

2008 Annual Survey of the Mathematical Sciences

(First Report, Part II) with corrections

Report on the 2008–2009 Faculty Salaries

Polly Phipps, James W. Maxwell, and Colleen A. Rose

This report of the 2008 Annual Survey provides information on the distribution of 2008-2009 academic-year salaries for tenured and tenure-track faculty at four-year mathematical sciences departments in the U.S. The information is gathered from departments using a questionnaire initially distributed in June of 2008. This year's salary report includes, for the second time, separate reporting on the salaries of newly appointed tenure-track assistant professors. This report has traditionally appeared as part of the First Report of the Annual Survey, published in recent years in the February issue of *Notices* of the American Mathematical Society.

The Annual Survey series begun in 1957 by the American Mathematical Society is currently under the direction of the Data Committee, a joint committee of the American Mathematical Society, the American Statistical Association, the Institute of Mathematical Statistics, the Mathematical Association of America, and the Society of Industrial and Applied Mathematics. The current members of this committee are Richard Cleary, Richard M. Dudley, John W. Hagood, Abbe H. Herzig, Ellen Kirkman, David J. Lutzer, Joanna Mitro, James W. Maxwell (ex officio), Bart Ng, Polly Phipps (chair), Douglas Ravenel, Jianguo (Tony) Sun, and Marie Vitulli. The committee is assisted by AMS survey analyst Colleen A. Rose. Comments or suggestions regarding this Survey Report may be directed to the committee.

Polly Phipps is a senior research statistician with the Bureau of Labor Statistics. James W. Maxwell is AMS associate executive director for special projects. Colleen A. Rose is AMS survey analyst.

Faculty Salary Survey

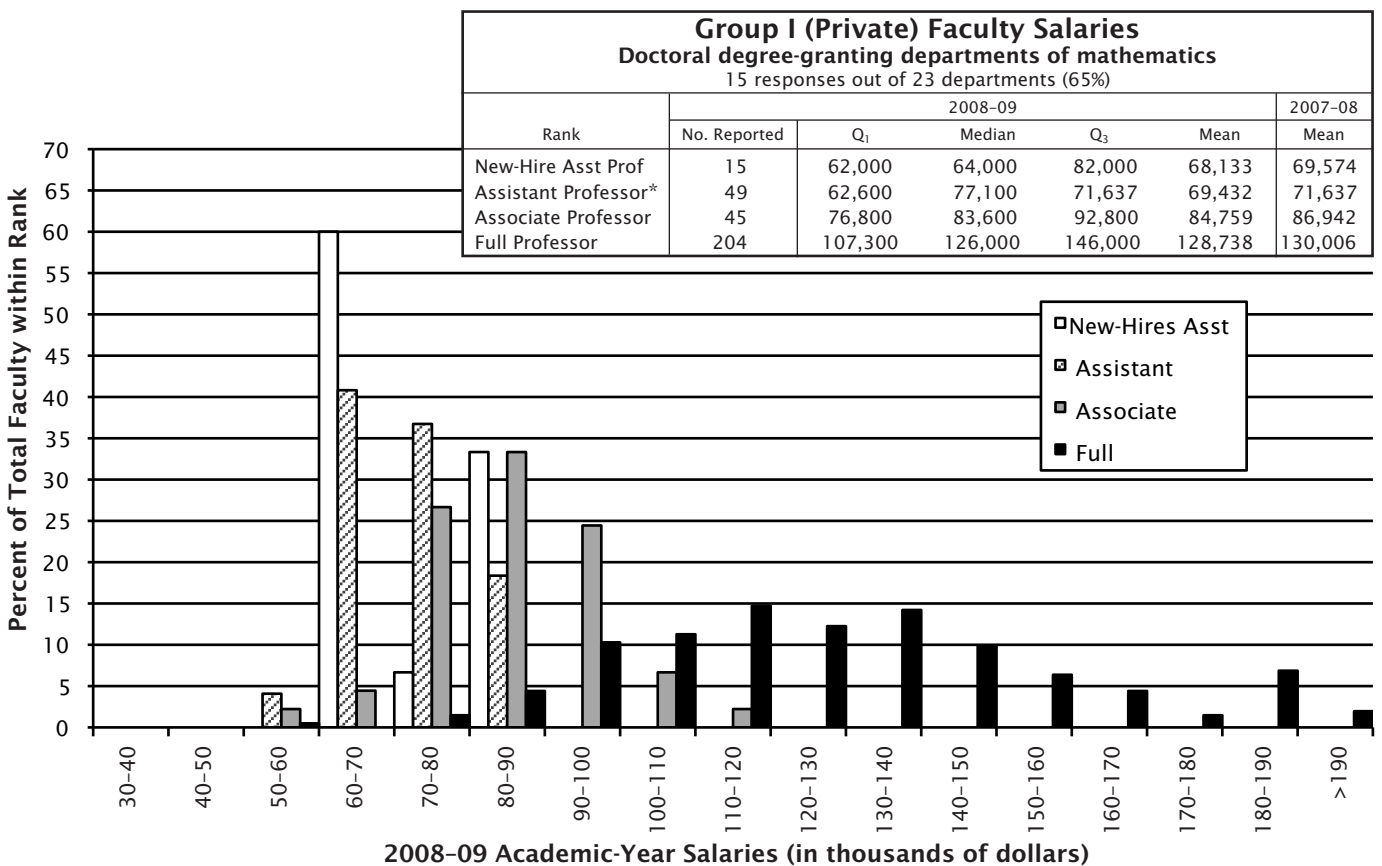
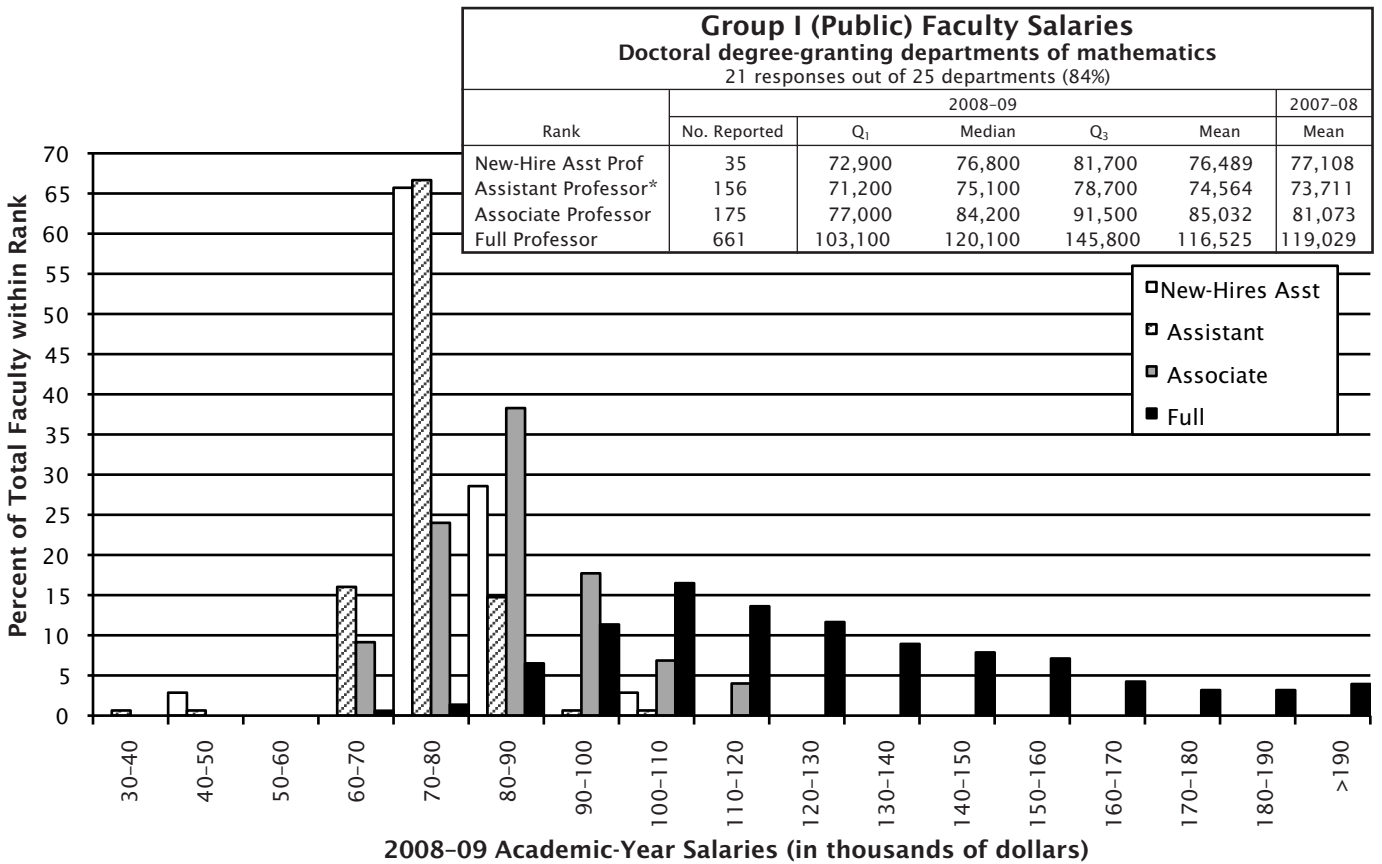
The charts on the following pages describe the distribution of academic-year salaries for tenured and tenure-track faculty in each of the departmental groupings used in the Annual Survey. Salaries are described separately by rank, and for the second time, salaries for newly appointed (tenure-track) assistant professors are profiled separately. Salaries are reported in current dollars (at time of data collection). Results reported here are based on the departments which responded to the survey with no adjustment for non-response.

Table 1 provides the departmental response rates for the 2008 Faculty Salary Survey. Departments were asked to report for each rank the number of tenured and tenure-track faculty whose

Table 1: Faculty Salary Response Rates

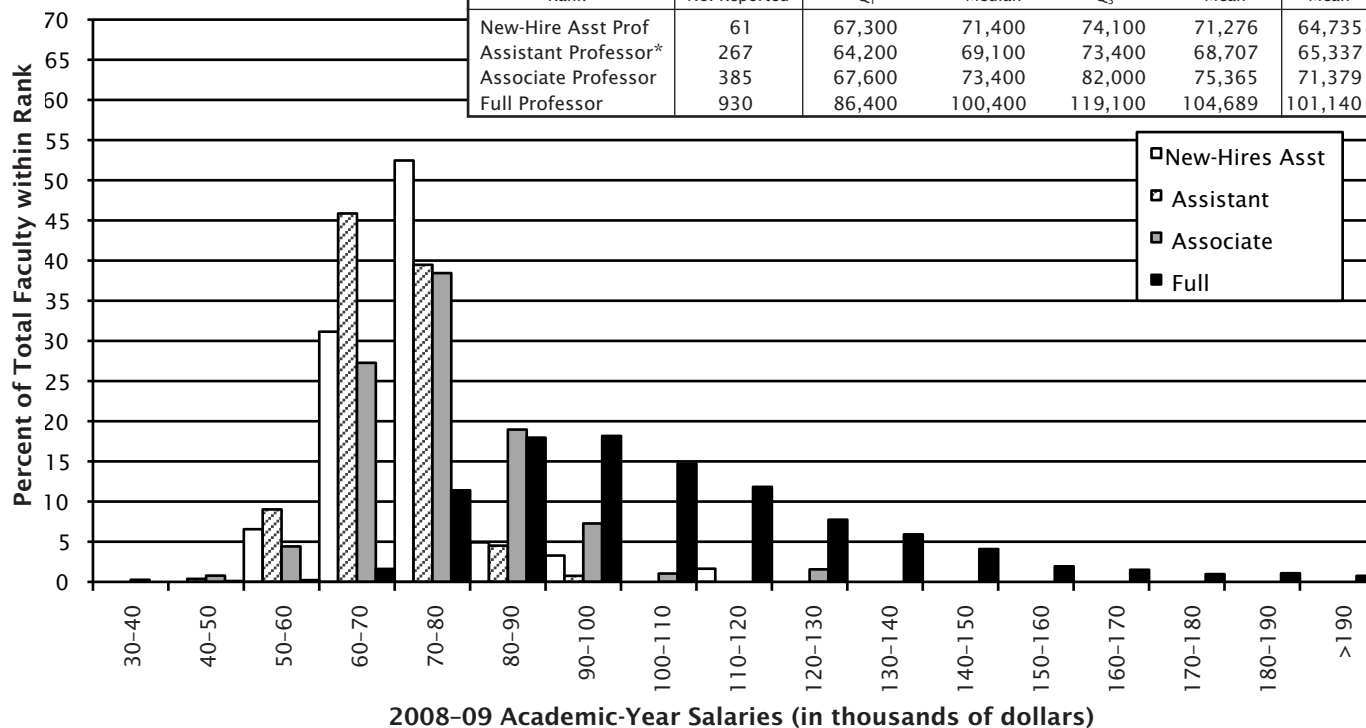
Department	Number	Percent
Group I (Public)	21 of 25	84
Group I (Private)	15 of 23	65
Group II	45 of 56	80
Group III	60 of 73	82
Group IV (Statistics)	37 of 57	65
Group IV (Biostatistics)	15 of 31	48
Group Va	10 of 17*	59
Group M	93 of 190	49
Group B	308 of 1031	30

* The population for Group Va is slightly less than for the Doctorates Granted Survey, because two programs do not formally "house" faculty and their salaries.

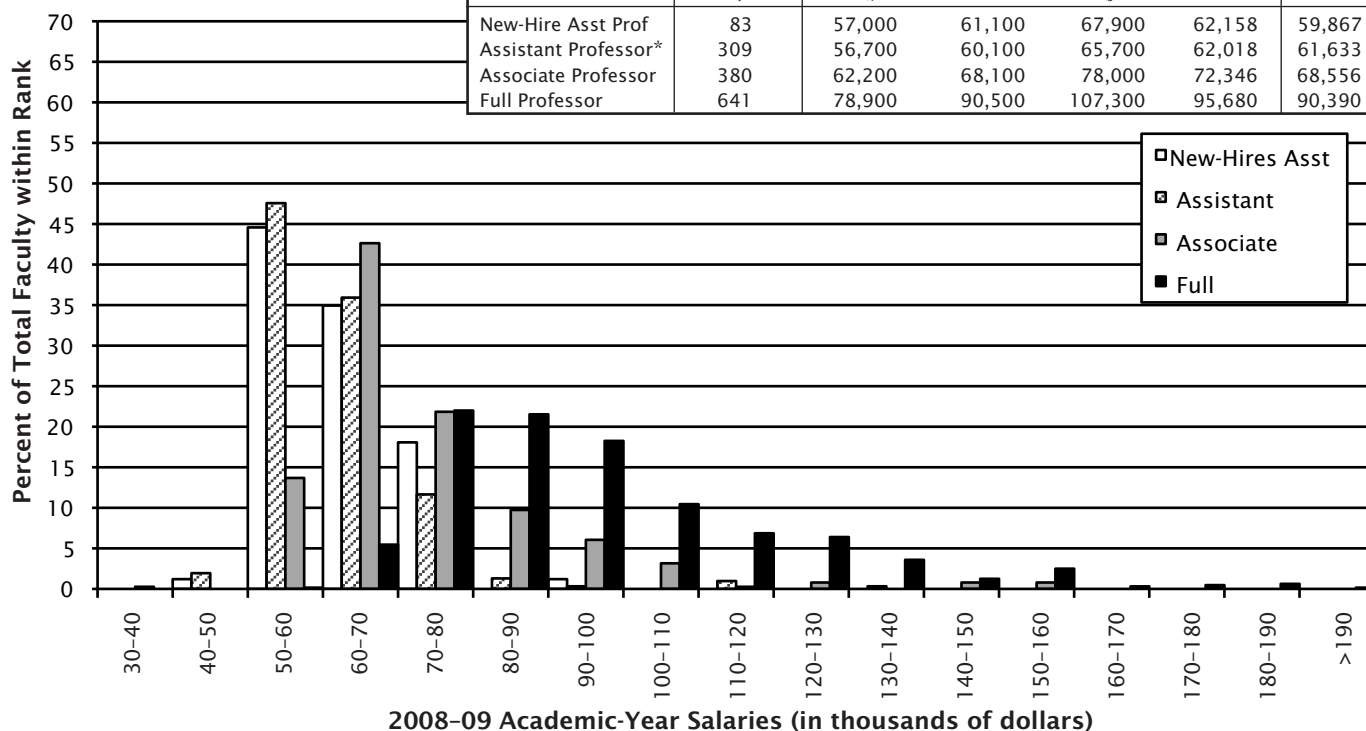


*Includes new hires and is comparable to previous years' figures.

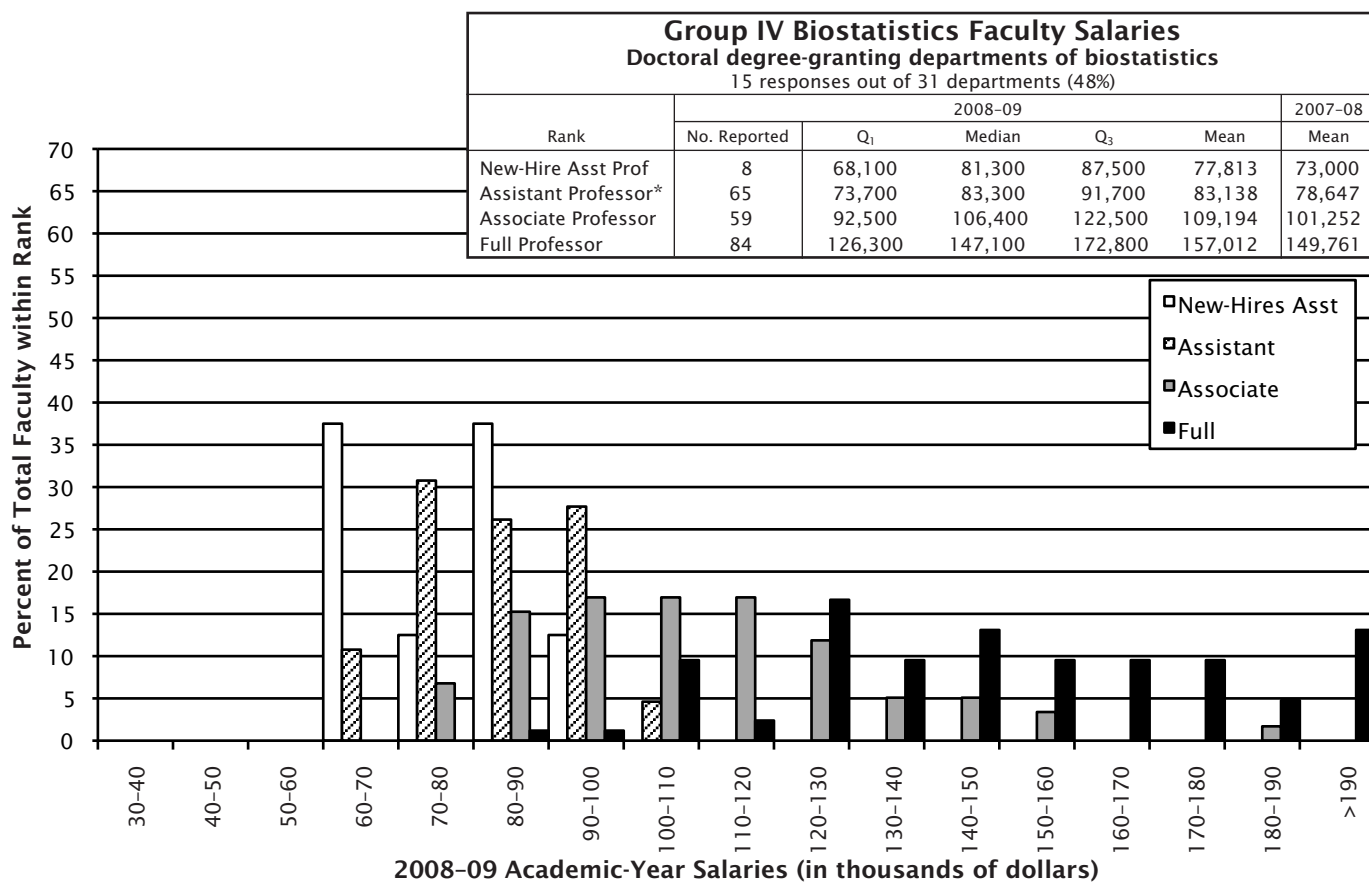
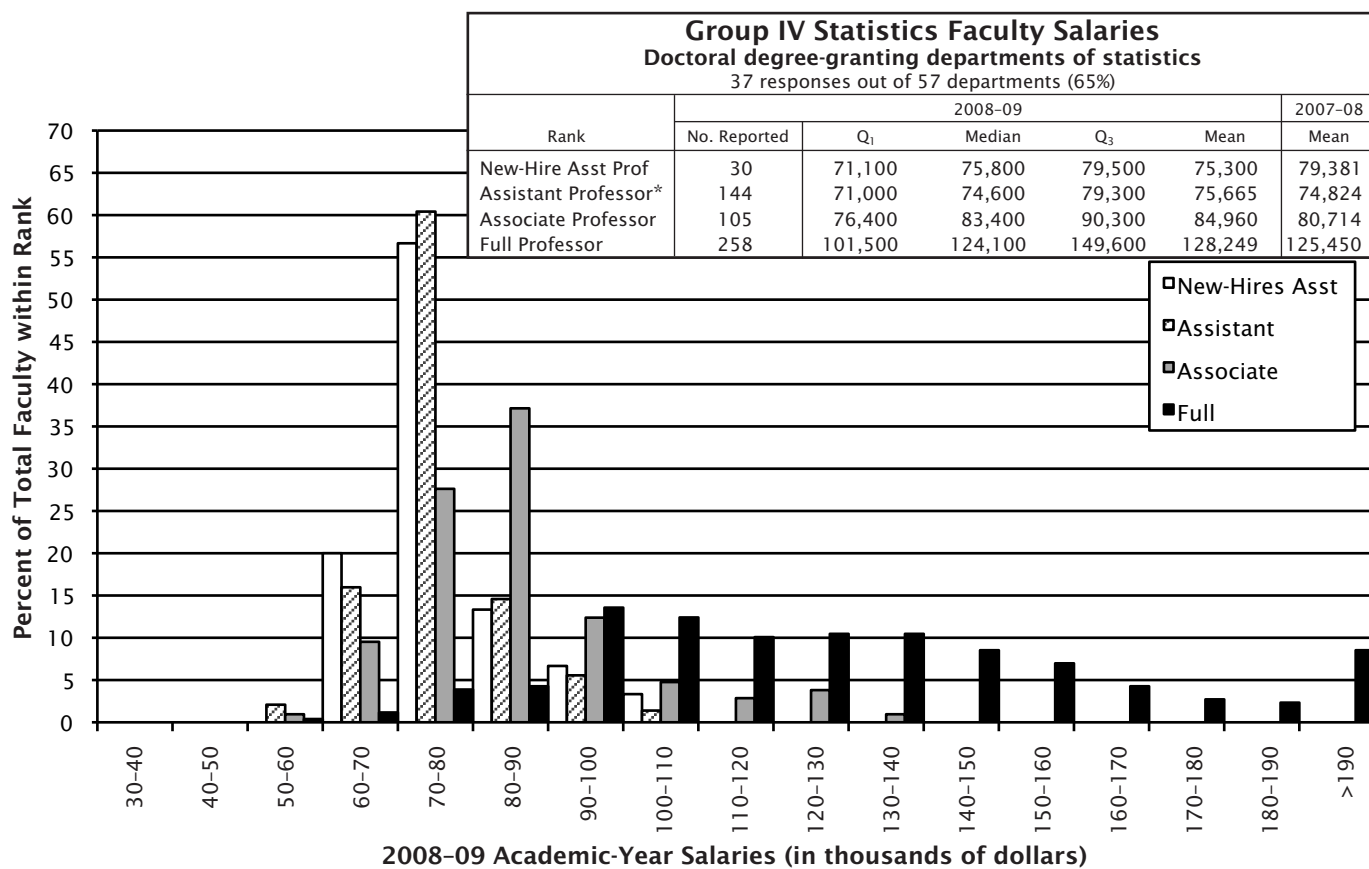
Group II Faculty Salaries						
Doctoral degree-granting departments of mathematics						
45 responses out of 56 departments (80%)						
Rank	2008-09					2007-08
	No. Reported	Q ₁	Median	Q ₃	Mean	Mean
New-Hire Asst Prof	61	67,300	71,400	74,100	71,276	64,735
Assistant Professor*	267	64,200	69,100	73,400	68,707	65,337
Associate Professor	385	67,600	73,400	82,000	75,365	71,379
Full Professor	930	86,400	100,400	119,100	104,689	101,140



Group III Faculty Salaries						
Doctoral degree-granting departments of mathematics						
60 responses out of 73 departments (82%)						
Rank	2008-09					2007-08
	No. Reported	Q ₁	Median	Q ₃	Mean	Mean
New-Hire Asst Prof	83	57,000	61,100	67,900	62,158	59,867
Assistant Professor*	309	56,700	60,100	65,700	62,018	61,633
Associate Professor	380	62,200	68,100	78,000	72,346	68,556
Full Professor	641	78,900	90,500	107,300	95,680	90,390

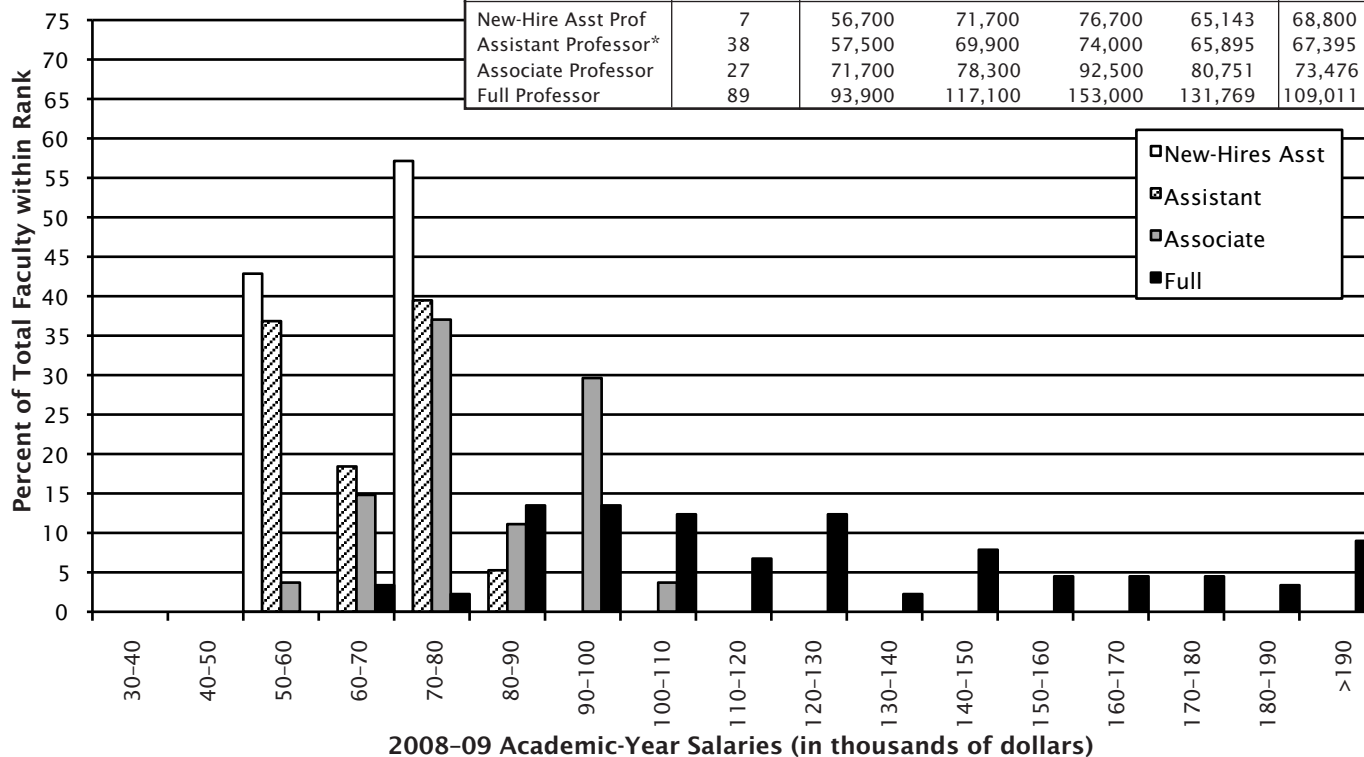


*Includes new hires and is comparable to previous years' figures.



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Group Va Faculty Salaries						
Doctoral degree-granting departments of applied mathematics						
10 responses out of 17 departments (59%)						
Rank	2008-09					2007-08
	No. Reported	Q ₁	Median	Q ₃	Mean	Mean
New-Hire Asst Prof	7	56,700	71,700	76,700	65,143	68,800
Assistant Professor*	38	57,500	69,900	74,000	65,895	67,395
Associate Professor	27	71,700	78,300	92,500	80,751	73,476
Full Professor	89	93,900	117,100	153,000	131,769	109,011



*Includes new hires and is comparable to previous years' figures.

2008-09 academic-year salaries fell within given salary intervals (the survey form is available at www.ams.org/employment/surveyforms.html). Reporting salary data in this fashion eliminates some of the concerns about confidentiality but does not permit determination of actual quartiles. Although the actual quartiles cannot be determined from the data gathered, these quartiles have been estimated assuming that the density over each interval is uniform.

When comparing current and prior year figures, one should keep in mind that differences in the set of responding departments may be a significant factor in the change in the reported mean salaries.

Previous Annual Survey Reports

The 2007 First, Second, and Third Annual Survey Reports were published in the *Notices* of the AMS in the February, August, and November 2008 issues respectively. These reports and earlier reports, as well as a wealth of other information from these surveys, are available on the AMS website at www.ams.org/employment/surveyreports.html.

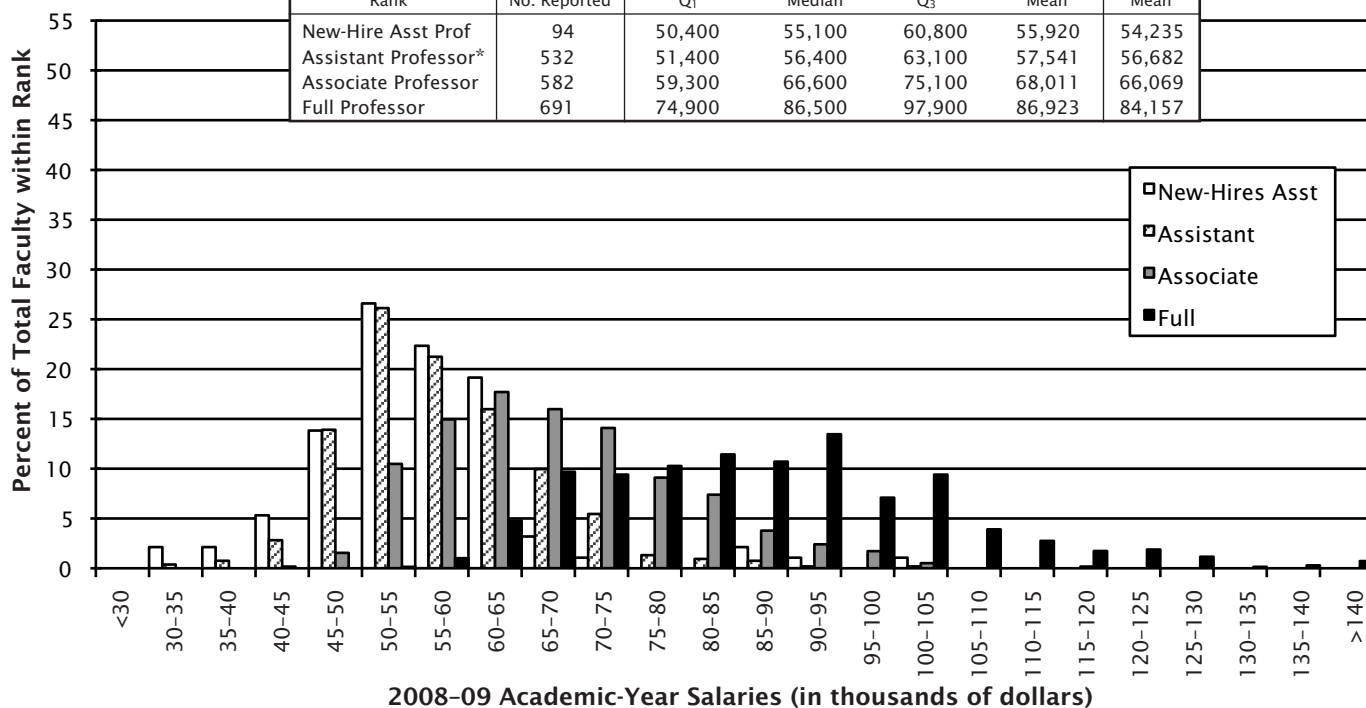
Acknowledgments

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 Annual Survey 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.

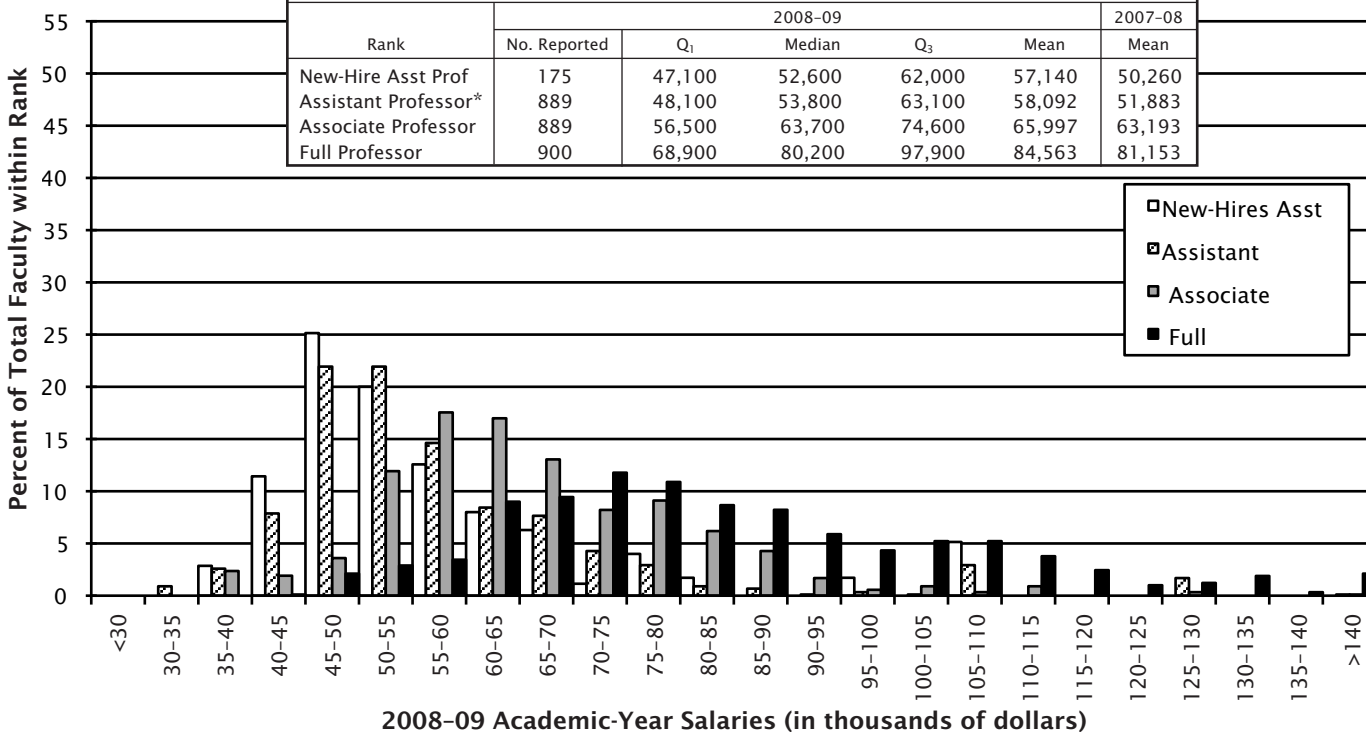
Other Data Sources

American Association of University Professors, *The Annual Report on the Economic Status of the Profession 2007-08*, Academe: Bull. AAUP (March-April 2008), Washington, DC.
 American Statistical Association, *Business, Industry, and Government 2007 Salary Survey*. [<http://www.ams.org/employment/surveyreports.html>].

Group M Faculty Salaries						
Master's degree-granting departments of mathematics						
93 responses out of 190 departments (49%)						
Rank	2008-09					2007-08
	No. Reported	Q ₁	Median	Q ₃	Mean	Mean
New-Hire Asst Prof	94	50,400	55,100	60,800	55,920	54,235
Assistant Professor*	532	51,400	56,400	63,100	57,541	56,682
Associate Professor	582	59,300	66,600	75,100	68,011	66,069
Full Professor	691	74,900	86,500	97,900	86,923	84,157



Group B Faculty Salaries						
Bachelor's degree-granting departments of mathematics						
308 responses out of 1031 departments (30%)						
Rank	2008-09					2007-08
	No. Reported	Q ₁	Median	Q ₃	Mean	Mean
New-Hire Asst Prof	175	47,100	52,600	62,000	57,140	50,260
Assistant Professor*	889	48,100	53,800	63,100	58,092	51,883
Associate Professor	889	56,500	63,700	74,600	65,997	63,193
Full Professor	900	68,900	80,200	97,900	84,563	81,153



*Includes new hires and is comparable to previous years' figures.

amstat.org/profession/SPAIGsalarysurvey07.pdf]
(Published in AmstatNews, July 2007, Issue #361.)

_____, *2008–2009 Salary Report of Academic Statisticians*.
[http://www.amstat.org/profession/salaryreport_acad2008-9.pdf] (Published in AmstatNews, December 2008, Issue #378.)

Commission on Professionals in Science and Technology,
Salaries of Scientists, Engineers, and Technicians: A Summary of Salary Surveys, 22nd ed., CPST, Washington, DC, 2007.

_____, *Professional Women and Minorities*, 17th ed., CPST, Washington, DC, 2008.

National Research Council, *Strengthening the Linkages between the Sciences and the Mathematical Sciences*, National Academy Press, Washington, DC, 2000.

_____, *U.S. Research Institutes in the Mathematical Sciences: Assessment and Perspectives*, National Academy Press, Washington, DC, 1999.

National Science Board, *Science and Engineering Indicators—2008*. Two volumes. (volume 1, NSB 08-01; volume 2, NSB 08-01A), National Science Foundation, Arlington, VA, 2008.

Definitions of the Groups

As has been the case for a number of years, much of the data in these reports is presented for departments divided into groups according to several characteristics, the principal one being the highest degree offered in the mathematical sciences. Doctoral-granting departments of mathematics are further subdivided according to their ranking of “scholarly quality of program faculty” as reported in the 1995 publication *Research-Doctorate Programs in the United States: Continuity and Change*.¹ These rankings update those reported in a previous study published in 1982.² Consequently, the departments which now compose Groups I, II, and III differ significantly from those used prior to the 1996 survey.

The subdivision of the Group I institutions into Group I Public and Group I Private was new for the 1996 survey. With the increase in number of the Group I departments from 39 to 48, the Annual Survey Data Committee judged that a further subdivision of public and private would provide more meaningful reporting of the data for these departments.

Brief descriptions of the groupings are as follows:

Group I is composed of 48 departments with scores in the 3.00–5.00 range. Group I Public and Group I Private are Group I departments at public institutions and private institutions respectively.

Group II is composed of 56 departments with scores in the 2.00–2.99 range.

Group III contains the remaining U.S. departments reporting a doctoral program, including a number of departments not included in the 1995 ranking of program faculty.

Group IV contains U.S. departments (or programs) of statistics, biostatistics, and biometrics reporting a doctoral program.

Group Va is applied mathematics/applied science; Group Vb, which was no longer surveyed as of 1998–99, was operations research and management science.

Group M contains U.S. departments granting a master’s degree as the highest graduate degree.

Group B contains U.S. departments granting a baccalaureate degree only.

Listings of the actual departments which compose these groups are available on the AMS website at www.ams.org/employment/groups_des.html.

¹Research-Doctorate Programs in the United States: Continuity and Change, edited by Marvin L. Goldberger, Brendan A. Maher, and Pamela Ebert Flattau, National Academy Press, Washington, DC, 1995.

²These findings were published in An Assessment of Research-Doctorate Programs in the United States: Mathematical and Physical Sciences, edited by Lyle V. Jones, Gardner Lindzey, and Porter E. Coggeshall, National Academy Press, Washington, DC, 1982. The information on mathematics, statistics, and computer science was presented in digest form in the April 1983 issue of the Notices of the AMS, pages 257–67, and an analysis of the classifications was given in the June 1983 Notices of the AMS, pages 392–3.