

University of South Carolina
BOARD OF TRUSTEES

Health and Medical Affairs Committee

In Person, Floyd Boardroom, Pastides Alumni Center
and By Microsoft Teams
September 16, 2022

OPEN SESSION

I. Call to Order

Board Chair Westbrook called the meeting to order at 1:55 p.m. Secretary Howell confirmed Trustees attending in person and by Microsoft Teams audio and video conference.

Committee Members in attendance:

C. Edward Floyd
Richard A. Jones Jr.
Toney J. Lister
Miles Loadholt (online)
Hubert F. Mobley, Chair
Emma W. Morris
C. Dorn Smith III
Mack I. Whittle Jr.
Rose Buyck Newton, *Board Vice Chair*
Thad H. Westbrook, *Board Chair*

Other Trustees in attendance:

C. Dan Adams
Alex English
Brian C. Harlan
E. Scott Moise
Leah B. Moody
Molly M. Spearman
John C. von Lehe Jr. (online)
Charles H. Williams

Others in attendance:

Audrey Korsgaard, USC Columbia Faculty Senate Chair
Reedy Newton, USC Columbia Student Government President
Robin Roberts, Expert Advisor to the Advancement, Engagement and Communications Committee (online)
David Seaton, Expert Advisor to the Governance Committee

Administrators in attendance:

Michael Amiridis, President

Cameron Howell, University Secretary and Secretary of the Board of Trustees

Donna Arnett, Executive Vice President and Provost

Terry Parham, General Counsel

Ed Walton, Executive Vice President and Chief Financial Officer

Media in attendance:

Alexa Jurado, the *State*

Caleb Bozard, the *Daily Gamecock*

Jessica Holdman, the *Post and Courier*

Notice:

Board Chair Westbrook stated notice of the meeting and agenda had been posted and the press notified as required by the Freedom of Information Act; the agenda and supporting materials had been circulated to the Committee; and a quorum was present to conduct business.

II. Election of Committee Chair

Board Chair Westbrook stated the floor was open for nominations and a second for Committee chair. Dr. Smith nominated Mr. Hugh Mobley and moved to close the nominations and elect Mr. Mobley by acclamation; Mr. Lister seconded the motion.

Board Chair Westbrook called for a vote; the vote was unanimous.

Board Chair Westbrook welcomed Mr. Mobley as Chair of the Health and Medical Affairs Committee and invited him to preside for the remainder of the meeting.

III. UofSC College of Pharmacy Dean's Update

College of Pharmacy Dean Stephen Cutler provided an update on the College's programs, enrollment trends, and current initiatives. [HMAC 091622 OS III]

Chair Mobley stated the report was received as information.

IV. UofSC College of Arts and Sciences (Health Programs) Dean's Update

College of Arts and Sciences Dean Joel Samuels provided an update on the College's health programs. [HMAC 091622 OS IV]

Chair Mobley stated the report was received as information.

V. Other Matters

Chair Mobley called for any other matters to come before the Committee. There were none.

VI. Adjournment

Chair Mobley declared the meeting adjourned at 2:41p.m.

Respectfully submitted,

Cameron Howell
Secretary

COLLEGE OF PHARMACY

Stephen J. Cutler, Ph.D
Dean, College of Pharmacy



ACADEMIC DEGREES AND PROGRAMS

Undergraduate

- Bachelor of Science in Pharmaceutical Sciences (B.S.)

Doctorate

- Doctor of Pharmacy (Pharm.D.)
- Doctor of Philosophy Pharmaceutical Sciences (Ph.D.)

Combination Degree Programs

- Pharm.D. / Master of Business Administration (MBA)
- Pharm.D. / Master of Health Information Technology (MHIT)

Post-Graduate Residencies / Fellowships

- Community Pharmacy
- Infectious Diseases
- Hospital Pharmacy
- Rural Care

Certificate Programs

- Clinical Teaching Certificate Program
- Penicillin Allergy Assessment Skin Testing Certificate Program

Continuing Education Offerings

- Accredited live activities and home study programs for pharmacists and pharmacy technicians

ACADEMIC DEGREES AND PROGRAMS

OPTIONAL ACADEMIC TRACK PROGRAMS

- Kennedy Pharmacy and Innovation Center Business and Entrepreneurship Track
- Pre-Residency Track
- Walker Leadership Scholars Program



Pharmacy Innovation Career Summit

KPIC/Pharmacy Innovation Career Summit

This summit is for anyone who is interested in pursuing a non-traditional pharmacist career pathway. Given the ever-changing health care landscape and pharmacist job market, it is important to be aware of innovative ways to practice pharmacy. During this 1-day event, participants will have the opportunity to connect with pharmacists who have largely been practicing 10 years or less. Each pharmacist will share their unique story and subsequent career opportunity so that you can learn more information while gaining contacts for pursuing similar career opportunities in the future. If you have a curiosity as to how you can use your PharmD in innovative and creative ways, you will not want to miss the forum.

When: Saturday, October 23, 2021

Time: 9:00 a.m. - Noon EST

ACADEMIC DEGREES AND PROGRAMS

EXPERIENTIAL EDUCATION

Experiential education makes up approximately one-third of a student's total pharmacy education. As students progress through their studies, they participate in more in-depth patient care activities and experiences. Hands-on learning begins in the first year and continues through the fourth year of the Pharm.D. program.

The experiential education programs at each of South Carolina's state colleges of pharmacy collaborate through the **Palmetto Experiential Education Partnership (PEEP)**. The partnership capitalizes on each college's strong network of alumni preceptors and creates a broad portfolio of opportunities for South Carolina pharmacy students.

The UofSC College of Pharmacy has **more than six-hundred experiential education sites** across the globe.



EDUCATIONAL OUTCOMES

79.4%

UofSC College of Pharmacy students
passed the NAPLEX on their first attempt

(Graduating Student Statistics, 2021)
(National 83.7%)

82.1%

UofSC College of Pharmacy students
passed the MPJE on their first attempt

(Graduating Student Statistics, 2021)
(National 80.3%)

87.4%

UofSC College of Pharmacy students
four-year on-time graduation rate for B.S.

(Graduating Student Statistics, 2022)

88%

UofSC College of Pharmacy students
agreed: *"If I were starting my pharmacy
program over again, I would choose the same
college/school of pharmacy."*

(American Association of Colleges of Pharmacy
Graduating Student Perception Survey, 2022)

76%

UofSC College of Pharmacy students'
residency match rate

(Graduating Student Statistics, 2022)
(National 77%)

NATIONAL TRENDS (2021)

Institutions and Programs

- As of January 2021, there are 140 U.S.-based colleges and schools of pharmacy with accredited (full or candidate status) professional degree programs and 2 schools with precandidate status.
- Of the AACP member colleges and schools of pharmacy, seventy-two (72) colleges and schools are in private institutions and seventy (70) are in publicly supported universities.
- For fiscal year 2018-19, national mean reported pharmacy school revenues were approximately \$29.7 million and median revenues were approximately \$17.4 million.
- For fiscal year 2018-19, national mean reported pharmacy school expenditures were approximately \$19.7 million and median expenditures were approximately \$13.3 million.

Student Pharmacists

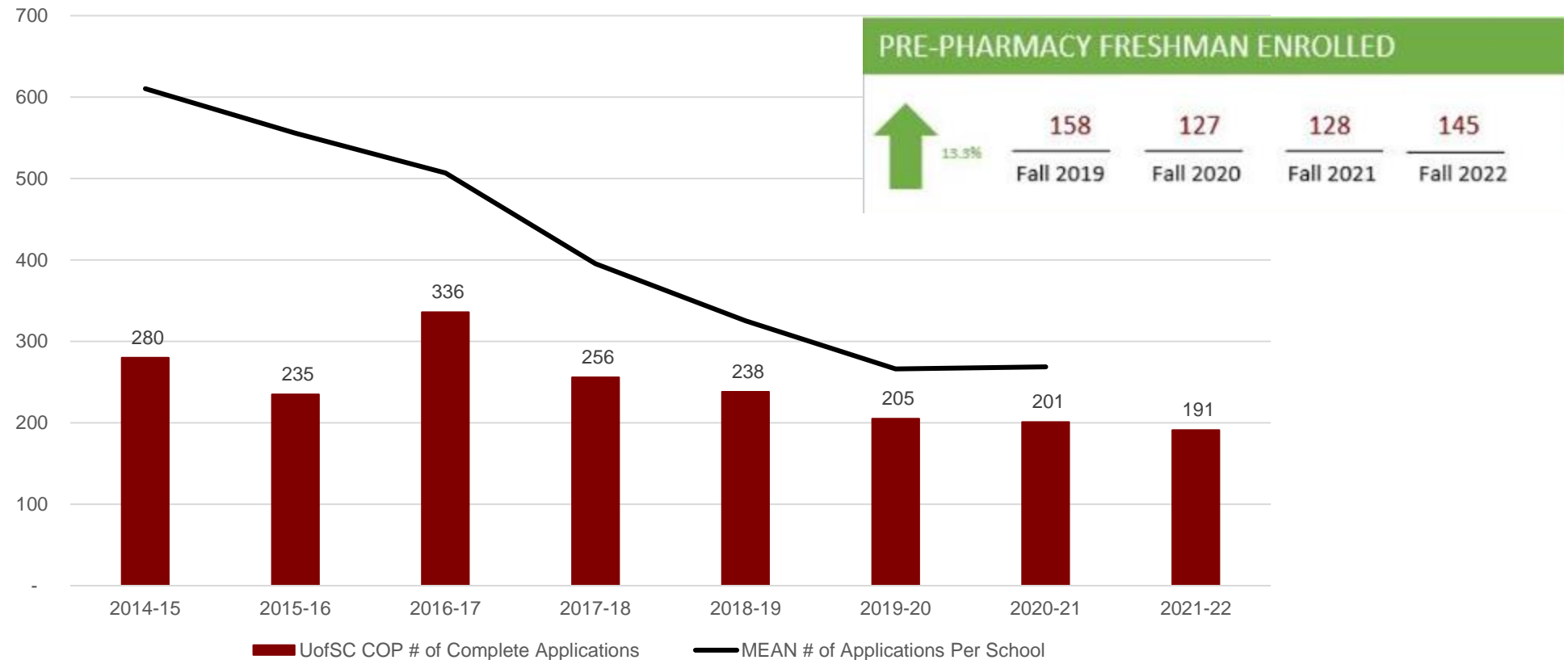
- Of the total number of students enrolled in first professional degree programs for fall 2019, 63.6 percent were women and 17.0 percent were underrepresented minority students.
- First professional student pharmacist enrollments (in all professional years) were down 2.9 percent compared to fall 2018.
- Attrition estimates (tracking enrollees through to graduation) over the past five years have averaged 12.1 percent per class.
- In 2018-19, 14,800 first professional degrees in pharmacy were awarded: 62.0 percent to females, 37.3 percent to males, and 0.6 percent to unknown/other gender. In addition, 312 post-B.S. Pharm.D. degrees were awarded.
- In 2018-19, 600 Ph.D. degrees were awarded (52.5 percent to males, 45.2 percent to females), remaining flat from 2017-18. M.S. degrees awarded increased 7.7 percent to 1,128 (35.9 percent to males, 63.8 percent to females) compared to last year.



SOURCE:

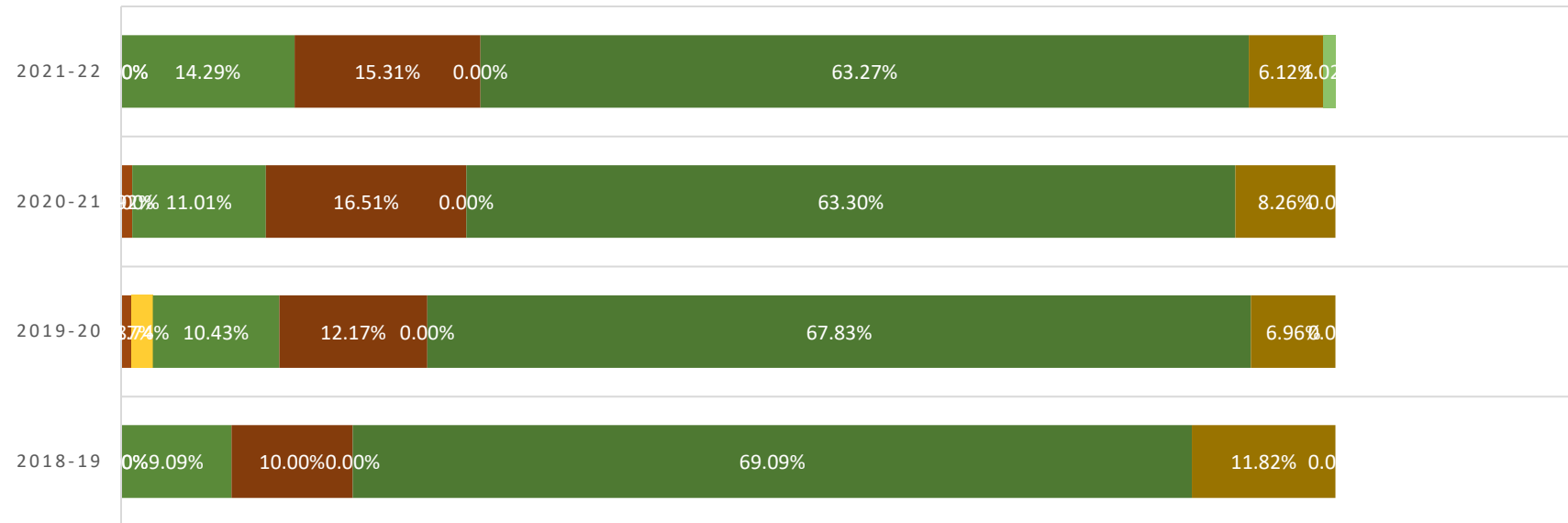
Academic Pharmacy's Vital Statistics,
American Association of Colleges of
Pharmacy

PHARMD APPLICATIONS SUBMITTED



Median # Applicants Per School (PharmCAS) for 2021-2022 will be available in November 2022.

CLASS PROFILE BY RACE/ETHNICITY



| | 2018-19 | 2019-20 | 2020-21 | 2021-22 |
|------------------------------------|---------|---------|---------|---------|
| American Indian Accepted % | 0.00% | 0.87% | 0.92% | 0.00% |
| Hispanic/Latino Accepted % | 0.00% | 1.74% | 0.00% | 0.00% |
| Asian Accepted % | 9.09% | 10.43% | 11.01% | 14.29% |
| Black/ African American Accepted % | 10.00% | 12.17% | 16.51% | 15.31% |
| Native Hawaiian Accepted % | 0.00% | 0.00% | 0.00% | 0.00% |
| White Accepted % | 69.09% | 67.83% | 63.30% | 63.27% |
| Multiple Accepted % | 11.82% | 6.96% | 8.26% | 6.12% |
| Did Not Report Accepted % | 0.00% | 0.00% | 0.00% | 1.02% |

INITIAL ADMISSIONS STATISTICS

CLASS OF 2026

| Total Incoming PharmD Students | | 97 |
|--------------------------------|--|----|
| Pre-Pharmacy | | |
| UofSC-Columbia | | 85 |
| UofSC-branch campuses | | 4 |
| Non-UofSC prerequisites | | 8 |
| Residency | | |
| In-state Residents | | 72 |
| Out of State Residents | | 25 |

| Demographics (Class of 2026) | |
|------------------------------|------------|
| Black/African American | 15 (15.5%) |
| American Indian/Alaskan | 0 (0%) |
| Asian/Pacific Islander | 14 (14.4%) |
| Hispanic | 0 (0%) |
| White/Non-Hispanic | 62 (63.9%) |
| Two or More Races | 6 (6.2%) |

TOTAL CURRENT PHARMD ENROLLMENT

| 2022-23 College of Pharmacy Enrollment | Official Count |
|--|----------------|
| Total Doctor of Pharmacy Students | 422 |
| P1 | 106 |
| P2 | 106 |
| P3 | 102 |
| P4 | 108 |

RESEARCH EXPERTISE

Clinical Pharmacy and Outcomes Sciences

- Clinical translational sciences
- Comparative effectiveness
- Health services research
- Medication safety
- Pharmacoeconomics
- Pharmacoepidemiology
- Pharmacokinetics and pharmacodynamics
- Scholarship of teaching and learning

Drug Discovery and Biomedical Sciences

- Cancer research
- Neuroscience
- Pharmaceutics
- Pharmacology

RECENT RESEARCH HIGHLIGHTS



Tessa Hastings, Ph.D., received a **\$421K** R21 grant from the National Institute of Allergy & Infectious Diseases, 'Improving Immunization Information System Implementation in Community Pharmacies.'



Hippokratis Kiaris, Ph.D., was awarded \$487,134 for first year of a 3-year grant of **\$1M** over 3 years from NSF for a project titled, "Sustaining the operation of the Peromyscus Genetic Stock Center."



Michael Shtutman, Ph.D., was awarded an NIH R01 grant entitled, "Knowledge discovery and machine learning to Elucidate the Mechanisms of HIV Activity and Interaction with Substance Use Disorder," for **\$2.12M** over 5 years.



\$5.9 mil NIH Grants

(up from \$4.2 mil in 2020)

\$6.4 mil Total Grants

(up from \$5.5 mil in 2020)



Igor Roninson, Ph.D., received **\$11.1M** from the National Institute of General Medical Sciences (NIGMS) for the COBRE Center for Targeted Therapeutics. Him and Dr. Broude also received an R01 in 2022 worth **\$3.5M** to study drug resistance.



Lorne Hofseth, Ph.D., with the Schools of Public Health and Medicine, was awarded **\$5.9M** from the National Cancer Institute to investigate early onset colorectal cancer in obese African American communities.



Jun Zhu, Ph.D., received five-year NIH R01 grant totaling **\$3.96M** is funded by the National Institute on Drug Abuse for 'Allosteric Modulators of Dopamine Transporter as Therapeutic Agents for NeuroAIDS.'

PRACTICE AND PARTNERSHIP

FACULTY PRACTICE SITES & CLINICAL PARTNERS

- Nephron Pharmaceuticals
- Prisma Health - Greenville
- Prisma Health - Richland
- South Carolina Center for Rural & Primary Healthcare
- Student Health Center
- Tandem Health

- Average clinical hours taught per faculty member per week
 - **17.9**
- Months of Clinical Service/Patient Care Provided last year
 - **89 months**
- Average clinical precepting per faculty member
 - **12.06 learners (students & residents)**

PRACTICE AND PARTNERSHIP

Prisma Health Upstate (GHS) – Board-approved 5-year Memorandum of Understanding, Spring 2019



| Cohort | Recent P3/P4 Enrollment at School of Medicine-Greenville |
|--------|--|
| 2021 | 16 |
| 2022 | 10 |
| 2023 | 17 |

Nephron Pharmaceuticals – Yaskawa Robotic System for automated syringe filling completed within the past year and now in the process of commercial implementation



Palmetto Poison Center – 33,876 calls in 2020 managing 28,734 human cases



6,218 calls from hospitals and healthcare related sites

>\$7 saved for every dollar spent

DEI INITIATIVES

- Diversity, Equity and Inclusion Credit Requirement
- Dr. Jordan Cooler: Diversity and Inclusive Excellence Curriculum Grant
- Virtual Alumni Panel: The Pharmacist's Role in Health Equity
- Faculty, staff and students Safe Zone Allies training
- Student-organized lectures, workshops and activities focused on:
 - Gender Diverse Patients
 - Hearing Impaired Patients
 - Hormone Replacement Therapy in the Transgender Population
 - Mental Health in the LGBTQIA+ Community



COVID-19 INITIATIVES

Testing

- Saliva-based COVID-19 testing program
- \$16.7 million grant from the state of South Carolina

Research

- COVID-19 Treatment Outcomes Registry
- Julie Ann Justo appointed to serve on the U.S. Department of Health and Human Services Remdesivir Consultative Committee

Public Health

- Student-led Convalescent Plasma Donation Task Force
- Vaccine Confidence and Education Initiatives
- COVID-19 Vaccination Clinics



THANK YOU

Stephen J. Cutler, Ph.D.
Dean, College of Pharmacy

sjcutler@cop.sc.edu

sc.edu/pharmacy



**College of
Pharmacy**

**HEALTH AND
MEDICAL
AFFAIRS
COMMITTEE**

**Administrative
Briefing**

Sept. 16, 2022



UNIVERSITY OF
South Carolina

College of Arts and Sciences

HEALTH SCIENCES UNITS

An Overview

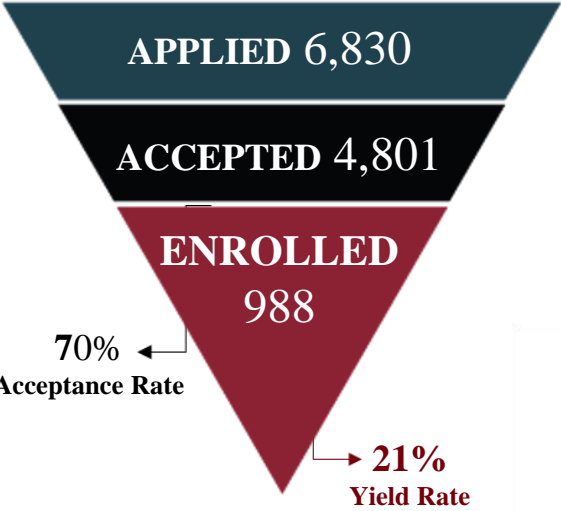
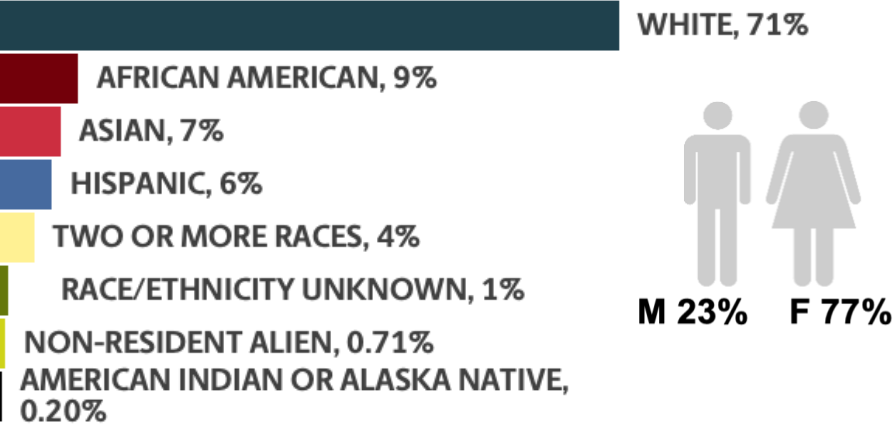
- Student Information and Trends
- Research Funding (Reviewed and Approved by VPR Julius Fridriksson)
- Overview of Health Sciences Departments
- Overview of Health Sciences Centers and Institutes

Student Information and Trends

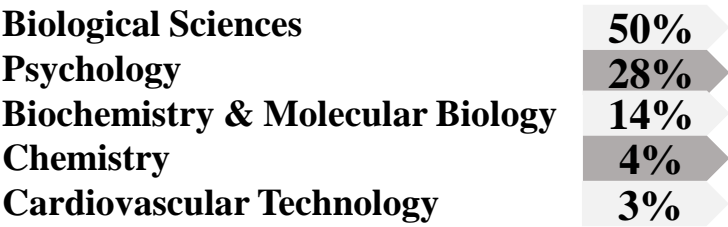
HEALTH SCIENCES MAJORS

2021 Freshman Profile (Includes Summer 2021)

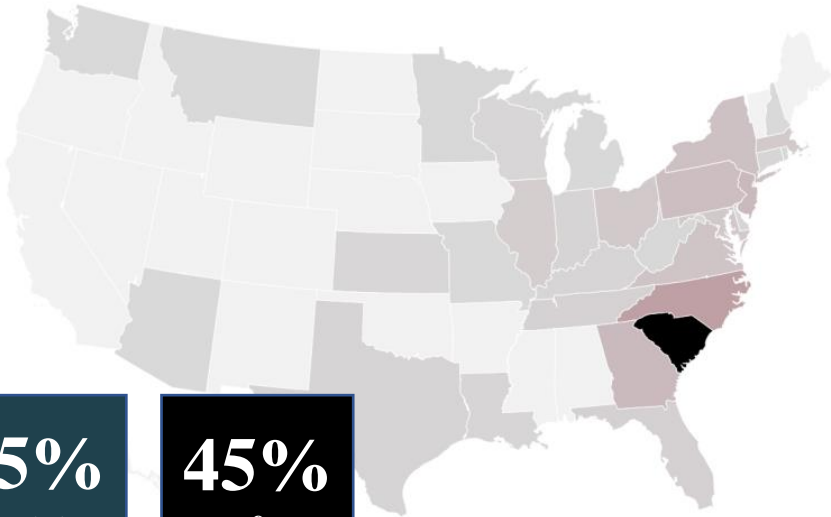
RACE



MAJORS INCLUDED



RESIDENCY



28
ACT

1277
SAT

4.50
HS GPA



20% are First-Generation

20% are Pell Recipients

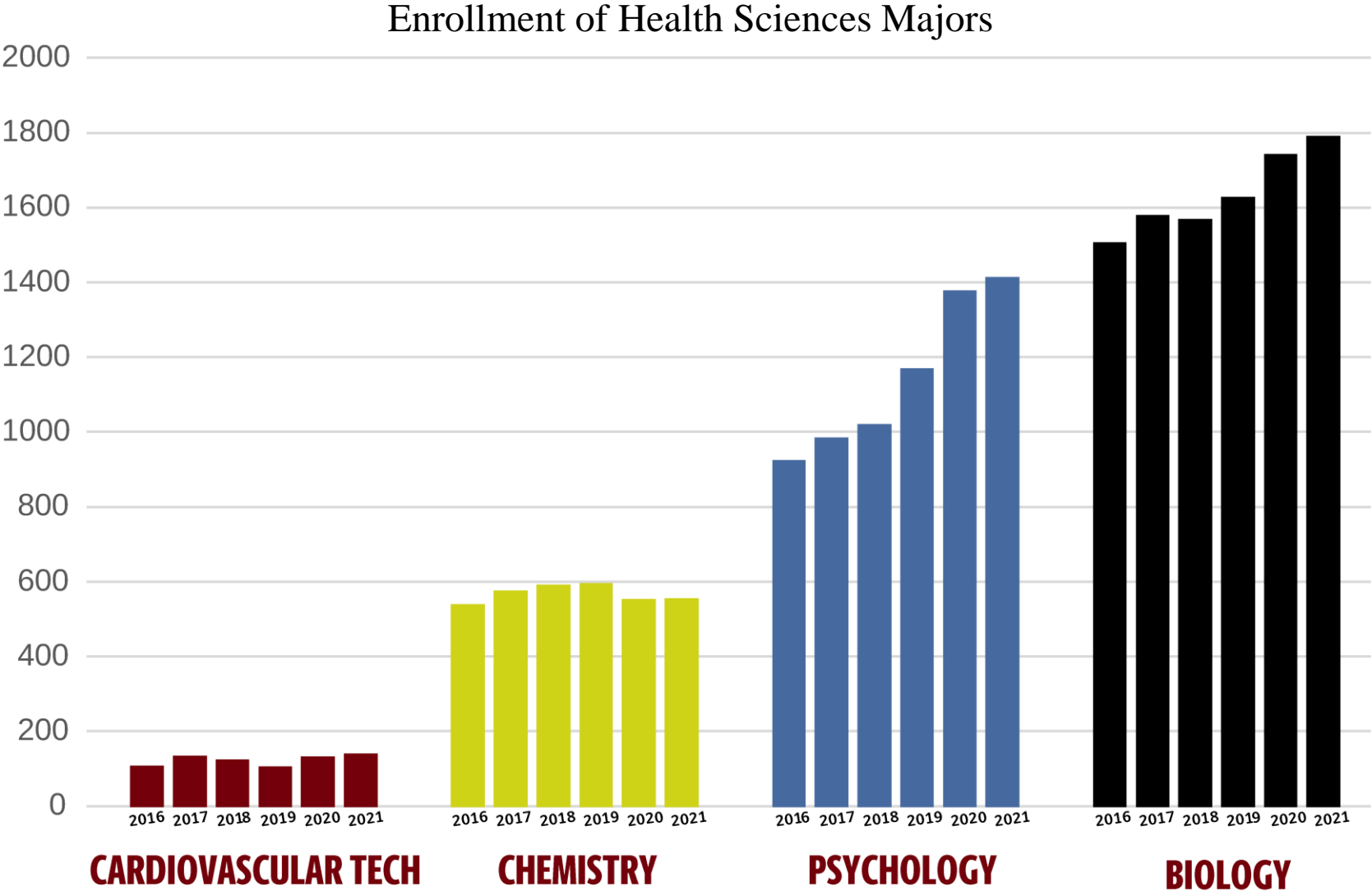
TOP 10 STATES

South Carolina
North Carolina
New Jersey
Georgia
Pennsylvania
New York
Virginia
Ohio
Maryland
Massachusetts

ENROLLMENT TRENDS

Health Sciences Majors

Health Sciences majors have increased by 23% since 2016 and make up 41% of CAS majors and 83% of STEM majors



HEALTH SCIENCES MAJORS

Fall 2021 UG Enrollment Numbers

| CAS Majors | Nos. | | Majors From Other Colleges | Nos. |
|----------------------------------|--------------|--|----------------------------|--------------|
| Biological Sciences | 1,795 | | Nursing B.S.N. | 1,342 |
| Psychology | 1,418 | | Exercise Science B.S. | 994 |
| Biochemistry & Molecular Biology | 395 | | Public Health B.S. | 743 |
| Chemistry | 163 | | Public Health B.A. | 551 |
| Cardiovascular Technology | 143 | | Pre-Pharmacy | 267 |
| Subtotal | 3,914 | | Subtotal | 3,897 |

**PROJECTED
ESTIMATED
CREDIT HOURS**

185,000 Hours

for Other Majors
(Carolina Core + Other
CAS Major/Supplemental Courses)

469,000 Hours

for CAS Majors
(All courses, 120-128 hours to degree)

Source: OIRAA's Tableau Enrollment Dashboard

SALARIES

Health Sciences Majors (National Data)

| Bachelor's Degree Earnings of Health Sciences Majors (National Average) | Early Career | Mid-Career |
|--|--------------|------------|
| Biochemistry & Molecular Biology | \$53,900 | \$108,100 |
| Biochemistry (General) | \$50,400 | \$99,900 |
| Biological Sciences | \$49,300 | \$92,100 |
| Cardiovascular Technology | \$48,900 | \$73,400 |
| Chemistry | \$51,600 | \$97,500 |
| Clinical Psychology | \$43,000 | \$63,900 |
| Experimental Psychology | \$90,989 | \$93,466 |
| Psychology (General) | \$44,700 | \$74,200 |

Research Funding

(Reviewed and Approved by VPR Julius Fridriksson)

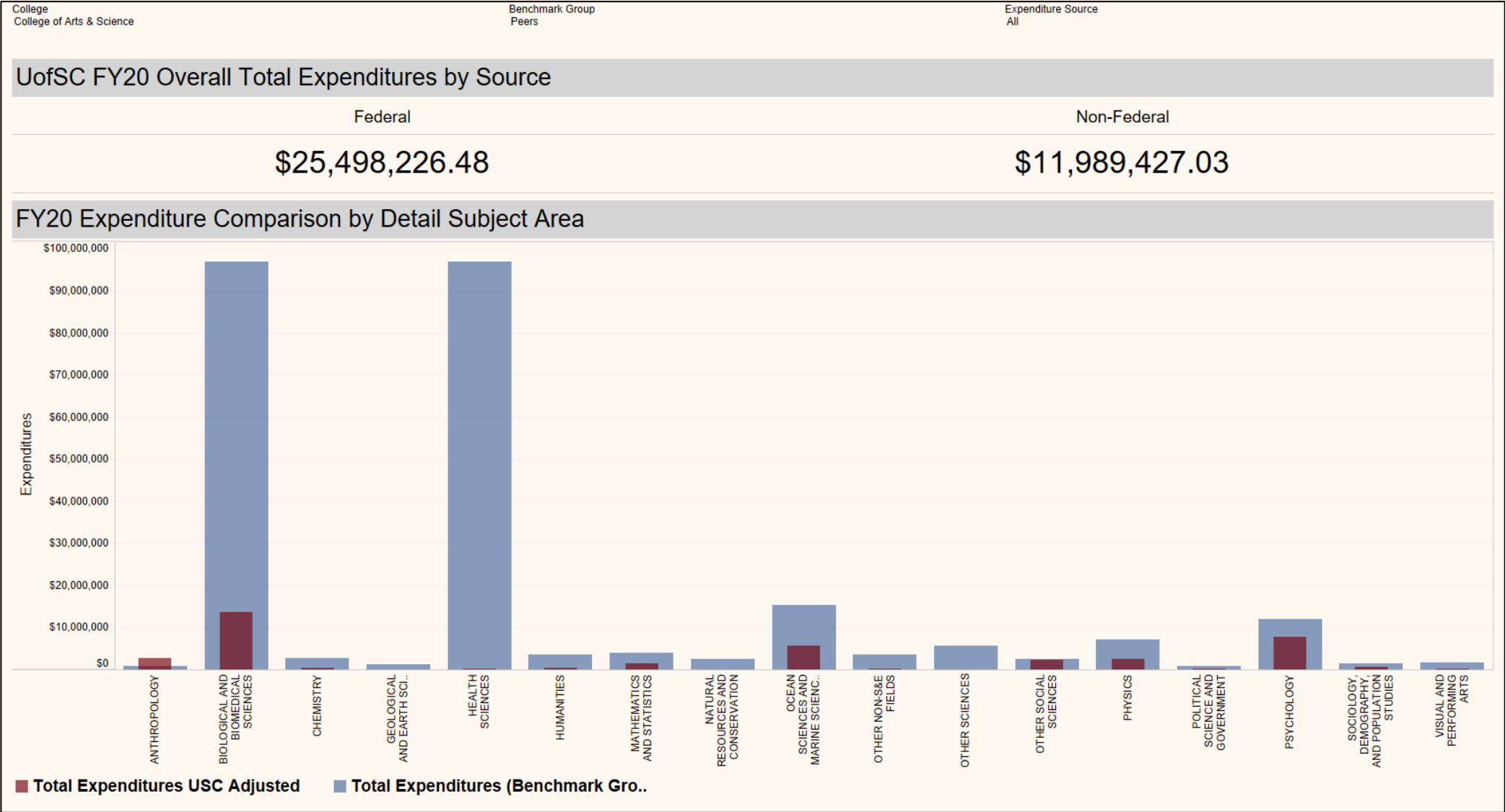
ANNUAL FEDERAL GRANTS AWARDED 2020

CAS vs. Peer/Peer Aspirants



RESEARCH EXPENDITURES ANALYSIS (FY20)

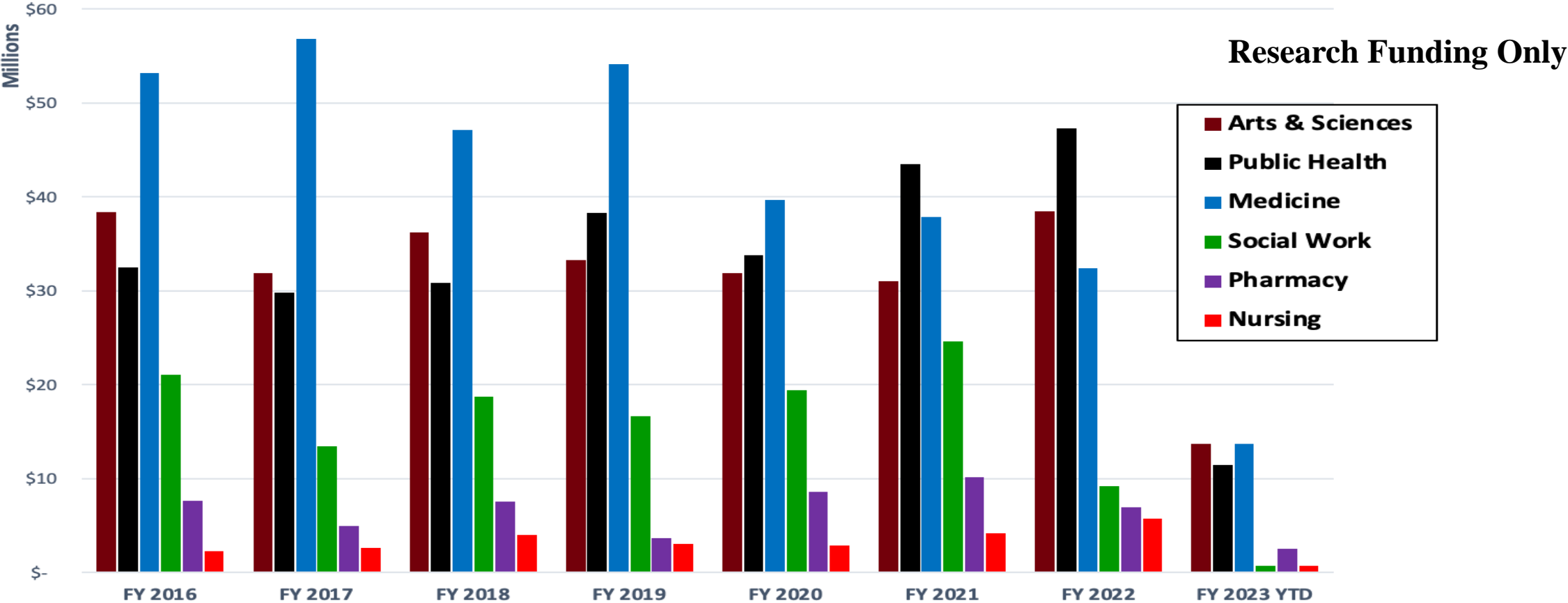
CAS vs. Peers



Source:
NSF HERD Survey

EXTERNAL RESEARCH FUNDING

UofSC Health Sciences Division



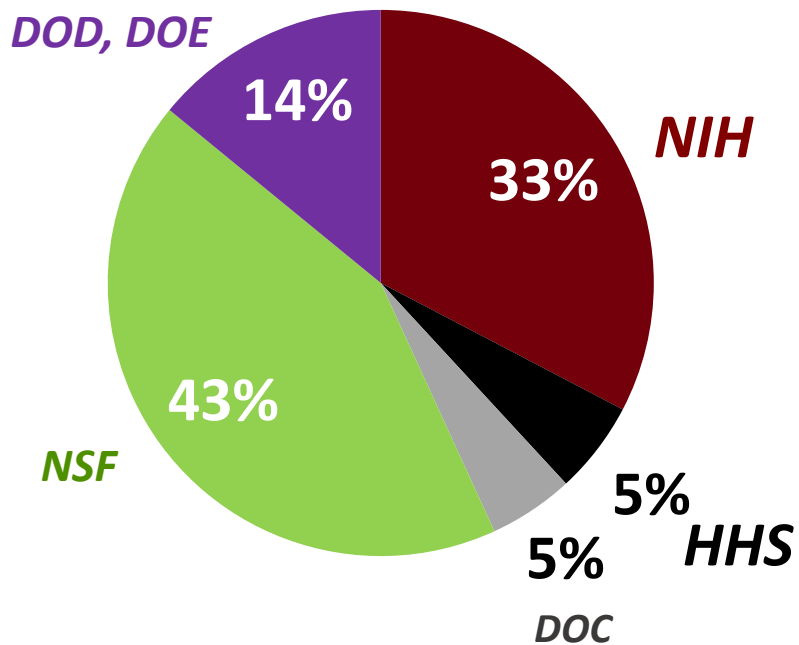
Source: UofSC VPR IT & Data Management

CAS FEDERAL FUNDING PROFILE

Trends

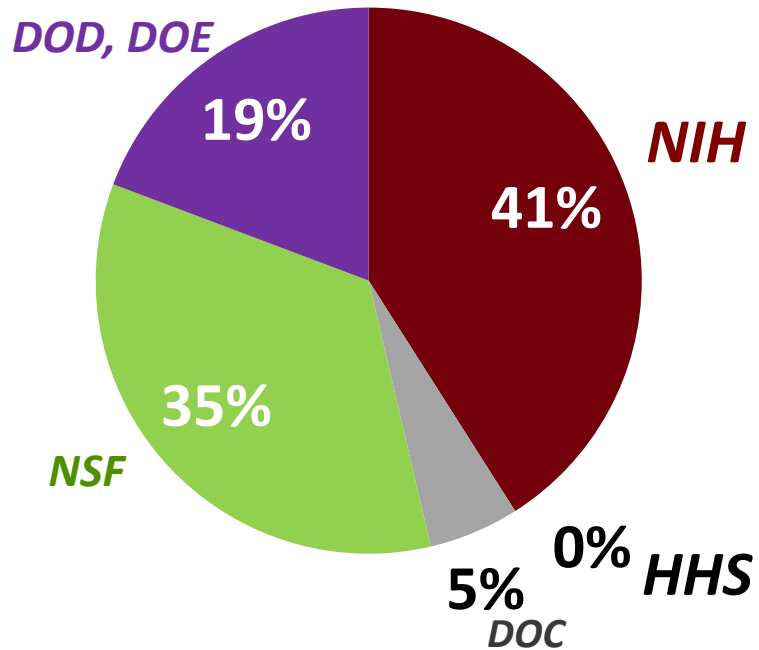
FY 2016

(\$26,895,071)



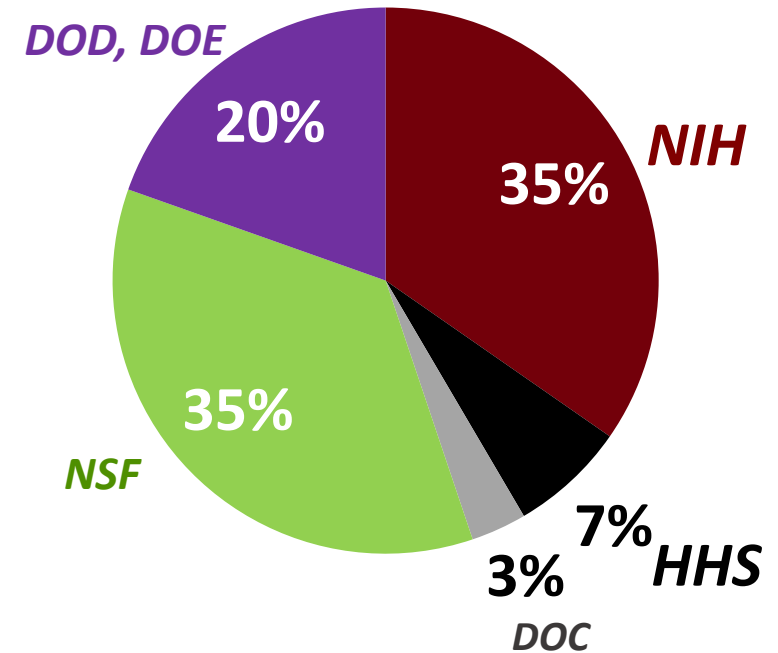
FY 2019

(\$23,821,139)



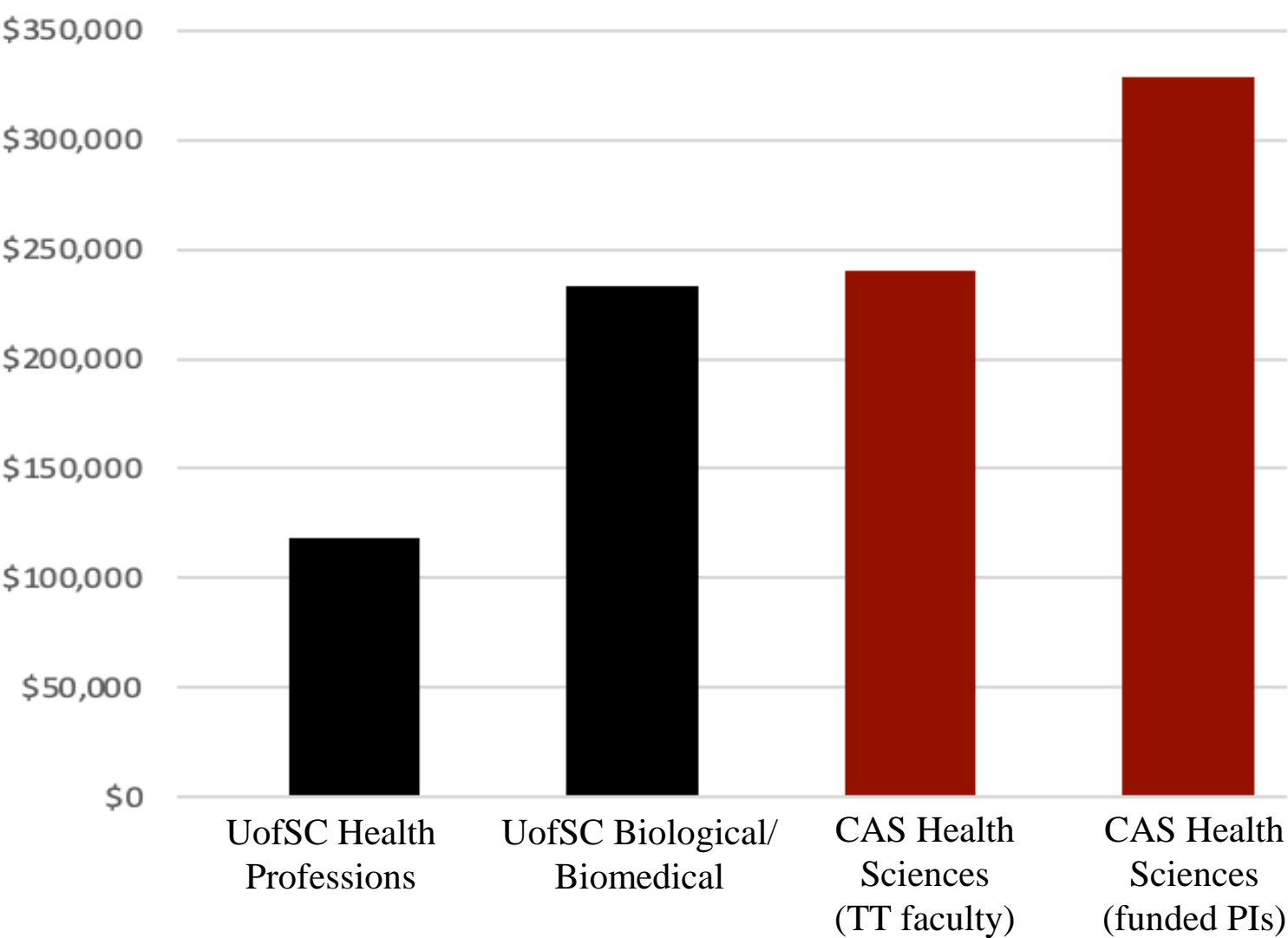
FY 2022

(\$30,439,275)



HEALTH SCIENCES UNITS

Grant Funding



LEGEND

Health Professions

Public Health

Communication Sciences and Disorders; Environmental Health Sciences; Health Services Policy and Management

Nursing

Pharmacy

Clinical Pharmacy and Outcomes Sciences

Biological / Biomedical Sciences

Arts and Sciences

Biology, Chemistry

Medicine

Cell Biology and Anatomy, Pathology, Microbiology, Immunology, Pharmacology, Physiology, Neuroscience

Public Health

Epidemiology and Biostatistics

Pharmacy

Drug Discovery and Biomedical Science

CAS Health Sciences

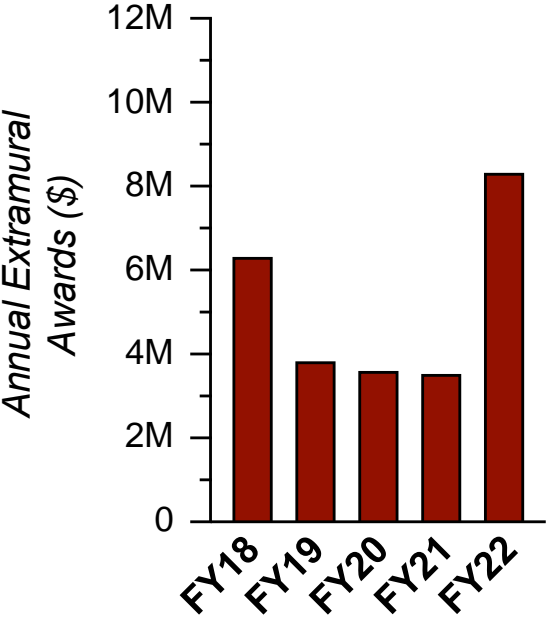
Arts and Sciences

Biology, Chemistry, Psychology

HEALTH SCIENCES UNITS

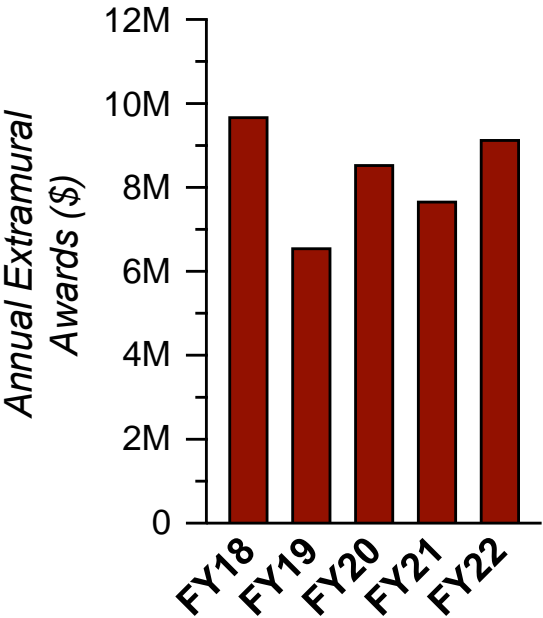
Grant Funding by Unit

BIOL



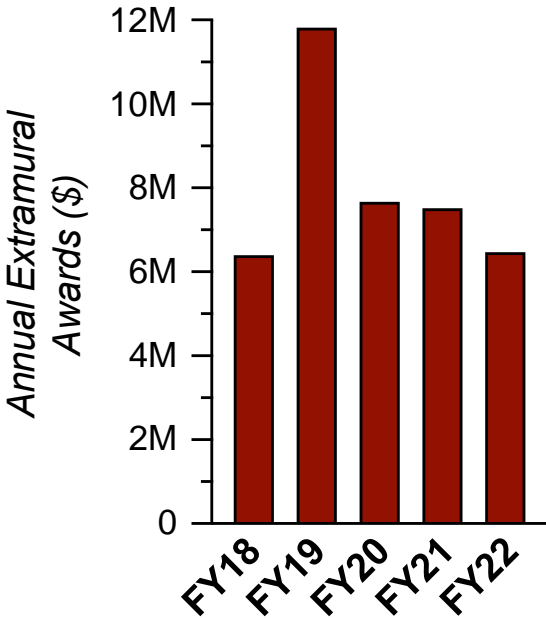
| | % TT funded | Avg award # per TT | Avg \$ # per TT |
|------|-------------|--------------------|-----------------|
| FY22 | 69% | 1.41 | \$260,902 |

CHEM



| | % TT funded | Avg award # per TT | Avg \$ # per TT |
|------|-------------|--------------------|-----------------|
| FY22 | 87% | 2.37 | \$306,110 |

PSYC

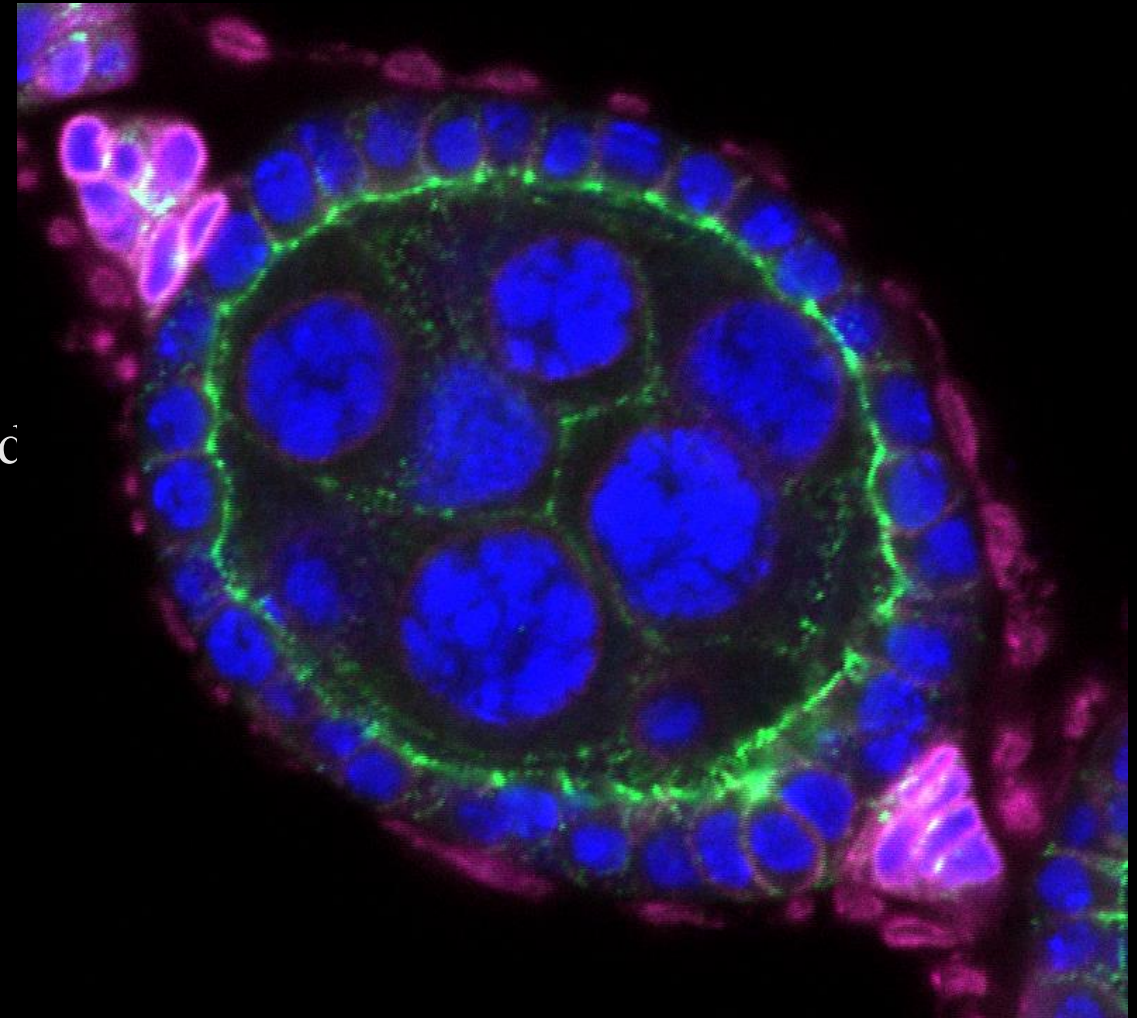


| | % TT funded | Avg award # per TT | Avg \$ # per TT |
|------|-------------|--------------------|-----------------|
| FY22 | 63% | 1.56 | \$240,427 |

Overview of Health Sciences Departments

DEPARTMENT OF BIOLOGICAL SCIENCES

- 53 faculty (35 tenure line, 18 professional track)
- Biological Sciences is the largest major in CAS. Many students pursue careers in medicine, veterinary medicine, and biomedical research.
- Research programs in Cancer Biology, Stem Cell Biology, Microbiology, Developmental Biology and Neurobiology.
- The department maintains instrumentation and service facilities that support research across the university.
- Recruitment of new faculty (post-TERI) has re-invigorated the department; research funding is heading back to anticipated levels.



DEPARTMENT OF CHEMISTRY & BIOCHEMISTRY

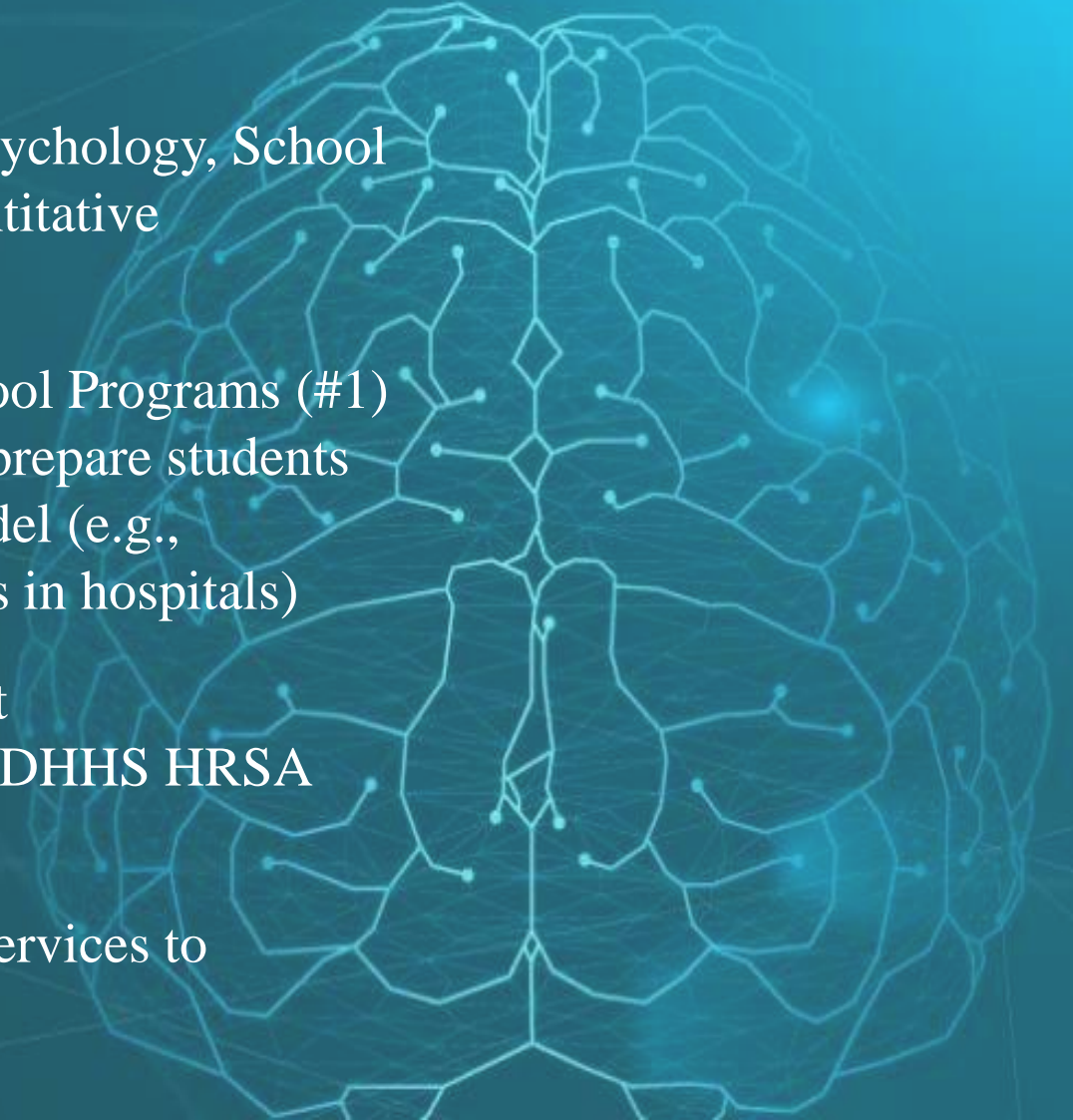
- 39 faculty (30 tenure line, 9 professional track)
- Biochemistry and Molecular Biology Major leads undergraduates toward Health Sciences-related graduate and professional programs.
- Biochemistry research programs most relevant to Health Sciences include Cell and Molecular Biology, Enzymology, Protein Structure, and Bio-Inorganic Chemistry.
- Departmental advanced instrumentation facilities that support research across the university (e.g. nuclear magnetic resonance, mass spectrometry, small molecule crystallography).
- Third generation X-ray capabilities – Member, Southeast Regional Collaborative Access Team (SER-CAT), Argonne National Lab.



DEPARTMENT OF PSYCHOLOGY

Overview

- 50 faculty (40 tenure line, 10 professional track)
- Four Areas of Psychology: Clinical & Community Psychology, School Psychology, Cognitive and Neural Science, and Quantitative Psychology.
- APA accredited Clinical & Community (#6) and School Programs (#1) are top ranked against US programs. Both programs prepare students for health service careers through integrated care model (e.g., psychologists collaborate with medical care providers in hospitals)
- Graduate Student Training Grants: NIH training grant (T32) for Behavioral-Biomedical Interface Program; DHHS HRSA training grant focused on health service psychology
- Psychology Services Center provides mental health services to underserved populations in Columbia.

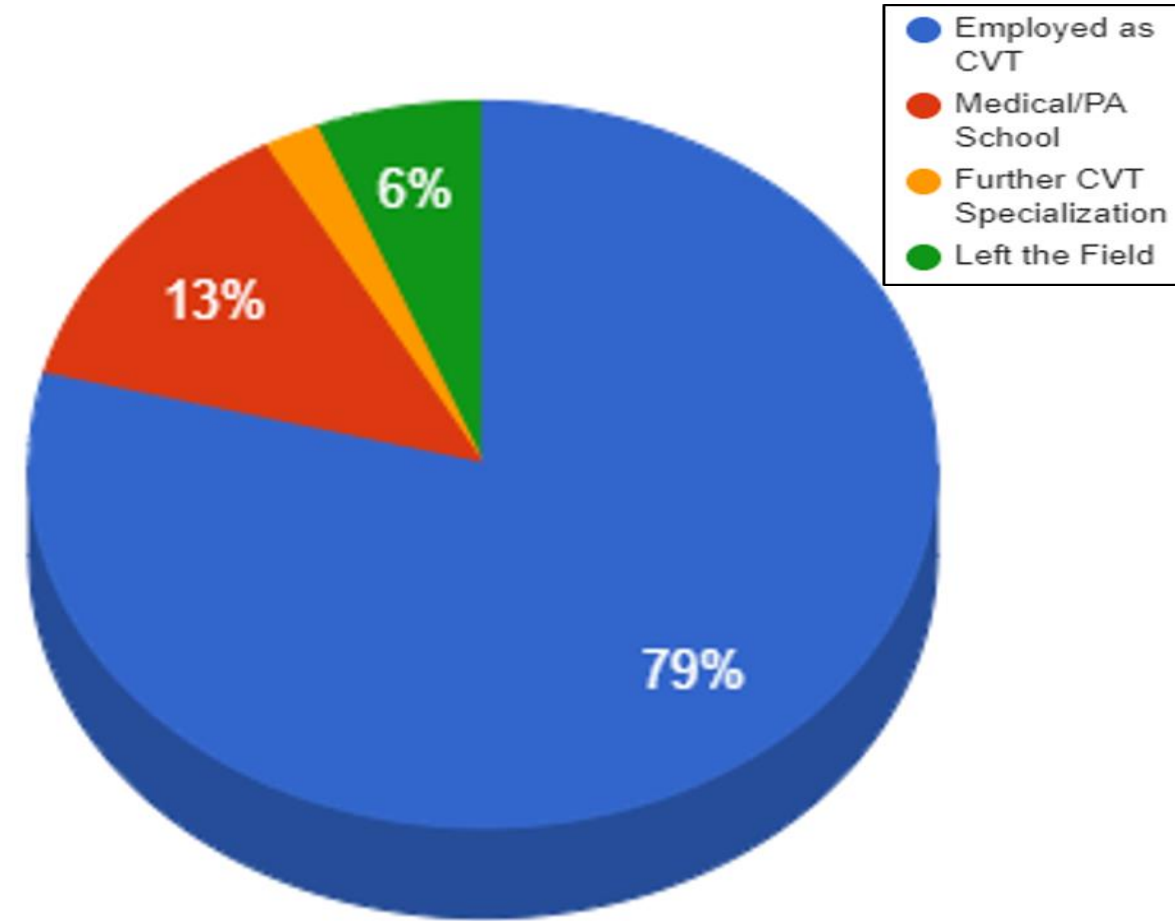


CAS HEALTH SCIENCES UNITS

Cardiovascular Technology Major

THE CVT MAJOR IN A NUTSHELL

- Healthcare career path in a liberal arts package (coursework and internship).
- 100% of graduates who pursue employment are hired in the field.
- 94% of graduates stay in the healthcare field.
- Average starting salary working as CVT is \$60,000/year.



Graduates employed in **SC (54%)**, GA (11%), VA (3%), NC (3%), CO (3%), NJ (3%) and internationally (11%)

Overview of Health Sciences Centers and Institutes

HEALTH SCIENCES CENTERS AND INSTITUTES

McCausland Center for Brain Imaging

Provides resources for brain imaging to understand how the healthy brain works as well as how the brain responds to injury to guide rehabilitation and enhancing recovery.



Institute for Mind and Brain

Mission is to establish the University of South Carolina as a leader in human cognitive neuroscience-related research.



Research Center for Child Well-Being

Interdisciplinary NIH COBRE funded Center focused on prevention research to reduce social, emotional and behavioral problems as well as unhealthy lifestyle in children.



Carolina Autism and Neurodevelopmental Center

Interdisciplinary center to advance basic, clinical, and intervention research and community outreach.



THANK YOU!

JOEL H. SAMUELS

Dean, College of Arts and Sciences

joelsamuels@sc.edu

(803) 777-7161

