



Research Survey Report

July 1, 2022 - June 30, 2023

January 2024

2022-2023 ASCO Research Survey Report

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A note about the 2022-2023 ASCO Research Survey Report . . .

This survey report covers the period July 1, 2022-June 30, 2023. Relevant endnotes and definitions follow each part of the report.

The information from this survey can be used to estimate the total research funds provided to schools and colleges of optometry, estimate the time that optometry faculty use to conduct research and quantify the types of research conducted at the schools and colleges of optometry. Schools can also use the information to benchmark their research portfolio.

All of the information in this report can be used to educate public officials, educators, and administrators about the research conducted in optometry. Researchers must continue to push the frontiers of science in order to expand the scope and ability of optometry. The information that follows assists in quantifying the ability to do so.

Twenty-three of the 24 ASCO active member schools participated in this survey. Data was collected September-November 2023.

Please contact Joanne Zuckerman, ASCO's Manager, Data Services and Special Projects, at jzuckerman@opted.org with any questions about the report.



Abbreviations of ASCO Active Member Institutions 2022-2023 ASCO Research Survey

<u>Abbreviation</u>	<u>School Name</u>
AZCOPT*	Arizona College of Optometry, Midwestern University
CCO	Chicago College of Optometry, Midwestern University
IAUPR	Inter American University of Puerto Rico, School of Optometry
ICO	Illinois College of Optometry
IUSO	Indiana University, School of Optometry
KYCO	University of Pikeville, Kentucky College of Optometry
MCO	Michigan College of Optometry at Ferris State University
MCPHS	MCPHS University, School of Optometry
NECO	New England College of Optometry
NOVA	Nova Southeastern University, College of Optometry
NSUOCO	Northeastern State University – Oklahoma College of Optometry
OSU	The Ohio State University, College of Optometry
PCO/Salus	Pennsylvania College of Optometry at Salus University
PUCO	Pacific University, College of Optometry
RMUCO	Rocky Mountain University, College of Optometry
SCCOMBKU	Southern California College of Optometry at Marshall B. Ketchum University
SCO	Southern College of Optometry
SUNY	State University of New York, College of Optometry
UABSO	University of Alabama at Birmingham, School of Optometry
UCB	University of California, Berkeley, Herbert Wertheim School of Optometry and Vision Science
UHCO	University of Houston, College of Optometry
UIWRSO	University of the Incarnate Word, Rosenberg School of Optometry
UMSL	University of Missouri at St. Louis, College of Optometry
WUCO	Western University of Health Sciences, College of Optometry

*Did not participate in 2022-2023 Research Survey

Association of Schools and Colleges of Optometry
2022-2023 Research Survey - Part I
(July 1, 2022 - June 30, 2023)
(Includes 23 of 24 schools. One school did not participate in the survey.)

	CCO	IAUPR	ICO	IUSO	KYCO	MCO	MCPHS	NECO	NOVA	NSUOCO	OSU	PCO/Salus	PUCO
1. Aggregate full time equivalent (FTE)¹ of all faculty² employed by Optometry	21.00	22.00	56.00	40.00	21.30	17.00	15.60	57.11	40.00	35.00	35.80	72.56	25.03
2. Aggregate FTE³ of all faculty⁴ participating in research	4.00	5.00	49.00	24.00	21.30	2.00	9.00	18.91	40.00	16.00	25.80	9.00	22.21
<i>Proportion of faculty FTE who participate in research (#2/#1)</i>	0.19	0.23	0.88	0.60	1.00	0.12	0.58	0.33	1.00	0.46	0.72	0.12	0.89
3. Aggregate FTE⁵ of all faculty⁶ that is paid for conducting research by external funding	0.00	0.20	0.50	3.18 ⁷	0.00	0.00	0.00	2.97	0.00	0.00	5.00	3.01	0.04
<i>Proportion of total faculty FTE paid by external funding for participating in research (#3/#1)</i>	0.00	0.01	0.01	0.08	0.00	0.00	0.00	0.05	0.00	0.00	0.14	0.04	0.00
4. How many students are enrolled in Master's programs⁸ that are optometry or vision-related?	2	Not Applicable	Not Applicable	11	Not Applicable	Not Applicable	0	21	10	Not Applicable	39	0	13
5. How many students are enrolled in PhD programs⁹ that are optometry or vision-related?	Not Applicable	Not Applicable	Not Applicable	16	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	8	5	10
6. How many post-doctoral fellows are in optometry?	Not Applicable	0	0	4	0	0	0	1	0	0	2	1	0
7. How many support staff participate in funded research?¹⁰	0	0	2	31	0	1	1	7	0	0	40	2	1
8. # square feet of space in optometry used specifically for clinical research¹¹	480	400	3000	14965	0	0	3070	1081	2800	0	13737	2775	4538
9. # square feet of space in optometry used specifically for basic science¹² or translational research¹³	495	0	1730	13226	300	300	1400	2374	1500	200	3373	3430	4538
10. How many square feet of space in optometry are used specifically for animal care?	0	0	740	1260	0	0	0	1300	0	0	0	2277	0
11. Federally negotiated on-campus research indirect cost rate¹⁵	50.0%	N/A	52.0%	59.0%	30.0%	30.0%	55.0%	78.0%	54.0%	47.0%	57.5%	42.0%	38.0%
12. Typical indirect cost rate¹⁵ for investigator-driven industry-sponsored research	30.0% ¹⁶	N/A	30.0%	59.0%	30.0%	30.0%	20.0%	35.0%	Not Applicable	Not Applicable	30.0%	Not Applicable	25.0%
13. Typical indirect cost rate¹⁵ for contract research (not investigator-driven)	30.0% ¹⁶	N/A	30.0%	59.0%	30.0%	30.0%	20.0%	35.0%	Not Applicable	Not Applicable	30.0%	Not Applicable	Not Applicable

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	RMUCO	SCCOMBKU	SCO	SUNY	UABSO	UCB	UHCO	UIWRSO	UMSL	WUCO	TOTALS
1. Aggregate full time equivalent (FTE) ¹ of all faculty ² employed by Optometry	4.20	48.79	53.38	87.60	35.65	69.00	65.50	32.00	20.00	31.40	905.92
2. Aggregate FTE ³ of all faculty ⁴ participating in research	2.20	17.00	25.00	24.00	25.45	31.00	36.50	32.00	7.00	13.25	459.62
<i>Proportion of faculty FTE who participate in research (#2/#1)</i>	0.52	0.35	0.47	0.27	0.71	0.45	0.56	1.00	0.35	0.42	0.51
3. Aggregate FTE ⁵ of all faculty ⁶ that is paid for conducting research by external funding	1.00	1.53	0.00	2.47	4.73	0.00 ⁷	7.21	0.00	0.00	0.69	32.53
<i>Proportion of total faculty FTE paid by external funding for participating in research (#3/#1)</i>	0.24	0.03	0.00	0.03	0.13	0.00	0.11	0.00	0.00	0.02	0.04
4. How many students are enrolled in Master's programs ⁸ that are optometry or vision-related?	Not Applicable	10	Not Applicable	21	12	Not Applicable	13	0	Not Applicable	Not Applicable	152
5. How many students are enrolled in PhD programs ⁹ that are optometry or vision-related?	Not Applicable	Not Applicable	Not Applicable	11	22	33	32	4	Not Applicable	Not Applicable	141
6. How many post-doctoral fellows are in optometry?	0	0	Not Applicable	4	4	29	7	0	0	0	52
7. How many support staff participate in funded research? ¹⁰	0	3	0	18	18	15	18	4	0	0	161
8. # square feet of space in optometry used specifically for clinical research ¹¹	4853	2379	3200	4000	1300	3000	2500	1100	700	1108	70986
9. # square feet of space in optometry used specifically for basic science ¹² or translational research ¹³	4682	1500	0	14205	15900	20000	17500	1100	400	858	109011
10. How many square feet of space in optometry are used specifically for animal care?	0	0	0	4200	0 ¹⁴	500	0 ¹⁴	0	0	160	10437
11. Federally negotiated on-campus research indirect cost rate ¹⁵	20.0%	60.0%	Not Applicable	63.5%	49.0%	61.0%	55.0%	Not Applicable	57.0%	43.0%	50.05%
12. Typical indirect cost rate ¹⁵ for investigator-driven industry-sponsored research	20.0%	50.0%	Not Applicable	35.0%	36.0%	26.0%	31.0%	Not Applicable	33.0%	43.0%	32.94%
13. Typical indirect cost rate ¹⁵ for contract research (not investigator-driven)	20.0%	50.0%	Not Applicable	35.0%	30.0%	26.0%	31.0%	Not Applicable	33.0%	20.0%	31.81% ¹⁷

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Part I Endnotes

¹FTE is during the faculty member's working period, regardless of whether the faculty member is on a 9 or 12 month appointment. Does not include faculty from other institutions who collaborate on research projects. Aggregate FTE in this question means the sum of the total FTE of each faculty member, regardless of whether the faculty member conducts administrative, clinical, didactic, or research duties.

²All faculty include tenure track, clinical track, and research track faculty who are paid by optometry.

³This is the FTE of the faculty who participate in research, not the FTE that they *use* to participate in research. FTE is during the faculty member's working period, regardless of whether the faculty member is on a 9 or 12 month appointment. Does not include faculty from other institutions who collaborate on research projects. Aggregate FTE in this question means the sum of the total FTE of each faculty member that participates in research, regardless of whether the faculty member conducts administrative, clinical, didactic, or research duties.

⁴Includes all tenure track, clinical track, and research track faculty who are optometry personnel who participate in research as a PI, masked examiner, statistician, etc. Does not include faculty from outside units who collaborate on research projects.

⁵FTE is the amount of FTE that a faculty member receives from external funds to participate in research. Does not include faculty from other institutions who collaborate.

⁶Includes all tenure track, clinical track, and research track faculty who are optometry personnel who receive external funding to participate in research as a PI, masked examiner, statistician, etc.

⁷For IUSO, includes summer salary. UC does not allow except for summer salary.

⁸Includes students enrolled in programs at the institution both within and outside of the school of optometry. Includes students enrolled in combined OD/MS programs.

⁹Includes students enrolled in programs at the institution both within and outside of the school of optometry. Includes students enrolled in combined OD/PhD programs.

¹⁰Includes staff members who are paid from sponsored research projects who work in research for any amount of time.

¹¹Clinical research = healthcare science that determines the safety and efficacy of medications, devices, diagnostic products and treatment regimens intended for human use; they may be used for prevention, treatment, diagnosis or relieving symptoms.

¹²Basic research = scientific research to improve scientific theories for improved understanding or prediction of phenomena.

¹³Translational research = applied findings from basic science to enhance human health and well-being; translation of fundamental research findings into meaningful health outcomes.

¹⁴For UABSO, all animal care space is outside of optometry. For UHCO, animals are housed in the UH Animal Care Operations 31,000 sq ft of vivariums in one of the buildings in which optometry resides.

¹⁵These are costs incurred by the university due to a research project, such as departmental accounting, network support, equipment depreciation, building and facilities operation and maintenance, library, and sponsored projects administration. These costs are charged as a percent of some of the direct cost elements. For example, if the indirect rate is 50%, then the sponsor pays an additional \$50,000 on a \$100,000 project. "Not Applicable" indicates that an institution does not have a standard indirect cost rate.

¹⁶For CCO, 30% is the average: 50% when direct costs (DCs) are >\$100K; 25% when DCs are \$50K-\$99,999; 15% when DCs are <\$50K.

¹⁷Ranges/multiple percentages are not included in the overall average.

Association of Schools and Colleges of Optometry
2022-2023 Research Survey - Part II
(Includes Direct Costs Awarded July 1, 2022 - June 30, 2023)
(Includes nineteen of 24 schools; four had no awards and one did not participate in the survey)

	IAUPR	ICO	IUSO	MCO	MCPHS	NECO	NOVA	OSU	PCO/Salus	PUCO
<i>By Source:</i>										
Federal, NEI:	\$0	\$19,048	\$2,778,865	\$0	\$0	\$782,701	\$0	\$3,165,917	\$499,116	\$5,160
Federal, NIH:	\$0	\$0	\$0	\$6,825	\$0	\$0	\$7,050	\$0	\$0	\$3,588
Federal, Other:	\$0	\$0	\$448,042	\$0	\$0	\$0	\$0	\$44,135	\$0	\$0
State:	\$0	\$0	\$193,971	\$0	\$0	\$0	\$0	\$0	\$8,023	\$0
Private Foundation:	\$51,000	\$2,000	\$660,411	\$0	\$0	\$200,000	\$160,000	\$405,506	\$0	\$7,344
Industry:	\$0	\$1,083,369	\$3,408,191	\$10,000	\$45,000	\$612,982	\$0	\$486,044	\$77,473	\$53
Other, Including Research Contracts & Subawards:	\$0	\$0	\$152,454	\$2,000	\$16,000	\$68,481	\$0	\$312,686	\$45,860	\$49,927
<i>By Science:</i>										
Clinical:	\$51,000	\$1,104,417	\$14,300	\$2,000	\$49,000	\$316,349	\$107,050	\$1,664,687	\$123,333	\$3,588
Translational:	\$0	\$0	\$7,511,602	\$0	\$4,000	\$765,114	\$0	\$1,123,293	\$0	\$57,324
Basic:	\$0	\$0	\$116,032	\$0	\$0	\$527,791	\$60,000	\$1,501,361	\$507,139	\$5,160
Training Grant:	\$0	\$0	\$0	\$0	\$8,000	\$54,910	\$0	\$124,947	\$0	\$0
Other:	\$0	\$0	\$0	\$16,825	\$0	\$0	\$0	\$0	\$0	\$0
<i>Total</i>	\$51,000	\$1,104,417	\$7,641,934	\$18,825	\$61,000	\$1,664,164	\$167,050	\$4,414,288	\$630,472	\$66,072

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	SCCOMBKU	SCO	SUNY	UABSO	UCB	UHCO	UIWRSO	UMSL	WUCO	GRAND TOTALS
<i>By Source:</i>										
Federal, NEI:	\$0	\$4,894	\$2,289,976	\$2,518,997	\$5,025,782	\$4,163,419	\$27,547	\$0	\$0	\$21,281,422
Federal, NIH:	\$68,526	\$0	\$0	\$0	\$715,659	\$384,177	\$0	\$0	\$0	\$1,185,825
Federal, Other:	\$0	\$0	\$0	\$0	\$201,709	\$52,256	\$0	\$0	\$0	\$746,142
State:	\$0	\$0	\$362,088	\$0	\$0	\$0	\$0	\$2,623	\$0	\$566,705
Private Foundation:	\$0	\$0	\$274,000	\$249,916	\$275,811	\$331,836	\$0	\$0	\$68,088	\$2,685,912
Industry:	\$310,185	\$252,922	\$2,952,757	\$240,532	\$2,161,550	\$358,452	\$0	\$0	\$0	\$11,999,510
Other, Including Research Contracts & Subawards:	\$0	\$3,296	\$121,468	\$0	\$731,627	\$0	\$0	\$0	\$0	\$1,503,799
<i>By Science:</i>										
Clinical:	\$378,711	\$261,112	\$3,030,161	\$0	\$878,389	\$1,661,187	\$0	\$2,623	\$68,088	\$9,715,995
Translational:	\$0	\$0	\$0	\$1,338,633	\$1,159,410	\$801,242	\$0	\$0	\$0	\$12,760,618
Basic:	\$0	\$0	\$2,519,982	\$1,670,812	\$6,340,678	\$2,764,323	\$0	\$0	\$0	\$16,013,278
Training Grant:	\$0	\$0	\$435,341	\$0	\$733,661	\$63,388	\$27,547	\$0	\$0	\$1,447,794
Other:	\$0	\$0	\$14,805	\$0	\$0	\$0	\$0	\$0	\$0	\$31,630
Total	\$378,711	\$261,112	\$6,000,289	\$3,009,445	\$9,112,138	\$5,290,140	\$27,547	\$2,623	\$68,088	\$39,969,315

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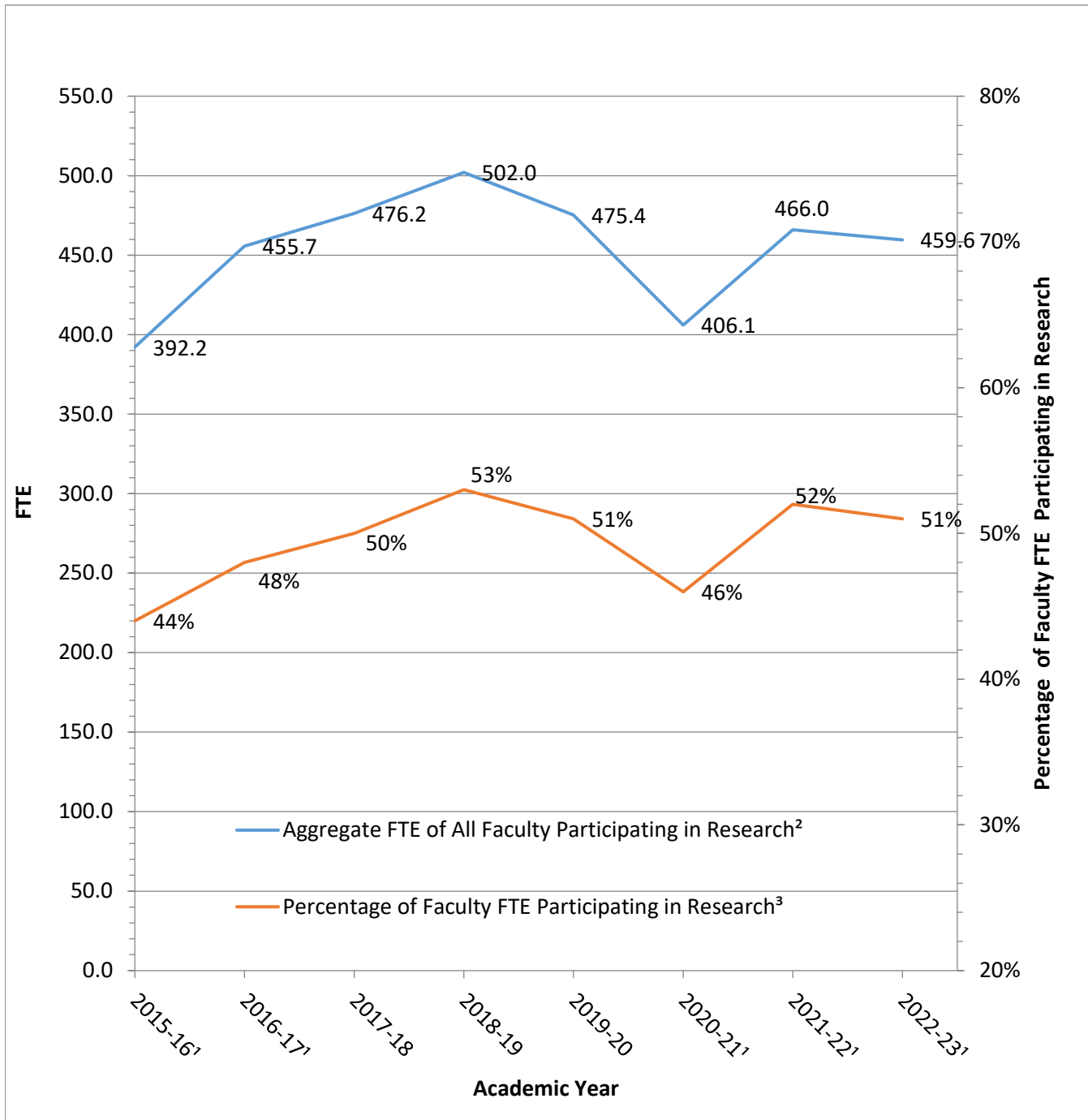
Part II Definitions

Clinical	Scientific research on clinical human healthcare practices to establish or improve safety and efficacy of devices, medications, and interventions.
Translational (T0-T4)	Scientific research designed to advance basic research towards clinical practice and to enhance adoption and impact of health practices.
T0	Basic biomedical research, including preclinical and animal studies. This type of research does not include interventions with human subjects.
T1	Translation to humans; includes Phase 1 clinical trials to study new diagnostic methods, treatments or prevention strategies.
T2	Translation to patients. This includes efficacy trials (controlled Phase 2 and 3 clinical trials).
T3	Translation to practice. This stage includes Phase 4 clinical outcomes research.
T4	Translation to community. This includes population level research to evaluate benefits to society.
Basic	Scientific research to improve understanding or prediction of phenomena.
<i>If science is basic and translational, then call it translational.</i>	
<i>If science is translational and clinical, then call it clinical.</i>	
<i>These definitions were adapted from several sources.</i>	
Federal: NIH	All other NIH institutes except National Eye Institute
Federal: Other	National Science Foundation, Department of Defense, etc.
Other (including research contracts & subawards)	Contract research activities for hire, subawards from other institutions, etc.

Faculty Participating in Funded Research

U.S. Schools and Colleges of Optometry

2015-2023



¹In 2015-16, 2016-17, 2020-21, 2021-22, and 2022-23 data was collected from all but one school. 2017-18, 2018-19 and 2019-20 include all schools.

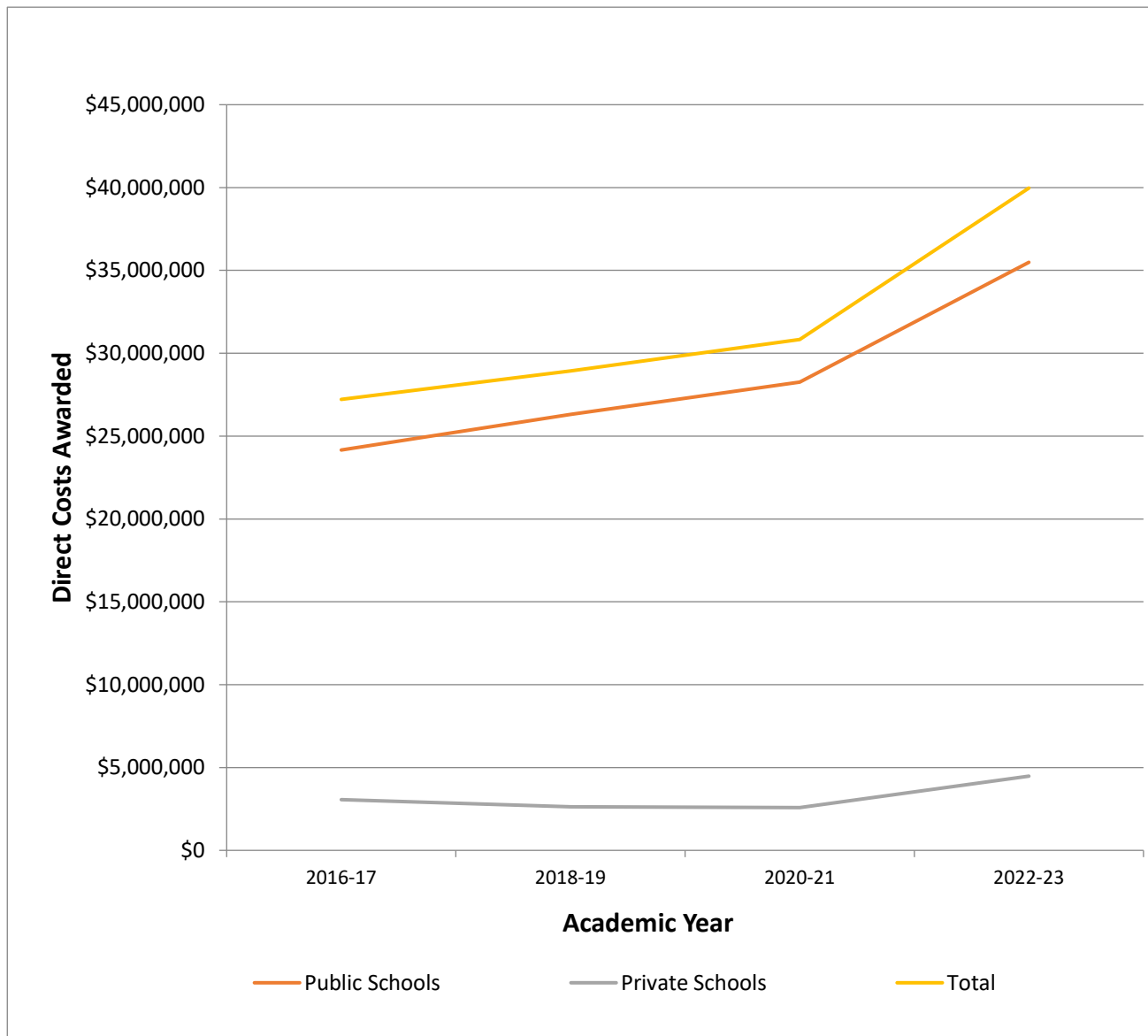
²This is the total FTE for faculty research participation. Includes all tenure track, clinical track, and research track faculty who participate in research as a PI, masked examiner, statistician, etc.

³Equals the aggregate FTE of all faculty participating in research divided by the aggregate FTE of all faculty employed by Optometry.

Research Funding

U.S. Schools and Colleges of Optometry

Direct Costs Awarded 2016-2023*



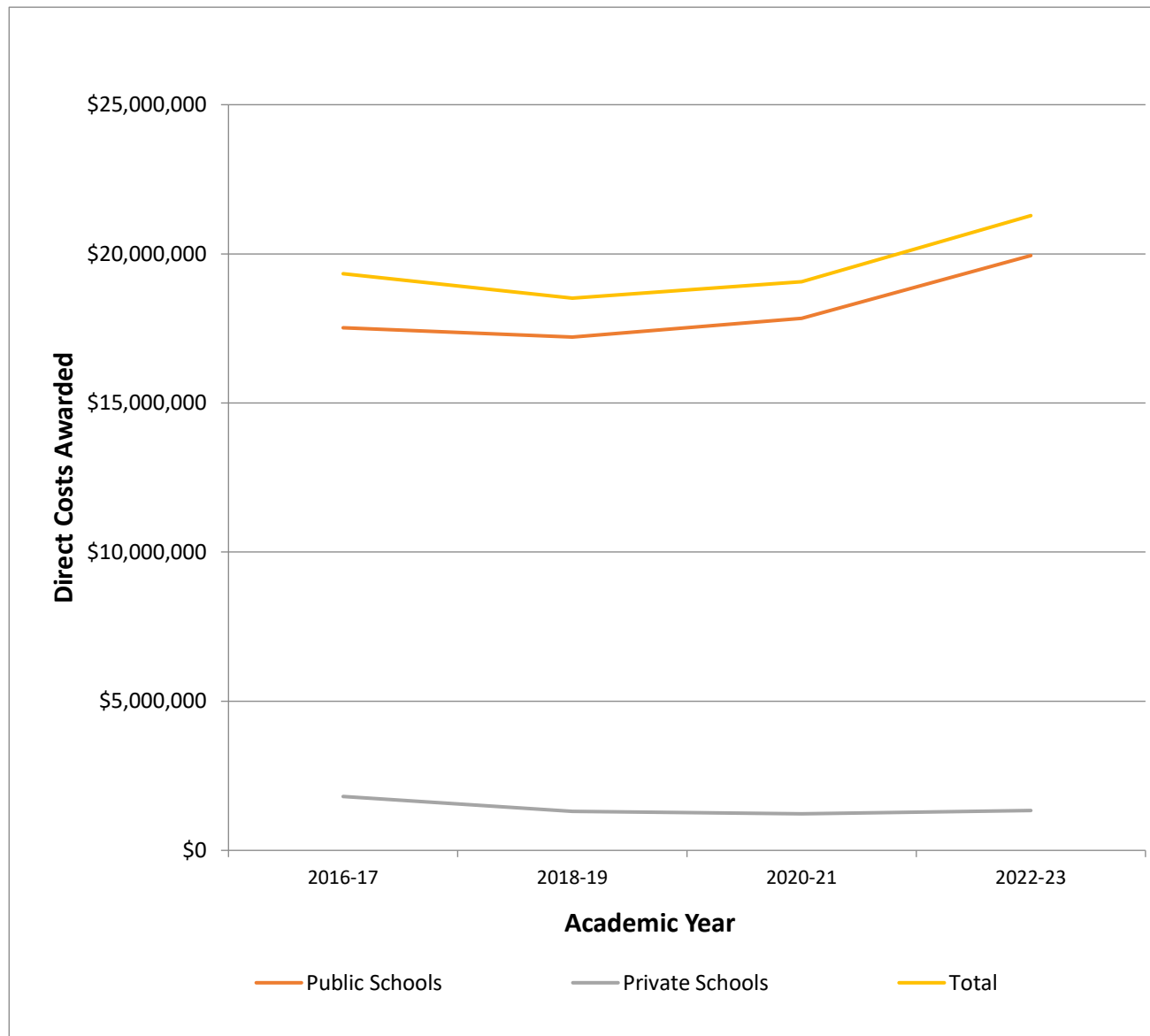
	Public Schools	Private Schools	Total
2016-17			
20 schools w/awards	\$24,162,118	\$3,054,643	\$27,216,761
2018-19			
20 schools w/awards	\$26,305,237	\$2,634,692	\$28,939,929
2020-21			
18 schools w/awards	\$28,254,717	\$2,582,475	\$30,837,192
2022-23			
19 schools w/awards	\$35,489,682	\$4,479,633	\$39,969,315

*Includes Federal (NIH/ NEI/ Dod/ NASA, etc.), State, Private Foundation, Industry, Other Including Research Contracts and Subawards

Research Funding

U.S. Schools and Colleges of Optometry

Direct Costs Awarded 2016-2023 - NEI

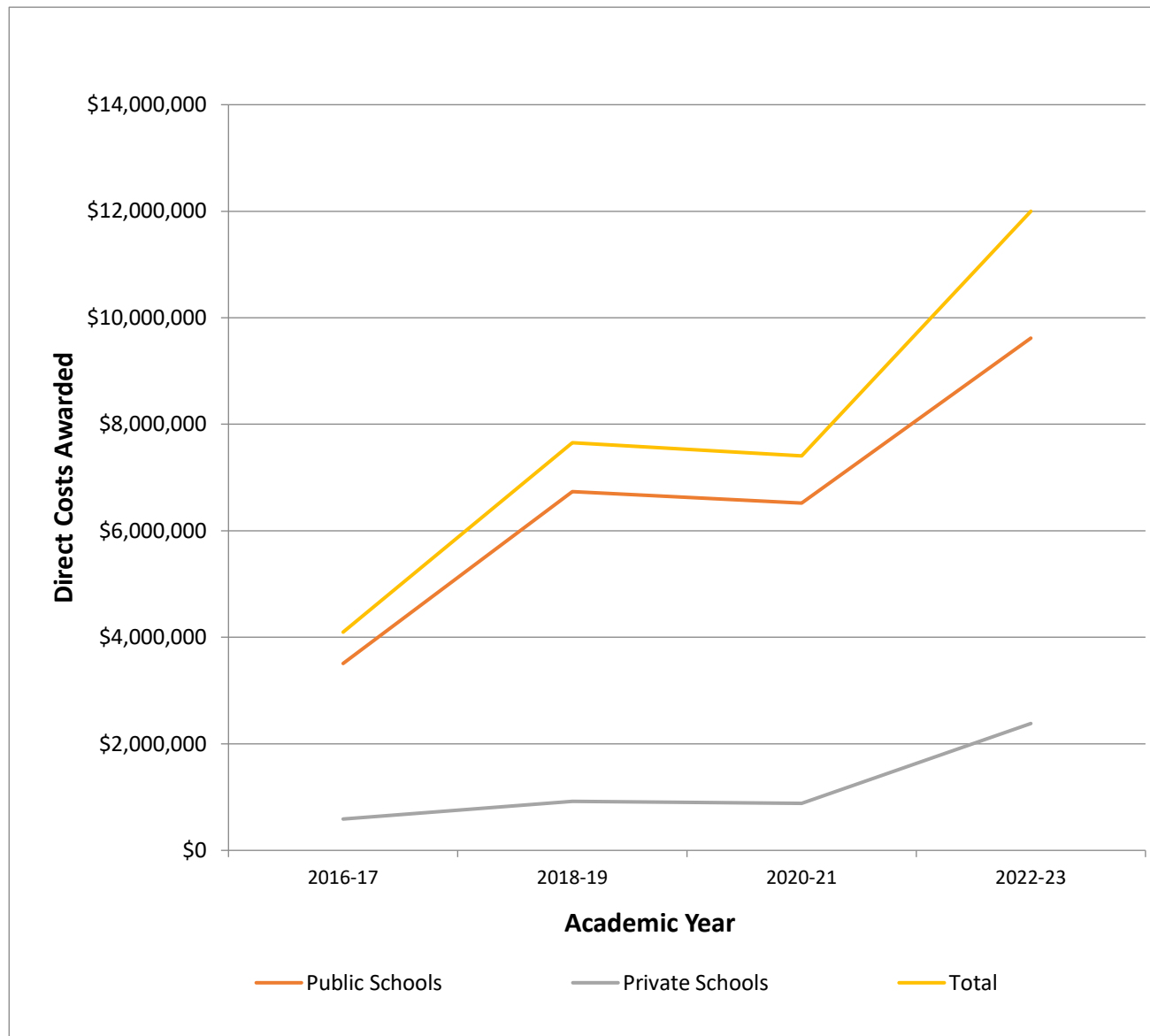


	Public Schools	Private Schools	Total
2016-17			
15 schools w/awards	\$17,523,358	\$1,806,851	\$19,330,209
2018-19			
14 schools w/awards	\$17,209,806	\$1,304,600	\$18,514,406
2020-21			
12 schools w/awards	\$17,836,378	\$1,226,205	\$19,062,583
2022-23			
12 schools w/awards	\$19,942,956	\$1,338,466	\$21,281,422

Research Funding

U.S. Schools and Colleges of Optometry

Direct Costs Awarded 2016-2023 - Industry

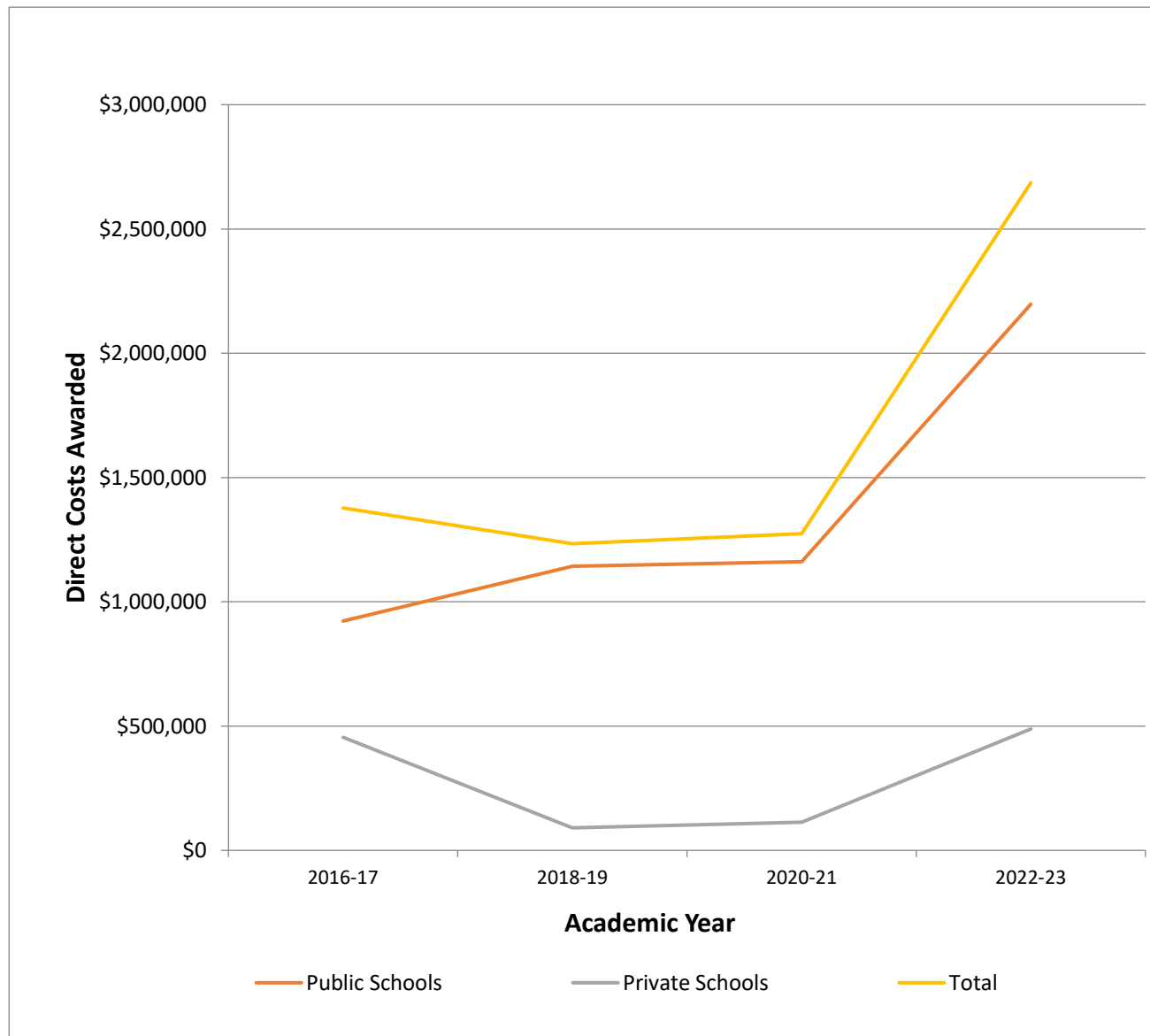


	Public Schools	Private Schools	Total
2016-17			
14 schools w/awards	\$3,509,217	\$588,702	\$4,097,919
2018-19			
19 schools w/awards	\$6,734,005	\$921,328	\$7,655,333
2020-21			
14 schools w/awards	\$6,522,581	\$883,297	\$7,405,878
2022-23			
14 schools w/awards	\$9,617,526	\$2,381,984	\$11,999,510

Research Funding

U.S. Schools and Colleges of Optometry

Direct Costs Awarded 2016-2023 - Private Foundations



	Public Schools	Private Schools	Total
2016-17			
14 schools w/awards	\$922,875	\$454,631	\$1,377,506
2018-19			
14 schools w/awards	\$1,143,182	\$90,656	\$1,233,838
2020-21			
12 schools w/awards	\$1,160,944	\$113,239	\$1,274,183
2022-23			
12 schools w/awards	\$2,197,480	\$488,432	\$2,685,912