

ANNUAL SALARY SURVEY

This fall an additional questionnaire was sent to departments of the mathematical sciences and the 1970 salary survey has been expanded to include Projected Faculty Growth and Graduate Student Support as well as Faculty Salaries and Starting Salaries for Ph.D.'s which have been included in recent years. In all except the Starting Salary Survey institutions are divided into groups according to the highest degree offered in the mathematical sciences as follows:

Ph.D. Granting Institutions.

Group I and Group II include the universities with leading mathematics departments according to the findings of a survey made by the American Council of Education in 1964* in which departments were rated according to the quality of their graduate facility. Group I is composed of institutions that were considered "Distinguished" and "Strong"; Group II

are those considered "Good" and "Adequate Plus".

Group III includes those universities that have granted three or more doctorates during the last three years, according to the list of doctorates which is published in these *Notices*.

Group IV consists of institutions that have granted two or less doctorates during the past three years.

All Canadian universities maintaining Ph.D. granting programs are included in Groups III and IV.

Master's Degree Granting Institutions.

Bachelor's Degree Granting Institutions.

Nondegree Granting Institutions. These include junior colleges and other institutions offering courses but not degrees in mathematics.

Faculty Salaries

This survey is the fourteenth in an annual series begun in 1957 by the Society's Committee on the Economic Status of Teachers.

The 1970 survey is based on returns from 727 departments in mathematics, a substantially higher number than the 478 returns recorded last year. These departments included 10,726 academic positions held in 1969-1970 and 11,062 positions in 1970-1971.

Each institution submitted a minimum, median, and maximum salary figure for each of four academic ranks, both for staff members with master's degrees and for those with doctorates, creating 48 categories of salary figures.

In some instances relatively few universities or colleges reported, and in as much as there were no significant figures available, salaries could not be listed.

In the following two pages the data in the parentheses give the range of the middle 50% of salaries reported. The figures outside the parentheses represent the minimum and maximum salary listed by any reporting institution. Salaries are given in "hundreds of dollars."

All salaries refer to an academic year of 9 or 10 months. Grants and contracts are included but sabbatical payments and other part-time salaries are not.

*The findings were published in a book by Allan Cartter entitled "An Assessment of Quality in Graduate Education." The information on mathematics was reprinted by the Society and can be found on pages 978-980 of the December 1966 issue of these *Notices*.

PH. D. GRANTING INSTITUTIONS. Group I

Number of Usable Returns: 35

DOCTORAL DEGREE	Total Number of Staff Members		SALARIES (hundreds of dollars)		
	1969-1970	1970-1971	1969-1970	1970-1971	Maximum
Instructor	96	82	65 (87-98)	73 (97-104)	(105-110)112
Asst. Professor	432	392	60 (100-110)	95 (104-115)	(125-143)160
Assoc. Professor	298	327	112 (120-135)	118 (128-137)	(164-178)225
Professor	563	581	140 (158-187)	140 (161-190)	(270-320)360
	1389	1382			

PH. D. GRANTING INSTITUTIONS. Group II

Number of Usable Returns: 34

MASTER'S DEGREE	Instructor	Number	SALARIES (hundreds of dollars)		
			1969-1970	1970-1971	Maximum
MASTER'S DEGREE	Instructor	59	42	60 (75-86)	(87-110)122
DOCTORAL DEGREE	Instructor	11	17		
	Asst. Professor	406	399		
	Assoc. Professor	244	275		
	Professor	302	313		
		963	1004		

PH. D. GRANTING INSTITUTIONS. Group III

Number of Usable Returns: 89

MASTER'S DEGREE	Instructor	Number	SALARIES (hundreds of dollars)		
			1969-1970	1970-1971	Maximum
MASTER'S DEGREE	Instructor	281	252	32 (67-83)	(86-105)150
	Asst. Professor	106	96	80 (90-106)	(108-117)165
	Assoc. Professor	68	70	94 (105-121)	(131-152)210
	Professor	19	19		
		474	437		

PH. D. GRANTING INSTITUTIONS. Group IV

Number of Usable Returns: 32

MASTER'S DEGREE	Instructor	Number	SALARIES (hundreds of dollars)		
			1969-1970	1970-1971	Maximum
MASTER'S DEGREE	Instructor	14	15	81 (100-110)	(122-140)170
	Asst. Professor	899	936	89 (120-136)	(150-180)214
	Assoc. Professor	535	629	100 (153-180)	(210-267)365
	Professor	569	611		
		2017	2191		

The Annual Salary Survey, 1969

In the 1970 questionnaire chairmen of departments were asked to predict the size of their staffs for each of the five academic years 1970-1971,....., 1974-1975. The figures given below for 1969-1970 were drawn from two sources: The MAA Guidebook (1970) and the Annual Salary Survey. Both of these surveys were based on the same mailing list which contains 1,367 departments of mathematical sciences in four year colleges and universities of the United States; a total of 1,234 departments responded to one or both of these questionnaires. The response rates are indicated for each of the categories I, II, III, IV, Master's and Bachelor's in the column headed 1969-1970 of Table I below; the remaining columns indicate the percentage responses for predictions covering the years 1970-1971,....., 1974-1975.

The figures in Table II are extrapolations, based on the predictions made

by those chairmen who were willing to make predictions; they were obtained by dividing the total number of positions predicted for each year by the ratio of the number of departments reporting to the total number of departments in that category. Within each category, the figures were weighted by a factor proportional to the size of the departments reporting. These results are rough at best. As indicated in Table I, the percentage of chairmen willing to predict even one year ahead varied between 21% and 61%, and those willing to predict as many as five years ahead varied between 19% and 52%.

The entries in the last column of Table II give the average annual growth rate predicted for each category: This varies from 3% for group I to over 7% for IV, Master's and Bachelor's. The entries in the last row give the annual increment predicted for each of these five years.

L. K. Durst

TABLE I. PERCENTAGE OF DEPARTMENTS RESPONDING

	Total No. of Depts.	Percentage Response:					
		1969-1970	1970-1971	1971-1972	1972-1973	1973-1974	1974-1975
I	62	79	50	37	35	34	34
II	44	89	61	57	55	52	52
III	151	99	50	48	48	47	47
IV	64	66	45	45	45	44	44
Mast.	233	99	54	52	51	50	50
Bach.	813	89	21	20	19	19	19

TABLE II. PROJECTED NUMBER OF FACULTY MEMBERS

	1969-1970	1970-1971	1971-1972	1972-1973	1973-1974	1974-1975	Growth Rate
I	2270	2260	2360	2510	2590	2650	3.2%
II	1220	1290	1340	1450	1560	1640	6.1%
III	5380	5650	6130	6510	6990	7370	6.5%
IV	1380	1470	1600	1720	1840	1980	7.5%
Mast.	4200	4460	4880	5250	5550	6010	7.4%
Bach.	2850	2960	3190	3420	3670	4020	7.1%
TOTALS	17300	18450	19880	21270	22640	24150	6.9%
Annual Increment	-	1150	1430	1390	1370	1510	-

*See
 erratum
 attached*

The Annual Salary Survey, 1969
Graduate Student Support

291 departments out of a possible 554 responded to the questionnaire concerning the number of graduate students enrolled in 1969-1970 and the number expected in 1970-1971. These figures have been converted into percentages according to type of support.

The number in parentheses after each group title below indicates the number of usable responses involved. The possible numbers would have been 62 in Group I, 44 in Group II, 151 in Group III, 64 in Group IV, and 233 in Master's degree granting institutions.

	Students primarily supported by teaching assistantships	Students primarily supported by research project funds	Students primarily supported by fellowship or traineeship support	Students not primarily supported by any of above	Total number of students in sample
Ph. D. GRANTING INSTITUTIONS					
Group I (33)					
1969-1970					
All Students	31%	9%	21%	39%	4175
New Students	29%	3%	25%	43%	1355
1970-1971					
All Students	32%	10%	21%	37%	3988
New Students	28%	3%	27%	42%	1267
Ph. D. GRANTING INSTITUTIONS					
Group II (30)					
1969-1970					
All Students	38%	6%	12%	44%	2815
New Students	42%	4%	15%	39%	869
1970-1971					
All Students	38%	6%	11%	45%	2720
New Students	35%	6%	13%	46%	962
Ph. D. GRANTING INSTITUTIONS					
Group III (82)					
1969-1970					
All Students	34%	9%	18%	36%	4811
New Students	38%	8%	19%	35%	1659
1970-1971					
All Students	36%	8%	16%	40%	5144
New Students	40%	11%	18%	31%	1714
Ph. D. GRANTING INSTITUTIONS					
Group IV (29)					
1969-1970					
All Students	34%	2%	11%	53%	942
New Students	45%	2%	9%	44%	385
1970-1971					
All Students	34%	4%	9%	53%	892
New Students	33%	6%	12%	49%	363
MASTER'S DEGREE GRANTING INSTITUTIONS (117)					
1969-1970					
All Students	17%	1%	5%	77%	3663
New Students	33%	1%	7%	59%	1144
1970-1971					
All Students	20%	1%	6%	73%	3526
New Students	33%	1%	7%	59%	1345

The Annual Salary Survey, 1969
Starting Salary for Mathematicians with a Ph. D.

This 1970 Survey was compiled from questionnaires sent to 1,322 individuals who received a Ph.D. in the Mathematical Sciences during the academic year 1969-1970. There were 611 usable returns.

Of those reporting 84% accepted positions in academic life, 10% went into industry, 2% were connected with research institutions and 4% went into government. The number in parentheses after each category represents the number of usable returns for that category. Geographically, 34% accepted jobs in the northeast, 22% in the southeast, 21% in the midwest, 5% in the mountain states, 13% in the far west and 5% in Canada.

57% of the new Ph.D.'s had more than a year of experience in their field prior to receiving their doctorate, 13% had between one-half year and one year of experience, and 28% had less than one-half year of experience.

It should be noted that the first category listed below (teaching, 9-month salary) represents 60% of all positions reported in the Survey. Of those accepting academic positions, 73% were in master's or Ph.D. granting institutions, 26% in bachelor's degree granting institutions, and less than 1% in junior colleges.

Salaries are listed in hundreds of dollars. Dashes indicate that not enough returns were received to warrant including the Survey figures.

TEACHING (362) (Nine-Month Salary)				TEACHING (56) (Twelve-Month Salary)				TEACHING AND RESEARCH (20) (Nine-Month Salary)			
Year	Min.	Median	Max.	Year	Min.	Median	Max.	Year	Min.	Median	Max.
*1967	70	93	120	*1967	85	112	150	*1967	75	90	105
**1967	65	96	140	**1967	83	122	200	**1967	--	--	---
1968	72	102	170	1968	95	120	180	1968	78	100	130
1969	80	105	165	1969	75	128	168	1969	95	110	138
1970	85	110	195	1970	95	128	200	1970	90	106	120

RESEARCH (33) (Nine-Month Salary)				RESEARCH (27) (Twelve-Month Salary)				FELLOWSHIP (18) (Yearly Stipend)			
Year	Min.	Median	Max.	Year	Min.	Median	Max.	Year	Min.	Median	Max.
*1967	78	93	108	*1967	80	101	130	*1967	40	80	120
**1967	70	93	103	**1967	80	105	132	**1967	60	85	100
1968	78	100	115	1968	80	100	134	1968	--	--	---
1969	63	105	125	1969	78	149	180	1969	--	--	---
1970	78	105	160	1970	90	120	205	1970	60	86	120

RESEARCH INSTITUTES (15) (Twelve-Month Salary)				INDUSTRY (58) (Twelve-Month Salary)				GOVERNMENT (22) (Twelve-Month Salary)			
Year	Min.	Median	Max.	Year	Min.	Median	Max.	Year	Min.	Median	Max.
*1967	60	120	150	*1967	125	145	200	*1967	84	111	161
**1967	60	135	215	**1967	97	151	204	**1967	--	---	---
1968	120	157	192	1968	110	156	248	1968	85	134	170
1969	75	156	235	1969	125	168	250	1969	82	138	192
1970	70	170	200	1970	96	170	235	1970	100	150	223

*These figures represent the survey compiled from returns sent in by individuals who received their doctorates in 1966.

**These figures represent the survey compiled from returns sent in by individuals who received their doctorates during the first six months of 1967.

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 November 1970, p. 1016

The Annual Salary Survey, 1969

ERRATUM

ANNUAL SALARY SURVEY (PROJECTED FACULTY GROWTH)

The last three lines of Table II, page 882, of the October issue of these NOTICES contain several errors. The table should appear as follows:

TABLE II. PROJECTED NUMBER OF FACULTY MEMBERS

	<u>1969-1970</u>	<u>1970-1971</u>	<u>1971-1972</u>	<u>1972-1973</u>	<u>1973-1974</u>	<u>1974-1975</u>	<u>Growth Rate</u>
I	2270	2260	2360	2510	2590	2650	3.2%
II	1220	1290	1340	1450	1560	1640	6.1%
III	5380	5650	6130	6510	6990	7370	6.5%
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Bach.	3100	3320	3570	3830	4110	4500	7.7%
TOTALS	17550	18450	19880	21270	22640	24150	6.6%
Annual Increment -		900	1430	1390	1370	1510	-