

STARTING SALARIES FOR MATHEMATICIANS WITH A PH. D.

As a service to the mathematical community, the American Mathematical Society has undertaken a Survey of Starting Salaries of graduates with the Ph. D. degree in Mathematics. The initial survey was conducted for starting salaries of graduates receiving their doctorate in the years 1957, 1958, 1959, and 1960, in order to determine the trend over the past years. A total of 672 completed questionnaires was returned to the Society. From now on a yearly survey will be taken in the spring of each year, and the results thus obtained will be published yearly in the October issue of the NOTICES.

Median starting salaries in academic institutions went up 4.3% over the last year. The increase from 1959 over 1958 was 7.8% while that from 1958 over 1957 was 3.6%, with an overall increase from 1957 to 1960 of 17.1% of the 1957 salary. Those Ph.D.'s reporting research as their primary responsibility, received 10% higher salaries than their colleagues giving teaching as their primary responsibility.

The corresponding increases in first industrial employment are as follows: from 1959 to 1960: 4.8%; from 1958 to 1959: 1.9%; 1957 to 1958: 11.4%. Although the increase in industrial employment was less year by year, the median salary throughout was higher than in academic employment. The overall increase from 1957 to 1960 is 18.7%.

An increase in salaries for beginning Ph.D.'s was noted in research institutions in the years 1958 to 1959 and 1959 to 1960, while the salaries decreased by 2.4% from 1957 to 1958 according to the results of the survey.

Government salaries decreased by 8.8% from 1959 to 1960, and showed an increase of 4.7% from 1958 to 1959, and increased by 40.3% from 1957 to 1958, with an overall increase from 1957 to 1960 of 33.8%.

More than twice as many Ph.D.'s went into academic institutions, 66.9% of the total reporting, than into industry or government employ, both of which together received only 33.1% of the new crop of Ph.D.'s.

In the academic field, the upper 25% and the lower 25% above only a difference in monthly salaries of \$120. In the industrial and government jobs the spread between the upper 25% and the lower 25% is \$285 per month. There were insufficient returns from Ph.D.'s in Technical Institutes to report percentiles, hence, only the median and minimum and maximum salaries are given here.

The majority of Ph. D.'s reported more than one year of work experience before receiving the Ph.D. and accepting first academic employment. Generally longer previous work experience was reported from the group which accepted industrial employment.

Geographically the heaviest concentration of all mathematicians was in the North East with 37.3%; the Mid West was second with 24.6%; Far West 23.3%; and only 14.8% in the South.

None of the recipients of the Ph.D. reported that he accepted teaching in high school as his first employment.

UNIVERSITY AND COLLEGE TEACHING

Nine Month Salary

Year	Minimum Salary	Median Salary	Maximum Salary
1957	\$4,500.	\$5,550.	\$6,700.
1958	4,800.	5,750.	7,000.
1959	5,000	6,200.	7,700.
1960	4,900	6,500.	8,000.

INDUSTRY

Twelve Month Salary

Year	Minimum Salary	Median Salary	Maximum Salary
1957	\$7,300.	\$ 9,250.	\$14,000.
1958	8,600.	10,300.	12,700.
1959	7,800.	10,500.	16,000.
1960	7,800.	11,000.	15,000.

RESEARCH INSTITUTES

Twelve Month Salary

Year	Minimum Salary	Median Salary	Maximum Salary
1957	\$7,800.	\$ 8,450.	\$10,300.
1958	4,000.	8,250.	11,000.
1959	6,900.	9,500.	14,000.
1960	9,700.	10,500.	14,000.

GOVERNMENT

Twelve Month Salary

Year	Minimum Salary	Median Salary	Maximum Salary
1957	\$6,300.	\$ 6,950.	\$ 7,800.
1958	7,500.	9,750.	11,600.
1959	8,800.	10,200.	13,000.
1960	7,200.	9,300.	13,000.

TECHNICAL INSTITUTES

Nine Month Salary

Year	Minimum Salary	Median Salary	Maximum Salary
1957	\$4,900.	\$5,400.	\$5,800.
1958	5,000.	6,300.	7,100.
1959	5,800.	6,000.	6,200.
1960	6,300.	6,500.	6,700.

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THE ANNUAL SALARY SURVEY

We present the results of the 1960 Salary Survey. This is the fourth in an annual series of surveys initiated in May 1957 by the Society's Committee on the Economic Status of Teachers.

This survey is confined to academic institutions. The value of this data in efforts to obtain satisfactory salaries for mathematicians is attested to by the response to the questionnaires used in the survey, and by the many favorable comments received.

There were 108 usable replies received in response to the 159 questionnaires that were mailed. This represents a slight improvement over the 99 replies received last year.

The results are tabulated according to a minor revision of the classification of institutions introduced in the 1955-1956 Survey of Training and Research Potential in the Mathematical Sciences (the "Albert Survey"). The revision consists of deleting the classification INSTITUTES OF TECHNOLOGY used in previous surveys and assigning two of the institutions, of the four in this classification, to MAJOR NON-STATE UNIVERSITIES AND COLLEGES; the other two being assigned to OTHER LARGE NON-STATE UNIVERSITIES AND COLLEGES. There are a total of 59 institutions in this set from which 45 responses were received. A separate tabulation is given for the 63 additional institutions included in the Annual Survey but not included in the Albert Survey. Finally, a summary is given of the 159 institutions included in the survey.

The period covered by the survey is an academic year (9 or 10 months). The number of staff members in each rank for 1959-1960 were the actual number employed and serving for this period, whereas the corresponding numbers for 1960-1961 were those employed as of the time of the survey (June, 1960). It was indicated in the questionnaire that by salary is meant the payment by the school to the individual for full-time work. Grants and contracts were to be included, but sabbatical payments and other part-time salaries were to be excluded. All salary figures are given in hundreds of dollars and are rounded to the nearest hundred with downward preference for lower extremes and upward preference for upper extremes. The present tabulation includes the ranges of median in addition to the ranges of minima and ranges of maxima included in last year's report.

MAJOR STATE UNIVERSITIES AND COLLEGES

Number of questionnaires mailed: 14
Number of usable returns: 11

Total number on the staffs working full time on the campus

RANK	1959-60	1960-61
Instructor (only those holding Ph. D.)	28	23-2/3
Assistant Professor	141	140-1/6
Associate Professor	92-2/3	100-5/6
Professor	<u>129-9/10</u>	<u>138-1/18</u>
TOTAL	391-17/30	402-13/18

Salary Survey

RANK	1959-60			1960-61		
	Minimum	Median	Maximum	Minimum	Median	Maximum
Instructor (only those holding Ph. D.)	45-60	54-64	55-66	50-66	57-67	59-70
Assistant Professor	54-70	60-77	70-82	60-73	65-78	72-91
Associate Professor	65-80	73-91	76-100	68-89	77-96	90-110
Professor	65-112	95-135	100-185	77-117	100-145	105-205

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MAJOR NON-STATE UNIVERSITIES AND COLLEGES

Number of questionnaires mailed: 10
Number of usable returns: 9

Total number on the staffs working full time on the campus

RANK	1959-60	1960-61
Instructor (only those holding Ph. D.)	49-1/2	50
Assistant Professor	41	47
Associate Professor	37	31-1/2
Professor	78	81-1/2
TOTAL	205-1/2	210

Survey Salary

RANK	1959-60			1960-61		
	Minimum	Median	Maximum	Minimum	Median	Maximum
Instructor (only those holding Ph. D.)	52-62	55-67	59-66	55-65	58-70	62-71
Assistant Professor	67-85	63-85	70-85	67-80	70-80	75-85
Associated Professor	67-95	80-100	82-110	80-100	90-102	100-115
Professor	83-135	110-150	135-200	85-140	130-160	145-200

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OTHER STATE UNIVERSITIES AND COLLEGES

Number of questionnaires mailed: 16
Number of usable returns: 11

Total number on the staffs working full time on the campus

RANK	1959-60		1960-61	
	Minimum	Maximum	Minimum	Maximum
Instructor (only those holding Ph. D.)	2		3	
Assistant Professor	59		66	
Associate Professor	46		58	
Professor	<u>60-1/2</u>		<u>62-1/2</u>	
TOTAL	167-1/2		189-1/2	

Salary Survey

RANK	1959-60			1960-61		
	Minimum	Median	Maximum	Minimum	Median	Maximum
Instructor (only those holding Ph. D.)	55-58	55-58	55-58	63-63	63-64	63-65
Assistant Professor	54-72	62-74	66-84	56-78	65-80	68-87
Associate Professor	60-90	73-90	73-94	61-93	75-93	81-95
Professor	75-108	85-121	102-140	75-112	91-125	112-165

OTHER LARGE NON-STATE UNIVERSITIES AND COLLEGES

Number of questionnaires mailed: 13
Number of usable returns: 11

Total number on the staffs working full time on the campus

RANK	1959-60	1960-61
Instructor (only those holding Ph. D.)	42	35
Assistant Professor	96	90
Associate Professor	90	107
Professor	<u>128</u>	<u>138</u>
TOTAL	356	370

Salary Survey

RANK	1959-60			1960-61		
	Minimum	Median	Maximum	Minimum	Median	Maximum
Instructor (only those holding Ph. D.)	50-62	50-62	50-62	56-70	56-70	60-70
Assistant Professor	55-68	67-77	68-80	59-68	66-79	68-90
Associate Professor	65-80	76-97	80-100	65-87	74-102	84-135
Professor	64-110	98-135	97-195	64-147	101-142	115-195

SMALLER NON-STATE UNIVERSITIES AND COLLEGES

Number of questionnaires mailed: 6
Number of usable returns: 3

Total number on the staffs working full time on the campus

RANK	1959-60	1960-61
Instructor (only those holding Ph. D.)	2	1
Assistant Professor	11	14
Associate Professor	9	7
Professor	<u>7</u>	<u>9</u>
TOTAL	29	31

Salary Survey

RANK	1959-60			1960-61		
	Minimum	Median	Maximum	Minimum	Median	Maximum
Instructor (only those holding Ph. D.)	51-60	51-60	51-60	51-51	51-51	51-51
Assistant Professor	55-70	57-70	65-73	57-65	57-75	60-75
Associate Professor	65-80	67-82	67-88	67-85	70-98	70-98
Professor	80-110	87-120	85-135	80-120	100-125	95-140

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INSTITUTIONAL MEMBERS OF THE SOCIETY
NOT INCLUDED IN THE PRECEDING CLASSIFICATION

Number of questionnaires mailed: 100
Number of usable returns: 63

Total number on the staffs working full time on the campus

RANK	1959-60	1960-61
Instructor (only those holding Ph. D.)	28	31
Assistant Professor	231	243-1/2
Associate Professor	174-5/6	194-1/3
Professor	<u>174-1/3</u>	<u>187-1/3</u>
TOTAL	608-1/6	656-1/6

Salary Survey

RANK	1959-60			1960-61		
	Minimum	Median	Maximum	Minimum	Median	Maximum
Instructor (only those holding Ph. D.)	40-75	50-79	55-84	40-78	52-82	56-89
Assistant Professor	43-82	46-91	46-99	46-85	51-95	51-99
Associate Professor	54-107	56-115	60-115	58-111	65-115	70-115
Professor	60-128	60-142	60-160	63-127	63-151	63-180

SUMMARY OF ALL INSTITUTIONS SURVEYED

Number of questionnaires mailed: 159
Number of usable returns: 108

Total number on the staffs working full time on the campus (rounded to the nearest integer)

RANK	1959-60	1960-61
Instructor (only those holding Ph. D.)	152	143-2/3
Assistant Professor	579	600-2/3
Associate Professor	450	498-2/3
Professor	<u>578</u>	<u>616-7/18</u>
TOTAL	1,759	1,859

Salary Survey

RANK	1959-60			1960-61		
	Minimum	Median	Maximum	Minimum	Median	Maximum
Instructor (only those holding Ph. D.)	40-75	50-79	50-84	40-78	51-82	51-89
Assistant Professor	43-85	46-91	46-99	46-85	51-95	51-99
Associate Professor	54-107	56-115	60-110	58-111	65-115	70-135
Professor	60-135	60-150	60-200	63-147	63-160	63-205