OAKLAND UNIVERSITY
RESEARCH REPORT
2022

RESEARCH OFFICE
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Oakland University Research Report Fiscal Year 2022

Cover Art:

A.F.X. Goldberg (Eye Research Institute). Fluorescence micrograph of a tadpole eye section showing cell nuclei (blue) in the lens and retina, and endogenous (fuchsia) and transgenic (green-yellow) structural proteins of interest in the rod photoreceptors.

Contents

Preface

The Research Office is proud to present the Fiscal Year (FY) 2022 Annual Report describing external funding at Oakland University (OU). This report gives readers a comprehensive overview of the nature and extent of external funding provided to faculty and staff to support their research, instruction, public service, student services, and scholarships & fellowships. Detailed data are also provided for proposals that were submitted in FY 2022.

Every year, in writing this Preface, we warn against over-interpreting direct comparisons of numbers or trends from one year to another. Due to COVID-19, fiscal years 2020 and 2021 were in no way normal years for research at OU, so that caution is more apt than usual. In FY 2020, the COVID-19 pandemic forced us to suspend almost all in-person research involving human subjects, and to shut down laboratories and research facilities for nearly three months. These facts are likely to have influenced the number of awards made by the federal government over the last two years, as well as progress in research and the publication of findings, and to affect the number and types of proposals submitted by OU investigators in the last year and in coming years.

There is much to celebrate about FY 2022 in terms of research and sponsored programs. Despite some continuation of restrictions and problems caused by COVID-19, OU researchers have been very productive. Total funding for this year increased by 56% to $25.2M, research funding also increased by 19% to $15.3M, and the amount requested in proposals was $93M with additional CARES proposals of $62.3M.

As experts and leaders in their fields, OU faculty and staff continue to secure external funding for a broad range of robust research programs, many of which promote strong collaborations with other universities and research institutes, private industry, and regional organizations. These collaborations are vital in a funding climate emphasizing cross-disciplinary collaboration and public-private partnerships for addressing complex societal needs. Moreover, these sponsored programs support OU's mission to be a student-centered public research university, providing experiential learning opportunities that position our students to become the next generation of scientists, engineers, educators, and performers, while also advancing society through the creation and mobilization of knowledge.

The Research Office deeply appreciates the efforts of the OU faculty and staff who submitted grant and contract proposals during FY 2022, and we extend our warmest congratulations to those who obtained external funding this year.

Technical Notes and Definitions

Annual Report Reporting Period
The **fiscal year (FY)** for OU is July 1 to June 30. This report includes data for all awards and proposals processed through the Research Office for FY 2022. An award is considered processed by the Research Office when it has been reviewed, institutionally endorsed (if necessary), and transferred to Accounting for account set up. A proposal is considered processed through the Research Office after the institutional review and sign off process is complete.

Definition of Award
An **award** is a funded project for which OU has received an official notice of award or executed contract from a sponsor requiring the university to undertake a particular activity and for which a deliverable is expected. Awards that provide full funding in the first year of a multi-year project are included in the fiscal year the award was made. Award dollars received from sponsors that provide funding for specific budget periods within a multi-year project (i.e. incremental awards) are included in the fiscal year for which funding is received. Consequently, funding can fluctuate for a department or college depending on how a project is funded. **Direct year-by-year comparisons should always be made with caution.**

Definition of Proposal
A **proposal** is a request for financial support for a particular sponsored activity that is routed through the Research Office. It is important to recognize that there is no correlation between the proposals and awards discussed in this report, as many of the proposals submitted for the previous year are still pending with the sponsors.

Intellectual Credit
Proposals and awards are credited to the lead principal investigator (PI) and his/her home unit or center, whether academic or otherwise. For proposals or awards that also include co-PIs, the total amount proposed or awarded is credited to the lead PI and his/her home unit.

Sponsor Types
The Research Office recognizes four categories of **sponsors:** federal, state, corporate, and public/nonprofit. Federal sponsors for proposals and awards include direct federal funding as well as flow-through funding when federal dollars come to OU through a non-federal entity (e.g. state agency or other university). Public/nonprofit sponsors include non-Michigan institutions of higher education, municipalities, civic organizations, as well as nonprofit and non-governmental organizations.

Report Layout
This report has eight (8) sections. The first section, award overview, provides a summary of all NEW sponsored awards received by OU through the Research Office for the previous fiscal year. The ensuing five sections include award information separated according to the following activity types: 1) research, 2) instruction, 3) public service, 4) student services, and 5) scholarships & fellowships. The seventh section of the report details proposal submissions for the previous fiscal year. The eighth and final section of the report includes listings of the winners of the 2021 Research, Innovation, and Engagement Town Hall and the PI Academy for Research and Engagement Class of 2022.

Research

A project is classified as research when it involves a systematic study to gain an understanding of a phenomenon. Research culminates in new knowledge and may be either fundamental or applied. A project that funds the maintenance or creation of research facilities, disseminates project findings, or trains individuals in research techniques or methods would also be classified as research.

Instruction

A project is classified as instruction when it incorporates the teaching and training activities of the institution (with the exception of research training, as mentioned above). These projects are intended to elicit some measure of educational change in learners. Instruction includes all teaching and training activities, credit or non-credit.

"Other" Sponsored Activity

The term "Other" is used for sponsored activities that fall outside the formal academic unit structure. This includes, but is not limited to, campus areas such as Academic Affairs Office, Athletics Administration, Campus Police, Campus Recreation, Center for Multicultural Initiatives, Facilities Management, Financial Aid, OU INC, Pre-College Programs, the Research Office, Student Affairs, and Upward Bound. This work is often, but not always, engagement work, public service, or student services.

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Amounts and Number of Awards by Purpose

Funding Amount of New Awards
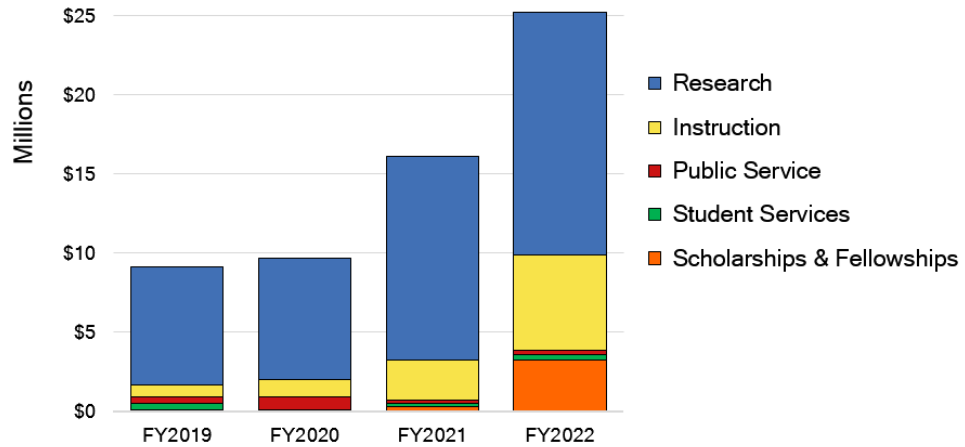
Purpose of Funding	FY2019	FY2020	FY2021	FY2022	Total
Research	7,465,280	7,696,442	12,887,052	$15,331,396	$43,380,170
Instruction	762,032	1,080,497	2,502,714	$6,022,981	$10,368,224
Public Service	443,298	820,721	270,094	$322,154	$1,856,267
Student Services	346,347	65,923	182,495	$290,945	$885,710
Scholarships & Fellowships	104,772	0	267,622	$3,243,593	$3,615,987
Total	$9,121,729	$9,663,583	$16,109,977	$25,211,069	$60,106,358

Number of Awards
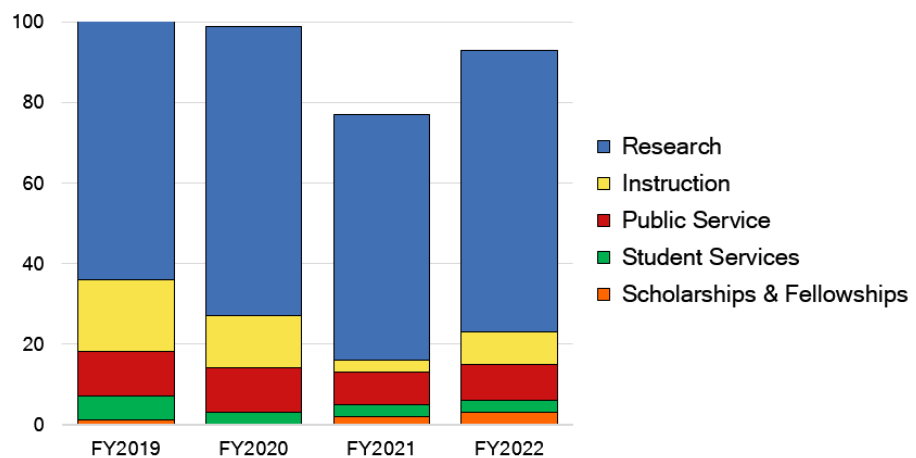
Purpose of Funding	FY2019	FY2020	FY2021	FY2022	Total
Research	72	72	61	70	275
Instruction	18	13	3	8	42
Public Service	11	11	8	9	39
Student Services	6	3	3	3	15
Scholarships & Fellowships	1	0	2	3	6
Total	108	99	77	93	377

Percentages and Number of Awards by Purpose

FY2022 ● Funding Amount Percentages

Research 61%
Instruction 24%
Public Service 1%
Student Services 1%
Scholarships and Fellowships 13%
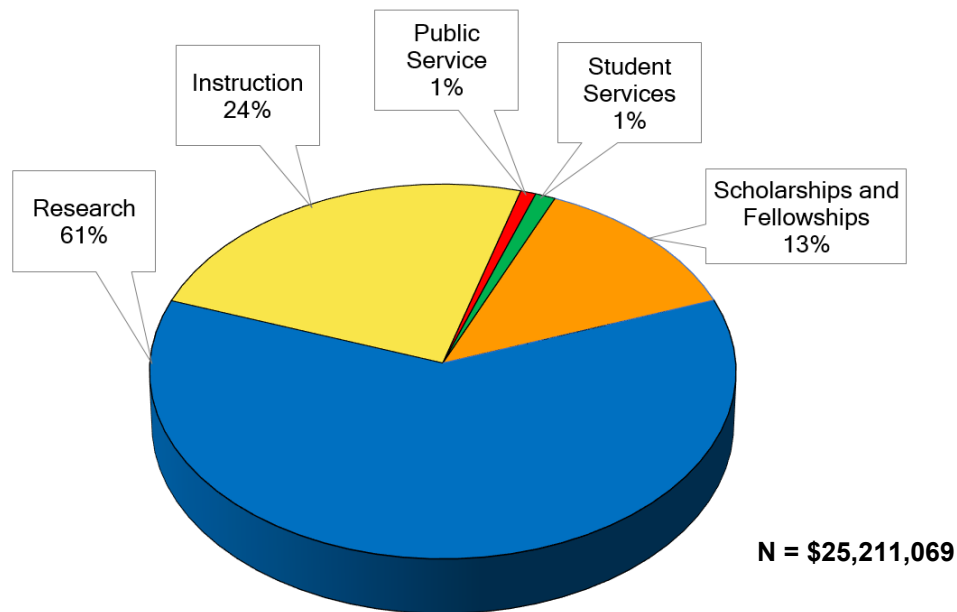
N = $25,211,069

Purpose of Funding	# of Awards	Total
Research	70	$15,331,396
Instruction	8	$6,022,981
Public Service	9	$322,154
Student Services	3	$290,945
Scholarships & Fellowships	3	$3,243,593
Total	**93**	**$25,211,069**

FY2022 ● Number of Awards Percentage

Research 76%
Instruction 9%
Public Service 9%
Student Services 3%
Scholarships and Fellowships 3%

N = 93
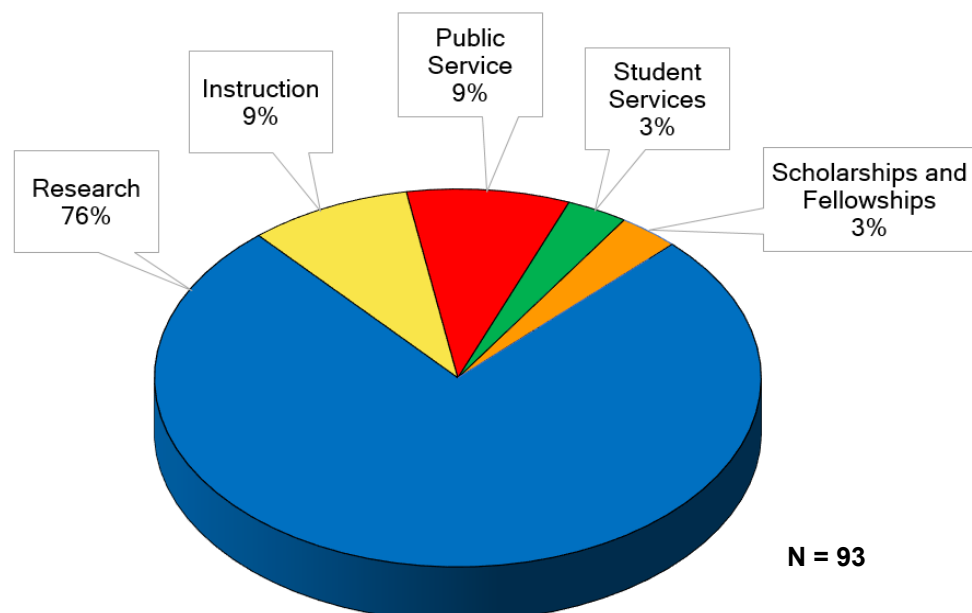
Percentages and Award Amounts by Source

FY2022 ● Funding Amount Percentages

State/Local Government 4%

Corporate 3%

Federal Government 88%

Public/Non-Profit 5%
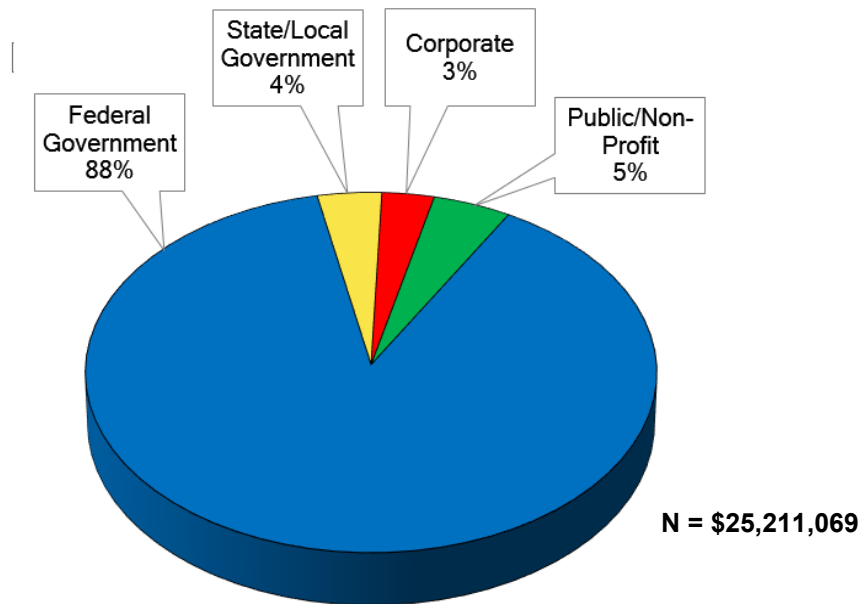
N = $25,211,069

Source of Funding	# of Awards	Total
Federal Government	56	22,224,393
State/Local Government	13	1,052,825
Corporate Sponsors	3	774,600
Public/Nonprofit Sponsors	21	1,159,251
Total	93	$25,211,069

FY2022 ● Number of Awards Percentage

State/Local Government 13%

Corporate 3%

Federal Government 61%

Public/Non-Profit 23%

N = 93
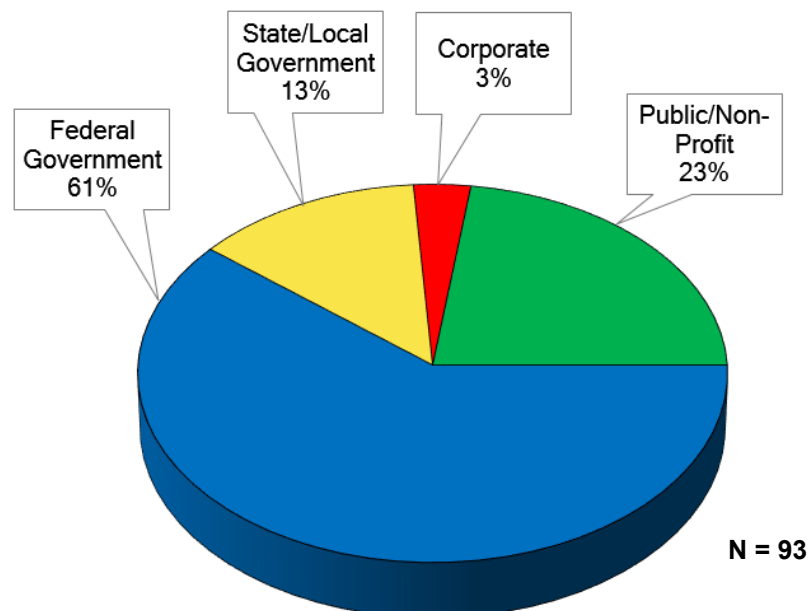
Percentages and Award Amounts by Academic Unit

FY2022 ● Funding Amount Percentages by Academic Unit

SHS 2% | SOM 5% | SON 1% | SEHS 1% | ERI 5% | Other 23% | CAS 25% | SECS 38%

N = $25,211,069
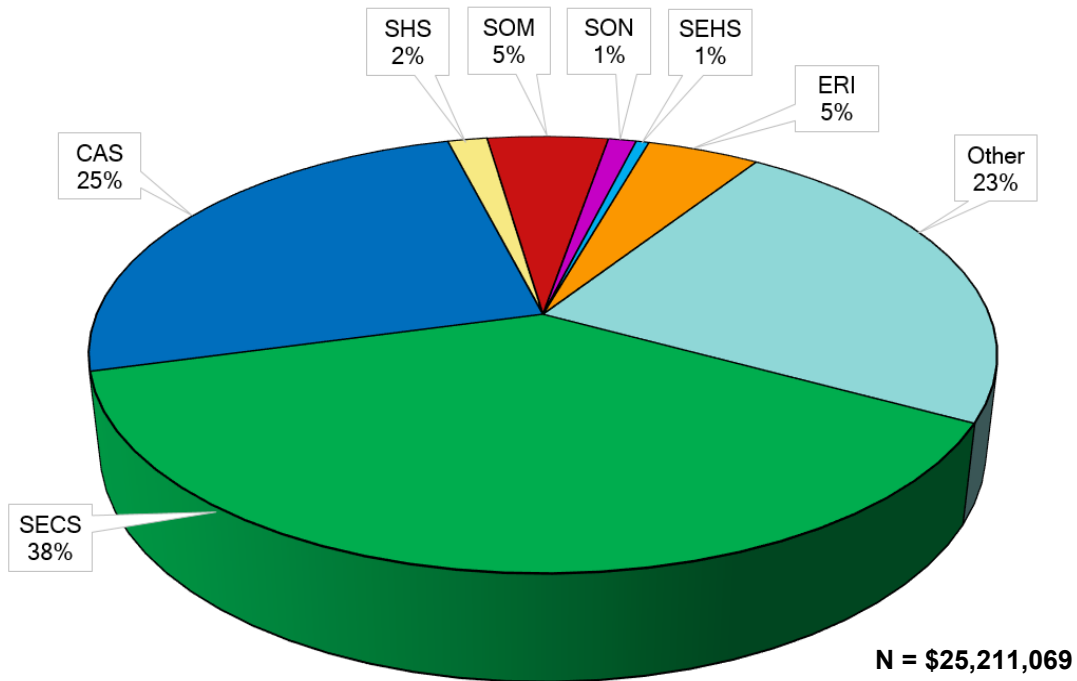
Academic Unit	FY2019	FY2020	FY2021	FY2022	Total
College of Arts and Sciences	4,409,055	4,954,137	5,976,664	6,304,877	21,644,733
Eye Research Institute	37,500	134,997	1,967,042	1,202,826	3,342,365
School of Business Administration	6,420	0	0	0	6,420
School of Engineering and Computer Science	2,741,069	1,947,994	2,298,215	9,546,744	16,534,022
School of Education and Human Services	143,090	100,032	95,800	137,500	476,422
School of Health Sciences	599,529	588,977	137,938	421,084	1,747,528
School of Medicine	6,000	209,554	2,497,150	1,292,647	4,005,351
School of Nursing	236,354	290,606	2,493,667	298,651	3,319,278
Other	942,712	1,437,286	643,501	6,006,740	9,030,239
Total	**$9,121,729**	**$9,663,583**	**$16,109,977**	**$25,211,069**	**$60,106,358**

FY2022 Department Rankings
Total Funding

Rank	Department/Unit	Dollars	Parent Unit
1	Computer Science and Engineering	6,529,664	School of Engineering & Computer Science
2	Chemistry	3,366,886	College of Arts and Sciences
3	Biological Sciences	1,690,073	College of Arts and Sciences
4	Electrical and Computer Engineering	1,654,804	School of Engineering & Computer Science
5	Mechanical Engineering	1,362,276	School of Engineering & Computer Science

FY2022 Non-Academic and Other Unit Rankings
Total Funding

Rank	Department/Unit	Dollars
1	Upward Bound	3,554,850
2	Academic Affairs	1,600,000
3	Lowry Center for Early Childhood	413,000
4	Pre-College Programs	101,727
5	Center for Multicultural Initiatives	100,483

FY2022 Department Rankings
Research Dollars

Rank	Department/Unit	Dollars	Parent Unit
1	Chemistry	3,366,886	College of Arts and Sciences
2	Computer Science and Engineering	3,183,391	School of Engineering & Computer Science
3	Biological Sciences	1,690,073	College of Arts and Sciences
4	Electrical and Computer Engineering	1,654,804	School of Engineering & Computer Science
5	Foundational Medical Studies	1,292,647	School of Medicine

Comparison of FY2021 and FY2022 – Amounts and Number of Awards by Unit

College of Arts and Sciences	FY2021 Awards	No. of Awards	FY2022 Awards	No. of Awards
Art and Art History	7,100	2	0	0
Biological Sciences	882,603	6	1,690,073	10
Chemistry	4,119,796	12	3,366,886	10
Mathematics and Statistics	198,305	1	0	0
Physics	743,786	5	717,327	5
Psychology	18,320	2	530,591	4
Sociology	6,754	1	0	0
CAS Total	**$5,976,664**	**29**	**$6,304,877**	**29**

Eye Research Institute	FY2021 Awards	No. of Awards	FY2022 Awards	No. of Awards
ERI Total	**$1,967,042**	**1**	**$1,202,826**	**2**

School of Engineering and Computer Science	FY2021 Awards	No. of Awards	FY2022 Awards	No. of Awards
Computer Science and Engineering	386,746	4	6,529,664	14
Electrical and Computer Engineering	477,078	2	1,654,804	4
Mechanical Engineering	1,434,391	10	1,362,276	13
SECS Total	**$2,298,215**	**16**	**$9,546,744**	**31**

School of Education and Human Services	FY2021 Awards	No. of Awards	FY2022 Awards	No. of Awards
Human Development and Child Studies	85,800	1	137,500	2
Reading and Language Arts	10,000	1	0	0
SEHS Total	**$95,800**	**2**	**$137,500**	**2**

School of Health Sciences	FY2021 Awards	No. of Awards	FY2022 Awards	No. of Awards
Clinical and Diagnostic Sciences	4,884	1	0	0
Human Movement Science	500	1	198,037	2
Interdisciplinary Health Sciences	121,154	2	166,482	3
Public and Environmental Wellness	11,400	1	56,565	2
SHS Total	**$137,938**	**5**	**$421,084**	**7**

School of Medicine	FY2021 Awards	No. of Awards	FY2022 Awards	No. of Awards
SOM Total	**$2,497,150**	**7**	**$1,292,647**	**5**

School of Nursing	FY2021 Awards	No. of Awards	FY2022 Awards	No. of Awards
SON Total	**$2,493,667**	**7**	**$298,651**	**5**

Other	FY2021 Awards	No. of Awards	FY2022 Awards	No. of Awards
Academic Affairs	0	0	1,600,000	1
Center for Multicultural Initiatives	0	0	100,483	1
Graduate School	0	0	25,000	1
Lowry Center for Early Childhood	0	0	413,000	2
OUCARES	0	0	39,800	1
Macomb-OU Incubator	98,663	1	0	0
OU Incubator	54,881	4	71,880	3
Pre-College Programs	182,495	3	101,727	1
Research Office	0	0	100,000	1
Student Affairs and Diversity	100,483	1	0	0
Upward Bound	206,979	1	3,554,850	1
Other Total	**$643,501**	**10**	**$6,006,740**	**12**

Oakland University Total	FY2021 Awards	No. of Awards	FY2022 Awards	No. of Awards
Grand Total	**$16,109,977**	**77**	**$25,211,069**	**93**

FY 2022 Amount Awarded by Unit and Purpose

College of Arts and Sciences	Research	Instruction	Public Service	Student Services	Scholarships Fellowships
Biological Sciences	1,690,073	0		0	0
Chemistry	3,366,886	0		0	0
Physics	717,327	0	0	0	0
Psychology	496,317	0	34,274	0	0
CAS Total	**$6,270,603**	**$0**	**$34,274**	**$0**	**$0**

Eye Research Institute	Research	Instruction	Public Service	Student Services	Scholarships Fellowships
ERI Total	**$1,202,826**	**$0**	**$0**	**$0**	**$0**

School of Engineering and Computer Science	Research	Instruction	Public Service	Student Services	Scholarships Fellowships
Computer Science and Engineering	3,183,391	147,958	0	0	3,198,315
Electrical and Computer Engineering	1,654,804	0	0	0	0
Mechanical Engineering	1,243,541	0	30,000	88,735	0
SECS Total	**$6,081,736**	**$147,958**	**$30,000**	**$88,735**	**$3,198,315**

School of Education and Human Services	Research	Instruction	Public Service	Student Services	Scholarships Fellowships
Human Development & Child Studies	112,500	0	25,000	0	0
SEHS Total	**$112,500**	**$0**	**$25,000**	**$0**	**$0**

School of Health Sciences	Research	Instruction	Public Service	Student Services	Scholarships Fellowships
Human Movement Science	198,037	0	0	0	0
Interdisciplinary Health Sciences	106,482	0	60,000	0	0
Public and Environmental Wellness	56,565	0	0	0	0
SHS Total	**$361,084**	**$0**	**$60,000**	**$0**	**$0**

School of Medicine	Research	Instruction	Public Service	Student Services	Scholarships Fellowships
SOM Total	**$1,292,647**	**$0**	**$0**	**$0**	**$0**

School of Nursing	Research	Instruction	Public Service	Student Services	Scholarships Fellowships
SON Total	**$10,000**	**$243,373**	**$0**	**$0**	**$45,278**

Other	Research	Instruction	Public Service	Student Services	Scholarships Fellowships
Academic Affairs	0	1,600,000	0	0	0
Center for Multicultural Initiatives	0	0	0	100,483	0
Graduate School	0	25,000	0	0	0
Lowry Center for Early Childhood	0	412,000	1,000	0	0
OU Incubator	0	0	71,880	0	0
OUCARES	0	39,800	0	0	0
Pre-College Programs	0	0	0	101,727	0
Research Office	0	0	100,000	0	0
Upward Bound	0	3,554,850	0	0	0
Other	**$0**	**$5,631,650**	**$172,880**	**$202,210**	**$0**

Oakland University Total	Research	Instruction	Public Service	Student Services	Scholarships Fellowships
Grand Total	**$15,331,396**	**$6,022,981**	**$322,154**	**$290,945**	**$3,243,593**

FY 2022 Amount Awarded by Unit and Source

College of Arts and Sciences	Federal	State/Local	Corporate	Public/ Nonprofit
Biological Sciences	1,640,585	5,500	0	43,988
Chemistry	2,508,764	0	658,122	200,000
Physics	717,327	0	0	0
Psychology	396,351	0	0	134,240
CAS Total	**$5,263,027**	**$5,500**	**$658,122**	**$378,228**

Eye Research Institute	Federal	State/Local	Corporate	Public/ Nonprofit
ERI Total	**$1,202,826**	**$0**	**$0**	**$0**

School of Engineering and Computer Science	Federal	State/Local	Corporate	Public/ Nonprofit
Computer Science and Engineering	6,412,164	92,500	0	25,000
Electrical and Computer Engineering	1,654,804	0	0	0
Mechanical Engineering	1,157,063	88,735	116,478	0
SECS Total	**$9,224,031**	**181,235**	**$116,478**	**$25,000**

School of Education and Human Services	Federal	State/Local	Corporate	Public/ Nonprofit
Human Development & Child Studies	0	25,000	0	112,500
SEHS Total	**$0**	**$25,000**	**$0**	**$112,500**

School of Health Sciences	Federal	State/Local	Corporate	Public/ Nonprofit
Human Movement Science	0	0	0	198,037
Interdisciplinary Health Sciences	106,482	0	0	60,000
Public and Environmental Wellness	0	0	0	56,565
SHS Total	**$106,482**	**$0**	**$0**	**$314,602**

School of Medicine	Federal	State/Local	Corporate	Public/Nonprofit
SOM Total	$1,207,899	$55,000	$0	$29,748

School of Nursing	Federal	State/Local	Corporate	Public/Nonprofit
SON Total	$40,278	$0	$0	$258,373

Other	Federal	State/Local	Corporate	Public/Nonprofit
Academic Affairs	1,600,000	0	0	0
Center for Multicultural Initiatives	0	100,483	0	0
Graduate School	25,000	0	0	0
Lowry Center for Early Childhood	0	412,000	0	1,000
Macomb-OU Incubator	0	0	0	0
OU Incubator	0	71,880	0	0
OUCARES	0	0	0	39,800
Pre-College Programs	0	101,727	0	0
Research Office	0	100,000	0	0
Student Affairs and Diversity	0	0	0	0
Upward Bound	3,554,850	0	0	0
Other Total	$5,179,850	$786,090	$0	$40,800

Oakland University Total	Federal	State/Local	Corporate	Public/Nonprofit
Grand Total	$22,224,393	$1,052,825	$774,600	$1,159,251

Amount Awarded by Federal Agency

Agency/Sponsor	FY2019	FY2020	FY2021	FY2022
Air Force Office of Scientific Research	0	0	0	100,120
Binational Science Foundation	0	320,000	0	0
Cooperative Invasive Species Management	0	1,767	0	0
Defense Advanced Research Projects Agency	0	0	291,515	0
Health Resources and Services Administration	224,233	217,606	2,472,874	1,640,278
Michigan Council for Arts & Cultural Affairs	10,000	0	0	0
Michigan Department of Health & Human Services	0	0	2,483,851	0
Michigan Department of Labor/Economic Growth	0	0	102,145	0
National Advanced Mobility Consortium	75,000	0	0	0
National Aeronautics and Space Administration	70,000	72,488	32,500	55,400
National Center for Manufacturing Sciences	0	0	990,000	0
National Endowment for the Humanities	0	9,943	0	0
National Institute on Disability, Independent Living, and Rehabilitation Research	0	0	0	83,050
National Institutes of Health	1,494,402	855,562	5,080,980	6,073,604
National Network of Libraries of Medicine	0	18,071	0	0
National Science Foundation	3,289,388	2,140,022	1,685,010	6,447,889
National Security Agency	97,050	99,992	0	147,958
Pacific Northwest National Laboratory	0	174,430	0	0
Partners of Americas Foundation	0	24,998	0	0
United States Air Force	0	1,375,547	461,078	25,000
United States Army-TARDEC	79,550	0	0	0
United States Army Research Laboratory	2,000	2,000	0	321,479
United States Council for Automotive Research	0	5,391	0	0
United States Department of Agriculture	83,281	0	0	0
United States Department of Commerce	0	117,704	0	0
United States Department of Defense	678,039	938,837	271,909	2,697,320
United States Department of Education	113,935	0	304,179	3,554,850
United States Department of Energy	234,621	40,000	302,565	1,060,000
United States Department of Labor	0	3,200	0	0
United States Department of State	0	408,795	0	0
United States Fish and Wildlife Service	0	0	0	17,445
Federal Agency Funding Total	**$6,451,499**	**$6,826,353**	**$14,478,606**	**$22,224,393**

Amount Awarded by State and Local Agency

Agency/Sponsor	FY2019	FY2020	FY2021	FY2022
Advancing Macomb	0	4,000	0	0
Charter Township of Oakland Parks and	0	0	0	3,500
Department of State, Oakland County	0	7,000	0	0
Department of Environment, Great Lakes and	0	0	405,391	0
Grand Valley State University	84,000	110,000	0	0
Macomb County Public Works	0	3,130	0	0
Macomb Intermediate School District	67,347	20,290	0	0
Michigan Council for Arts and Cultural Affairs	0	7,500	0	0
Michigan Department of Education	22,168	0	72,100	0
Michigan Department of Health & Human Services	50,000	0	89,549	55,000
Michigan Department of Labor & Economic	17,600	0	0	0
Michigan Economic Development Corporation	310,355	374,297	153,544	264,380
Michigan Humanities Council	0	0	750	0
Michigan State Police	16,355	49,890	0	0
Michigan Technological University	0	0	0	0
Oakland County Health Division	7,000	0	3,500	0
Oakland Parks and Recreation	0	4,000	0	2,000
State of Michigan	505,376	255,964	189,218	702,945
Washtenaw Intermediate School District	0	0	0	25,000
State and Local Agency Funding Total	**1,080,201**	**836,071**	**$914,052**	**$1,052,825**

Amount Awarded by Corporations

Agency/Sponsor	FY2019	FY2020	FY2021	FY2022
Aquasight, LLC	0	0	30,000	0
Balance Tracking Systems	20,000	0	0	0
Cayman Chemical Company	0	0	1,000	0
Continental Automotive Systems, Inc.	41,775	0	0	0
Data Speed, Inc.	0	79,812	0	0
Dura Automotive, LLC	132,312	0	0	0
Eaton Corporation	0	46,000	16,000	0
Electric Power Research Institute, Inc.	25,000	0	0	0
Fiat Chrysler Automobiles	310,528	0	100,000	0
Fortinet	0	46,864	46,984	0
General Motors	0	4,000	31,067	86,478
HBM Prenscia, LLC	0	18,800	0	0
Hitachi America, Ltd.	6,420	0	0	0
Lab Systems, LLC	0	64,905	0	0
Light Weight Innovations	0	41,312	0	0
Lubrizol Corporation	0	0	0	30,000
Merck Corporate	0	0	178,616	0
Molex, LLC	56,348	0	0	0
Ripcord Energy Solutions, LLC	0	0	0	658,122
Sapphire North America	0	0	2,000	0
Corporation Funding Total	**592,383**	**$301,693**	**$405,667**	**$774,600**

Amount Awarded by Public/Nonprofit Sponsors

Agency/Sponsor	FY2019	FY2020	FY2021	FY2022
Alliance of Coalitions for Healthy Communities	0	8,320	11,320	16,582
Alpha Foundation	0	745,717	0	0
American Association of Colleges of Nursing	0	0	0	25,000
American Cancer Society	0	0	0	83,384
American Chemical Society	0	0	0	110,000
American Educational Research Association	2,075	0	0	0
American Heart Association	375,942	180,983	0	35,000
American Nephrology Nurses Association	0	0	12,293	0
American Society of Hematology	0	6,000	0	0
American Society for Clinical Lab. Science	0	0	4,884	0
Arnold P. Gold Foundation	0	5,500	0	0
Art Bridges	0	12,790	6,350	0
Association of American Medical Colleges	0	5,000	0	0
Blue Cross Blue Shield of Michigan Foundation	6,000	70,000	3,000	147,500
Brain Aneurysm Foundation	40,000	0	0	25,000
CARE House of Oakland County	0	30,000	0	0
Center for Learning and Childhood	0	0	0	6,565
Children's Foundation	0	0	0	39,800
Daisy Foundation	0	0	7,500	0
Forging Foundation (FIERF)	0	10,000	0	0
George Washington University	25,119	9,000	0	0
Harvard University	0	52,959	0	0
Henry Ford Health System	0	23,055	59,271	0
Imam Mohammad IBN Saud Islamic University	0	0	163,780	0
Jonas Nursing and Veterans Healthcare	0	0	0	15,000
Judson Center, Inc.	51,526	0	0	0
Michigan Institute for Clinical and Health	0	0	10,000	0
Michigan Health Endowment Fund	301,558	484,418	0	378,910
Michigan Physical Therapy Association	0	0	500	0
Michigan Swimmer's Itch Partnership	29,558	0	0	0
Midwest Inter-Professional Practice Education	0	1,000	0	0
National Student Affairs in Higher Education	1,500	0	0	0
Neilsen Foundation	0	22,400	0	0
Pontiac Regional Chamber	0	0	0	112,500
Research Corporation for Science Advancement	0	0	0	55,000
Russell Sage Foundation	0	0	0	34,274
Sheriff PAL/United Way	15,000	0	0	0
Sigma Theta Tau	0	2,000	1,000	0
Social Sciences and Humanities Research Council	0	0	6,754	0
Sociologists for Women in Society	110,088	0	0	0
Southeast Michigan Health Association	8,297	0	0	0
United Way	0	20,000	25,000	0
University of Buffalo/Spencer	0	10,324	0	0
University of Michigan	30,983	0	0	43,988
W.K. Kellogg Foundation	0	0	0	1,000
William Beaumont Hospital	0	0	0	29,748
Public/Nonprofit Funding Total	**$997,646**	**$1,699,466**	**$311,652**	**$1,159,251**

Amounts and Number of Research Awards

Research Awards
Fiscal Years 2019-2022
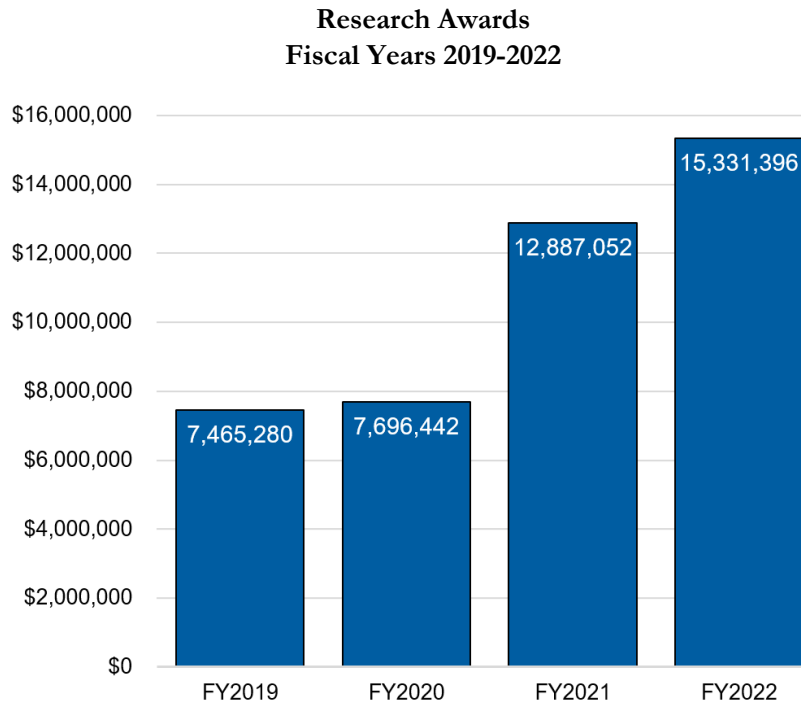
Purpose of Funding: Research

College/School	FY2019	FY2020	FY2021	FY2022
College of Arts and Sciences	4,288,967	4,909,847	5,945,914	6,270,603
Eye Research Institute	37,500	134,997	1,967,042	1,202,826
School of Engineering and Computer Science	2,533,284	1,677,455	2,298,215	6,081,736
School of Education and Human Services	0	69,418	10,000	112,500
School of Health Sciences	599,529	585,777	137,938	361,084
School of Medicine	6,000	209,554	2,497,150	1,292,647
School of Nursing	0	73,000	30,793	10,000
Other	0	36,394	0	0
Total	**$7,465,280**	**7,696,442**	**$12,887,052**	**$15,331,396**

FY 2022 Research Awards by Source

Source	Amount	Amount Percentage	Number of Awards	Number Percentage
Federal	13,667,992	89.1%	50	71.4%
State/Local	153,000	1.0%	4	5.7%
Corporate	744,600	4.9%	2	2.9%
Public/Nonprofit	765,804	5.0%	14	20.0%
Total	**$15,331,396**	**100.0%**	**70**	**100.0%**

Research Awards by Department

Fiscal Years 2019 - 2022

College of Arts and Sciences	FY2019	FY2020	FY2021	FY2022
Art and Art History	0	0	6,350	0
Biological Sciences	1,345,469	1,005,699	882,603	1,690,073
Chemistry	1,210,223	1,313,163	4,089,796	3,366,886
Mathematics and Statistics	108,215	0	198,305	0
Philosophy	8,297	0	0	0
Physics	965,735	2,582,665	743,786	717,327
Psychology	651,028	8,320	18,320	496,317
Sociology and Anthropology	0	0	6,754	0
CAS Total	**4,288,967**	**4,909,847**	**5,945,914**	**$6,270,603**

Eye Research Institute	FY2019	FY2020	FY2021	FY2022
ERI Total	**$37,500**	**$134,997**	**$1,967,042**	**1,202,826**

School of Engineering and Computer Science	FY2019	FY2020	FY2021	FY2022
Computer Science and Engineering	810,554	825,255	386,746	3,183,391
Electrical and Computer Engineering	530,342	512,251	477,078	1,654,804
Industrial and Systems Engineering	202,012	79,852	0	0
Mechanical Engineering	990,376	260,097	1,434,391	1,243,541
SECS Total	**$2,533,284**	**$1,677,455**	**$2,298,215**	**$6,081,736**

School of Education and Human Services	FY2019	FY2020	FY2021	FY2022
Human Development and Child Studies	0	30,000	0	112,500
Organizational Leadership	0	39,418	0	0
Reading and Language Arts	0	0	10,000	0
SEHS Total	**$0**	**$69,418**	**$10,000**	**$112,500**

School of Health Sciences	FY2019	FY2020	FY2021	FY2022
Clinical and Diagnostic Sciences	0	0	4,884	0
Human Movement Science	221,558	0	500	198,037
Interdisciplinary Health Sciences	278,909	522,818	121,154	106,482
Public and Environmental Wellness	99,062	62,959	11,400	56,565
SHS Total	**$599,529**	**$585,777**	**$137,938**	**$361,084**

Research Awards by Department, continued

Fiscal Years 2019 – 2022

School of Medicine	FY2019	FY2020	FY2021	FY2022
SOM Total	$6,000	$209,554	$2,497,150	$1,292,647

School of Nursing	FY2019	FY2020	FY2021	FY2022
SON Total	$0	$73,000	30,793	$10,000

Other	FY2019	FY2020	FY2021	FY2022
International Education	0	24,998	0	0
Research Office	0	11,396	0	0
Other Total	$0	$36,394	$0	$0

Oakland University Total	FY2019	FY2020	FY2021	FY2022
Grand Total Research	$7,465,280	$7,696,442	$12,887,052	$15,331,396
Grand Total Funding	$9,121,729	$9,663,583	$16,109,977	$25,211,069

FY 2022 Research Awards by Unit, Department, and Principal Investigator

College of Arts and Sciences

Biological Sciences

Chaudhry, G. Rasul; Efficacy of Neural Stem Cells Derived From Human Primitive Mesenchymal Stem Cells in an EAE Mouse Model of MS; National Institutes of Health, $600,000

Jamieson, Mary; Pollinator Surveys and Outreach; Charter Township of Oakland Parks and Recreation, $3,500

Jamieson, Mary; Oakland County Parks Plant and Pollinator Survey; Oakland County Parks and Recreation, $2,000

Jamieson, Mary; Investigating the Role of Fire and Invasive Species Management on Plant-Pollinator Interaction Networks in Vulnerable Grassland Habitats; United States Fish and Wildlife Service, $17,445

Villa Diaz, Luis; Regulation of Self-Renewal of Pluripotent Stem Cells by Intern Signaling; National Science Foundation, $72,773

Villa Diaz, Luis; I-Corps: Xeno-free Synthetic Coatings for Growth and Derivation of Human Pluripotent Stem Cells; National Science Foundation, $50,000

Villa Diaz, Luis; Synthetic Substrates to Grow Human Pluripotent Stem Cells; University of Michigan, $43,988

Washington, Anthony Valance; Translation Studies of the Planet Specific Receptor Trem-Like Transcript; National Institutes of Health, $735,747

Washington, Anthony Valance; Translation Studies of the Planet Specific Receptor Trem-Like Transcript - Research Supplement; National Institutes of Health, $74,500

Washington, Anthony Valance; Clinical Analysis of Trem-Like Transcript-1 (TLT-1) in Large Cohorts of Patients from the NHLBI Biorepository; National Institutes of Health, $90,120

Chemistry

Adhikary, Amitava; Analysis and Mechanistic Studies of Oxidative Processes of Environmental Contaminants; Ripcord Energy Solutions, LLC, $658,122

Beyeh, Ngong Kodiah; Effect of Container Molecules on the Colloidal and Bulk Properties of Petroleum Asphaltenes; American Chemical Society, $110,000

Wang, Zhe; Rapid and Accurate Small Molecules Detector for Health Monitoring in Space Travel; University of Michigan / National Aeronautics and Space Administration, $3,900

Wu, Colin; CAREER: Molecular Recognition of 8-Oxoguanine Modified G-Quadruplexes by the FANCJ Helicase and the REV1 Polymerase, National Science Foundation, $945,910

Wu, Colin; Evaluation of Cardiovascular Risk of BRCA1 Mutation Carriers; American Heart Association, $35,000

Yang, Ziming; How May Biosignatures in Icy Ocean Worlds be Affected by Plume Ejection? Research Corporation for Science Advancement, $55,000

Zeng, Xiangqun; Biosensors for Determination of Multiple Neurotransmitters in Vertebrate Retina; National Institutes of Health, $414,178

Zeng, Xiangqun; Real-Time Biosensor for in situ Monitoring of Reactive Carbonyl Species; National Institutes of Health, $419,965

Zeng, Xiangqun; Wearable Microsystem for Continuous Personalized Aerosol Exposure Assessment; National Institutes of Health / Michigan State University, $604,811

Zeng, Xiangqun; Troponin Biosensor for Early Detection and Real-Time Monitoring of Myocardial Infarction; EZ Lab, LLC, $120,000

Physics

Cholis, Ilias; Dark Matter Primordial Black Holes under the Scrutiny of LIGO's Observations; National Science Foundation, $150,000

Cholis, Ilias; Searching for Dark Matter Signals in Cosmic-Ray and Gamma-Ray Observations; United States Department of Energy, $60,000

Garfinkle, David; Studies of Singularities, Black Holes, and Gravitational Radiation; National Science Foundation, $150,000

Tonyushkin, Alexey; Single-Sided Magnetic Particle Imaging (MPI) Scanner for In Vivo Breast Cancer Imaging; National Institutes of Health, $257,207

Zhang, Wei; Engineering Exceptional Points in All-On-Chip Organic-Inorganic-Layered Hybrid Quantum Devices; Auburn University / United States Air Force Office of Scientific Research, $100,120

Lewis, Mary; Social Norms Intervention Assessment; Alliance of Coalitions for Healthy Communities, $16,582

Manning, Mark; Choice, Implementation Intentions and At-Home Colorectal Cancer Screening; Michigan State University / American Cancer Society, $83,384

Manning, Mark; Colorectal Screening Fear-Reduction and Racially-Targeted Norm Messaging Entreaties to Increase Colorectal Cancer Screening Rates Among African Americans; National Institutes of Health, $396,351

Eye Research Institute

Tawfik, Amany; Homocysteine's Role in Age-Related Macular Degeneration; National Institutes of Health, $1,097,798

Zhang, Dao Qi; Dynamic Visual Signaling and Light Adaptation in the Retinal Interneurons; Wayne State University / National Institutes of Health, $105,028

School of Engineering and Computer Science

Computer Science and Engineering

Bagherzadeh, Medhi; Mutation Testing to Improve Correctness of Message Passing Software; University of Michigan / National Aeronautics and Space Administration, $5,000

Chen, Jingshu; User-friendly Generic Performance Estimation Platform for Bridging System Performance Prediction and Resource Management; University of Michigan / National Aeronautics and Space Administration, $5,000

Kessentini, Marouane; IUCRC Planning Grant: Center for Pervasive Personalized Intelligence Center; National Science Foundation, $20,000

Kessentini, Marouane; I-Corps: Intelligent Software Quality Monitoring and Improvement Technology; National Science Foundation, $50,000

Kessentini, Marouane; PFI-TT: Intelligent Software Refactoring Bot for Continuous Integration; National Science Foundation, $304,133

Kessentini, Marouane; Elements: An Infrastructure for Software Quality and Security Issues Detection and Correction; University of Michigan / National Science Foundation, $599,999

Kessentini, Marouane; Collaborative Research: Elements: Software: Software Health Monitoring and Improvement Framework; National Science Foundation, $73,759

Kessentini, Marouane, Khalid Mahmood Malik, Ali Ahmad Malik; Oakland University Cybersecurity Center; Automation Alley / Department of Energy, $1,000,000

Kessentini, Marouane; Multi-Objective Rapid Generation of Virtual Environments and Data Analysis in Multi-User Immersive Gaming Environments for Testing New Crew Interface Concepts; Ground Vehicle Systems Center / United States Department of Defense, $1,000,000

Malik, Khalid Mahmood; Forensic Examiner: Testbed for Benchmarking Digital Audio Forensic Algorithms; National Science Foundation, $8,000

Malik, Khalid Mahmood; Stroke predictor: A Fully Automated AI-based Personalized Subarachnoid Hemorrhage Prediction Tool; Brain Aneurysm Foundation, $25,000

Malik, Khalid Mahmood; Deep Forgery Detector; Wayne State University / Michigan Strategic Fund, $92,500

Electrical and Computer Engineering

Chen, Jun; Impacts of Battery Cell Imbalance on Electric Vehicles Range and Their Mitigation via AI and Controls; University of Michigan / National Aeronautics and Space Administration, $5,000

Louie, Wing-Yue; Virtual Experimentation for Soldier Evaluation of Autonomous and Non-Autonomous Combat Vehicle Technologies Using Immersive Gaming Environments; Ground Vehicle Systems Center / United States Department of Defense, $1,550,000

Louie, Wing-Yue; Virtual Spectator System for a Multi-User Video Game Environment; University of Michigan / United States Department of Defense, $74,804

Zohdy, Mohamed; Lithium-Air Batteries for Urban Air Mobility; Tuskegee University / United States Air Force, $25,000

Mechanical Engineering

Beetham, Sarah; Simulation and Modeling of Atmospheric Plumes--Toward Optimized UAV Control; University of Michigan / National Aeronautics and Space Administration, $5,000

Beetham, Sara; Theoretical Modeling, Simulation, and Control of Search and Rescue/Surveillance Drones for Volcanic Eruptions; University of Michigan / National Aeronautics and Space Administration, $5,000

Cooley, Christopher; Damage-Induced Nonlinear Dynamics of Rotorcraft Planetary Gears; United States Army Research Laboratory, $321,479

Golovashchenko, Sergey; Coefficient of Friction Evaluation for Forming; General Motors Corporation, $86,478

Golovashchenko, Sergey; IUCRC Planning Grant: Center for Industrial Metal Forming, National Science Foundation, $20,000

Guessous, Laila; Michigan Space Grant Consortium Affiliate Operating Award 2022-2023; University of Michigan / National Aeronautics and Space Administration, $1,500

Kobus, Kzysztof; Earth System Science STEM Camps, Outreach and Teacher Training (K-12 Students and Teachers, and the Community); University of Michigan / National Aeronautics and Space Administration, $20,000

Mouralatos, Zissimos, Reliable Deep Learning for Data-Driven Mobility Prediction under Uncertainty for Off-Road Autonomous Ground Vehicles; University of Michigan / United States Department of Defense, $49,084

Nassar, Sayed; IUCRC Phase I Oakland University: Center for Composite and Hybrid Materials Interfacing; National Science Foundation, $700,000

Nassar, Sayed; IUCRC Phase I Oakland University: Center for Composite and Hybrid Materials Interfacing; - Research Supplement; National Science Foundation, $30,000

Yoon, Yongsoon; University of Michigan / National Aeronautics and Space Administration; SEED: Sensor Fault Diagnostics for Robust and Reliable Operation of Lithium-Ion Batteries, $5,000

School of Education and Human Services

Human Development and Child Studies

Wakabayashi, Tomoko; Building a Culture of Learners in Pontiac: A Community-University Partnership Project; Pontiac Regional Chamber, $112,500

School of Health Sciences

Human Movement Science

Arena, Sara; Technology and Reimbursement Innovation of HOP-UP-PT; Michigan Health Endowment Fund, $160,537

Doherty, Deborah; Delivering an Innovative Model of Survivorship Care to Address the Unmet Needs of Black Breast Cancer Survivors in Detroit: Harnessing the Power of Community, Collaboration and Technology to Improve Physical Activity and Wellness; Blue Cross Blue Shield of Michigan Foundation, $37,500

Interdisciplinary Health Sciences

Papadimitriou, Christina; Enhancing Community Living and Increasing Participation through Self Efficacy (ECLIPSE); University of Illinois, Chicago / National Institute on Disability, Independent Living, and Rehabilitation Research, $83,050

Rohn, Edward; Neurogenic Bowel and Bladder Management after Spinal Cord Injury: Examining Factors Involved in Successful Decision Making Processes; University of Michigan / United States Department of Defense, $23,432

Public and Environmental Wellness

Dallo, Florence; An Educational Intervention to Increase Vaccination Rates among Arab American Children in Michigan; Blue Cross Blue Shield of Michigan, $50,000

Sakyi, Kwame; CLDC-Ghana Research Initiative; Center for Learning and Childhood Development-Ghana, $6,565

School of Medicine

Al-Shabrawey, Mohamed; BMP2/ALKs Signaling System in Diabetic Retinopathy; National Institutes of Health, $1,157,899

Hurse, Deidre; Gaining Perspective on Substance Use Disorder (SUD) Treatment and Recovery Services for Foster Care Youth in Michigan; University of Michigan / Michigan Department of Health and Human Services, $55,000

Mehta, Nishaki; PressRite- Hematoma Reduction Compression Device and Wound Cosmesis Improvement in Patients Undergoing Cardiac Device Implants; National Science Foundation, $50,000

Roy, Sujoy; Machine Learning of Radiology Reports in EHR to Screen for Lung Disease; William Beaumont Hospital, $25,247

Roy, Sujoy; Pre-Diabetes Work with Beaumont Hospital; William Beaumont Hospital, $4,501

School of Nursing

Hays, Deana; Midwest Integration of the National HIV Curriculum; University of Illinois, Chicago / Health Resources and Services Administration, $10,000

Amounts and Number of Instruction Awards

Instruction Awards
Fiscal Years 2019-2022
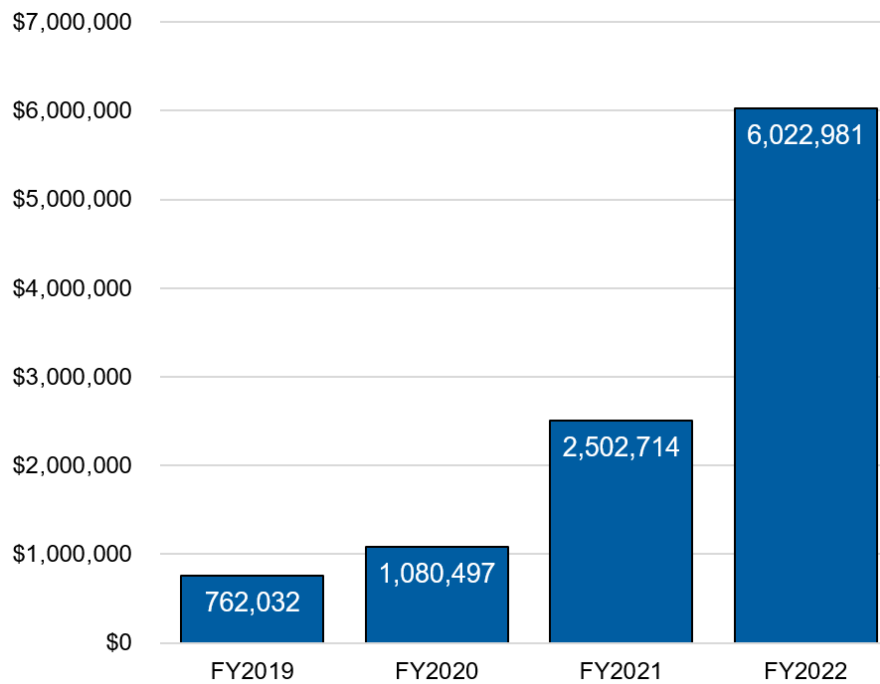
Academic Unit Comparison

Academic Unit	FY2019	FY2020	FY2021	FY2022
School of Business Administration	6,420	0	0	0
School of Engineering and Computer	207,785	270,539	0	147,958
School of Education and Human Services	24,243	24,524	0	0
School of Health Sciences	0	3,200	0	0
School of Medicine	0	0	0	0
School of Nursing	236,354	217,606	2,195,252	243,373
Other	287,230	564,628	307,462	5,631,650
Total	**$762,032**	**$1,080,497**	**$2,502,714**	**$6,022,981**

FY 2022 Instruction Awards by Source

Source	Amount	Amount Percentage	Number of Awards	Number Percentage
Federal	5,327,808	88.5%	4	50.0%
Public/Non-Profit	283,173	4.7%	3	37.5%
State/Local	412,000	6.8%	1	12.5%
Total	**$6,022,981**	**100.0%**	**8**	**100.0%**

Instruction Awards by Department

Fiscal Years 2019 – 2022

School of Business Administration	FY2019	FY2020	FY2021	FY2022
Management and Marketing	6,420	0	0	0
SBA Total	**$6,420**	**$0**	**$0**	**$0**

School of Engineering and Computer Science	FY2019	FY2020	FY2021	FY2022
Computer Science and Engineering	97,050	99,992	0	147,958
Electrical and Computer Engineering	0	79,812	0	0
Mechanical Engineering	110,735	90,735	0	0
SECS Total	**$207,785**	**270,539**	**$0**	**$147,958**

School of Education and Human Services	FY2019	FY2020	FY2021	FY2022
Human Development and Child Studies	22,168	14,200	0	0
Reading and Language Arts	2,075	10,324	0	0
SEHS Total	**$24,243**	**$24,524**	**$0**	**$0**

School of Health Sciences	FY2019	FY2020	FY2021	FY2022
Public and Environmental Wellness	0	3,200	0	0
SEHS Total	**$0**	**$3,200**	**$0**	**$0**

School of Nursing	FY2019	FY2020	FY2021	FY2022
SON Total	**$236,354**	**$217,606**	**$2,195,252**	**$243,373**

Other	FY2019	FY2020	FY2021	FY2022
Academic Affairs	0	0	0	1,600,000
Center for Multicultural Initiatives	100,483	100,483	0	0
Graduate School	0	0	0	25,000
International Education	0	408,795	0	0
Lowry Center for Early Childhood	0	0	0	412,000
OUCARES	0	0	0	39,800
Pre-College Programs	72,812	55,350	0	0
Student Affairs and Diversity	0	0	100,483	0
Upward Bound	113,935	0	206,979	3,554,850
CAS Total	**$287,230**	**$564,628**	**$307,462**	**$5,631,650**

Oakland University Total	FY2019	FY2020	FY2021	FY2022
Grand Total Instruction	**$762,032**	**$1,080,497**	**$2,502,714**	**$6,022,981**
Grand Total Funding	**9,121,729**	**$9,663,583**	**16,109,977**	**$25,211,069**

FY 2022 Instruction Awards by Unit, Department and Principal Investigator

School of Engineering and Computer Science

Computer Science and Engineering

>Fu, Huirong; Oakland University GenCyber Teacher Program 2021-2023; National Security Agency, $147,958

School of Nursing

>Glover, Toni; Michigan ELNEC Initiative: Preparing Nursing Students for Primary Palliative Care; Michigan Health Endowment Fund, $218,373

>Munyan, Kristen; Enhancing Laboratory Infrastructure to Support At-Risk Students, American Association of Colleges of Nursing, $25,000

Other

Academic Affairs

>Rios-Ellis, Britt; Oakland University Master of Science Physician Assistant Program; Health Resources and Services Administration, $1,600,000

Graduate School

>Randall, Brandy; Understanding Oakland University Master's Students Career Pathways; Council of Graduate Schools / National Science Foundation, $25,000

Lowry Center for Early Childhood

>Yax, Joshua; Child Care Stabilization Grant; State of Michigan, $412,000

OUCARES

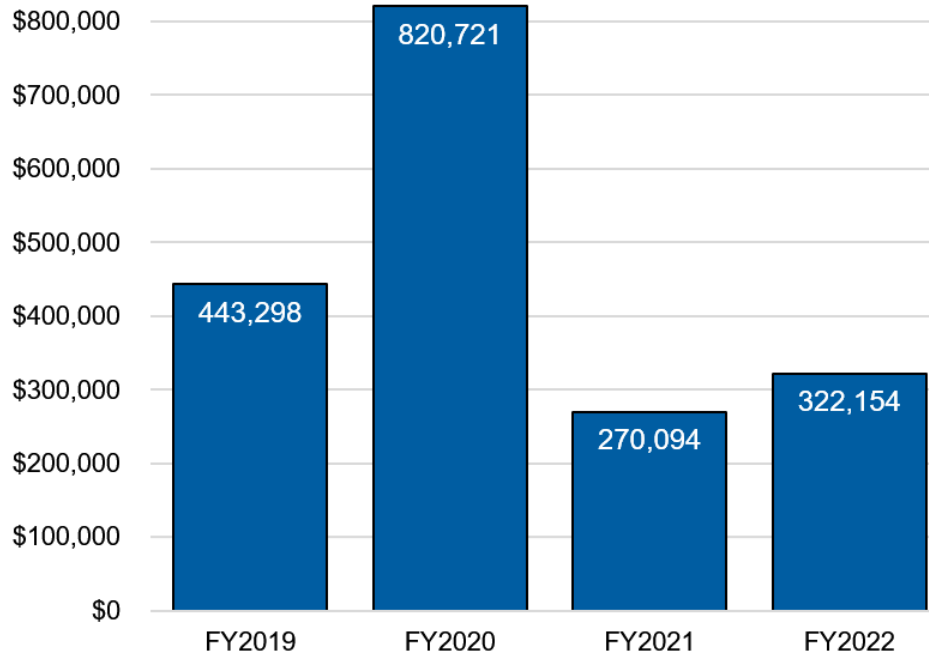>Rohrbeck, Kristin; Using Technology to Improve Mental and Social Wellness in the Autism Community; Children's Foundation, $39,800

Upward Bound

>Graham, Geraldine; Oakland University Project Upward Bound College Prep Academy; United States Department of Education, $3,554,850

Amounts and Number of Public Service Awards

Public Service Awards
Fiscal Years 2019 – 2022

Academic Unit Comparison

Academic Unit	FY2019	FY2020	FY2021	FY2022
College of Arts and Sciences	120,088	44,290	30,750	34,274
School of Engineering and Computer Science	0	0	0	30,000
School of Education and Human Services	0	0	85,800	25,000
School of Health Sciences	0	0	0	60,000
Other	323,210	776,431	153,544	172,880
Total	**$443,298**	**$820,721**	**$270,094**	**$322,154**

FY 2022 Public Service Awards by Source

Source	Amount	Amount Percentage	Number of Awards	Number Percentage
Federal	0	0.0%	0	0.0%
State/Local	196,880	61.1%	5	55.6%
Corporate	30,000	9.3%	1	11.1%
Public/Nonprofit	95,274	29.6%	3	33.3%
Total	**$322,154**	**100.0%**	**9**	**100.0%**

Public Service Awards by Department

College of Arts and Sciences	FY2019	FY2020	FY2021	FY2022
Art and Art History	10,000	20,290	750	0
Chemistry	0	0	30,000	0
Political Science	0	4,000	0	0
Psychology	0	20,000	0	34,274
Sociology and Anthropology	110,088	0	0	0
CAS Total	**$120,088**	**$44,290**	**$30,750**	**$34,274**

School of Engineering and Computer Science	FY2019	FY20	FY21	FY22
Mechanical Engineering	0	0	0	30,000
SEHS Total	**$0**	**$0**	**$0**	**$30,000**

School of Education and Human Services	FY2019	FY20	FY21	FY22
Human Development and Child Studies	0	0	85,800	25,000
SEHS Total	**$0**	**$0**	**$85,800**	**$25,000**

School of Health Sciences	FY2019	FY20	FY21	FY22
Interdisciplinary Health Sciences	0	0	0	60,000
SEHS Total	**$0**	**$0**	**$0**	**$60,000**

Other	FY2019	FY2020	FY2021	FY2022
Diversity, Equity and Inclusion	16,355	0	0	0
Environmental Health and Safety	0	174,430	0	0
Lowry Center for Early Childhood	0	0	0	1,000
Macomb-OU Incubator	197,995	30,000	98,663	0
OU Incubator	34,000	80,000	54,881	71,880
Research Office	74,860	492,001	0	100,000
Other Total	**$323,210**	**$776,431**	**$153,544**	**$172,880**

Oakland University Total	FY2019	FY2020	FY2021	FY2022
Total Public Service Awards	**$443,298**	**$820,721**	**$270,094**	**$322,154**
Grand Total Funding	**$9,121,729**	**9,663,583**	**$16,109,977**	**$25,211,069**

FY 2022 Public Service Awards by Unit, Department and Principal Investigator

College of Arts and Sciences

Psychology

> Vonk, Jennifer; When Police Officers Use Force against Citizens: Not just a Black-and-White Issue; Russell Sage Foundation, $34,274

School of Engineering and Computer Science

Mechanical Engineering

> Golovashchenko, Sergey; Lubrizol Testing and Evaluation Services; Lubrizol Corporation, $30,000

School of Education and Human Services

Human Development and Child Studies

> Wakabayashi, Tomoko; Michigan Kindergarten Readiness Assessment: Final Statewide Analysis; Washtenaw Intermediate School District, $25,000

School of Health Sciences

Interdisciplinary Health Sciences

> Stevenson, Laurel; Prescription for a Healthy Oakland - Expansion to Oak Park; Blue Cross Blue Shield Michigan, $60,000

Other

Lowry Center for early Childhood

> Borowicz, Ramona; Michigan Farm to Early Care and Education (ECE) Procurement Pilot Mini-Grant, Michigan State University / WK Kellogg Foundation, $1,000

OU Incubator

> Kent, Stephen; Accelerator Development Funds-Discretionary; Grand Valley State University / Michigan Economic Development Corporation, $30,000

> Kent, Stephen; Business Accelerator Fund-Client Engagement Fund-Aveopt Inc; Grand Valley State University / Michigan Economic Development Corporation, $30,480

> Kent, Stephen; Business Accelerator Fund-Client Engagement Fund-Gekot; Grand Valley State University / Michigan Economic Development Corporation, $11,400

Research Office

> Stone, David; Business Incubator Programs: Incubator Gatekeeper; Michigan Economic Development Corporation, $100,000

Amounts and Number of Student Service Awards

Student Service Awards
Fiscal Years 2019 – 2022
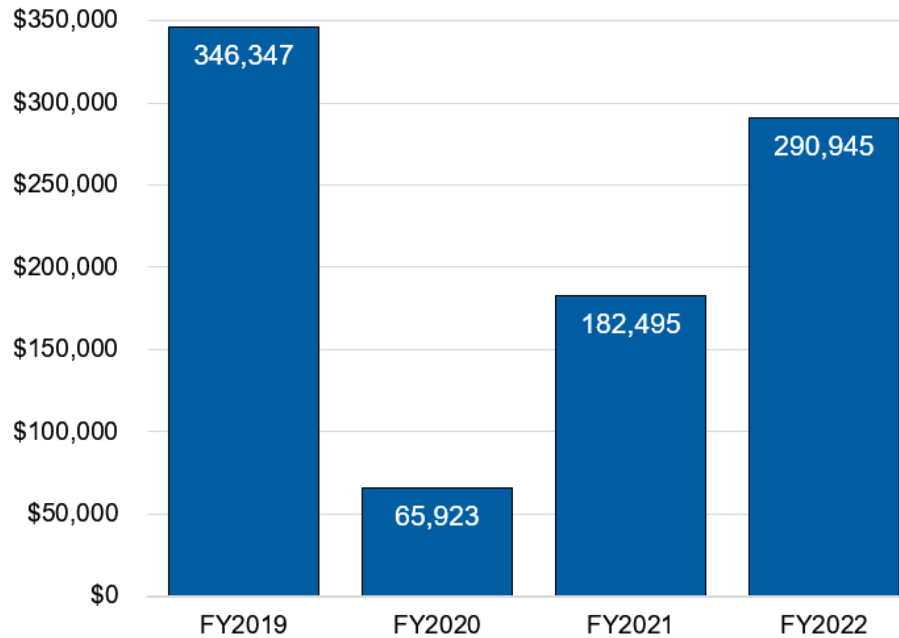
Academic Unit Comparison

Academic Unit	FY2019	FY2020	FY2021	FY2022
College of Arts and Sciences	118,847	0	0	0
School of Education and Human Services	0	6,090	0	0
School of Engineering and Computer Science	0	0	0	88,735
Other	227,500	59,833	182,495	202,210
Total	**$346,347**	**$65,923**	**$182,495**	**$290,945**

FY 2022 Student Services Awards by Source

Source	Amount	Amount Percentage	Number of Awards	Number Percentage
Federal	0	0.0%	0	0.0%
State/Local	290,945	100.0%	3	100.0%
Corporate	0	0.0%	0	0.0%
Public/Nonprofit	0	0.0%	0	0.0%
Total	**$290,945**	**100.0%**	**3**	**100.0%**

Student Service Awards by Department

School of Education and Human Services	FY2019	FY2020	FY2021	FY2022
Human Development and Child Studies	117,347	6,090	0	0
Organizational Leadership	1,500	0	0	0
SEHS Total	**$118,847**	**$6,090**	**$0**	**$0**

School of Engineering and Computer Science	FY2019	FY2020	FY2021	FY2022
Mechanical Engineering	117,347	6,090	0	88,735
Organizational Leadership	1,500	0	0	0
SEHS Total	**$118,847**	**$6,090**	**$0**	**$88,735**

Other	FY2019	FY2020	FY2021	FY2022
Center for Multicultural Initiatives	0	0	0	100,483
Diversity, Equity and Inclusion	0	49,890	0	0
Kresge Library	0	9,943	0	0
Pre-College Programs	140,000	0	182,495	101,727
Research Office	87,500	0	0	0
Other Total	**$227,500**	**$59,833**	**$182,495**	**202,210**

Oakland University Total	FY2019	FY2020	FY2021	FY2022
Total Student Services Awards	**$346,347**	**$65,923**	**$182,495**	**$290,945**
Grand Total Funding	**$9,121,729**	**9,663,583**	**$16,109,977**	**$25,211,069**

FY 2022 Student Service Awards by Unit, Department and Principal Investigator

School of Engineering and Computer Science

Mechanical Engineering

Kobus, Kzysztof; MICUP-HTech Jobs of the Future Program 2021-2022; State of Michigan, $88,735
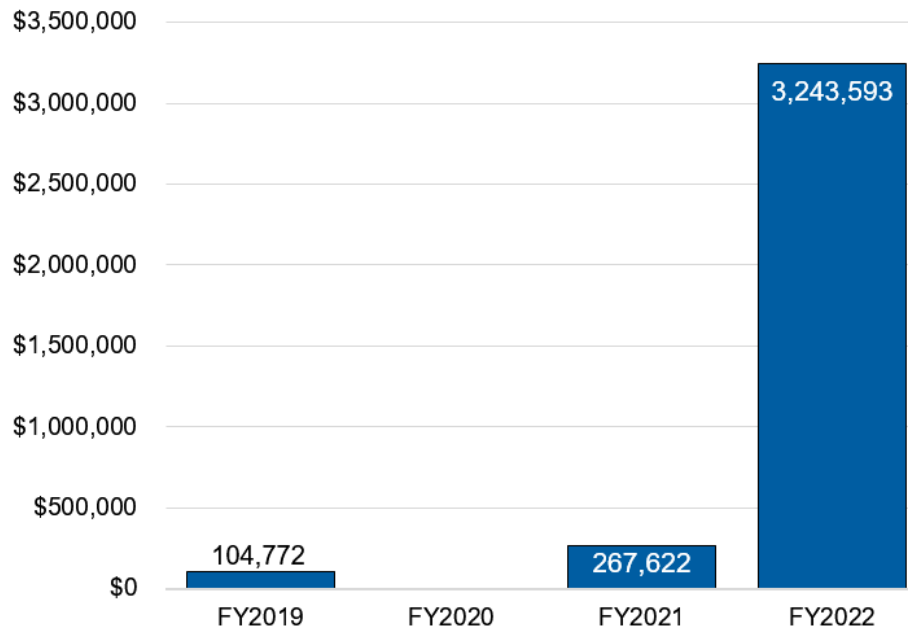
Other

Center for Multicultural Initiatives

Brown-El, Omar; FY2022 - 4S - Select Student Support Services; State of Michigan, $100,483

Pre-College Programs

Rodges, Teresa; GEAR-UP - Gaining Early Awareness and Readiness for Undergraduate Program 2022; State of Michigan, $101,727

Amounts and Number of Scholarship & Fellowship Awards

Scholarship & Fellowship Awards
Fiscal Years 2019 – 2022

Academic Unit Comparison

Academic Unit	FY2019	FY2020	FY2021	FY2022
School of Engineering and Computer Science	0	0	0	3,198,315
School of Nursing	0	0	267,622	45,278
Other	104,772	0	0	0
Total	**$104,772**	**$0**	**$267,622**	**$3,243,593**

FY 2022 Scholarship & Fellowship Awards by Source

Source	Amount	Amount Percentage	Number of Awards	Number Percentage
Federal	3,228,593	99.5%	2	66.7%
State/Local	0	0.0%	0	0%
Corporate	0	0.0%	0	0%
Public/Nonprofit	15,000	0.5%	1	33.3%
Total	**$3,243,593**	**100.0%**	**3**	**100.0%**

Scholarship and Fellowship Awards by Department

School of Engineering and Computer Science	FY2019	FY2020	FY2021	FY2022
Computer Science and Engineering	0	0	0	3,198,315
Other Total	**$0**	**$0**	**$0**	**$3,198,315**

School of Nursing	FY2019	FY2020	FY2021	FY2022
SON Total	**$0**	**$0**	**$267,622**	**$45,278**

Other	FY2019	FY2020	FY2021	FY2022
Graduate Study and Lifelong Learning	104,772	0	0	0
Other Total	**$104,772**	**$0**	**$0**	**$0**

Oakland University Total	FY2019	FY2020	FY2021	FY2022
Total Scholarship & Fellowship Awards	**$104,772**	**$0**	**$267,622**	**$3,243,593**
Grand Total Funding	**$9,121,729**	**9,663,583**	**$16,109,977**	**$25,211,069**

FY 2022 Scholarship and Fellowship Awards by Unit, Department and Principal Investigator

School of Engineering and Computer Science

Computer Science and Engineering

> Fu, Huirong; Establishing Cyber Defense Scholarship for Service Program at Oakland University in Michigan; National Science Foundation, $3,198,315

School of Nursing

> Hranchook, Anne; Nurse Anesthetist Traineeships; Health Resources and Services Administration, $30,278

> Pittiglio, Laura; School of Nursing Jonas Scholarship Application; Jonas Nursing and Veterans Healthcare, $15,000
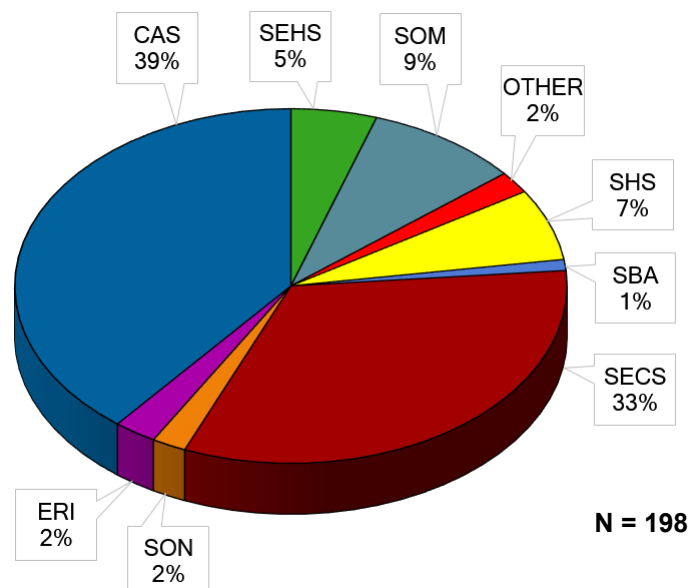
Number of Proposals Submitted, FY 2019-2022
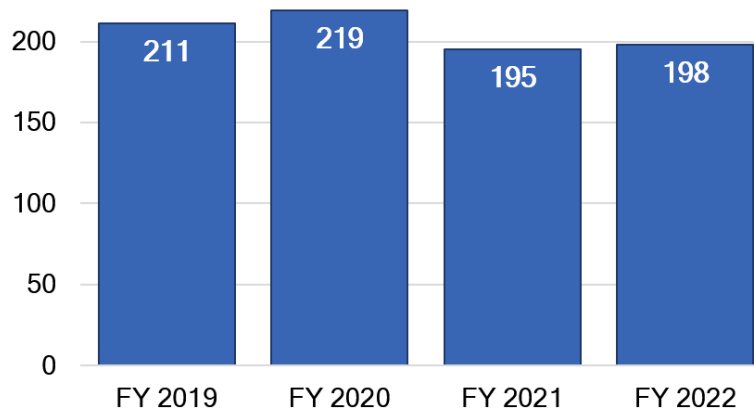
Number of Proposals Submitted by Academic Unit, FY 2019-2022

Academic Unit	FY2019	FY2020	FY2021	FY2022*	Grand Total
CAS	99	109	90	78	376
ERI	3	2	5	4	14
SBA	2	1	1	1	5
SECS	52	68	54	65	239
SEHS	13	9	10	10	42
SHS	20	7	13	13	53
SOM	6	5	11	18	40
SON	8	10	9	5	32
Other	8	8	2	4	22
Grand Total	**211**	**219**	**195**	**198**	**823**

*Total does not include 4 proposals totaling $62,311,506 that were part of the Government funded CARES Act.

FY 2022 Proposals Submitted by Academic Unit

Comparison of FY2021 and FY2022, Number of Proposals Submitted by Academic Unit

College of Arts and Sciences	FY2021	FY2022
Art and Art History	3	0
Biological Sciences	21	31
Chemistry	30	30
Communication and Journalism	1	0
Mathematics and Statistics	4	2
Physics	17	6
Political Science (Pre-Law)	1	1
Psychology	10	6
Sociology and Anthropology	3	1
Writing and Rhetoric	0	1
CAS Total	**90**	**78**

Eye Research Institute	FY2021	FY2022
ERI Total	**5**	**4**

School of Business Administration	FY2021	FY2022
Decision and Information Sciences	1	0
Management and Marketing	0	1
SBA Total	**1**	**1**

School of Engineering and Computer Science	FY2021	FY2022
Computer Science and Engineering	9	24
Electrical and Computer Engineering	15	16
Industrial and Systems Engineering	10	5
Mechanical Engineering	20	20
SECS Total	**54**	**65**

School of Education and Human Services	FY2021	FY2022
Human Development and Child Studies	7	9
Lowry Center for Early Childhood Education	1	1
Reading and Language Arts	1	0
Teacher Development and Educational Studies	1	0
SEHS Total	**10**	**10**

School of Health Science	FY2021	FY2022
Clinical Diagnostic Sciences	0	2
Human Movement Science	3	2
Interdisciplinary Health Science	6	5
Public and Environmental Wellness	4	4
SHS Total	**13**	**13**

School of Medicine	FY2021	FY2022
SOM Total	**11**	**18**

School of Nursing	FY2021	FY2022
SON Total	**9**	**5**

Other	FY2021	FY2022
Academic Affairs	0	1
Center for Multicultural Initiatives	1	1
OU CARES	0	1
Project Upward Bound	0	1
Student Affairs and Diversity	1	0
Other Total	**2**	**4**

Proposal Funding Requested, FY 2019-2022
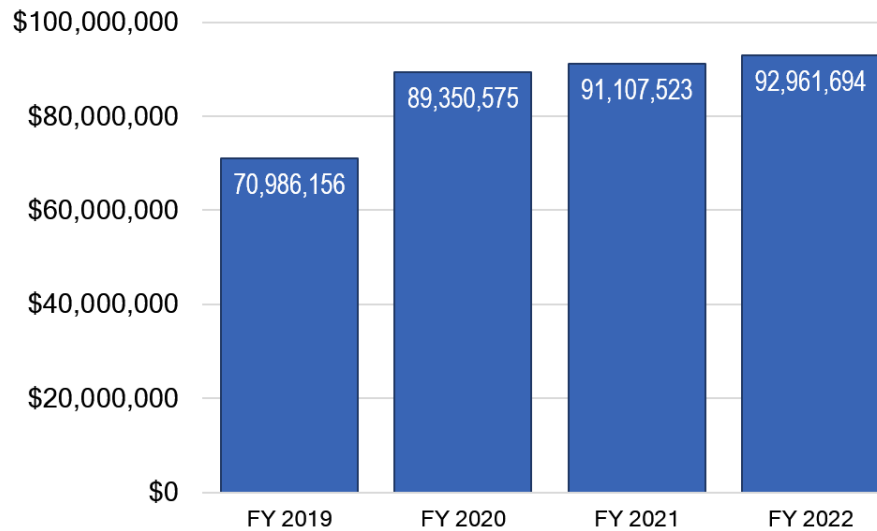
Amount Requested by Academic Unit, FY 2019-2022

Academic Unit	FY2019	FY20	FY21	FY22*	Grand Total
CAS	33,575,125	53,597,283	40,830,887	44,405,630	172,408,925
ERI	2,034,157	2,300,649	7,134,587	4,166,323	15,635,716
SBA	8,962	2,500	56,250	368,320	436,032
SECS	19,530,994	20,397,225	28,378,947	18,584,449	86,891,615
SEHS	1,917,226	1,481,871	3,576,024	4,419,466	11,394,587
SHS	7,881,792	1,920,229	2,003,127	2,310,964	14,116,112
SOM	424,193	2,581,784	4,241,338	12,058,441	19,305,756
SON	4,309,136	5,297,359	4,760,880	1,171,322	15,538,697
Other	1,304,571	1,771,675	125,483	5,476,779	8,678,508
Grand Total	**$70,986,156**	**$89,350,575**	**$91,107,523**	**$92,961,694**	**$344,405,948**

*Total does not include 4 proposals totaling $62,311,506 that were part of the Government funded CARES Act.

FY 2022 Percentage of Funding Dollars Requested by Academic Unit

N = $92,961,694
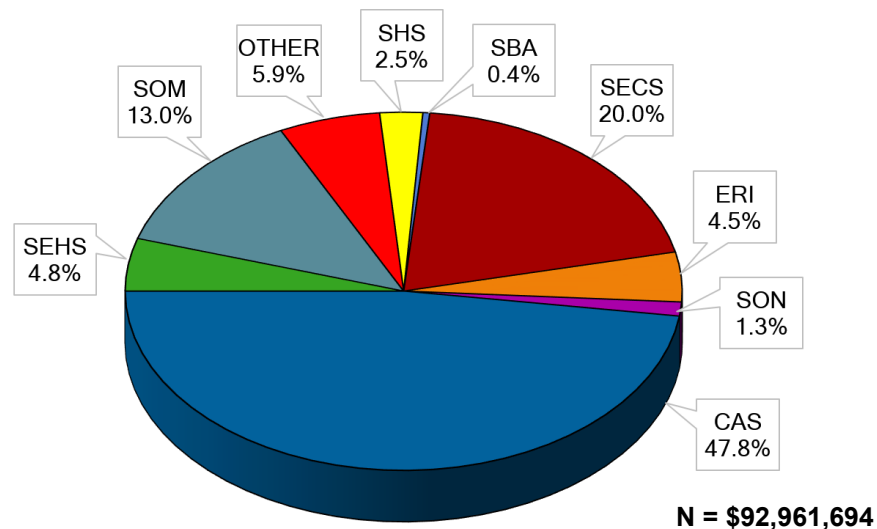
Comparison of FY2021 and FY2022, Proposal Funding Requested by Academic Unit

College of Arts and Sciences	FY2021	FY2022
Art and Art History	9,297	0
Biological Sciences	15,093,745	25,255,096
Chemistry	17,816,210	14,994,456
Communication and Journalism	3,500	0
Mathematics and Statistics	702,446	371,467
Physics	3,937,789	959,524
Political Science	17,500	138,629
Psychology	2,968,347	2,667,744
Sociology and Anthropology	282,053	3,800
Writing and Rhetoric	0	14,914
CAS Total	**$40,830,887**	**$44,405,630**

Eye Research Institute	FY2021	FY2022
ERI Total	**$7,134,587**	**$4,166,323**

School of Business Administration	FY2021	FY2022
Decision & Information Science	56,250	0
Management and Marketing	0	368,320
SBA Total	**$56,250**	**$368,320**

School of Engineering & Computer Science	FY2021	FY2022
Computer Science and Engineering	5,233,135	9,390,689
Electrical and Computer Engineering	8,853,560	4,312,352
Industrial and Systems Engineering	9,878,816	2,022,904
Mechanical Engineering	4,413,436	2,858,504
SECS Total	**$28,378,947**	**$18,584,449**

School of Education and Human Services	FY2021	FY2022
Human Development and Child Studies	3,234,465	4,276,966
Lowry Center for Early Child Education	85,800	142,500
Reading and Language Arts	216,760	0
Teacher Development and Educational Studies	38,999	0
SEHS Total	**$3,576,024**	**$4,419,466**

School of Health Sciences	FY2021	FY2022
Clinical and Diagnostic Sciences	0	154,534
Human Movement Science	321,541	198,037
Interdisciplinary Health Sciences	1,105,965	590,321
Public and Environmental Wellness	575,621	1,368,072
SHS Total	**$2,003,127**	**$2,310,964**

School of Medicine	FY2021	FY2022
SOM Total	**$4,241,338**	**$12,058,441**

School of Nursing	FY2021	FY2022
SON Total	**$4,760,880**	**$1,171,322**

Other	FY2021	FY2022
Academic Affairs	0	1,600,000
Center for Multicultural Initiatives	100,483	100,483
OU CARES	0	39,800
Project Upward Bound	0	3,736,496
Student Affairs and Diversity	25,000	0
Other Total	**$125,483**	**$5,476,779**

FY2022 ● Amount Requested by Purpose
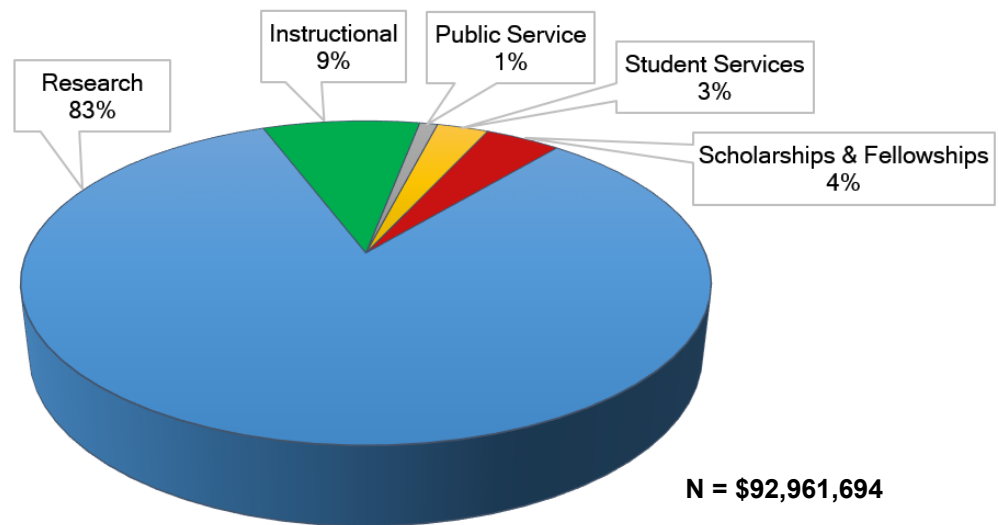
Research 83%
Instructional 9%
Public Service 1%
Student Services 3%
Scholarships & Fellowships 4%

N = $92,961,694

College of Arts and Sciences	Research	Instruction	Public Service	Student Services	Scholarships Fellowships
Biological Sciences	25,253,094	0	2,002	0	0
Chemistry	14,994,456	0	0	0	0
Mathematics and Statistics	264,743	0	106,724	0	0
Physics	959,524	0	0	0	0
Political Science	138,629	0	0	0	0
Psychology	2,633,470	0	34,274	0	0
Sociology, Anthropology, Social	0	0	0	3,800	0
Writing and Rhetoric	0	0	14,914	0	0
CAS Total	**$44,243,916**	**$0**	**$157,914**	**$3,800**	**$0**

Eye Research Institute	Research	Instruction	Public Service	Student Services	Scholarships Fellowships
ERI Total	**$4,166,323**	**$0**	**$0**	**$0**	**$0**

School of Business Administration	Research	Instruction	Public Service	Student Services	Scholarships Fellowships
Management and Marketing	368,320	0	0	0	0
SBA Total	**$368,320**	**$0**	**$0**	**$0**	**$0**

School of Engineering and Computer Science	Research	Instruction	Public Service	Student Services	Scholarships Fellowships
Computer Science and Engineering	6,142,599	8,000	0	561,947	2,678,143
Electrical and Computer Engineering	4,312,352	0	0	0	0
Industrial and Systems Engineering	2,022,904	0	0	0	0
Mechanical Engineering	2,748,269	21,500	0	88,735	0
SECS Total	**$15,226,124**	**$29,500**	**$0**	**$650,682**	**$2,678,143**

School of Education and Human Services	Research	Instruction	Public Service	Student Services	Scholarships Fellowships
Human Development & Child Studies	1,773,226	1,966,812	536,928	0	0
Lowry Center for Early Childhood Education	0	142,500	0	0	0
Teacher Development and Educational Studies	0	0	0	0	0
SEHS Total	**$1,773,226**	**$2,109,312**	**$536,928**	**$0**	**$0**

School of Health Sciences	Research	Instruction	Public Service	Student Services	Scholarships Fellowships
Clinical & Diagnostic Sciences	154,534	0	0	0	0
Human Movement Science	198,037	0	0	0	0
Interdisciplinary Health Sciences	283,244	74,442	232,635	0	0
Public and Environmental Wellness	116,814	0	0	0	1,251,258
SHS Total	**$752,629**	**$74,442**	**$232,635**	**$0**	**$1,251,258**

School of Medicine	Research	Instruction	Public Service	Student Services	Scholarships Fellowships
SOM Total	**$10,133,435**	**$4,501**	**$3,500**	**$1,917,005**	**$0**

School of Nursing	Research	Instruction	Public Service	Student Services	Scholarships Fellowships
SON Total	**$597,355**	**$573,967**	**$0**	**$0**	**$0**

Other	Research	Instruction	Public Service	Student Services	Scholarships Fellowships
Academic Affairs	0	1,600,000	0	0	0
OU CARES	0	39,800	0	0	0
Project Upward Bound	0	3,736,496	0	0	0
Center for Multicultural Initiatives	0	0	0	100,483	0
Student Affairs and Diversity	0	0	0	0	0
Other	**$0**	**$5,376,296**	**$0**	**$100,483**	**$0**

Oakland University Total	Research	Instruction	Public Service	Student Services	Scholarships Fellowships
Grand Total	**$77,261,328**	**$8,168,018**	**$930,977**	**$2,671,970**	**$3,929,401**

FY2022 ● Amount Requested by Source

N = $92,961,694
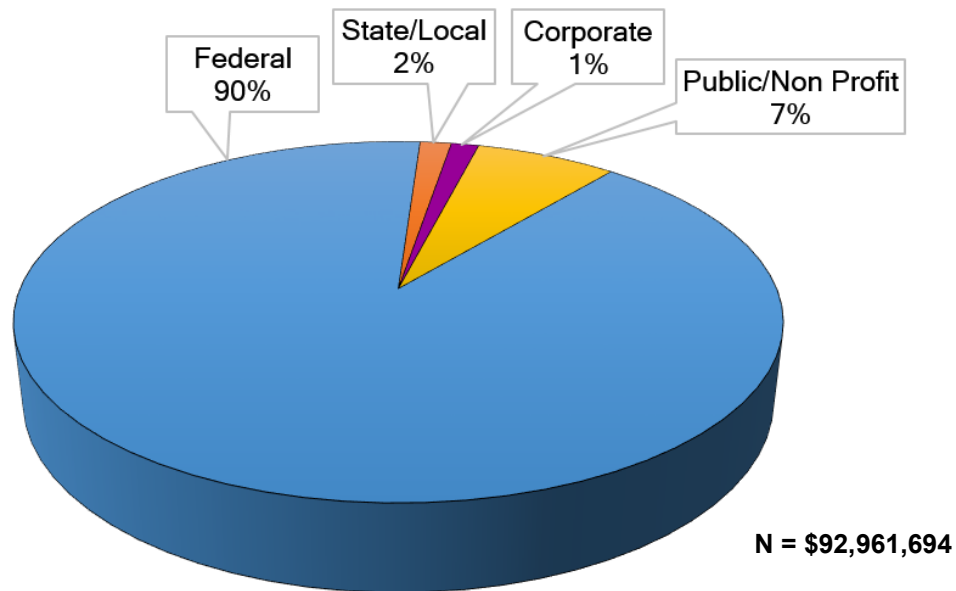
College of Arts & Sciences	Federal	State/Local	Corporate	Public/ Nonprofit
Biological Sciences	21,175,251	357,231	0	3,722,614
Chemistry	13,303,262	0	658,122	1,033,072
Mathematics and Statistics	371,467	0	0	0
Physics	934,869	0	0	24,655
Political Science	138,629	0	0	0
Psychology	2,550,087	0	0	117,657
Sociology and Anthropology	0	0	3,800	0
Writing and Rhetoric	14,914	0	0	0
CAS Total	**$38,488,479**	**$**	**$661,922**	**$4,897,998**

Eye Research Institute	Federal	State/Local	Corporate	Public/ Nonprofit
ERI Total	**$4,166,323**	**$0**	**$0**	**$0**

School of Business Administration	Federal	State/Local	Corporate	Public/ Nonprofit
Management and Marketing	368,320	0	0	0
SBA Total	**$368,320**	**$0**	**$0**	**$0**

School of Engineering and Computer Science	Federal	State/Local	Corporate	Public/ Nonprofit
Computer Science and Engineering	9,215,796	91,575	0	83,318
Electrical and Computer Engineering	4,192,352	0	120,000	0
Industrial and Systems Engineering	1,775,715	0	247,189	0
Mechanical Engineering	2,519,747	88,735	250,022	0
SECS Total	**$17,703,610**	**$180,310**	**$617,211**	**$83,318**

School of Education and Human Services	Federal	State/Local	Corporate	Public/ Nonprofit
Human Development & Child Studies	3,740,038	137,500	0	399,428
Lowry Center for Early Childhood Education	0	142,500	0	0
SEHS Total	**$3,740,038**	**$280,000**	**$0**	**$399,428**

School of Health Sciences	Federal	State/Local	Corporate	Public/ Nonprofit
39800Clinical and Diagnostic Sciences	124,276	30,258	0	0
Human Movement Science	0	160,537	0	37,500
Interdisciplinary Health Sciences	515,879	0	0	74,442
Public and Environmental Wellness	1,351,258	0	0	16,814
SHS Total	**$1,991,413**	**$190,795**	**$0**	**$128,756**

School of Medicine	Federal	State/Local	Corporate	Public/ Nonprofit
SOM Total	**$11,593,012**	**$58,500**	**$0**	**$406,929**

School of Nursing	Federal	State/Local	Corporate	Public/ Nonprofit
SON Total	**$259,232**	**$290,371**	**$0**	**$621,719**

Other	Federal	State/Local	Corporate	Public/ Nonprofit
Academic Affairs	1,600,000	0	0	0
Center for Multicultural Initiatives	0	100,483	0	0
OU CARES	0	0	0	39,800
Project Upward Bound	3,736,496	0	0	0
Other Total	**$5,336,496**	**$100,483**	**$0**	**$39,800**

Oakland University Total	Federal	State/Local	Corporate	Public/ Nonprofit
Grand Total	**$83,646,923**	**$1,457,690**	**$1,279,133**	**$6,577,948**

Research, Innovation, and Engagement Town Hall - 2021 Winners

Frank Giblin Lifetime Achievement Award
Dr. Andrew F.X. Goldberg
Eye Research Institute

Researcher of the Year
Dr. Luca Cucullo
Foundational Medical Studies, OUWB

Most Research Active
Dr. Xiangqun Zeng
Department of Chemistry, CAS

Most Active Grant Seeker
Dr. Xiangqun Zeng
Department of Chemistry, CAS

Outstanding Research Departments
Foundational Medical Studies, OUWB
Chemistry, CAS

Outstanding Junior Investigator
Dr. Ziming Yang
Department of Chemistry, CAS

Sarah Beetham, Mechanical Engineering, SECS

Shicheng Chen, Clinical and Diagnostic Sciences, SHS

Olga Ehrlich, Nursing, SON

Lindsay Gietzen, Physician Assistant Science, SHS

Deidre Hurse, Foundational Medical Studies, OUWB

Rumit Kakar, Exercise Science, SHS

Erin Kennedy, Nursing, SON

Steven Louis, Electrical and Computer Engineering, SECS

Mark Manning, Psychology, CAS

Lindsay Oberleitner, Foundational Medical Studies, OUWB

Watoii Rabii, Criminal Justice, CAS

Hon Yiu (Henry) So, Mathematics and Statistics, CAS

Tiffany Steele, Organizational Leadership, SEHS

Matthew Toeniskoetter, Mathematics and Statistics, CAS

Betty Tonui, Social Work, CAS

Steven Wilson, Computer Science and Engineering, SECS

Lanyu (Lori) Xu, Computer Science and Engineering, SECS

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