STARTING SALARIES 1980

Analysis of the
American Chemical Society's
Survey of Graduates in
Chemistry and Chemical Engineering

Manpower Studies
American Chemical Society
Washington, D.C.

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1980 SURVEY REPORT

STARTING SALARIES AND EMPLOYMENT STATUS OF CHEMISTRY AND CHEMICAL ENGINEERING GRADUATES

This report was prepared by the
ACS Office of Manpower Studies.

American Chemical Society
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ACKNOWLEDGMENTS

Each year the American Chemical Society surveys chemistry and chemical engineering graduates to determine trends in starting salaries and employment status. John Robert Jones, Harry Foxwell, and Joanna Chin of the Office of Manpower Studies conducted this year's survey. Joanna Chin wrote the necessary computer programs and assembled this report.

Robert K. Neuman, Head
Department of Professional
Relations and Manpower Studies

SUMMARY OF FINDINGS

SALARIES

Mean starting salaries paid inexperienced chemists have increased since 1979 for graduates at all three levels. Even when salaries are deflated in consideration of increased prices, inexperienced 1980 recipients of the master's degree or the doctorate in chemistry began work at salaries that were greater than those paid new graduates in 1979. At the BS level, however, the mean starting salary increased only 3%, far less than did the official consumer price index, which was 12.6% more in August 1980 than in August 1979. Table 1 shows means and selected percentiles of starting salaries paid inexperienced chemistry graduates in 1979 and in 1980. The 1980 means were

$14,580 for the BS, up 2.6%, or in constant dollars -9.1%
$19,201 for the MS, up 17.1%, or in constant dollars +4.0%
$25,285 for the PhD, up 17.3%, or in constant dollars +4.1%

Why starting salaries increased so much less for bachelor's level graduates than for graduates with advanced degrees is unclear.

Chemical engineering graduates, especially bachelor's degree recipients, enjoy much larger starting salaries than do chemists with corresponding degrees. This year, at the bachelor's degree level, the gap between chemists' salaries and chemical engineers' salaries widened. At the master's degree level, starting salaries increased by more dollars in chemical engineering, but they increased by a greater percent in chemistry. At the doctoral level though, the gap narrowed. Table 2 shows means and selected percentiles of starting salaries paid chemical engineers in 1979 and 1980. The 1980 means were

$21,414 for the BS, up 9.9%, or in constant dollars -2.4%
$23,689 for the MS, up 14.9%, or in constant dollars +2.0%
$27,499 for the PhD, up 8.6%, or in constant dollars -3.6%

(See tables 1 and 2 for more detailed information regarding starting salaries.)

Sometimes comparing salaries for two consecutive years requires an adjustment because a changing fraction of graduates enter academic employment and therefore report annual salaries based on an academic year rather than on a calendar year. This year, however, such adjustments would not affect estimated increases in chemical engineering at any degree level nor in chemistry except at the bachelor's degree level. Because a larger fraction of this year's BS graduates accepted employment at academic institutions, the adjusted increase would be 3.3%, slightly more than the unadjusted figure, 2.6%.

POSTDOCTORAL FELLOWSHIPS

The survey results regarding employment status for new chemistry PhDs contain some welcome news for chemists. A smaller fraction of this year's graduates than of last year's are postdoctoral fellows. The decrease in this fraction probably means that graduates who wanted non-academic positions were better able to obtain the employment they sought and, thus, were not forced to accept postdoctoral fellowships as stopgap employment while continuing to pursue more agreeable positions. Of course, every year many graduates do eagerly seek postdoctoral fellowships because tradition requires that a chemist who aspires to an academic career begin with one to three years as a postdoctoral fellow. Four or five years ago, however, many of the postdoctoral fellows in chemistry were merely waiting for appropriate non-academic employment. In 1975 and 1976 more than 47% of PhD chemists who responded to this survey entered postdoctoral positions. The fraction decreased in 1977 and again in 1978, when it reached 33%. In 1979, though, the fraction increased to 38%. Table 3, which includes employment status for experienced and inexperienced respondents together, shows that in 1980 the fraction was back down to 29%. So the chemistry postdoctoral fellowship may have returned to its traditional function of providing training, instead of merely providing temporary employment.

ADVANCED STUDY

Nearly 70% of the graduates who received bachelor's degrees in chemistry planned to be in school in the fall. at least part-time. Of the chemistry graduates studying full-time, about two-fifths are pursuing advanced degrees in chemistry. Another two-fifths are studying medicine or dentistry.

Among those who receieved bachelor's degrees in chemical engineering and are studying full-time, 66% study chemical engineering, and 14% study medicine or dentistry. (See tables 4 and 5)

COOPERATIVE EDUCATION

This year's survey questionnaire included several questions concerning cooperative education, but this report does not contain any analysis of data on that subject. Instead, the ACS Office of Cooperative Education is preparing a separate report, which will be available at a later date.

INTERPRETING SURVEY RESULTS

The numbers contained in these tables are estimates, derived from a sample rather than from a complete census. Thus, although they are the best estimates available, they are imperfect. Reasonable caution will prevent rash interpretations. An example of an estimate that demands caution is the difference between men's and women's salaries. Among inexperienced bachelor's level chemical engineers, women had greater mean salaries than did men, but the difference is small and is not enough to support a statement that the mean for all women, including those not in the sample, is greater than that for all men. The technical notes of this report give some guidance as to the degree of precision associated with various statistics in this report.

Table 1

STARTING YEARLY SALARIES OF INEXPERIENCED FULL-TIME EMPLOYED CHEMISTRY GRADUATES

by Degree: Summer of 1979 and Summer of 1980

Salaries	DEGREE LEVEL					
	Bachelor's		Master's		Ph.D.	
	1979	1980	1979	1980	1979	1980
90th Percentile	$17,500	$19,200	$20,000	$23,700	$25,300	$29,400
75th Percentile	16,200	17,700	18,300	21,400	24,500	27,700
50th Percentile	14,500	15,000	17,000	20,000	23,000	26,400
25th Percentile	12,000	12,000	15,000	17,200	20,400	24,000
10th Percentile	10,400	10,000	12,000	13,600	14,400	17,500
Mean	14,215	14,580	16,396	19,201	21,563	25,285
Count	442	385	85	44	150	94
Standard Deviation	2,839	3,753	3,191	4,042	4,315	6,050

Table 2

STARTING YEARLY SALARIES OF INEXPERIENCED FULL-TIME EMPLOYED CHEMICAL ENGINEERING GRADUATES

by Degree: Summer of 1979 and Summer of 1980

Salaries	DEGREE LEVEL					
	Bachelor's		Master's		Ph.D.	
	1979	1980	1979	1980	1979	1980
90th Percentile	$20,600	$22,800	$22,900	$25,500	$27,800	$32,700
75th Percentile	20,100	22,200	21,600	24,800	26,500	30,300
50th Percentile	19,800	21,600	21,000	23,900	25,400	28,800
25th Percentile	19,200	21,000	20,000	22,900	24,300	22,800
10th Percentile	18,300	20,000	19,000	21,000	22,000	20,800
Mean	19,480	21,414	20,609	23,689	25,327	27,499
Count	727	545	67	44	33	25
Standard Deviation	1,830	1,927	3,137	1,604	2,531	4,339

Table 3

POSTGRADUATION STATUS OF CHEMISTRY AND CHEMICAL ENGINEERING GRADUATES: Summer 1980

Major and Employment Status	Bachelor's	Master's	Doctorates
CHEMISTRY			
Full-time employed:			
In chemistry or chemical engineering	26.1%	43.1%	62.8%
Outside chemistry or chemical engineering	8.5	6.0	3.6
Postdoctoral/grad. asst./other fellowship	27.9	39.5	29.6
Unemployed and seeking full-time employment	9.8	4.8	3.6
Unemployed and not seeking full-time employment	27.7	6.6	0.5
Total	100.0	100.0	100.0
Number of responses	1,557	167	196
CHEMICAL ENGINEERING			
Full-time employed:			
In chemistry or chemical engineering	71.4%	80.4%	94.7%
Outside chemistry or chemical engineering	7.7	2.2	-
Postdoctoral/grad. asst./other fellowship	11.6	12.0	-
Unemployed and seeking full-time employment	5.1	3.3	2.6
Unemployed and not seeking full-time employment	4.2	2.2	2.6
Total	100.0	100.0	100.0
Number of responses	818	92	38

Table 4

PLANS FOR ADVANCED FURTHER STUDIES OF B.S. CHEMISTRY AND CHEMICAL ENGINEERING GRADUATES: Fall 1980

	Chemistry	Chemical Engineering
Plan further studies	70.3%	40.9%
Full-time	(57.9)	(15.3)
Part-time	(12.4)	(25.6)
Have no plans or no response	29.7	59.1
Total	100.0	100.0
Number of responses	1,626	824

Table 5

FIELD OF ADVANCED FURTHER STUDIES OF B.S. CHEMISTRY AND CHEMICAL ENGINEERING GRADUATES WHO PLAN FURTHER STUDIES: Fall 1980

Field of Study	Chemistry	Chemical Engineering
Full-time		
Chemistry or biochemistry	39.6%	0.8%
Chemical engineering	4.2	66.1
Medicine or dentistry	40.5	13.7
Business or management	2.1	4.8
All others	13.6	14.6
Total	100.0	100.0
Number of responses	931	124
Part-time		
Chemistry or biochemistry	42.3%	1.0%
Chemical engineering	8.2	30.3
Business or management	19.9	53.4
All others	29.6	15.3
Total	100.0	100.0
Number of responses	196	208

SCOPE AND METHOD

OBJECTIVES

The 1980 Starting Salary Survey is the 29th in the series of annual surveys now conducted by the Office of Manpower Studies of the American Chemical Society. Summaries of the results of these surveys appear annually in the "Chemical Careers" edition of Chemical and Engineering News, this year published on October 20.

The primary objective of the survey is to gather data on the starting salaries and occupational status of new chemists and chemical engineers who graduated during the 1979-80 academic year. This year's survey covers bachelor's, master's, and doctoral degree recipients. In addition, the survey provides information on graduates' sex, citizenship, and minority classification.

METHOD OF COLLECTION AND TIMING OF SURVEY

Chemistry and chemical engineering departments provided names and addresses of students who graduated between July 1, 1979 and June 30, 1980. The cooperating departments were the chemistry departments approved by the ACS, and the chemical engineering departments approved by the American Institute of Chemical Engineers and the Engineer's Council for Professional Development.

During the summer of 1980, the Office of Manpower Studies mailed questionnaires to those graduates who had U.S. addresses and graduation dates from September, 1979 through June, 1980. Summer graduates were excluded from the mailing because many of them had twelve months' experience by the time the survey was conducted.

EXTENT OF COVERAGE

Survey questionnaires were mailed by bulk mail to 10,146 graduates. Past experience has shown that approximately ten percent of the questionnaires probably were not delivered because the addresses provided were not adequate to assure delivery. The questionnaires were mailed between July 28 and August 16. By the cutoff date of September 29, the Office of Manpower Studies had received 3332 responses, 3263 of them usable.

The table below contains estimates of the numbers of chemistry and chemical engineering gradutes in 1980.

Projected Number of Degrees in
Chemistry and Chemical Engineering, 1979-80

	Bachelors	Masters	Doctorates
Chemistry	11,800	1,820	1,520
Chemical Engineering	6,450	1,210	310

The survey respondents represent about 13 percent of all 1980 chemistry graduates and about 12 percent of all 1980 chemical engineering graduates. No effort was made to examine the characteristics of graduates from departments that did not participate in the survey or of those graduates who did not mail back completed questionnaires.

DEFINITIONS

The questionnaire appears at the end of this report. Responses to Question I on post-graduation status were edited to eliminate multiple responses and to reflect as accurately as possible the employment status of the respondent.

The term "inexperienced" as used in the tables refers to those who have 12 months or less of prior professional work experience. Salary tables are based only on salaries of those who found full-time employment in chemistry or chemical engineering. Postdoctoral salaries are analyzed separately.

The Technical Notes present methods for estimating sampling error and also explain certain discrepancies among some of the tables.

GEOGRAPHIC REGIONS

PACIFIC

- Alaska
- California
- Hawaii
- Oregon
- Washington

MOUNTAIN

- Arizona
- Colorado
- Idaho
- Montana
- Nevada
- New Mexico
- Utah
- Wyoming

WEST NORTH CENTRAL

- Iowa
- Kansas
- Minnesota
- Nebraska
- North Dakota
- South Dakota

WEST SOUTH CENTRAL

- Arkansas
- Louisiana
- Oklahoma
- Texas

EAST NORTH CENTRAL

- Illinois
- Indiana
- Michigan
- Ohio
- Wisconsin

EAST SOUTH CENTRAL

- Alabama
- Kentucky
- Mississippi
- Tennessee

MIDDLE ATLANTIC

- New Jersey
- New York
- Pennsylvania

SOUTH ATLANTIC

- Delaware
- District of Columbia
- Florida
- Georgia
- Maryland
- North Carolina
- South Carolina
- Virginia
- West Virginia

NEW ENGLAND

- Connecticut
- Maine
- Massachusetts
- New Hampshire
- Rhode Island
- Vermont

TECHNICAL NOTES

DISCREPANCIES AMONG TABLES

Some pairs of tables contain totals that should be identical but are not. For example, two tables that present information about PhD respondents should show the same total number of PhDs. They might, however, show different totals. To illustrate, if one table groups the PhDs according to sex and the other groups them according to geographic region, the totals will differ unless the number who did not indicate their sex is the same as the number who did not indicate their geographic region.

ESTIMATES OF MEDIAN SALARIES

Median salaries displayed within the cells of the salary tables are sample medians and are therefore subject to sampling error. This error may be quite large, especially when the number of respondents in the corresponding cell is small. Therefore, estimates for median salaries do not appear in any cells with fewer than 15 respondents.

COMPARING SALARIES

Often questions arise concerning women's salaries as compared with men's, or chemists' salaries as compared with chemical engineers'. These and similar comparisons require caution.

Statistical tests should be performed to determine whether observed differences in salaries of various sample groups could be mere chance occurrences resulting from peculiarities of the samples. Whether a difference in salaries is "statistically significant" depends not only on the magnitude of the difference but also on the sample sizes and the magnitudes of the sample standard deviations.

Statistical tests of significance may be found in Numerical and Statistical Techniques, by J. H. Pollard, Handbook of Tables for Probability and Statistics, published by the Chemical Rubber Company, and in other similar texts.

ESTIMATING SAMPLING ERROR FOR PERCENTS

Percents in this report are derived from the sample. If the entire population had received and returned questionnaires, most estimates would be somewhat different. How much different? Although this question does not have an exact answer, the table below does provide some guidance. To use the table, find the column headed by the percent (p) derived from the sample, and find the row appropriate for the sample size (n). (Approximations for p and n may be used.) Note

the number in that column and that row of the table. This number from the body of the table measures the precision with which the sample percent estimates the percent of the entire population. Specifically, if this procedure is applied repeatedly, about 95 times out of 100 the population percent will differ from the sample percent by no more than the amount shown in the table.

Approximate Sampling Errors for Percents

n	p = 10% or 90%	p= 20% or 80%	p= 30% or 70%	p= 40% or 60%	p= 50%
50	8.3%	11.1%	12.7%	13.6%	13.9%
100	5.9	7.8	9.0	9.6	9.8
200	4.2	5.5	6.4	6.8	6.9
500	2.6	3.5	4.0	4.3	4.4
1000	1.9	2.5	2.8	3.0	3.1
2000	1.3	1.8	2.0	2.1	2.2
5000	0.8	1.1	1.3	1.4	1.4
10000	0.6	0.8	0.9	1.0	1.0

In Table B-4 (page 39) for example, 123 respondents classified as chemists indicated their highest degree as PhD, and their employment status as employed full-time in chemistry or chemical engineering. The percent of this group who are women is listed as 13.0 percent (p=13.0). A "95% confidence interval" for this percent may be approximated by taking n and p to be about 200 and 10%. The table shows an approximate sampling error of 4.2%. Hence, the 95% confidence interval is 8.8% to 17.2%. If 100 similar estimates were made at this "level of confidence," about 95 of the true population percents would be contained in their respective intervals.

LIST OF TABLES

MINORITY CLASSIFICATION AND CITIZENSHIP

Table A-1

SALARIES of FULL-TIME CHEMISTS by Experience and Degree
1980 Starting Salary Survey

PROFESSIONAL EXPERIENCE	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
<12 months	15,000	20,000	26,400	---	16,400	-Median
	14,580	19,201	25,285	14,538	16,875	-Mean
	3,753	4,042	6,050	4,733	5,933	-Std Dev
	385	44	94	4	527	-Count
12-36 months	16,000	18,000	---	---	17,038	
	15,774	17,362	27,060	19,500	17,187	
	5,203	3,262	2,329	---	5,718	
	81	20	11	1	113	
>36 months	18,600	21,180	26,000	---	20,000	
	17,569	22,230	27,961	20,000	20,782	
	3,641	4,915	8,256	---	6,548	
	49	20	18	1	88	
No Response	---	---	---	---	---	
	11,333	17,000	23,667	---	17,429	
	577	---	10,408	---	8,619	
	3	1	3	0	7	
TOTAL	15,400	20,000	26,400	---	17,000	
	15,031	19,455	25,783	16,275	17,396	
	4,100	4,384	6,308	4,551	6,122	
	518	85	126	6	735	

Table A-2

SALARIES of FULL-TIME CHEMICAL ENGINEERS by Experience and Degree
1980 Starting Salary Survey

PROFESSIONAL EXPERIENCE	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
<12 months	21,600	23,850	28,800	---	21,900	-Median
	21,414	23,689	27,499	20,083	21,808	-Mean
	1,927	1,604	4,339	4,466	2,461	-Std Dev
	545	44	25	6	620	-Count
12-36 months	22,310	24,300	---	---	22,600	
	22,433	24,317	28,813	23,000	23,170	
	4,147	1,677	3,543	990	4,062	
	98	24	8	2	132	
>36 months	---	---	---	---	24,500	
	23,612	25,197	30,600	27,000	25,093	
	5,102	1,800	1,039	---	4,380	
	13	8	3	1	25	
No Response	---	---	---	---	---	
	19,140	21,200	---	---	19,655	
	5,376	---	---	---	4,509	
	3	1	0	0	4	
TOTAL	21,900	24,000	29,000	---	22,000	
	21,598	24,009	28,049	21,500	22,132	
	2,531	1,717	4,049	4,294	2,971	
	659	77	36	9	781	

Table A-3

SALARIES of INEXPERIENCED CHEMISTS in PRIVATE INDUSTRY by Sex and Degree
1980 Starting Salary Survey

SEX	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
Men	16,800	20,050	26,500	---	18,400	-Median
	15,958	19,786	26,844	15,900	19,398	-Mean
	3,376	2,773	5,178	6,930	6,114	-Std Dev
	131	28	60	2	221	-Count
Women	16,750	---	---	---	17,460	
	16,410	19,920	27,382	15,600	17,666	
	2,927	2,930	1,824	---	4,320	
	96	7	11	1	115	
TOTAL	16,800	20,000	26,500	---	18,000	
	16,149	19,813	26,928	15,800	18,805	
	3,195	2,762	4,807	4,903	5,620	
	227	35	71	3	336	

Table A-4

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS in PRIVATE INDUSTRY by Sex and Degree
1980 Starting Salary Survey

SEX	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
Men	21,720	23,850	---	---	21,900	-Median
	21,615	23,694	30,270	22,167	22,062	-Mean
	1,401	1,730	2,371	289	2,176	-Std Dev
	375	32	14	3	424	-Count
Women	21,900	---	---	---	21,900	
	21,774	23,506	28,800	21,500	21,934	
	1,153	1,537	---	---	1,387	
	109	7	1	1	118	
TOTAL	21,800	23,700	30,000	---	21,900	
	21,651	23,661	30,172	22,000	22,034	
	1,350	1,679	2,316	408	2,030	
	484	39	15	4	542	

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Sex
1980 Starting Salary Survey

HIGHEST DEGREE	SEX: Men	Women	No Response	TOTAL	
Bachelors	15,000	15,000	---	15,000	-Median
	14,496	14,693	15,000	14,580	-Mean
	3,719	3,819	---	3,753	-Std Dev
	222	162	1	385	-Count
Masters	20,000	---	---	20,000	
	19,055	19,639	---	19,201	
	3,983	4,384	---	4,042	
	33	11	0	44	
Doctorate	26,280	---	---	26,400	
	25,301	25,193	---	25,285	
	6,272	4,779	---	6,050	
	80	14	0	94	
No Response	---	---	---	---	
	14,183	15,600	---	14,538	
	5,732	---	---	4,733	
	3	1	0	4	
TOTAL	16,950	15,600	---	16,400	
	17,495	15,769	15,000	16,875	
	6,381	4,869	---	5,933	
	338	188	1	527	

Table A-6

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Employer
1980 Starting Salary Survey

EMPLOYER	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
Manufacturing Industry	16,800	20,000	26,500	---	18,000	-Median
	16,331	19,668	26,998	15,800	19,073	-Mean
	3,138	2,763	4,858	4,903	5,647	-Std Dev
	203	33	69	3	308	-Count
Non-manufacturing Industry	14,750	---	---	---	15,500	
	14,612	22,200	24,500	---	15,860	
	3,325	1,697	707	---	4,409	
	24	2	2	0	28	
College or University	10,280	---	---	---	10,800	
	10,238	9,000	14,990	---	11,603	
	2,007	4,243	4,689	---	3,807	
	21	2	10	0	33	
High School	11,018	---	---	---	11,018	
	10,705	12,500	11,000	---	10,821	
	1,368	---	---	---	1,353	
	16	1	1	0	18	
Government	13,825	---	---	---	13,963	
	13,227	18,615	22,550	---	15,076	
	2,761	6,632	3,931	---	4,699	
	20	2	4	0	26	
Hospital, Laboratory, or Non-profit Organization	12,000	---	---	---	12,015	
	12,429	13,660	24,900	---	12,914	
	3,556	---	3,394	---	4,219	
	51	1	2	0	54	
Other	13,200	---	---	---	14,000	
	13,374	23,333	27,475	10,750	14,895	
	3,630	4,041	2,540	---	5,495	
	47	3	4	1	55	
No Response	---	---	---	---	---	
	11,387	---	27,050	---	17,652	
	4,611	---	778	---	9,186	
	3	0	2	0	5	
TOTAL	15,000	20,000	26,400	---	16,400	
	14,580	19,201	25,285	14,538	16,875	
	3,753	4,042	6,050	4,733	5,933	
	385	44	94	4	527	

Table A-7

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Employer - Men
1980 Starting Salary Survey

EMPLOYER	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
Manufacturing Industry	16,800	20,000	26,500	---	18,600	-Median
	16,166	19,741	26,925	15,900	19,748	-Mean
	3,288	2,816	5,248	6,930	6,134	-Std Dev
	114	27	58	2	201	-Count
Non-manufacturing Industry	15,000	---	---	---	15,500	
	14,563	21,000	24,500	---	15,879	
	3,728	---	707	---	4,741	
	17	1	2	0	20	
College or University	---	---	---	---	10,250	
	9,515	9,000	14,875	---	11,417	
	1,786	4,243	5,310	---	4,371	
	12	2	8	0	22	
High School	---	---	---	---	---	
	10,675	12,500	11,000	---	10,854	
	1,558	---	---	---	1,505	
	10	1	1	0	12	
Government	---	---	---	---	15,200	
	13,244	23,304	23,200	---	15,906	
	3,209	---	4,543	---	5,584	
	11	1	3	0	15	
Hospital, Laboratory, or Non-profit Organization	12,000	---	---	---	12,500	
	12,203	---	24,900	---	13,219	
	3,407	---	3,394	---	4,846	
	23	0	2	0	25	
Other	13,200	---	---	---	14,500	
	13,940	21,000	27,475	10,750	15,466	
	2,638	---	2,540	---	5,038	
	32	1	4	1	38	
No Response	---	---	---	---	---	
	11,387	---	27,050	---	17,652	
	4,611	---	778	---	9,186	
	3	0	2	0	5	
TOTAL	15,000	20,000	26,280	---	16,950	
	14,496	19,055	25,301	14,183	17,495	
	3,719	3,983	6,272	5,732	6,381	
	222	33	80	3	338	

Table A-8

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Employer - Women
1980 Starting Salary Survey

EMPLOYER	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
Manufacturing Industry	17,000	---	---	---	17,760	-Median
	16,543	19,340	27,382	15,600	17,805	-Mean
	2,940	2,735	1,824	---	4,345	-Std Dev
	89	6	11	1	107	-Count
Non-manufacturing Industry	---	---	---	---	---	
	14,729	23,400	---	---	15,813	
	2,306	---	---	---	3,736	
	7	1	0	0	8	
College or University	---	---	---	---	---	
	11,203	---	15,450	---	11,975	
	1,963	---	71	---	2,457	
	9	0	2	0	11	
High School	---	---	---	---	---	
	10,756	---	---	---	10,756	
	1,111	---	---	---	1,111	
	6	0	0	0	6	
Government	---	---	---	---	---	
	13,206	13,925	20,600	---	13,944	
	2,286	---	---	---	3,017	
	9	1	1	0	11	
Hospital, laboratory, or Non-profit organization	12,000	---	---	---	12,000	
	12,526	13,660	---	---	12,566	
	3,766	---	---	---	3,702	
	27	1	0	0	28	
Other	13,200	---	---	---	14,000	
	12,167	24,500	---	---	13,618	
	5,060	4,950	---	---	6,380	
	15	2	0	0	17	
TOTAL	15,000	---	---	---	15,600	
	14,693	19,639	25,193	15,600	15,769	
	3,819	4,384	4,779	---	4,869	
	162	11	14	1	188	

Table A-9

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Geographic Region
1980 Starting Salary Survey

GEOGRAPHIC REGION	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
Pacific	15,780	---	---	---	17,280	-Median
	14,966	20,800	25,679	---	18,688	-Mean
	4,089	2,706	5,652	---	6,686	-Std Dev
	28	3	14	0	45	-Count
Mountain	15,000	---	---	---	17,500	
	14,933	19,000	27,000	---	17,619	
	3,700	1,414	2,703	---	5,829	
	15	2	4	0	21	
West North Central	12,500	---	---	---	13,000	
	12,312	13,660	25,500	---	13,675	
	2,429	---	2,500	---	4,653	
	26	1	3	0	30	
West South Central	18,000	---	---	---	19,200	
	16,321	17,571	29,655	---	19,837	
	4,061	6,041	9,887	---	8,388	
	29	7	12	0	48	
East North Central	15,250	---	25,000	---	16,290	
	14,676	22,312	23,125	15,600	16,464	
	3,933	2,858	4,716	---	5,208	
	82	7	16	1	106	
East South Central	---	---	---	---	11,700	
	12,049	28,000	28,450	---	14,916	
	3,573	---	636	---	7,154	
	14	1	2	0	17	
Middle Atlantic	16,000	19,200	26,500	---	17,400	
	15,663	18,819	25,632	15,900	17,977	
	3,278	2,886	4,263	6,930	5,212	
	97	17	28	2	144	
South Atlantic	13,200	---	---	---	14,000	
	13,865	17,280	23,600	---	15,047	
	3,772	3,407	6,061	---	4,897	
	62	6	7	0	75	
New England	13,000	---	---	---	14,000	
	13,132	---	20,888	---	14,809	
	3,240	---	6,749	---	5,244	
	29	0	8	0	37	
No Response	---	---	---	---	---	
	15,000	---	---	10,750	13,938	
	3,000	---	---	---	3,243	
	3	0	0	1	4	
TOTAL	15,000	20,000	26,400	---	16,400	
	14,580	19,201	25,285	14,538	16,875	
	3,753	4,042	6,050	4,733	5,933	
	385	44	94	4	527	

Table A-10

SALARIES of INEXPERIENCED FULL-TIME B.S. CHEMISTS BY Employer and Certification Status
1980 Starting Salary Survey

EMPLOYER	CERTIFICATION: Certified	Non-certi.	No Response	TOTAL	
Manufacturing Industry	17,000	16,800	---	16,800	-Median
	16,574	16,002	13,000	16,331	-Mean
	2,789	3,595	---	3,138	-Std Dev
	122	80	1	203	-Count
Non-manufacturing Industry	---	---	---	14,750	
	14,693	14,498	---	14,612	
	3,548	3,171	---	3,325	
	14	10	0	24	
College or University	---	---	---	10,280	
	10,896	9,745	---	10,238	
	2,370	1,619	---	2,007	
	9	12	0	21	
High School	---	---	---	11,018	
	10,637	10,721	---	10,705	
	2,289	1,210	---	1,368	
	3	13	0	16	
Government	---	---	---	13,825	
	14,269	12,533	---	13,227	
	3,035	2,446	---	2,761	
	8	12	0	20	
Hospital, Laboratory, or Non-profit Organization	13,125	12,000	---	12,000	
	12,893	12,217	---	12,429	
	2,984	3,810	---	3,556	
	16	35	0	51	
Other	14,000	12,700	---	13,200	
	14,018	12,505	---	13,374	
	2,765	4,479	---	3,630	
	27	20	0	47	
No Response	---	---	---	---	
	13,830	6,500	---	11,387	
	2,588	---	---	4,611	
	2	1	0	3	
TOTAL	15,600	13,740	---	15,000	
	15,345	13,749	13,000	14,580	
	3,283	4,063	---	3,753	
	201	183	1	385	

Table A-11

SALARIES of INEXPERIENCED FULL-TIME M.S. AND Ph.D. CHEMISTS by Degree Field
1980 Starting Salary Survey

DEGREE FIELD	HIGHEST DEGREE M.S.	HIGHEST DEGREE Ph.D.	TOTAL	
Biochemistry	---	---	---	-Median
	15,070	21,695	17,909	-Mean
	3,700	10,700	7,586	-Std Dev
	4	3	7	-Count
Chemistry, General	---	---	---	
	19,931	19,300	19,773	
	5,127	9,021	5,831	
	9	3	12	
Agricultural	---	---	---	
	---	---	---	
	---	---	---	
	0	0	0	
Analytical	---	25,100	23,450	
	18,403	24,925	22,417	
	3,255	3,279	4,554	
	10	16	26	
Inorganic	---	26,450	25,800	
	20,795	24,450	23,873	
	1,122	4,938	4,726	
	3	16	19	
Organic	---	26,400	25,100	
	17,177	25,540	23,449	
	4,463	7,991	8,102	
	13	39	52	
Pharmaceutical	---	---	---	
	---	---	---	
	---	---	---	
	0	0	0	
Physical	---	26,450	25,500	
	21,250	26,775	25,460	
	1,363	2,884	3,525	
	5	16	21	
Theoretical	---	---	---	
	---	25,000	25,000	
	---	---	---	
	0	1	1	
Polymer	---	---	---	
	---	26,000	26,000	
	---	---	---	
	0	1	1	
Chemistry, other	---	---	---	
	22,375	26,700	23,817	
	2,213	424	2,822	
	4	2	6	
TOTAL	19,632	26,400	24,500	
	18,857	25,174	23,083	
	4,142	6,184	6,324	
	48	97	145	

Table A-12

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Degree and Sex
1980 Starting Salary Survey

HIGHEST DEGREE	SEX: Men	SEX: Women	TOTAL	
Bachelors	21,600	21,900	21,600	-Median
	21,370	21,571	21,414	-Mean
	1,911	1,984	1,927	-Std Dev
	426	119	545	-Count
Masters	24,000	---	23,850	
	23,724	23,506	23,689	
	1,634	1,537	1,604	
	37	7	44	
Doctorate	28,900	---	28,800	
	27,445	28,800	27,499	
	4,424	---	4,339	
	24	1	25	
No Response	---	---	---	
	22,000	16,250	20,083	
	408	7,425	4,466	
	4	2	6	
TOTAL	21,900	21,900	21,900	
	21,849	21,649	21,808	
	2,507	2,284	2,461	
	491	129	620	

Table A-13

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Degree and Employer
1980 Starting Salary Survey

EMPLOYER	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
Manufacturing Industry	21,900	23,850	---	---	21,960	-Median
	21,741	23,721	29,813	21,833	22,122	-Mean
	1,356	1,668	1,922	289	1,992	-Std Dev
	432	36	14	3	485	-Count
Non-manufacturing Industry	21,000	---	---	---	21,000	
	20,902	22,933	35,200	22,500	21,288	
	1,038	2,003	---	---	2,211	
	52	3	1	1	57	
College or University	---	---	---	---	---	
	---	---	23,171	---	23,171	
	---	---	3,001	---	3,001	
	0	0	7	0	7	
Government	---	---	---	---	19,980	
	19,186	24,000	20,200	---	19,575	
	3,252	---	---	---	3,261	
	13	1	1	0	15	
Hospital, Laboratory, or Non-profit Organization	---	---	---	---	---	
	19,975	23,000	22,500	21,500	21,238	
	2,986	0	---	---	2,420	
	4	2	1	1	8	
Other	21,000	---	---	---	21,000	
	18,911	24,780	30,000	11,000	19,304	
	4,474	255	---	---	4,957	
	34	2	1	1	38	
No Response	---	---	---	---	---	
	21,905	---	---	---	21,905	
	1,080	---	---	---	1,080	
	10	0	0	0	10	
TOTAL	21,600	23,850	28,800	---	21,900	
	21,414	23,689	27,499	20,083	21,808	
	1,927	1,604	4,339	4,466	2,461	
	545	44	25	6	620	

Table A-14

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Degree and Employer - Men
1980 Starting Salary Survey

EMPLOYER	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
Manufacturing Industry	21,900	24,000	---	---	22,000	-Median
	21,717	23,723	29,891	22,000	22,160	-Mean
	1,399	1,750	1,977	0	2,120	-Std Dev
	336	31	13	2	382	-Count
Non-manufacturing Industry	21,000	---	---	---	21,000	
	20,739	22,800	35,200	22,500	21,175	
	1,099	---	---	---	2,491	
	39	1	1	1	42	
College or University	---	---	---	---	---	
	---	---	23,171	---	23,171	
	---	---	3,001	---	3,001	
	0	0	7	0	7	
Government	---	---	---	---	---	
	19,412	24,000	20,200	---	19,860	
	3,542	---	---	---	3,466	
	10	1	1	0	12	
Hospital, Laboratory, or Non-profit Organization	---	---	---	---	---	
	19,433	23,000	22,500	21,500	21,186	
	3,408	0	---	---	2,609	
	3	2	1	1	7	
Other	20,880	---	---	---	21,000	
	19,010	24,780	30,000	---	19,692	
	3,849	255	---	---	4,336	
	30	2	1	0	33	
No Response	---	---	---	---	---	
	21,888	---	---	---	21,888	
	1,224	---	---	---	1,224	
	8	0	0	0	8	
TOTAL	21,600	24,000	28,900	---	21,900	
	21,370	23,724	27,445	22,000	21,849	
	1,911	1,634	4,424	408	2,507	
	426	37	24	4	491	

Table A-15

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Degree and Employer - Women
1980 Starting Salary Survey

EMPLOYER	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
Manufacturing Industry	21,900	---	---	---	21,900	-Median
	21,826	23,708	28,800	21,500	21,982	-Mean
	1,198	1,168	---	---	1,420	-Std Dev
	96	5	1	1	103	-Count
Non-manufacturing Industry	---	---	---	---	21,600	
	21,391	23,000	---	---	21,605	
	640	2,828	---	---	1,115	
	13	2	0	0	15	
Government	---	---	---	---	---	
	18,434	---	---	---	18,434	
	2,428	---	---	---	2,428	
	3	0	0	0	3	
Hospital, Laboratory, or Non-profit Organization	---	---	---	---	---	
	21,600	---	---	---	21,600	
	---	---	---	---	---	
	1	0	0	0	1	
Other	---	---	---	---	---	
	18,175	---	---	11,000	16,740	
	8,728	---	---	---	8,212	
	4	0	0	1	5	
No Response	---	---	---	---	---	
	21,975	---	---	---	21,975	
	106	---	---	---	106	
	2	0	0	0	2	
TOTAL	21,900	---	---	---	21,900	
	21,571	23,506	28,800	16,250	21,649	
	1,984	1,537	---	7,425	2,284	
	119	7	1	2	129	

Table A-16

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Geographic Region and Degree
1980 Starting Salary Survey

GEOGRAPHIC REGION	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
Pacific	21,900	---	---	---	22,125	-Median
	21,629	23,850	25,467	22,000	22,140	-Mean
	1,671	2,045	7,032	---	2,379	-Std Dev
	46	8	3	1	58	-Count
Mountain	21,500	---	---	---	21,600	
	21,459	24,787	21,200	---	21,971	
	1,158	180	---	---	1,618	
	15	3	1	0	19	
West North Central	21,600	---	---	---	21,600	
	21,552	22,810	27,000	---	21,914	
	696	608	---	---	1,364	
	19	2	1	0	22	
West South Central	22,400	---	---	---	22,500	
	22,488	23,700	30,000	---	22,867	
	1,158	900	2,179	---	1,948	
	63	3	3	0	69	
East North Central	21,600	---	---	---	21,740	
	21,307	23,906	26,950	22,000	21,721	
	1,447	1,843	3,523	---	2,004	
	88	7	4	1	100	
East South Central	21,900	---	---	---	22,000	
	21,488	24,600	---	22,500	21,695	
	1,569	849	---	---	1,680	
	32	2	0	1	35	
Middle Atlantic	21,600	---	---	---	21,760	
	21,415	23,806	28,708	21,500	21,873	
	1,730	702	4,245	0	2,504	
	177	7	10	2	196	
South Atlantic	21,600	---	---	---	21,600	
	21,207	23,349	26,000	---	21,662	
	2,286	1,791	5,024	---	2,590	
	62	9	3	0	74	
New England	21,500	---	---	---	21,200	
	20,976	20,750	---	---	20,964	
	1,222	354	---	---	1,192	
	37	2	0	0	39	
No Response	---	---	---	---	---	
	13,921	25,620	---	11,000	15,019	
	6,372	---	---	---	6,957	
	6	1	0	1	8	
TOTAL	21,600	23,850	28,800	---	21,900	
	21,414	23,689	27,499	20,083	21,808	
	1,927	1,604	4,339	4,466	2,461	
	545	44	25	6	620	

Table A-17

SALARIES of POSTDOCTORAL FELLOWS by Employer and Degree Field
1980 Starting Salary Survey

EMPLOYER	DEGREE FIELD: Chemical Eng.	Bio-Chem.	Chemist	Non-Chemical	TOTAL	
Manufacturing Industry	---	---	---	---	---	-Median
	---	---	22,450	---	22,450	-Mean
	---	---	5,586	---	5,586	-Std Dev
	0	0	2	0	2	-Count
Non-manufacturing Industry	---	---	---	---	---	
	---	---	22,000	---	22,000	
	---	---	---	---	---	
	0	0	1	0	1	
College or University	---	---	12,000	---	12,500	
	11,848	13,380	12,421	13,750	12,362	
	2,483	---	2,244	354	2,246	
	12	1	40	2	55	
Government	---	---	---	---	---	
	14,916	---	17,768	20,000	17,664	
	---	---	1,273	---	1,893	
	1	0	4	1	6	
Hospital, Laboratory, or Non-Profit Organization	---	---	---	---	---	
	---	---	15,200	---	15,200	
	---	---	1,823	---	1,823	
	0	0	5	0	5	
No Response	---	---	---	---	---	
	---	---	15,000	---	15,000	
	---	---	---	---	---	
	0	0	1	0	1	
TOTAL	---	---	13,000	---	13,240	
	12,084	13,380	13,694	15,833	13,483	
	2,525	---	3,431	3,617	3,317	
	13	1	53	3	70	

Table B-1

EMPLOYMENT STATUS of B.S. CHEMISTS by Experience
1980 Starting Salary Survey

EMPLOYMENT STATUS	PROFESSIONAL EXPERIENCE				TOTAL	
	< 12 Months	12-36 Months	>36 Months	No Response		
Full-time in Chemistry	299	67	38	12	416	-Count
	71.9%	16.1%	9.1%	2.9%	100.0%	-% of Row
	35.9%	41.1%	59.4%	2.0%	25.2%	-% of Col
Full-time in Non-chemistry	100	17	13	3	133	
	75.2%	12.8%	9.8%	2.3%	100.0%	
	12.0%	10.4%	20.3%	0.5%	8.1%	
Assistantship, Postdoctoral or Other Fellowship	345	66	8	25	444	
	77.7%	14.9%	1.8%	5.6%	100.0%	
	41.4%	40.5%	12.5%	4.2%	26.9%	
Unemployed and Seeking Employment	11	2	1	141	155	
	7.1%	1.3%	0.6%	91.0%	100.0%	
	1.3%	1.2%	1.6%	23.9%	9.4%	
Unemployed and Not Seeking Employment	62	7	3	362	434	
	14.3%	1.6%	0.7%	83.4%	100.0%	
	7.4%	4.3%	4.7%	61.3%	26.3%	
No Response	17	4	1	48	70	
	24.3%	5.7%	1.4%	68.6%	100.0%	
	2.0%	2.5%	1.6%	8.1%	4.2%	
TOTAL	834	163	64	591	1,652	
	50.5%	9.9%	3.9%	35.8%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	

Table B-2

EMPLOYMENT STATUS of M.S. CHEMISTS by Experience
1980 Starting Salary Survey

EMPLOYMENT STATUS	PROFESSIONAL EXPERIENCE < 12 Months	12-36 Months	>36 Months	No Response	TOTAL	
Full-time in Chemistry	41	14	19	1	75	-Count
	54.7%	18.7%	25.3%	1.3%	100.0%	-% of Row
	46.1%	33.3%	65.5%	4.8%	41.4%	-% of Col
Full-time in Non-chemistry	3	6	1	0	10	
	30.0%	60.0%	10.0%	0.0%	100.0%	
	3.4%	14.3%	3.4%	0.0%	5.5%	
Assistantship, Postdoctoral or Other Fellowship	40	20	9	0	69	
	58.0%	29.0%	13.0%	0.0%	100.0%	
	44.9%	47.6%	31.0%	0.0%	38.1%	
Unemployed and Seeking Employment	0	0	0	8	8	
	0.0%	0.0%	0.0%	100.0%	100.0%	
	0.0%	0.0%	0.0%	38.1%	4.4%	
Unemployed and not Seeking Employment	2	1	0	8	11	
	18.2%	9.1%	0.0%	72.7%	100.0%	
	2.2%	2.4%	0.0%	38.1%	6.1%	
No Response	3	1	0	4	8	
	37.5%	12.5%	0.0%	50.0%	100.0%	
	3.4%	2.4%	0.0%	19.0%	4.4%	
TOTAL	89	42	29	21	181	
	49.2%	23.2%	16.0%	11.6%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	

Table B-3

EMPLOYMENT STATUS of Ph.D. CHEMISTS by Experience
1980 Starting Salary Survey

EMPLOYMENT STATUS	PROFESSIONAL EXPERIENCE				TOTAL	
	< 12 Months	12-36 Months	>36 Months	No Response		
Full-time in Chemistry	92	9	18	4	123	-Count
	74.8%	7.3%	14.6%	3.3%	100.0%	-% of Row
	65.2%	50.0%	64.3%	33.3%	61.8%	-% of Col
Full-time in Non-chemistry	3	2	2	0	7	
	42.9%	28.6%	28.6%	0.0%	100.0%	
	2.1%	11.1%	7.1%	0.0%	3.5%	
Assistantship, Postdoctoral or Other Fellowship	46	7	5	1	59	
	78.0%	11.9%	8.5%	1.7%	100.0%	
	32.6%	38.9%	17.9%	8.3%	29.6%	
Unemployed and Seeking Employment	0	0	1	6	7	
	0.0%	0.0%	14.3%	85.7%	100.0%	
	0.0%	0.0%	3.6%	50.0%	3.5%	
Unemployed and Not Seeking Employment	0	0	1	0	1	
	0.0%	0.0%	100.0%	0.0%	100.0%	
	0.0%	0.0%	3.6%	0.0%	0.5%	
No Response	0	0	1	1	2	
	0.0%	0.0%	50.0%	50.0%	100.0%	
	0.0%	0.0%	3.6%	8.3%	1.0%	
TOTAL	141	18	28	12	199	
	70.9%	9.0%	14.1%	6.0%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	

Table B-4

EMPLOYMENT STATUS of CHEMISTS by Degree and Sex
1980 Starting Salary Survey

EMPLOYMENT STATUS	Bachelors SEX Men	Bachelors Women	Bachelors No Response	Bachelors TOTAL	Masters Men	Masters Women	Masters No Response	Masters TOTAL	Doctorate Men	Doctorate Women	Doctorate No Response	Doctorate TOTAL
Full-time in Chemistry	238	168	0	406	54	18	0	72	107	16	0	123 -Count
	58.6%	41.4%	0.0%	100.0%	75.0%	25.0%	0.0%	100.0%	87.0%	13.0%	0.0%	100.0% -% of Row
	21.0%	34.4%	0.0%	25.0%	39.4%	48.6%	***.*%	41.4%	64.8%	48.5%	***.*%	62.1% -% of Col
Full-time in Non-Chemistry	82	50	1	133	5	5	0	10	6	1	0	7
	61.7%	37.6%	0.8%	100.0%	50.0%	50.0%	0.0%	100.0%	85.7%	14.3%	0.0%	100.0%
	7.2%	10.2%	50.0%	8.2%	3.6%	13.5%	***.*%	5.7%	3.6%	3.0%	***.*%	3.5%
Assistantship, Postdoctoral or Other Fellowship	332	102	0	434	57	9	0	66	44	14	0	58
	76.5%	23.5%	0.0%	100.0%	86.4%	13.6%	0.0%	100.0%	75.9%	24.1%	0.0%	100.0%
	29.3%	20.9%	0.0%	26.7%	41.6%	24.3%	***.*%	37.9%	26.7%	42.4%	***.*%	29.3%
Unemployed and Seeking Employment	104	49	0	153	5	3	0	8	5	2	0	7
	68.0%	32.0%	0.0%	100.0%	62.5%	37.5%	0.0%	100.0%	71.4%	28.6%	0.0%	100.0%
	9.2%	10.0%	0.0%	9.4%	3.6%	8.1%	***.*%	4.6%	3.0%	6.1%	***.*%	3.5%
Unemployed and Not Seeking Employment	330	101	0	431	11	0	0	11	1	0	0	1
	76.6%	23.4%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%
	29.1%	20.7%	0.0%	26.5%	8.0%	0.0%	***.*%	6.3%	0.6%	0.0%	***.*%	0.5%
No Response	49	19	1	69	5	2	0	7	2	0	0	2
	71.0%	27.5%	1.4%	100.0%	71.4%	28.6%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%
	4.3%	3.9%	50.0%	4.2%	3.6%	5.4%	***.*%	4.0%	1.2%	0.0%	***.*%	1.0%
TOTAL	1,135	489	2	1,626	137	37	0	174	165	33	0	198
	69.8%	30.1%	0.1%	100.0%	78.7%	21.3%	0.0%	100.0%	83.3%	16.7%	0.0%	100.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%
ADVANCED STUDY PLANS FALL 1980												
Full-time	717	224	1	942	75	12	0	87	11	1	0	12
	76.1%	23.8%	0.1%	100.0%	86.2%	13.8%	0.0%	100.0%	91.7%	8.3%	0.0%	100.0%
	63.2%	45.8%	50.0%	57.9%	54.7%	32.4%	***.*%	50.0%	6.7%	3.0%	***.*%	6.1%
Part-time	125	76	1	202	8	7	0	15	7	2	0	9
	61.9%	37.6%	0.5%	100.0%	53.3%	46.7%	0.0%	100.0%	77.8%	22.2%	0.0%	100.0%
	11.0%	15.5%	50.0%	12.4%	5.8%	18.9%	***.*%	8.6%	4.2%	6.1%	***.*%	4.5%
No Plans	287	184	0	471	50	18	0	68	143	30	0	173
	60.9%	39.1%	0.0%	100.0%	73.5%	26.5%	0.0%	100.0%	82.7%	17.3%	0.0%	100.0%
	25.3%	37.6%	0.0%	29.0%	36.5%	48.6%	***.*%	39.1%	86.7%	90.9%	***.*%	87.4%
No Response	6	5	0	11	4	0	0	4	4	0	0	4
	54.5%	45.5%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%
	0.5%	1.0%	0.0%	0.7%	2.9%	0.0%	***.*%	2.3%	2.4%	0.0%	***.*%	2.0%
TOTAL	1,135	489	2	1,626	137	37	0	174	165	33	0	198
	69.8%	30.1%	0.1%	100.0%	78.7%	21.3%	0.0%	100.0%	83.3%	16.7%	0.0%	100.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%

Table B-5

EMPLOYMENT STATUS of B.S. CHEMISTS by Certification Status
1980 Starting Salary Survey

EMPLOYMENT STATUS	CERTIFICATION: Certified	Non-Cert.	No Response	TOTAL	
Full-time in Chemistry	238	167	1	406	-Count
	58.6%	41.1%	0.2%	100.0%	-% of Row
	29.6%	20.4%	20.0%	25.0%	-% of Col
Full-time in Non-Chemistry	54	79	0	133	
	40.6%	59.4%	0.0%	100.0%	
	6.7%	9.7%	0.0%	8.2%	
Assistantship, Postdoctoral or Other Fellowship	287	145	2	434	
	66.1%	33.4%	0.5%	100.0%	
	35.7%	17.7%	40.0%	26.7%	
Unemployed and Seek Employment	72	81	0	153	
	47.1%	52.9%	0.0%	100.0%	
	9.0%	9.9%	0.0%	9.4%	
Unemployed and Not Seeking Employment	133	296	2	431	
	30.9%	68.7%	0.5%	100.0%	
	16.6%	36.2%	40.0%	26.5%	
No Response	19	50	0	69	
	27.5%	72.5%	0.0%	100.0%	
	2.4%	6.1%	0.0%	4.2%	
TOTAL	803	818	5	1,626	
	49.4%	50.3%	0.3%	100.0%	
	100.0%	100.0%	100.0%	100.0%	

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Full-time	451	487	4	942	
	47.9%	51.7%	0.4%	100.0%	
	56.2%	59.5%	80.0%	57.9%	
Part-time	108	94	0	202	
	53.5%	46.5%	0.0%	100.0%	
	13.4%	11.5%	0.0%	12.4%	
No Plans	239	231	1	471	
	50.7%	49.0%	0.2%	100.0%	
	29.8%	28.2%	20.0%	29.0%	
No Response	5	6	0	11	
	45.5%	54.5%	0.0%	100.0%	
	0.6%	0.7%	0.0%	0.7%	
TOTAL	803	818	5	1,626	
	49.4%	50.3%	0.3%	100.0%	
	100.0%	100.0%	100.0%	100.0%	

Table B-6

EMPLOYMENT STATUS OF M.S. and Ph.D. CHEMISTS by Degree Field
1980 Starting Salary Survey

DEGREE FIELD

Masters

EMPLOYMENT STATUS	Bio-chem.	General Chem	Agri-cultural	Analyti-cal	In-organic	Organic	Pharm.	Physical	Theoret-ical	Polymer	Other Chem	TOTAL
Full-time in Chemistry	4 5.3% 19.0%	20 26.3% 52.6%	0 0.0% ***.*%	13 17.1% 61.9%	6 7.9% 40.0%	19 25.0% 36.5%	0 0.0% 0.0%	6 7.9% 20.0%	0 0.0% ***.*%	1 1.3% 33.3%	7 9.2% 53.8%	76 -Count 100.0% -% of Row 39.0% -% of Col
Full-time in Non-chemistry	1 9.1% 4.8%	0 0.0% 0.0%	0 0.0% ***.*%	0 0.0% 0.0%	0 0.0% 0.0%	3 27.3% 5.8%	0 0.0% 0.0%	4 36.4% 13.3%	0 0.0% ***.*%	0 0.0% 0.0%	3 27.3% 23.1%	11 100.0% 5.6%
Assistantship, Postdoctoral or Other Fellowship	12 15.4% 57.1%	12 15.4% 31.6%	0 0.0% ***.*%	4 5.1% 19.0%	9 11.5% 60.0%	22 28.2% 42.3%	1 1.3% 50.0%	16 20.5% 53.3%	0 0.0% ***.*%	1 1.3% 33.3%	1 1.3% 7.7%	78 100.0% 40.0%
Unemployed and Seeking Employment	1 11.1% 4.8%	1 11.1% 2.6%	0 0.0% ***.*%	2 22.2% 9.5%	0 0.0% 0.0%	2 22.2% 3.8%	1 11.1% 50.0%	1 11.1% 3.3%	0 0.0% ***.*%	1 11.1% 33.3%	0 0.0% 0.0%	9 100.0% 4.6%
Unemployed and not Seeking Employment	2 15.4% 9.5%	2 15.4% 5.3%	0 0.0% ***.*%	0 0.0% 0.0%	0 0.0% 0.0%	6 46.2% 11.5%	0 0.0% 0.0%	2 15.4% 6.7%	0 0.0% ***.*%	0 0.0% 0.0%	1 7.7% 7.7%	13 100.0% 6.7%
No Response	1 12.5% 4.8%	3 37.5% 7.9%	0 0.0% ***.*%	2 25.0% 9.5%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	1 12.5% 3.3%	0 0.0% ***.*%	0 0.0% 0.0%	1 12.5% 7.7%	8 100.0% 4.1%
TOTAL	21 10.8% 100.0%	38 19.5% 100.0%	0 0.0% ***.*%	21 10.8% 100.0%	15 7.7% 100.0%	52 26.7% 100.0%	2 1.0% 100.0%	30 15.4% 100.0%	0 0.0% ***.*%	3 1.5% 100.0%	13 6.7% 100.0%	195 100.0% 100.0%

Doctorate

Full-time in Chemistry	5 3.9% 26.3%	4 3.1% 57.1%	0 0.0% 0.0%	22 17.2% 81.5%	21 16.4% 61.8%	47 36.7% 64.4%	1 0.8% 100.0%	20 15.6% 52.6%	0 0.0% 0.0%	4 3.1% 80.0%	4 3.1% 40.0%	128 100.0% 59.0%
Full-time in Non-chemistry	1 12.5% 5.3%	0 0.0% 0.0%	0 0.0% 0.0%	1 12.5% 3.7%	1 12.5% 2.9%	0 0.0% 0.0%	0 0.0% 0.0%	3 37.5% 7.9%	1 12.5% 50.0%	0 0.0% 0.0%	1 12.5% 10.0%	8 100.0% 3.7%
Assistantship, Postdoctoral or Other Fellowship	13 18.3% 68.4%	3 4.2% 42.9%	1 1.4% 100.0%	2 2.8% 7.4%	10 14.1% 29.4%	23 32.4% 31.5%	0 0.0% 0.0%	14 19.7% 36.8%	0 0.0% 0.0%	1 1.4% 20.0%	4 5.6% 40.0%	71 100.0% 32.7%
Unemployed and Seeking Employment	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	2 28.6% 7.4%	2 28.6% 5.9%	2 28.6% 2.7%	0 0.0% 0.0%	0 0.0% 0.0%	1 14.3% 50.0%	0 0.0% 0.0%	0 0.0% 0.0%	7 100.0% 3.2%
Unemployed and not Seeking Employment	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 1.4%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 0.5%
No Response	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	1 50.0% 2.6%	0 0.0% 0.0%	0 0.0% 0.0%	1 50.0% 10.0%	2 100.0% 0.9%
TOTAL	19 8.8% 100.0%	7 3.2% 100.0%	1 0.5% 100.0%	27 12.4% 100.0%	34 15.7% 100.0%	73 33.6% 100.0%	1 0.5% 100.0%	38 17.5% 100.0%	2 0.9% 100.0%	5 2.3% 100.0%	10 4.6% 100.0%	217 100.0% 100.0%

Table B-7

EMPLOYMENT STATUS of CHEMISTS by Citizenship and Degree
1980 Starting Salary Survey

CITIZENSHIP

EMPLOYMENT STATUS	Bachelors: US Citizen	Bachelors: Permanent Resident	Bachelors: Other	Bachelors: No Response	Bachelors: TOTAL	Masters: US Citizen	Masters: Permanent Resident	Masters: Other	Masters: No Response	Masters: TOTAL	Doctorate: US Citizen	Doctorate: Permanent Resident	Doctorate: Other	Doctorate: No Response	Doctorate: TOTAL
Full-time in Chemistry	389	12	3	2	406	70	1	1	0	72	114	6	3	0	123 -Count
	95.8%	3.0%	0.7%	0.5%	100.0%	97.2%	1.4%	1.4%	0.0%	100.0%	92.7%	4.9%	2.4%	0.0%	100.0% -% of Row
	24.7%	37.5%	20.0%	66.7%	25.0%	44.9%	16.7%	8.3%	***.*%	41.4%	64.0%	66.7%	27.3%	***.*%	62.1% -% of Col
Full-time in Non-Chemistry	131	2	0	0	133	9	0	1	0	10	7	0	0	0	7
	98.5%	1.5%	0.0%	0.0%	100.0%	90.0%	0.0%	10.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	100.0%
	8.3%	6.3%	0.0%	0.0%	8.2%	5.8%	0.0%	8.3%	***.*%	5.7%	3.9%	0.0%	0.0%	***.*%	3.5%
Assistantship, Postdoctoral or Other Fellowship	420	9	5	0	434	56	3	7	0	66	48	2	8	0	58
	96.8%	2.1%	1.2%	0.0%	100.0%	84.8%	4.5%	10.6%	0.0%	100.0%	82.8%	3.4%	13.8%	0.0%	100.0%
	26.6%	28.1%	33.3%	0.0%	26.7%	35.9%	50.0%	58.3%	***.*%	37.9%	27.0%	22.2%	72.7%	***.*%	29.3%
Unemployed and Seeking Employment	151	2	0	0	153	6	1	1	0	8	6	1	0	0	7
	98.7%	1.3%	0.0%	0.0%	100.0%	75.0%	12.5%	12.5%	0.0%	100.0%	85.7%	14.3%	0.0%	0.0%	100.0%
	9.6%	6.3%	0.0%	0.0%	9.4%	3.8%	16.7%	8.3%	***.*%	4.6%	3.4%	11.1%	0.0%	***.*%	3.5%
Unemployed and Not Seeking Employment	424	3	4	0	431	11	0	0	0	11	1	0	0	0	1
	98.4%	0.7%	0.9%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	100.0%
	26.9%	9.4%	26.7%	0.0%	26.5%	7.1%	0.0%	0.0%	***.*%	6.3%	0.6%	0.0%	0.0%	***.*%	0.5%
No Response	61	4	3	1	69	4	1	2	0	7	2	0	0	0	2
	88.4%	5.8%	4.3%	1.4%	100.0%	57.1%	14.3%	28.6%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	100.0%
	3.9%	12.5%	20.0%	33.3%	4.2%	2.6%	16.7%	16.7%	***.*%	4.0%	1.1%	0.0%	0.0%	***.*%	1.0%
TOTAL	1,576	32	15	3	1,626	156	6	12	0	174	178	9	11	0	198
	96.9%	2.0%	0.9%	0.2%	100.0%	89.7%	3.4%	6.9%	0.0%	100.0%	89.9%	4.5%	5.6%	0.0%	100.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%

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Full-time	912	18	11	1	942	75	3	9	0	87	10	0	2	0	12
	96.8%	1.9%	1.2%	0.1%	100.0%	86.2%	3.4%	10.3%	0.0%	100.0%	83.3%	0.0%	16.7%	0.0%	100.0%
	57.9%	56.3%	73.3%	33.3%	57.9%	48.1%	50.0%	75.0%	***.*%	50.0%	5.6%	0.0%	18.2%	***.*%	6.1%
Part-time	191	8	2	1	202	15	0	0	0	15	9	0	0	0	9
	94.6%	4.0%	1.0%	0.5%	100.0%	100.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	100.0%
	12.1%	25.0%	13.3%	33.3%	12.4%	9.6%	0.0%	0.0%	***.*%	8.6%	5.1%	0.0%	0.0%	***.*%	4.5%
No Plans	462	6	2	1	471	63	3	2	0	68	155	9	9	0	173
	98.1%	1.3%	0.4%	0.2%	100.0%	92.6%	4.4%	2.9%	0.0%	100.0%	89.6%	5.2%	5.2%	0.0%	100.0%
	29.3%	18.8%	13.3%	33.3%	29.0%	40.4%	50.0%	16.7%	***.*%	39.1%	87.1%	100.0%	81.8%	***.*%	87.4%
No Response	11	0	0	0	11	3	0	1	0	4	4	0	0	0	4
	100.0%	0.0%	0.0%	0.0%	100.0%	75.0%	0.0%	25.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	100.0%
	0.7%	0.0%	0.0%	0.0%	0.7%	1.9%	0.0%	8.3%	***.*%	2.3%	2.2%	0.0%	0.0%	***.*%	2.0%
TOTAL	1,576	32	15	3	1,626	156	6	12	0	174	178	9	11	0	198
	96.9%	2.0%	0.9%	0.2%	100.0%	89.7%	3.4%	6.9%	0.0%	100.0%	89.9%	4.5%	5.6%	0.0%	100.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%

Table B-8

EMPLOYMENT STATUS of MINORITY CHEMISTS by Degree
1980 Starting Salary Survey

HIGHEST DEGREE

EMPLOYMENT STATUS	B.S.	M.S.	Ph.D.	No Response	TOTAL
Full-time in Chemistry	39 68.4% 30.7%	5 8.8% 17.2%	13 22.8% 50.0%	0 0.0% ***.*%	57 -Count 100.0% -% of Row 31.3% -% of Col
Full-time in Non-Chemistry	10 83.3% 7.9%	2 16.7% 6.9%	0 0.0% 0.0%	0 0.0% ***.*%	12 100.0% 6.6%
Assistantship, Postdoctoral or Other Fellowship	28 51.9% 22.0%	16 29.6% 55.2%	10 18.5% 38.5%	0 0.0% ***.*%	54 100.0% 29.7%
Unemployed and Seeking Employment	9 75.0% 7.1%	2 16.7% 6.9%	1 8.3% 3.8%	0 0.0% ***.*%	12 100.0% 6.6%
Unemployed and Not Seeking Employment	30 93.8% 23.6%	1 3.1% 3.4%	1 3.1% 3.8%	0 0.0% ***.*%	32 100.0% 17.6%
No Response	11 73.3% 8.7%	3 20.0% 10.3%	1 6.7% 3.8%	0 0.0% ***.*%	15 100.0% 8.2%
TOTAL	127 69.8% 100.0%	29 15.9% 100.0%	26 14.3% 100.0%	0 0.0% ***.*%	182 100.0% 100.0%

ADVANCED STUDY PLANS
FALL 1980

Full-time	74 76.3% 58.3%	21.6% 72.4%	2.1% 7.7%	0.0% ***.*%	100.0% 53.3%
Part-time	22 91.7% 17.3%	1 4.2% 3.4%	1 4.2% 3.8%	0 0.0% ***.*%	24 100.0% 13.2%
No Plans	31 51.7% 24.4%	6 10.0% 20.7%	23 38.3% 88.5%	0 0.0% ***.*%	60 100.0% 33.0%
No Response	0 0.0% 0.0%	1 100.0% 3.4%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 0.5%
TOTAL	127 69.8% 100.0%	29 15.9% 100.0%	26 14.3% 100.0%	0 0.0% ***.*%	182 100.0% 100.0%

Table B-9

EMPLOYMENT STATUS of B.S. CHEMICAL ENGINEERS by Experience
1980 Starting Salary Survey

EMPLOYMENT STATUS	PROFESSIONAL EXPERIENCE				TOTAL	
	< 12 Months	12-36 Months	>36 Months	No Response		
Full-time in Chemistry	498	92	13	3	606	-Count
	82.2%	15.2%	2.1%	0.5%	100.0%	-% of Row
	78.4%	78.6%	86.7%	3.5%	71.1%	-% of Col
Full-time in Non-chemistry	55	7	1	1	64	
	85.9%	10.9%	1.6%	1.6%	100.0%	
	8.7%	6.0%	6.7%	1.2%	7.5%	
Assistantship, Postdoctoral or Other Fellowship	70	16	0	13	99	
	70.7%	16.2%	0.0%	13.1%	100.0%	
	11.0%	13.7%	0.0%	15.3%	11.6%	
Unemployed and Seeking Employment	5	0	1	37	43	
	11.6%	0.0%	2.3%	86.0%	100.0%	
	0.8%	0.0%	6.7%	43.5%	5.0%	
Unemployed ant Not Seeking Employment	6	0	0	28	34	
	17.6%	0.0%	0.0%	82.4%	100.0%	
	0.9%	0.0%	0.0%	32.9%	4.0%	
No Response	1	2	0	3	6	
	16.7%	33.3%	0.0%	50.0%	100.0%	
	0.2%	1.7%	0.0%	3.5%	0.7%	
TOTAL	635	117	15	85	852	
	74.5%	13.7%	1.8%	10.0%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	

Table B-10

EMPLOYMENT STATUS of M.S. CHEMICAL ENGINEERS by EXPERIENCE
1980 Starting Salary Survey

PROFESSIONAL EXPERIENCE

EMPLOYMENT STATUS	< 12 Months	12-36 Months	>36 Months	No Response	TOTAL	
Full-time in Chemistry	44	23	8	1	76	-Count
	57.9%	30.3%	10.5%	1.3%	100.0%	-% of Row
	84.6%	85.2%	88.9%	12.5%	79.2%	-% of Col
Full-time in Non-chemistry	1	1	0	0	2	
	50.0%	50.0%	0.0%	0.0%	100.0%	
	1.9%	3.7%	0.0%	0.0%	2.1%	
Assistantship, Postdoctoral or Other Fellowship	4	3	1	3	11	
	36.4%	27.3%	9.1%	27.3%	100.0%	
	7.7%	11.1%	11.1%	37.5%	11.5%	
Unemployed and Seeking Employment	0	0	0	3	3	
	0.0%	0.0%	0.0%	100.0%	100.0%	
	0.0%	0.0%	0.0%	37.5%	3.1%	
Unemployed and not Seeking Employment	2	0	0	0	2	
	100.0%	0.0%	0.0%	0.0%	100.0%	
	3.8%	0.0%	0.0%	0.0%	2.1%	
No Response	1	0	0	1	2	
	50.0%	0.0%	0.0%	50.0%	100.0%	
	1.9%	0.0%	0.0%	12.5%	2.1%	
TOTAL	52	27	9	8	96	
	54.2%	28.1%	9.4%	8.3%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	

Table B-11

EMPLOYMENT STATUS of Ph.D. CHEMICAL ENGINEERS by Experience
1980 Starting Salary Survey

PROFESSIONAL EXPERIENCE

EMPLOYMENT STATUS	< 12 Months	12-36 Months	>36 Months	No Response	TOTAL	
Full-time in Chemistry	25	8	3	0	36	-Count
	69.4%	22.2%	8.3%	0.0%	100.0%	-% of Row
	89.3%	100.0%	100.0%	0.0%	90.0%	-% of Col
Full-time in Non-chemistry	0	0	0	0	0	
	***.*%	***.*%	***.*%	***.*%	***.*%	
	0.0%	0.0%	0.0%	0.0%	0.0%	
Assistantship, Postdoctoral or Other Fellowship	0	0	0	0	0	
	***.*%	***.*%	***.*%	***.*%	***.*%	
	0.0%	0.0%	0.0%	0.0%	0.0%	
Unemployed and Seeking Employment	0	0	0	1	1	
	0.0%	0.0%	0.0%	100.0%	100.0%	
	0.0%	0.0%	0.0%	100.0%	2.5%	
Unemployed and Not Seeking Employment	1	0	0	0	1	
	100.0%	0.0%	0.0%	0.0%	100.0%	
	3.6%	0.0%	0.0%	0.0%	2.5%	
No Response	2	0	0	0	2	
	100.0%	0.0%	0.0%	0.0%	100.0%	
	7.1%	0.0%	0.0%	0.0%	5.0%	
TOTAL	28	8	3	1	40	
	70.0%	20.0%	7.5%	2.5%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	

Table B-12

EMPLOYMENT STATUS of CHEMICAL ENGINEERS by Degree and Sex
1980 Starting Salary Survey

EMPLOYMENT STATUS	SEX	Bachelors			Masters				Doctorate			
	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL
Full-time in Chemistry	450 77.1% 69.8%	133 22.8% 74.7%	1 0.2% 100.0%	584 100.0% 70.9%	60 81.1% 77.9%	14 18.9% 82.4%	0 0.0% ***.*%	74 100.0% 78.7%	35 97.2% 92.1%	1 2.8% 50.0%	0 0.0% ***.*%	36 -Count 100.0% -% of Row 90.0% -% of Col
Full-time in Non-Chemistry	50 79.4% 7.8%	13 20.6% 7.3%	0 0.0% 0.0%	63 100.0% 7.6%	2 100.0% 2.6%	0 0.0% 0.0%	0 0.0% ***.*%	2 100.0% 2.1%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Assistantship, Postdoctoral or Other Fellowship	76 80.0% 11.8%	19 20.0% 10.7%	0 0.0% 0.0%	95 100.0% 11.5%	9 81.8% 11.7%	2 18.2% 11.8%	0 0.0% ***.*%	11 100.0% 11.7%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Unemployed and Seeking Employment	34 81.0% 5.3%	8 19.0% 4.5%	0 0.0% 0.0%	42 100.0% 5.1%	3 100.0% 3.9%	0 0.0% 0.0%	0 0.0% ***.*%	3 100.0% 3.2%	1 100.0% 2.6%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 2.5%
Unemployed and Not Seeking Employment	30 88.2% 4.7%	4 11.8% 2.2%	0 0.0% 0.0%	34 100.0% 4.1%	1 50.0% 1.3%	1 50.0% 5.9%	0 0.0% ***.*%	2 100.0% 2.1%	1 100.0% 2.6%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 2.5%
No Response	5 83.3% 0.8%	1 16.7% 0.6%	0 0.0% 0.0%	6 100.0% 0.7%	2 100.0% 2.6%	0 0.0% 0.0%	0 0.0% ***.*%	2 100.0% 2.1%	1 50.0% 2.6%	1 50.0% 50.0%	0 0.0% ***.*%	2 100.0% 5.0%
TOTAL	645 78.3% 100.0%	178 21.6% 100.0%	1 0.1% 100.0%	824 100.0% 100.0%	77 81.9% 100.0%	17 18.1% 100.0%	0 0.0% ***.*%	94 100.0% 100.0%	38 95.0% 100.0%	2 5.0% 100.0%	0 0.0% ***.*%	40 100.0% 100.0%
ADVANCED STUDY PLAN FALL 1980												
Full-time	108 85.7% 16.7%	18 14.3% 10.1%	0 0.0% 0.0%	126 100.0% 15.3%	14 82.4% 18.2%	3 17.6% 17.6%	0 0.0% ***.*%	17 100.0% 18.1%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Part-time	168 79.6% 26.0%	42 19.9% 23.6%	1 0.5% 100.0%	211 100.0% 25.6%	15 93.8% 19.5%	1 6.3% 5.9%	0 0.0% ***.*%	16 100.0% 17.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
No Plans	361 75.7% 56.0%	116 24.3% 65.2%	0 0.0% 0.0%	477 100.0% 57.9%	47 78.3% 61.0%	13 21.7% 76.5%	0 0.0% ***.*%	60 100.0% 63.8%	36 94.7% 94.7%	2 5.3% 100.0%	0 0.0% ***.*%	38 100.0% 95.0%
No Response	8 80.0% 1.2%	2 20.0% 1.1%	0 0.0% 0.0%	10 100.0% 1.2%	1 100.0% 1.3%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 1.1%	2 100.0% 5.3%	0 0.0% 0.0%	0 0.0% ***.*%	2 100.0% 5.0%
TOTAL	645 78.3% 100.0%	178 21.6% 100.0%	1 0.1% 100.0%	824 100.0% 100.0%	77 81.9% 100.0%	17 18.1% 100.0%	0 0.0% ***.*%	94 100.0% 100.0%	38 95.0% 100.0%	2 5.0% 100.0%	0 0.0% ***.*%	40 100.0% 100.0%

Table B-13

EMPLOYMENT STATUS of CHEMICAL ENGINEERS by Citizenship and Degree
1980 Starting Salary Survey

EMPLOYMENT STATUS	CITIZENSHIP	Bachelors				Doctorate				
		US Citizen	Perm. Resident	Other	No Response	TOTAL	US Citizen	Perm. Resident	Other	No Response	TOTAL
Full-time in Chemistry		568 97.3% 71.2%	13 2.2% 68.4%	1 0.2% 20.0%	2 0.3% 100.0%	584 100.0% 70.9%	67 90.5% 87.0%	3 4.1% 60.0%	4 5.4% 33.3%	0 0.0% ***.*%	74 100.0% 78.7%
Full-time in Non-Chemistry		60 95.2% 7.5%	3 4.8% 15.8%	0 0.0% 0.0%	0 0.0% 0.0%	63 100.0% 7.6%	1 50.0% 1.3%	1 50.0% 20.0%	0 0.0% 0.0%	0 0.0% ***.*%	2 100.0% 2.1%
Assistantship, Postdoctoral or Other Fellowship		90 94.7% 11.3%	2 2.1% 10.5%	3 3.2% 60.0%	0 0.0% 0.0%	95 100.0% 11.5%	5 45.5% 6.5%	1 9.1% 20.0%	5 45.5% 41.7%	0 0.0% ***.*%	11 100.0% 11.7%
Unemployed and Seeking Employment		42 100.0% 5.3%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	42 100.0% 5.1%	0 0.0% 0.0%	0 0.0% 0.0%	3 100.0% 25.0%	0 0.0% ***.*%	3 100.0% 3.2%
Unemployed and Not Seeking Employment		33 97.1% 4.1%	0 0.0% 0.0%	1 2.9% 20.0%	0 0.0% 0.0%	34 100.0% 4.1%	2 100.0% 2.6%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% ***.*%	2 100.0% 2.1%
No Response		5 83.3% 0.6%	1 16.7% 5.3%	0 0.0% 0.0%	0 0.0% 0.0%	6 100.0% 0.7%	2 100.0% 2.6%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% ***.*%	2 100.0% 2.1%
TOTAL		798 96.8% 100.0%	19 2.3% 100.0%	5 0.6% 100.0%	2 0.2% 100.0%	824 100.0% 100.0%	77 81.9% 100.0%	5 5.3% 100.0%	12 12.8% 100.0%	0 0.0% ***.*%	94 100.0% 100.0%
ADVANCED STUDY PLANS FALL 1980											
Full-time		122 96.8% 15.3%	2 1.6% 10.5%	2 1.6% 40.0%	0 0.0% 0.0%	126 100.0% 15.3%	9 52.9% 11.7%	1 5.9% 20.0%	7 41.2% 58.3%	0 0.0% ***.*%	17 100.0% 18.1%
Part-time		202 95.7% 25.3%	8 3.8% 42.1%	1 0.5% 20.0%	0 0.0% 0.0%	211 100.0% 25.6%	13 81.3% 16.9%	1 6.3% 20.0%	2 12.5% 16.7%	0 0.0% ***.*%	16 100.0% 17.0%
No Plans		464 97.3% 58.1%	9 1.9% 47.4%	2 0.4% 40.0%	2 0.4% 100.0%	477 100.0% 57.9%	55 91.7% 71.4%	2 3.3% 40.0%	3 5.0% 25.0%	0 0.0% ***.*%	60 100.0% 63.8%
No Response		10 100.0% 1.3%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	10 100.0% 1.2%	0 0.0% 0.0%	1 100.0% 20.0%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 1.1%
TOTAL		798 96.8% 100.0%	19 2.3% 100.0%	5 0.6% 100.0%	2 0.2% 100.0%	824 100.0% 100.0%	77 81.9% 100.0%	5 5.3% 100.0%	12 12.8% 100.0%	0 0.0% ***.*%	94 100.0% 100.0%

Doctorate					
US Citizen	Perm. Resident	Other	No Response	TOTAL	
23 63.9% 92.0%	6 16.7% 85.7%	7 19.4% 87.5%	0 0.0% ***.*%	36 100.0% 90.0%	-Count -% of Row -% of Col
0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	
0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	
1 100.0% 4.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 2.5%	
1 100.0% 4.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 2.5%	
0 0.0% 0.0%	1 50.0% 14.3%	1 50.0% 12.5%	0 0.0% ***.*%	2 100.0% 5.0%	
25 62.5% 100.0%	7 17.5% 100.0%	8 20.0% 100.0%	0 0.0% ***.*%	40 100.0% 100.0%	
0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	
0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	
24 63.2% 96.0%	7 18.4% 100.0%	7 18.4% 87.5%	0 0.0% ***.*%	38 100.0% 95.0%	
1 50.0% 4.0%	0 0.0% 0.0%	1 50.0% 12.5%	0 0.0% ***.*%	2 100.0% 5.0%	
25 62.5% 100.0%	7 17.5% 100.0%	8 20.0% 100.0%	0 0.0% ***.*%	40 100.0% 100.0%	

Table B-14

EMPLOYMENT STATUS of MINORITY CHEMICAL ENGINEERS by Degree
1980 Starting Salary Survey

HIGHEST DEGREE

EMPLOYMENT STATUS	B.S.	M.S.	Ph.D.	No Response	TOTAL
Full-time in Chemistry	31 59.6% 57.4%	11 21.2% 55.0%	10 19.2% 83.3%	0 0.0% 0.0%	52 -Count 100.0% -% of Row 59.8% -% of Col
Full-time in Non-Chemistry	6 85.7% 11.1%	1 14.3% 5.0%	0 0.0% 0.0%	0 0.0% 0.0%	7 100.0% 8.0%
Assistantship, Postdoctoral or Other Fellowship	9 69.2% 16.7%	4 30.8% 20.0%	0 0.0% 0.0%	0 0.0% 0.0%	13 100.0% 14.9%
Unemployed and Seeking Employment	4 57.1% 7.4%	2 28.6% 10.0%	0 0.0% 0.0%	1 14.3% 100.0%	7 100.0% 8.0%
Unemployed and Not Seeking Employment	2 40.0% 3.7%	2 40.0% 10.0%	1 20.0% 8.3%	0 0.0% 0.0%	5 100.0% 5.7%
No Response	2 66.7% 3.7%	0 0.0% 0.0%	1 33.3% 8.3%	0 0.0% 0.0%	3 100.0% 3.4%
TOTAL	54 62.1% 100.0%	20 23.0% 100.0%	12 13.8% 100.0%	1 1.1% 100.0%	87 100.0% 100.0%

ADVANCED STUDY PLANS
FALL 1980

Full-time	11 57.9% 20.4%	8 42.1% 40.0%	0 0.0% 0.0%	0 0.0% 0.0%	19 100.0% 21.8%
Part-time	17 89.5% 31.5%	2 10.5% 10.0%	0 0.0% 0.0%	0 0.0% 0.0%	19 100.0% 21.8%
No Plans	26 54.2% 48.1%	10 20.8% 50.0%	11 22.9% 91.7%	1 2.1% 100.0%	48 100.0% 55.2%
No Response	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 8.3%	0 0.0% 0.0%	1 100.0% 1.1%
TOTAL	54 62.1% 100.0%	20 23.0% 100.0%	12 13.8% 100.0%	1 1.1% 100.0%	87 100.0% 100.0%

Table C-1

FIELD of ADVANCED STUDIES of CHEMISTS WHO PLAN FULL-TIME OR PART-TIME STUDIES in FALL 1980 by Degree and Sex
1980 Starting Salary Survey

STUDY FIELD	SEX	Bachelors			Masters				Doctorate			
	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL
Chemistry		305 76.6% 36.2%	93 23.4% 31.0%	0 0.0% 0.0%	398 100.0% 34.8%	62 82.7% 74.7%	13 17.3% 68.4%	0 0.0% ***.*%	75 100.0% 73.5%	10 100.0% 55.6%	0 0.0% 0.0%	0 0.0% ***.*%	10 -Count 100.0% -% of Row 47.6% -% of Col
Other Physical Science		15 83.3% 1.8%	3 16.7% 1.0%	0 0.0% 0.0%	18 100.0% 1.6%	2 66.7% 2.4%	1 33.3% 5.3%	0 0.0% ***.*%	3 100.0% 2.9%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Chemical Engineering		38 69.1% 4.5%	17 30.9% 5.7%	0 0.0% 0.0%	55 100.0% 4.8%	3 60.0% 3.6%	2 40.0% 10.5%	0 0.0% ***.*%	5 100.0% 4.9%	2 66.7% 11.1%	1 33.3% 33.3%	0 0.0% ***.*%	3 100.0% 14.3%
Other Engineering		9 56.3% 1.1%	7 43.8% 2.3%	0 0.0% 0.0%	16 100.0% 1.4%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Biochemistry		37 68.5% 4.4%	17 31.5% 5.7%	0 0.0% 0.0%	54 100.0% 4.7%	2 66.7% 2.4%	1 33.3% 5.3%	0 0.0% ***.*%	3 100.0% 2.9%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Life Science		15 71.4% 1.8%	5 23.8% 1.7%	1 4.8% 50.0%	21 100.0% 1.8%	1 100.0% 1.2%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 1.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Medicine		246 75.2% 29.2%	80 24.5% 26.7%	1 0.3% 50.0%	327 100.0% 28.6%	7 100.0% 8.4%	0 0.0% 0.0%	0 0.0% ***.*%	7 100.0% 6.9%	0 0.0% 0.0%	1 100.0% 33.3%	0 0.0% ***.*%	1 100.0% 4.8%
Dentistry		45 81.8% 5.3%	10 18.2% 3.3%	0 0.0% 0.0%	55 100.0% 4.8%	1 100.0% 1.2%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 1.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Pharmacy		16 69.6% 1.9%	7 30.4% 2.3%	0 0.0% 0.0%	23 100.0% 2.0%	0 0.0% 0.0%	1 100.0% 5.3%	0 0.0% ***.*%	1 100.0% 1.0%	1 100.0% 5.6%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 4.8%
Business		41 69.5% 4.9%	18 30.5% 6.0%	0 0.0% 0.0%	59 100.0% 5.2%	0 0.0% 0.0%	1 100.0% 5.3%	0 0.0% ***.*%	1 100.0% 1.0%	4 100.0% 22.2%	0 0.0% 0.0%	0 0.0% ***.*%	4 100.0% 19.0%
Education		2 25.0% 0.2%	6 75.0% 2.0%	0 0.0% 0.0%	8 100.0% 0.7%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Law		11 73.3% 1.3%	4 26.7% 1.3%	0 0.0% 0.0%	15 100.0% 1.3%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 0.0% 0.0%	1 100.0% 33.3%	0 0.0% ***.*%	1 100.0% 4.8%
Social Science		1 100.0% 0.1%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 0.1%	1 100.0% 1.2%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 1.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Other		46 59.7% 5.5%	31 40.3% 10.3%	0 0.0% 0.0%	77 100.0% 6.7%	4 100.0% 4.8%	0 0.0% 0.0%	0 0.0% ***.*%	4 100.0% 3.9%	1 100.0% 5.6%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 4.8%
No Response		15 88.2% 1.8%	2 11.8% 0.7%	0 0.0% 0.0%	17 100.0% 1.5%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
TOTAL		842 73.6% 100.0%	300 26.2% 100.0%	2 0.2% 100.0%	1,144 100.0% 100.0%	83 81.4% 100.0%	19 18.6% 100.0%	0 0.0% ***.*%	102 100.0% 100.0%	18 85.7% 100.0%	3 14.3% 100.0%	0 0.0% ***.*%	21 100.0% 100.0%

Table C-2

FIELD of ADVANCED STUDIES of B.S.CHEMISTS
WHO PLAN FULL-TIME OR PART-TIME STUDIES in FALL 1980 by Certification Status
1980 Starting Salary Survey

STUDY FIELD	CERTIFICATION: Certified	Non-Cert.	No Response	TOTAL
Chemistry	285 71.6% 51.0%	112 28.1% 19.3%	1 0.3% 25.0%	398 100.0% 34.8%
Other Physical Science	7 38.9% 1.3%	11 61.1% 1.9%	0 0.0% 0.0%	18 100.0% 1.6%
Chemical Engineeering	30 54.5% 5.4%	25 45.5% 4.3%	0 0.0% 0.0%	55 100.0% 4.8%
Other Engineering	9 56.3% 1.6%	7 43.8% 1.2%	0 0.0% 0.0%	16 100.0% 1.4%
Biochemistry	29 53.7% 5.2%	24 44.4% 4.1%	1 1.9% 25.0%	54 100.0% 4.7%
Life Science	6 28.6% 1.1%	15 71.4% 2.6%	0 0.0% 0.0%	21 100.0% 1.8%
Medicine	90 27.5% 16.1%	235 71.9% 40.4%	2 0.6% 50.0%	327 100.0% 28.6%
Dentistry	14 25.5% 2.5%	41 74.5% 7.1%	0 0.0% 0.0%	55 100.0% 4.8%
Pharmacy	10 43.5% 1.8%	13 56.5% 2.2%	0 0.0% 0.0%	23 100.0% 2.0%
Business	27 45.8% 4.8%	32 54.2% 5.5%	0 0.0% 0.0%	59 100.0% 5.2%
Education	1 12.5% 0.2%	7 87.5% 1.2%	0 0.0% 0.0%	8 100.0% 0.7%
Law	4 26.7% 0.7%	11 73.3% 1.9%	0 0.0% 0.0%	15 100.0% 1.3%
Social Science	0 0.0% 0.0%	1 100.0% 0.2%	0 0.0% 0.0%	1 100.0% 0.1%
Other	35 45.5% 6.3%	42 54.5% 7.2%	0 0.0% 0.0%	77 100.0% 6.7%
No Response	12 70.6% 2.1%	5 29.4% 0.9%	0 0.0% 0.0%	17 100.0% 1.5%
TOTAL	559 48.9% 100.0%	581 50.8% 100.0%	4 0.3% 100.0%	1,144 100.0% 100.0%

Table C-3

FIELD of ADVANCED STUDIES of CHEMICAL ENGINEERS WHO PLAN FULL-TIME OR PART-TIME STUDIES IN FALL, 1980 by Degree and Sex
1980 Starting Salary Survey

STUDY FIELD	SEX	Bachelors			Masters			
	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL
Chemistry	1 100.0% 0.4%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 0.3%	0 0.0% 0.0%	1 100.0% 25.0%	0 0.0% ***.*%	1 -Count 100.0% -% of Row 3.0% -% of Col
Other Physical Science	1 33.3% 0.4%	2 66.7% 3.3%	0 0.0% 0.0%	3 100.0% 0.9%	1 100.0% 3.4%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 3.0%
Chemical Engineering	119 82.1% 43.1%	26 17.9% 43.3%	0 0.0% 0.0%	145 100.0% 43.0%	15 88.2% 51.7%	2 11.8% 50.0%	0 0.0% ***.*%	17 100.0% 51.5%
Other Engineering	17 68.0% 6.2%	8 32.0% 13.3%	0 0.0% 0.0%	25 100.0% 7.4%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Biochemistry	2 100.0% 0.7%	0 0.0% 0.0%	0 0.0% 0.0%	2 100.0% 0.6%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Life Science	1 100.0% 0.4%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 0.3%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Medicine	16 88.9% 5.8%	2 11.1% 3.3%	0 0.0% 0.0%	18 100.0% 5.3%	2 100.0% 6.9%	0 0.0% 0.0%	0 0.0% ***.*%	2 100.0% 6.1%
Dentistry	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	1 100.0% 3.4%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 3.0%
Pharmacy	1 100.0% 0.4%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 0.3%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Business	95 81.2% 34.4%	21 17.9% 35.0%	1 0.9% 100.0%	117 100.0% 34.7%	10 90.9% 34.5%	1 9.1% 25.0%	0 0.0% ***.*%	11 100.0% 33.3%
Education	1 100.0% 0.4%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 0.3%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Law	3 100.0% 1.1%	0 0.0% 0.0%	0 0.0% 0.0%	3 100.0% 0.9%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Social Science	6 85.7% 2.2%	1 14.3% 1.7%	0 0.0% 0.0%	7 100.0% 2.1%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Other	8 100.0% 2.9%	0 0.0% 0.0%	0 0.0% 0.0%	8 100.0% 2.4%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
No Response	5 100.0% 1.8%	0 0.0% 0.0%	0 0.0% 0.0%	5 100.0% 1.5%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
TOTAL	276 81.9% 100.0%	60 17.8% 100.0%	1 0.3% 100.0%	337 100.0% 100.0%	29 87.9% 100.0%	4 12.1% 100.0%	0 0.0% ***.*%	33 100.0% 100.0%

Table C-4

FIELD of ADVANCED STUDIES of CHEMISTS WHO PLAN FULL-TIME STUDIES by Degree and Sex
1980 Starting Salary Survey

STUDY FIELD	SEX	Bachelors				Masters				Doctorate			
		Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL
Chemistry		256 78.3% 35.7%	71 21.7% 31.7%	0 0.0% 0.0%	327 100.0% 34.7%	56 84.8% 74.7%	10 15.2% 83.3%	0 0.0% ***.*%	66 100.0% 75.9%	9 100.0% 81.8%	0 0.0% 0.0%	0 0.0% ***.*%	9 -Count 100.0% -% of Row 75.0% -% of Col
Other Physical Science		11 100.0% 1.5%	0 0.0% 0.0%	0 0.0% 0.0%	11 100.0% 1.2%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Chemical Engineering		28 71.8% 3.9%	11 28.2% 4.9%	0 0.0% 0.0%	39 100.0% 4.1%	3 75.0% 4.0%	1 25.0% 8.3%	0 0.0% ***.*%	4 100.0% 4.6%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Other Engineering		6 75.0% 0.8%	2 25.0% 0.9%	0 0.0% 0.0%	8 100.0% 0.8%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Biochemistry		29 69.0% 4.0%	13 31.0% 5.8%	0 0.0% 0.0%	42 100.0% 4.5%	2 66.7% 2.7%	1 33.3% 8.3%	0 0.0% ***.*%	3 100.0% 3.4%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Life Science		9 81.8% 1.3%	2 18.2% 0.9%	0 0.0% 0.0%	11 100.0% 1.2%	1 100.0% 1.3%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 1.1%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Medicine		245 75.9% 34.2%	77 23.8% 34.4%	1 0.3% 100.0%	323 100.0% 34.3%	7 100.0% 9.3%	0 0.0% 0.0%	0 0.0% ***.*%	7 100.0% 8.0%	0 0.0% 0.0%	1 100.0% 100.0%	0 0.0% ***.*%	1 100.0% 8.3%
Dentistry		44 81.5% 6.1%	10 18.5% 4.5%	0 0.0% 0.0%	54 100.0% 5.7%	1 100.0% 1.3%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 1.1%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Pharmacy		16 80.0% 2.2%	4 20.0% 1.8%	0 0.0% 0.0%	20 100.0% 2.1%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	1 100.0% 9.1%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 8.3%
Business		15 75.0% 2.1%	5 25.0% 2.2%	0 0.0% 0.0%	20 100.0% 2.1%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Education		1 33.3% 0.1%	2 66.7% 0.9%	0 0.0% 0.0%	3 100.0% 0.3%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Law		11 78.6% 1.5%	3 21.4% 1.3%	0 0.0% 0.0%	14 100.0% 1.5%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Social Science		1 100.0% 0.1%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 0.1%	1 100.0% 1.3%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 1.1%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Other		34 58.6% 4.7%	24 41.4% 10.7%	0 0.0% 0.0%	58 100.0% 6.2%	4 100.0% 5.3%	0 0.0% 0.0%	0 0.0% ***.*%	4 100.0% 4.6%	1 100.0% 9.1%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 8.3%
No Response		11 100.0% 1.5%	0 0.0% 0.0%	0 0.0% 0.0%	11 100.0% 1.2%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
TOTAL		717 76.1% 100.0%	224 23.8% 100.0%	1 0.1% 100.0%	942 100.0% 100.0%	75 86.2% 100.0%	12 13.8% 100.0%	0 0.0% ***.*%	87 100.0% 100.0%	11 91.7% 100.0%	1 8.3% 100.0%	0 0.0% ***.*%	12 100.0% 100.0%

Table C-5

FIELD of ADVANCED STUDIES of B.S. CHEMISTS WHO PLAN FULL-TIME STUDIES by Certification
1980 Starting Salary Survey

STUDY FIELD	CERTIFICATION: Certified	Non-Cert.	No Response	TOTAL	
Chemistry	237	89	1	327	-Count
	72.5%	27.2%	0.3%	100.0%	-% of Row
	52.5%	18.3%	25.0%	34.7%	-% of Col
Other Physical Science	3	8	0	11	
	27.3%	72.7%	0.0%	100.0%	
	0.7%	1.6%	0.0%	1.2%	
Chemical Engineering	20	19	0	39	
	51.3%	48.7%	0.0%	100.0%	
	4.4%	3.9%	0.0%	4.1%	
Other Engineering	5	3	0	8	
	62.5%	37.5%	0.0%	100.0%	
	1.1%	0.6%	0.0%	0.8%	
Biochemistry	25	16	1	42	
	59.5%	38.1%	2.4%	100.0%	
	5.5%	3.3%	25.0%	4.5%	
Life Science	3	8	0	11	
	27.3%	72.7%	0.0%	100.0%	
	0.7%	1.6%	0.0%	1.2%	
Medicine	88	233	2	323	
	27.2%	72.1%	0.6%	100.0%	
	19.5%	47.8%	50.0%	34.3%	
Dentistry	14	40	0	54	
	25.9%	74.1%	0.0%	100.0%	
	3.1%	8.2%	0.0%	5.7%	
Pharmacy	9	11	0	20	
	45.0%	55.0%	0.0%	100.0%	
	2.0%	2.3%	0.0%	2.1%	
Business	10	10	0	20	
	50.0%	50.0%	0.0%	100.0%	
	2.2%	2.1%	0.0%	2.1%	
Education	0	3	0	3	
	0.0%	100.0%	0.0%	100.0%	
	0.0%	0.6%	0.0%	0.3%	
Law	3	11	0	14	
	21.4%	78.6%	0.0%	100.0%	
	0.7%	2.3%	0.0%	1.5%	
Social Science	0	1	0	1	
	0.0%	100.0%	0.0%	100.0%	
	0.0%	0.2%	0.0%	0.1%	
Other	26	32	0	58	
	44.8%	55.2%	0.0%	100.0%	
	5.8%	6.6%	0.0%	6.2%	
No Response	8	3	0	11	
	72.7%	27.3%	0.0%	100.0%	
	1.8%	0.6%	0.0%	1.2%	
TOTAL	451	487	4	942	
	47.9%	51.7%	0.4%	100.0%	
	100.0%	100.0%	100.0%	100.0%	

Table C-6

FIELD of ADVANCED STUDIES of CHEMICAL ENGINEERS WHO PLAN FULL-TIME STUDIES IN FALL 1980 by Degree and Sex

1980 Starting Salary Survey

	SEX	Bachelors			Masters			
STUDY FIELD	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL
Chemistry	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 0.0% 0.0%	1 100.0% 33.3%	0 0.0% ***.*%	1 100.0% 5.9%
Other Physical Science	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Chemical Engineering	69 84.1% 63.9%	13 15.9% 72.2%	0 0.0% ***.*%	82 100.0% 65.1%	11 84.6% 78.6%	2 15.4% 66.7%	0 0.0% ***.*%	13 100.0% 76.5%
Other Engineering	8 72.7% 7.4%	3 27.3% 16.7%	0 0.0% ***.*%	11 100.0% 8.7%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Biochemistry	1 100.0% 0.9%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 0.8%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Life Science	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Medicine	15 88.2% 13.9%	2 11.8% 11.1%	0 0.0% ***.*%	17 100.0% 13.5%	2 100.0% 14.3%	0 0.0% 0.0%	0 0.0% ***.*%	2 100.0% 11.8%
Dentistry	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	1 100.0% 7.1%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 5.9%
Pharmacy	1 100.0% 0.9%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 0.8%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Business	6 100.0% 5.6%	0 0.0% 0.0%	0 0.0% ***.*%	6 100.0% 4.8%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Education	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Law	3 100.0% 2.8%	0 0.0% 0.0%	0 0.0% ***.*%	3 100.0% 2.4%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Social Science	1 100.0% 0.9%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 0.8%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Other	2 100.0% 1.9%	0 0.0% 0.0%	0 0.0% ***.*%	2 100.0% 1.6%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
No Response	2 100.0% 1.9%	0 0.0% 0.0%	0 0.0% ***.*%	2 100.0% 1.6%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
TOTAL	108 85.7% 100.0%	18 14.3% 100.0%	0 0.0% ***.*%	126 100.0% 100.0%	14 82.4% 100.0%	3 17.6% 100.0%	0 0.0% ***.*%	17 100.0% 100.0%

Table C-7

PLANS FOR FURTHER STUDIES OF CHEMISTS UNEMPLOYED AND NOT SEEKING EMPLOYMENT by Sex and Degree
1980 Starting Salary Survey

ADVANCED STUDIES	SEX	Bachelors		TOTAL	Masters				Doctorate			
	Men	Women	No Response		Men	Women	No Response		Men	Women	No Response	
Full-time	304 77.2% 92.1%	90 22.8% 89.1%	0 0.0% ***.*%	394 100.0% 91.4%	11 100.0% 100.0%	0 0.0% ***.*%	0 0.0% ***.*%	11 100.0% 100.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% ***.*%	0 -Count ***.*% -% of Row 0.0% -% of Col
Part-time	10 71.4% 3.0%	4 28.6% 4.0%	0 0.0% ***.*%	14 100.0% 3.2%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% ***.*%	0 ***.*% 0.0%
No Plan	14 70.0% 4.2%	6 30.0% 5.9%	0 0.0% ***.*%	20 100.0% 4.6%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% ***.*%	0 ***.*% 0.0%	1 100.0% 100.0%	0 0.0% ***.*%	0 0.0% ***.*%	1 100.0% 100.0%
No Response	2 66.7% 0.6%	1 33.3% 1.0%	0 0.0% ***.*%	3 100.0% 0.7%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% ***.*%	0 ***.*% 0.0%
TOTAL	330 76.6% 100.0%	101 23.4% 100.0%	0 0.0% ***.*%	431 100.0% 100.0%	11 100.0% 100.0%	0 0.0% ***.*%	0 0.0% ***.*%	11 100.0% 100.0%	1 100.0% 100.0%	0 0.0% ***.*%	0 0.0% ***.*%	1 100.0% 100.0%

Table C-8

PLANS FOR FURTHER STUDIES OF CHEMICAL ENGINEERS UNEMPLOYED AND NOT SEEKING EMPLOYMENT by Sex and Degree
1980 Starting Salary Survey

SEX	Bachelors				Masters				Doctorate			
ADVANCED STUDIES	Men	Women	No Response	TOTAL	Men	Women	No Response		Men	Women	No Response	
Full-time	27 93.1% 90.0%	2 6.9% 50.0%	0 0.0% ***.*%	29 100.0% 85.3%	1 50.0% 100.0%	1 50.0% 100.0%	0 0.0% ***.*%	2 100.0% 100.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% ***.*%	0 -Count ***.*% -% of Row 0.0% -% of Col
Part-time	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% ***.*%	0 ***.*% 0.0%
No Plan	3 60.0% 10.0%	2 40.0% 50.0%	0 0.0% ***.*%	5 100.0% 14.7%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	1 100.0% 100.0%	0 0.0% ***.*%	0 0.0% ***.*%	1 100.0% 100.0%
No Response	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% ***.*%	0 ***.*% 0.0%
TOTAL	30 88.2% 100.0%	4 11.8% 100.0%	0 0.0% ***.*%	34 100.0% 100.0%	1 50.0% 100.0%	1 50.0% 100.0%	0 0.0% ***.*%	2 100.0% 100.0%	1 100.0% 100.0%	0 0.0% ***.*%	0 0.0% ***.*%	1 100.0% 100.0%

Table D-1

AGE DISTRIBUTION of B.S.CHEMISTS and CHEMICAL ENGINEERS by Sex
1980 Starting Salary Survey

AGE LEVEL	Chemists SEX Men	Women	No Response	TOTAL	Chemical Engineers Men	Women	No Response	TOTAL
19	2 100.0% 0.2%	0 0.0% 0.0%	0 0.0% 0.0%	2 100.0% 0.1%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 -Count ***.*% -% of Row 0.0% -% of Col
20	22 64.7% 1.9%	12 35.3% 2.5%	0 0.0% 0.0%	34 100.0% 2.1%	3 50.0% 0.5%	3 50.0% 1.7%	0 0.0% 0.0%	6 100.0% 0.7%
21	225 65.0% 19.8%	121 35.0% 24.7%	0 0.0% 0.0%	346 100.0% 21.3%	106 74.1% 16.4%	37 25.9% 20.8%	0 0.0% 0.0%	143 100.0% 17.4%
22	594 69.2% 52.3%	264 30.8% 54.0%	0 0.0% 0.0%	858 100.0% 52.8%	330 77.1% 51.2%	97 22.7% 54.5%	1 0.2% 100.0%	428 100.0% 51.9%
23	127 75.6% 11.2%	41 24.4% 8.4%	0 0.0% 0.0%	168 100.0% 10.3%	135 84.9% 20.9%	24 15.1% 13.5%	0 0.0% 0.0%	159 100.0% 19.3%
24	46 83.6% 4.1%	8 14.5% 1.6%	1 1.8% 50.0%	55 100.0% 3.4%	34 85.0% 5.3%	6 15.0% 3.4%	0 0.0% 0.0%	40 100.0% 4.9%
25	33 78.6% 2.9%	9 21.4% 1.8%	0 0.0% 0.0%	42 100.0% 2.6%	14 87.5% 2.2%	2 12.5% 1.1%	0 0.0% 0.0%	16 100.0% 1.9%
26	15 75.0% 1.3%	5 25.0% 1.0%	0 0.0% 0.0%	20 100.0% 1.2%	6 75.0% 0.9%	2 25.0% 1.1%	0 0.0% 0.0%	8 100.0% 1.0%
27	19 76.0% 1.7%	6 24.0% 1.2%	0 0.0% 0.0%	25 100.0% 1.5%	6 100.0% 0.9%	0 0.0% 0.0%	0 0.0% 0.0%	6 100.0% 0.7%
28	7 63.6% 0.6%	4 36.4% 0.8%	0 0.0% 0.0%	11 100.0% 0.7%	2 66.7% 0.3%	1 33.3% 0.6%	0 0.0% 0.0%	3 100.0% 0.4%
29	12 75.0% 1.1%	4 25.0% 0.8%	0 0.0% 0.0%	16 100.0% 1.0%	2 50.0% 0.3%	2 50.0% 1.1%	0 0.0% 0.0%	4 100.0% 0.5%
30-34	20 71.4% 1.8%	8 28.6% 1.6%	0 0.0% 0.0%	28 100.0% 1.7%	3 75.0% 0.5%	1 25.0% 0.6%	0 0.0% 0.0%	4 100.0% 0.5%
35-39	8 66.7% 0.7%	4 33.3% 0.8%	0 0.0% 0.0%	12 100.0% 0.7%	2 66.7% 0.3%	1 33.3% 0.6%	0 0.0% 0.0%	3 100.0% 0.4%
40-49	1 33.3% 0.1%	2 66.7% 0.4%	0 0.0% 0.0%	3 100.0% 0.2%	0 0.0% 0.0%	2 100.0% 1.1%	0 0.0% 0.0%	2 100.0% 0.2%
50-64	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%
No response	4 66.7% 0.4%	1 16.7% 0.2%	1 16.7% 50.0%	6 100.0% 0.4%	2 100.0% 0.3%	0 0.0% 0.0%	0 0.0% 0.0%	2 100.0% 0.2%
TOTAL	1,135 69.8% 100.0%	489 30.1% 100.0%	2 0.1% 100.0%	1,626 100.0% 100.0%	645 78.3% 100.0%	178 21.6% 100.0%	1 0.1% 100.0%	824 100.0% 100.0%

Table D-2

AGE DISTRIBUTION of M.S. CHEMISTS and CHEMICAL ENGINEERS by Sex
1980 Starting Salary Survey

AGE LEVEL	Chemists SEX Men	Women	No Response	TOTAL	Chemical Engineers Men	Women	No Response	TOTAL
19	1 100.0% 0.7%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 0.6%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 -Count ***.*% -% of Row 0.0% -% of Col
20	2 100.0% 1.5%	0 0.0% 0.0%	0 0.0% ***.*%	2 100.0% 1.1%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
21	2 100.0% 1.5%	0 0.0% 0.0%	0 0.0% ***.*%	2 100.0% 1.1%	1 100.0% 1.3%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 1.1%
22	3 100.0% 2.2%	0 0.0% 0.0%	0 0.0% ***.*%	3 100.0% 1.7%	4 80.0% 5.2%	1 20.0% 5.9%	0 0.0% ***.*%	5 100.0% 5.3%
23	14 73.7% 10.2%	5 26.3% 13.5%	0 0.0% ***.*%	19 100.0% 10.9%	10 76.9% 13.0%	3 23.1% 17.6%	0 0.0% ***.*%	13 100.0% 13.8%
24	23 74.2% 16.8%	8 25.8% 21.6%	0 0.0% ***.*%	31 100.0% 17.8%	16 80.0% 20.8%	4 20.0% 23.5%	0 0.0% ***.*%	20 100.0% 21.3%
25	27 79.4% 19.7%	7 20.6% 18.9%	0 0.0% ***.*%	34 100.0% 19.5%	13 72.2% 16.9%	5 27.8% 29.4%	0 0.0% ***.*%	18 100.0% 19.1%
26	15 71.4% 10.9%	6 28.6% 16.2%	0 0.0% ***.*%	21 100.0% 12.1%	8 88.9% 10.4%	1 11.1% 5.9%	0 0.0% ***.*%	9 100.0% 9.6%
27	14 82.4% 10.2%	3 17.6% 8.1%	0 0.0% ***.*%	17 100.0% 9.8%	13 81.3% 16.9%	3 18.8% 17.6%	0 0.0% ***.*%	16 100.0% 17.0%
28	6 85.7% 4.4%	1 14.3% 2.7%	0 0.0% ***.*%	7 100.0% 4.0%	5 100.0% 6.5%	0 0.0% 0.0%	0 0.0% ***.*%	5 100.0% 5.3%
29	9 81.8% 6.6%	2 18.2% 5.4%	0 0.0% ***.*%	11 100.0% 6.3%	4 100.0% 5.2%	0 0.0% 0.0%	0 0.0% ***.*%	4 100.0% 4.3%
30-34	16 88.9% 11.7%	2 11.1% 5.4%	0 0.0% ***.*%	18 100.0% 10.3%	3 100.0% 3.9%	0 0.0% 0.0%	0 0.0% ***.*%	3 100.0% 3.2%
35-39	4 80.0% 2.9%	1 20.0% 2.7%	0 0.0% ***.*%	5 100.0% 2.9%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
40-49	0 0.0% 0.0%	2 100.0% 5.4%	0 0.0% ***.*%	2 100.0% 1.1%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
50-64	1 100.0% 0.7%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 0.6%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
No response	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
TOTAL	137 78.7% 100.0%	37 21.3% 100.0%	0 0.0% ***.*%	174 100.0% 100.0%	77 81.9% 100.0%	17 18.1% 100.0%	0 0.0% ***.*%	94 100.0% 100.0%

Table D-3

AGE DISTRIBUTION of Ph.D. CHEMISTS and CHEMICAL ENGINEERS by Sex
1980 Starting Salary Survey

AGE LEVEL	SEX Chemists			TOTAL	Chemical Engineers			TOTAL
	Men	Women	No Response		Men	Women	No Response	
19	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 -Count ***.*% -% of Row 0.0% -% of Col
20	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
21	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
22	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
23	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
24	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
25	6 100.0% 3.6%	0 0.0% 0.0%	0 0.0% ***.*%	6 100.0% 3.0%	3 100.0% 7.9%	0 0.0% 0.0%	0 0.0% ***.*%	3 100.0% 7.5%
26	17 68.0% 10.3%	8 32.0% 24.2%	0 0.0% ***.*%	25 100.0% 12.6%	3 100.0% 7.9%	0 0.0% 0.0%	0 0.0% ***.*%	3 100.0% 7.5%
27	47 81.0% 28.5%	11 19.0% 33.3%	0 0.0% ***.*%	58 100.0% 29.3%	12 92.3% 31.6%	1 7.7% 50.0%	0 0.0% ***.*%	13 100.0% 32.5%
28	27 84.4% 16.4%	5 15.6% 15.2%	0 0.0% ***.*%	32 100.0% 16.2%	5 83.3% 13.2%	1 16.7% 50.0%	0 0.0% ***.*%	6 100.0% 15.0%
29	17 85.0% 10.3%	3 15.0% 9.1%	0 0.0% ***.*%	20 100.0% 10.1%	7 100.0% 18.4%	0 0.0% 0.0%	0 0.0% ***.*%	7 100.0% 17.5%
30-34	40 90.9% 24.2%	4 9.1% 12.1%	0 0.0% ***.*%	44 100.0% 22.2%	7 100.0% 18.4%	0 0.0% 0.0%	0 0.0% ***.*%	7 100.0% 17.5%
35-39	6 85.7% 3.6%	1 14.3% 3.0%	0 0.0% ***.*%	7 100.0% 3.5%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
40-49	3 75.0% 1.8%	1 25.0% 3.0%	0 0.0% ***.*%	4 100.0% 2.0%	1 100.0% 2.6%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 2.5%
50-64	2 100.0% 1.2%	0 0.0% 0.0%	0 0.0% ***.*%	2 100.0% 1.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
No response	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
TOTAL	165 83.3% 100.0%	33 16.7% 100.0%	0 0.0% ***.*%	198 100.0% 100.0%	38 95.0% 100.0%	2 5.0% 100.0%	0 0.0% ***.*%	40 100.0% 100.0%

Table D-4

AGE DISTRIBUTION of POSTDOCTORAL CHEMISTS by Sex
1980 Starting Salary Survey

AGE LEVEL	SEX			TOTAL
	Men	Women	No Response	
25	4 100.0% 9.1%	0 0.0% 0.0%	0 0.0% ***.*%	4 100.0% 6.9%
26	3 42.9% 6.8%	4 57.1% 28.6%	0 0.0% ***.*%	7 100.0% 12.1%
27	15 75.0% 34.1%	5 25.0% 35.7%	0 0.0% ***.*%	20 100.0% 34.5%
28	4 57.1% 9.1%	3 42.9% 21.4%	0 0.0% ***.*%	7 100.0% 12.1%
29	5 83.3% 11.4%	1 16.7% 7.1%	0 0.0% ***.*%	6 100.0% 10.3%
30-34	11 91.7% 25.0%	1 8.3% 7.1%	0 0.0% ***.*%	12 100.0% 20.7%
35-39	2 100.0% 4.5%	0 0.0% 0.0%	0 0.0% ***.*%	2 100.0% 3.4%
40-49	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
50-64	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
No response	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
TOTAL	44 75.9% 100.0%	14 24.1% 100.0%	0 0.0% ***.*%	58 100.0% 100.0%

Table E-1

NUMBER of FIRM JOB OFFERS TO FULL-TIME EMPLOYED INEXPERIENCED CHEMISTS by Sex and Degree
1980 Starting Salary Survey

NUMBER OF OFFERS	Bachelors SEX Men	Bachelors SEX Women	Bachelors No Response	Bachelors TOTAL	Masters Men	Masters Women	Masters No Response	Masters TOTAL	Doctorate Men	Doctorate Women	Doctorate No Response	Doctorate TOTAL
0	32 62.7% 14.2%	18 35.3% 10.8%	1 2.0% 100.0%	51 100.0% 13.0%	1 100.0% 3.2%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 2.4%	1 50.0% 1.2%	1 50.0% 7.1%	0 0.0% ***.*%	2 -Count 100.0% -% of Row 2.1% -% of Col
1	69 57.0% 30.5%	52 43.0% 31.3%	0 0.0% 0.0%	121 100.0% 30.8%	10 83.3% 32.3%	2 16.7% 18.2%	0 0.0% ***.*%	12 100.0% 28.6%	20 100.0% 24.7%	0 0.0% 0.0%	0 0.0% ***.*%	20 100.0% 21.1%
2	50 56.8% 22.1%	38 43.2% 22.9%	0 0.0% 0.0%	88 100.0% 22.4%	7 87.5% 22.6%	1 12.5% 9.1%	0 0.0% ***.*%	8 100.0% 19.0%	16 80.0% 19.8%	4 20.0% 28.6%	0 0.0% ***.*%	20 100.0% 21.1%
3	29 58.0% 12.8%	21 42.0% 12.7%	0 0.0% 0.0%	50 100.0% 12.7%	3 42.9% 9.7%	4 57.1% 36.4%	0 0.0% ***.*%	7 100.0% 16.7%	8 80.0% 9.9%	2 20.0% 14.3%	0 0.0% ***.*%	10 100.0% 10.5%
4	8 50.0% 3.5%	8 50.0% 4.8%	0 0.0% 0.0%	16 100.0% 4.1%	2 66.7% 6.5%	1 33.3% 9.1%	0 0.0% ***.*%	3 100.0% 7.1%	13 92.9% 16.0%	1 7.1% 7.1%	0 0.0% ***.*%	14 100.0% 14.7%
5	7 53.8% 3.1%	6 46.2% 3.6%	0 0.0% 0.0%	13 100.0% 3.3%	1 100.0% 3.2%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 2.4%	5 71.4% 6.2%	2 28.6% 14.3%	0 0.0% ***.*%	7 100.0% 7.4%
6-7	2 66.7% 0.9%	1 33.3% 0.6%	0 0.0% 0.0%	3 100.0% 0.8%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	3 75.0% 3.7%	1 25.0% 7.1%	0 0.0% ***.*%	4 100.0% 4.2%
8-9	0 0.0% 0.0%	3 100.0% 1.8%	0 0.0% 0.0%	3 100.0% 0.8%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
10 Or More	2 66.7% 0.9%	1 33.3% 0.6%	0 0.0% 0.0%	3 100.0% 0.8%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	1 100.0% 1.2%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 1.1%
No Response	27 60.0% 11.9%	18 40.0% 10.8%	0 0.0% 0.0%	45 100.0% 11.5%	7 70.0% 22.6%	3 30.0% 27.3%	0 0.0% ***.*%	10 100.0% 23.8%	14 82.4% 17.3%	3 17.6% 21.4%	0 0.0% ***.*%	17 100.0% 17.9%
TOTAL	226 57.5% 100.0%	166 42.2% 100.0%	1 0.3% 100.0%	393 100.0% 100.0%	31 73.8% 100.0%	11 26.2% 100.0%	0 0.0% ***.*%	42 100.0% 100.0%	81 85.3% 100.0%	14 14.7% 100.0%	0 0.0% ***.*%	95 100.0% 100.0%

Table E-2

NUMBER of FIRM JOB OFFERS TO FULL-TIME EMPLOYED EXPERIENCED CHEMISTS by Sex and Degree
1980 Starting Salary Survey

NUMBER OF OFFERS	Bachelors				Masters				Doctorate			
SEX	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL
0	5 71.4% 6.1%	2 28.6% 4.1%	0 0.0% ***.*%	7 100.0% 5.3%	0 0.0% 0.0%	3 100.0% 25.0%	0 0.0% ***.*%	3 100.0% 7.7%	2 100.0% 7.1%	0 0.0% 0.0%	0 0.0% ***.*%	2 -Count 100.0% -% of Row 6.5% -% of Col
1	13 54.2% 15.9%	11 45.8% 22.4%	0 0.0% ***.*%	24 100.0% 18.3%	5 100.0% 18.5%	0 0.0% 0.0%	0 0.0% ***.*%	5 100.0% 12.8%	6 100.0% 21.4%	0 0.0% 0.0%	0 0.0% ***.*%	6 100.0% 19.4%
2	11 55.0% 13.4%	9 45.0% 18.4%	0 0.0% ***.*%	20 100.0% 15.3%	3 75.0% 11.1%	1 25.0% 8.3%	0 0.0% ***.*%	4 100.0% 10.3%	6 85.7% 21.4%	1 14.3% 33.3%	0 0.0% ***.*%	7 100.0% 22.6%
3	5 62.5% 6.1%	3 37.5% 6.1%	0 0.0% ***.*%	8 100.0% 6.1%	3 75.0% 11.1%	1 25.0% 8.3%	0 0.0% ***.*%	4 100.0% 10.3%	1 50.0% 3.6%	1 50.0% 33.3%	0 0.0% ***.*%	2 100.0% 6.5%
4	3 60.0% 3.7%	2 40.0% 4.1%	0 0.0% ***.*%	5 100.0% 3.8%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	1 100.0% 3.6%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 3.2%
5	3 75.0% 3.7%	1 25.0% 2.0%	0 0.0% ***.*%	4 100.0% 3.1%	1 100.0% 3.7%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 2.6%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
6-7	1 100.0% 1.2%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 0.8%	0 0.0% 0.0%	1 100.0% 8.3%	0 0.0% ***.*%	1 100.0% 2.6%	1 100.0% 3.6%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 3.2%
8-9	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	1 100.0% 3.6%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 3.2%
10 Or More	0 0.0% 0.0%	1 100.0% 2.0%	0 0.0% ***.*%	1 100.0% 0.8%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
No Response	41 67.2% 50.0%	20 32.8% 40.8%	0 0.0% ***.*%	61 100.0% 46.6%	15 71.4% 55.6%	6 28.6% 50.0%	0 0.0% ***.*%	21 100.0% 53.8%	10 90.9% 35.7%	1 9.1% 33.3%	0 0.0% ***.*%	11 100.0% 35.5%
TOTAL	82 62.6% 100.0%	49 37.4% 100.0%	0 0.0% ***.*%	131 100.0% 100.0%	27 69.2% 100.0%	12 30.8% 100.0%	0 0.0% ***.*%	39 100.0% 100.0%	28 90.3% 100.0%	3 9.7% 100.0%	0 0.0% ***.*%	31 100.0% 100.0%

Table E-3

NUMBER of FIRM JOB OFFERS TO FULL-TIME EMPLOYED EXPERIENCED CHEMICAL ENGINEERS by Sex and Degree
1980 Starting Salary Survey

NUMBER OF OFFERS	SEX	Bachelors				Masters				Doctorate			
		Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL
0		0 0.0% 0.0%	1 100.0% 3.3%	0 0.0% 0.0%	1 100.0% 0.9%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% ***.*%	0 -Count ***.*% -% of Row 0.0% -% of Col
1		8 80.0% 10.5%	2 20.0% 6.7%	0 0.0% 0.0%	10 100.0% 9.3%	2 100.0% 8.7%	0 0.0% 0.0%	0 0.0% ***.*%	2 100.0% 6.7%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% ***.*%	0 ***.*% 0.0%
2		5 71.4% 6.6%	2 28.6% 6.7%	0 0.0% 0.0%	7 100.0% 6.5%	2 100.0% 8.7%	0 0.0% 0.0%	0 0.0% ***.*%	2 100.0% 6.7%	2 100.0% 18.2%	0 0.0% ***.*%	0 0.0% ***.*%	2 100.0% 18.2%
3		11 64.7% 14.5%	6 35.3% 20.0%	0 0.0% 0.0%	17 100.0% 15.9%	0 0.0% 0.0%	2 100.0% 28.6%	0 0.0% ***.*%	2 100.0% 6.7%	2 100.0% 18.2%	0 0.0% ***.*%	0 0.0% ***.*%	2 100.0% 18.2%
4		12 70.6% 15.8%	5 29.4% 16.7%	0 0.0% 0.0%	17 100.0% 15.9%	2 100.0% 8.7%	0 0.0% 0.0%	0 0.0% ***.*%	2 100.0% 6.7%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% ***.*%	0 ***.*% 0.0%
5		7 58.3% 9.2%	4 33.3% 13.3%	1 8.3% 100.0%	12 100.0% 11.2%	2 66.7% 8.7%	1 33.3% 14.3%	0 0.0% ***.*%	3 100.0% 10.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% ***.*%	0 ***.*% 0.0%
6-7		11 73.3% 14.5%	4 26.7% 13.3%	0 0.0% 0.0%	15 100.0% 14.0%	1 50.0% 4.3%	1 50.0% 14.3%	0 0.0% ***.*%	2 100.0% 6.7%	1 100.0% 9.1%	0 0.0% ***.*%	0 0.0% ***.*%	1 100.0% 9.1%
8-9		6 100.0% 7.9%	0 0.0% 0.0%	0 0.0% 0.0%	6 100.0% 5.6%	1 100.0% 4.3%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 3.3%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% ***.*%	0 ***.*% 0.0%
10 Or More		6 100.0% 7.9%	0 0.0% 0.0%	0 0.0% 0.0%	6 100.0% 5.6%	2 50.0% 8.7%	2 50.0% 28.6%	0 0.0% ***.*%	4 100.0% 13.3%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% ***.*%	0 ***.*% 0.0%
No Response		10 62.5% 13.2%	6 37.5% 20.0%	0 0.0% 0.0%	16 100.0% 15.0%	11 91.7% 47.8%	1 8.3% 14.3%	0 0.0% ***.*%	12 100.0% 40.0%	6 100.0% 54.5%	0 0.0% ***.*%	0 0.0% ***.*%	6 100.0% 54.5%
TOTAL		76 71.0% 100.0%	30 28.0% 100.0%	1 0.9% 100.0%	107 100.0% 100.0%	23 76.7% 100.0%	7 23.3% 100.0%	0 0.0% ***.*%	30 100.0% 100.0%	11 100.0% 100.0%	0 0.0% ***.*%	0 0.0% ***.*%	11 100.0% 100.0%

Table E-4

NUMBER of FIRM JOB OFFERS TO FULL-TIME EMPLOYED INEXPERIENCED CHEMICAL ENGINEERS by Sex and Degree
1980 Starting Salary Survey

NUMBER OF OFFERS	Bachelors SEX Men	Bachelors Women	Bachelors No Response	Bachelors TOTAL	Masters Men	Masters Women	Masters No Response	Masters TOTAL	Doctorate Men	Doctorate Women	Doctorate No Response	Doctorate TOTAL
0	10 100.0% 2.4%	0 0.0% 0.0%	0 0.0% ***.*%	10 100.0% 1.9%	1 100.0% 2.6%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 2.2%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 -Count ***.*% -% of Row 0.0% -% of Col
1	62 83.8% 14.8%	12 16.2% 10.3%	0 0.0% ***.*%	74 100.0% 13.8%	5 71.4% 13.2%	2 28.6% 28.6%	0 0.0% ***.*%	7 100.0% 15.6%	4 100.0% 16.7%	0 0.0% 0.0%	0 0.0% ***.*%	4 100.0% 16.0%
2	76 82.6% 18.1%	16 17.4% 13.8%	0 0.0% ***.*%	92 100.0% 17.2%	3 100.0% 7.9%	0 0.0% 0.0%	0 0.0% ***.*%	3 100.0% 6.7%	4 100.0% 16.7%	0 0.0% 0.0%	0 0.0% ***.*%	4 100.0% 16.0%
3	77 73.3% 18.3%	28 26.7% 24.1%	0 0.0% ***.*%	105 100.0% 19.6%	4 80.0% 10.5%	1 20.0% 14.3%	0 0.0% ***.*%	5 100.0% 11.1%	4 100.0% 16.7%	0 0.0% 0.0%	0 0.0% ***.*%	4 100.0% 16.0%
4	57 86.4% 13.6%	9 13.6% 7.8%	0 0.0% ***.*%	66 100.0% 12.3%	4 100.0% 10.5%	0 0.0% 0.0%	0 0.0% ***.*%	4 100.0% 8.9%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
5	40 80.0% 9.5%	10 20.0% 8.6%	0 0.0% ***.*%	50 100.0% 9.3%	3 100.0% 7.9%	0 0.0% 0.0%	0 0.0% ***.*%	3 100.0% 6.7%	3 100.0% 12.5%	0 0.0% 0.0%	0 0.0% ***.*%	3 100.0% 12.0%
6-7	37 72.5% 8.8%	14 27.5% 12.1%	0 0.0% ***.*%	51 100.0% 9.5%	4 80.0% 10.5%	1 20.0% 14.3%	0 0.0% ***.*%	5 100.0% 11.1%	2 100.0% 8.3%	0 0.0% 0.0%	0 0.0% ***.*%	2 100.0% 8.0%
8-9	19 65.5% 4.5%	10 34.5% 8.6%	0 0.0% ***.*%	29 100.0% 5.4%	0 0.0% 0.0%	1 100.0% 14.3%	0 0.0% ***.*%	1 100.0% 2.2%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
10 Or More	19 59.4% 4.5%	13 40.6% 11.2%	0 0.0% ***.*%	32 100.0% 6.0%	4 100.0% 10.5%	0 0.0% 0.0%	0 0.0% ***.*%	4 100.0% 8.9%	4 100.0% 16.7%	0 0.0% 0.0%	0 0.0% ***.*%	4 100.0% 16.0%
No Response	23 85.2% 5.5%	4 14.8% 3.4%	0 0.0% ***.*%	27 100.0% 5.0%	10 83.3% 26.3%	2 16.7% 28.6%	0 0.0% ***.*%	12 100.0% 26.7%	3 75.0% 12.5%	1 25.0% 100.0%	0 0.0% ***.*%	4 100.0% 16.0%
TOTAL	420 78.4% 100.0%	116 21.6% 100.0%	0 0.0% ***.*%	536 100.0% 100.0%	38 84.4% 100.0%	7 15.6% 100.0%	0 0.0% ***.*%	45 100.0% 100.0%	24 96.0% 100.0%	1 4.0% 100.0%	0 0.0% ***.*%	25 100.0% 100.0%

Table F-1

MINORITY CLASSIFICATION and CITIZENSHIP or VISA STATUS of CHEMISTS by Degree
1980 Starting Salary Survey

MINORITY STATUS

Bachelor

CITIZENSHIP	Black	American Indian	Asian	Hispanic	White	No Response	TOTAL
US Citizen	31 2.0% 83.8%	5 0.3% 100.0%	32 2.0% 55.2%	24 1.5% 88.9%	1,477 93.7% 99.1%	7 0.4% 87.5%	1,576 -Count 100.0% -% of Row 96.9% -% of Col
Permanent Resident	2 6.3% 5.4%	0 0.0% 0.0%	18 56.3% 31.0%	2 6.3% 7.4%	10 31.3% 0.7%	0 0.0% 0.0%	32 100.0% 2.0%
Other	4 26.7% 10.8%	0 0.0% 0.0%	8 53.3% 13.8%	1 6.7% 3.7%	2 13.3% 0.1%	0 0.0% 0.0%	15 100.0% 0.9%
No Response	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	2 66.7% 0.1%	1 33.3% 12.5%	3 100.0% 0.2%
TOTAL	37 2.3% 100.0%	5 0.3% 100.0%	58 3.6% 100.0%	27 1.7% 100.0%	1,491 91.7% 100.0%	8 0.5% 100.0%	1,626 100.0% 100.0%

Masters

US Citizen	2 1.3% 33.3%	1 0.6% 100.0%	7 4.5% 35.0%	2 1.3% 100.0%	141 90.4% 99.3%	3 1.9% 100.0%	156 100.0% 89.7%
Permanent Resident	1 16.7% 16.7%	0 0.0% 0.0%	5 83.3% 25.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	6 100.0% 3.4%
Other	3 25.0% 50.0%	0 0.0% 0.0%	8 66.7% 40.0%	0 0.0% 0.0%	1 8.3% 0.7%	0 0.0% 0.0%	12 100.0% 6.9%
No Response	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%
TOTAL	6 3.4% 100.0%	1 0.6% 100.0%	20 11.5% 100.0%	2 1.1% 100.0%	142 81.6% 100.0%	3 1.7% 100.0%	174 100.0% 100.0%

Doctorate

US Citizen	1 0.6% 33.3%	0 0.0% ***.*%	5 2.8% 22.7%	1 0.6% 100.0%	169 94.9% 99.4%	2 1.1% 100.0%	178 100.0% 89.9%
Permanent Resident	1 11.1% 33.3%	0 0.0% ***.*%	7 77.8% 31.8%	0 0.0% 0.0%	1 11.1% 0.6%	0 0.0% 0.0%	9 100.0% 4.5%
Other	1 9.1% 33.3%	0 0.0% ***.*%	10 90.9% 45.5%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	11 100.0% 5.6%
No Response	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%
TOTAL	3 1.5% 100.0%	0 0.0% ***.*%	22 11.1% 100.0%	1 0.5% 100.0%	170 85.9% 100.0%	2 1.0% 100.0%	198 100.0% 100.0%

Table F-2

MINORITY CLASSIFICATION of CHEMISTS by Degree and Sex
1980 Starting Salary Survey

MINORITY STATUS	Bachelors SEX Men	Bachelors Women	Bachelors No Response	Bachelors TOTAL	Masters Men	Masters Women	Masters No Response	Masters TOTAL	Doctorate Men	Doctorate Women	Doctorate No Response	Doctorate TOTAL
Black	24 64.9% 2.1%	13 35.1% 2.7%	0 0.0% 0.0%	37 100.0% 2.3%	6 100.0% 4.4%	0 0.0% 0.0%	0 0.0% ***.*%	6 100.0% 3.4%	3 100.0% 1.8%	0 0.0% 0.0%	0 0.0% ***.*%	3 100.0% 1.5%
American Indian	3 60.0% 0.3%	2 40.0% 0.4%	0 0.0% 0.0%	5 100.0% 0.3%	1 100.0% 0.7%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 0.6%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
Asian	31 53.4% 2.7%	27 46.6% 5.5%	0 0.0% 0.0%	58 100.0% 3.6%	17 85.0% 12.4%	3 15.0% 8.1%	0 0.0% ***.*%	20 100.0% 11.5%	16 72.7% 9.7%	6 27.3% 18.2%	0 0.0% ***.*%	22 100.0% 11.1%
Hispanic	21 77.8% 1.9%	6 22.2% 1.2%	0 0.0% 0.0%	27 100.0% 1.7%	2 100.0% 1.5%	0 0.0% 0.0%	0 0.0% ***.*%	2 100.0% 1.1%	1 100.0% 0.6%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 0.5%
White	1,050 70.4% 92.5%	441 29.6% 90.2%	0 0.0% 0.0%	1,491 100.0% 91.7%	108 76.1% 78.8%	34 23.9% 91.9%	0 0.0% ***.*%	142 100.0% 81.6%	143 84.1% 86.7%	27 15.9% 81.8%	0 0.0% ***.*%	170 100.0% 85.9%
No Response	6 75.0% 0.5%	0 0.0% 0.0%	2 25.0% 100.0%	8 100.0% 0.5%	3 100.0% 2.2%	0 0.0% 0.0%	0 0.0% ***.*%	3 100.0% 1.7%	2 100.0% 1.2%	0 0.0% 0.0%	0 0.0% ***.*%	2 100.0% 1.0%
TOTAL	1,135 69.8% 100.0%	489 30.1% 100.0%	2 0.1% 100.0%	1,626 100.0% 100.0%	137 78.7% 100.0%	37 21.3% 100.0%	0 0.0% ***.*%	174 100.0% 100.0%	165 83.3% 100.0%	33 16.7% 100.0%	0 0.0% ***.*%	198 100.0% 100.0%

-Count
-% of Row
-% of Col

Table F-3

CITIZENSHIP of CHEMISTS by Degree and Sex
1980 Starting salary Survey

CITIZENSHIP	SEX	Bachelors			Masters			Doctorate			
	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL
US Citizen	1,110 70.4% 97.8%	465 29.5% 95.1%	1 0.1% 50.0%	1,576 100.0% 96.9%	121 77.6% 88.3%	35 22.4% 94.6%	0 0.0% ***.*%	156 100.0% 89.7%	149 83.7% 90.3%	29 16.3% 87.9%	0 0.0% ***.*%	178 100.0% 89.9%
Permanent Resident	13 40.6% 1.1%	19 59.4% 3.9%	0 0.0% 0.0%	32 100.0% 2.0%	6 100.0% 4.4%	0 0.0% 0.0%	0 0.0% ***.*%	6 100.0% 3.4%	7 77.8% 4.2%	2 22.2% 6.1%	0 0.0% ***.*%	9 100.0% 4.5%
Other	10 66.7% 0.9%	5 33.3% 1.0%	0 0.0% 0.0%	15 100.0% 0.9%	10 83.3% 7.3%	2 16.7% 5.4%	0 0.0% ***.*%	12 100.0% 6.9%	9 81.8% 5.5%	2 18.2% 6.1%	0 0.0% ***.*%	11 100.0% 5.6%
No Response	2 66.7% 0.2%	0 0.0% 0.0%	1 33.3% 50.0%	3 100.0% 0.2%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
TOTAL	1,135 69.8% 100.0%	489 30.1% 100.0%	2 0.1% 100.0%	1,626 100.0% 100.0%	137 78.7% 100.0%	37 21.3% 100.0%	0 0.0% ***.*%	174 100.0% 100.0%	165 83.3% 100.0%	33 16.7% 100.0%	0 0.0% ***.*%	198 100.0% 100.0%

-Count
-% of Row
-% of Col

MINORITY CLASSIFICATION and CITIZENSHIP or VISA STATUS of CHEMICAL ENGINEERS by Degree
1980 Starting Salary Survey

MINORITY STATUS — Bachelors

CITIZENSHIP	Black	American Indian	Asian	Hispanic	White	No Response	TOTAL
US Citizen	12 1.5% 92.3%	2 0.3% 100.0%	18 2.3% 69.2%	9 1.1% 69.2%	752 94.2% 98.3%	5 0.6% 100.0%	798 -Count 100.0% -% of Row 96.8% -% of Col
Permanent Resident	1 5.3% 7.7%	0 0.0% 0.0%	7 36.8% 26.9%	2 10.5% 15.4%	9 47.4% 1.2%	0 0.0% 0.0%	19 100.0% 2.3%
Other	0 0.0% 0.0%	0 0.0% 0.0%	1 20.0% 3.8%	2 40.0% 15.4%	2 40.0% 0.3%	0 0.0% 0.0%	5 100.0% 0.6%
No Response	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	2 100.0% 0.3%	0 0.0% 0.0%	2 100.0% 0.2%
TOTAL	13 1.6% 100.0%	2 0.2% 100.0%	26 3.2% 100.0%	13 1.6% 100.0%	765 92.8% 100.0%	5 0.6% 100.0%	824 100.0% 100.0%

Masters

US Citizen	2 2.6% 50.0%	0 0.0% ***.*%	4 5.2% 33.3%	2 2.6% 50.0%	69 89.6% 94.5%	0 0.0% 0.0%	77 100.0% 81.9%
Permanent Resident	0 0.0% 0.0%	0 0.0% ***.*%	2 40.0% 16.7%	0 0.0% 0.0%	3 60.0% 4.1%	0 0.0% 0.0%	5 100.0% 5.3%
Other	2 16.7% 50.0%	0 0.0% ***.*%	6 50.0% 50.0%	2 16.7% 50.0%	1 8.3% 1.4%	1 8.3% 100.0%	12 100.0% 12.8%
No Response	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%
TOTAL	4 4.3% 100.0%	0 0.0% ***.*%	12 12.8% 100.0%	4 4.3% 100.0%	73 77.7% 100.0%	1 1.1% 100.0%	94 100.0% 100.0%

Doctorate

US Citizen	1 4.0% 100.0%	0 0.0% ***.*%	0 0.0% 0.0%	0 0.0% ***.*%	24 96.0% 85.7%	0 0.0% ***.*%	25 100.0% 62.5%
Permanent Resident	0 0.0% 0.0%	0 0.0% ***.*%	3 42.9% 27.3%	0 0.0% ***.*%	4 57.1% 14.3%	0 0.0% ***.*%	7 100.0% 17.5%
Other	0 0.0% 0.0%	0 0.0% ***.*%	8 100.0% 72.7%	0 0.0% ***.*%	0 0.0% 0.0%	0 0.0% ***.*%	8 100.0% 20.0%
No Response	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%
TOTAL	1 2.5% 100.0%	0 0.0% ***.*%	11 27.5% 100.0%	0 0.0% ***.*%	28 70.0% 100.0%	0 0.0% ***.*%	40 100.0% 100.0%

Table F-5

MINORITY CLASSIFICATION of CHEMICAL ENGINEERS by Degree and Sex
1980 Starting Salary Survey

MINORITY STATUS	SEX	Bachelors			Masters				Doctorate				
	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	
Black	9	4	0	13	3	1	0	4	1	0	0	1	-Count
	69.2%	30.8%	0.0%	100.0%	75.0%	25.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	-% of Row
	1.4%	2.2%	0.0%	1.6%	3.9%	5.9%	***.*%	4.3%	2.6%	0.0%	***.*%	2.5%	-% of Col
American Indian	2	0	0	2	0	0	0	0	0	0	0	0	
	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	0.3%	0.0%	0.0%	0.2%	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
Asian	15	11	0	26	9	3	0	12	10	1	0	11	
	57.7%	42.3%	0.0%	100.0%	75.0%	25.0%	0.0%	100.0%	90.9%	9.1%	0.0%	100.0%	
	2.3%	6.2%	0.0%	3.2%	11.7%	17.6%	***.*%	12.8%	26.3%	50.0%	***.*%	27.5%	
Hispanic	10	3	0	13	3	1	0	4	0	0	0	0	
	76.9%	23.1%	0.0%	100.0%	75.0%	25.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	1.6%	1.7%	0.0%	1.6%	3.9%	5.9%	***.*%	4.3%	0.0%	0.0%	***.*%	0.0%	
White	604	160	1	765	61	12	0	73	27	1	0	28	
	79.0%	20.9%	0.1%	100.0%	83.6%	16.4%	0.0%	100.0%	96.4%	3.6%	0.0%	100.0%	
	93.6%	89.9%	100.0%	92.8%	79.2%	70.6%	***.*%	77.7%	71.1%	50.0%	***.*%	70.0%	
No Response	5	0	0	5	1	0	0	1	0	0	0	0	
	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	0.8%	0.0%	0.0%	0.6%	1.3%	0.0%	***.*%	1.1%	0.0%	0.0%	***.*%	0.0%	
TOTAL	645	178	1	824	77	17	0	94	38	2	0	40	
	78.3%	21.6%	0.1%	100.0%	81.9%	18.1%	0.0%	100.0%	95.0%	5.0%	0.0%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%	

Table F-6

CITIZENSHIP of CHEMICAL ENGINEERS by Degree and Sex
1980 Starting Salary Survey

CITIZENSHIP	SEX	Bachelors				Masters				Doctorate			
	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	
US Citizen	628	169	1	798	62	15	0	77	25	0	0	25	-Count
	78.7%	21.2%	0.1%	100.0%	80.5%	19.5%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	-% of Row
	97.4%	94.9%	100.0%	96.8%	80.5%	88.2%	***.*%	81.9%	65.8%	0.0%	***.*%	62.5%	-% of Col
Permanent Resident	12	7	0	19	5	0	0	5	5	2	0	7	
	63.2%	36.8%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	71.4%	28.6%	0.0%	100.0%	
	1.9%	3.9%	0.0%	2.3%	6.5%	0.0%	***.*%	5.3%	13.2%	100.0%	***.*%	17.5%	
Other	4	1	0	5	10	2	0	12	8	0	0	8	
	80.0%	20.0%	0.0%	100.0%	83.3%	16.7%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	0.6%	0.6%	0.0%	0.6%	13.0%	11.8%	***.*%	12.8%	21.1%	0.0%	***.*%	20.0%	
No Response	1	1	0	2	0	0	0	0	0	0	0	0	
	50.0%	50.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	0.2%	0.6%	0.0%	0.2%	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
TOTAL	645	178	1	824	77	17	0	94	38	2	0	40	
	78.3%	21.6%	0.1%	100.0%	81.9%	18.1%	0.0%	100.0%	95.0%	5.0%	0.0%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%	

American Chemical Society

OFFICE OF THE
EXECUTIVE DIRECTOR

Raymond P. Mariella, *Executive Director*

1155 SIXTEENTH STREET, N.W.
WASHINGTON, D.C. 20036
Phone (202) 872-4455

Summer 1980

Dear Colleague:

For many years the American Chemical Society has been gathering information about starting salaries in chemistry and chemical engineering, by means of an annual mail survey of both member and nonmember graduates. We believe the data gathered has been very useful to chemists and chemical engineers, particularly as they start their careers, and that the publication of such data has a beneficial effect on salary levels. Also, the surveys provide information on the employment status of recent graduates. These surveys by the Society have gained a reputation for reliability and usefulness.

We urge you to participate in this survey as a service to your colleagues and profession. Please take a few moments now to fill out the enclosed questionnaire. No personal identification is required; the returns should be anonymous.

Please complete as many items in the questionnaire as possible, whether or not you have already accepted employment, and return it as soon as you can. We have enclosed a postage-paid envelope for this purpose.

A report on last year's starting salary survey was published in the CHEMICAL AND ENGINEERING NEWS Careers Issue (October 22, 1979, pp. 46-47). CHEMICAL AND ENGINEERING NEWS will publish a similar report in the fall of this year.

We thank you for your help and extend our very best wishes for every success in your professional pursuits.

Sincerely yours,

Raymond P. Mariella

Raymond P. Mariella

RPM/nb

Enclosures

AMERICAN CHEMICAL SOCIETY

Survey of Starting Salaries and Employment Status of
1980 Chemistry and Chemical Engineering Graduates

A. Highest degree earned (Check one.):

Bachelors 1[] Masters 2[] Doctorate 3[]

B. Field of highest degree (Check one.):

Chemical engineering . . . . 1[]	Organic chemistry. . . . . 7[]
Chemistry, general . . . . . 2[]	Pharmaceutical/medicinal/clinical chemistry. 8[]
Biochemistry . . . . . 3[]	Physical chemistry . . . . . 9[]
Agricultural/food chemistry. 4[]	Theoretical chemistry . . . . . 10[]
Analytical chemistry . . . . 5[]	Polymer/macromolecular chemistry . . . . . 11[]
Inorganic chemistry. . . . . 6[]	Chemistry, other (specify) _____ 12[]
	Non-chemical (specify) _____ 13[]

C. Do you plan further advanced studies in fall 1980? (Check one.)

Yes, full-time 1[] Yes, part-time 2[] No 3[] ⟶ Go to Question E.

D. Field of further studies (Check one.):

Chemistry. . . . . 1[]	Dentistry . . . . . 8[]
Other physical science, or math. 2[]	Pharmacy, pharmacology. . . . . 9[]
Chemical engineering . . . . . 3[]	Business, management. . . . . 10[]
Other engineering . . . . . 4[]	Education . . . . . 11[]
Biochemistry . . . . . 5[]	Law . . . . . 12[]
Life science . . . . . 6[]	Social science, or humanities . . 13[]
Medicine . . . . . 7[]	Other (specify) _____ 14[]

E. Age: _____

F. Sex: Male 1[] Female 2[]

G. Citizenship or visa status (Check one.):

U.S. citizen 1[] U.S. permanent resident visa 2[] Other visa (specify) _____ 3[]

H. Racial or ethnic group:

Black (not of Hispanic origin). . . . . 1[]
American Indian or Alaskan Native . . . . . 2[]
Asian or Pacific Islander (of Chinese, Japanese, Korean, Filipino, or Subcontinental Indian origin) . . . . . 3[]
Hispanic (of Mexican, Puerto Rican, Cuban, or Spanish origin) . . . . . 4[]
White (not of Hispanic origin). . . . . 5[]

I. Post-graduation employment status (Check one.):

Accepted or continued full-time employment (excluding summer employment):
in a field of chemistry or chemical engineering . . . . . 1[]
in a field other than chemistry or chemical engineering . . . . . 2[]

Accepted a graduate assistantship or a postdoctoral or other fellowship . . . . . 3[]

Not employed (or employed part-time or for the summer):
and seeking full-time employment . . . . . 4[] ⟶ Please skip
and not seeking full-time employment . . . . . 5[] to question P.

J. Professional or technical work experience prior to graduation (Check one.):

Less than 12 months (or none). 1[] 12 to 36 months. 2[] More than 36 months. 3[]

K. How long have you been working for your current employer?

12 months or less. 1[] More than 12 months. 2[] ⟶ Go to question M.

L. How many firm offers of employment did you receive in a field of chemistry or chemical engineering? Specify number_____

M. Employer classification (Check the one category which best describes your employer.):

Private industry or business:
Manufacturing
- Chemicals . . . . . 1[]
- Coatings . . . . . 2[]
- Food. . . . . 3[]
- Metals, minerals . . . . . 4[]
- Paper . . . . . 5[]
- Petroleum . . . . . 6[]
- Pharmaceuticals, personal care . 7[]
- Rubber . . . . . 8[]
- Other manufactures . . . . . 9[]

Non-manufacturing (e.g. mining, utilities, construction, etc.). 10[]

- University granting a doctorate in chemical science . . . . . 11[]
- Other college or university . . . . . 12[]
- High school or other school . . . . . 13[]
- Federal government (civilians only) . . 14[]
- State or local government . . . . . 15[]
- Hospital or indepeudent laboratory. . . 16[]
- Other non-profit organization or research institute . . . . . 17[]
- Other (specify) . . . . . 18[]

N. Annual salary: $_____ per year

O. Geographic location of employment: State _____

P. Did you obtain work experience as a cooperative student or intern during your undergraduate college training? Yes 1[] No 2[] ⟶ Stop here. Please return questionnaire in the envelope provided.

1. Was your work directly related to the field in which you obtained your bachelor's degree? Yes 1[] No 2[]

2. Were you paid for this work? Yes 1[] No 2[]

3. Was your work experience part of a formal college program? Yes 1[] No 2[]

4. What was the length of your total work experience? _____ months

5. During your work experience, how many hours per week did you typically spend on the job?
Less than 15. 1[] 15 to 30. 2[] More than 30. 3[]

6. How long were your individual work periods? _____ months

7. When were your work periods scheduled? (Check all that apply.)
Summers 1[] During school year: Semesters . . . . . 2[]
Quarters . . . . . 3[]
Special short terms , 4[]

8. Did you receive any offers of permanent employment as a result of your experience? Yes 1[] No 2[]

9. How many months did your work experience increase the time you spent to complete your degree requirements?
0 months. 1[] 1-9 months. 2[] 10-14 months. 3[] 15 months or more. 4[]

10. From what college or university did you receive your bachelor's degree?

_____

Please return within 7 days to the American Chemical Society
Room 312, 1155 Sixteenth St. N.W., Washington, D.C. 20036
Thank you.