

Annual Surveys

Association of Chairs of Departments of Physiology 2017 Survey Results

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The Association of Chairs of Departments of Physiology (ACDP) annual survey was sent electronically to 201 physiology or physiology-related departments throughout the U.S., Canada, Mexico, and Puerto Rico. A total of 60 partial or complete surveys were returned, for a response rate of 29%. This rate is higher than last year's response rate of 25%. Of the 60 surveys received, there were 14 private and 44 public medical schools, and 1 private and 1 public non-medical school. We continue to encourage more of our colleagues to respond so that we can have more robust data that will benefit all.

These data provide the reader with general trends of faculty demographics and distribution, overall departmental budgets, and space available for research. As a reminder, beginning in 2004, ACDP decided not to include faculty salary information in this report. AAMC salary data is more generally used, so the ACDP Council decided to no longer collect or report these data.

Data were collected on title, years in position, tenure status, gender, and ethnicity/race of faculty members (Table 1). Table 2 contains information on the average number of student contact hours for faculty in the lab, classroom, and small discussion groups and the type of teaching interactions for the department (MD/DO, DVM, allied health, etc.). Also included is information on the type of medical physiology course being taught (note that departments teach multiple class types, accounting for the fact that the numbers do not add up to the total respondents).

Table 3 focuses on student/trainee information. Information is included on the gender and number of U.S. citizen/resident alien vs. foreign pre- and postdoctoral students, gender and ethnicity of the U.S. citizen/resident alien predoctoral and postdoctoral fellows, and gender and country of origin of the foreign predoctoral and postdoctoral fellows. Also shown are the number of predoctoral trainee completions by gender, the number of U.S. citizen/resident alien postdoctoral completions by gender and ethnicity, and the number of foreign postdoctoral completions by gender and country of origin. The type of support that is used for foreign pre-

Table 1a.

Faculty Summary Based on Position (n=945)							
	Male		Female		Gender Not Given	Total Number	Total Average No. Years in Position
	No.	Average No. Years in Position	No.	Average No. Years in Position			
Chair	39	14.4	9	8.4	1	49	13.1
Professor	319	15.2	93	11.5		412	14.4
Assistant Professor	125	5.4	60	4.1		185	5
Associate Professor	171	8.2	68	6.7		239	7.8
Instructor	27	6	27	7		54	6.5
Rank not given	4	9.8	2	4.5		6	8
Total	685		259		1	945	

and postdoctoral students is included, as are the average stipends paid to all pre- and postdoctoral students by the departments. For faculty reported ($n = 49$), an average of 54% (SD = 22%) of the faculty had either graduate students or postdoctoral fellows in their laboratories.

Institutional information is provided in Table 4 in terms of the type of institution (public or private) and the average square footage of space occupied by the departments for research, teaching, administration, and other purposes.

Departmental budget information (Table 5) shows average dollar amounts for type of support (institutional

hard money, research grants, training grants, endowments, indirect cost recovery). Numbers for all departments are reported, as are the data broken out by public medical and private medical schools. Because only two non-medical departments reported, those data were not reported separately but are included in the combined data. Financial information is also given, including fringe benefit rate, federally negotiated indirect cost rates for both on and off campus, allocated salary dollars from grants directly returned to the departments, percentage of indirect costs returned to the departments, percentage of total faculty salaries derived from research grants, and percentage of faculty having extramural research funding greater than \$100,000/yr.

Table 1b.

Faculty Summary Based on Race and Ethnicity (n=945)			
	Male	Female	Total
Asian/Pacific Islander	111	43	154
Black (not Hispanic)	8	1	9
Hispanic	32	16	48
Native American	0	1	1
White (not Hispanic)	499	189	688
Foreign National	35	10	45
Total	685	260	945

Table 6 ranks responding departments according to their total dollars (institutional hard money, research grants, etc.), research grant dollars (direct or direct plus indirect, as appropriate), research dollars per faculty member, departmental research space, and research dollars per research space. Total number of faculty in each department is also shown.

For an update of AAMC salary data, please see the accompanying article “AAMC Medical School Faculty Compensation Survey” (p. 181). ●

Table 1c.

Tenure Status in Each Department by Degree (n=945)									
	Tenured		Not Tenured But Eligible		Not Eligible		Not identified		Total
	No.	Yrs in position	No.	Yrs in position	No.	Yrs in position	No.	Yrs in position	
MD	9	10.3	9	4.9	9	17.3	1	1	28
PhD	553	13.1	150	3.7	129	7.5	7	3.8	839
2 Doctorates	43	9.9	7	2.6	21	9.3			71
Other	1	4			6	9.3			7
Total	606		166		165		8		945

Table 2a.

Medical Physiology Course Type			
	Yes	No	Total Responded
Integrated Course (Systems based)	40	11	51
Traditional (Discipline-based)	26	26	52
Integrated Preclinical Curriculum	39	13	52

Table 2c.

Teaching Interactions with Students in Fields of Study (n=60 departments)		
	No. of Depts.	%
M.D./D.O	49	82
D.D.S	17	28
D.V.M.	8	13
Allied Health	27	45
Pharmacy	10	17
Other Biomedical	41	68
Life Science	33	55
Bioengineering	31	52
Other	11	18

Other includes pre-professional and graduate students (both MS and PhD)

Table 3b.

Race/Ethnicity of U.S. Citizen/Resident Alien Pre- and Postdoctoral Students/Trainees (n=50 departments)				
	Pre-doctoral		Postdoctoral	
	Male	Female	Male	Female
Native American	1	1	1	1
Asian/Pacific Islander	32	35	33	30
Black (not Hispanic)	20	25	4	6
Hispanic	21	27	14	15
White (not Hispanic)	233	221	99	67
Total	307	309	151	119

Table 2b.

Student Contact Hours for Faculty per Year			
	Student Type	Average (hours)	No. of Depts.
Lab Hours	Graduate	231	34
	Medical	55	28
	Other	261	15
Lectures	Graduate	70	48
	Medical	47	46
	Other	119	29
Small Group	Graduate	45	31
	Medical	25	39
	Other	54	18

Table 3a.

Student/Trainee Summary (n=50 departments)				
	Pre-doctoral		Postdoctoral	
	Male	Female	Male	Female
US Citizen/Resident Alien	307	309	151	119
Foreign	86	98	182	127
Total	393	407	333	246

Table 3c.

U.S. Citizen/Resident Alien Predoctoral Trainee Completions (as of June 30, 2017) (n=50 depts.)		
	Male	Female
Native American		
Asian/Pacific Islander	6	11
Black (not Hispanic)	2	7
Hispanic	3	3
White (not Hispanic)	51	42
Total	62	63

Table 3d.

Number of Foreign Pre- and Postdoctoral Students/Trainees				
	Predoctoral (n=50 depts.)		Postdoctoral (n=44 depts.)	
	Male	Female	Male	Female
African	2	3	2	0
Asian/Pacific Islander	44	54	99	53
Central/South American	6	3	16	16
European/Canadian, etc.	12	9	29	40
Middle Eastern	19	28	24	11
Other	3	1	12	7
Total	86	98	182	127

Table 3e.

Foreign National Predoctoral Trainee Completions (as of June 30, 2017) (n=26 depts.)		
	Male	Female
African	0	0
Asian/Pacific Islander	16	19
Central/South American	2	3
European/Canadian, etc.	0	1
Middle Eastern	1	7
Other	1	0
Total	20	30

Table 3g.

Primary Source of Support for Foreign Pre- and Postdoctoral Trainees (n=40 depts.)		
	Pre-doctoral	Postdoctoral
Institutional	105	28
Research Grants	135	257
Private Foundations	7	16
Home (foreign) Government	18	14
Other	5	9
Total	270	324

Table 4a.

Type of Institution		
	Medical	Non-medical
Private	14	1
Public	44	1
Total	58	2

Table 5a.

Budget by Institution									
	All institutions	No. of Depts.	Mean No. of Faculty	Private Medical	No. of Depts.	Mean No. of Faculty	Public Medical	No. of Depts.	Mean No. of Faculty
Institutional (Hard money, e.g., operating costs, state allocations)	2,325,116	51	19	1,902,965	14	16	2,428,872	36	20
Outside Research Grants and Contracts (direct costs only)	4,203,727	49	19	5,158,253	12	18	3,992,798	36	20
Training Grants (direct costs only)	277,839	19	19	326,236	6	20	255,581	13	19
Endowments	591,107	35	19	827,213	10	17	514,359	24	20
Indirect Cost Recovery (amount returned to your department)	386,493	35	20	1,053,973	6	21	248,394	29	20
Other Budget Support	721,143	32	19	1,308,683	7	17	556,632	25	20
Average Departmental Budget	7,590,904	51		8,161,050	14		7,443,514	36	
SD	4,974,031			4,914,878			4,410,629		
Total faculty			945			224			703

Non-medical: only 2 depts. responded so those numbers are not presented separately but are included in All Institutions

Table 3f.

Total Predoctoral Trainee Completions During the Year Ending June 30, 2017 (n=50 depts.)	
	Total
Female	93
Male	82
Total	175

Table 3h.

Average Annual Stipend (U.S. \$)		
	Average	No. of Institutions
Postdoctoral	\$45,362	46
Pre-doctoral	\$26,434	48

Table 4b.

Space Controlled by Department		
	Average Space (sq. ft.)	No. of Depts
Research Space	21,251	51
Administrative Space	3,335	50
Teaching Space	2,374	28
Other Space	2,736	30
Total	27,434	51

Other includes common space, prep room, storage, core facilities, offices

Table 5b.

Financial Information		
	Average %	No. of Depts.
Current fringe benefit rate most frequently used for primary faculty	31	51
Federally negotiated indirect cost rate for FY 16-17 off campus	28	46
Federally negotiated indirect cost rate for FY 16-17 on campus	52	49
Percentage of allocated salary dollars from grants directly returned to your department	64	28
Percentage of indirect costs returned to your department	15	33
Percentage of total faculty salaries derived from research grants (does not include fringe benefits costs)	34	47
Percentage of faculty having extramural research funding greater than \$100,000/year	57	49

Table 6

Complete Ranking According to Total Dollars										
Rank Total Dollars	Total Dollars	Rank Research Grant Dollars	Research Grant Dollars	Rank Research Dollars/Faculty	Research Dollars/Faculty	Rank Research Space	Research Space	Rank Research Dollars/sqft	Research Dollars/sqft	No. of Faculty
1	23,820,179	1	15,150,897	3	459,118	8	34,591	2	438	33
2	23,373,892	2	10,161,685	5	441,812	3	49,195	28	207	23
3	17,360,792	8	7,283,353	6	404,631	7	36,042	29	202	18
4	14,728,306	11	6,222,893	20	239,342	22	19,877	8	313	26
5	14,087,764	3	9,678,702	1	537,706	12	29,133	7	332	18
6	13,780,358	5	8,904,468	15	278,265	5	38,298	15	233	32
7	13,273,261	7	7,296,000	8	384,000	19	21,913	6	333	19
8	12,414,835	6	8,610,377	4	453,178	4	48,939	31	176	19
9	12,385,791	4	9,032,008	7	392,696	6	36,048	12	251	23
10	11,247,222	12	6,013,734	25	193,991	13	26,020	16	231	31
11	11,209,309	9	6,800,000	26	188,889	46	10,414	1	653	36
12	10,349,779	27	3,535,299	24	196,406	28	16,975	27	208	18
13	10,165,779	22	3,984,335	9	362,212	44	11,100	5	359	11
14	9,307,081	17	4,620,780	27	184,831	14	25,358	30	182	25
15	8,976,711	16	4,644,385	22	221,161	9	32,658	35	142	21
16	8,513,890	23	3,975,695	21	233,864	23	19,053	26	209	17
17	8,059,822	14	4,836,891	2	483,689	29	16,729	9	289	10
18	8,009,257	13	5,013,060	10	358,076	18	22,095	17	227	14
19	7,643,743	10	6,790,464	13	282,936	11	31,313	22	217	24
20	7,385,226	21	4,012,806	16	267,520	31	15,916	11	252	15
21	7,271,654	15	4,739,132	11	296,196	17	22,395	24	212	16
22	7,173,116	30	2,915,409	41	107,978	24	18,715	33	156	27
23	7,139,113	26	3,724,738	28	177,368	20	21,450	32	174	21
24	6,282,000	18	4,300,000	12	286,667	43	11,427	4	376	15
25	6,011,771	24	3,859,819	17	257,321	27	17,096	18	226	15
26	6,006,594	28	3,197,136	36	127,885	35	14,492	20	221	25
27	5,878,750	35	2,317,766	37	121,988	10	31,563	43	73	19
28	5,861,539	19	4,241,204	14	282,747	33	15,065	10	282	15

29	5,763,687	25	3,789,066	18	252,604	32	15,399	13	246	15
30	5,755,976	37	1,947,991	30	162,333	26	18,355	38	106	12
31	5,411,774	31	2,728,793	29	170,550	39	12,484	21	219	16
32	5,310,356	29	2,929,267	32	154,172	40	12,475	14	235	19
33	5,288,500	44	1,350,000	46	48,214	16	24,166	46	56	28
34	5,263,393	40	1,475,309	47	47,591	2	49,427	47	30	31
35	4,978,006	20	4,100,000	33	151,852	48	10,100	3	406	27
36	4,914,878	49	342,878	49	16,328	25	18,500	48	19	21
37	4,487,681	34	2,571,231	34	151,249	15	25,000	39	103	17
38	4,156,364	33	2,629,853	23	202,296	37	12,507	25	210	13
39	3,989,680	43	1,402,260	43	93,484	36	12,914	37	109	15
40	3,902,091	32	2,663,824	31	156,696	41	12,048	19	221	17
41	3,877,456	45	1,278,047	44	91,289	34	14,774	41	87	14
42	3,797,659	46	1,146,133	48	45,845	45	10,555	36	109	25
43	3,753,201	39	1,628,871	35	135,739	21	21,368	42	76	12
44	3,742,119	38	1,780,495	40	111,281	42	11,623	34	153	16
45	3,292,341	36	2,188,521	19	243,169	47	10,334	23	212	9
46	2,891,389	41	1,422,702	42	101,622					14
47	2,824,693	42	1,406,877	39	117,240	30	16,056	40	88	12
48	2,033,309	47	827,485	38	118,212	38	12,500	44	66	7
49	1,642,388	48	510,000	45	56,667	49	8,289	45	62	9
50	1,320,000					51	2,975			
51	1,021,620					50	3,088			



AAMC Medical School Faculty Compensation Survey

Each year the American Association of Medical Colleges (AAMC) surveys all the U.S. medical schools as to faculty compensation. Because of this, the ACDP (see “Association of Chairs of Departments of Physiology 2017 Survey Results” on p. 175) no longer collects the same data from its members.

As a supplement to the ACDP survey, the AAMC has agreed to allow the APS to publish selected results from their survey.

Table 1 shows the regional distribution of medical schools responding to the AAMC survey in terms of public medical and private medical. Also shown is the number of physiology departments in those regions that responded (with either PhD or MD Chairs). For the fiscal year 2016–2017, 145 of 146 medical schools responded, and 71 physiology departments responded.

Summary statistics on faculty compensation in physiology departments for PhD and MD faculty are given in Table 2. For the purposes of this report, faculty who hold both an MD or equivalent degree and a PhD or other doctoral degree are included in the “MD or Equivalent Degree” tables, regardless of whether the degrees were earned simultaneously.

The total compensation equaled the fixed/contractual salary component (exclusive of fringe benefits) of total compensation plus the supplemental earnings components of total compensation (medical practice supplement, bonus/incentive pay, and known uncontrolled outside earnings) for the 12-month period spanning 2016–2017.

Shown are 25th percentile, median, 75th percentile, and mean salaries for the given number of faculty. For any group that has less than five faculty, data are not reported.

Table 3 shows the changes in salary that have occurred over the past 3 years for both PhD and MD faculty, with the percent change over the past 2 years.

Summary salary statistics for separate regions of the country for both PhD and MD faculty are given in Table 4. Once more, faculty who hold both an MD or equivalent degree and a PhD or other doctoral degree are included in the “MD or Equivalent Degree” tables. Given again are 25th percentile, median, 75th percentile, and mean salaries for the given number of faculty.

Table 5 shows the salary comparison between PhD and MD faculty in all basic science departments vs. those specifically in physiology departments. ●

Table 1. Distribution of Medical Schools Responding to AAMC Medical School Faculty Compensation Survey

		Northeast	Midwest	South	West	TOTAL
All	Private Medical	27	12	13	4	56
	Public Medical	13	22	38	16	89
Physiology	All Medical Schools	15	18	30	8	71

Table 2. Summary Statistics on Physiology Department PhD and MD Faculty Compensation

PhD Faculty		25th	Median	75th	Mean	No. of Faculty
Chair	All Schools	228,000	286,000	323,000	285,400	59
	Medical Public	228,000	281,000	307,000	269,300	41
	Medical Private	243,000	317,000	401,000	322,200	18
Chief	All Schools	160,000	177,000	289,000	214,600	5
	Medical Public					4
	Medical Private					1
Professor	All Schools	144,000	173,000	206,000	179,900	517
	Medical Public	144,000	170,000	198,000	178,400	350
	Medical Private	144,000	180,000	220,000	183,000	167
Assoc. Prof.	All Schools	107,000	120,000	135,000	122,700	314
	Medical Public	106,000	119,000	134,000	120,100	225
	Medical Private	110,000	120,000	141,000	129,200	89
Asst. Prof.	All Schools	75,000	93,000	105,000	91,200	330
	Medical Public	75,000	90,000	102,000	89,200	228
	Medical Private	77,000	97,000	112,000	95,800	102
Instructor	All Schools	53,000	60,000	66,000	59,800	88
	Medical Public	51,000	59,000	65,000	58,800	47
	Medical Private	55,000	60,000	70,000	61,000	41

MD Faculty		25th	Median	75th	Mean	No. of Faculty
Chair	All Schools	287,000	346,000	483,000	379,100	12
	Medical Public	261,000	295,000	401,000	326,800	9
	Medical Private					3
Chief	All Schools					1
	Medical Public					1
	Medical Private					0
Professor	All Schools	158,000	194,000	240,000	202,200	65
	Medical Public	164,000	192,000	239,000	206,700	37
	Medical Private	131,000	197,000	247,000	196,300	28
Assoc. Prof.	All Schools	107,000	122,000	138,000	124,600	25
	Medical Public	102,000	118,000	122,000	113,400	11
	Medical Private	113,000	129,000	145,000	133,400	14
Asst. Prof.	All Schools	68,000	89,000	102,000	88,800	24
	Medical Public	63,000	83,000	98,000	83,800	16
	Medical Private	86,000	101,000	118,000	98,900	8
Instructor	All Schools					4
	Medical Public					2
	Medical Private					2

For less than 5 faculty, data are not reported

Table 3. Change in Total Compensation for Physiology Department PhD and MD Faculty

PhD Faculty							
2016 - 2017		2015 - 2016		2014 - 2015		% Change 2015 - 2016 to 2016 - 2017	
Mean	Median	Mean	Median	Mean	Median	Mean	Median
139,200	125,000	136,200	125,000	131,600	122,000	2.2	0

Mean and median values were combined for Assistant, Associate, and Professor

MD Faculty							
2016 - 2017		2015 - 2016		2014 - 2015		% Change 2015 - 2016 to 2016 - 2017	
Mean	Median	Mean	Median	Mean	Median	Mean	Median
161,300	141,000	154,500	147,000	149,500	143,000	4.4	-4.1

Mean and median values were combined for Assistant, Associate, and Professor

Table 4. Summary Statistics on Physiology Department PhD and MD Faculty Compensation by Region

PhD Faculty		Northeast	Midwest	South	West
Chair	25th	246,000	243,000	219,000	225,000
	Median	294,000	291,000	261,000	298,000
	75th	336,000	372,000	317,000	347,000
	Mean	306,900	301,700	265,400	285,100
	Total faculty	12	15	25	7
Chief	25th				
	Median				
	75th				
	Mean				
	Total faculty	0	2	3	0
Professor	25th	154,000	143,000	136,000	152,000
	Median	177,000	175,000	166,000	185,000
	75th	205,000	221,000	197,000	210,000
	Mean	176,800	183,800	171,100	195,400
	Total faculty	94	143	190	90
Assoc. Prof.	25th	115,000	106,000	104,000	109,000
	Median	125,000	117,000	117,000	119,000
	75th	140,000	136,000	135,000	128,000
	Mean	131,200	121,500	119,600	122,000
	Total faculty	61	97	125	31

Table 4. Summary Statistics on Physiology Department PhD and MD Faculty Compensation by Region continued

		Northeast	Midwest	South	West
Asst. Prof.	25th	75,000	75,000	71,000	78,000
	Median	99,000	95,000	89,000	97,000
	75th	115,000	104,000	102,000	116,000
	Mean	95,300	91,100	87,600	98,800
	Total faculty	67	98	135	30
Instructor	25th	53,000	44,000	54,000	56,000
	Median	63,000	51,000	58,000	62,000
	75th	73,000	62,000	64,000	71,000
	Mean	63,900	54,100	58,400	62,500
	Total faculty	17	14	35	22
MD Faculty					
		Northeast	Midwest	South	West
Chair	25th			293,000	
	Median			300,000	
	75th			401,000	
	Mean			337,400	
	Total faculty	3	3	5	1
Chief	25th				
	Median				
	75th				
	Mean				
	Total faculty	1	0	0	0
Professor	25th	178,000	135,000	135,000	166,000
	Median	230,000	160,000	188,000	175,000
	75th	275,000	217,000	226,000	232,000
	Mean	219,000	172,600	191,000	204,700
	Total faculty	23	5	24	13
Assoc. Prof.	25th		102,000	113,000	
	Median		125,000	121,000	
	75th		164,000	136,000	
	Mean		129,100	122,900	
	Total faculty	3	10	10	2
Asst. Prof.	25th		88,000	63,000	
	Median		98,000	78,000	
	75th		113,000	89,000	
	Mean		99,300	79,800	
	Total faculty	1	6	14	3
Instructor	25th				
	Median				
	75th				
	Mean				
	Total faculty	2	2	0	1

For less than 5 faculty, data are not reported

Table 5. Salary comparison between all basic science departments and physiology departments for both PhD and MD faculty

		All Basic Science Depts-PhDs	Physiology PhDs	All Basic Science Depts-MDs	Physiology MDs
Chair	25th	239,000	228,000	290,000	287,000
	Median	299,000	286,000	376,000	346,000
	75th	353,000	323,000	467,000	483,000
	Mean	303,900	285,400	394,700	379,100
	Total faculty	507	59	114	12
Chief	25th	165,000	160,000	251,000	
	Median	214,000	177,000	306,000	
	75th	301,000	289,000	377,000	
	Mean	248,800	214,600	318,500	
	Total faculty	55	5	20	1
Professor	25th	152,000	144,000	173,000	158,000
	Median	181,000	173,000	215,000	194,000
	75th	222,000	206,000	270,000	240,000
	Mean	193,300	179,900	232,400	202,200
	Total faculty	4,278	517	610	65
Assoc. Prof.	25th	108,000	107,000	118,000	107,000
	Median	124,000	120,000	138,000	122,000
	75th	143,000	135,000	176,000	138,000
	Mean	128,100	122,700	155,400	124,600
	Total faculty	3,432	314	345	25
Asst. Prof.	25th	81,000	75,000	85,000	68,000
	Median	98,000	93,000	111,000	89,000
	75th	115,000	105,000	146,000	102,000
	Mean	99,600	91,200	125,400	88,800
	Total faculty	4,117	330	392	24
Instructor	25th	55,000	53,000	64,000	
	Median	61,000	60,000	75,000	
	75th	73,000	66,000	113,000	
	Mean	68,200	59,800	92,400	
	Total faculty	660	88	70	4