsis

Amount: \$1,004,258

Funder: National Science Foundation



PI: Sydney Glassman, Assistant Professor, Department of Microbiology & Plant Pathology

**Co-PI: Peter Homyak, Assistant Professor of Ecosystem & Soil Microbial Processes,
Department of Environmental Sciences**

Title: Influence of prescribed burn season on tree survival, soil microbial resistance and carbon cycling in young mixed conifer forests

Amount: \$500,000

Funder: California Department of Forestry & Fire Protection



CNAS IN THE MEDIA

yahoo!
news



The New York Times



THE WALL STREET JOURNAL.



Los Angeles Times

Daily Mail



The Washington Post

Forbes

STUDENTS

UCR FALL 2022 ENROLLMENT

UCR welcomed 8251 total new students in Fall 2022

- 7,034 new undergraduates
 - 5,575 new resident first year students
 - 1,459 new transfer students
- 1,217 new graduate students

Total Enrollment at UCR

- 26,809 students
- -0.1% increase from last year
- +26% change from Fall 2013



CNAS FALL 2022 ENROLLMENT

CNAS welcomed 7,447 total students (-3%) in Fall 2022

- 844 Ph.D. students
- 79 M.S./M.A students
- 6,465 undergraduate students
 - 833 are transfer students

New CNAS students

- 1,746 first-year students
- 241 transfer students
- 161 Ph.D. graduate students
- 28 M.S. graduate students



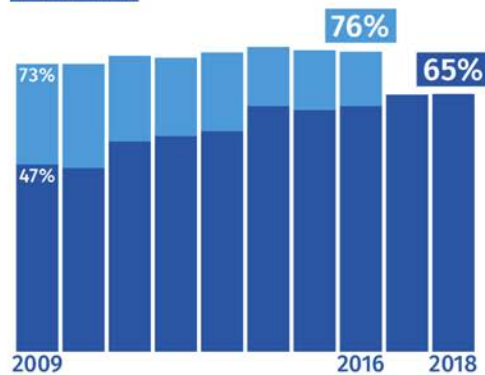
UCR STUDENT GRADUATION RATES

Graduation Rates

2022

Frosh Graduation Rates

6-Year Rate
4-Year Rate



6-Year Rate
76.0%

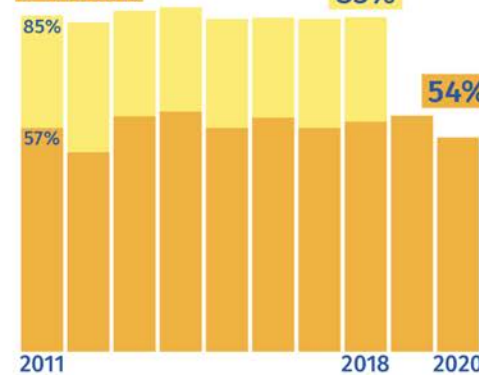
2016 Cohort

4-Year Rate
65.3%

2018 Cohort

Transfer Graduation Rates

4-Year Rate
2-Year Rate



4-Year Rate
84.9%

2018 Cohort

2-Year Rate
54.3%

2020 Cohort

CNAS FROSH GRADUATION RATES

6-Year Rate (2016 Cohort)= 76.5%

4-Year Rate (2018 Cohort)= 64.5%

CNAS TRANSFER GRADUATION RATES

4-Year Rate (2018 Cohort)= 88.8%

2-Year Rate (2020 Cohort)= 51.3%

UNDERGRADUATE STUDENT AWARDS

Donald A. Strauss Foundation awards in recognition of student engagement with public service



Thaniya Shankar is one of two UCR students who applied for a public service project that they will carry out during their junior or senior year. The awards come with \$15,000 grants that aim to sustain their public service projects. Thaniya, a junior studying biology and minoring in law and society, received the award for her work on Project LEAD, or Learn, Encourage, Advocate, and Develop. Project LEAD aims to address the educational barriers for kindergarten to 6th grade public school students with autism spectrum disorder. The program will allow UCR students to mentor elementary students on the spectrum in the San Bernardino City Unified School District, an under-resourced community. “Students with autism display their own unique challenges that can benefit from individualized support,” Shankar said. “The program will not only promote a sense of community and belonging to autistic students, but also establish and strengthen academic and social skills that most autistic students lack.”

GRADUATE STUDENT AWARDS



NASA has awarded a prestigious fellowship to **Daria Pidhorodetska**, a doctoral student in Earth and Planetary Sciences, to support her dissertation research examining the climates of planets in other solar systems, also called exoplanets. Daria's research will illuminate the remotely observable properties that will distinguish habitable planets from those that cannot support life as we know it.

The Future Investigators in NASA Earth and Space Science and Technology, or FINESST, award affords recipients \$150,000 over the course of three years for graduate school tuition as well as travel funds for professional development.



Imex Aguirre Cardenas, a doctoral student in the Chemistry Department, has been selected to receive the highly competitive Graduate Research Fellowships from the National Science Foundation. His work involves strain doping in silicon-germanium electronics — a common technique where germanium atom dopants are embedded into silicon leading to transistors with higher mobility, faster switching, and lower energy consumption. The **NSF Graduate Research Fellowship Program, or GRFP**, recognizes and supports outstanding graduate students in NSF-supported science, technology, engineering, and mathematics disciplines who are pursuing research-based master's and doctoral degrees at accredited U.S. institutions. Each fellow receives a three-year annual stipend of \$34,000 as well as a \$12,000 cost-of-education allowance for tuition and fees, opportunities for international research and professional development, and the freedom to conduct research at any accredited U.S. institution of graduate education.

COMMENCEMENT

Graduate Division Hooding Ceremony

Saturday, June 3, 2023 | 9:00 a.m.

Student Recreation Center

College of Natural and Agricultural Sciences Group 1

Tuesday, June 20, 2023 | 8:00 a.m.

Toyota Arena

Master's and Bachelor's degree candidates in Biology and Cell, Molecular, and Developmental Biology

Tuesday, June 20, 2023 | 1:00 p.m.

College of Natural and Agricultural Sciences Group 2

Toyota Arena

Master's and Bachelor's degree candidates in Biochemistry, Chemistry, Data Science, Earth Sciences, Entomology, Environmental Sciences, Geology, Geophysics, Mathematics, Mathematics for Secondary Teachers, Microbiology, Neuroscience, Physics, Plant Biology, and Statistics

STAFF

IMPACT 23

New Financial System Implementation Program

Extended Tester Campus Representation

Workgroups	ORG10-SOE & ORG37-SPP	ORG11-BCOE	ORG12-CHASS	ORG14-CNAS	ORG15-UNEX	ORG16-Library	ORG19-Aux Svc	ORG20-Chanc	ORG21-ITS	ORG22-Grad	ORG24-VC-R	ORG25-VCSA	ORG26-VCUA	ORG30-FPDC	ORG32-Int'l Aff	ORG33-ES	ORG36-UE	ORG38-Int Ath	ORG39-PB&A	ORG40-SOM	ORG42-HWS	Grand Total
Accounts Payable Tester (Central Office)																			2			2
Boundary Systems Tester		1	1			2				1	1	1		1						2		10
Boundary Systems Tester (Central Office)																			10			10
Budget Tester		1	1	6		1						1	2	1		1						14
Budget Tester (Central Office)																			6			6
Concur Phase II SMA			1	1											1					1		4
Concur Phase II Tester			2	2				2						1					1	1		9
Concur Phase II Unit				2	4								3					3			2	14
Financial Reporting Tester		1		2			2		1								1		1	2		10
GL/COA Tester																1			1	3		5
Kuali Tester				3			1													1		5
Kuali/PPM/Procurement Unit	6	5	9	9							4								2	5		40
PPM Tester		1		4				1													2	8
PPM Tester (Central Office)														2								2
Procurement Tester			1	4			2					1	3			1	1		1	3		17
UCPath COA Tools Tester			1	1					1			1	1	1		1	1		1	2		11
UCPath COA Tools Unit							4					2							6			12
Grand Total	6	9	16	34	4	3	9	3	2	1	5	6	9	6	1	4	3	3	31	20	4	179

CNAS STAFF ADVISORY COMMITTEE

When does the CNAS Staff Advisory Meet? Every other month

How can staff get involved? Submit any concerns/questions to one of the committee members below, and join the CNAS Staff Advisory Committee (June)

2022-2023 CNAS Staff Advisory Committee Members

Lisa Charles / Admin Assistant III / CNAS Dean's Office / lisa.dunmore@ucr.edu

Sarah Dillon / HR Director / CNAS Personnel Service Center / sarah.dillon@ucr.edu

Maggie Flores / Contracts & Grants Analyst / BMPN Administration / margarita.flores@ucr.edu

Marie Good / Assistant Director / CNAS Personnel Service Center / marie.good@ucr.edu

Rebecca Ryan / Financial Analyst - Contracts and Grants / Chemistry / rebecca.ryan@ucr.edu

Sherice Underwood / Financial Administrative Officer / EMN Administration / sherice.underwood@ucr.edu

Mariella Valdivia / Administrative Officer / Botany Plants & Sciences / mariella.valdivia@ucr.edu

Richard Zapien / Landscape Supervisor, R' Garden / Agricultural Operations / richard.zapien@ucr.edu

UCR SERVICE AWARDS

Staff members who have reached milestones in their service with the University of California are recognized each quarter at the UCR Staff Assembly general meeting. During the Winter, Spring, and Fall 2022 quarters, CNAS celebrated 61 staff members' service to the university.

YEARS OF SERVICE	NUMBER OF STAFF MEMBERS
5 Years	29
10 Years	8
15 Years	10
20 Years	9
25 Years	1
30 Years	3
45 Years	1

UCR STAFF ASSEMBLY: OUTSTANDING STAFF AWARDS

UC Riverside staff members were honored by UCR Staff Assembly as part of its annual **Outstanding Staff Awards**. The awards recognize staff members for excellence in their work, commitment to the university's mission, and making UC Riverside a better place for all.



CNAS staff member, **Alex Cortez**, was honored with the **People Helping People Award**. In his role as an academic coordinator in CNAS, Alex trains students in a laboratory setting. He also serves as president of the Chicano Latino Alumni chapter, is a member of the UCR Alumni Association Board of Directors, and volunteered for several community organizations including the Cheech, the new Chicano Art Center in downtown Riverside.

Nominate a CNAS staff member at staffassembly.ucr.edu.

PHILANTHROPY

CNAS FUNDRAISING UPDATES

(July 2022- January 2023)

**CNAS FY23 Overall Fundraising to Date:
\$2,998,974**

**Campus-wide Beyond Brilliant Progress to
Date: \$44.9M, ~90% to goal**

**CNAS Beyond Brilliant Progress to Date:
\$7.2M, of a \$13M goal, with 3 years remaining**

Beyond Brilliant, UC Riverside's first fundraising initiative dedicated to student-focused priorities across the university, launched October 4, 2021.

NEW CNAS STUDENT SUPPORT FUNDS CREATED

(current as of July 2022)

Center for Conservation Biology Student Research and Education Fund

Munshi Family RISE Scholars Endowed Fund

Dennis D. Focht Endowed Fund

Society of Cosmetic Chemists Scholarship Endowed Fund

Reinhold and Sarojam K. Mankau Endowed Graduate Student Fellowship Fund

Dexiang Dong and Yiyun Cao Graduate Student Fellowship in Human Virology Fund

UCR GIVING DAY

On Thursday, April 6, 2023, the Office of Annual Giving and UCR Foundation will launch **UCR Giving Day**, UC Riverside's first-ever stand-alone giving day.

UCR Giving Day will run for **1 day, 9 hours, and 54 minutes** to commemorate UCR's founding year, 1954.

FUN FACT: April 6th is National Tartan Day, an opportunity to tap into some exciting Highlander traditions!

CNAS SCHOLARSHIPS/ACADEMIC WORKS

	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Total Scholarships Listed	15	18	21	23	28
Number of Applicants	142	1,060	1,409	1,638	1,946
Number of Students Awards	20	19	46	34	78
Amount Awarded	\$45,725	\$108,989	\$133,677	\$135,376	\$534,612

Overall: 36 undergraduate awards and 42 graduate awards

Amount Awarded: \$121,675 for undergraduates and \$412,937 for graduate students

STRATEGIC INITIATIVES

STRATEGIC INITIATIVES

Recruitment & Engagement

- Highlighting faculty research and the student experience
- Programming events that target multiple audiences
- Coordinating with major campus events (eg Discover UCR, Homecoming, and Highlander Day)
- Reimagining CNAS events (eg Science Lecture Series and ESCAPE)
- Enhancing Partnerships (eg Riverside Unified School District Science & Engineering Fair)
- Supporting CNAS department efforts

FACILITIES & INFRASTRUCTURE

FACILITIES & INFRASTRUCTURE

- Plant Research 1
- Agricultural Operations
- Spieth Hall Roof Upgrade
- Batchelor Hall Infrastructure
- Pierce Hall

BUDGET

BUDGET OVERVIEW

Budget Cut adjusted from 11.0% to 6.3% as State restored some of the initial budget cut in FY22.

Over planned for anticipated COVID shortfalls, slow faculty hiring, stalled spending, and infusion of emergency funds lent to a strong YE cash position.

Faculty separations far outpaced new hires by 2.5X.

Infusion of HEERF \$5.7M and Lottery Funds \$7.7M.

Explosive rise in grant expenditures with year-on-year increase of nearly 12%.

BUDGET OVERVIEW

Campus F&A model retooled to fund IC match. Perm budget increased by ~\$4M. Historical campus match ~\$10M annually.

Campus policy now allows colleges to increase TA FTE perm budget based on UG served. CNAS added ~30 perm TA FTE.

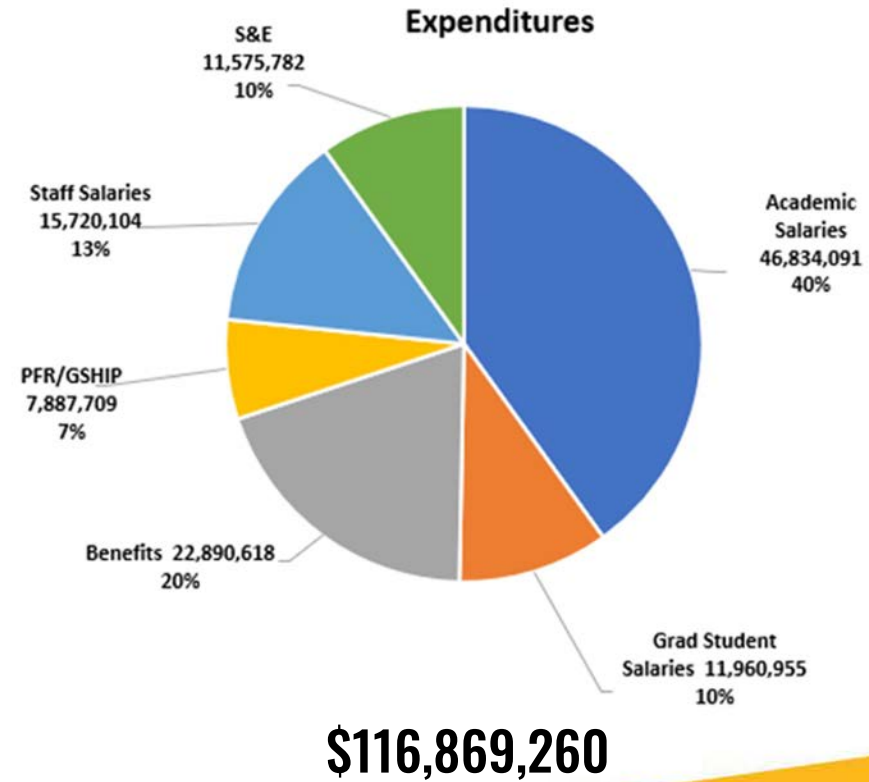
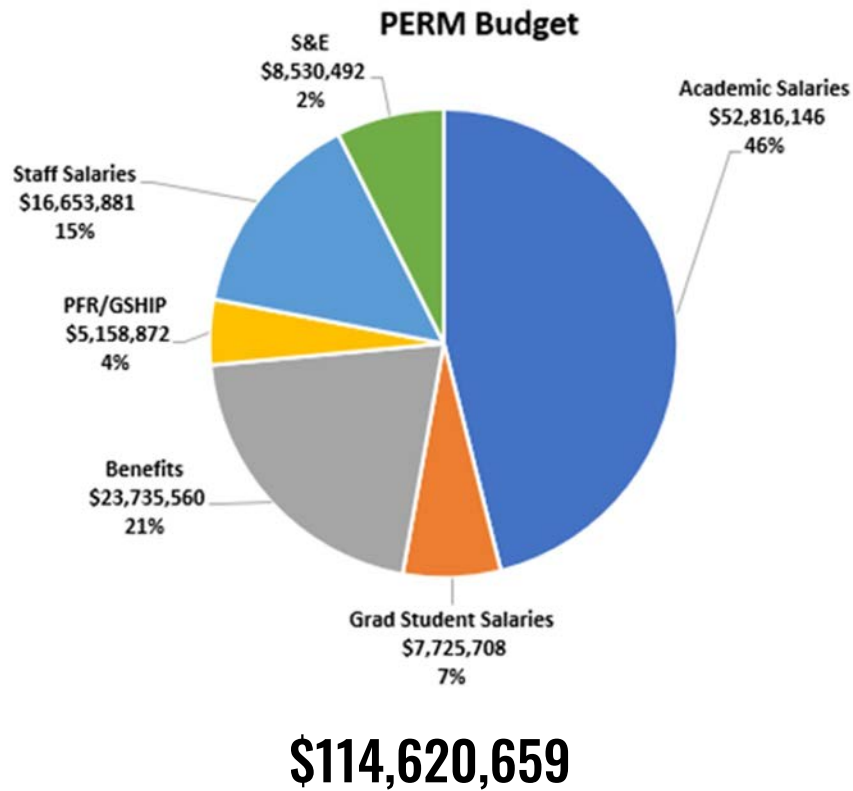
Campus intensified focus on gift and external income sources.

Ramp up to implementation of new travel, financial, and grant management systems.

Added 19 staff positions on temp funds to address increased workload.

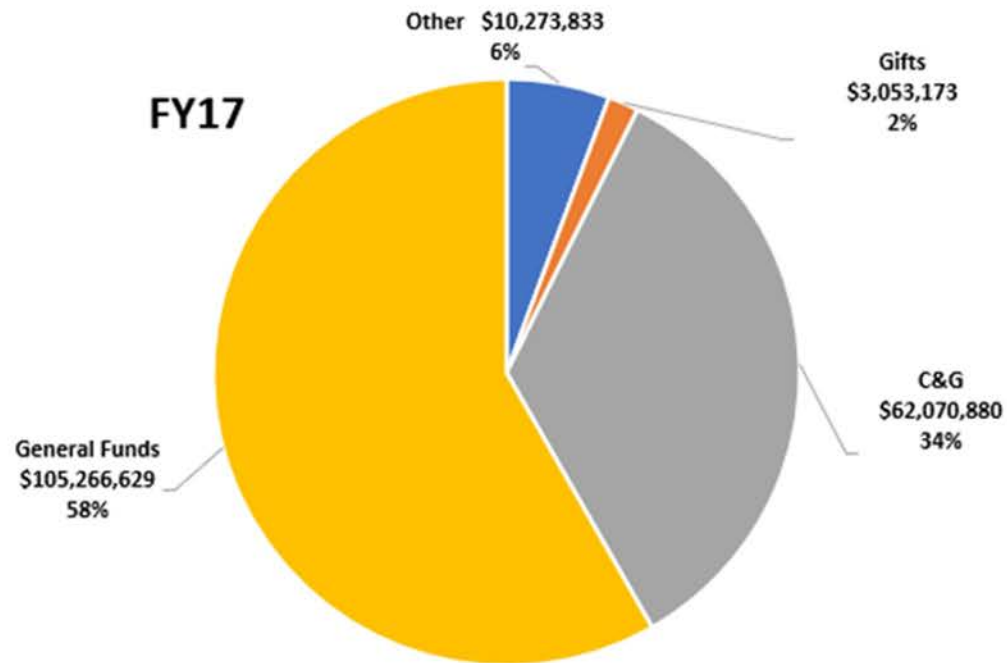
CNAS BUDGET

General Funds by Category FY22 Actuals

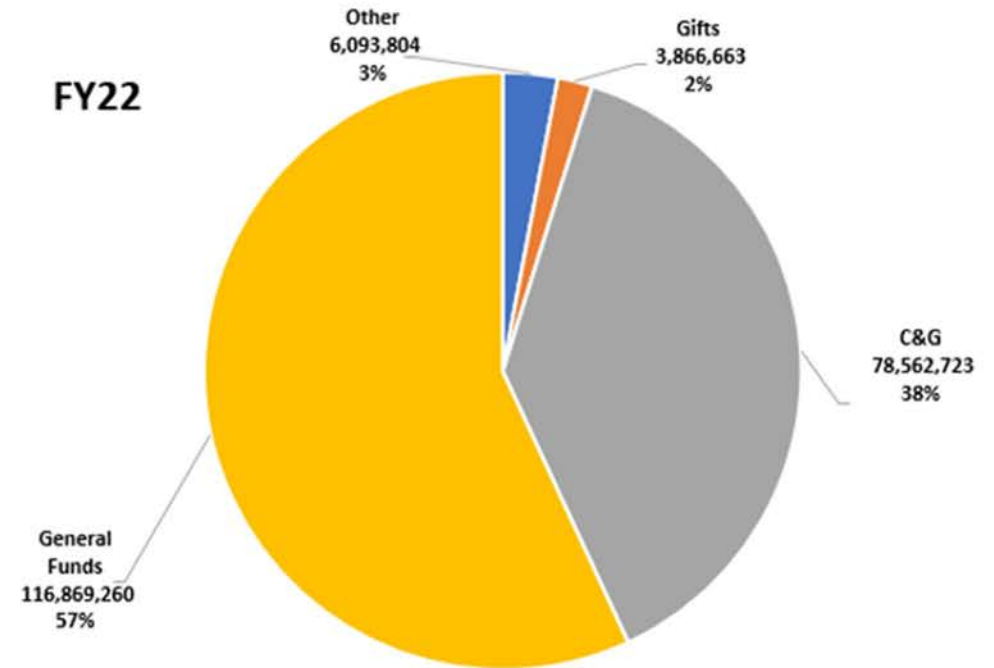


CNAS BUDGET

Actual Expenditures by Fund Group FY17 & FY22 Comparison



\$180,664,515



\$205,392,451

LOOKING FORWARD

STUDENT CREDIT HOURS

UC Campuses			
Campus	Fall 2021	Winter 2022	Spring 2022
Berkeley	14.5		14.5
Davis	14.1	14.5	14.4
Irvine	14.6	14.8	14.5
Los Angeles	14.7	14.8	14.7
Merced	15.1		15.0
Riverside	14.0	14.1	13.9
San Diego	14.7	15.2	15
Santa Barbara	13.7	14.0	13.8
Santa Cruz	15.1	14.9	15.0
UC System	14.4	14.7	14.5

By School/College	
Unit	Average credits F21
Education	14.6
SPP	14.3
BCOE	14.2
CHASS	14.1
Business	13.9
CNAS	13.7

GRADUATE PROGRAMS

Admissions
Curriculum
Degree Completion
Professional Development

ACADEMIC PLANNING

Faculty Hiring

Aligning the CNAS Academic Plan with the UCR Strategic Plan

QUESTIONS?