

# 16th

## ANNUAL SALARY SURVEY

As has been the practice for several years, questionnaires were sent again this year to departments in the mathematical sciences asking for information on salaries. The two-year colleges were sent a form which allowed them to report salaries without regard to academic rank, because many of the junior colleges do not rank their teaching staffs. These results are included in a listing under "two-year colleges." Except for the starting salary survey, the institutions are divided into groups according to the highest degree offered in the mathematical sciences.

### Ph. D. Granting Institutions

Group I and Group II include the universities with leading departments of mathematics according to the findings of a survey made by the American Council of Education in 1969\* in which departments were ranked according to the quality of their graduate faculty. Group I is composed of the twenty-seven institutions in which the departments of mathematics were ranked highest, and Group II is made of the thirty-eight institutions which were also listed in that report as having leading departments. It should be noted that most of these institutions have several departments in the mathematical sciences (see figures below) but that the rating was on the strength of the department of mathematics.

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.

The total number of institutions and of departments in the mathematical sciences in the various groups are as follows.

Type of institution	Number of	
	Institutions	Departments
Ph. D. granting		
Group I	27	86
Group II	38	95
Group III	75	145
Group IV	37	54
Master's granting	225	242
Bachelor's granting	953	966
Two-year colleges	600	600
	1955	2188

## Faculty Salaries

This survey is the sixteenth in an annual series begun in 1957 by the Society's Committee on the Economic Status of Teachers. The 1972 survey is based on returns from 943 departments in the mathematical sciences. The institutions include 92 two-year colleges which do not classify staff according to academic rank.

The 943 departments in the survey cover 12,593 academic positions held in 1971-1972 and 12,644 positions in 1972-1973. Institutions 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 forty-eight categories of salary figures. In some instances,

relatively few universities or colleges reported, and inasmuch 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 fifty percent 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 nine or ten months. Grants and contracts are included but sabbatical payments and other part-time salaries are not.

\*The findings were published in "A Rating of Graduate Programs" by Kenneth D. Roose and Charles J. Anderson, American Council of Education, Washington, D. C., 1969, 115 pp. The information on mathematics was reprinted by the Society and can be found on pages 338-340 of the February 1972 issue of these *Notices*.

Reprinted from  
NOTICES of the American Mathematical Society  
Volume 19 Number 6, October 1972  
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**PH. D. GRANTING INSTITUTIONS. Group I**

DOCTORAL DEGREE	Total Number of Staff Members	
	1971-1972	1972-1973
Instructor	70	64
Asst. Professor	299	313
Assoc. Professor	272	265
Professor	576	589
	<u>1217</u>	<u>1231</u>

**PH. D. GRANTING INSTITUTIONS. Group II**

NON-PH. D. DEGREE	1971-1972	1972-1973
Instructor	97	71

**DOCTORAL DEGREE**

Instructor	29	42
Asst. Prof.	652	591
Assoc. Prof.	457	488
Professor	517	550
	<u>1655</u>	<u>1671</u>

**PH. D. GRANTING INSTITUTIONS. Group III**

NON-PH. D. DEGREE	1971-1972	1972-1973
Instructor	205	143
Asst. Professor	88	72
Assoc. Professor	69	63
Professor	14	15
	<u>376</u>	<u>293</u>

**DOCTORAL DEGREE**

Instructor	42	42
Asst. Professor	746	713
Assoc. Professor	626	686
Professor	566	596
	<u>1980</u>	<u>2037</u>

**PH. D. GRANTING INSTITUTIONS. Group IV**

NON-PH. D. DEGREE	1971-1972	1972-1973
Instructor	36	29
Asst. Professor	38	35
Assoc. Professor	15	15
Professor	14	13
	<u>103</u>	<u>92</u>

Number of Usable Returns: 42

**SALARIES (in hundreds of dollars)**

	1971-1972			1972-1973		
	Minimum	Median	Maximum	Minimum	Median	Maximum
	95(100-106)	(104-107)	(108-110)111	79(100-111)	(100-112)	(105-114)120
	90(105-120)	(115-129)	(124-140)159	80(110-125)	(116-133)	(127-147)170
	94(131-150)	(148-163)	(160-180)198	112(138-160)	(150-170)	(162-188)205
	148(163-200)	(215-240)	(261-320)368	150(170-210)	(221-250)	(270-332)380

Number of Usable Returns: 61

	60(80-107)	(81-107)	(83-116)142	60(83-113)	(85-113)	(90-121)149
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Number of Usable Returns: 82

	86(110-125)	(123-135)	(132-148)190	87(113-130)	(123-140)	(132-149)199
	109(135-159)	(147-171)	(167-190)323	112(136-160)	(150-170)	(172-191)336
	140(171-210)	(212-244)	(252-300)400	125(176-210)	(218-250)	(264-307)400

	54(70-92)	(76-95)	(83-105)132	48(80-97)	(81-100)	(85-108)138
	87(100-115)	(103-117)	(104-122)145	85(100-118)	(108-125)	(110-128)157
	95(121-154)	(127-154)	(130-160)185	105(127-158)	(132-158)	(134-167)193

Number of Usable Returns: 23

	92(105-117)	(117-128)	(126-146)173	92(110-121)	(120-133)	(130-149)189
	95(125-145)	(139-160)	(156-181)220	98(129-151)	(144-166)	(158-188)207
	94(158-187)	(187-215)	(215-278)349	100(165-195)	(192-224)	(223-282)362

<u>DOCTORAL DEGREE</u>											
Instructor	3										
Asst. Professor	205										
Assoc. Professor	167										
Professor	147										
	<u>507</u>										
<b>MASTER'S DEGREE GRANTING INSTITUTIONS</b>											
Number of Usable Returns: 143											
<u>NON-PH. D. DEGREE</u>											
Instructor	302										
Asst. Professor	508										
Assoc. Professor	241										
Professor	70										
	<u>1121</u>										
<u>DOCTORAL DEGREE</u>											
Instructor	21										
Asst. Professor	744										
Assoc. Professor	564										
Professor	440										
	<u>1696</u>										
<b>BACHELOR'S DEGREE GRANTING INSTITUTIONS</b>											
Number of Usable Returns: 376											
<u>NON-PH. D. DEGREE</u>											
Instructor	279										
Asst. Professor	524										
Assoc. Professor	293										
Professor	71										
	<u>1167</u>										
<u>DOCTORAL DEGREE</u>											
Instructor	11										
Asst. Professor	518										
Assoc. Professor	329										
Professor	347										
	<u>1205</u>										
<b>TWO-YEAR COLLEGES</b>											
Number of Usable Returns: 216											
<u>NON-PH. D. DEGREE</u>											
Instructor	1442										
Assoc. Professor	103										
Professor											
	<u>1446</u>										
<u>DOCTORAL DEGREE</u>											
Instructor	98										
Asst. Professor											
Assoc. Professor											
Professor											
	<u>1095</u>										
<b>TWO-YEAR COLLEGES WHOSE STAFF IS CLASSIFIED BY ACADEMIC RANK (124 returns; INCLUDED in the figures above)</b>											
<u>NON-PH. D. DEGREE</u>											
Instructor	267										
Asst. Professor	293										
Assoc. Professor	183										
Professor	67										
	<u>818</u>										

### Graduate Student Support

The figures below represent the major sources of support (excluding tuition) of full-time graduate students enrolled for advanced degrees in 1971-1972 and estimates for 1972-1973. The type of support has been converted into percentages, with the total number of students represented by the sample given in the last column.

Replies from Canadian institutions have been listed separately so that the U. S. figures can be compared with data previously collected by the Division of Graduate Education in Science, National Science Foundation. See the article entitled, "Sources of graduate student support in 1971-1972" in the May 1972 issue of the Newsletter of the Conference Board of Mathematical Sciences.

Replies from Canadian institutions have been

SUPPORT SOURCES	STUDENTS PRIMARILY SUPPORTED BY				Total number of students in sample
	Fellowships and Traineeships	Graduate Research Assistantships	Graduate Teaching Assistantships	Other types of support	
<b>U. S. Ph. D. GRANTING INSTITUTIONS</b>					
Group I (50 returns/86 depts.)					
1971-1972					3885
Government	16%	13%	6%	1%	
Other Sources	10%	1%	28%	25%	
1972-1973					3799
Government	13%	13%	7%	1%	
Other Sources	9%	2%	28%	27%	
Group II (61 returns/95 depts.)					
1971-1972					3314
Government	11%	6%	4%	5%	
Other Sources	5%	4%	42%	23%	
1972-1973					3261
Government	7%	6%	4%	6%	
Other Sources	5%	4%	42%	26%	
Group III (67 returns/120 depts.)					
1971-1972					2748
Government	11%	2%	6%	5%	
Other Sources	2%	4%	45%	25%	
1972-1973					2801
Government	7%	3%	8%	5%	
Other Sources	2%	4%	43%	28%	
Group IV (26 returns/40 depts.)					
1971-1972					725
Government	6%	4%	14%	5%	
Other Sources	2%	5%	35%	29%	
1972-1973					837
Government	3%	3%	17%	6%	
Other Sources	4%	4%	29%	34%	
<b>U. S. MASTER'S DEGREE GRANTING INSTITUTIONS</b> (127 returns/203 depts.)					
1971-1972					1435
Government	3%	1%	12%	9%	
Other Sources	2%	2%	43%	28%	
1972-1973					1511
Government	2%	1%	11%	8%	
Other Sources	2%	2%	43%	31%	
<b>CANADIAN INSTITUTIONS</b> (24 returns/51 depts.)					
1971-1972					1042
Government	21%	16%	17%	1%	
Other Sources	6%	7%	25%	6%	
1972-1973					989
Government	21%	16%	16%	1%	
Other Sources	6%	7%	25%	7%	

## Starting Salary Survey for New Recipients of the Doctorate

The latest figures in this Survey were compiled from questionnaires sent to individuals who received a doctorate in the mathematical sciences during the academic year 1971-1972 from universities in the United States and Canada. Of 1,375 distributed there were 531 returns considered usable, i. e., compatible with the Survey categories, 497 representing men and 34 representing women. Among the unusable returns, 2 representing males and 3 representing females reported part-time jobs only and were for that reason not used in the compilation of salary information.

In parentheses, after each category below, are listed the number of returns that represent men and women respectively. Men and women are treated separately, as well as together, in the 1971 and 1972 figures, 1972M referring to male replies and 1972F to female.

Most of the Ph. D. 's reporting, 81%, have accepted academic positions. Of the remainder, 8% are

in industry, 7% in research institutions, and 3% in government. The 34 women respondents reported 30 academic, 1 research institution, and 3 governmental positions.

Of those reporting academic positions, 46% were held in Ph. D. granting institutions, 22% in institutions granting the master's as its highest degree, 28% in bachelor granting institutions, 2% in junior colleges and 2% in high schools; in the 1971 survey, no individuals reported positions in high schools.

Geographically, the Survey indicates that 88% have accepted jobs in the United States, 83% men and 5% women; 6%, all men, in Canada; and 5% men and 1% women, in other locations.

Salaries are listed in hundreds of dollars. Dashes indicate that not enough returns were received to warrant including the figures here. Quartiles are indicated for teaching, nine-month salary. The years listed refer to the academic year ending in the listed year.

### TEACHING (253 + 18) (Nine-Month Salary)

Year	Min.	Q <sub>1</sub>	Median	Q <sub>3</sub>	Max.
1968	72		102		170
1969	80		105		165
1970	85		110		195
1971	70	105	110	120	178
1972	61	105	115	125	192
1971M	75	105	110	120	178
1971F	70	95	105	108	148
1972M	61	105	115	125	192
1972F	94	105	110	125	192

### TEACHING (35 + 3) (Twelve-Month Salary)

Year	Min.	Median	Max.
1968	95	120	180
1969	75	128	168
1970	95	128	200
1971	80	126	190
1972	92	124	210
1971M	80	127	190
1971F	--	110	---
1972M	92	125	210
1972F	103	104	120

### RESEARCH (29 + 0) (Nine-Month Salary)

Year	Min.	Median	Max.
1968	78	100	115
1969	63	105	125
1970	78	105	160
1971	90	110	153
1972	60	111	155
1971M	90	110	153
1971F	105	---	120

### RESEARCH (21 + 2) (Twelve-Month Salary)

Year	Min.	Median	Max.
1968	80	100	134
1969	78	149	180
1970	90	120	205
1971	60	120	181
1972	50	125	180
1971M	60	120	181
1971F	60	---	60
1972M	50	126	180
1972F	100	---	125

### INDUSTRY (41 + 0) (Twelve-Month Salary)

Year	Min.	Median	Max.
1968	110	156	248
1969	125	168	250
1970	96	170	235
1971	99	170	252
1972	118	181	296
1971M	99	167	252
1971F	192	---	240

### GOVERNMENT (36 + 3) (Twelve-Month Salary)

Year	Min.	Median	Max.
1968	85	134	170
1969	82	138	192
1970	100	150	223
1971	117	151	290
1972	70	155	315
1971M	117	160	290
1971F	140	---	150
1972M	70	155	315
1972F	110	156	160

### TEACHING AND RESEARCH (45 + 5) (Nine-Month Salary)

Year	Min.	Median	Max.
1968	78	100	130
1969	95	110	138
1970	90	106	120
1971	88	110	156
1972	95	115	160
1972M	100	116	160
1972F	95	105	135

### TEACHING AND RESEARCH (13 + 2) (Twelve-Month Salary)

Year	Min.	Median	Max.
1971	100	137	165
1972	100	125	205
1971M	100	150	165
1971F	---	120	---
1972M	100	127	185
1972F	106	---	205

### RESEARCH INSTITUTES (17 + 1) (Twelve-Month Salary)

Year	Min.	Median	Max.
1968	120	157	192
1969	75	156	235
1970	70	170	200
1971	65	160	190
1972	63	168	190
1972M	63	168	190
1972F	--	159	---