

AMS-IMS-MAA Annual Survey

(First Report)

Report on the 1995 Survey of New Doctoral Recipients
Salary Survey for New Doctoral Recipients
Faculty Salary Survey

This first report on the 1995 Survey includes a report on the 1995 survey of new doctoral recipients, a report on salaries of new doctoral recipients, and salary data on faculty members in four-year colleges and universities. The report is based on information collected from questionnaires distributed in May to departments in the mathematical sciences in colleges and universities in the United States and later to the recipients of doctoral degrees granted by these departments between July 1994 and June 1995, inclusive. A further questionnaire concerned with data on fall enrollments, majors, and departmental size was distributed in September. These data will appear in the second report on the 1995 Survey in a spring 1996 issue of the *Notices*. A list of names and thesis titles for members of the 1994-1995 Ph.D. class will be published in the January 1996 issue of the *Notices*.

The 1995 Annual AMS-IMS-MAA Survey represents the thirty-ninth in an annual series begun in 1957 by the Society. The 1995 Survey is under the direction of the AMS-IMS-MAA Data Committee, whose members are Paul W. Davis, Lorraine Denby, John D. Fulton (chair), Don O. Loftsgaarden, James W. Maxwell (*ex officio*), S. Brent Morris, Donald B. Rubin, Donald C. Rung, Ann K. Stehney, and Ann E. Watkins. Comments or suggestions regarding this Survey may be directed to the committee.

Report on the 1995 Survey of New Doctoral Recipients

John D. Fulton

This report presents a statistical profile of recipients of doctoral degrees in the mathematical sciences awarded by universities in the United States during the period July 1, 1994, through June 30, 1995. It includes an analysis of the employment market for 1994-1995 doctoral recipients and a demographic profile summarizing characteristics of citizenship status, gender, and racial/ethnic group. Table 1 provides the response rates for the 1995 Survey of New Doctoral Recipients (see box on page 1505 for description of Groups).

Table 1: Response Rates

Group I	39 of 39 including 1 with 0 degrees
Group II	41 of 43 including 1 with 0 degrees
Group III	87 of 94 including 21 with 0 degrees
Group IV	55 of 79 including 3 with 0 degrees
Group Va	13 of 18 including 1 with 0 degrees
Group Vb	13 of 33 including 2 with 0 degrees

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Doctoral Degrees Granted

The number of new doctoral recipients reported in 1994–1995 by U.S. Mathematical sciences departments is 1,226, an all-time high number. Table 2A gives the fall and spring counts for the past four Annual Surveys together with the current fall count. This year's fall count will be updated in the Second Report of the 1995 Survey, to appear in a spring 1996 issue of the *Notices*.

The fall count of the total number of new doctoral recipients represents an increase of 15.8 percent from the fall count of 1,059 in the 1994 Survey. This year's fall count represents an increase of 67.5 percent over the 1984–1985 fall count of 732 new doctoral recipients from U.S. institutions, one of the lowest counts within the last twenty years. It is an increase of 1 percent over the 1992–1993 spring count of 1,214 new doctoral recipients from U.S. institutions which tied the previous high count in 1970–1971.

Table 2B records the annual number of new doctoral recipients in the mathematical sciences in the U.S. from the year 1990–1991, exclusive of Group Vb. The response rate for Group Vb, which includes some departments in engineering and management science, is the lowest of all groups.

The columns in Table 3B indicate how the count of 1,226 new doctoral recipients was spread over the mathematical sciences departments in Groups I–V. Comparisons in these counts by Groups with the 1993–1994 counts reveal a 9 percent increase in Group I, a 17 percent increase in Group III and a 24.2 percent increase in group IV, and a 62.6 percent increase in Group V. The count of new doctoral recipients in Group II remained virtually unchanged (a one percent increase) from the 1993–1994 fall count to the 1994–1995 fall count. For mathematics departments (Groups I, II, and III combined), there was an increase of 8.9 percent in the fall count of new doctoral recipients. Thus, all of the Groups except Group II showed significant increases in the numbers of new doctoral recipients.

Employment Status of U.S. New Doctoral Recipients, 1994–1995

The Annual Survey of New Doctoral Recipients provides a view of the employment market for new Ph.D.s in the mathematical sciences from the perspective of job applicants. Additional information about recruitment by four-year colleges and universities is reported in the Second Report of the Annual Survey; see the 1994 Second Report, *Notices*, August 1995, pages 863–874, for data on the numbers of positions departments attempted to fill and characteristics of the people hired.

Table 3A shows the employment status, by type of employer and field of degree, of the 1,226 recipients of doctoral degrees conferred by the mathematical sciences departments in

For these reports, departments are divided into groups according to the highest degree offered in the mathematical sciences:

Groups I and II include the leading departments of mathematics in the U.S. according to the 1982 Assessment of Research-Doctorate Programs conducted by the Conference Board of Associated Research Councils, in which departments were rated according to the quality of their graduate faculty.¹

Group I is composed of 39 departments with scores in the 3.0–5.0 range.

Group II is composed of 43 departments with scores in the 2.0–2.9 range.

Group III contains the remaining U.S. departments reporting a doctoral program.

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** is 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.

¹These 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, D.C., 1982. The information on mathematics, statistics, and computer science was presented in digest form in the April 1983 issue of the *Notices*, pages 257–267, and an analysis of the above classifications was given in the June 1983 *Notices*, pages 392–393. For a listing of departments in Groups I and II see the April 1988 *Notices*, pages 532–533.

Table 2A: U.S. New Doctoral Recipients, Fall and Spring Counts

Fall/Spring	Fall/Spring	Fall/Spring	Fall/Spring	Fall/Spring
90–91	91–92	92–93	93–94	94–95
1074	1125	1050	1062	1202
1214	1059	1076	1226	*

* To appear in a spring 1996 issue of the *Notices*.

Table 2B: New Doctoral Degrees Awarded by Groups I–Va

	90–91	91–92	92–93	93–94	94–95
I–Va	1034	1008	1116	1034	1148**

** This is a fall count. The other entries in Table 2B are spring counts. Table 2B will be updated to include a spring count for 1994–1995 in a spring 1996 issue of the *Notices*.

Highlights

- The unemployment rate for new doctoral recipients reached the highest level ever reported. Among those whose employment status is known, 14.7 percent were unemployed as of late September 1995, surpassing the previous record high figure of 14.2 percent in fall 1994 and the record high for previous decades of 13.7 percent in 1975. An additional 4.2 percent of the 1994–1995 new doctoral recipients reported that they were employed part-time. However, total employment of new doctoral recipients in the U.S. increased by more than 19 percent from the level reported in fall 1994.
- U.S. institutions awarded 1,226 doctoral degrees in the mathematical sciences from July 1, 1994 to June 30, 1995, an increase of almost 16 percent from last year's fall count and an all-time high number.
- The number of U.S. citizens reported to have received doctoral degrees in the mathematical sciences is 567, which is almost 21 percent more than the number earning doctoral degrees last year. The count is almost 57 percent above the record low reported in 1986–1987.
- The number of non-U.S. citizens receiving doctoral degrees is 640, a number which is within 5 percent of the 1992–1993 record high of 671.
- Of the 567 U.S. citizen doctoral recipients, 6 are African Americans; 9 are Mexican American, Puerto Rican, or other Hispanic; and 25 are members of other minority groups. In 1993–1994, the U.S. citizen doctoral recipients included 3 African Americans; 7 who are Mexican American, Puerto Rican, or other Hispanic; and 31 members of other minority groups.
- The number of women among U.S. citizen doctoral recipients increased by 13.7 percent from last year's fall count to 141. This number is close to the record high number set in 1992–1993. The percentage of women among U.S. citizen doctoral recipients is almost 25 percent. Last year, over 26 percent of the U.S. citizen doctoral recipients were women.
- The median starting salary of new doctoral recipients reporting teaching (or teaching and research) was \$35,000, the same as the median for last year. The median for women increased from \$34,800 to \$35,000 and the median for men remained at \$35,000.
- In all but one instance the mean salary for assistant, associate, and full professors reported for 1995–1996 increased over the mean for 1994–1995.

the U.S. Between July 1, 1994, and June 30, 1995. The names of the individuals are listed with their thesis titles in a later issue of *Notices*. The employment information was obtained initially from the departments granting the degrees and subsequently from data provided by the degree recipients themselves.

Most new doctoral recipients seek and accept academic positions. Of the 724 new doctoral recipients employed in the U.S., a total of 534 (74 percent) hold jobs in academia. For comparison, last year's First Report showed 606 new doctoral recipients employed in the U.S., including 468 (77 percent) in academic positions. Thus total U.S. employment of new doctoral recipients has increased by 19 percent, and the percentage of positions in academia has decreased by 3 percentage points. Concomitantly, the number of nonacademic positions in the U.S. taken by new doctoral recipients has increased by 38 percent to 190.

The 534 U.S. academic positions this year include a total of 230 in U.S. doctoral degree-granting departments (Groups I-V). This number is 17 percent higher than last year (197 positions in Groups I-V). The hiring of new doctoral recipients by Group I has remained near 100 since 1988, with 98 hired from the 1994–1995 cohort, except for 1993–1994 when only 78 of that cohort was hired. The numbers hired in all of the groups except Groups III and IV increased significantly over last year. Groups I-V combined had a 16.8 percent increase over last year. The number of new doctoral recipients employed by master's and bachelor's degree-granting colleges and universities increased by 26 (14.9 percent) from the number reported last year. While the numbers of new doctoral recipients hired by research institutes and by government have declined from those reported last year (by 48 percent and 14 percent respectively), hiring of the doctoral recipients by business and industry has increased markedly (by 51 percent). Employment of the new doctoral recipients by business and industry constitutes 23 percent of all U.S. employment of these new doctoral recipients. Last year, 18 percent were hired by business and industry.

Though the number of positions into which new doctoral recipients have been hired has increased (by 16.6 percent), the job market for 1994–1995 new doctoral recipients has been more difficult than the markets for 1990–1991, 1991–1992, 1992–1993, and 1994–1995 degree recipients. Table 3A shows that among those whose employment status is known, 14.7 percent are unemployed. (The corresponding rate of unemployment for 1993–1994 doctoral recipients from U.S. institutions, reported in fall 1994, was 14.2 percent). The 1995 unemployment level ranks as the highest ever observed

Table 3A: Employment Status of 1994-1995 U.S. New Doctoral Recipients in the Mathematical Sciences

TYPE OF EMPLOYER	FIELD OF THESIS												TOTAL
	Algebra/ Number Theory	Real or Complex Analysis	Geometry/ Topology	Discr. Math/ Combin/ Logic/ Comp Sci	Probabil- ity/ Statistics	Applied Math	Numerical Analysis/ Approx- imations	Functional Analysis	Linear or Nonlinear Optim./ Control	Differential, Integral and Difference Equations	Harmonic Analysis and Topological Groups	Other	
Group I	23	8	13	15	4	10	4	6	1	4	3	7	98
Group II	7	0	5	4	5	2	6		2	5	1	5	42
Group III	10	2	7	6	12	2	1			2		7	49
Group IV					20					1			21
Group V	1			1	4	6	2			4		2	20
Masters	14	3	4	11	15	5	1	2	5	5	2	3	70
Bachelors	25	11	18	13	19	9	5	9	2	11	2	7	131
Two-year Colleges	2	2	2	2	2	1	2		1	4	2	1	19
Other Academic Depts.	2	2	2	4	25	12	5	1	4	3	1	6	67
Research Institutes	5	2	2		1	2				4		1	17
Government	3			2	4	8	3		1		1	2	24
Business and Industry	11	2	7	16	60	28	8	4	5	11	3	11	166
Foreign, Academic	25	4	12	15	39	12	7	10	1	14	4	9	152
Foreign, Nonacademic	5	1	2		7	3	3		2	1			24
Not seeking employment	4		4	2	2		1	2		2	2	1	20
Still seeking employment	27	8	28	15	24	11	6	5	3	17	1	13	158
Unknown (U.S.)	16	2	5	9	22	9	6	3	4	9	1	29	115
Unknown (non-U.S.)*	2	1	5	2	9	5	1	1	2	2	1	2	33
Column Total	182	48	116	115	274	125	61	43	33	99	24	106	1226
Column Subtotals	Male	133	40	92	90	207	101	55	34	28	71	72	945
	Female	49	8	24	25	67	24	6	9	5	28	34	281

*Non-U.S. citizens who returned to their country of citizenship and whose status is reported as "unknown" or "still seeking employment".

Table 3B: Employment Status of 1994-1995 U.S. New Doctoral Recipients by Type of Granting Department

TYPE OF EMPLOYER	TYPE OF DOCTORAL DEGREE-GRANTING DEPARTMENT					ROW TOTAL	ROW SUBTOTALS	
	Group I Math	Group II Math	Group III Math	Group IV Statistics	Group V Applied Math/OR		Male	Female
Group I	80	5	2	2	9	98	78	20
Group II	19	12	4	2	5	42	33	9
Group III	20	4	17	6	2	49	34	15
Group IV			2	19		21	16	5
Group V	3	1		1	15	20	15	5
Masters	21	20	13	11	5	70	49	21
Bachelors	31	40	47	7	6	131	87	44
Two-year Colleges	2	3	13	1		19	12	7
Other Academic Depts.	13	8	10	22	14	67	54	13
Research Institutes	15			1	1	17	14	3
Government	7		7	2	8	24	20	4
Business and Industry	36	23	24	47	36	166	141	25
Foreign, Academic	76	21	14	31	10	152	120	32
Foreign, Nonacademic	9	2	4	5	4	24	21	3
Not seeking employment	13	2	3	1	1	20	10	10
Still seeking employment	70	35	29	14	10	158	124	34
Unknown (U.S.)	37	23	27	16	12	115	93	22
Unknown (non-U.S.)*	6	6	4	7	10	33	24	9
Column Total	458	205	220	195	148	1226	945	281
Column Subtotals	Male	369	148	170	148	110	945	
	Female	89	57	50	47	38	281	

*Non-U.S. citizens who returned to their country of citizenship and whose status is reported as "unknown" or "still seeking employment".

since employment information about new doctoral recipients was first reported in the current format in 1971. The 1975 level of 13.7 percent was the previous high of past decades. The 1993 level was 12.4 percent. In contrast to the current high unemployment rate, throughout the 1980s the rate reported in the November issue of the *Notices* ranged between a low of 3.7 percent in 1981 and a high of 6.8 percent in 1989 and averaged 5.0 percent over the decade.

The data in Table 3A were obtained in many instances early in the summer of 1995 and do not reflect subsequent hiring. Nonetheless, the year-to-year comparisons are all based on data acquired over the same time period of each year, and they reliably reflect the relative difficulty of this year's market. An update of Table 3A will appear in a spring 1996 issue of the *Notices*. At the time of the Second Report last year, the percentage of 1993-1994 new doctoral recipients from U.S. institutions who had reported not finding employment was 10.7 percent (see *Notices*, November 1994, page 1124, and August 1995, page 865), up from 8.9 percent at the time of the Second Report for the 1992-1993 new doctoral recipients.

Beyond the unemployment statistics that are explicitly reported in Table 3A and 3C, the 1995 Survey reveals other indicators of a difficult job market. For example, 45 (4.2 percent) new doctoral recipients are reported to hold part-time positions, and 78 (7.2 percent) new doctoral recipients hold employment at the same institution that awarded their degree, although not neces-

sarily in the same department in which the degree was earned. Moreover, out of the 230 jobs reported in the doctoral degree-granting departments, 45 positions (20 percent) are held by new doctoral recipients, each of which received their degree from that same department. Both of these are indicators of a weak employment market for the 1994-1995 new doctoral recipients. To compare with the corresponding statistics in 1994, out of 197 jobs held by 1993-1994 doctoral recipients in doctoral degree-granting departments, 38 were part time and 58 were held by doctoral recipients in the same institutions where they earned their doctoral degrees.

The Survey of New Doctoral Recipients per se does not reveal underlying causes of the high rates of unemployment and underemployment. However, data reported in the 1994 Second Report show that many faculty positions being vacated by death, incentive retirements, and other retirements are simply not being filled. Rates of faculty attrition due to deaths and retirements are currently relatively high, and levels of recruitment have declined substantially (33 percent) over the last five years (*Notices*, August, 1995, page 870).

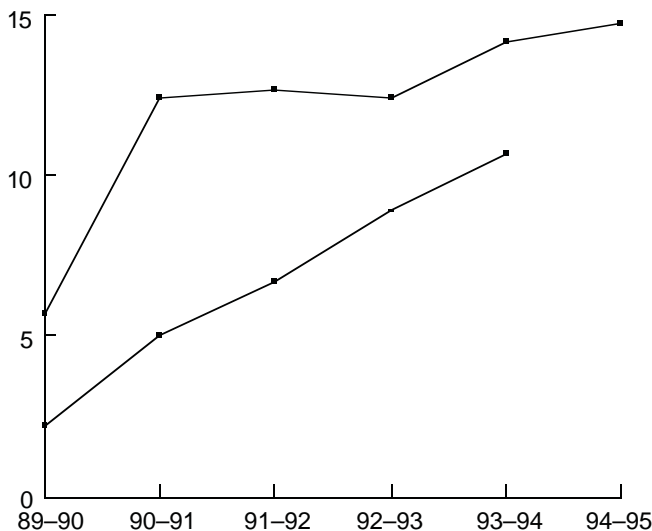
Some information is available from the survey concerning the nature of the academic positions filled. To date, 327 individual responses have been received from new doctoral recipients employed by academic institutions. Sixty-one percent of these respondents report that their positions are not tenure-eligible, and the remaining 39 percent report that their positions are tenured or tenure-track positions. Out of the 198 nontenure-eligible respondents, 31 percent can hold their current positions for a maximum of one year, and 55 percent can hold their positions for up to two years. Thus, the incumbents of many of the nontenure-eligible positions will again be seeking jobs during the current year.

The proportion of the jobs filled which are tenured or tenure-eligible varies significantly between the survey Groups. Among the 327 individual respondents holding jobs in academic institutions, 173 have positions in a doctoral degree-granting department, and 122 have positions in a bachelor's or master's degree-granting department. In the doctoral degree-granting departments, 80 percent of the positions held by new doctoral recipients are not tenure-eligible, while 33 percent of the positions in bachelor's and master's degree-granting departments are not tenure-eligible.

Table 3B reveals the dependence of employment patterns on the type of department from which the doctoral degree is received. The patterns of compartmentalization and stratification of the job market for new doctoral recipients are similar to the patterns seen in the 1994 Survey.

Table 3C: Percentage of New Doctoral Recipients Unemployed, as reported in the respective Annual Survey Reports 1990-1994

Fall/Spring 89-90	Fall/Spring 90-91	Fall/Spring 91-92	Fall/Spring 92-93	Fall/Spring 93-94	Fall/Spring 94-95
5.7	2.2	12.4	5.0	12.7	6.7
12.4	8.9	14.2	10.7	14.7	*



* To appear in a spring 1996 issue of the *Notices*

For example, Table 3B shows that persons hired for positions in doctoral degree-granting mathematics departments (Groups I, II, III) are drawn predominantly from mathematics doctoral recipients: 86 percent of the positions filled in Groups I, II, and III are held by new doctoral recipients who received their degrees from a Group I, II, or III department. Similarly, 90 percent of the Group IV jobs went to Group IV degree recipients. Also, 82 percent of the Group I jobs went to Group I degree recipients. These percentages compare with 91 percent, 92 percent, and 78 percent, respectively, from the 1994 Survey.

Women represent 22.9 percent of the population of new doctoral recipients, up from 21.8 percent in 1993-1994, but the proportion is not uniform across different types of departments. For example, 22.2 percent of the new doctoral recipients in mathematics (Groups I+II+III) are women (up from 20.6 percent last year), and 24.1 percent of the new doctoral recipients from statistics departments are women (down from 33.1 percent last year). The proportion of women among new doctoral recipients hired by doctoral degree-granting mathematics departments (23.3 percent) is slightly greater than their proportion among mathematics doctoral recipients. The rate of unemployment for the female new doctoral recipients (13.6 percent) is lower than the rate for the male new doctoral recipients (15.0 percent).

Table 3B shows different rates of unemployment for doctoral recipients from the five Groups. The percentages unemployed, among those whose employment status is known, are Group I-16.9 percent, Group II-19.9 percent, Group III-15.3 percent, Group IV-8.1 percent, and Group V-7.9 percent.

Table 3D shows the pattern of employment within broad job categories broken down by the citizenship status of the new doctoral recipients (from U.S. institutions). The citizenship status is known for 1,194 of the 1,226 new doctoral recipients. For those whose job status is known, the rate of unemployment for non-U.S. citizens is two percentage points higher than that for U.S. citizens (15.6 percent noncitizens and 13.6 percent citizens). The unemployment rate for U.S. citizens is 0.9 percentage points below the level reported in the 1994 First Report for 1993-1994 new doctoral recipients. The percentage of U.S. citizens in U.S. nonacademic jobs is higher than the percentage of noncitizens in the same category (18.5 percent of citizens versus 17.1 percent of noncitizens). The percentage of U.S. citizens holding positions in U.S. doctoral degree-granting departments (24.5 percent) is considerably higher than the percentage for non-U.S. citizens (18.3 percent). U.S. citizens hold positions in non-doctoral degree granting U.S. departments in substantially higher proportion than do noncitizens (37.7 percent of citizens compared to 16.1 percent of noncitizens). All percentages exclude new doctoral recipients whose job status is unknown.

If complete information about the visa status of the non-U.S. citizens were known, then it would be more natural and common to group those holding permanent-resident status with the U.S. citizens for the comparison of employment patterns. However, the visa status is unknown for many of the non-U.S. citizens simply because this is a detail of their immigration status which is not always known to departmental staff; visa status is not known for 13.4 percent of the non-U.S. citizens.

Table 3D: Employment Status of 1994-1995 U. S. New Doctoral Recipients by Citizenship Status*

TYPE OF EMPLOYER	TYPE OF CITIZENSHIP				TOTAL DOCTORAL RECIPIENTS WHOSE CITIZENSHIP IS KNOWN*	
	U.S. Citizens		Non-U.S. Citizens		Number	Percent
	Number	Percent	Number	Percent		
U.S. Academic, Ph.D. Department	128	23	100	16	228	19
U.S. Academic, non-Ph.D. Department	197	35	88	14	285	24
U.S. Research Institute	3	1	14	2	17	1
U.S. Nonacademic	97	17	93	15	190	16
Foreign Academic	18	3	131	21	149	12
Foreign Nonacademic	0		23	4	23	2
Not seeking employment	9	2	11	2	20	2
Still seeking employment	71	13	85	14	156	13
Unknown status (U.S. address)	44	8	50	8	94	8
Unknown status (foreign address)	0		32	5	32	3
TOTALS	567	100%**	627	100%**	1194	100%**

* The adjusted total varies from that in Table 5 because the data are gathered on different surveys.

** Column percents are rounded to the nearest whole percent.

Nonetheless, the distribution of job categories was gathered for 154 noncitizen new doctoral recipients who are known to be permanent U.S. residents. Of those whose employment status is known, 20.8 percent are employed by a doctoral degree-granting department in the U.S., 22.7 percent are employed by a non-doctoral degree-granting department in the U.S., and 15.6 percent are unemployed.

Gender, Ethnicity, and Citizenship of U.S. New Doctoral Recipients, 1994-1995

Table 4A presents a breakdown according to gender, ethnic group, and citizenship of the new doctoral recipients. The information reported in this table was obtained in summary form from the departments granting the degrees and in a few cases from the recipients themselves.

The citizenship status is known for 1,207 of the 1,226 new doctoral recipients, including 567 U.S. citizens. (Because different survey forms are used to compile the summary of gender, ethnicity, and citizenship than are used to learn the country of citizenship of each individual, and the unknown or missing items from the two survey forms may not coincide, this count of known citizenship status and of U.S. citizens differs from the count shown in Table 3D). The number of U.S. citizen new doctoral recipients is 20.9 percent greater than in 1993-1994. The 1995 count of U.S. citizens among the 1994-1995 doctoral recipients was the highest reported since 1980-1981. Table 5 shows the changes from year to year in the numbers and proportions of U.S. citizens.

The percentage of U.S. citizens among the new doctoral recipients is 47 percent, a significant increase over last year's percentage of 44.3 percent, and well above the all-time low of 42.3 percent in 1991-1992. A total of 640 noncitizens were awarded doctoral degrees by U.S. institutions in 1994-1995. This represents an increase of 50 individuals (8.5 percent) from last year's count. The 1994-1995 count is 94 percent greater than the number awarded by U.S. institutions ten years ago (330 in 1984-1985).

Among the U.S. citizens receiving doctoral degrees in the mathematical sciences, 6 are black (4 men and 2 women) and 9 are Mexican American, Puerto Rican, or other Hispanic (7 men and 2 women). The former is up 3 from last year, while the latter increased by 2.

Women account for 25 percent of the U.S. citizens receiving doctoral degrees in the mathematical sciences from U.S. universities. This is the third highest percentage ever reported but down from the record high percentage (28 percent) reported in 1993 and also down from the percentage (26 percent) reported last year. The total number of U.S. citizen women who were 1994-1995 doctoral recipients (141) increased by 13.7 percent from last year's reported 124, and is 4 less than the highest number, reported in 1992-1993 (See Table 6). A comparison of Table 3B for the 1994-1995 doctoral recipients with Table 3B for those of last year indicates that in all department Groups except Group IV, the number of women doctoral recipients increased over last year.

Note that in Table 5 and Table 6 all years prior to 1982-1983 include doctoral recipients from computer science departments.

Table 4A: Gender, Ethnicity, and Citizenship of U.S. New Doctoral Recipients
July 1, 1994 — June 30, 1995

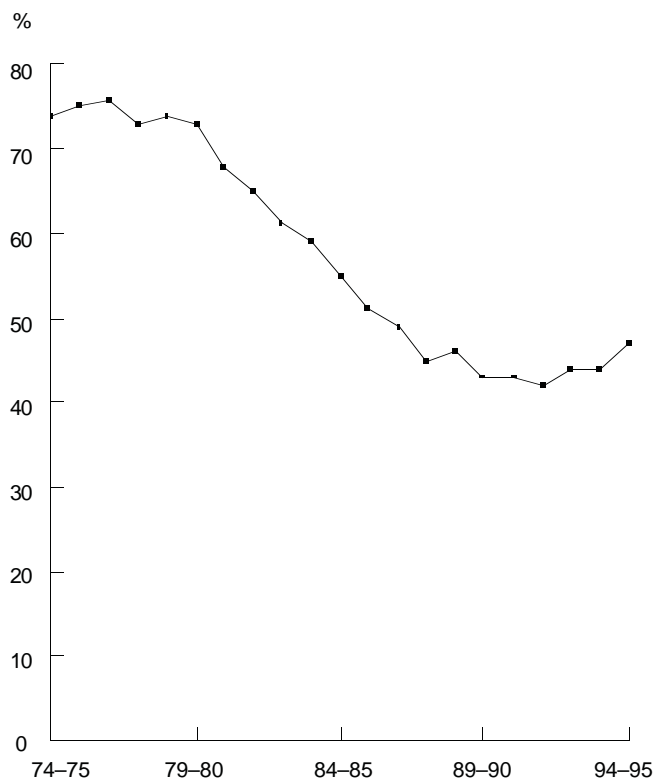
RACIAL/ETHNIC GROUP	MEN				WOMEN				TOTAL
	CITIZENSHIP			Total Men	CITIZENSHIP			Total Women	
	U.S.	Other	Not Known		U.S.	Other	Not Known		
Asian, Pacific Islander	18	306	1	325	6	91		97	422
Black	4	8		12	2			2	14
American Indian, Eskimo, Aleut					1			1	1
Mexican American, Puerto Rican, or other Hispanic	7	31		38	2	4		6	44
White (non-Hispanic)	397	159		556	130	41		171	727
Unknown			14	14			4	4	18
Total	426	504	15	945	141	136	4	281	1226

Table 5: U.S. Citizen Doctoral Recipients

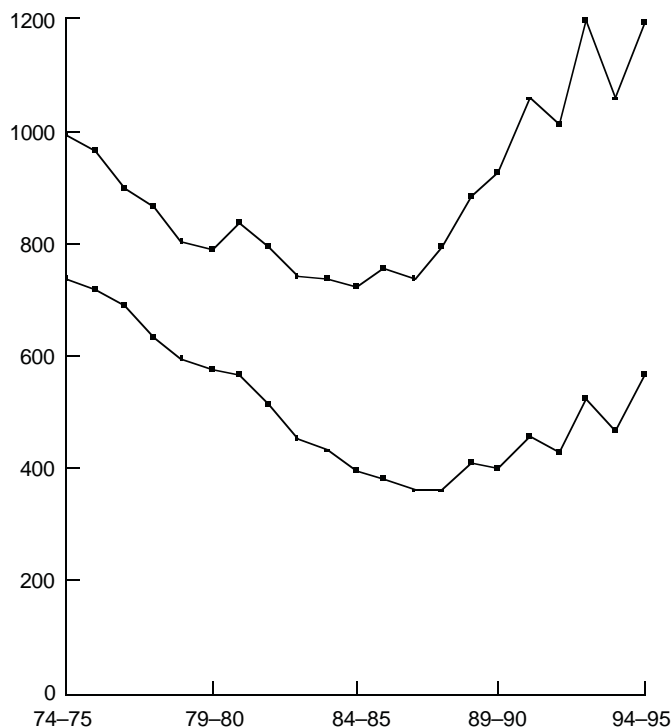
	Adjusted Total* of Doctoral Degrees Given by U.S. Universities	Total of Doctoral Recipients Who Are U.S. Citizens	%
1974-1975	999	741	74
1975-1976	965	722	75
1976-1977	901	689	76
1977-1978	868	634	73
1978-1979	806	596	74
1979-1980	791	578	73
1980-1981	839	567	68
1981-1982	798	519	65
1982-1983	744	455	61
1983-1984	738	433	59
1984-1985	726	396	55
1985-1986	755	386	51
1986-1987	739	362	49
1987-1988	798	363	45
1988-1989	884	411	46
1989-1990	929	401	43
1990-1991	1061	461	43
1991-1992	1016	430	42
1992-1993	1197	526	44
1993-1994	1059	469	44
1994-1995	1194	567	47

*Number of doctorates whose citizenship is known. Total will vary from that on Table 3D because the data are gathered on different surveys.

**Graph for Table 5: U.S. Citizen Doctoral Recipients
Total of Doctoral Recipients by Percent**



Graph for Table 5: U.S. Citizen Doctoral Recipients



Upper line - Adjusted total of doctorates given by U.S. universities
Lower line - Total of doctorates who are U.S. citizens

**Table 6: U.S. Citizen Doctoral Recipients,
Male and Female**

	Doctoral Recipients Who Are U.S. Citizens	Male	Female	% Female
1974-1975	741	658	83	11
1975-1976	722	636	86	12
1976-1977	689	602	87	13
1977-1978	634	545	89	14
1978-1979	596	503	93	16
1979-1980	578	491	87	15
1980-1981	567	465	102	18
1981-1982	519	431	88	17
1982-1983	455	366	89	20
1983-1984	433	346	87	20
1984-1985	396	315	81	20
1985-1986	386	304	82	21
1986-1987	362	289	73	20
1987-1988	363	287	76	21
1988-1989	411	313	98	24
1989-1990	401	312	89	22
1990-1991	461	349	112	24
1991-1992	430	327	103	24
1992-1993	526	381	145	28
1993-1994	469	345	124	26
1994-1995	567	426	141	25

Acknowledgments

The Annual AMS-IMS-MAA 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 AMS-IMS-MAA Data Committee and the Annual Survey staff, I thank the many secretarial and administrative staff members in the mathematical sciences departments for their cooperation and assistance in responding to the survey questionnaires.

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Salary Survey for New Recipients of Doctoral Degrees, 1994-1995

The figures for 1995 were compiled from questionnaires sent to individuals who received doctoral degrees in the mathematical sciences during the 1994-1995 academic year from universities in the United States.

Questionnaires requesting information on salaries and professional experience were distributed to 1,054 recipients of degrees using addresses provided by the departments granting the degrees; 492 individuals returned forms between late June and mid-September. Responses with insufficient data or from individ-

uals who indicated they had part-time employment, were not yet employed, or were not seeking employment, were considered unusable. Numbers of usable responses for each salary category are reported in the following tables.

Readers should be warned that the data in this report are obtained from a self-selected sample, and inferences from them may not be representative of the population.

Key to Tables. Salaries are listed in hundreds of dollars. Nine-month salaries are based on 9–10 months teaching and/or research, not adding extra stipends for summer grants or summer teaching or the equivalent. Years listed refer to the academic year in which the doctorate was received. M and F are Male and Female, respectively. One year or less experience means that the persons had experience limited to one year or less in the same position or a position similar to the one reported; some persons receiving a doctoral degree had been employed in their present position for several years. Quartile figures are given only in cases where the number of responses is large enough to make them meaningful.

Graphs. The graphs show variants of standard box plots summarizing salary distribution in-

formation. The horizontal line shows the 1994 median salary in hundreds of dollars. Values plotted for other years are converted to 1994 dollars using the implicit price deflator prepared annually by the Bureau of Economic Analysis, U.S. Department of Commerce. The 1995 salary data are not shown on the graphs because the deflator is not yet available for this year.

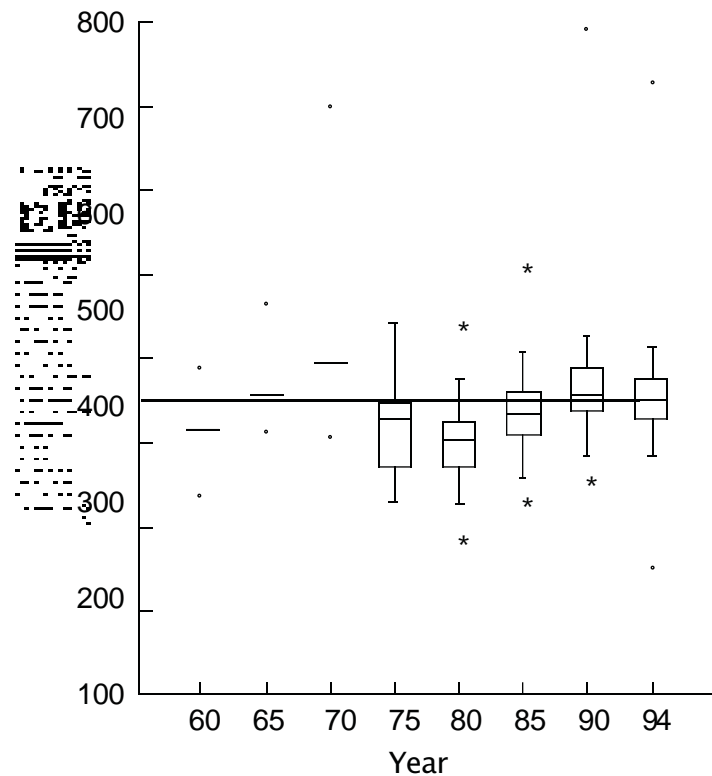
For a given year, the box shows the first and third quartiles and the median salary. (Prior to 1975, the quartiles are not available, and only the median is depicted by the horizontal stroke.) The “whiskers” give additional information about the spread of the data, extending to points that are 1.5 interquartile distances from the median. Minimum and maximum salaries are depicted by asterisks or dots outside the whiskers; dots are used to distinguish extreme outliers, i.e., values that are more than 3 interquartile distances from the median.

Note that salaries for teaching or teaching and research have yet to return to their high point of 1970, although considerable progress has been made since 1980.

**Teaching or Teaching and Research
Nine-Month Salaries**
(146 men + 66 women)

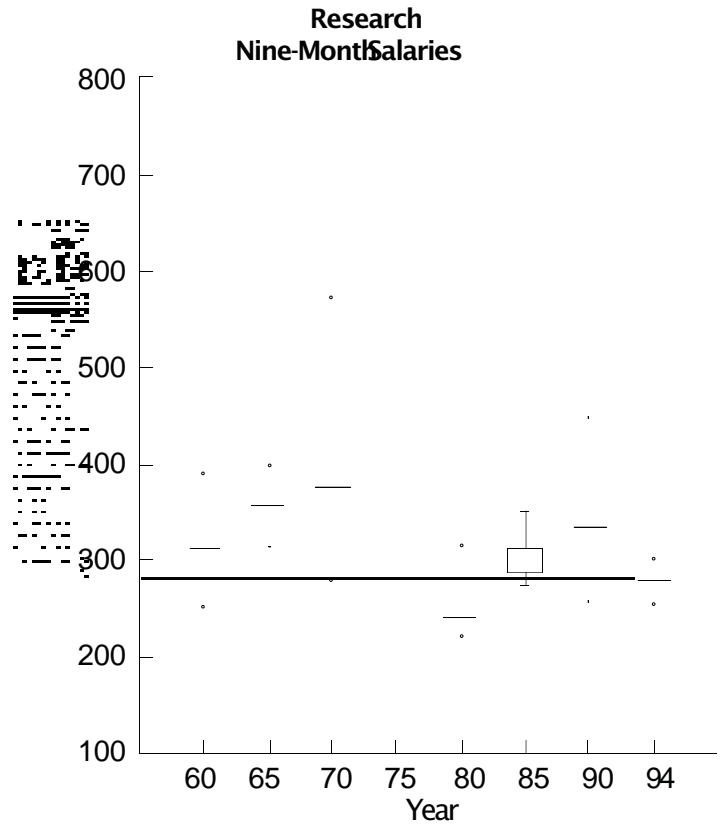
Ph.D. Year	Min	Q ₁	Median	Q ₃	Max	Reported Median in 1994 \$
1960	49		65		80	315
1965	70		80		105	355
1970	85		110		195	394
1975	90	120	128	135	173	328
1980	105	155	171	185	250	301
1985	170	230	250	270	380	334
1990	230	305	320	350	710	356
1993	160	310	340	370	750	347
1994	150	330	350	375	730	350
1995	220	320	350	382	640	—
<hr/>						
1992M	190	310	340	360	520	
1992F	250	330	349	371	500	
<hr/>						
1993M	160	310	340	370	750	
1993F	230	310	338	380	520	
<hr/>						
1994M	150	329	350	378	730	
1994F	270	330	348	370	520	
<hr/>						
1995M	220	320	350	388	640	
1995F	240	323	350	380	525	
<hr/>						
One year or less experience (109 men + 52 women)						
1995M	220	320	350	380	630	
1995F	240	322	360	383	525	

**Teaching or Teaching and Research
Nine-Month Salaries**



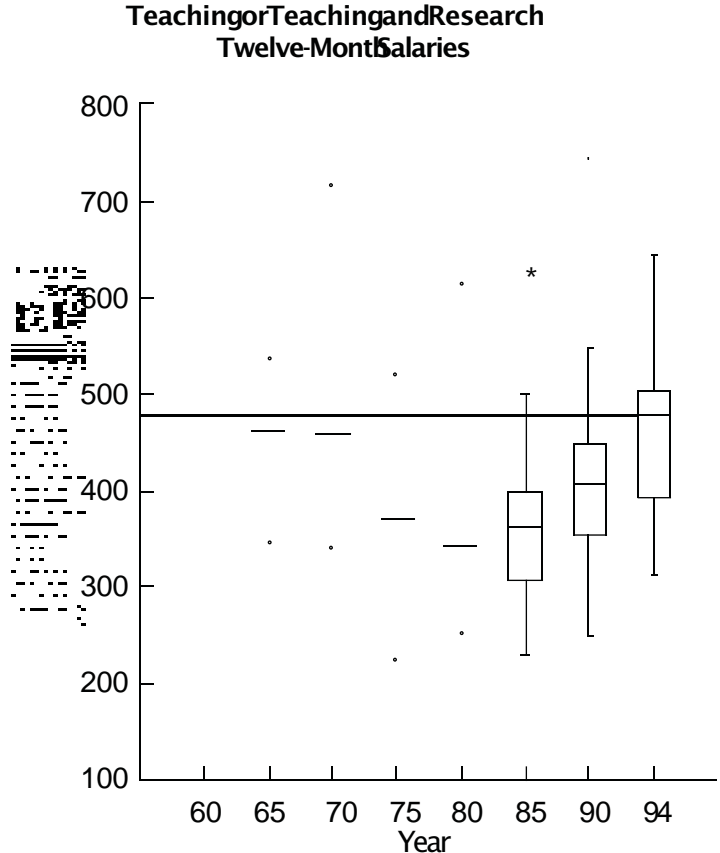
**Research
Nine-Month Salaries**
(4 men + 0 women)

Ph.D. Year	Min	Median	Max	Reported Median in 1994 \$
1960	52	65	80	315
1965	71	81	90	359
1970	78	105	160	376
1975	100	—	110	—
1980	125	137	180	241
1985	205	235	250	314
1990	230	300	404	334
1993	260	298	380	304
1994	254	280	300	280
1995	280	290	330	—
<hr/>				
1992M	160	290	330	
1992F	—	—	—	
<hr/>				
1993M	260	275	320	
1993F	—	—	—	
<hr/>				
1994M	254	280	300	
1994F	—	—	—	
<hr/>				
1995M	280	290	330	
1995F	—	—	—	
<hr/>				
One year or less experience (3 men + 0 women)				
1995M	—	—	—	
1995F	—	—	—	



**Teaching or Teaching and Research
Twelve-Month Salaries**
(25 men + 3 women)

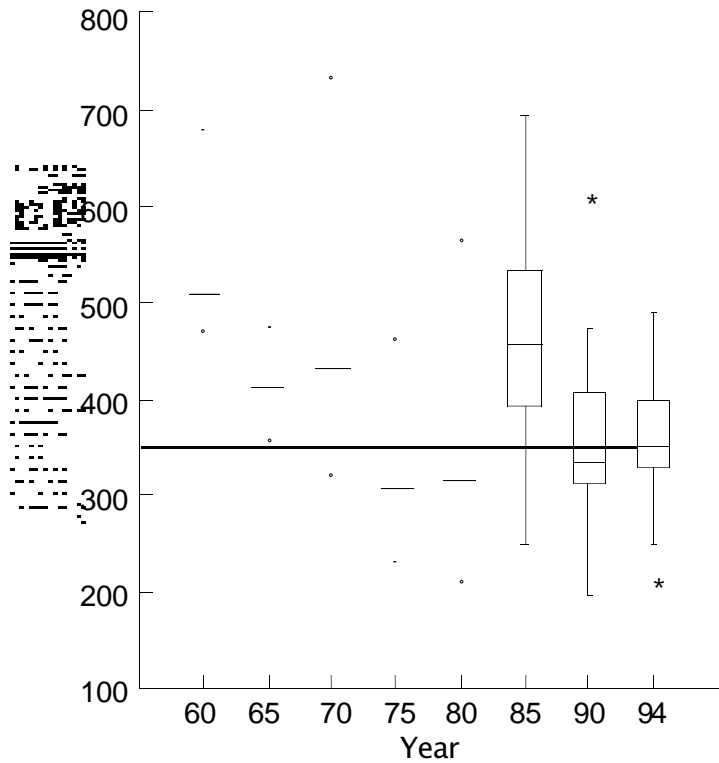
Ph.D. Year	Min	Q ₁	Median	Q ₃	Max	Reported Median in 1994 \$
1960Nodata.....					
1965	78		104		121	461
1970	95		128		200	458
1975	87		145		204	371
1980	143		195		350	343
1985	220	230	273	300	470	364
1990	225	318	365	404	670	406
1993	300	355	370	500	680	378
1994	365	391	480	503	510	480
1995	300	354	410	478	600	—
<hr/>						
1992M	300	330	355	420	1300	
1992F	—	—	—	—	—	
<hr/>						
1993M	360	427	500	505	680	
1993F	300	334	353	370	370	
<hr/>						
1994M	365	401	455	510	510	
1994F	370	380	480	500	505	
<hr/>						
1995M	300	380	420	490	600	
1995F	—	—	—	—	—	
<hr/>						
One year or less experience (19 men + 2 women)						
1995M	300	354	400	449	550	
1995F	—	—	—	—	—	



**Research
Twelve-Month Salaries**
(21 men + 4 women)

Ph.D. Year	Min	Q ₁	Median	Q ₃	Max	Reported Median in 1994 \$
1960	97		105		140	509
1965	81		93		107	413
1970	90		120		205	430
1975	90		119		180	305
1980	120		180		321	316
1985	190	295	342	400	520	457
1990	180	280	300	365	546	334
1993	237	300	330	400	570	337
1994	210	330	350	400	490	350
1995	196	280	340	370	587	—
<hr/>						
1992M	210	300	300	358	480	
1992F	186	250	370	380	400	
<hr/>						
1993M	237	272	310	365	480	
1993F	300	330	365	400	570	
<hr/>						
1994M	210	300	340	433	490	
1994F	330	340	365	400	400	
<hr/>						
1995M	196	280	350	370	587	
1995F	200	—	287	—	400	
<hr/>						
One year or less experience (18 men + 3 women)						
1995M	196	280	345	370	450	
1995F	—	—	—	—	—	

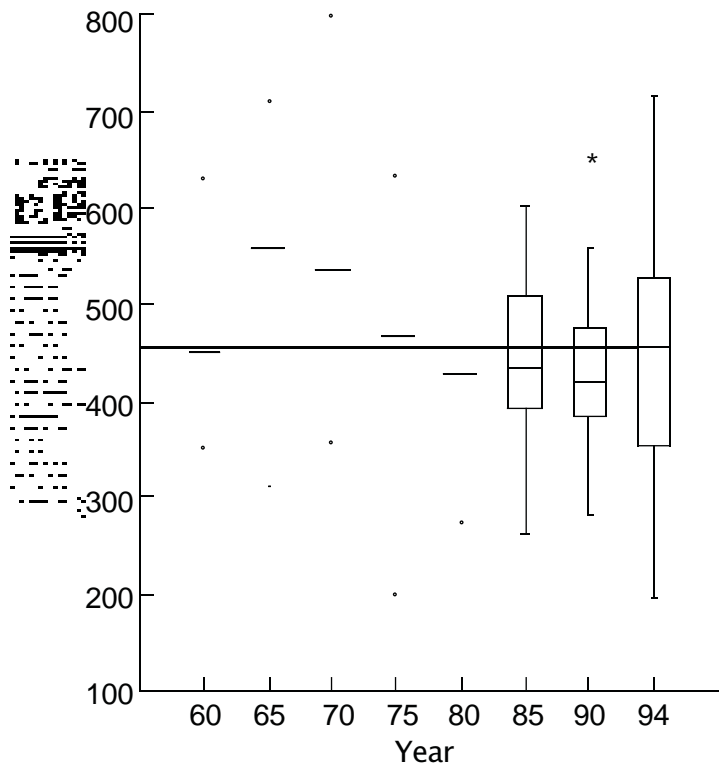
**Research
Twelve-Month Salaries**



**Government
Twelve-Month Salaries**
(4 men + 2 woman)

Ph.D. Year	Min	Q ₁	Median	Q ₃	Max	Reported Median in 1994 \$
1960	72		93		130	451
1965	70		126		160	559
1970	100		150		223	534
1975	78		182		247	466
1980	156		244		501	429
1985	263	294	325	381	440	434
1990	320	345	378	430	587	420
1993	300	378	412	571	800	420
1994	250	355	455	530	576	455
1995	370	440	494	507	650	—
<hr/>						
1992M	315	419	460	615	692	
1992F	—	—	—	—	—	
<hr/>						
1993M	300	402	480	611	800	
1993F	340	350	378	462	528	
<hr/>						
1994M	250	350	423	550	576	
1994F	—	—	—	—	—	
<hr/>						
1995M	440	—	499	—	650	
1995F	—	—	—	—	—	
<hr/>						
One year or less experience (3 men + 1 women)						
1995M	—	—	—	—	—	
1995F	—	—	—	—	—	

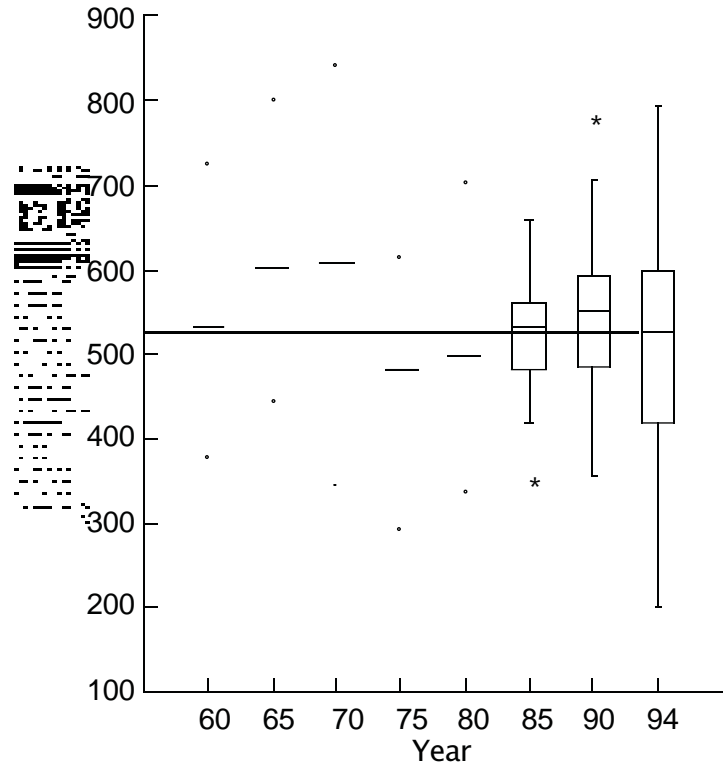
**Government
Twelve-Month Salaries**



**Business and Industry
Twelve-Month Salaries**
(55 men + 9 women)

Ph.D. Year	Min	Q ₁	Median	Q ₃	Max	Reported Median in 1994 \$
1960	78		110		150	533
1965	100		136		180	603
1970	96		170		235	609
1975	114		187		240	479
1980	190		284		400	499
1985	260	360	400	420	493	534
1990	320	438	495	533	700	551
1993	270	480	560	600	1100	571
1994	200	418	525	600	750	525
1995	288	480	568	690	1250	—
<hr/>						
1992M	300	440	520	625	1000	
1992F	208	528	549	591	850	
<hr/>						
1993M	270	500	560	600	1100	
1993F	424	475	568	600	670	
<hr/>						
1994M	200	405	490	600	750	
1994F	—	—	—	—	—	
<hr/>						
1995M	288	480	550	690	1250	
1995F	397	550	630	680	1000	
<hr/>						
One year or less experience (36 men + 7 women)						
1995M	288	430	514	635	1250	
1995F	397	495	630	675	830	

**Business and Industry
Twelve-Month Salaries**



Faculty Salary Survey 1994-1995 Salaries

The charts on the following pages display faculty salary data for Groups I-V, M, and B: faculty salary distribution by rank, mean salaries by rank, information on quartiles by rank, and the number of usable returns for the group.

Departments were asked to report the number of faculty whose 1995-1996 academic-year salaries fell within given salary intervals. Re-

porting salary data in this fashion eliminates some of the concerns about confidentiality but does not permit determination of actual quartiles. What can be determined is the salary interval in which the quartiles occur; the salary intervals containing the quartiles are denoted by $\langle n, n+5 \rangle$.

