

2007 Annual Survey of the Mathematical Sciences

(First Report, Part II)

Report on the 2007–2008 Faculty Salaries

Polly Phipps, James W. Maxwell, and Colleen Rose

This report of the 2007 Annual Survey provides information on the distribution of 2007–2008 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 2007. This year's salary report includes, for the first 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 2007 Annual Survey represents the fifty-first in an annual series begun in 1957 by the American Mathematical Society. The 2007 Survey is 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, Amy Cohen-Corwin, Richard M. Dudley, John W. Hagood, Abbe H. Herzig, Donald R. King, David J. Lutzer, James W. Maxwell (ex officio), Bart Ng, Polly Phipps (chair), David E. Rohrlich, and Henry Schenck. 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 first time, salaries for newly appointed (tenure-track) assistant professors are profiled separately. Salaries are reported in current dollars. Results reported here are based on the departments which responded to the survey with no adjustment for non-response.

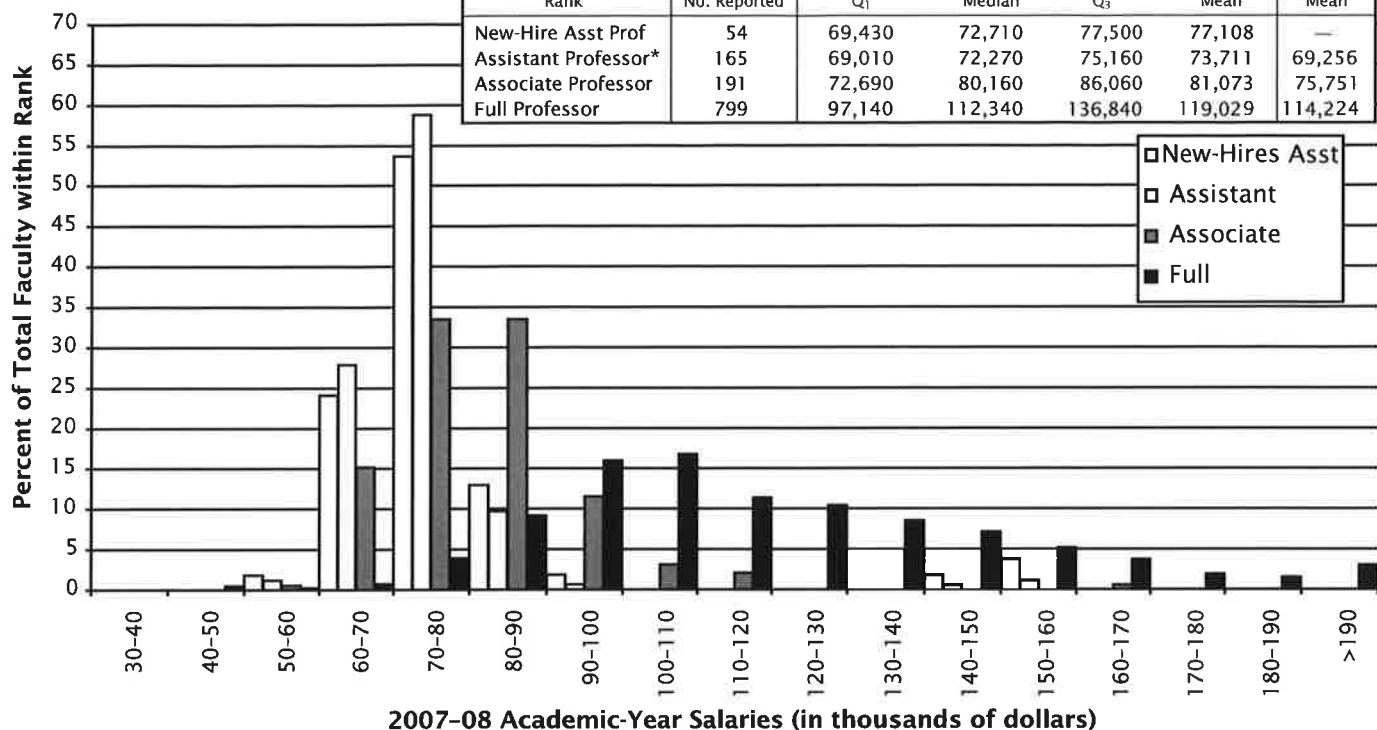
Table 1 provides the departmental response rates for the 2007 Faculty Salary Survey. Departments were asked to report for each rank the number of tenured and tenure-track faculty whose

Table 1: Faculty Salary Response Rates

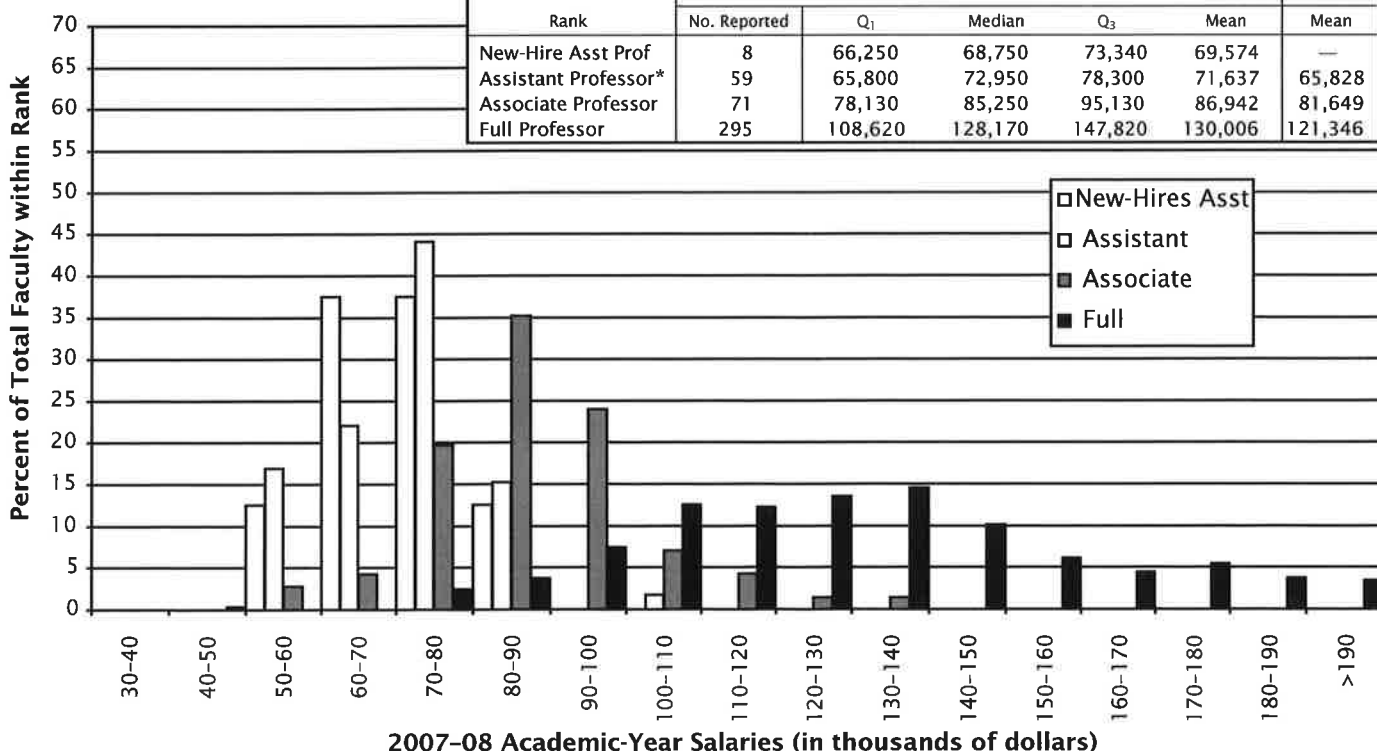
Department	Number	Percent
Group I (Public)	23 of 25	92
Group I (Private)	16 of 23	70
Group II	43 of 56	77
Group III	56 of 74	76
Group IV (Statistics)	39 of 55	71
Group IV (Biostatistics)	17 of 32	53
Group Va	8 of 18*	44
Group M	102 of 189	54
Group B	330 of 1035	32

* 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.

Group I (Public) Faculty Salaries						
Doctoral degree-granting departments of mathematics						
23 responses out of 25 departments (92%)						
Rank	2007-08					2006-07
	No. Reported	Q ₁	Median	Q ₃	Mean	Mean
New-Hire Asst Prof	54	69,430	72,710	77,500	77,108	—
Assistant Professor*	165	69,010	72,270	75,160	73,711	69,256
Associate Professor	191	72,690	80,160	86,060	81,073	75,751
Full Professor	799	97,140	112,340	136,840	119,029	114,224



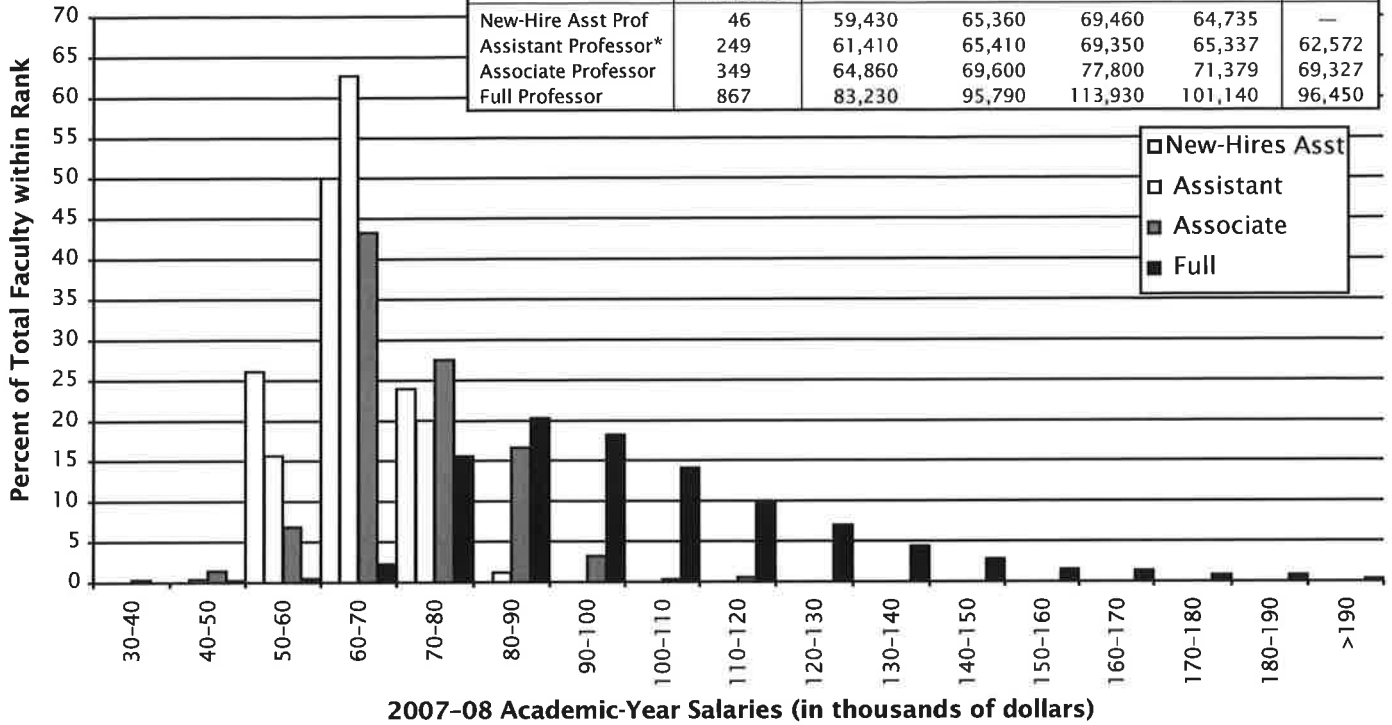
Group I (Private) Faculty Salaries						
Doctoral degree-granting departments of mathematics						
16 responses out of 23 departments (70%)						
Rank	2007-08					2006-07
	No. Reported	Q ₁	Median	Q ₃	Mean	Mean
New-Hire Asst Prof	8	66,250	68,750	73,340	69,574	—
Assistant Professor*	59	65,800	72,950	78,300	71,637	65,828
Associate Professor	71	78,130	85,250	95,130	86,942	81,649
Full Professor	295	108,620	128,170	147,820	130,006	121,346



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

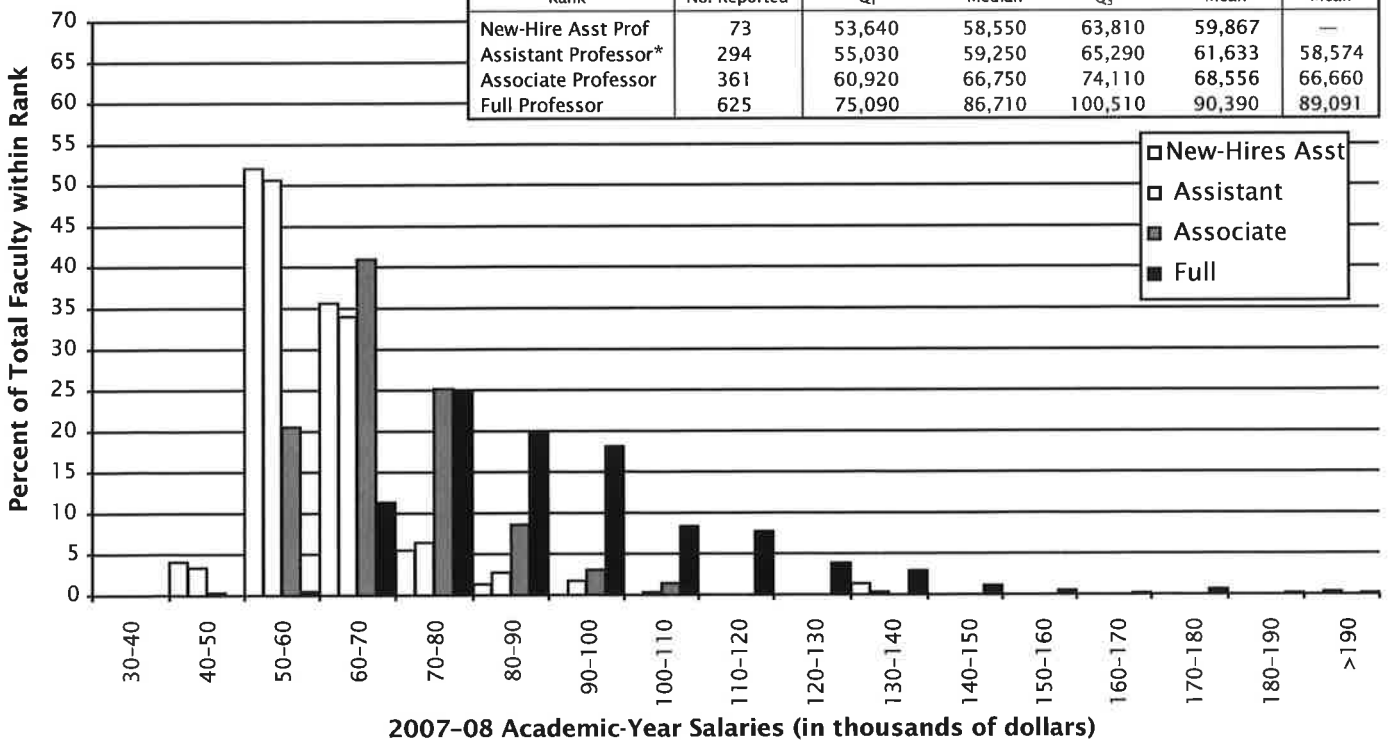
Group II Faculty Salaries
Doctoral degree-granting departments of mathematics
 43 responses out of 56 departments (77%)

Rank	2007-08					2006-07
	No. Reported	Q ₁	Median	Q ₃	Mean	Mean
New-Hire Asst Prof	46	59,430	65,360	69,460	64,735	—
Assistant Professor*	249	61,410	65,410	69,350	65,337	62,572
Associate Professor	349	64,860	69,600	77,800	71,379	69,327
Full Professor	867	83,230	95,790	113,930	101,140	96,450

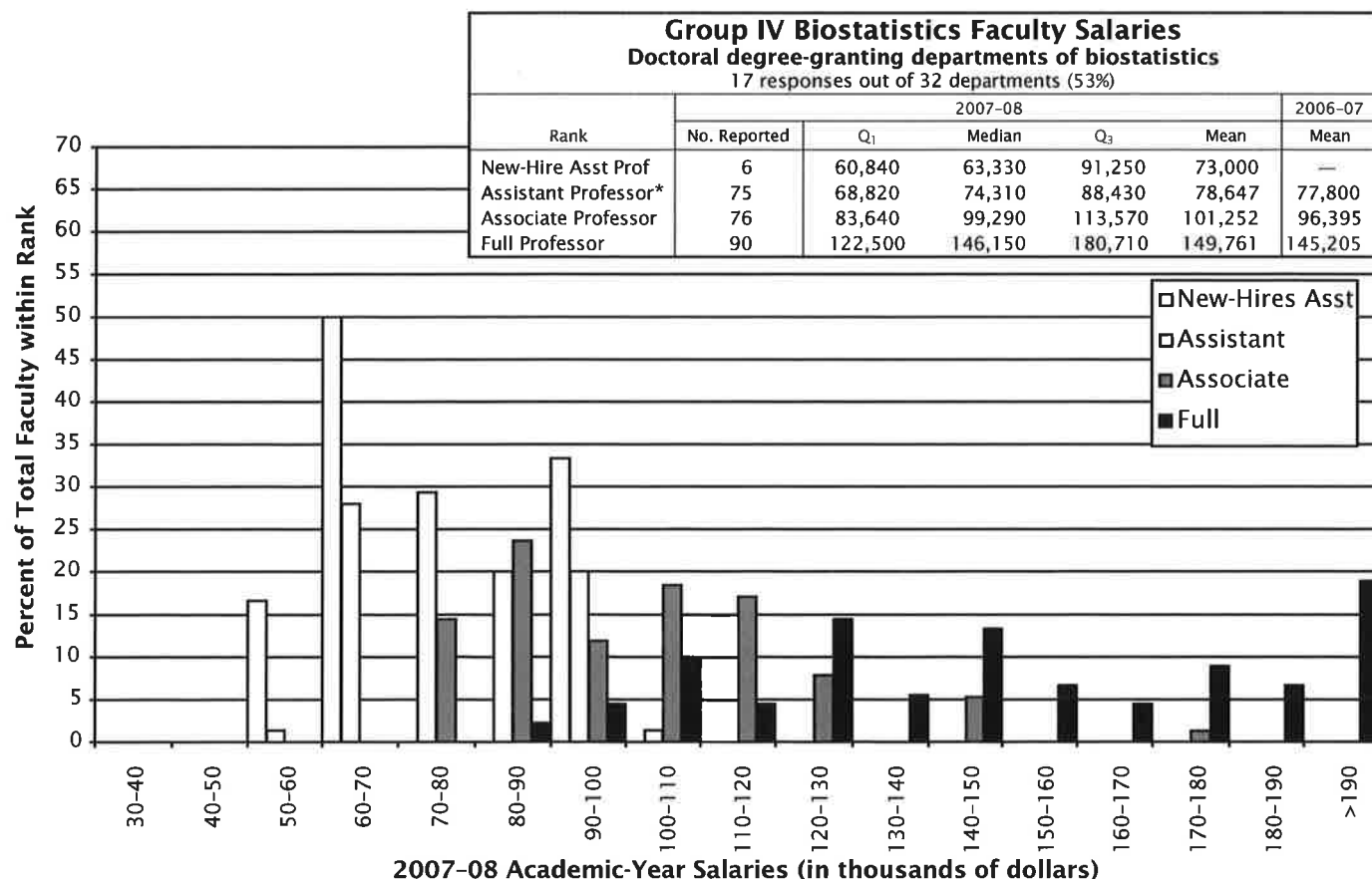
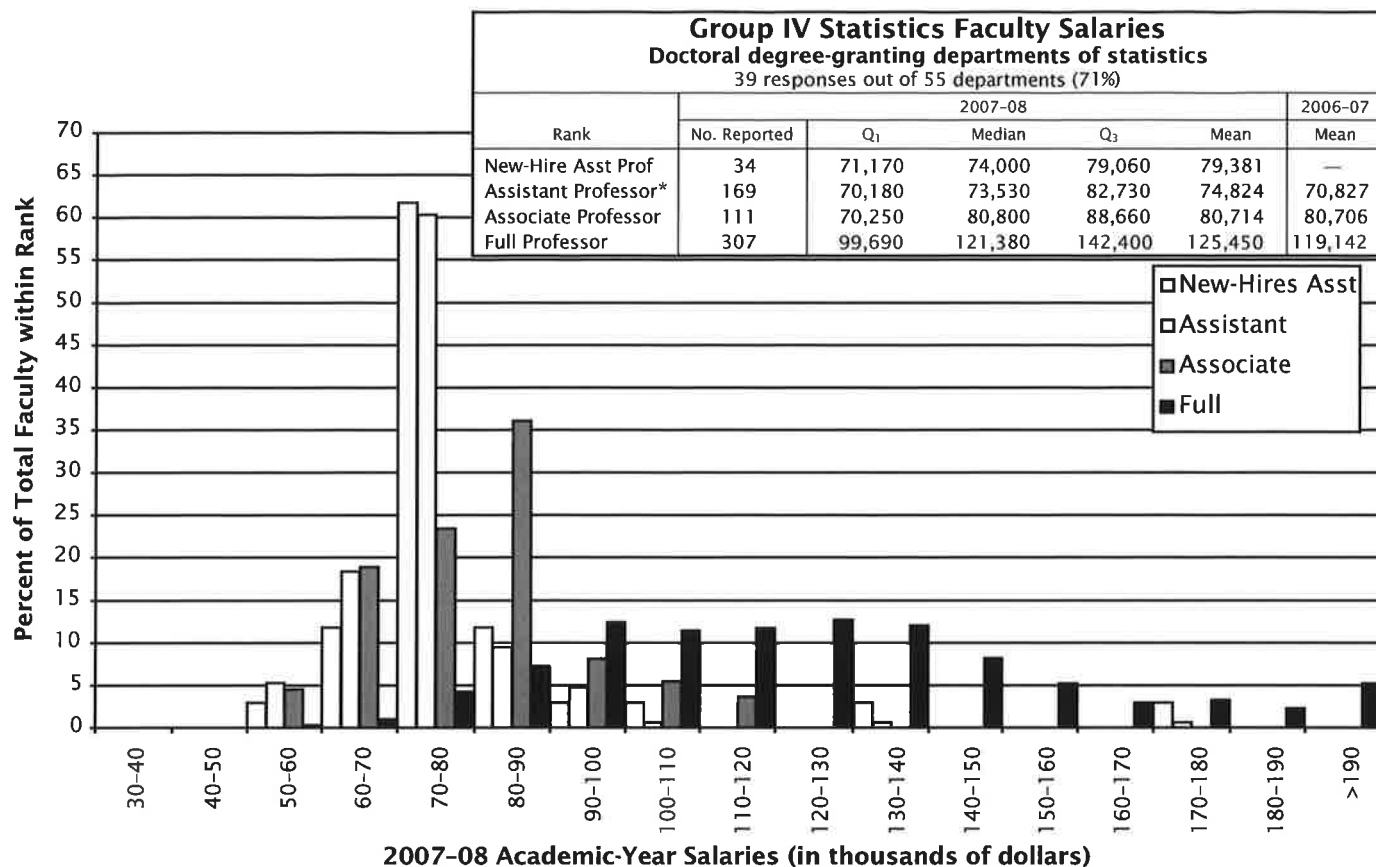


Group III Faculty Salaries
Doctoral degree-granting departments of mathematics
 56 responses out of 74 departments (76%)

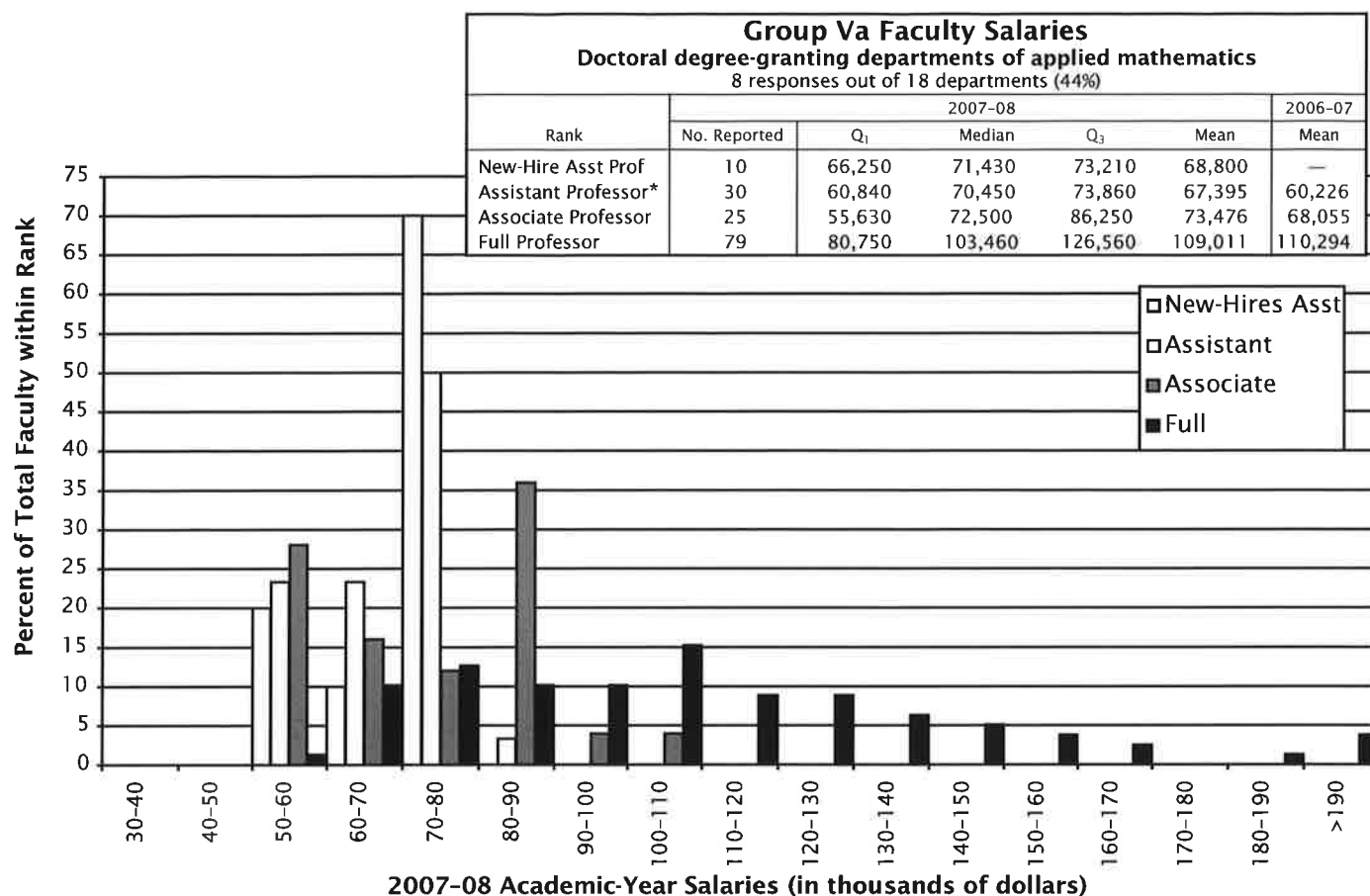
Rank	2007-08					2006-07
	No. Reported	Q ₁	Median	Q ₃	Mean	Mean
New-Hire Asst Prof	73	53,640	58,550	63,810	59,867	—
Assistant Professor*	294	55,030	59,250	65,290	61,633	58,574
Associate Professor	361	60,920	66,750	74,110	68,556	66,660
Full Professor	625	75,090	86,710	100,510	90,390	89,091



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



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2007-08 academic-year salaries fell within given salary intervals. 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 2006 First, Second, and Third Annual Survey Reports were published in the *Notices* of the AMS in the February, August, and November 2007 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.

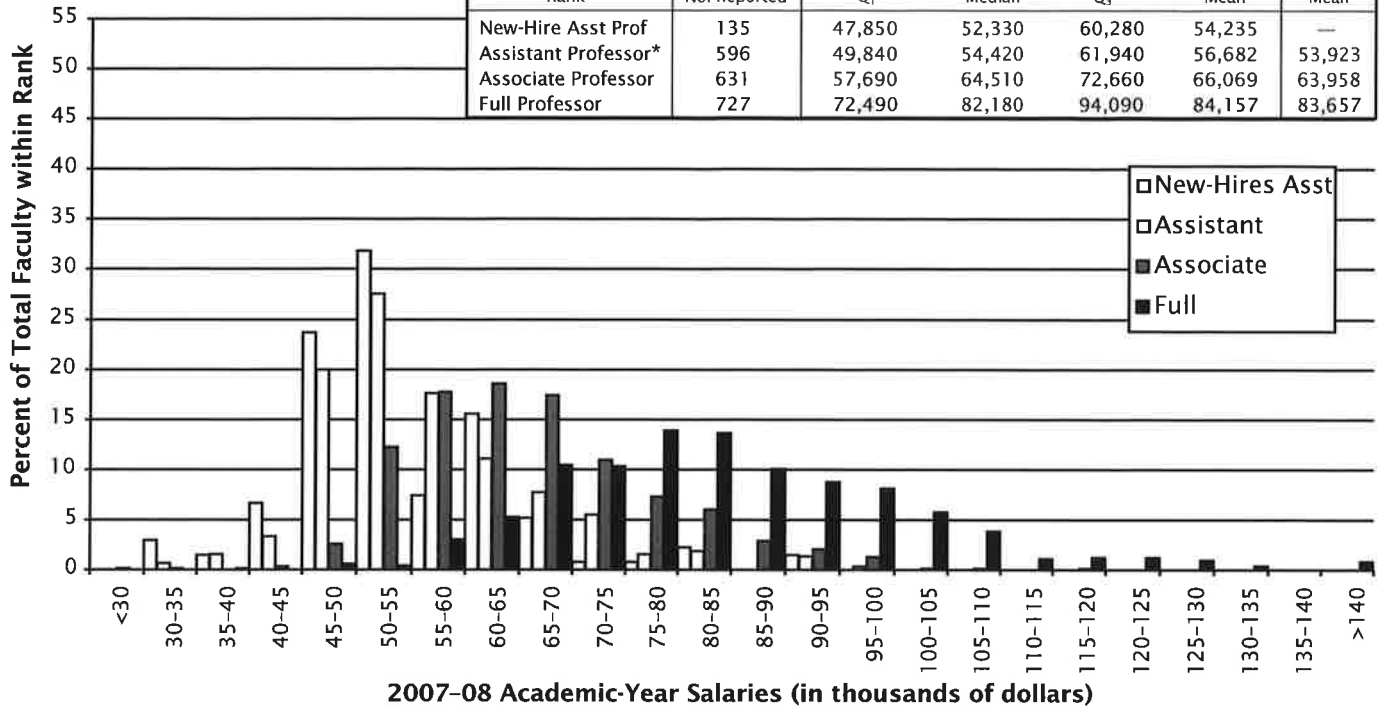
Other Data Sources

American Association of University Professors, *The Annual Report on the Economic Status of the Profession 2006-2007*, Academe: Bull. AAUP (March-April 2007), Washington, DC.

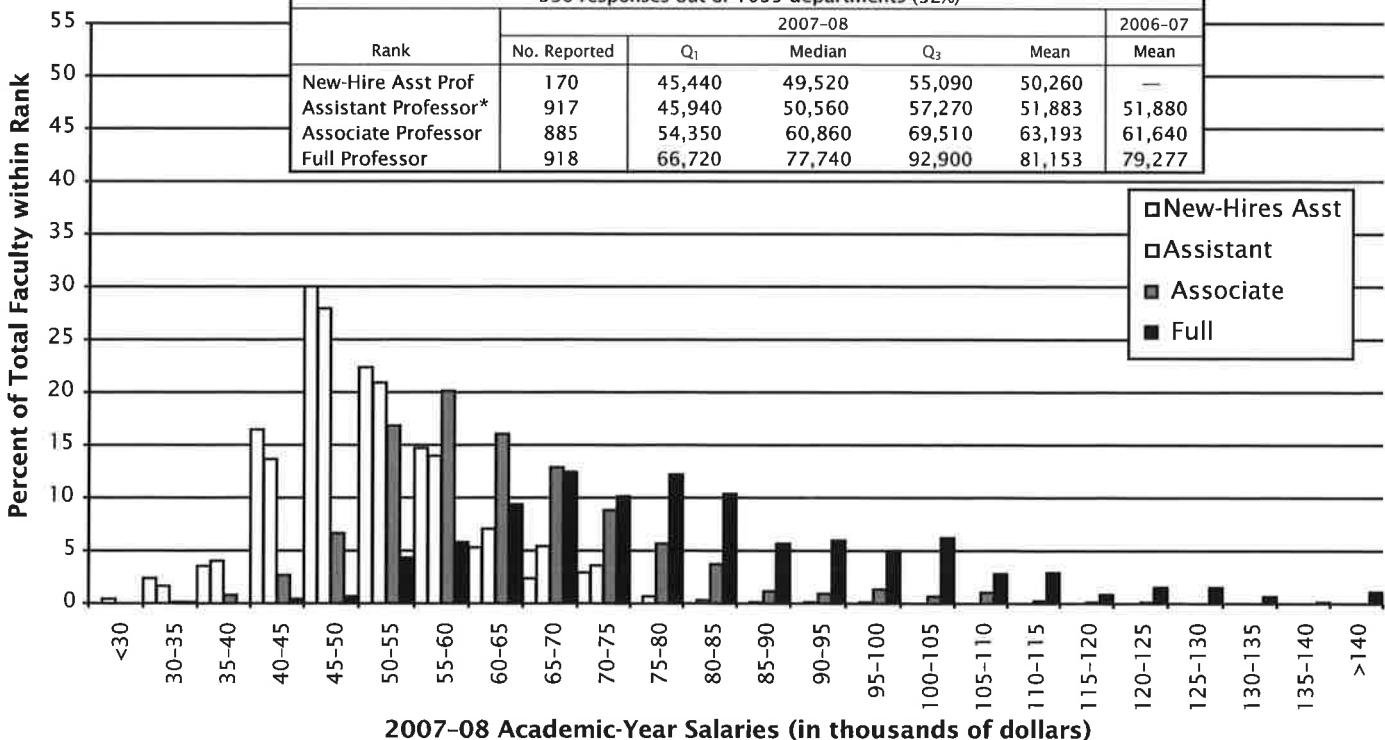
American Statistical Association, *Business, Industry, and Government 2007 Salary Survey*. [<http://www.amstat.org/profession/SPAIGsalarysurvey07.pdf>] (Published in *AmstatNews*, July 2007, Issue #361.)

_____, *2006-2007 Salary Report of Academic Statisticians*. [http://www.amstat.org/profession/salaryreport_acad2006-7.pdf].

Group M Faculty Salaries						
Master's degree-granting departments of mathematics						
102 responses out of 189 departments (54%)						
Rank	2007-08					2006-07
	No. Reported	Q ₁	Median	Q ₃	Mean	Mean
New-Hire Asst Prof	135	47,850	52,330	60,280	54,235	—
Assistant Professor*	596	49,840	54,420	61,940	56,682	53,923
Associate Professor	631	57,690	64,510	72,660	66,069	63,958
Full Professor	727	72,490	82,180	94,090	84,157	83,657



Group B Faculty Salaries						
Bachelor's degree-granting departments of mathematics						
330 responses out of 1035 departments (32%)						
Rank	2007-08					2006-07
	No. Reported	Q ₁	Median	Q ₃	Mean	Mean
New-Hire Asst Prof	170	45,440	49,520	55,090	50,260	—
Assistant Professor*	917	45,940	50,560	57,270	51,883	51,880
Associate Professor	885	54,350	60,860	69,510	63,193	61,640
Full Professor	918	66,720	77,740	92,900	81,153	79,277



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

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*, 16th ed., CPST, Washington, DC, 2006.

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—2006* (NSB 06-01), National Science Foundation, Arlington, VA, 2006.

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 V contains U.S. departments (or programs) in applied mathematics/applied science, operations research, and management science which report 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/.

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. Coggshall, 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.