

2017-2018 Faculty Salaries Report

Amanda L. Golbeck, Thomas H. Barr, and Colleen A. Rose

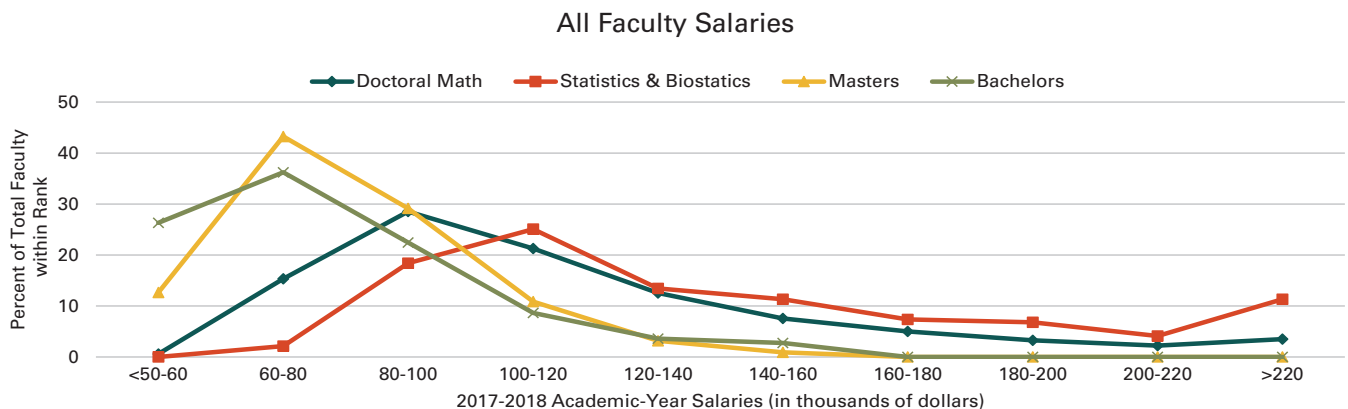
This salary report is one part of the Annual Survey of Mathematical Sciences, a nation-wide survey administered by the AMS on behalf of the American Statistical Association (ASA), the Institute for Mathematical Statistics (IMS), the Mathematical Association of America (MAA), and the Society for Industrial and Applied Mathematics (SIAM). It provides a look at the salaries of faculty in the Mathematical Sciences in the US by rank in several different department groupings based on discipline, highest degree offered, and graduate counts. The graphs here are identified by those group names, and the group definitions are given at the end of the report.

Departments were asked to report for each rank the number of tenured and tenure-track faculty whose 2017-18 academic-year salaries fell within given salary intervals. Reporting salary data in this fashion ensures confidentiality of individual responses, though it does mean that the quartiles reported in the tables are approximations. The quartiles reported have been estimated assuming that the density over each interval is uniform.

Note: In the graphics for all faculty salaries, and the Masters and Bachelors Groups, the percentages scales range from 0 to 50, while the scales for all other groups is 0 to 100.

Faculty Salary Reports from prior years are at www.ams.org/annual-survey/salaries. Interpretation of historical trends should be made with care. For instance, one factor influencing year to year changes in the mean reported salaries may be differences in the set of responding departments within the groups.

The first graphic below provides a coarse comparative view of faculty salaries among four broad groups: departments whose highest degree is a (1) PhD in mathematics (including applied mathematics departments), (2) PhD in statistics or biostatistics, (3) masters degree in mathematics, and (4) bachelors degree in mathematics. In the remainder of this report, salary distributions are broken down within finer departmental categories and by faculty rank.

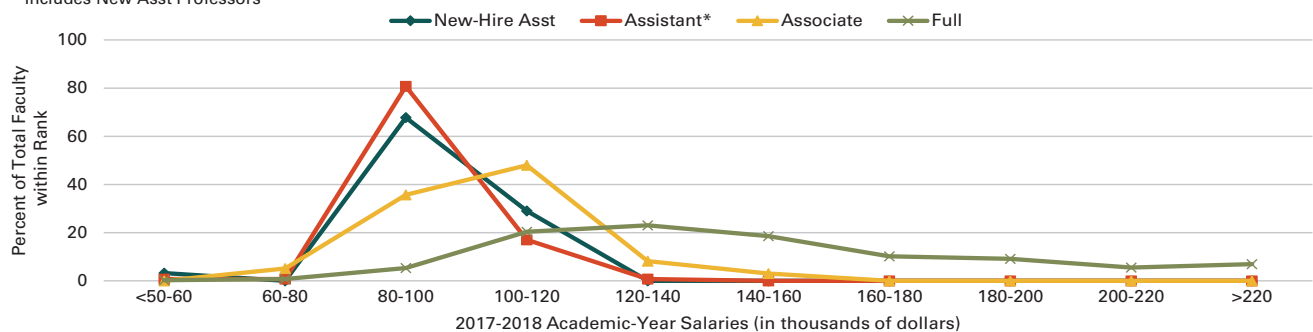


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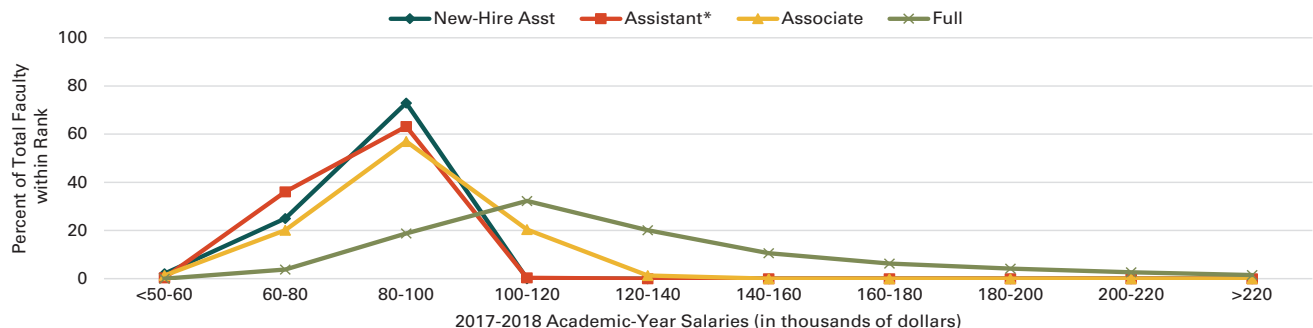
Math Public Large Group Faculty Salaries							
21 responses out of 26 departments (81%)							
Rank	2017-2018						2016-17
	Gender	No. Reported	Q1	Median	Q3	Mean	Mean
New Asst Professors	All	31	91,100	93,900	101,000	93,358	88,201
	Male	24	91,100	93,900	101,400	93,096	88,832
	Female	7	91,300	93,800	95,000	94,257	86,150
Assistant Professor*	All	135	90,600	93,400	98,100	93,525	90,230
	Male	106	90,700	93,500	98,400	93,849	90,209
	Female	29	90,200	93,100	97,200	92,342	90,293
Associate Professor	All	196	91,800	101,500	111,900	102,487	97,877
	Male	152	91,100	101,500	112,600	102,297	98,039
	Female	44	95,400	101,600	110,500	103,144	97,402
Full Professor	All	777	118,700	140,400	173,500	150,030	144,661
	Male	698	118,800	140,100	174,500	150,617	145,099
	Female	79	117,300	142,100	157,700	144,846	140,581

* Includes New Asst Professors



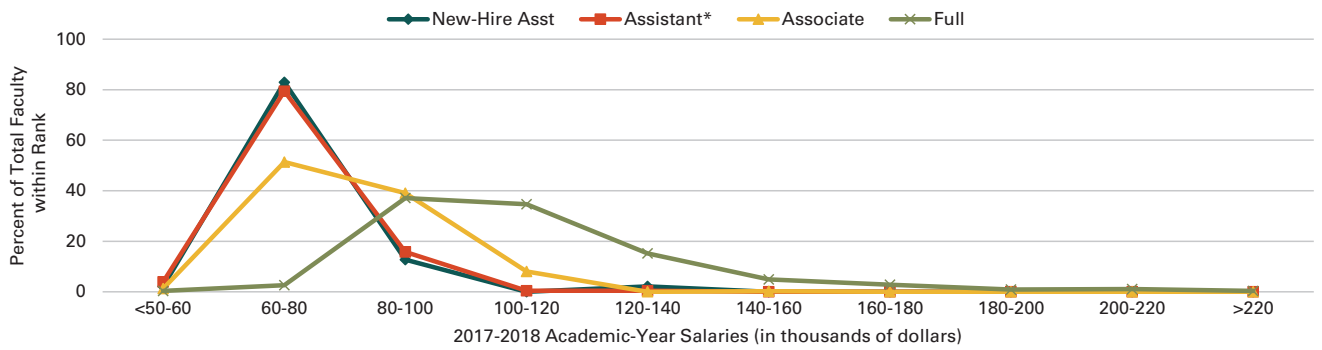
Math Public Medium Group Faculty Salaries							
36 responses out of 40 departments (90%)							
Rank	2017-2018						2016-17
	Gender	No. Reported	Q1	Median	Q3	Mean	Mean
New Asst Professors	All	48	79,100	84,100	88,300	81,591	81,135
	Male	35	80,800	84,600	88,500	82,501	80,271
	Female	13	73,100	81,700	88,100	79,143	83,267
Assistant Professor*	All	258	77,700	82,500	88,300	82,416	80,982
	Male	187	78,200	82,800	88,400	82,796	81,419
	Female	71	76,500	81,600	88,100	81,417	79,899
Associate Professor	All	309	81,300	89,400	98,800	90,222	89,848
	Male	245	81,000	89,000	98,100	89,684	88,374
	Female	64	82,800	91,300	100,600	92,280	94,155
Full Professor	All	691	100,700	116,900	140,200	124,180	120,906
	Male	615	101,000	117,700	140,600	124,737	121,531
	Female	76	97,800	104,100	135,000	119,669	114,804

* Includes New Asst Professors



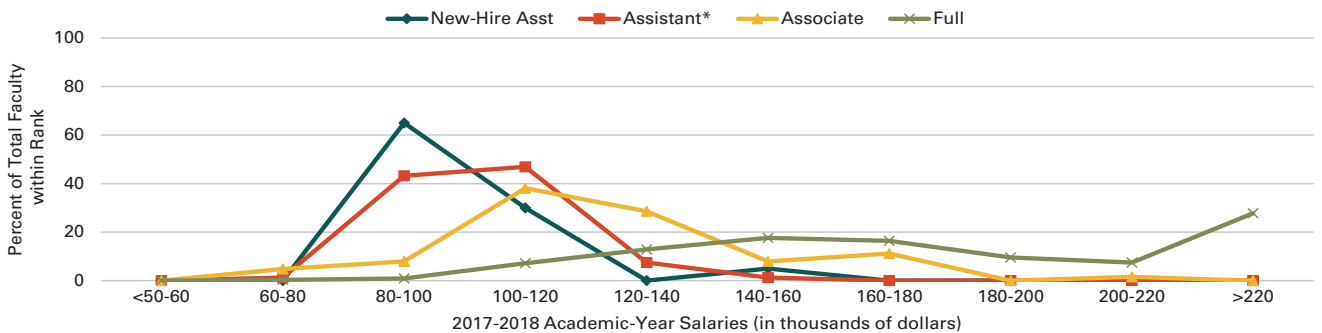
Math Public Small Group Faculty Salaries							
49 responses out of 68 departments (72%)							
Rank	2017-2018						2016-17
	Gender	No. Reported	Q1	Median	Q3	Mean	Mean
New Asst Professors	All	47	71,200	74,700	78,500	75,050	68,552
	Male	37	71,600	75,300	78,500	75,709	68,747
	Female	10	67,500	73,100	78,300	72,610	68,245
Assistant Professor*	All	253	68,700	73,700	78,400	73,518	72,019
	Male	174	68,500	74,000	78,300	73,580	71,720
	Female	79	69,100	73,200	78,600	73,380	72,750
Associate Professor	All	397	72,900	79,300	86,900	80,957	80,415
	Male	295	73,200	79,800	87,500	81,356	80,966
	Female	102	72,200	77,800	84,500	79,802	79,052
Full Professor	All	566	92,400	102,400	120,400	110,163	116,357
	Male	481	92,800	103,000	122,800	111,491	120,080
	Female	85	91,500	99,400	104,700	102,646	96,558

* Includes New Asst Professors



Math Private Large Group Faculty Salaries							
16 responses out of 24 departments (67%)							
Rank	2017-2018						2016-17
	Gender	No. Reported	Q1	Median	Q3	Mean	Mean
New Asst Professors	All	20	92,500	97,500	103,100	94,575	99,841
	Male	16	91,500	96,100	98,900	94,781	88,832
	Female	4	111,700	102,500	152,500	93,750	86,150
Assistant Professor*	All	81	93,900	101,000	111,600	100,837	97,863
	Male	62	94,000	100,400	104,700	101,436	90,209
	Female	19	92,500	102,900	115,000	98,881	90,293
Associate Professor	All	63	102,200	118,800	135,000	121,560	119,792
	Male	57	102,300	120,800	137,000	122,584	98,039
	Female	6	101,700	112,500	125,000	111,825	97,402
Full Professor	All	335	144,500	173,300	221,100	186,825	178,954
	Male	304	145,200	174,200	221,000	187,410	145,099
	Female	31	138,000	165,000	222,000	181,095	140,581

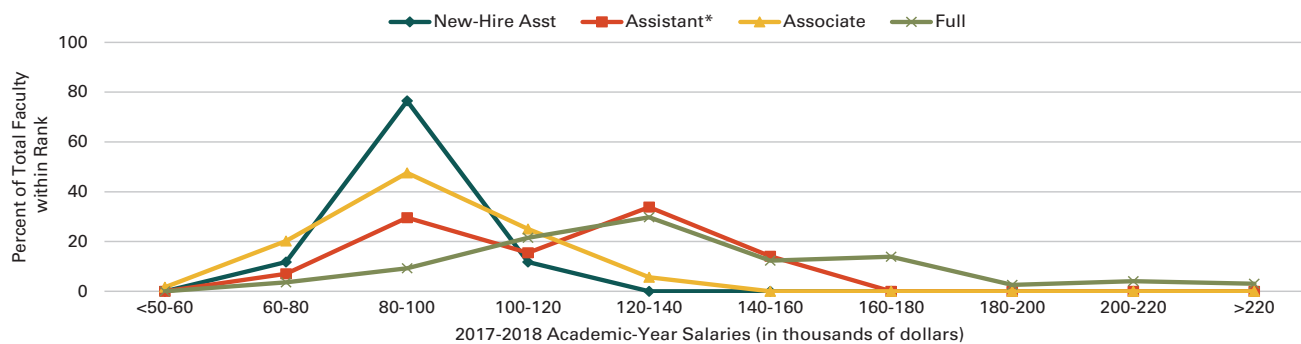
* Includes New Asst Professors



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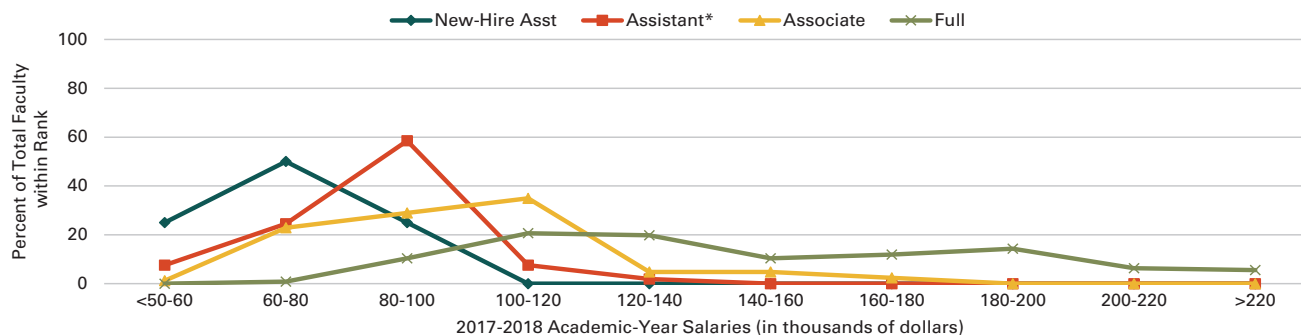
Math Private Small Group Faculty Salaries							
19 responses out of 29 departments (66%)							
Rank	2017-2018						2016-17
	Gender	No. Reported	Q1	Median	Q3	Mean	Mean
New Asst Professors	All	17	85,200	87,300	89,300	87,116	82,600
	Male	10	85,700	87,500	89,300	86,763	86,333
	Female	7	82,500	87,000	89,000	87,621	77,000
Assistant Professor*	All	71	80,400	86,500	90,700	85,779	84,908
	Male	54	81,100	86,900	91,700	86,280	85,529
	Female	17	77,500	85,700	88,900	84,186	83,188
Associate Professor	All	124	81,900	91,700	101,800	92,447	89,683
	Male	98	82,900	92,100	102,100	92,788	89,582
	Female	26	80,800	88,100	101,000	91,161	90,074
Full Professor	All	195	112,700	130,700	157,500	128,166	122,420
	Male	176	112,600	131,000	157,700	138,517	132,750
	Female	19	113,300	126,700	155,000	130,407	128,027

* Includes New Asst Professors



Applied Mathematics Group Faculty Salaries							
14 responses out of 23 departments (61%)							
Rank	2017-2018						2016-17
	Gender	No. Reported	Q1	Median	Q3	Mean	Mean
New Asst Professors	All	4	71,300	76,300	96,300	75,500	85,611
	Male	4	71,300	76,300	96,300	75,500	88,832
	Female	0	-	-	-	-	86,150
Assistant Professor*	All	53	75,500	92,100	97,800	86,198	85,570
	Male	44	71,900	91,500	97,700	84,949	90,209
	Female	9	86,300	95,300	98,100	92,305	90,293
Associate Professor	All	83	80,600	98,500	112,700	98,925	94,766
	Male	73	81,300	101,300	113,900	100,802	98,039
	Female	10	78,300	81,800	96,700	85,220	97,402
Full Professor	All	126	114,400	138,300	182,000	147,856	149,211
	Male	112	114,600	140,600	182,800	148,153	145,099
	Female	14	113,300	131,700	165,000	145,476	140,581

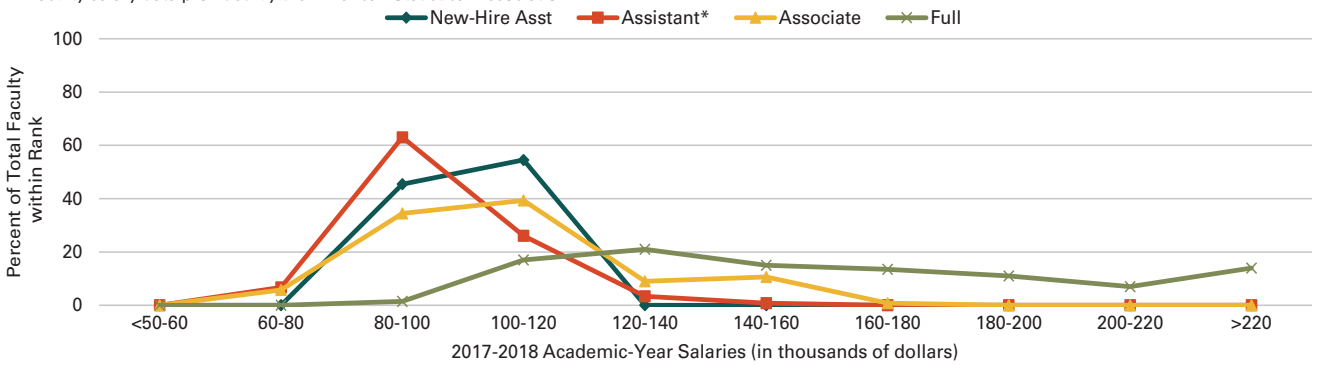
* Includes New Asst Professors



Statistics Group Faculty Salaries**							
26 responses out of 59 departments (44%)							
Rank	2017-2018						2016-17
	Gender	No. Reported	Q1	Median	Q3	Mean	Mean
New Asst Professors	All	11	93,800	100,800	103,300	99,178	107,069
	Male	10	93,800	100,400	102,500	98,096	105,888
	Female	1	112,500	115,000	0	110,000	110,614
Assistant Professor*	All	119	90,600	95,600	101,500	96,376	93,342
	Male	80	91,100	96,300	101,900	96,921	93,609
	Female	39	89,200	94,200	99,500	95,260	92,688
Associate Professor	All	122	93,900	101,700	115,800	106,375	115,774
	Male	83	93,900	102,300	118,800	108,230	116,697
	Female	39	93,300	99,500	105,000	102,428	113,005
Full Professor	All	200	125,400	152,500	191,400	132,696	127,997
	Male	164	127,400	155,000	190,500	161,825	155,729
	Female	36	120,700	137,000	201,700	158,088	135,550

* Includes New Asst Professors

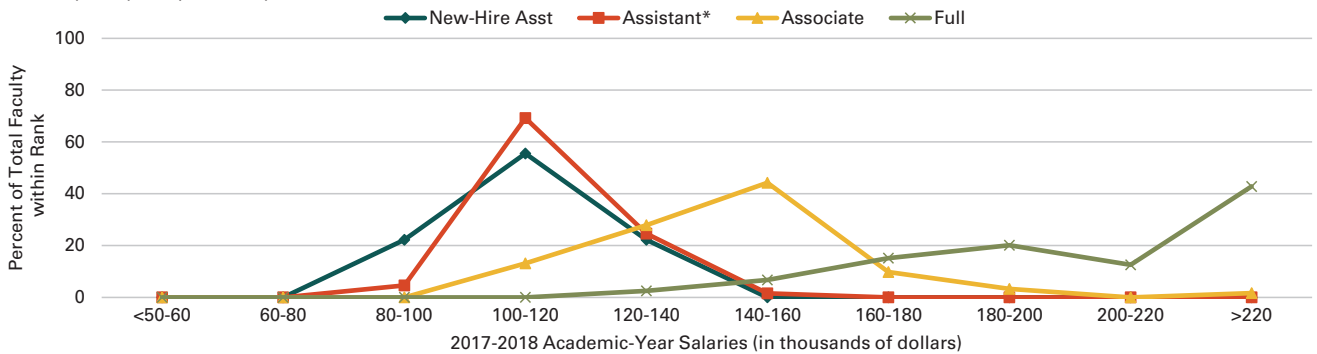
**Faculty salary data provided by the American Statistical Association.



Biostatistics Group Faculty Salaries**							
17 responses out of 46 departments (37%)							
Rank	2017-2018						2016-17
	Gender	No. Reported	Q1	Median	Q3	Mean	Mean
New Asst Professors	All	9	100,500	103,000	121,700	110,885	138,083
	Male	6	98,300	102,500	115,000	109,674	135,241
	Female	3	101,700	103,300	125,000	113,308	143,767
Assistant Professor*	All	65	102,000	104,500	121,100	112,283	119,654
	Male	48	102,000	104,500	122,300	112,685	120,321
	Female	17	102,300	119,000	117,500	111,147	117,987
Associate Professor	All	61	131,300	143,200	153,500	143,070	136,634
	Male	40	132,300	142,800	155,000	142,400	134,892
	Female	21	127,000	143,600	148,600	144,347	141,705
Full Professor	All	119	181,100	205,800	224,200	218,676	203,724
	Male	97	184,200	208,200	224,400	224,407	200,282
	Female	22	175,000	193,800	223,300	193,406	221,670

* Includes New Asst Professors

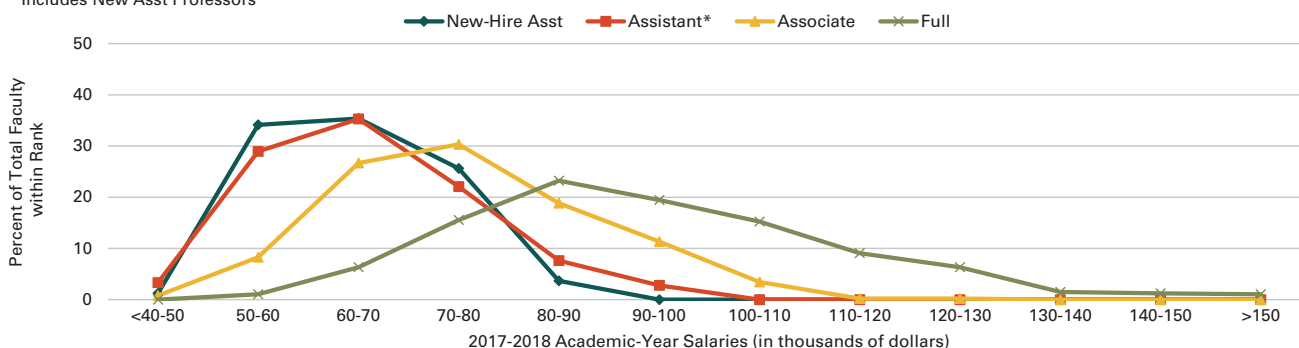
**Faculty salary data provided by the American Statistical Association.



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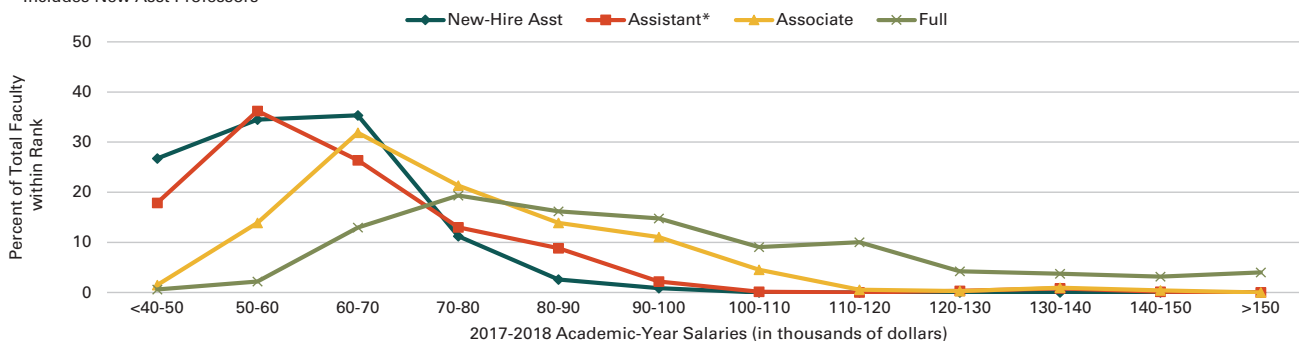
Masters Group Faculty Salaries							
88 responses out of 178 departments (49%)							
Rank	2017-18						2016-17
	Gender	No. Reported	Q1	Median	Q3	Mean	Mean
New Asst Professors	All	82	57,000	63,500	71,400	63,542	68,698
	Male	49	56,600	63,300	72,800	63,748	69,026
	Female	33	57,500	63,500	70,400	63,237	68,002
Assistant Professor*	All	394	58,200	64,400	73,400	65,808	50,025
	Male	247	58,200	64,300	73,000	65,573	65,935
	Female	147	58,000	64,300	74,200	66,202	65,245
Associate Professor	All	521	65,400	74,900	83,700	75,432	74,909
	Male	358	64,600	75,500	84,100	75,565	74,868
	Female	163	67,000	74,100	82,900	75,139	75,007
Full Professor	All	663	80,400	91,800	105,600	94,226	96,123
	Male	520	81,100	92,400	107,100	95,043	97,010
	Female	143	80,200	89,200	102,200	91,256	92,804

* Includes New Asst Professors



Bachelors Group Faculty Salaries							
278 responses out of 1018 departments (27%)							
Rank	2017-18						2016-17
	Gender	No. Reported	Q1	Median	Q3	Mean	Mean
New Asst Professors	All	116	52,900	60,100	66,700	59,464	61,809
	Male	69	52,800	59,400	65,300	59,436	69026
	Female	47	52,700	61,300	67,900	59,505	68002
Assistant Professor*	All	599	53,700	60,600	70,400	63,239	62,679
	Male	358	53,200	60,100	69,400	62,922	65,935
	Female	241	54,500	61,500	71,400	63,710	65,245
Associate Professor	All	750	62,900	71,100	84,000	74,576	71,994
	Male	503	62,900	71,000	83,400	74,621	74,868
	Female	194	55,100	61,600	72,700	74,483	75,007
Full Professor	All	827	74,600	89,400	110,300	95,063	92,096
	Male	618	74,900	90,200	110,200	95,800	97,010
	Female	209	73,500	86,300	110,800	92,884	92,804

* Includes New Asst Professors



Departmental Groupings

In this report, *Mathematical Sciences* departments are those in four-year institutions in the US that refer to themselves with a name that incorporates (with a few exceptions) “Mathematics” or “Statistics” in some form. For instance, the term includes, but is not limited to, departments of “Mathematics,” “Mathematical Sciences,” “Mathematics and Statistics,” “Mathematics and Computer Science,” “Applied Mathematics,” “Statistics,” and “Biostatistics.” Also, *Mathematics (Math)* refers to departments that (with exceptions) have “mathematics” in the name; *Stat/Biostat* refers to departments that incorporate (again, with exceptions) “statistics” or “biostatistics” in the name but do not use “mathematics.”

Starting with reports on the 2012 AMS-ASA-IMS-MAA-SIAM Annual Survey of the Mathematical Sciences, the Joint Data Committee implemented a new method for grouping doctorate-

granting Mathematics departments. These departments are first grouped into those at public institutions and those at private institutions. These groups are further subdivided based on the size of their doctoral program as reflected in the average annual number of PhDs awarded between 2000 and 2010, based on their reports to the Annual Survey during that period. These groupings are listed below.

For further details on the change in the doctoral department groupings, see the article in the October 2012 issue of *Notices of the AMS* at www.ams.org/journals/notices/201209/rtx120901262p.pdf.

Math Public Large consists of departments with the highest annual rate of production of PhDs, ranging between 7.0 and 24.2 per year.

Math Public Medium consists of departments with an annual rate of production of PhDs, ranging between 3.9 and 6.9 per year.

Math Public Small consists of departments with an annual rate of production of PhDs of 3.8 or less per year.

Math Private Large consists of departments with an annual rate of production of PhDs, ranging between 3.9 and 19.8 per year.

Math Private Small consists of departments with an annual rate of production of PhDs of 3.8 or less per year.

Applied Mathematics consists of doctoral-degree-granting applied mathematics departments.

Statistics consists of doctoral-degree-granting statistics departments.

Biostatistics consists of doctoral-degree-granting biostatistics departments.

Masters consists of US departments granting a master’s degree as the highest graduate degree.

Bachelors consists of US departments granting a baccalaureate degree only.

Doctoral Math consists of all US math public, math private, and applied math mathematics departments granting a PhD as the highest graduate degree.

Mathematics (Math) consists of all US Math Public, Math Private, and Applied Math, Masters, and Bachelors Groups above.

Stat/Biostat consists of all doctoral-degree-granting statistics and biostatistics departments.

Listings of the actual departments that compose these groups are available on the AMS website at www.ams.org/annual-survey/groups.

Obtain a Special Faculty Salaries Analysis

Each year AMS provides a limited number of special faculty salary analyses to departments requesting them. These reports are based on data gathered through the Survey and provide more nuanced comparisons with similar institutions than is possible with the Faculty Salaries Report. In order to receive a special analysis, your department must have responded to the most recent Faculty Survey.

Send a list of your peer institutions (a minimum of 12 institutions is required) to ams-survey@ams.org along with the date by which the analysis is needed. (If not enough of your peer group

have responded to the salary survey, you will be asked to provide additional institutions.) A minimum of two weeks is needed to complete a special analysis.

The analysis produced includes a listing of your peer group institutions along with their salary survey response status; a summary table including the rank (assistant, associate, and full professor); the number reported in each rank; the 1st quartile, median, 3rd quartile, and mean salaries for each along with bar graphs.

Acknowledgments

The Annual Survey attempts to provide an accurate appraisal and analysis of various aspects of the academic mathematical sciences scene for the use and benefit of the community and for filling the information needs of the professional organizations. Every year, college and university departments in the United States are invited to respond. The Annual Survey relies heavily on the conscientious efforts of the dedicated staff members of

these departments for the quality of its information. On behalf of the Data Committee and the Annual Survey Staff, we thank the many secretarial and administrative staff members in the mathematical sciences departments for their cooperation and assistance in responding to the survey questionnaires.