



Research Survey Report

July 1, 2015 - June 30, 2016

February 2017



A note about the 2015-2016 ASCO Research Survey Report . . .

In 2016, ASCO's Academic Research Committee rewrote the 2015-2016 Research Survey in order to simplify the data collection process as well as improve the clarity and utility of the resulting report. In this revised survey, only direct costs are included because total costs are dependent on indirect rates individually negotiated by universities and have little bearing on the amount of research funds received or research conducted. Typical indirect cost rates are reported for each school in part I of the report.

The direct costs reported in part II are listed by source and by science, with totals provided for each category as well as for each school. 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-two of the 23 ASCO active member schools participated in this survey. 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
2015-2016 ASCO Research Survey

<u>Abbreviation</u>	<u>School Name</u>
AZCOPT	Midwestern University – Arizona College of Optometry
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
PUCO	Pacific University, College of Optometry
Salus/PCO	Salus University Pennsylvania 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, State College of Optometry
UABSO	University of Alabama at Birmingham, School of Optometry
UCB	University of California – Berkeley, School of Optometry
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 2015-2016 Research Survey

Association of Schools and Colleges of Optometry
2015-2016 Research Survey - Part I
 (July 1, 2015 - June 30, 2016)
 (Includes 22 U.S./Puerto Rican Schools - One school did not participate)

	AZCOPT	CCO ¹	ICO	IUSO	KYCO	MCO	MCPHS	NECO	NOVA	NSUOCO	OSU
1. Aggregate full time equivalent (FTE) ² of all faculty ³ employed by Optometry	21.00	17.00	60.00	42.00	18.00	21.10	18.00	55.00	45.00	31.00	33.60
2. Aggregate FTE ⁴ of all faculty ⁵ participating in research	21.00	2.60	30.00	20.00	2.60	19.50	10.00	26.00	45.00	1.00	25.60
<i>Proportion of faculty FTE who participate in research (#2/#1)</i>	1.00	0.15	0.50	0.48	0.14	0.92	0.56	0.47	1.00	0.03	0.76
3. Aggregate FTE ⁶ of all faculty ⁷ that is paid for conducting research by external funding	0.00	0.00	3.00	11.35	0.20	0.00	0.20	1.24	1.60	0.08	5.70
<i>Proportion of total faculty FTE paid by external funding for participating in research (#3/#1)</i>	0.00	0.00	0.05	0.27	0.01	0.00	0.01	0.02	0.04	0.00	0.17
4. How many students are enrolled in a Master's program ⁸ in Optometry?	0	0	0	6	0	0	0	19	14	0	32
5. How many students are enrolled in a PhD program ¹⁰ in optometry?	0	0	0	27	0	0	0	1	0	0	8
6. How many post-doctoral fellows are in optometry?	0	0	0	1	0	2	0	1	2	0	5
7. How many support staff ¹¹ participate in funded research?	1	0	1	8	0	0	0	4	0	0	32
8. # square feet of space in optometry used specifically for clinical research ¹³	300	480	2460	14965	7645	1206	1000	1081	2800	0	9413
9. # square feet of space in optometry used specifically for basic science ¹⁴ or translational research ¹⁵	750	495	1730	13226	6000	0	0	2374	1500	200	2666
10. How many square feet of space in optometry are used specifically for animal care?	0	0	740	1260	0	0	0	1423	0	0	0
11. Federally negotiated on-campus research indirect cost rate ¹⁷	50.0%	Not Applicable ¹⁸	52%	56.0%	Not Applicable	Not Applicable	Not Applicable	78.0%	50.0%	52.0%	54.0%
12. Typical indirect cost rate ¹⁷ for investigator-driven industry-sponsored research	25.0%	Not Applicable	30%	56.0%	Not Applicable	Not Applicable	30.0%	Not Applicable	Not Applicable	52.0%	26.0%
13. Typical indirect cost rate ¹⁷ for contract research (not investigator-driven)	25.0%	Not Applicable	25%	56.0%	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	52.0%	26.0%

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**Association of Schools and Colleges of Optometry
2015-2016 Research Survey - Part I**

(July 1, 2015 - June 30, 2016)

(Includes 22 U.S./Puerto Rican Schools - One school did not participate)

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	PUCO	Salus/PCO	SCCOMBKU	SCO	SUNY	UABSO	UCB	UHCO	UIWRSO	UMLS	WUCO	TOTALS
1. Aggregate full time equivalent (FTE)² of all faculty³ employed by Optometry	31.66	54.05	40.30	58.80	76.80	35.00	64.00	76.05	30.00	21.70	32.80	882.86
2. Aggregate FTE⁴ of all faculty⁵ participating in research	24.68	10.13	18.50	18.00	18.00	22.00	25.00	37.60	5.00	3.00	7.00	392.21
<i>Proportion of faculty FTE who participate in research (#2/#1)</i>	0.78	0.19	0.46	0.31	0.23	0.63	0.39	0.49	0.17	0.14	0.21	0.44
3. Aggregate FTE⁶ of all faculty⁷ that is paid for conducting research by external funding	0.14	4.17	17.00	0.00	5.30	4.60	0.00 ⁸	12.15	0.00	0.00	0.00	66.73
<i>Proportion of total faculty FTE paid by external funding for participating in research (#3/#1)</i>	0.00	0.08	0.42	0.00	0.07	0.13	0.00	0.16	0.00	0.00	0.00	0.08
4. How many students are enrolled in a Master's program⁹ in Optometry?	23	1	7	0	22	4	0	18	0	0	0	146
5. How many students are enrolled in a PhD program¹⁰ in optometry?	0	13	0	0	14	22	40	28	1	0	0	154
6. How many post-doctoral fellows are in optometry?	2	0	0	0	8	5	25	9	0	0	1	61
7. How many support staff¹¹ participate in funded research?	1	4	2	1	29	8	15	29 ¹²	0	0	1	107
8. # square feet of space in optometry used specifically for clinical research¹³	4538	2626	1998	3200	1500	1156	3000	4520	520	1100	1108	66616
9. # square feet of space in optometry used specifically for basic science¹⁴ or translational research¹⁵	4538	4364	1500	0	13800	15500	20000	18000	520	2800	858	110821
10. How many square feet of space in optometry are used specifically for animal care?	0	2277	0	0	4200	0 ¹⁶	500	0 ¹⁶	100	0	160	10660
11. Federally negotiated on-campus research indirect cost rate¹⁷	38.0%	60.0%	60.0%	Not Applicable	62.0%	49.0%	57.0%	50.5%	Not Applicable	51.0%	43.0%	53.9%
12. Typical indirect cost rate¹⁷ for investigator-driven industry-sponsored research	25.0%	Not Applicable	50.0%	Not Applicable	30.0%	30.0%	26.0%	26.0%	Not Applicable	51.0%	20.0%	34.1%
13. Typical indirect cost rate¹⁷ for contract research (not investigator-driven)	25.0%	Not Applicable	50.0%	Not Applicable	30.0%	30.0%	26.0%	Not Applicable	Not Applicable	51.0%	20%-43%	36.0%

Association of Schools and Colleges of Optometry
2015-2016 Research Survey
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Part I Endnotes

¹First entering class will be in fall 2017.

²FTE 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.

³All faculty include tenure track, clinical track, and research track faculty who are paid by optometry.

⁴This 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.

⁵Includes 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.

⁶FTE 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.

⁷Includes 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.

⁸UC does not allow except for summer salary

⁹Includes students in combined OD/MS program and Master's of Public Health if administered by optometry.

¹⁰Includes students in combined OD/PhD program if administered by optometry.

¹¹Includes staff members who are paid from sponsored research projects who work in research for any amount of time.

¹²Includes 9 post-doctoral students.

¹³Clinical 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.

¹⁴Basic research = scientific research to improve scientific theories for improved understanding or prediction of phenomena.

¹⁵Translational research = applied findings from basic science to enhance human health and well-being; translation of fundamental research findings into meaningful health outcomes.

¹⁶For UABSO, all animal care space is outside of the school's space assignments. For UHCO, all animals are in the Animal Care Operations 31,000 sq ft vivariums which are in one of the buildings in which Optometry is housed.

¹⁷These 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.

¹⁸"Not Applicable" indicates that an institution does not have a standard indirect cost rate.

**Association of Schools and Colleges of Optometry
2015-2016 Research Survey - Part II**
(Includes Direct Costs Awarded July 1, 2015 - June 30, 2016)
(Includes 20 of 23 schools; 2 had no awards and 1 did not participate)

	AZCOPT	ICO	IUSO	MCO	MCPHS	NECO	NOVA	NSUOCO	OSU	PUCO	Salus/PCO
By Source:											
Federal, NEI:	\$52,100	\$35,000	\$2,467,823	\$0	\$0	\$632,904	\$286,270	\$0	\$2,008,513	\$3,391	\$1,946,760
Federal, NIH:	\$0	\$0	\$0	\$11,125	\$14,500	\$0	\$0	\$0	\$0	\$0	\$0
Federal, Other:	\$0	\$232,054	\$289,001	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
State:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Private Foundation:	\$115,173	\$0	\$9,993	\$0	\$0	\$29,946	\$30,000	\$0	\$54,500	\$3,743	\$0
Industry:	\$0	\$147,400	\$1,332,723	\$0	\$500	\$0	\$30,000	\$15,596	\$234,519	\$46,002	\$0
Other, Including Subawards:	\$0	\$0	\$17,097	\$46,902	\$0	\$5,000	\$111,306	\$0	\$178,087	\$0	\$104,640
By Science:											
Clinical:	\$52,100	\$182,400	\$914,452	\$44,777	\$15,000	\$34,946	\$141,306	\$0	\$2,040,066	\$53,136	\$1,744,492
Translational:	\$0	\$232,054	\$2,187,574	\$11,500	\$0	\$212,553	\$0	\$15,596	\$116,664	\$0	\$0
Basic:	\$115,173	\$0	\$965,500	\$1,750	\$0	\$370,097	\$167,000	\$0	\$277,525	\$0	\$306,908
Training Grant:	\$0	\$0	\$49,111	\$0	\$0	\$50,254	\$149,270	\$0	\$41,364	\$0	\$0
Other:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$167,273	\$414,454	\$4,116,637	\$58,027	\$15,000	\$667,850	\$457,576	\$15,596	\$2,475,619	\$53,136	\$2,051,400

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Association of Schools and Colleges of Optometry

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	SCCOMBKU	SCO	SUNY	UABSO	UCB	UHCO	UIWRSO	UMSL	WUCO	GRAND TOTALS
By Source:										
Federal, NEI:	\$124,742	\$0	\$1,768,343	\$1,320,247	\$8,507,694	\$4,331,850	\$0	\$0	\$0	\$23,485,637
Federal, NIH:	\$0	\$30,170	\$0	\$734,421	\$0	\$69,387	\$0	\$0	\$1,051	\$860,654
Federal, Other:	\$0	\$0	\$0	\$115,342	\$688,585	\$15,169	\$0	\$0	\$0	\$1,340,151
State:	\$0	\$0	\$125,191	\$0	\$0	\$0	\$0	\$0	\$0	\$125,191
Private Foundation:	\$0	\$11,000	\$47,983	\$581,097	\$561,617	\$185,268	\$20,000	\$0	\$0	\$1,650,320
Industry:	\$15,979	\$20,320	\$712,543	\$186,107	\$1,344,971	\$46,380	\$5,000	\$13,514	\$175,500	\$4,327,054
Other, Including Subawards:	\$0	\$3,570	\$34,988	\$418,022	\$0	\$0	\$0	\$0	\$0	\$919,612
By Science:										
Clinical:	\$124,742	\$64,068	\$492,005	\$490,763	\$1,168,214	\$397,694	\$0	\$0	\$176,551	\$8,136,712
Translational:	\$15,979	\$0	\$0	\$764,931	\$2,129,463	\$1,698,765	\$20,000	\$13,514	\$0	\$7,418,593
Basic:	\$0	\$0	\$2,153,831	\$2,096,832	\$5,625,466	\$2,354,521	\$0	\$0	\$0	\$14,434,603
Training Grant:	\$0	\$0	\$43,211	\$2,710	\$1,680,348	\$197,074	\$0	\$0	\$0	\$2,213,342
Other:	\$0	\$992	\$0	\$0	\$499,376	\$0	\$5,000	\$0	\$0	\$505,368
Total	\$140,721	\$65,060	\$2,689,048	\$3,355,236	\$11,102,867	\$4,648,054	\$25,000	\$13,514	\$176,551	\$32,708,618

Association of Schools and Colleges of Optometry
2015-2016 Research Survey
(July 1, 2015 - June 30, 2016)

Part II Definitions

Clinical	Healthcare science that determines safety & efficacy of medications, devices, and treatments for human use.
Tranlational	Applied findings from basic science to enhance human health and well-being.
Basic	Scientific research to improve understanding or prediction of phenomena. If science is basic and translational, then it is called translational. If science is translational and clinical, then it is called clinical. These definitions were adapted from several sources.
Federal: NIH	All other NIH institutes except National Eye Institute.
Federal: Other	National Science Foundation, Department of Defense, etc.