

STARTING \$ALARIES\$

Of Chemists and Chemical Engineers

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

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1984 SURVEY REPORT

STARTING SALARIES AND EMPLOYMENT STATUS OF
CHEMISTRY AND CHEMICAL ENGINEERING GRADUATES

This report was prepared by
ACS Statistical Services

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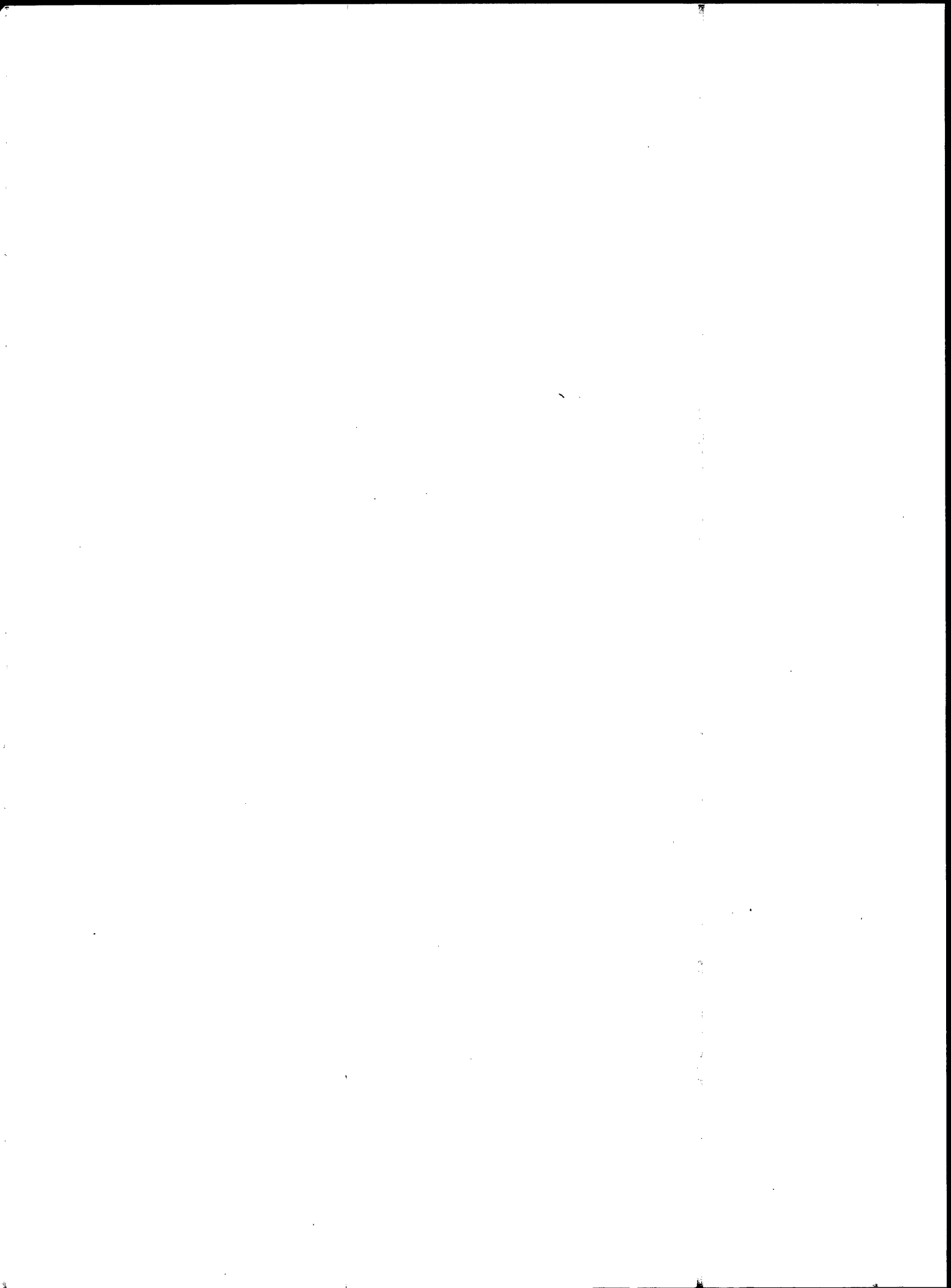
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CONTENTS

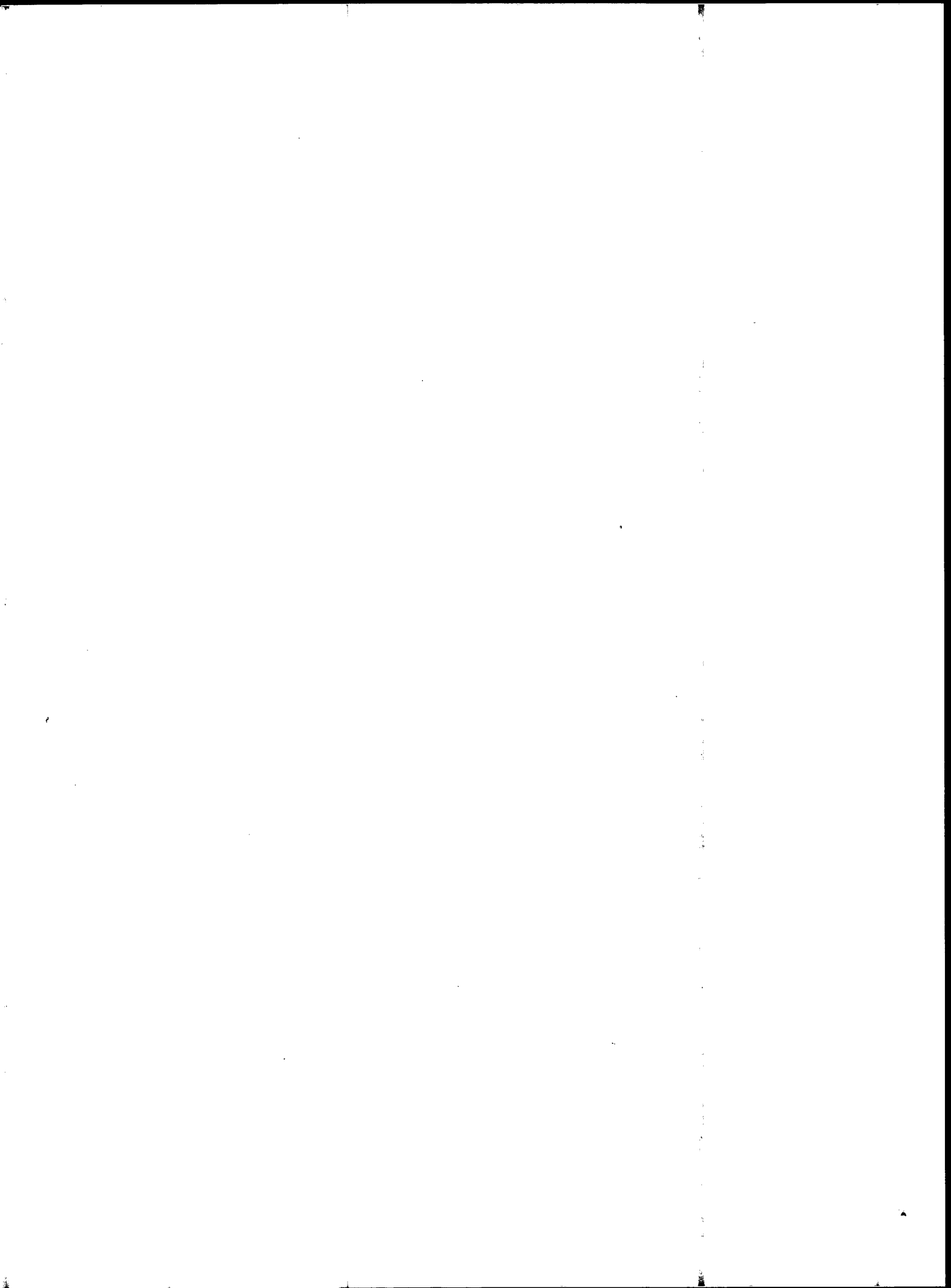
	Page
Acknowledgments	v
Summary of Findings	1
Salaries	
Postgraduation Status	
Advanced Study Plans and Postdoctoral Fellowships	
Certified Graduates	
Interpreting Survey Results	
Scope and Method	9
Objectives	
Methods of Collection and Timing of Survey	
Extent of Coverage	
Definitions	
Geographic Regions	
Technical Notes	13
Discrepancies Among Tables	
Estimates of Median Salaries	
Comparing Salaries	
Estimating Sampling Error for Percents	
List of Tables	15
Tables	18
Survey Questionnaire and Cover Letter	65



ACKNOWLEDGMENTS

Each year at the direction of its Committee on Economic Status, the American Chemical Society surveys chemistry and chemical engineering graduates to determine trends in starting salaries and employment status. Dr. Terrence Russell, Nguyen Bailey and Sandy Showgurow of ACS Statistical Services, managed by John Robert Jones, conducted this year's survey and prepared this report.

Robert K. Neuman, Head
Department of Professional Services



SUMMARY OF FINDINGS

SALARIES

After poor performances in 1982 and 1983, reported salaries for inexperienced BS chemists showed the largest increases since 1981 in both current and constant dollars. When compared against 1981 starting salaries, the change over the past three years is an increase of 7.6% in current dollars and a decrease of 5.9% adjusting for inflation.

Smaller percentage increases in the starting salaries of new chemists with advanced degrees placed those 1984 graduates at a disadvantage compared to the 1981 cohort. The small one year decline in starting salaries for MS holders is the most recent decrement in a total drop of 9.1% in current dollars for the three year period; a 22.6% decrease when adjusted for inflation. PhD starting salaries have performed much the same as those of BS graduates over the last three years: a small increase in current dollars (3.3%) and a decline in constant dollars (down 10.2%).

Table 1 shows average starting salaries paid to inexperienced chemistry graduates for 1983 and 1984, and gives additional information concerning the variation among individual salaries within each group. Table 2 presents corresponding information for chemical engineering graduates.

For inexperienced chemists, 1984 mean starting salaries were:

\$18,681	for the	BS,	up	9.6%,	or in constant dollars	up	5.5%
\$23,796	for the	MS,	down	0.9%,	or in constant dollars	down	5.0%
\$32,075	for the	PhD,	up	1.5%,	or in constant dollars	down	2.6%

Chemical engineers continue to receive larger starting salaries than do chemists with similar degrees. Among chemical engineers the 1984 mean starting salaries were:

\$26,259	for the	BS,	up	3.8%,	or in constant dollars	down	0.3%
\$30,619	for the	MS,	up	7.8%,	or in constant dollars	up	3.7%
\$38,947	for the	PhD,	up	6.8%,	or in constant dollars	up	2.7%

POST-GRADUATION EMPLOYMENT STATUS

Although starting salaries are somewhat higher than last year, the percent of 1983-84 graduates that were still looking for jobs at the time of this survey still remains high, showing declines for both chemists and chemical engineers only in relation to the severe employment situation of 1983.

Unemployment of recent BS graduates is less severe in chemistry this year than it is in chemical engineering, but even in chemistry the problem is worse than the figures in Table 3 seem to indicate. To understand the extent of unemployment among new chemistry graduates requires an additional calculation. Because unemployment is defined as a fraction of the labor

Table 1

STARTING YEARLY SALARIES OF INEXPERIENCED FULL-TIME EMPLOYED CHEMISTRY GRADUATES

by Degree: Summer 1983 and Summer 1984

Salaries	DEGREE LEVEL					
	Bachelor's		Master's		Ph.D.	
	1983	1984	1983	1984	1983	1984
90th Percentile	\$22,500	\$24,000	\$32,800	\$30,760	\$36,882	\$36,504
75th Percentile	20,000	21,600	28,625	28,550	35,000	35,500
50th Percentile	16,530	18,800	24,920	26,000	33,550	34,200
25th Percentile	14,000	16,000	17,000	18,300	29,281	31,000
10th Percentile	12,000	13,000	15,140	15,600	21,550	20,800
Mean	17,044	18,681	24,009	23,796	31,613	32,075
Count	174	274	26	25	70	107
Standard Deviation	4,325	4,435	6,787	5,906	5,644	5,824

Table 2

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

by Degree: Summer 1983 and Summer 1984

Salaries	DEGREE LEVEL					
	Bachelor's		Master's		Ph.D.	
	1983	1984	1983	1984	1983	1984
90th Percentile	\$28,200	\$29,100	\$32,010	\$32,420	\$40,400	\$40,400
75th Percentile	27,500	28,200	30,000	31,400	39,500	41,875
50th Percentile	26,100	27,000	29,250	30,300	38,000	39,950
25th Percentile	24,000	25,500	26,880	30,000	35,650	38,000
10th Percentile	20,000	21,488	24,994	28,900	26,000	30,300
Mean	25,281	26,259	28,392	30,619	36,476	38,947
Count	335	473	46	47	17	20
Standard Deviation	3,809	3,417	3,821	3,002	4,993	3,926

force, persons not seeking work (the majority of BS chemistry graduates) are neither employed nor unemployed. An accurate reading of unemployment requires removing two groups not seeking employment from the denominator of the unemployment rate: graduates who plan to attend graduate school and those not seeking full-time employment, most of whom plan to attend medical or other professional schools. Performing the calculation in this way yields larger unemployment rates among recipients of the bachelor's degree: 27% in chemistry and 24% in chemical engineering.

The recent history for unemployment calculated in this way is:

	1984	1983	1982	1981	1980
Chemical Engineering	24%	42%	26%	8%	6%
Chemistry	27	31	21	23	22

PLANS FOR ADVANCE STUDY and POSTDOCTORAL FELLOWSHIPS

In chemistry, postdoctoral fellows as a percent of new PhDs provides a rough indicator of demand. Because some of the new doctoral chemists who accept postdoctoral fellowships would have preferred full-time employment, an increase in the fraction accepting such fellowships indicates insufficient full-time employment. This year this measure of demand indicates that the climate is slightly less hospitable than it was last year: 37.9% accepted postdoctoral positions in 1984 as compared with 33.7% in 1983.

Bachelor's degree recipients' plans for advanced study are little different from those of last year's graduates. A summary of these plans appears in Tables 4 and 5.

CERTIFIED GRADUATES

"Certified graduates", i.e., graduates completing undergraduate chemistry programs approved by the ACS's Committee on Professional Training, generally received higher starting salaries than non-certified graduates (see Table A-10). One third of all BS chemistry graduates responding to the survey planned to study medicine. More than 73 percent of those studying medicine were non-certified (see table C-5). The unemployment rate for certified graduates was somewhat lower (12% versus 13%) than that for non-certified graduates.

CHARACTERISTICS OF DEGREE GRANTING INSTITUTIONS AND EMPLOYERS

The 1983 Starting Salaries survey began an attempt to account for the variation in salaries paid to new bachelor's degree recipients, primarily by analyzing salary differences according to the new graduates' academic performance and the size of their employers. In 1984 we have turned our attention to the characteristics of the degree granting institutions and expanded the classification of employers so that it is possible to separate out the smaller firms (less than 500 employees) that comprise the majority

Table 3

POSTGRADUATION STATUS OF CHEMISTRY AND
CHEMICAL ENGINEERING GRADUATES: SUMMER 1984

Major and Employment Status	Bachelor's	Master's	Doctorates
CHEMISTRY			
Full-time employed:			
In chemistry or chemical engineering	25.3%	43.8%	54.7%
Outside chemistry or chemical engineering	8.3	1.9	2.8
Postdoctoral/grad. asst./other fellowship	29.6	44.4	37.9
Unemployed and seeking full-time employment	12.4	5.0	3.2
Unemployed and not seeking full-time employment	20.0	3.1	0.7
No response	4.5	1.9	0.7
Total	100.0	100.0	100.0
Number of responses	1,592	160	285
CHEMICAL ENGINEERING			
Full-time employed:			
In chemistry or chemical engineering	49.1	54.4	75.0
Outside chemistry or chemical engineering	12.8	7.1	2.3
Postdoctoral/grad. asst./other fellowship	12.3	29.0	13.6
Unemployed and seeking full-time employment	20.1	4.1	2.3
Unemployed and not seeking full-time employment	4.3	3.0	0.0
No response	1.4	2.4	6.8
Total	100.0	100.0	100.0
Number of responses	1,231	169	44

Table 4

PLANS FOR FURTHER STUDY OF B.S. CHEMISTRY
AND CHEMICAL ENGINEERING GRADUATES: FALL 1984

Plans	Chemistry	Chemical Engineering
Further studies	66.0%	35.9%
Full-time	(54.6)	(19.1)
Part-time	(11.4)	(16.8)
Have no plans or no response	34.0	64.1
Total	100.0	100.0
Number of responses	1,592	1,231

Table 5

FIELDS OF STUDY OF B.S. CHEMISTRY AND
CHEMICAL ENGINEERING GRADUATES WHO PLAN FURTHER STUDIES
Fall 1983

Field of Study	Chemistry	Chemical Engineering
Full-time		
Chemistry or biochemistry	46.5%	4.5%
Chemical engineering	1.1	37.6
Medicine or dentistry	38.6	6.1
Business or management	1.6	22.9
All others	12.2	28.9
Total	100.0	100.0
Number of responses	870	235
Part-time		
Chemistry or biochemistry	42.5%	3.9%
Chemical engineering	4.4	21.7
Medicine or dentistry	5.6	1.5
Business or management	15.5	37.2
All others	33.0	35.7
Total	100.0	100.0
Number of responses	181	207

of chemical companies listed by Dun and Bradstreet (7,032 out of 7,948: approximately 88%). These firms are the employers of 35% of the new employees with the BS in chemistry and 17% of the newly employed BS chemical engineers.

A complete analysis of these data will be available in the 1984-85 edition of Professionals in Chemistry. Preliminary findings are of some interest, suggesting different patterns for chemists and chemical engineers.

The type and size of the school from which new B.S. graduates received their degrees was more variable for chemists than for chemical engineers. Because graduates of some types of schools received higher starting salaries than others, variability had the effect of widening the range of chemists' starting salaries. Generally speaking, graduates received more if their degree was from a school that had one or more of the following characteristics: (a) large (b) granted graduate degrees and (c) was privately controlled.

The greater variability among chemists' median salaries is also seen in comparisons of employing firms ranked by the number of employees. The range of chemists' median salaries was 25% compared to a 17% range for the chemical engineers. As we noted above, proportionally more chemists than chemical engineers took employment in firms with less than 500 employees. Because those firms offered a lower median starting salary than larger ones, proportionally more chemists were clustered at the lower end of the salary range.

We suggest that these differences ought to be taken into account, along with more obvious ones, when comparing salaries.



SCOPE AND METHOD

OBJECTIVES

The 1984 Starting Salary Survey is the 33rd in the series of annual surveys now conducted by Statistical Services of the American Chemical Society. Summaries of the results of these surveys appear annually in the "Chemical Careers" edition of the Chemical and Engineering News, this year published on October 22.

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 1983-84 academic year. The survey covers bachelor's, master's, and doctoral degree recipients. In addition, the survey provides information on graduates' sex, citizenship, and ethnicity.

METHOD OF COLLECTION AND TIMING OF SURVEY

Chemistry departments approved by the ACS and chemical engineering departments approved by the American Institute of Chemical Engineers and the Engineer's Council for Professional Development provided names and addresses of students that had graduated between September, 1983 and June, 1984. During the summer of 1984, ACS Statistical Services mailed questionnaires to those graduates who had U.S. addresses. Summer 1983 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 between July and September to approximately 13,900 graduates. By the cutoff date of September 28, Statistical Services had received 3,768 usable responses.

The table below contains ACS estimates of the numbers of chemistry and chemical engineering graduates in the 1983-84 academic year.

Projected Numbers of Degrees in
Chemistry and in Chemical Engineering, 1983-84

	Bachelors	Masters	Doctorate
Chemistry	11,900	1,740	1,720
Chemical Engineering	7,190	1,460	325

The survey respondents represent about 13.3 percent of all 1983-84 chemistry graduates and about 16.1 percent of the chemical engineering graduates. No attempt 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 questions 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. Salaries are reported in U.S. dollars.

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

EAST SOUTH CENTRAL

Alabama
Kentucky
Mississippi
Tennessee

MOUNTAIN

Arizona
Colorado
Idaho
Montana
Nevada
New Mexico
Utah
Wyoming

MIDDLE ATLANTIC

New Jersey
New York
Pennsylvania

WEST NORTH CENTRAL

Iowa
Kansas
Minnesota
Missouri
Nebraska
North Dakota
South Dakota

SOUTH ATLANTIC

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

WEST SOUTH CENTRAL

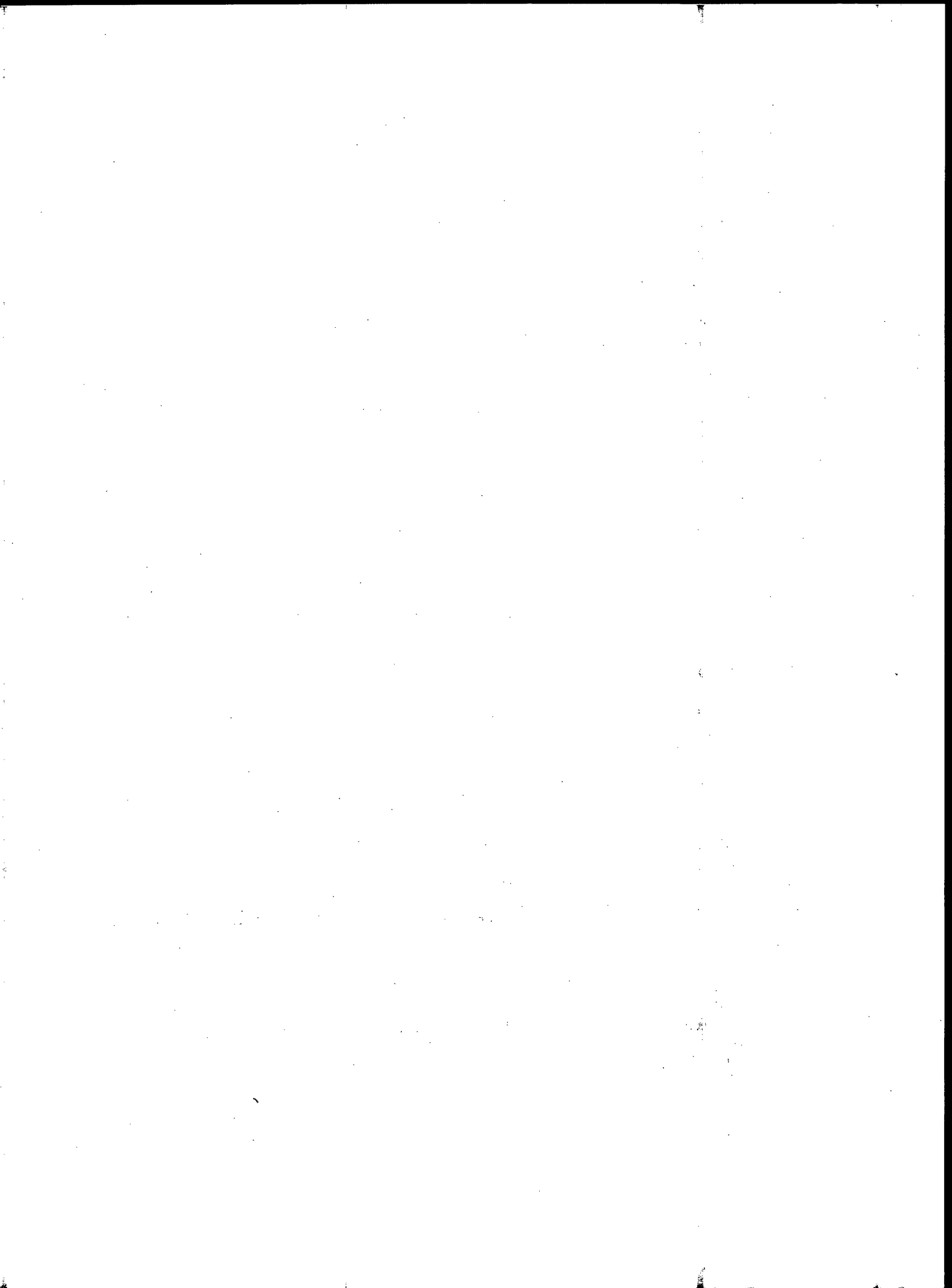
Arkansas
Louisiana
Oklahoma
Texas

NEW ENGLAND

Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Vermont

EAST NORTH CENTRAL

Illinois
Indiana
Michigan
Ohio
Wisconsin



TECHNICAL NOTES

DISCREPANCIES AMONG TABLES

Because not all individuals responded to all of the questionnaire items, some pairs of tables contain totals that should be identical but are not. For example, one table may group PhDs according to sex and another 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, median salaries in cells with fewer than 15 respondents should not be used to estimate their corresponding population medians. Similarly, tables showing the 25th and 75th salary percentiles, and those showing the 10th and 90th salary percentiles, should have at least 25 respondents and 40 respondents respectively.

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-1 for example, 156 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 at 19.2 percent (p=19.2). A "95% confidence interval" for this percent may be approximated by taking n and p to be about 100 and 20%. The table shows an approximate sampling error of 7.8%. Hence, the 95% confidence interval is 11.4% to 27.0%. 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.

ADVANCED FURTHER STUDIES

Full-time or Part-time Study		
Chemistry Graduates		
Field of Advanced Study - Sex ----- Highest Degree-	C-1	42
Certification Status - BS-----	C-2	43
Chemical Engineering Graduates		
Field of Advanced Study - Sex ----- BS and MS-----	C-3	44
Full-time Study		
Chemistry Graduates		
Field of Advanced Study - Sex ----- Highest Degree-	C-4	45
Certification Status - BS-----	C-5	46
Chemical Engineering Graduates		
Field of Advanced Study - Sex ----- BS and MS-----	C-6	47
BS Chemistry and Chemical Engineering Graduates Unemployed and Not Seeking Employment		
Chemistry Graduates		
Advanced Study Plans ---- Sex -----	C-7	48
Chemical Engineering Graduates		
Advanced Study Plans ---- Sex -----	C-8	49

AGE DISTRIBUTION OF RESPONDENTS

All Chemistry and Chemical Engineering Graduates		
Age ----- Sex ----- BS-----	D-1	50
MS-----	D-2	51
PhD-----	D-3	52
Postdoctoral Chemists		
Age ----- Sex -----	D-4	53

NUMBER OF JOB OFFERS

Full-time Employed Inexperienced Chemists		
Number of Offers ----- Sex ----- Highest Degree-	E-1	54
Full-time Employed Experienced Chemists		
Number of Offers ----- Sex ----- Highest Degree-	E-2	55
Full-time Employed Inexperienced Chemical Engineers		
Number of Offers ----- Sex ----- Highest Degree-	E-3	56
Full-time Employed Experienced Chemical Engineers		
Number of Offers ----- Sex ----- Highest Degree-	E-4	57

Table Page

ETHNIC CLASSIFICATION AND CITIZENSHIP

All Chemistry Graduates

Ethnic Classification ----- Citizenship -- Highest Degree- F-1 58

Citizenship ----- Sex ----- F-2 59

Minority Chemistry Graduates

Minority Classification ---- Sex ----- F-3 60

All Chemical Engineering Graduates

Ethnic Classification ----- Citizenship -- Highest Degree- F-4 61

Citizenship ----- Sex ----- Highest Degree- F-5 62

Minority Chemical Engineering Graduates

Minority Classification ---- Sex ----- Highest Degree- F-6 63

TABLE A-1

SALARIES of FULL-TIME CHEMISTS by Experience and Degree
1984 Starting Salary Survey

PROFESSIONAL EXPERIENCE	HIGHEST DEGREE				TOTAL	
	B.S.	M.S.	Ph.D.	No Response		
<12 Months	18,800	26,000	34,200	17,750	21,000	- Median
	18,681	23,796	32,075	21,190	22,494	- Mean
	4,435	5,906	5,824	9,533	7,682	- Std Dev
	274	25	107	10	416	- Count
12-36 Months	20,000	24,000	34,000	23,000	22,000	
	19,598	24,050	33,676	23,000	22,773	
	4,459	2,934	5,069	---	7,015	
	77	12	21	1	111	
>36 Months	22,500	26,820	32,000	22,000	25,000	
	21,460	28,639	29,847	22,000	25,998	
	5,225	6,260	8,211	---	7,294	
	31	30	17	1	79	
No Response	17,500	28,000	35,000	---	29,000	
	17,500	28,000	32,400	---	28,125	
	6,364	---	8,742	---	9,735	
	2	1	5	0	8	
TOTAL	19,432	26,000	34,100	19,500	21,500	
	19,083	26,039	32,058	21,408	23,068	
	4,566	6,045	6,148	8,641	7,636	
	384	68	150	12	614	

TABLE A-2

SALARIES of FULL-TIME CHEMICAL ENGINEERS by Experience and Degree
1984 Starting Salary Survey

PROFESSIONAL EXPERIENCE	HIGHEST DEGREE				TOTAL	
	B.S.	M.S.	Ph.D.	No Response		
<12 Months	27,000	30,300	39,950	24,440	27,600	- Median
	26,259	30,619	38,947	24,899	27,033	- Mean
	3,417	3,002	3,926	5,090	4,337	- Std Dev
	473	47	20	19	559	- Count
12-36 Months	28,000	30,000	40,300	27,920	28,000	
	26,922	29,748	40,200	24,965	28,119	
	3,626	2,947	3,315	8,110	4,790	
	107	27	8	4	146	
>36 Months	26,000	34,800	38,000	24,150	30,000	
	24,647	34,007	38,300	24,150	30,259	
	4,947	5,825	5,450	3,606	7,510	
	15	15	5	2	37	
No Response	28,400	30,250	---	---	29,400	
	28,400	30,250	---	---	29,325	
	566	354	---	---	1,135	
	2	2	0	0	4	
TOTAL	27,300	30,360	40,000	25,000	27,800	
	26,345	30,911	39,153	24,850	27,418	
	3,509	3,801	3,960	5,314	4,681	
	597	91	33	25	746	

TABLE A-3

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS In PRIVATE INDUSTRY by Sex and Degree
1984 Starting Salary Survey

SEX	HIGHEST DEGREE				TOTAL	
	B.S.	M.S.	Ph.D.	No Response		
Men	20,000	26,400	35,000	29,200	23,000	- Median
	19,534	26,059	34,445	28,500	25,148	- Mean
	3,834	4,056	2,231	11,760	7,817	- Std Dev
	107	12	62	4	185	- Count
Women	20,000	26,000	34,800	17,750	20,500	
	19,583	25,667	34,186	17,875	21,353	
	3,589	3,512	1,697	1,931	5,812	
	101	3	14	4	122	
TOTAL	20,000	26,400	34,900	19,500	21,500	
	19,558	25,980	34,397	23,188	23,640	
	3,708	3,836	2,135	9,650	7,319	
	208	15	76	8	307	

TABLE A-4

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS in PRIVATE INDUSTRY by Sex and Degree
1984 Starting Salary Survey

HIGHEST DEGREE

SEX	B.S.	M.S.	Ph.D.	No Response	TOTAL	
Men	27,300	30,200	40,000	24,440	27,600	- Median
	26,466	30,621	39,916	25,622	27,446	- Mean
	3,285	3,382	2,614	5,579	4,481	- Std Dev
	280	35	15	13	343	- Count
Women	27,690	30,925	40,000	25,000	27,980	
	27,090	30,495	40,000	24,667	27,341	
	2,770	1,561	---	1,528	3,002	
	144	10	1	3	158	
TOTAL	27,500	30,300	40,000	24,720	27,660	
	26,678	30,593	39,921	25,443	27,413	
	3,131	3,056	2,526	5,036	4,070	
	424	45	16	16	501	

TABLE A-5

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Sex
1984 Starting Salary Survey

HIGHEST DEGREE	SEX		TOTAL	
	Men	Women		
Bachelors	19,000	18,500	18,800	- Median
	18,712	18,648	18,681	- Mean
	4,284	4,606	4,435	- Std Dev
	141	133	274	- Count
Masters	26,400	20,500	26,000	
	24,627	21,167	23,796	
	5,906	5,565	5,906	
	19	6	25	
Doctorate	34,350	33,600	34,200	
	32,245	31,456	32,075	
	5,543	6,855	5,824	
	84	23	107	
No Response	21,000	16,500	17,750	
	25,800	16,580	21,190	
	11,840	3,344	9,533	
	5	5	10	
TOTAL	22,000	19,104	21,000	
	23,871	20,440	22,494	
	8,028	6,645	7,682	
	249	167	416	

TABLE A-6

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Employer
1984 Starting Salary Survey

EMPLOYER	HIGHEST DEGREE			No Response	TOTAL	
	B.S.	M.S.	Ph.D.			
Private Industry	20,000	26,400	34,900	19,500	21,500	- Median
	19,558	25,980	34,397	23,188	23,640	- Mean
	3,708	3,836	2,135	9,650	7,319	- Std Dev
	208	15	76	8	307	- Count
College or University	12,500	15,500	20,000	---	17,650	
	15,280	15,300	20,606	---	18,123	
	10,161	2,094	4,258	---	7,011	
	10	4	16	0	30	
High School	12,500	19,000	---	11,400	12,500	
	12,336	19,000	---	11,400	12,777	
	2,398	---	---	---	2,890	
	11	1	0	1	13	
Government	16,000	31,000	30,000	---	22,000	
	16,286	31,000	30,478	---	23,429	
	3,226	3,394	6,738	---	8,734	
	11	2	9	0	22	
Military	16,000	---	---	---	16,000	
	16,000	---	---	---	16,000	
	2,828	---	---	---	2,828	
	2	0	0	0	2	
Hospital or Laboratory	16,000	17,000	---	---	16,320	
	16,060	17,000	---	---	16,127	
	4,730	---	---	---	4,552	
	13	1	0	0	14	
Other	17,500	23,000	36,000	15,000	18,500	
	18,002	23,000	35,780	15,000	21,554	
	3,819	8,485	1,006	---	7,935	
	19	2	5	1	27	
No Response	---	---	35,000	---	35,000	
	---	---	35,000	---	35,000	
	---	---	---	---	---	
	0	0	1	0	1	
TOTAL	18,800	26,000	34,200	17,750	21,000	
	18,681	23,796	32,075	21,190	22,494	
	4,435	5,906	5,824	9,533	7,682	
	274	25	107	10	416	

TABLE A-7

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Employer - Men
1984 Starting Salary Survey

EMPLOYER	HIGHEST DEGREE				TOTAL	
	B.S.	M.S.	Ph.D.	No Response		
Private Industry	20,000	26,400	35,000	29,200	23,000	- Median
	19,534	26,059	34,445	28,500	25,148	- Mean
	3,834	4,056	2,231	11,760	7,817	- Std Dev
	107	12	62	4	185	- Count
College or University	10,700	15,100	21,000	---	20,000	
	10,350	15,100	21,592	---	18,542	
	1,700	3,536	4,081	---	5,936	
	4	2	13	0	19	
High School	12,000	---	---	---	12,000	
	12,110	---	---	---	12,110	
	2,167	---	---	---	2,167	
	3	0	0	0	3	
Government	17,221	31,000	30,000	---	22,000	
	17,740	31,000	29,800	---	24,419	
	3,600	3,394	6,870	---	7,980	
	6	2	5	0	13	
Military	16,000	---	---	---	16,000	
	16,000	---	---	---	16,000	
	2,828	---	---	---	2,828	
	2	0	0	0	2	
Hospital or Laboratory	16,640	17,000	---	---	16,820	
	17,016	17,000	---	---	17,014	
	5,378	---	---	---	5,070	
	9	1	0	0	10	
Other	17,750	23,000	36,000	15,000	18,500	
	17,890	23,000	36,100	15,000	21,763	
	4,132	8,485	656	---	8,334	
	10	2	3	1	16	
No Response	---	---	35,000	---	35,000	
	---	---	35,000	---	35,000	
	---	---	---	---	---	
	0	0	1	0	1	
TOTAL	19,000	26,400	34,350	21,000	22,000	
	18,712	24,627	32,245	25,800	23,871	
	4,284	5,906	5,543	11,840	8,028	
	141	19	84	5	249	

TABLE A-8

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Employer - Women
1984 Starting Salary Survey

EMPLOYER	HIGHEST DEGREE				TOTAL	
	B.S.	M.S.	Ph.D.	No Response		
Private Industry	20,000	26,000	34,800	17,750	20,500	- Median
	19,583	25,667	34,186	17,875	21,353	- Mean
	3,589	3,512	1,697	1,931	5,812	- Std Dev
	101	3	14	4	122	- Count
College or University	13,750	15,500	16,000	---	15,000	
	18,567	15,500	16,333	---	17,400	
	12,316	707	1,528	---	8,845	
	6	2	3	0	11	
High School	13,250	19,000	---	11,400	13,250	
	12,421	19,000	---	11,400	12,977	
	2,616	---	---	---	3,147	
	8	1	0	1	10	
Government	13,600	---	29,200	---	16,700	
	14,540	---	31,325	---	22,000	
	1,685	---	7,510	---	10,041	
	5	0	4	0	9	
Military	---	---	---	---	---	
	---	---	---	---	---	
	---	---	---	---	---	
	0	0	0	0	0	
Hospital or Laboratory	13,250	---	---	---	13,250	
	13,910	---	---	---	13,910	
	1,865	---	---	---	1,865	
	4	0	0	0	4	
Other	16,800	---	35,300	---	18,500	
	18,127	---	35,300	---	21,250	
	3,684	---	1,556	---	7,704	
	9	0	2	0	11	
TOTAL	18,500	20,500	33,600	16,500	19,104	
	18,648	21,167	31,456	16,580	20,440	
	4,606	5,565	6,855	3,344	6,645	
	133	6	23	5	167	

TABLE A-9

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Geographic Region
1984 Starting Salary Survey

GEOGRAPHIC REGION	HIGHEST DEGREE			No Response	TOTAL	
	B.S.	M.S.	Ph.D.			
Pacific	19,500	---	34,000	11,400	21,000	- Median
	19,190	---	32,529	11,400	23,944	- Mean
	3,987	---	5,587	---	8,505	- Std Dev
	10	0	7	1	18	- Count
Mountain	16,400	26,700	36,400	16,500	21,502	
	16,181	26,700	34,644	16,500	22,804	
	7,040	---	7,913	---	10,637	
	5	1	3	1	10	
West North Central	20,000	17,600	35,000	38,500	22,000	
	18,596	17,600	33,843	38,500	3,447	
	4,767	---	5,225	1,556	8,930	
	20	1	7	2	30	
West South Central	18,550	26,400	34,000	---	24,000	
	18,707	26,400	32,678	---	23,933	
	5,120	0	6,858	---	8,564	
	16	2	9	0	27	
East North Central	20,000	25,000	34,000	---	21,000	
	19,489	23,000	31,795	---	22,560	
	3,310	5,244	6,117	---	6,649	
	67	6	22	0	95	
East South Central	17,850	19,000	32,000	---	18,000	
	17,844	21,667	31,467	---	20,223	
	4,103	10,653	1,286	---	6,757	
	16	3	3	0	22	
Middle Atlantic	19,678	29,000	34,800	16,000	21,500	
	19,005	26,315	32,384	16,667	22,736	
	4,479	5,759	5,012	2,082	7,473	
	82	7	31	3	123	
South Atlantic	16,250	24,000	34,500	20,000	19,000	
	17,074	22,120	31,333	19,000	21,992	
	4,079	5,863	6,703	2,646	8,226	
	42	5	23	3	73	
New England	17,450	---	25,500	---	19,000	
	17,632	---	25,500	---	18,558	
	2,639	---	7,778	---	4,087	
	15	0	2	0	17	
No Response	43,200	---	---	---	43,200	
	43,200	---	---	---	43,200	
	---	---	---	---	---	
	1	0	0	0	1	
TOTAL	18,800	26,000	34,200	17,750	21,000	
	18,681	23,796	32,075	21,190	22,494	
	4,435	5,906	5,824	9,533	7,682	
	274	25	107	10	416	

TABLE A-10

SALARIES of INEXPERIENCED FULL-TIME B.S. CHEMISTS by Employer and Certification Status
1984 Starting Salary Survey

EMPLOYER	CERTIFICATION		TOTAL	
	Certi- fied	Non- Cert.		
Private Industry	20,000	18,800	20,000	-- Median
	19,982	18,965	19,577	- Mean
	3,397	4,401	3,852	- Std Dev
	139	92	231	- Count
College or University	12,750	12,700	12,750	
	17,267	12,488	14,536	
	12,760	2,947	8,563	
	6	8	14	
High School	14,400	12,550	13,550	
	14,461	12,611	13,228	
	5,032	1,927	3,264	
	6	12	18	
Government	16,000	17,221	16,350	
	15,989	17,244	16,512	
	3,149	3,419	3,174	
	7	5	12	
Military	18,000	19,750	18,000	
	17,371	19,563	18,540	
	2,787	1,917	2,539	
	7	8	15	
Hospital or Laboratory	16,640	13,000	15,000	
	16,822	14,951	15,753	
	4,906	5,672	5,313	
	9	12	21	
Other	16,000	17,150	16,800	
	17,053	19,172	18,031	
	4,342	7,790	6,182	
	21	18	39	
TOTAL	20,000	18,000	18,550	
	19,031	17,827	18,498	
	4,361	5,193	4,778	
	195	155	350	

TABLE A-11

SALARIES of INEXPERIENCED FULL-TIME M.S. and Ph.D. CHEMISTS by Degree Field
1984 Starting Salary Survey

DEGREE FIELD	HIGHEST DEGREE		TOTAL
	M.S.	Ph.D.	
Chemistry	28,500 25,633 9,529 3	28,500 27,025 9,585 4	28,500 - Median 26,429 - Mean 8,761 - Std Dev 7 - Count
Biochemistry	--- --- 0	--- --- 0	--- --- 0
Agricultural	--- --- 0	--- --- 0	--- --- 0
Analytical	25,000 23,350 4,953 6	34,000 31,343 6,006 23	32,500 29,690 6,602 29
Inorganic	20,000 18,667 2,309 3	34,000 33,506 4,852 21	33,800 31,651 6,787 24
Organic	26,200 24,530 6,267 10	34,800 31,702 6,498 37	33,000 30,176 7,038 47
Pharmaceutical	--- --- 0	--- --- 0	--- --- 0
Physical	29,000 29,000 --- 1	34,000 33,042 4,304 16	33,000 32,804 4,281 17
Theoretical	--- --- 0	26,000 26,000 --- 1	26,000 26,000 --- 1
Polymer	28,600 28,600 --- 1	36,000 36,000 --- 1	32,300 32,300 5,233 2
Chemistry, Other	19,000 19,000 --- 1	34,400 33,950 2,132 4	34,000 30,960 6,936 5
TOTAL	26,000 23,796 5,906 25	34,200 32,075 5,824 107	33,000 30,507 6,666 132

TABLE A-12

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Degree and Sex
1984 Starting Salary Survey

HIGHEST DEGREE	SEX		TOTAL	
	Men	Women		
Bachelors	27,000	27,500	27,000	- Median
	26,095	26,569	26,259	- Mean
	3,534	3,173	3,417	- Std Dev
	309	164	473	- Count
Masters	30,200	30,925	30,300	
	30,652	30,495	30,619	
	3,302	1,561	3,002	
	37	10	47	
Doctorate	39,900	40,000	39,950	
	38,892	40,000	38,947	
	4,026	---	3,926	
	19	1	20	
No Response	24,220	25,000	24,440	
	24,943	24,667	24,899	
	5,547	1,528	5,090	
	16	3	19	
TOTAL	27,500	27,600	27,600	
	27,127	26,833	27,033	
	4,726	3,362	4,337	
	381	178	559	

TABLE A-13

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Degree and Employer
1984 Starting Salary Survey

HIGHEST DEGREE

EMPLOYER	B.S.	M.S.	Ph.D.	No Response	TOTAL	
Private Industry	27,500	30,300	40,000	24,720	27,660	- Median
	26,678	30,593	39,921	25,443	27,413	- Mean
	3,131	3,056	2,526	5,036	4,070	- Std Dev
	424	45	16	16	501	- Count
College or University	---	---	37,000	---	37,000	
	---	---	36,733	---	36,733	
	---	---	6,604	---	6,604	
	0	0	3	0	3	
High School	---	---	---	---	---	
	---	---	---	---	---	
	---	---	---	---	---	
	0	0	0	0	0	
Government	21,527	30,000	30,000	18,000	21,527	
	22,381	30,000	30,000	18,000	22,674	
	3,390	---	---	---	3,769	
	34	1	1	1	37	
Military	26,750	---	---	---	26,750	
	24,880	---	---	---	24,880	
	4,630	---	---	---	4,630	
	4	0	0	0	4	
Hospital or Laboratory	---	---	---	---	---	
	---	---	---	---	---	
	---	---	---	---	---	
	0	0	0	0	0	
Other	24,000	---	---	20,000	24,000	
	22,880	---	---	20,000	22,618	
	4,406	---	---	---	4,269	
	10	0	0	1	11	
No Response	20,000	32,400	---	28,000	28,000	
	20,000	32,400	---	28,000	26,800	
	---	---	---	---	6,286	
	1	1	0	1	3	
TOTAL	27,000	30,300	39,950	24,440	27,600	
	26,259	30,619	38,947	24,899	27,033	
	3,417	3,002	3,926	5,090	4,337	
	473	47	20	19	559	

TABLE A-14

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Degree and Employer - Men
1984 Starting Salary Survey

HIGHEST DEGREE

EMPLOYER	B.S.	M.S.	Ph.D.	No Response	TOTAL	
Private Industry	27,300	30,200	40,000	24,440	27,600	- Median
	26,466	30,621	39,916	25,622	27,446	- Mean
	3,285	3,382	2,614	5,579	4,481	- Std Dev
	280	35	15	13	343	- Count
College or University	---	---	37,000	---	37,000	
	---	---	36,733	---	36,733	
	---	---	6,604	---	6,604	
	0	0	3	0	3	
High School	---	---	---	---	---	
	---	---	---	---	---	
	---	---	---	---	---	
	0	0	0	0	0	
Government	21,527	30,000	30,000	18,000	21,527	
	22,196	30,000	30,000	18,000	22,739	
	3,242	---	---	---	3,949	
	18	1	1	1	21	
Military	26,750	---	---	---	26,750	
	24,880	---	---	---	24,880	
	4,630	---	---	---	4,630	
	4	0	0	0	4	
Hospital or Laboratory	---	---	---	---	---	
	---	---	---	---	---	
	---	---	---	---	---	
	0	0	0	0	0	
Other	22,900	---	---	20,000	20,000	
	22,317	---	---	20,000	21,986	
	5,496	---	---	---	5,093	
	6	0	0	1	7	
No Response	20,000	32,400	---	28,000	28,000	
	20,000	32,400	---	28,000	26,800	
	---	---	---	---	6,286	
	1	1	0	1	3	
TOTAL	27,000	30,200	39,900	24,220	27,500	
	26,095	30,652	38,892	24,943	27,127	
	3,534	3,302	4,026	5,547	4,726	
	309	37	19	16	381	

TABLE A-15

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Degree and Employer - Women
1984 Starting Salary Survey

EMPLOYER	HIGHEST DEGREE				TOTAL	
	B.S.	M.S.	Ph.D.	No Response		
Private Industry	27,690	30,925	40,000	25,000	27,980	- Median
	27,090	30,495	40,000	24,667	27,341	- Mean
	2,770	1,561	---	1,528	3,002	- Std Dev
	144	10	1	3	158	- Count
College or University	---	---	---	---	---	
	---	---	---	---	---	
	0	0	0	0	0	
High School	---	---	---	---	---	
	---	---	---	---	---	
	0	0	0	0	0	
Government	21,764	---	---	---	21,764	
	22,589	---	---	---	22,589	
	3,645	---	---	---	3,645	
	16	0	0	0	16	
Military	---	---	---	---	---	
	---	---	---	---	---	
	0	0	0	0	0	
Hospital or Laboratory	---	---	---	---	---	
	---	---	---	---	---	
	0	0	0	0	0	
Other	24,000	---	---	---	24,000	
	23,725	---	---	---	23,725	
	2,510	---	---	---	2,510	
	4	0	0	0	4	
TOTAL	27,500	30,925	40,000	25,000	27,600	
	26,569	30,495	40,000	24,667	26,833	
	3,173	1,561	---	1,528	3,362	
	164	10	1	3	178	

TABLE A-16

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Geographic Region and Degree
1984 Starting Salary Survey

GEOGRAPHIC REGION	HIGHEST DEGREE				TOTAL	
	B.S.	M.S.	Ph.D.	No Response		
Pacific	27,000	31,000	41,500	34,500	28,000	- Median
	26,550	30,928	41,900	34,500	28,799	- Mean
	3,319	984	1,153	9,192	5,160	- Std Dev
	32	10	3	2	47	- Count
Mountain	27,000	30,000	---	---	27,500	
	27,366	30,000	---	---	27,554	
	2,306	---	---	---	2,325	
	13	1	0	0	14	
West North Central	27,000	30,000	---	24,000	27,590	
	26,276	31,980	---	24,000	27,048	
	3,815	4,851	---	---	4,386	
	28	5	0	1	34	
West South Central	27,980	30,900	39,600	24,500	28,000	
	27,293	31,440	40,067	24,435	27,843	
	2,870	2,317	3,325	3,773	3,922	
	68	4	3	4	79	
East North Central	27,600	31,000	38,000	25,000	27,900	
	26,666	31,025	35,667	24,933	27,058	
	3,070	1,184	4,933	2,901	3,512	
	90	4	3	3	100	
East South Central	27,180	29,450	---	25,720	27,180	
	27,059	29,450	---	25,720	27,137	
	1,436	2,192	---	1,810	1,621	
	23	2	0	2	27	
Middle Atlantic	27,000	30,200	40,000	22,000	27,520	
	25,638	29,905	38,420	23,020	26,495	
	4,091	4,314	4,998	3,964	4,949	
	109	15	5	5	134	
South Atlantic	27,000	30,180	39,950	18,000	27,000	
	25,769	30,427	38,990	18,000	26,899	
	3,195	544	3,343	---	4,722	
	75	6	6	1	88	
New England	26,400	---	---	23,000	26,250	
	25,564	---	---	23,000	25,489	
	2,868	---	---	---	2,858	
	33	0	0	1	34	
No Response	15,250	---	---	---	15,250	
	15,250	---	---	---	15,250	
	3,182	---	---	---	3,182	
	2	0	0	0	2	
TOTAL	27,000	30,300	39,950	24,440	27,600	
	26,259	30,619	38,947	24,899	27,033	
	3,417	3,002	3,926	5,090	4,337	
	473	47	20	19	559	

TABLE B-1

EMPLOYMENT STATUS OF CHEMISTRY GRADUATES by Degree and Sex
1984 Starting Salary Survey

EMPLOYMENT STATUS	SEX		Bachelors				Masters				Doctorate					
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	TOTAL	-Count -% of ROW -% of Col
	No Response	No Response	No Response	No Response	No Response	No Response	No Response	No Response	No Response	No Response	No Response	No Response	No Response	No Response	TOTAL	
Full-time in Chemistry	213 52.9% 21.4%	190 47.1% 31.9%	0 0.0% 0.0%	403 100.0% 25.3%	46 65.7% 45.5%	24 34.3% 40.7%	0 0.0% 0.0%	70 100.0% 43.8%	126 80.8% 55.5%	30 19.2% 51.7%	0 0.0% 0.0%	0 0.0% 0.0%	156 100.0% 54.7%	0 0.0% 0.0%	156 100.0% 54.7%	-Count -% of ROW -% of Col
Full-time in Non-Chemistry	85 64.4% 8.5%	47 35.6% 7.9%	0 0.0% 0.0%	132 100.0% 8.3%	3 100.0% 3.0%	0 0.0% 0.0%	3 100.0% 1.9%	7 87.5% 3.1%	1 12.5% 1.7%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	8 100.0% 2.8%	0 0.0% 0.0%	8 100.0% 2.8%	
Assistantship, or Postdoctoral, or Other Fellowship	323 68.6% 32.5%	148 31.4% 24.9%	0 0.0% 0.0%	471 100.0% 29.6%	45 63.4% 44.6%	26 36.6% 44.1%	0 0.0% 0.0%	71 100.0% 44.4%	87 80.6% 38.3%	21 19.4% 36.2%	0 0.0% 0.0%	0 0.0% 0.0%	108 100.0% 37.9%	0 0.0% 0.0%	108 100.0% 37.9%	
Unemployed and Seeking Employment	102 51.8% 10.3%	94 47.7% 15.8%	1 0.5% 50.0%	197 100.0% 12.4%	5 62.5% 5.0%	3 37.5% 5.1%	0 0.0% 0.0%	8 100.0% 5.0%	4 44.4% 1.8%	5 55.6% 8.6%	0 0.0% 0.0%	0 0.0% 0.0%	9 100.0% 3.2%	0 0.0% 0.0%	9 100.0% 3.2%	
Unemployed and Not Seeking Employment	217 68.2% 21.8%	100 31.4% 16.8%	1 0.3% 50.0%	318 100.0% 20.0%	2 40.0% 2.0%	3 60.0% 5.1%	0 0.0% 0.0%	5 100.0% 3.1%	1 50.0% 0.4%	1 1.7% 1.7%	0 0.0% 0.0%	0 0.0% 0.0%	2 100.0% 0.7%	0 0.0% 0.0%	2 100.0% 0.7%	
No Response	55 77.5% 5.5%	16 22.5% 2.7%	0 0.0% 0.0%	71 100.0% 4.5%	0 0.0% 0.0%	3 100.0% 5.1%	0 0.0% 0.0%	3 100.0% 1.9%	2 100.0% 0.9%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	2 100.0% 0.7%	0 0.0% 0.0%	2 100.0% 0.7%	
TOTAL	995 62.5% 100.0%	595 37.4% 100.0%	2 0.1% 100.0%	1,592 100.0% 100.0%	101 63.1% 100.0%	59 36.9% 100.0%	0 0.0% 0.0%	160 100.0% 100.0%	227 79.6% 100.0%	58 20.4% 100.0%	0 0.0% 0.0%	0 0.0% 0.0%	285 100.0% 100.0%	0 0.0% 0.0%	285 100.0% 100.0%	
ADVANCED STUDY PLANS FALL 1984																
Full-time	606 69.7% 60.9%	263 30.2% 44.2%	1 0.1% 50.0%	870 100.0% 54.6%	44 61.1% 43.6%	28 38.9% 47.5%	0 0.0% 0.0%	72 100.0% 45.0%	25 89.3% 11.0%	3 10.7% 5.2%	0 0.0% 0.0%	0 0.0% 0.0%	28 100.0% 9.8%	0 0.0% 0.0%	28 100.0% 9.8%	
Part-time	105 58.0% 10.6%	76 42.0% 12.8%	0 0.0% 0.0%	181 100.0% 11.4%	9 75.0% 8.9%	3 25.0% 5.1%	0 0.0% 0.0%	12 100.0% 7.5%	6 75.0% 2.6%	2 25.0% 3.4%	0 0.0% 0.0%	0 0.0% 0.0%	8 100.0% 2.8%	0 0.0% 0.0%	8 100.0% 2.8%	
No Plans	282 52.4% 28.3%	255 47.4% 42.9%	1 0.2% 50.0%	538 100.0% 33.8%	47 62.7% 46.5%	28 37.3% 47.5%	0 0.0% 0.0%	75 100.0% 46.9%	191 78.6% 84.1%	52 21.4% 89.7%	0 0.0% 0.0%	0 0.0% 0.0%	243 100.0% 85.3%	0 0.0% 0.0%	243 100.0% 85.3%	
No Response	2 66.7% 0.2%	1 33.3% 0.2%	0 0.0% 0.0%	3 100.0% 0.2%	1 100.0% 1.0%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 0.6%	5 83.3% 2.2%	1 16.7% 1.7%	0 0.0% 0.0%	0 0.0% 0.0%	6 100.0% 2.1%	0 0.0% 0.0%	6 100.0% 2.1%	
TOTAL	995 62.5% 100.0%	595 37.4% 100.0%	2 0.1% 100.0%	1,592 100.0% 100.0%	101 63.1% 100.0%	59 36.9% 100.0%	0 0.0% 0.0%	160 100.0% 100.0%	227 79.6% 100.0%	58 20.4% 100.0%	0 0.0% 0.0%	0 0.0% 0.0%	285 100.0% 100.0%	0 0.0% 0.0%	285 100.0% 100.0%	

TABLE B-2

EMPLOYMENT STATUS OF CHEMISTRY GRADUATES by CITIZENSHIP and Degree
1984 Starting Salary Survey

EMPLOYMENT STATUS	CITIZENSHIP										Masters										Doctorate											
	US Citizen			Permanent Resident			Other			No Response			TOTAL			US Citizen			Permanent Resident			Other			No Response			TOTAL				
	US Citizen	Permanent Resident	Other	No Response	TOTAL	US Citizen	Permanent Resident	Other	No Response	TOTAL	US Citizen	Permanent Resident	Other	No Response	TOTAL	US Citizen	Permanent Resident	Other	No Response	TOTAL	US Citizen	Permanent Resident	Other	No Response	TOTAL	US Citizen	Permanent Resident	Other	No Response	TOTAL		
Full-time in Chemistry	394	6	3	0	403	65	3	2	0	70	145	7	4	0	156	92.9%	4.3%	2.9%	0.0%	100.0%	92.9%	4.5%	2.6%	0.0%	100.0%	92.9%	4.5%	2.6%	0.0%	100.0%		
	25.6%	1.5%	0.7%	0.0%	25.3%	46.1%	75.0%	13.3%	***.***	43.8%	57.1%	63.6%	21.1%	0.0%	54.7%	Count	-% of Row	-% of Col														
Full-time in Non-Chemistry	127	4	1	0	132	3	0	0	0	3	7	0	1	8	8	87.5%	0.0%	0.0%	0.0%	100.0%	2.8%	0.0%	12.5%	0.0%	100.0%	2.8%	0.0%	12.5%	0.0%	100.0%		
	8.2%	12.1%	5.9%	0.0%	8.3%	2.1%	0.0%	0.0%	***.***	1.9%	2.8%	0.0%	5.3%	0.0%	2.8%	Count	-% of Row	-% of Col														
Assistantship, Postdoctoral, or Other Fellowship	455	7	9	0	471	59	1	11	0	71	91	3	13	1	108	84.3%	1.4%	15.5%	0.0%	100.0%	35.8%	2.8%	12.0%	0.9%	100.0%	37.9%	2.8%	12.0%	0.9%	100.0%		
	29.5%	21.2%	52.9%	0.0%	29.6%	41.8%	25.0%	73.3%	***.***	44.4%	84.3%	27.3%	68.4%	100.0%	37.9%	Count	-% of Row	-% of Col														
Unemployed and Seeking Employment	188	8	0	1	197	8	0	0	0	8	8	1	0	9	9	88.9%	11.1%	0.0%	0.0%	100.0%	3.1%	9.1%	0.0%	0.0%	100.0%	3.2%	9.1%	0.0%	0.0%	100.0%		
	12.2%	24.2%	0.0%	100.0%	12.4%	5.7%	0.0%	0.0%	***.***	5.0%	3.1%	0.0%	0.0%	0.0%	3.2%	Count	-% of Row	-% of Col														
Unemployed and Not Seeking Employment	308	7	3	0	318	4	0	1	0	5	2	0	0	2	2	100.0%	0.0%	20.0%	0.0%	100.0%	0.8%	0.0%	0.0%	0.0%	100.0%	0.7%	0.0%	0.0%	0.0%	100.0%		
	20.0%	21.2%	17.6%	0.0%	20.0%	2.8%	0.0%	6.7%	***.***	3.1%	0.8%	0.0%	0.0%	0.0%	0.7%	Count	-% of Row	-% of Col														
No Response	69	1	1	0	71	2	0	1	0	3	1	0	1	2	2	66.7%	0.0%	33.3%	0.0%	100.0%	1.9%	0.0%	50.0%	0.0%	100.0%	1.9%	0.0%	50.0%	0.0%	100.0%		
	4.5%	3.0%	5.9%	0.0%	4.5%	1.4%	0.0%	6.7%	***.***	1.9%	0.4%	0.0%	0.0%	0.4%	0.4%	Count	-% of Row	-% of Col														
TOTAL	1,541	33	17	1	1,592	141	4	15	0	160	254	11	19	1	285	89.1%	3.9%	6.7%	0.4%	100.0%	9.8%	3.9%	6.7%	0.4%	100.0%	9.8%	3.9%	6.7%	0.4%	100.0%		
	96.8%	2.1%	1.1%	0.1%	100.0%	88.1%	2.5%	9.4%	0.0%	100.0%	89.1%	3.9%	6.7%	0.4%	100.0%	Count	-% of Row	-% of Col														
Full-time	842	16	12	0	870	60	1	11	0	72	25	0	2	1	28	89.3%	0.0%	15.3%	0.0%	100.0%	9.8%	0.0%	7.1%	3.6%	100.0%	9.8%	0.0%	7.1%	3.6%	100.0%		
	54.6%	48.5%	70.6%	0.0%	54.6%	42.6%	25.0%	73.3%	***.***	45.0%	9.8%	0.0%	10.5%	100.0%	9.8%	Count	-% of Row	-% of Col														
Part-time	174	5	2	0	181	9	1	2	0	12	6	2	0	8	8	96.1%	2.8%	1.1%	0.0%	100.0%	2.4%	25.0%	0.0%	0.0%	100.0%	2.4%	25.0%	0.0%	0.0%	100.0%		
	11.3%	15.2%	11.8%	0.0%	11.4%	6.4%	25.0%	13.3%	***.***	7.5%	2.4%	18.2%	0.0%	0.0%	2.8%	Count	-% of Row	-% of Col														
No Plans	524	11	2	1	538	71	2	2	0	75	218	8	17	0	243	89.7%	2.7%	2.7%	0.0%	100.0%	85.8%	3.3%	7.0%	0.0%	100.0%	85.8%	3.3%	7.0%	0.0%	100.0%		
	34.0%	33.3%	11.8%	100.0%	33.8%	50.4%	50.0%	13.3%	***.***	46.9%	85.8%	72.7%	89.5%	0.0%	85.8%	Count	-% of Row	-% of Col														
No Response	1	1	1	0	3	1	0	0	0	1	5	1	0	6	6	33.3%	3.3%	3.3%	0.0%	100.0%	2.0%	16.7%	0.0%	0.0%	100.0%	2.1%	16.7%	0.0%	0.0%	100.0%		
	0.1%	3.0%	5.9%	0.0%	0.2%	0.7%	0.0%	0.0%	***.***	0.6%	2.0%	9.1%	0.0%	0.0%	2.1%	Count	-% of Row	-% of Col														
TOTAL	1,541	33	17	1	1,592	141	4	15	0	160	254	11	19	1	285	96.8%	2.1%	1.1%	0.1%	100.0%	9.8%	2.1%	1.1%	0.1%	100.0%	9.8%	2.1%	1.1%	0.1%	100.0%		
	96.8%	2.1%	1.1%	0.1%	100.0%	88.1%	2.5%	9.4%	0.0%	100.0%	89.1%	3.9%	6.7%	0.4%	100.0%	Count	-% of Row	-% of Col														

ADVANCED STUDY PLANS
FALLS 1984

TABLE B-3

EMPLOYMENT STATUS of MINORITY CHEMISTRY GRADUATES by Degree
1984 Starting Salary Survey

EMPLOYMENT STATUS	HIGHEST DEGREE				TOTAL	
	B.S.	M.S.	Ph.D.	No Response		
Full-time in Chemistry	25 52.1% 16.9%	9 18.8% 37.5%	13 27.1% 38.2%	1 2.1% 25.0%	48	-Count 100.0% 22.9%
Full-time in Non-Chemistry	11 91.7% 7.4%	0 0.0% 0.0%	1 8.3% 2.9%	0 0.0% 0.0%	12	100.0% 5.7%
Assistantship, Postdoctoral, or Other Fellowship	42 57.5% 28.4%	11 15.1% 45.8%	17 23.3% 50.0%	3 4.1% 75.0%	73	100.0% 34.8%
Unemployed and Seeking Employment	21 87.5% 14.2%	1 4.2% 4.2%	2 8.3% 5.9%	0 0.0% 0.0%	24	100.0% 11.4%
Unemployed and Not Seeking Employment	40 95.2% 27.0%	2 4.8% 8.3%	0 0.0% 0.0%	0 0.0% 0.0%	42	100.0% 20.0%
No Response	9 81.8% 6.1%	1 9.1% 4.2%	1 9.1% 2.9%	0 0.0% 0.0%	11	100.0% 5.2%
TOTAL	148 70.5% 100.0%	24 11.4% 100.0%	34 16.2% 100.0%	4 1.9% 100.0%	210	100.0% 100.0%
ADVANCED STUDY PLANS FALL 1984						
Full-time	90 83.3% 60.8%	12 11.1% 50.0%	4 3.7% 11.8%	2 1.9% 50.0%	108	100.0% 51.4%
Part-time	19 70.4% 12.8%	4 14.8% 16.7%	3 11.1% 8.8%	1 3.7% 25.0%	27	100.0% 12.9%
No Plans	38 52.1% 25.7%	8 11.0% 33.3%	26 35.6% 76.5%	1 1.4% 25.0%	73	100.0% 34.8%
No Response	1 50.0% 0.7%	0 0.0% 0.0%	1 50.0% 2.9%	0 0.0% 0.0%	2	100.0% 1.0%
TOTAL	148 70.5% 100.0%	24 11.4% 100.0%	34 16.2% 100.0%	4 1.9% 100.0%	210	100.0% 100.0%

TABLE B-4

EMPLOYMENT STATUS of B.S. CHEMISTS by Certification Status
1984 Starting Salary Survey

EMPLOYMENT STATUS	CERTIFICATION			TOTAL	
	Certi- fied	Non- Cert.	No Response		
Full-time Chemistry	244 60.5% 29.1%	159 39.5% 21.1%	0 0.0% 0.0%	403	-Count 100.0% 25.3%
Full-time in Non-Chemistry	56 42.4% 6.7%	76 57.6% 10.1%	0 0.0% 0.0%	132	100.0% 8.3%
Assistantship, Postdoctoral, or Other Fellowship	334 70.9% 39.9%	136 28.9% 18.1%	1 0.2% 100.0%	471	100.0% 29.6%
Unemployed and Seeking Employment	99 50.3% 11.8%	98 49.7% 13.0%	0 0.0% 0.0%	197	100.0% 12.4%
Unemployed and Not Seeking Employment	86 27.0% 10.3%	232 73.0% 30.8%	0 0.0% 0.0%	318	100.0% 20.0%
No Response	19 26.8% 2.3%	52 73.2% 6.9%	0 0.0% 0.0%	71	100.0% 4.5%
TOTAL	838 52.6% 100.0%	753 47.3% 100.0%	1 0.1% 100.0%	1,592	100.0% 100.0%
ADVANCED STUDY PLANS FALL 1984					
Full-time	449 51.6% 53.6%	420 48.3% 55.8%	1 0.1% 100.0%	870	100.0% 54.6%
Part-time	93 51.4% 11.1%	88 48.6% 11.7%	0 0.0% 0.0%	181	100.0% 11.4%
No plans	294 54.6% 35.1%	244 45.4% 32.4%	0 0.0% 0.0%	538	100.0% 33.8%
No Response	2 66.7% 0.2%	1 33.3% 0.1%	0 0.0% 0.0%	3	100.0% 0.2%
TOTAL	838 52.6% 100.0%	753 47.3% 100.0%	1 0.1% 100.0%	1,592	100.0% 100.0%

TABLE B-5

EMPLOYMENT STATUS OF M.S. AND Ph.D. CHEMISTS by Degree Field
1984 Starting Salary Survey

Masters

EMPLOYMENT STATUS	DEGREE FIELD											TOTAL	-Count -% of Row -% of Col
	General Chem.	Bio-Chem.	Agricul-tural	Analyti-cal	In-Organic	Organic	Pharm.	Physical	Theore-tical	Polymer	Other Chem.		
Full-time in Chemistry	14 20.0% 53.8%	0 0.0% ***.*%	0 0.0% ***.*%	19 27.1% 59.4%	6 8.6% 46.2%	19 27.1% 41.3%	1 1.4% 25.0%	3 4.3% 13.6%	0 0.0% 0.0%	4 5.7% 50.0%	4 5.7% 66.7%	70 100.0% 43.8%	
Full-time in Non-Chemistry	1 33.3% 3.8%	0 0.0% ***.*%	0 0.0% ***.*%	0 0.0% 0.0%	0 0.0% 0.0%	2 66.7% 4.3%	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%	3 100.0% 1.9%	
Assistantship, Postdoctoral, or Other Fellowship	9 12.7% 34.6%	0 0.0% ***.*%	0 0.0% ***.*%	10 14.1% 31.3%	7 9.9% 53.8%	20 28.2% 43.5%	2 2.8% 50.0%	16 22.5% 72.7%	2 2.8% 66.7%	4 5.6% 50.0%	1 1.4% 16.7%	71 100.0% 44.4%	
Unemployed and Seeking Employment	1 12.5% 3.8%	0 0.0% ***.*%	0 0.0% ***.*%	2 25.0% 6.3%	0 0.0% 0.0%	4 50.0% 8.7%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	1 12.5% 16.7%	8 100.0% 5.0%	
Unemployed and Not Seeking Employment	1 20.0% 3.8%	0 0.0% ***.*%	0 0.0% ***.*%	1 20.0% 3.1%	0 0.0% 0.0%	1 20.0% 2.2%	0 0.0% 0.0%	1 20.0% 4.5%	1 20.0% 33.3%	0 0.0% 0.0%	0 0.0% 0.0%	5 100.0% 3.1%	
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%	1 33.3% 25.0%	2 66.7% 9.1%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	3 100.0% 1.9%	
TOTAL	26 16.3% 100.0%	0 0.0% ***.*%	0 0.0% ***.*%	32 20.0% 100.0%	13 8.1% 100.0%	46 28.8% 100.0%	4 2.5% 100.0%	22 13.8% 100.0%	3 1.9% 100.0%	8 5.0% 100.0%	6 3.8% 100.0%	160 100.0% 100.0%	

Doctorate

EMPLOYMENT STATUS	DEGREE FIELD											TOTAL	-Count -% of Row -% of Col
	General Chem.	Bio-Chem.	Agricul-tural	Analyti-cal	In-Organic	Organic	Pharm.	Physical	Theore-tical	Polymer	Other Chem.		
Full-time in Chemistry	5 3.2% 41.7%	0 0.0% ***.*%	0 0.0% ***.*%	34 21.8% 79.1%	24 15.4% 46.2%	52 33.3% 49.1%	0 0.0% ***.*%	27 17.3% 55.1%	2 1.3% 33.3%	5 3.2% 100.0%	7 4.5% 58.3%	156 100.0% 54.7%	
Full-time in Non-Chemistry	1 12.5% 8.3%	0 0.0% ***.*%	0 0.0% ***.*%	0 0.0% 0.0%	2 25.0% 3.8%	0 0.0% 0.0%	0 0.0% ***.*%	3 37.5% 6.1%	1 12.5% 16.7%	0 0.0% 0.0%	1 12.5% 8.3%	8 100.0% 2.8%	
Assistantship, Postdoctoral, or Other Fellowship	4 3.7% 33.3%	0 0.0% ***.*%	0 0.0% ***.*%	7 6.5% 16.3%	25 23.1% 48.1%	50 46.3% 47.2%	0 0.0% ***.*%	17 15.7% 34.7%	3 2.8% 50.0%	0 0.0% 0.0%	2 1.9% 16.7%	108 100.0% 37.9%	
Unemployed and Seeking Employment	2 22.2% 16.7%	0 0.0% ***.*%	0 0.0% ***.*%	2 22.2% 4.7%	1 11.1% 1.9%	2 22.2% 1.9%	0 0.0% ***.*%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	2 22.2% 16.7%	9 100.0% 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%	1 50.0% 0.9%	0 0.0% ***.*%	1 50.0% 2.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	2 100.0% 0.7%	
No Response	0 0.0% 0.0%	0 0.0% ***.*%	0 0.0% ***.*%	0 0.0% 0.0%	0 0.0% 0.0%	1 50.0% 0.9%	0 0.0% ***.*%	1 50.0% 2.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	2 100.0% 0.7%	
TOTAL	12 4.2% 100.0%	0 0.0% ***.*%	0 0.0% ***.*%	43 15.1% 100.0%	52 18.2% 100.0%	106 37.2% 100.0%	0 0.0% ***.*%	49 17.2% 100.0%	6 2.1% 100.0%	5 1.8% 100.0%	12 4.2% 100.0%	285 100.0% 100.0%	

TABLE B-6

EMPLOYMENT STATUS OF B.S. CHEMICAL ENGINEERING GRADUATES by Degree and Sex
1984 Starting Salary Survey

SEX	Bachelors			Masters			Doctorate			
	Men	Women	No Response	Men	Women	No Response	Men	Women	No Response	TOTAL
Full-time in Chemistry	396 65.6% 46.0%	207 34.3% 56.4%	1 0.2% 33.3%	73 79.3% 52.1%	19 20.7% 65.5%	0 0.0% ***.%	31 93.9% 75.6%	2 6.1% 100.0%	0 0.0% 0.0%	33 100.0% 75.0%
Full-time in Non Chemistry	121 76.6% 14.1%	36 22.8% 9.8%	1 0.6% 33.3%	9 75.0% 6.4%	3 25.0% 10.3%	0 0.0% ***.%	1 100.0% 2.4%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 2.3%
Assistantship, or Postdoctoral, or Other Fellowship	114 75.0% 13.2%	37 24.3% 10.1%	1 0.7% 33.3%	45 91.8% 32.1%	4 8.2% 13.8%	0 0.0% ***.%	6 100.0% 14.6%	0 0.0% 0.0%	0 0.0% 0.0%	6 100.0% 13.6%
Unemployed and Seeking Employment	178 72.1% 20.7%	69 27.9% 18.8%	0 0.0% 0.0%	6 85.7% 4.3%	1 14.3% 3.4%	0 0.0% ***.%	7 100.0% 4.1%	0 0.0% 0.0%	0 0.0% 0.0%	7 100.0% 2.3%
Unemployed and Not Seeking Employment	36 67.9% 4.2%	17 32.1% 4.6%	0 0.0% 0.0%	4 80.0% 2.9%	1 20.0% 3.4%	0 0.0% ***.%	5 100.0% 3.0%	0 ***.%	0 ***.%	5 100.0% 0.0%
No Response	16 94.1% 1.9%	1 5.9% 0.5%	0 0.0% 0.0%	3 75.0% 2.1%	1 25.0% 3.4%	0 0.0% ***.%	4 100.0% 1.4%	0 0.0% 0.0%	1 33.3% 100.0%	3 100.0% 6.8%
TOTAL	861 69.9% 100.0%	367 29.8% 100.0%	3 0.2% 100.0%	140 82.8% 100.0%	29 17.2% 100.0%	0 0.0% ***.%	169 100.0% 100.0%	2 4.5% 100.0%	1 2.3% 100.0%	44 100.0% 100.0%

ADVANCED STUDY PLANS FALL 1984										
Full-time	181 77.0% 21.0%	53 22.6% 14.4%	1 0.4% 33.3%	53 93.0% 37.9%	4 7.0% 13.8%	0 0.0% ***.%	57 100.0% 35.7%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 2.3%
Part-time	146 70.5% 17.0%	61 29.5% 16.6%	0 0.0% 0.0%	10 52.6% 7.1%	9 47.4% 31.0%	0 0.0% ***.%	19 100.0% 11.2%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 2.3%
No Plans	530 67.9% 61.6%	248 31.8% 67.6%	2 0.3% 66.7%	76 82.6% 54.3%	16 17.4% 55.2%	0 0.0% ***.%	92 100.0% 54.4%	2 5.1% 100.0%	1 2.6% 100.0%	39 100.0% 88.6%
No Response	4 44.4% 0.5%	5 55.6% 1.4%	0 0.0% 0.0%	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%	3 100.0% 6.8%
TOTAL	861 69.9% 100.0%	367 29.8% 100.0%	3 0.2% 100.0%	140 82.8% 100.0%	29 17.2% 100.0%	0 0.0% ***.%	169 100.0% 100.0%	2 4.5% 100.0%	1 2.3% 100.0%	44 100.0% 100.0%

TABLE B-7

EMPLOYMENT STATUS OF CHEMICAL ENGINEERING GRADUATES BY CITIZENSHIP AND DEGREE
1984 Starting Salary Survey

CITIZENSHIP

EMPLOYMENT STATUS	Bachelors				Masters				Doctorate				TOTAL	-Count -% of Row -% of Col		
	US	Permanent	Other	No	US	Permanent	Other	No	US	Permanent	Other	No				
	Citizen	Resident	Resident	Response	Citizen	Resident	Resident	Response	Citizen	Resident	Resident	Response				
Full-time in Chemistry	597 98.8% 49.6%	7 1.2% 35.0%	0 0.0% 0.0%	0 0.0% 0.0%	88 95.7% 64.7%	0 0.0% 0.0%	4 4.3% 15.4%	0 0.0% 0.0%	0 0.0% 0.0%	30 90.9% 88.2%	1 3.0% 33.3%	2 6.1% 33.3%	0 0.0% 0.0%	33 100.0% 75.0%	1	
Full-time in Non-Chemistry	158 100.0% 13.1%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	10 83.3% 7.4%	1 8.3% 14.3%	1 3.8% 3.8%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 2.9%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 2.3%	1	
Assistantship, Postdoctoral, or Other Fellowship	146 96.1% 12.1%	4 2.6% 20.0%	1 0.7% 16.7%	1 0.7% 100.0%	29 59.2% 21.3%	1 2.0% 14.3%	19 38.8% 73.1%	0 0.0% 0.0%	0 0.0% 0.0%	3 50.0% 8.6%	1 16.7% 33.3%	2 33.3% 33.3%	0 0.0% 0.0%	6 100.0% 13.6%	6	
Unemployed and Seeking Employment	237 96.0% 19.7%	8 3.2% 40.0%	2 0.8% 33.3%	0 0.0% 0.0%	2 28.6% 1.5%	3 42.9% 42.9%	2 28.6% 7.7%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 16.7%	1 16.7% 16.7%	0 0.0% 0.0%	1 100.0% 2.3%	1
Unemployed and Not Seeking Employment	51 96.2% 4.2%	1 1.9% 5.0%	1 1.9% 16.7%	0 0.0% 0.0%	4 80.0% 2.9%	1 20.0% 14.3%	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%	0 0.0% 0.0%	0	
No Response	15 88.2% 1.2%	0 0.0% 0.0%	2 11.8% 33.3%	0 0.0% 0.0%	3 75.0% 2.2%	1 25.0% 14.3%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	1 33.3% 33.3%	1 33.3% 16.7%	1 33.3% 16.7%	1 33.3% 100.0%	3 100.0% 6.8%	3
TOTAL	1,204 97.8% 100.0%	20 1.6% 100.0%	6 0.5% 100.0%	1 0.1% 100.0%	1,231 100.0% 100.0%	7 4.1% 100.0%	26 15.4% 100.0%	0 0.0% 0.0%	0 0.0% 0.0%	34 77.3% 100.0%	3 6.8% 100.0%	6 13.6% 100.0%	1 2.3% 100.0%	44 100.0% 100.0%	44	

EMPLOYMENT STATUS	Bachelors				Masters				Doctorate				TOTAL	-Count -% of Row -% of Col	
	US	Permanent	Other	No	US	Permanent	Other	No	US	Permanent	Other	No			
	Citizen	Resident	Resident	Response	Citizen	Resident	Resident	Response	Citizen	Resident	Resident	Response			
Full-time	222 94.5% 18.4%	7 3.0% 35.0%	5 2.1% 83.3%	1 0.4% 100.0%	35 61.4% 25.7%	3 5.3% 42.9%	19 33.3% 73.1%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	1 16.7% 16.7%	0 0.0% 0.0%	1 100.0% 2.3%	1
Part-time	202 97.6% 16.8%	5 2.4% 25.0%	0 0.0% 0.0%	0 0.0% 0.0%	16 84.2% 11.8%	1 5.3% 14.3%	2 10.5% 7.7%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 2.9%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 2.3%	1
No Plans	771 98.8% 64.0%	8 1.0% 40.0%	1 0.1% 16.7%	0 0.0% 0.0%	85 92.4% 62.5%	3 3.3% 42.9%	4 4.3% 15.4%	0 0.0% 0.0%	0 0.0% 0.0%	33 84.6% 97.1%	1 2.6% 33.3%	4 10.3% 66.7%	1 2.6% 100.0%	39 100.0% 88.6%	39
No Response	9 100.0% 0.7%	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% 3.8%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	2 66.7% 66.7%	1 33.3% 16.7%	0 0.0% 0.0%	3 100.0% 6.8%	3
TOTAL	1,204 97.8% 100.0%	20 1.6% 100.0%	6 0.5% 100.0%	1 0.1% 100.0%	1,231 100.0% 100.0%	7 4.1% 100.0%	26 15.4% 100.0%	0 0.0% 0.0%	0 0.0% 0.0%	34 77.3% 100.0%	3 6.8% 100.0%	6 13.6% 100.0%	1 2.3% 100.0%	44 100.0% 100.0%	44

ADVANCED STUDY PLANS
FALL 1984

TABLE B-8

EMPLOYMENT STATUS of MINORITY CHEMICAL ENGINEERING GRADUATES by Degree
1984 Starting Salary Survey

EMPLOYMENT STATUS	HIGHEST DEGREE				TOTAL	
	B.S.	M.S.	Ph.D.	No Response		
Full-time in Chemistry	50 76.9% 49.0%	10 15.4% 31.3%	4 6.2% 36.4%	1 1.5% 50.0%	65 100.0% 44.2%	-Count -% of Row -% of Col
Full-time in Non-Chemistry	8 80.0% 7.8%	2 20.0% 6.3%	0 0.0% 0.0%	0 0.0% 0.0%	10 100.0% 6.8%	
Assistantship, Postdoctoral, or Other Fellowship	11 39.3% 10.8%	13 46.4% 40.6%	4 14.3% 36.4%	0 0.0% 0.0%	28 100.0% 19.0%	
Unemployed and Seeking Employment	21 77.8% 20.6%	4 14.8% 12.5%	1 3.7% 9.1%	1 3.7% 50.0%	27 100.0% 18.4%	
Unemployed and Not Seeking Employment	9 90.0% 8.8%	1 10.0% 3.1%	0 0.0% 0.0%	0 0.0% 0.0%	10 100.0% 6.8%	
No Response	3 42.9% 2.9%	2 28.6% 6.3%	2 28.6% 18.2%	0 0.0% 0.0%	7 100.0% 4.8%	
TOTAL	102 69.4% 100.0%	32 21.8% 100.0%	11 7.5% 100.0%	2 1.4% 100.0%	147 100.0% 100.0%	

ADVANCED STUDY PLANS
FALL 1984

Full-time	23 60.5% 22.5%	14 36.8% 43.8%	1 2.6% 9.1%	0 0.0% 0.0%	38 100.0% 25.9%	
Part-time	22 75.9% 21.6%	5 17.2% 15.6%	1 3.4% 9.1%	1 3.4% 50.0%	29 100.0% 19.7%	
No Plans	57 75.0% 55.9%	12 15.8% 37.5%	6 7.9% 54.5%	1 1.3% 50.0%	76 100.0% 51.7%	
No Response	0 0.0% 0.0%	1 25.0% 3.1%	3 75.0% 27.3%	0 0.0% 0.0%	4 100.0% 2.7%	
TOTAL	102 69.4% 100.0%	32 21.8% 100.0%	11 7.5% 100.0%	2 1.4% 100.0%	147 100.0% 100.0%	

TABLE C-1

FIELD of ADVANCED STUDIES of CHEMISTS WHO PLAN FULL-TIME or PART-TIME STUDIES in FALL 1984 by Degree and Sex
1984 Starting Salary Survey

STUDY FIELD	Bachelors				Masters				Doctorate				TOTAL	-Count 100.0% -% of Row -% of Col
	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL		
Chemistry	280 69.1% 39.4%	125 30.9% 36.9%	0 0.0% 0.0%	405 100.0% 38.5%	45 67.2% 84.9%	22 32.8% 71.0%	0 0.0% ***.0%	67 100.0% 79.8%	20 90.9% 64.5%	2 9.1% 40.0%	0 0.0% ***.0%	22 100.0% 61.1%		
Other Physical Science	10 47.6% 1.4%	11 52.4% 3.2%	0 0.0% 0.0%	21 100.0% 2.0%	1 50.0% 1.9%	1 50.0% 3.2%	0 0.0% ***.0%	2 100.0% 2.4%	4 100.0% 12.9%	0 0.0% 0.0%	0 0.0% ***.0%	4 100.0% 11.1%		
Chemical Engineering	12 66.7% 1.7%	6 33.3% 1.8%	0 0.0% 0.0%	18 100.0% 1.7%	1 100.0% 1.9%	0 0.0% 0.0%	0 0.0% ***.0%	1 100.0% 1.2%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%		
Other Engineering	10 52.6% 1.4%	9 47.4% 2.7%	0 0.0% 0.0%	19 100.0% 1.8%	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%		
Biochemistry	49 64.5% 6.9%	27 35.5% 8.0%	0 0.0% 0.0%	76 100.0% 7.2%	0 0.0% 0.0%	3 100.0% 9.7%	0 0.0% ***.0%	3 100.0% 3.6%	2 100.0% 6.5%	0 0.0% 0.0%	0 0.0% ***.0%	2 100.0% 5.6%		
Life Science	16 59.3% 2.3%	11 40.7% 3.2%	0 0.0% 0.0%	27 100.0% 2.6%	0 0.0% 0.0%	1 100.0% 3.2%	0 0.0% ***.0%	1 100.0% 1.2%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%		
Medicine	217 72.3% 30.5%	83 27.7% 24.5%	0 0.0% 0.0%	300 100.0% 28.5%	1 50.0% 1.9%	1 50.0% 3.2%	0 0.0% ***.0%	2 100.0% 2.4%	1 50.0% 3.2%	1 50.0% 20.0%	0 0.0% ***.0%	2 100.0% 5.6%		
Dentistry	38 82.6% 5.3%	8 17.4% 2.4%	0 0.0% 0.0%	46 100.0% 4.4%	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% ***.0%	0 ***.0% 0.0%		
Pharmacy	8 44.4% 1.1%	9 50.0% 2.7%	1 5.6% 100.0%	18 100.0% 1.7%	1 50.0% 1.9%	1 50.0% 3.2%	0 0.0% ***.0%	2 100.0% 2.4%	1 100.0% 3.2%	0 0.0% 0.0%	0 0.0% ***.0%	1 100.0% 2.8%		
Business	29 69.0% 4.1%	13 31.0% 3.8%	0 0.0% 0.0%	42 100.0% 4.0%	2 100.0% 3.8%	0 0.0% 0.0%	0 0.0% ***.0%	2 100.0% 2.4%	1 33.3% 3.2%	2 66.7% 40.0%	0 0.0% ***.0%	3 100.0% 8.3%		
Education	5 50.0% 0.7%	5 50.0% 1.5%	0 0.0% 0.0%	10 100.0% 1.0%	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%		
Law	6 66.7% 0.8%	3 33.3% 0.9%	0 0.0% 0.0%	9 100.0% 0.9%	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%		
Social Science	3 33.3% 0.4%	6 66.7% 1.8%	0 0.0% 0.0%	9 100.0% 0.9%	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%		
Other	22 52.4% 3.1%	20 47.6% 5.9%	0 0.0% 0.0%	42 100.0% 4.0%	1 33.3% 1.9%	2 66.7% 6.5%	0 0.0% ***.0%	3 100.0% 3.6%	1 33.3% 3.2%	0 0.0% 0.0%	0 0.0% ***.0%	1 100.0% 2.8%		
No Response	6 66.7% 0.8%	3 33.3% 0.9%	0 0.0% 0.0%	9 100.0% 0.9%	1 100.0% 1.9%	0 0.0% 0.0%	0 0.0% ***.0%	1 100.0% 1.2%	1 100.0% 3.2%	0 0.0% 0.0%	0 0.0% ***.0%	1 100.0% 2.8%		
TOTAL	711 67.6% 100.0%	339 32.3% 100.0%	1 0.1% 100.0%	1,051 100.0% 100.0%	53 63.1% 100.0%	31 36.9% 100.0%	0 0.0% ***.0%	84 100.0% 100.0%	31 86.1% 100.0%	5 13.9% 100.0%	0 0.0% ***.0%	36 100.0% 100.0%		

TABLE C-2

FIELD of ADVANCED STUDIES of B.S. CHEMISTRY GRADUATES WHO PLAN FULL-TIME
or PART-TIME STUDIES in Fall 1984 by Certification Status
1984 Starting Salary Survey

STUDY FIELD	CERTIFICATION			TOTAL	
	Certi- fied	Non- Cert.	No Response		
Chemistry	306 75.6% 56.5%	98 24.2% 19.3%	1 0.2% 100.0%	405	-Count 100.0% 38.5%
Other Physical Science	14 66.7% 2.6%	7 33.3% 1.4%	0 0.0% 0.0%	21	100.0% 2.0%
Chemical Engineering	8 44.4% 1.5%	10 55.6% 2.0%	0 0.0% 0.0%	18	100.0% 1.7%
Other Engineering	7 36.8% 1.3%	12 63.2% 2.4%	0 0.0% 0.0%	19	100.0% 1.8%
Biochemistry	44 57.9% 8.1%	32 42.1% 6.3%	0 0.0% 0.0%	76	100.0% 7.2%
Life Science	11 40.7% 2.0%	16 59.3% 3.1%	0 0.0% 0.0%	27	100.0% 2.6%
Medicine	80 26.7% 14.8%	220 73.3% 43.3%	0 0.0% 0.0%	300	100.0% 28.5%
Dentistry	8 17.4% 1.5%	38 82.6% 7.5%	0 0.0% 0.0%	46	100.0% 4.4%
Pharmacy	8 44.4% 1.5%	10 55.6% 2.0%	0 0.0% 0.0%	18	100.0% 1.7%
Business	22 52.4% 4.1%	20 47.6% 3.9%	0 0.0% 0.0%	42	100.0% 4.0%
Education	7 70.0% 1.3%	3 30.0% 0.6%	0 0.0% 0.0%	10	100.0% 1.0%
Law	2 22.2% 0.4%	7 77.8% 1.4%	0 0.0% 0.0%	9	100.0% 0.9%
Social Science	4 44.4% 0.7%	5 55.6% 1.0%	0 0.0% 0.0%	9	100.0% 0.9%
Other	20 47.6% 3.7%	22 52.4% 4.3%	0 0.0% 0.0%	42	100.0% 4.0%
No Response	1 11.1% 0.2%	8 88.9% 1.6%	0 0.0% 0.0%	9	100.0% 0.9%
TOTAL	542 51.6% 100.0%	508 48.3% 100.0%	1 0.1% 100.0%	1,051	100.0% 100.0%

TABLE C-3

FIELD of ADVANCED STUDIES of CHEMICAL ENGINEERING GRADUATES WHO RAN
 FULL-TIME or PART-TIME STUDIES in Fall 1984 by Degree and Sex
 1984 Starting Salary Survey

STUDY FIELD	Bachelors				Masters				
	SEX		No Response	TOTAL	Men	Women	No Response	TOTAL	
	Men	Women							
Chemistry	13 81.3% 4.0%	3 18.8% 2.6%	0 0.0% 0.0%	16 100.0% 3.6%	1 50.0% 1.6%	1 50.0% 7.7%	0 0.0% ***.>%	2 100.0% 2.6%	-Count -% of Row -% of Col
Other Physical Science	14 82.4% 4.3%	3 17.6% 2.6%	0 0.0% 0.0%	17 100.0% 3.8%	1 100.0% 1.6%	0 0.0% 0.0%	0 0.0% ***.>%	1 100.0% 1.3%	
Chemical Engineering	122 73.5% 37.3%	43 25.9% 37.7%	1 0.6% 100.0%	166 100.0% 37.6%	50 86.2% 79.4%	8 13.8% 61.5%	0 0.0% ***.>%	58 100.0% 76.3%	
Other Engineering	53 76.8% 16.2%	16 23.2% 14.0%	0 0.0% 0.0%	69 100.0% 15.6%	3 75.0% 4.8%	1 25.0% 7.7%	0 0.0% ***.>%	4 100.0% 5.3%	
Biochemistry	4 100.0% 1.2%	0 0.0% 0.0%	0 0.0% 0.0%	4 100.0% 0.9%	0 ***.>% 0.0%	0 ***.>% 0.0%	0 ***.>% ***.>%	0 ***.>% 0.0%	
Life Science	2 66.7% 0.6%	1 33.3% 0.9%	0 0.0% 0.0%	3 100.0% 0.7%	0 ***.>% 0.0%	0 ***.>% 0.0%	0 ***.>% ***.>%	0 ***.>% 0.0%	
Medicine	16 66.7% 4.9%	8 33.3% 7.0%	0 0.0% 0.0%	24 100.0% 5.4%	1 100.0% 1.6%	0 0.0% 0.0%	0 0.0% ***.>%	1 100.0% 1.3%	
Dentistry	2 66.7% 0.6%	1 33.3% 0.9%	0 0.0% 0.0%	3 100.0% 0.7%	0 ***.>% 0.0%	0 ***.>% 0.0%	0 ***.>% ***.>%	0 ***.>% 0.0%	
Pharmacy	0 ***.>% 0.0%	0 ***.>% 0.0%	0 ***.>% 0.0%	0 ***.>% 0.0%	0 ***.>% 0.0%	0 ***.>% 0.0%	0 ***.>% ***.>%	0 ***.>% 0.0%	
Business	72 71.3% 22.0%	29 28.7% 25.4%	0 0.0% 0.0%	101 100.0% 22.9%	4 66.7% 6.3%	2 33.3% 15.4%	0 0.0% ***.>%	6 100.0% 7.9%	
Education	1 50.0% 0.3%	1 50.0% 0.9%	0 0.0% 0.0%	2 100.0% 0.5%	0 ***.>% 0.0%	0 ***.>% 0.0%	0 ***.>% ***.>%	0 ***.>% 0.0%	
Law	9 75.0% 2.8%	3 25.0% 2.6%	0 0.0% 0.0%	12 100.0% 2.7%	1 100.0% 1.6%	0 0.0% 0.0%	0 0.0% ***.>%	1 100.0% 1.3%	
Social Science	3 75.0% 0.9%	1 25.0% 0.9%	0 0.0% 0.0%	4 100.0% 0.9%	0 ***.>% 0.0%	0 ***.>% 0.0%	0 ***.>% ***.>%	0 ***.>% 0.0%	
Other	12 70.6% 3.7%	5 29.4% 4.4%	0 0.0% 0.0%	17 100.0% 3.8%	2 66.7% 3.2%	1 33.3% 7.7%	0 0.0% ***.>%	3 100.0% 3.9%	
No Response	4 100.0% 1.2%	0 0.0% 0.0%	0 0.0% 0.0%	4 100.0% 0.9%	0 ***.>% 0.0%	0 ***.>% 0.0%	0 ***.>% ***.>%	0 ***.>% 0.0%	
TOTAL	327 74.0% 100.0%	114 25.8% 100.0%	1 0.2% 100.0%	442 100.0% 100.0%	63 82.9% 100.0%	13 17.1% 100.0%	0 0.0% ***.>%	76 100.0% 100.0%	

TABLE C-4

FIELD of ADVANCED STUDIES of CHEMISTRY GRADUATES WHO PLAN FULL-TIME STUDIES
In FALL 1984 by Degree and Sex
1984 Starting Salary Survey

STUDY FIELD	Bachelors				Masters				Doctorate				TOTAL	-Count -% of Row -% of Col	
	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL			
Chemistry	239 70.7% 39.4%	99 29.3% 37.6%	0 0.0% 0.0%	338 100.0% 38.9%	41 67.2% 93.2%	20 32.8% 71.4%	0 0.0% ***.%	61 100.0% 84.7%	19 90.5% 76.0%	2 9.5% 66.7%	0 0.0% ***.%	21 100.0% 75.0%			
Other Physical Sciences	5 55.6% 0.8%	4 44.4% 1.5%	0 0.0% 0.0%	9 100.0% 1.0%	1 50.0% 2.3%	1 50.0% 3.6%	0 0.0% ***.%	2 100.0% 2.8%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 0.0%		
Chemical Engineering	8 80.0% 1.3%	2 20.0% 0.8%	0 0.0% 0.0%	10 100.0% 1.1%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 0.0%		
Other Engineering	5 45.5% 0.8%	6 54.5% 2.3%	0 0.0% 0.0%	11 100.0% 1.3%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 0.0%		
Biochemistry	44 66.7% 7.3%	22 33.3% 8.4%	0 0.0% 0.0%	66 100.0% 7.6%	0 0.0% 0.0%	3 100.0% 10.7%	0 0.0% ***.%	3 100.0% 4.2%	2 100.0% 8.0%	0 0.0% 0.0%	0 0.0% ***.%	2 100.0% 7.1%			
Life Science	11 68.8% 1.8%	5 31.2% 1.9%	0 0.0% 0.0%	16 100.0% 1.8%	0 0.0% 0.0%	1 100.0% 3.6%	0 0.0% ***.%	1 100.0% 1.4%	0 ***.%	0 ***.%	0 ***.%	0 0.0%			
Medicine	210 72.2% 34.7%	81 27.8% 30.8%	0 0.0% 0.0%	291 100.0% 33.4%	1 50.0% 2.3%	1 50.0% 3.6%	0 0.0% ***.%	2 100.0% 2.8%	1 50.0% 4.0%	1 50.0% 33.3%	0 0.0% ***.%	2 100.0% 7.1%			
Dentistry	37 82.2% 6.1%	8 17.8% 3.0%	0 0.0% 0.0%	45 100.0% 5.2%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 0.0%			
Pharmacy	8 47.1% 1.3%	8 47.1% 3.0%	1 5.9% 100.0%	17 100.0% 2.0%	0 0.0% 0.0%	1 100.0% 3.6%	0 0.0% ***.%	1 100.0% 1.4%	1 100.0% 4.0%	0 0.0% 0.0%	0 0.0% ***.%	1 100.0% 3.6%			
Business	8 57.1% 1.3%	6 42.9% 2.3%	0 0.0% 0.0%	14 100.0% 1.6%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 0.0%			
Education	3 42.9% 0.5%	4 57.1% 1.5%	0 0.0% 0.0%	7 100.0% 0.8%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 0.0%			
Law	6 75.0% 1.0%	2 25.0% 0.8%	0 0.0% 0.0%	8 100.0% 0.9%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 0.0%			
Social Science	2 66.7% 0.3%	1 33.3% 0.4%	0 0.0% 0.0%	3 100.0% 0.3%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 0.0%			
Other	16 55.2% 2.6%	13 44.8% 4.9%	0 0.0% 0.0%	29 100.0% 3.3%	0 0.0% 0.0%	1 100.0% 3.6%	0 0.0% ***.%	1 100.0% 1.4%	1 100.0% 4.0%	0 0.0% 0.0%	0 0.0% ***.%	1 100.0% 3.6%			
No Response	4 66.7% 0.7%	2 33.3% 0.8%	0 0.0% 0.0%	6 100.0% 0.7%	1 100.0% 2.3%	0 0.0% 0.0%	0 0.0% ***.%	1 100.0% 1.4%	1 100.0% 4.0%	0 0.0% 0.0%	0 0.0% ***.%	1 100.0% 3.6%			
TOTAL	606 69.7% 100.0%	263 30.2% 100.0%	1 0.1% 100.0%	870 100.0% 100.0%	44 61.1% 100.0%	28 38.9% 100.0%	0 0.0% ***.%	72 100.0% 100.0%	25 89.3% 100.0%	3 10.7% 100.0%	0 0.0% ***.%	28 100.0% 100.0%			

TABLE C-5

FIELD of ADVANCED STUDIES of B.S. CHEMISTRY GRADUATES WHO PLAN FULL-TIME STUDIES in FALL 1984 by Certification Status
1984 Starting Salary Survey

STUDY FIELD	CERTIFICATION			TOTAL	
	Certi- fied	Non- Cert.	No Response		
Chemistry	263 77.8% 58.6%	74 21.9% 17.6%	1 0.3% 100.0%	338 100.0% 38.9%	-Count -% of Row -% of Col
Other Physical Science	7 77.8% 1.6%	2 22.2% 0.5%	0 0.0% 0.0%	9 100.0% 1.0%	
Chemical Engineering	5 50.0% 1.1%	5 50.0% 1.2%	0 0.0% 0.0%	10 100.0% 1.1%	
Other Engineering	5 45.5% 1.1%	6 54.5% 1.4%	0 0.0% 0.0%	11 100.0% 1.3%	
Biochemistry	42 63.6% 9.4%	24 36.4% 5.7%	0 0.0% 0.0%	66 100.0% 7.6%	
Life Science	7 43.8% 1.6%	9 56.3% 2.1%	0 0.0% 0.0%	16 100.0% 1.8%	
Medicine	78 26.8% 17.4%	213 73.2% 50.7%	0 0.0% 0.0%	291 100.0% 33.4%	
Dentistry	7 15.6% 1.6%	38 84.4% 9.0%	0 0.0% 0.0%	45 100.0% 5.2%	
Pharmacy	8 47.1% 1.8%	9 52.9% 2.1%	0 0.0% 0.0%	17 100.0% 2.0%	
Business	5 35.7% 1.1%	9 64.3% 2.1%	0 0.0% 0.0%	14 100.0% 1.6%	
Education	5 71.4% 1.1%	2 28.6% 0.5%	0 0.0% 0.0%	7 100.0% 0.8%	
Law	2 25.0% 0.4%	6 75.0% 1.4%	0 0.0% 0.0%	8 100.0% 0.9%	
Social Science	2 66.7% 0.4%	1 33.3% 0.2%	0 0.0% 0.0%	3 100.0% 0.3%	
Other	12 41.4% 2.7%	17 58.6% 4.0%	0 0.0% 0.0%	29 100.0% 3.3%	
No Response	1 16.7% 0.2%	5 83.3% 1.2%	0 0.0% 0.0%	6 100.0% 0.7%	
TOTAL	449 51.6% 100.0%	420 48.3% 100.0%	1 0.1% 100.0%	870 100.0% 100.0%	

TABLE C-6

FIELD of ADVANCED STUDIES of CHEMICAL ENGINEERING GRADUATES WHO PLAN
FULL-TIME STUDIES in Fall 1984, by Degree and Sex
1984 Starting Salary Survey

STUDY FIELD	Bachelors				Masters				
	SEX		No Response	TOTAL	Men	Women	No Response	TOTAL	
	Men	Women							
Chemistry	9 90.0% 5.0%	1 10.0% 1.9%	0 0.0% 0.0%	10 100.0% 4.3%	0 0.0% 0.0%	1 100.0% 25.0%	0 0.0% ***.0%	1 100.0% 1.8%	-Count -% of Row -% of Col
Other Physical Science	5 83.3% 2.8%	1 16.7% 1.9%	0 0.0% 0.0%	6 100.0% 2.6%	1 100.0% 1.9%	0 0.0% 0.0%	0 0.0% ***.0%	1 100.0% 1.8%	
Chemical Engineering	88 72.7% 48.6%	32 26.4% 60.4%	1 0.8% 100.0%	121 100.0% 51.5%	48 94.1% 90.6%	3 5.9% 75.0%	0 0.0% ***.0%	51 100.0% 89.5%	
Other Engineering	29 90.6% 16.0%	3 9.4% 5.7%	0 0.0% 0.0%	32 100.0% 13.6%	1 100.0% 1.9%	0 0.0% 0.0%	0 0.0% ***.0%	1 100.0% 1.8%	
Biochemistry	2 100.0% 1.1%	0 0.0% 0.0%	0 0.0% 0.0%	2 100.0% 0.9%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	
Life Science	1 100.0% 0.6%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 0.4%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	
Medicine	15 68.2% 8.3%	7 31.8% 13.2%	0 0.0% 0.0%	22 100.0% 9.4%	1 100.0% 1.9%	0 0.0% 0.0%	0 0.0% ***.0%	1 100.0% 1.8%	
Dentistry	1 50.0% 0.6%	1 50.0% 1.9%	0 0.0% 0.0%	2 100.0% 0.9%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	
Pharmacy	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%	
Business	19 79.2% 10.5%	5 20.8% 9.4%	0 0.0% 0.0%	24 100.0% 10.2%	1 100.0% 1.9%	0 0.0% 0.0%	0 0.0% ***.0%	1 100.0% 1.8%	
Education	1 100.0% 0.6%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 0.4%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	
Law	7 87.5% 3.9%	1 12.5% 1.9%	0 0.0% 0.0%	8 100.0% 3.4%	1 100.0% 1.9%	0 0.0% 0.0%	0 0.0% ***.0%	1 100.0% 1.8%	
Social Science	1 100.0% 0.6%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 0.4%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	
Other	2 50.0% 1.1%	2 50.0% 3.8%	0 0.0% 0.0%	4 100.0% 1.7%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	
No Response	1 100.0% 0.6%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 0.4%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	
TOTAL	181 77.0% 100.0%	53 22.6% 100.0%	1 0.4% 100.0%	235 100.0% 100.0%	53 93.0% 100.0%	4 7.0% 100.0%	0 0.0% ***.0%	57 100.0% 100.0%	

TABLE C-7

B.S. CHEMISTRY GRADUATES UNEMPLOYED and NOT SEEKING EMPLOYMENT
by PLANS FOR FURTHER STUDIES and Sex
1984 Starting Salary Survey

ADVANCED STUDIES	SEX			TOTAL	
	Men	Women	No Response		
Full-time	201 69.6% 92.6%	87 30.1% 87.0%	1 0.3% 100.0%	289 100.0% 90.9%	-Count -% of Row -% of Col
Part-time	8 61.5% 3.7%	5 38.5% 5.0%	0 0.0% 0.0%	13 100.0% 4.1%	
No Plans	8 50.0% 3.7%	8 50.0% 8.0%	0 0.0% 0.0%	16 100.0% 5.0%	
No Response	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	
TOTAL	217 68.2% 100.0%	100 31.4% 100.0%	1 0.3% 100.0%	318 100.0% 100.0%	

TABLE C-8

B.S. CHEMICAL ENGINEERING GRADUATES UNEMPLOYED and NOT SEEKING
 EMPLOYMENT by PLANS FOR FURTHER STUDIES and Sex
 1984 Starting Salary Survey

ADVANCED STUDIES	SEX		No Response	TOTAL	
	Men	Women			
Full-time	33	12	0	45	-Count
	73.3%	26.7%	0.0%	100.0%	-% of Row
	91.7%	70.6%	***.0%	84.9%	-% of Col
Part-time	0	2	0	2	
	0.0%	100.0%	0.0%	100.0%	
	0.0%	11.8%	***.0%	3.8%	
No Plans	3	3	0	6	
	50.0%	50.0%	0.0%	100.0%	
	8.3%	17.6%	***.0%	11.3%	
No Response	0	0	0	0	
	***.0%	***.0%	***.0%	***.0%	
	0.0%	0.0%	***.0%	0.0%	
TOTAL	36	17	0	53	
	67.9%	32.1%	0.0%	100.0%	
	100.0%	100.0%	***.0%	100.0%	

TABLE D-1

AGE DISTRIBUTION of B.S. CHEMISTRY and CHEMICAL ENGINEERING GRADUATES by Sex
1984 Starting Salary Survey

AGE LEVEL	Chemistry				Chemical Engineering				
	SEX		No Response	TOTAL	SEX		No Response	TOTAL	
	Men	Women			Men	Women			
20	10 55.6% 1.0%	8 44.4% 1.3%	0 0.0% 0.0%	18 100.0% 1.1%	4 100.0% 0.5%	0 0.0% 0.0%	0 0.0% 0.0%	4 100.0% 0.3%	-Count -% of Row -% of Col
21	161 57.7% 16.2%	118 42.3% 19.8%	0 0.0% 0.0%	279 100.0% 17.5%	113 64.9% 13.1%	60 34.5% 16.3%	1 0.6% 33.3%	174 100.0% 14.1%	
22	487 60.6% 48.9%	315 39.2% 52.9%	1 0.1% 50.0%	803 100.0% 50.4%	388 68.1% 45.1%	182 31.9% 49.6%	0 0.0% 0.0%	570 100.0% 46.3%	
23	166 67.8% 16.7%	79 32.2% 13.3%	0 0.0% 0.0%	245 100.0% 15.4%	220 73.8% 25.6%	78 26.2% 21.3%	0 0.0% 0.0%	298 100.0% 24.2%	
24	53 71.6% 5.3%	21 28.4% 3.5%	0 0.0% 0.0%	74 100.0% 4.6%	46 70.8% 5.3%	17 26.2% 4.6%	2 3.1% 66.7%	65 100.0% 5.3%	
25	25 78.1% 2.5%	7 21.9% 1.2%	0 0.0% 0.0%	32 100.0% 2.0%	27 79.4% 3.1%	7 20.6% 1.9%	0 0.0% 0.0%	34 100.0% 2.8%	
26	27 84.4% 2.7%	5 15.6% 0.8%	0 0.0% 0.0%	32 100.0% 2.0%	13 61.9% 1.5%	8 38.1% 2.2%	0 0.0% 0.0%	21 100.0% 1.7%	
27	10 52.6% 1.0%	9 47.4% 1.5%	0 0.0% 0.0%	19 100.0% 1.2%	13 76.5% 1.5%	4 23.5% 1.1%	0 0.0% 0.0%	17 100.0% 1.4%	
28	12 75.0% 1.2%	4 25.0% 0.7%	0 0.0% 0.0%	16 100.0% 1.0%	6 54.5% 0.7%	5 45.5% 1.4%	0 0.0% 0.0%	11 100.0% 0.9%	
29	14 77.8% 1.4%	4 22.2% 0.7%	0 0.0% 0.0%	18 100.0% 1.1%	7 87.5% 0.8%	1 12.5% 0.3%	0 0.0% 0.0%	8 100.0% 0.6%	
30-34	25 71.4% 2.5%	10 28.6% 1.7%	0 0.0% 0.0%	35 100.0% 2.2%	18 94.7% 2.1%	1 5.3% 0.3%	0 0.0% 0.0%	19 100.0% 1.5%	
35-39	3 33.3% 0.3%	6 66.7% 1.0%	0 0.0% 0.0%	9 100.0% 0.6%	1 25.0% 0.1%	3 75.0% 0.8%	0 0.0% 0.0%	4 100.0% 0.3%	
40-49	0 0.0% 0.0%	6 100.0% 1.0%	0 0.0% 0.0%	6 100.0% 0.4%	3 100.0% 0.3%	0 0.0% 0.0%	0 0.0% 0.0%	3 100.0% 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%	0 ***.0% 0.0%	0 ***.0% 0.0%	
No Response	2 33.3% 0.2%	3 50.0% 0.5%	1 16.7% 50.0%	6 100.0% 0.4%	2 66.7% 0.2%	1 33.3% 0.3%	0 0.0% 0.0%	3 100.0% 0.2%	
TOTAL	995 62.5% 100.0%	595 37.4% 100.0%	2 0.1% 100.0%	1,592 100.0% 100.0%	861 69.9% 100.0%	367 29.8% 100.0%	3 0.2% 100.0%	1,231 100.0% 100.0%	

TABLE D-2

AGE DISTRIBUTION of M.S. CHEMISTRY and CHEMICAL ENGINEERING by Sex
1984 Starting Salary Survey

AGE LEVEL	Chemistry				Chemical Engineering				
	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	
21	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	0 0.0% 0.0%	1 100.0% 3.4%	0 0.0% ***.0%	1 100.0% 0.6%	-Count -% of Row -% of Col
22	1 50.0% 1.0%	1 50.0% 1.7%	0 0.0% ***.0%	2 100.0% 1.3%	4 80.0% 2.9%	1 20.0% 3.4%	0 0.0% ***.0%	5 100.0% 3.0%	
23	4 80.0% 4.0%	1 20.0% 1.7%	0 0.0% ***.0%	5 100.0% 3.1%	15 71.4% 10.7%	6 28.6% 20.7%	0 0.0% ***.0%	21 100.0% 12.4%	
24	19 73.1% 18.8%	7 26.9% 11.9%	0 0.0% ***.0%	26 100.0% 16.3%	31 86.1% 22.1%	5 13.9% 17.2%	0 0.0% ***.0%	36 100.0% 21.3%	
25	23 62.2% 22.8%	14 37.8% 23.7%	0 0.0% ***.0%	37 100.0% 23.1%	24 82.8% 17.1%	5 17.2% 17.2%	0 0.0% ***.0%	29 100.0% 17.2%	
26	10 55.6% 9.9%	8 44.4% 13.6%	0 0.0% ***.0%	18 100.0% 11.3%	23 88.5% 16.4%	3 11.5% 10.3%	0 0.0% ***.0%	26 100.0% 15.4%	
27	4 26.7% 4.0%	11 73.3% 18.6%	0 0.0% ***.0%	15 100.0% 9.4%	13 92.9% 9.3%	1 7.1% 3.4%	0 0.0% ***.0%	14 100.0% 8.3%	
28	5 83.3% 5.0%	1 16.7% 1.7%	0 0.0% ***.0%	6 100.0% 3.8%	7 87.5% 5.0%	1 12.5% 3.4%	0 0.0% ***.0%	8 100.0% 4.7%	
29	8 66.7% 7.9%	4 33.3% 6.8%	0 0.0% ***.0%	12 100.0% 7.5%	5 71.4% 3.6%	2 28.6% 6.9%	0 0.0% ***.0%	7 100.0% 4.1%	
30-34	19 76.0% 18.8%	6 24.0% 10.2%	0 0.0% ***.0%	25 100.0% 15.6%	13 81.3% 9.3%	3 18.8% 10.3%	0 0.0% ***.0%	16 100.0% 9.5%	
35-39	7 77.8% 6.9%	2 22.2% 3.4%	0 0.0% ***.0%	9 100.0% 5.6%	3 75.0% 2.1%	1 25.0% 3.4%	0 0.0% ***.0%	4 100.0% 2.4%	
40-49	0 0.0% 0.0%	3 100.0% 5.1%	0 0.0% ***.0%	3 100.0% 1.9%	1 100.0% 0.7%	0 0.0% 0.0%	0 0.0% ***.0%	1 100.0% 0.6%	
50-64	1 100.0% 1.0%	0 0.0% 0.0%	0 0.0% ***.0%	1 100.0% 0.6%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	
No Response	0 0.0% 0.0%	1 100.0% 1.7%	0 0.0% ***.0%	1 100.0% 0.6%	1 100.0% 0.7%	0 0.0% 0.0%	0 0.0% ***.0%	1 100.0% 0.6%	
TOTAL	101 63.1% 100.0%	59 36.9% 100.0%	0 0.0% ***.0%	160 100.0% 100.0%	140 82.8% 100.0%	29 17.2% 100.0%	0 0.0% ***.0%	169 100.0% 100.0%	

TABLE D-3

AGE DISTRIBUTION of Ph.D. CHEMISTRY and CHEMICAL ENGINEERING GRADUATES by Sex
1984 Starting Salary Survey

AGE LEVEL	Chemistry				Chemical Engineering				
	SEX			TOTAL	SEX			TOTAL	
	Men	Women	No Response		Men	Women	No Response		
23	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	0 0.0% 0.0%	1 100.0% 1.7%	0 0.0% 0.0%	1 100.0% 0.3%	-Count -% of Row -% of Col
24	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%	
25	1 50.0% 0.4%	1 50.0% 1.7%	0 0.0% ***.0%	2 100.0% 0.7%	3 75.0% 1.1%	1 25.0% 1.7%	0 0.0% 0.0%	4 100.0% 1.2%	
26	23 76.7% 10.1%	7 23.3% 12.1%	0 0.0% ***.0%	30 100.0% 10.5%	25 78.1% 9.3%	7 21.9% 11.7%	0 0.0% 0.0%	32 100.0% 9.7%	
27	46 71.9% 20.3%	18 28.1% 31.0%	0 0.0% ***.0%	64 100.0% 22.5%	53 73.6% 19.8%	19 26.4% 31.7%	0 0.0% 0.0%	72 100.0% 21.9%	
28	55 88.7% 24.2%	7 11.3% 12.1%	0 0.0% ***.0%	62 100.0% 21.8%	67 90.5% 25.0%	7 9.5% 11.7%	0 0.0% 0.0%	74 100.0% 22.5%	
29	27 62.8% 11.9%	16 37.2% 27.6%	0 0.0% ***.0%	43 100.0% 15.1%	31 66.0% 11.6%	16 34.0% 26.7%	0 0.0% 0.0%	47 100.0% 14.3%	
30-34	57 89.1% 25.1%	7 10.9% 12.1%	0 0.0% ***.0%	64 100.0% 22.5%	69 90.8% 25.7%	7 9.2% 11.7%	0 0.0% 0.0%	76 100.0% 23.1%	
35-39	12 92.3% 5.3%	1 7.7% 1.7%	0 0.0% ***.0%	13 100.0% 4.6%	14 93.3% 5.2%	1 6.7% 1.7%	0 0.0% 0.0%	15 100.0% 4.6%	
40-49	5 83.3% 2.2%	1 16.7% 1.7%	0 0.0% ***.0%	6 100.0% 2.1%	5 83.3% 1.9%	1 16.7% 1.7%	0 0.0% 0.0%	6 100.0% 1.8%	
50-64	1 100.0% 0.4%	0 0.0% 0.0%	0 0.0% ***.0%	1 100.0% 0.4%	1 100.0% 0.4%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 0.3%	
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%	1 100.0% 100.0%	1 100.0% 0.3%	
TOTAL	227 79.6% 100.0%	58 20.4% 100.0%	0 0.0% ***.0%	285 100.0% 100.0%	268 81.5% 100.0%	60 18.2% 100.0%	1 0.3% 100.0%	329 100.0% 100.0%	

TABLE D-4

AGE DISTRIBUTION of POSTDOCTORAL CHEMISTS by Sex
1984 Starting Salary Survey

AGE LEVEL	SEX		No Response	TOTAL	
	Men	Women			
26	9 81.8% 10.3%	2 18.2% 9.5%	0 0.0% ***. *%	11	-Count 100.0% -% of Row 10.2% -% of Col
27	19 67.9% 21.8%	9 32.1% 42.9%	0 0.0% ***. *%	28	100.0% 25.9%
28	25 92.6% 28.7%	2 7.4% 9.5%	0 0.0% ***. *%	27	100.0% 25.0%
29	9 64.3% 10.3%	5 35.7% 23.8%	0 0.0% ***. *%	14	100.0% 13.0%
30-34	19 86.4% 21.8%	3 13.6% 14.3%	0 0.0% ***. *%	22	100.0% 20.4%
35-39	4 100.0% 4.6%	0 0.0% 0.0%	0 0.0% ***. *%	4	100.0% 3.7%
40-49	2 100.0% 2.3%	0 0.0% 0.0%	0 0.0% ***. *%	2	100.0% 1.9%
No Response	0 ***. *% 0.0%	0 ***. *% 0.0%	0 ***. *% ***. *%	0	***. *% 0.0%
TOTAL	87 80.6% 100.0%	21 19.4% 100.0%	0 0.0% ***. *%	108	100.0% 100.0%

TABLE E-1

NUMBER OF FIRM JOB OFFERS TO FULL-TIME EMPLOYED INEXPERIENCED CHEMISTS by Sex and Degree
1984 Starting Salary Survey

NUMBER OF JOB OFFERS	SEX		Bachelors			Masters			Doctorate			TOTAL	-Count -% of Row -% of Col
	Men	Women	Men	Women	TOTAL	Men	Women	TOTAL	Men	Women	TOTAL		
1	84 53.2% 58.3%	74 46.8% 54.4%	158 100.0% 56.4%	10 90.9% 52.6%	1 9.1% 16.7%	11 100.0% 44.0%	37 86.0% 43.5%	6 14.0% 26.1%	43 100.0% 39.8%				
2	32 50.0% 22.2%	32 50.0% 23.5%	64 100.0% 22.9%	5 50.0% 26.3%	5 50.0% 83.3%	10 100.0% 40.0%	27 75.0% 31.8%	9 25.0% 39.1%	36 100.0% 33.3%				
3	20 57.1% 13.9%	15 42.9% 11.0%	35 100.0% 12.5%	1 100.0% 5.3%	0 0.0%	1 100.0% 4.0%	14 87.5% 16.5%	2 12.5% 8.7%	16 100.0% 14.8%				
4	4 26.7% 2.8%	11 73.3% 8.1%	15 100.0% 5.4%	1 100.0% 5.3%	0 0.0%	1 100.0% 4.0%	5 55.6% 5.9%	4 44.4% 17.4%	9 100.0% 8.3%				
5	1 20.0% 0.7%	4 80.0% 2.9%	5 100.0% 1.8%	1 100.0% 5.3%	0 0.0%	1 100.0% 4.0%	1 50.0% 1.2%	1 50.0% 4.3%	2 100.0% 1.9%				
6-7	2 100.0% 1.4%	0 0.0% 0.0%	2 100.0% 0.7%	1 100.0% 5.3%	0 0.0%	1 100.0% 4.0%	1 50.0% 1.2%	1 50.0% 4.3%	2 100.0% 1.9%				
8-9	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%				
10+	1 100.0% 0.7%	0 0.0% 0.0%	1 100.0% 0.4%	0 ***. % 0.0%	0 ***. % 0.0%	0 ***. % 0.0%	0 ***. % 0.0%	0 ***. % 0.0%	0 ***. % 0.0%				
TOTAL	144 51.4% 100.0%	136 48.6% 100.0%	280 100.0% 100.0%	19 76.0% 100.0%	6 24.0% 100.0%	25 100.0% 100.0%	85 78.7% 100.0%	23 21.3% 100.0%	108 100.0% 100.0%				

TABLE E-2

NUMBER OF FIRM JOB OFFERS TO FULL-TIME EMPLOYED EXPERIENCED CHEMISTS by Sex and Degree
1984 Starting Salary Survey

NUMBER OF JOB OFFERS	SEX		Bachelors			Masters			Doctorate			TOTAL	-Count -% of Row -% of Col
	Men	Women	Men	Women	TOTAL	Men	Women	TOTAL	Men	Women	TOTAL		
1	33 54.1% 53.2%	28 45.9% 53.8%	61 100.0% 53.5%	16 66.7% 59.3%	8 33.3% 47.1%	24 100.0% 54.5%	19 86.4% 52.4%	3 13.6% 50.0%	22 100.0% 52.4%	3 13.6% 50.0%	6 100.0% 14.3%	22 100.0% 52.4%	22 100.0% 52.4%
2	12 44.4% 19.4%	15 55.6% 28.8%	27 100.0% 23.7%	5 55.6% 18.5%	4 44.4% 23.5%	9 100.0% 20.5%	5 83.3% 13.9%	1 16.7% 16.7%	6 100.0% 14.3%	1 16.7% 16.7%	6 100.0% 14.3%	6 100.0% 14.3%	6 100.0% 14.3%
3	12 75.0% 19.4%	4 25.0% 7.7%	16 100.0% 14.0%	5 55.6% 18.5%	4 44.4% 23.5%	9 100.0% 20.5%	5 83.3% 13.9%	1 16.7% 16.7%	6 100.0% 14.3%	1 16.7% 16.7%	6 100.0% 14.3%	6 100.0% 14.3%	6 100.0% 14.3%
4	1 20.0% 1.6%	4 80.0% 7.7%	5 100.0% 4.4%	1 100.0% 3.7%	0 0.0% 0.0%	1 100.0% 2.3%	5 100.0% 13.9%	0 0.0% 0.0%	5 100.0% 11.9%	0 0.0% 0.0%	5 100.0% 11.9%	5 100.0% 11.9%	5 100.0% 11.9%
5	3 75.0% 4.8%	1 25.0% 1.9%	4 100.0% 3.5%	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% 2.4%	1 100.0% 2.4%	1 100.0% 2.4%	1 100.0% 2.4%	1 100.0% 2.4%
6-7	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%	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%
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% 5.9%	1 100.0% 2.3%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 2.4%	0 0.0% 0.0%	1 100.0% 2.4%	1 100.0% 2.4%	1 100.0% 2.4%
10+	1 100.0% 1.6%	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 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 2.4%	0 0.0% 0.0%	1 100.0% 2.4%	1 100.0% 2.4%	1 100.0% 2.4%
TOTAL	62 54.4% 100.0%	52 45.6% 100.0%	114 100.0% 100.0%	27 61.4% 100.0%	17 38.6% 100.0%	44 100.0% 100.0%	36 85.7% 100.0%	6 14.3% 100.0%	42 100.0% 100.0%	6 14.3% 100.0%	42 100.0% 100.0%	42 100.0% 100.0%	42 100.0% 100.0%

TABLE E-3

NUMBER OF FIRM JOB OFFERS TO FULL-TIME EMPLOYED INEXPERIENCED CHEMICAL ENGINEERS by Sex and Degree
1984 Starting Salary Survey

JOB OFFER LEVEL	SEX		Bachelors			Masters			Doctorate			TOTAL	-Count -% of Row -% of Col
	Men	Women	Men	Women	TOTAL	Men	Women	TOTAL	Men	Women	TOTAL		
1	162 68.4% 51.8%	75 31.6% 45.5%	237 100.0% 49.6%	16 80.0% 43.2%	4 20.0% 40.0%	20 100.0% 42.6%	5 100.0% 26.3%	0 0.0% 0.0%	5 100.0% 25.0%	0 0.0% 0.0%	5 100.0% 25.0%	5 100.0% 25.0%	5 100.0% 25.0%
2	77 62.1% 24.6%	47 37.9% 28.5%	124 100.0% 25.9%	7 77.8% 18.9%	2 22.2% 20.0%	9 100.0% 19.1%	4 100.0% 21.1%	0 0.0% 0.0%	4 100.0% 20.0%	0 0.0% 0.0%	4 100.0% 20.0%	4 100.0% 20.0%	4 100.0% 20.0%
3	40 64.5% 12.8%	22 35.5% 13.3%	62 100.0% 13.0%	9 81.8% 24.3%	2 18.2% 20.0%	11 100.0% 23.4%	4 100.0% 21.1%	0 0.0% 0.0%	4 100.0% 20.0%	0 0.0% 0.0%	4 100.0% 20.0%	4 100.0% 20.0%	4 100.0% 20.0%
4	19 76.0% 6.1%	6 24.0% 3.6%	25 100.0% 5.2%	2 66.7% 5.4%	1 33.3% 10.0%	3 100.0% 6.4%	1 100.0% 5.3%	0 0.0% 0.0%	1 100.0% 5.0%	0 0.0% 0.0%	1 100.0% 5.0%	1 100.0% 5.0%	1 100.0% 5.0%
5	4 30.8% 1.3%	9 69.2% 5.5%	13 100.0% 2.7%	2 100.0% 5.4%	0 0.0% 0.0%	2 100.0% 4.3%	2 100.0% 10.5%	0 0.0% 0.0%	2 100.0% 10.0%	0 0.0% 0.0%	2 100.0% 10.0%	2 100.0% 10.0%	2 100.0% 10.0%
6-7	7 58.3% 2.2%	5 41.7% 3.0%	12 100.0% 2.5%	0 0.0% 0.0%	1 100.0% 10.0%	1 100.0% 2.1%	1 100.0% 5.3%	1 100.0% 5.3%	2 100.0% 10.0%	1 50.0% 100.0%	1 100.0% 5.0%	2 100.0% 10.0%	2 100.0% 10.0%
8-9	3 75.0% 1.0%	1 25.0% 0.6%	4 100.0% 0.8%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	1 100.0% 5.3%	0 0.0% 0.0%	1 100.0% 5.0%	0 0.0% 0.0%	1 100.0% 5.0%	1 100.0% 5.0%	1 100.0% 5.0%
10+	1 100.0% 0.3%	0 0.0% 0.0%	1 100.0% 0.2%	1 100.0% 2.7%	0 0.0% 0.0%	1 100.0% 2.1%	1 100.0% 5.3%	1 100.0% 5.3%	1 100.0% 5.0%	0 0.0% 0.0%	1 100.0% 5.0%	1 100.0% 5.0%	1 100.0% 5.0%
TOTAL	313 65.5% 100.0%	165 34.5% 100.0%	478 100.0% 100.0%	37 78.7% 100.0%	10 21.3% 100.0%	47 100.0% 100.0%	19 95.0% 100.0%	1 5.0% 100.0%	20 100.0% 100.0%	1 5.0% 100.0%	20 100.0% 100.0%	20 100.0% 100.0%	20 100.0% 100.0%

TABLE E-4

NUMBER OF FIRM JOB OFFERS TO FULL-TIME EMPLOYED EXPERIENCED CHEMICAL ENGINEERS by Sex and Degree
1984 Starting Salary Survey

JOB OFFER LEVEL	SEX		Bachelors			Masters			Doctorate			TOTAL	-Count -% of ROW -% of Col
			Men	Women	TOTAL	Men	Women	TOTAL	Men	Women	TOTAL		
	Men	Women	Men	Women	TOTAL	Men	Women	TOTAL	Men	Women	TOTAL		
1	42 70.0% 50.6%	18 30.0% 45.0%	60 100.0% 48.8%	5 20.8% 55.6%	24 100.0% 55.8%	19 79.2% 55.9%	5 20.8% 55.6%	24 100.0% 55.8%	5 100.0% 41.7%	0 0.0% 0.0%	5 100.0% 38.5%	5	100.0% 38.5%
2	18 72.0% 21.7%	7 28.0% 17.5%	25 100.0% 20.3%	2 20.0% 22.2%	10 100.0% 23.3%	8 80.0% 23.5%	2 20.0% 22.2%	10 100.0% 23.3%	2 100.0% 16.7%	0 0.0% 0.0%	2 100.0% 15.4%	2	100.0% 15.4%
3	15 71.4% 18.1%	6 28.6% 15.0%	21 100.0% 17.1%	1 20.0% 11.1%	5 100.0% 11.6%	4 80.0% 11.8%	1 20.0% 11.1%	5 100.0% 11.6%	1 50.0% 8.3%	1 50.0% 100.0%	2 100.0% 15.4%	2	100.0% 15.4%
4	1 33.3% 1.2%	2 66.7% 5.0%	3 100.0% 2.4%	0 0.0% 0.0%	3 100.0% 7.0%	3 100.0% 8.8%	0 0.0% 0.0%	3 100.0% 7.0%	2 100.0% 16.7%	0 0.0% 0.0%	2 100.0% 15.4%	2	100.0% 15.4%
5	4 66.7% 4.8%	2 33.3% 5.0%	6 100.0% 4.9%	1 100.0% 11.1%	2 100.0% 2.3%	0 0.0% 0.0%	1 100.0% 11.1%	1 100.0% 2.3%	1 100.0% 8.3%	0 0.0% 0.0%	1 100.0% 7.7%	1	100.0% 7.7%
6-7	2 50.0% 2.4%	2 50.0% 5.0%	4 100.0% 3.2%	0 0.0% 0.0%	4 100.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	4 100.0% 0.0%	1 100.0% 8.3%	0 0.0% 0.0%	1 100.0% 7.7%	1	100.0% 7.7%
8-9	0 0.0% 0.0%	2 100.0% 5.0%	2 100.0% 1.6%	0 0.0% 0.0%	2 100.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	2 100.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0	0.0% 0.0%
10+	1 50.0% 1.2%	1 50.0% 2.5%	2 100.0% 1.6%	0 0.0% 0.0%	2 100.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	2 100.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0	0.0% 0.0%
TOTAL	83 67.5% 100.0%	40 32.5% 100.0%	123 100.0% 100.0%	9 20.9% 100.0%	43 100.0% 100.0%	34 79.1% 100.0%	9 20.9% 100.0%	43 100.0% 100.0%	12 92.3% 100.0%	1 7.7% 100.0%	13 100.0% 100.0%	13	100.0% 100.0%

TABLE F-1

ETHNIC CLASSIFICATION and CITIZENSHIP or VISA STATUS of CHEMISTS by Degree
1984 Starting Salary Survey

CITIZENSHIP	ETHNICITY					TOTAL	
	Bachelors						
	Black	Hispanic	Asian	American Indian	White		
US Citizen	27 1.8% 81.8%	1 0.1% 25.0%	67 4.4% 81.7%	28 1.8% 96.6%	1,410 92.0% 98.2%	1,533 100.0% 96.8%	-Count -% of Row -% of Col
Permanent Resident	5 15.2% 15.2%	2 6.1% 50.0%	5 15.2% 6.1%	1 3.0% 3.4%	20 60.6% 1.4%	33 100.0% 2.1%	
Other Visa	1 5.9% 3.0%	1 5.9% 25.0%	9 52.9% 11.0%	0 0.0% 0.0%	6 35.3% 0.4%	17 100.0% 1.1%	
No Response	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 1.2%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 0.1%	
TOTAL	33 2.1% 100.0%	4 0.3% 100.0%	82 5.2% 100.0%	29 1.8% 100.0%	1,436 90.7% 100.0%	1,584 100.0% 100.0%	
	Masters						
US Citizen	5 3.6% 71.4%	1 0.7% 100.0%	3 2.2% 25.0%	2 1.4% 50.0%	127 92.0% 96.2%	138 100.0% 88.5%	
Permanent Resident	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	1 25.0% 25.0%	3 75.0% 2.3%	4 100.0% 2.6%	
Other Visa	2 14.3% 28.6%	0 0.0% 0.0%	9 64.3% 75.0%	1 7.1% 25.0%	2 14.3% 1.5%	14 100.0% 9.0%	
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%	
TOTAL	7 4.5% 100.0%	1 0.6% 100.0%	12 7.7% 100.0%	4 2.6% 100.0%	132 84.6% 100.0%	156 100.0% 100.0%	
	Doctorate						
US Citizen	1 0.4% 100.0%	1 0.4% 100.0%	4 1.6% 14.8%	4 1.6% 80.0%	242 96.0% 97.6%	252 100.0% 89.4%	
Permanent Resident	0 0.0% 0.0%	0 0.0% 0.0%	7 63.6% 25.9%	1 9.1% 20.0%	3 27.3% 1.2%	11 100.0% 3.9%	
Other Visa	0 0.0% 0.0%	0 0.0% 0.0%	16 88.9% 59.3%	0 0.0% 0.0%	2 11.1% 0.8%	18 100.0% 6.4%	
No Response	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 0.4%	1 100.0% 0.4%	
TOTAL	1 0.4% 100.0%	1 0.4% 100.0%	27 9.6% 100.0%	5 1.8% 100.0%	248 87.9% 100.0%	282 100.0% 100.0%	

TABLE F-2

CITIZENSHIP of CHEMISTRY GRADUATES by Degree and Sex
1984 Starting Salary Survey

SEX

CITIZENSHIP	Bachelors			Masters			Doctorate								
	Men	Women	No Response	Men	Women	No Response	Men	Women	No Response	TOTAL	-Count	-% of Row	-% of Col		
US Citizen	960 62.3% 96.5%	580 37.6% 97.5%	1 0.1% 50.0%	1,541 100.0% 96.8%	86 61.0% 85.1%	55 39.0% 93.2%	0 0.0% ***. %	141 100.0% 88.1%	202 79.5% 89.0%	52 20.5% 89.7%	0 0.0% ***. %	254 100.0% 89.1%	-Count	-% of Row	-% of Col
Permanent Resident	23 69.7% 2.3%	10 30.3% 1.7%	0 0.0% 0.0%	33 100.0% 2.1%	4 100.0% 4.0%	0 0.0% 0.0%	0 0.0% ***. %	4 100.0% 2.5%	8 72.7% 3.5%	3 27.3% 5.2%	0 0.0% ***. %	11 100.0% 3.9%			
Other Visa	12 70.6% 1.2%	5 29.4% 0.8%	0 0.0% 0.0%	17 100.0% 1.1%	11 73.3% 10.9%	4 26.7% 6.8%	0 0.0% ***. %	15 100.0% 9.4%	16 84.2% 7.0%	3 15.8% 5.2%	0 0.0% ***. %	19 100.0% 6.7%			
No Response	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 50.0%	1 100.0% 0.1%	0 ***. % 0.0%	0 ***. % 0.0%	0 ***. % ***. %	0 ***. % 0.0%	1 100.0% 0.4%	0 0.0% 0.0%	0 0.0% ***. %	1 100.0% 0.4%			
TOTAL	995 62.5% 100.0%	595 37.4% 100.0%	2 0.1% 100.0%	1,592 100.0% 100.0%	101 63.1% 100.0%	59 36.9% 100.0%	0 0.0% ***. %	160 100.0% 100.0%	227 79.6% 100.0%	58 20.4% 100.0%	0 0.0% ***. %	285 100.0% 100.0%			

TABLE F-3

 MINORITY CLASSIFICATION of CHEMISTRY GRADUATES by Degree and Sex
 1984 Starting Salary Survey

MINORITY CLASSIFICATION	SEX														
	Bachelors			Masters			Doctorate								
	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	-Count	-% of Row	-% of Col
Black	15 45.5%	17 51.5%	1 3.0%	33 100.0%	6 85.7%	1 14.3%	0 0.0%	7 100.0%	1 100.0%	0 0.0%	0 0.0%	1 100.0%	1	100.0%	2.9%
	17.0%	29.3%	50.0%	22.3%	33.3%	16.7%	***.***%	29.2%	3.7%	0.0%	***.***%	2.9%			
Hispanic	2 50.0%	2 50.0%	0 0.0%	4 100.0%	1 100.0%	0 0.0%	0 0.0%	1 100.0%	1 100.0%	0 0.0%	0 0.0%	1 100.0%	1	100.0%	2.9%
	2.3%	3.4%	0.0%	2.7%	5.6%	0.0%	***.***%	4.2%	3.7%	0.0%	***.***%	2.9%			
Asian	56 68.3%	25 30.5%	1 1.2%	82 100.0%	9 75.0%	3 25.0%	0 0.0%	12 100.0%	20 74.1%	7 25.9%	0 0.0%	27 100.0%	27	100.0%	79.4%
	63.6%	43.1%	50.0%	55.4%	50.0%	50.0%	***.***%	50.0%	74.1%	100.0%	***.***%	79.4%			
American Indian	15 51.7%	14 48.3%	0 0.0%	29 100.0%	2 50.0%	2 50.0%	0 0.0%	4 100.0%	5 100.0%	0 0.0%	0 0.0%	5 100.0%	5	100.0%	14.7%
	17.0%	24.1%	0.0%	19.6%	11.1%	33.3%	***.***%	16.7%	18.5%	0.0%	***.***%	14.7%			
TOTAL	88 59.5%	58 39.2%	2 1.4%	148 100.0%	18 75.0%	6 25.0%	0 0.0%	24 100.0%	27 79.4%	7 20.6%	0 0.0%	34 100.0%	34	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 F-4

ETHNIC CLASSIFICATION and CITIZENSHIP or VISA STATUS of CHEMICAL ENGINEERS by Degree
1984 Starting Salary Survey

CITIZENSHIP	ETHNICITY						TOTAL	-Count -% of Row -% of Col
	Bachelors							
	Black	Hispanic	Asian	American Indian	White			
US Citizen	19 1.6% 95.0%	1 0.1% 100.0%	46 3.9% 80.7%	21 1.8% 87.5%	1,106 92.7% 98.9%	1,193 100.0% 97.8%		
Permanent Resident	1 5.0% 5.0%	0 0.0% 0.0%	8 40.0% 14.0%	3 15.0% 12.5%	8 40.0% 0.7%	20 100.0% 1.6%		
Other Visa	0 0.0% 0.0%	0 0.0% 0.0%	3 50.0% 5.3%	0 0.0% 0.0%	3 50.0% 0.3%	6 100.0% 0.5%		
No Response	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 0.1%	1 100.0% 0.1%		
TOTAL	20 1.6% 100.0%	1 0.1% 100.0%	57 4.7% 100.0%	24 2.0% 100.0%	1,118 91.6% 100.0%	1,220 100.0% 100.0%		
	Masters							
US Citizen	2 1.5% 100.0%	1 0.8% 100.0%	7 5.3% 25.9%	1 0.8% 50.0%	122 91.7% 93.8%	133 100.0% 82.1%		
Permanent Resident	0 0.0% 0.0%	0 0.0% 0.0%	5 71.4% 18.5%	1 14.3% 50.0%	1 14.3% 0.8%	7 100.0% 4.3%		
Other Visa	0 0.0% 0.0%	0 0.0% 0.0%	15 68.2% 55.6%	0 0.0% 0.0%	7 31.8% 5.4%	22 100.0% 13.6%		
No Response	0 ***. *% 0.0%	0 ***. *% 0.0%	0 ***. *% 0.0%	0 ***. *% 0.0%	0 ***. *% 0.0%	0 ***. *% 0.0%		
TOTAL	2 1.2% 100.0%	1 0.6% 100.0%	27 16.7% 100.0%	2 1.2% 100.0%	130 80.2% 100.0%	162 100.0% 100.0%		
	Doctorate							
US Citizen	0 0.0% ***. *% ***. *%	0 0.0% ***. *% ***. *%	2 5.9% 18.2%	0 0.0% ***. *% ***. *%	32 94.1% 100.0%	34 100.0% 79.1%		
Permanent Resident	0 0.0% ***. *% ***. *%	0 0.0% ***. *% ***. *%	3 100.0% 27.3%	0 0.0% ***. *% ***. *%	0 0.0% 0.0%	3 100.0% 7.0%		
Other Visa	0 0.0% ***. *% ***. *%	0 0.0% ***. *% ***. *%	6 100.0% 54.5%	0 0.0% ***. *% ***. *%	0 0.0% 0.0%	6 100.0% 14.0%		
No Response	0 ***. *% ***. *%	0 ***. *% ***. *%	0 ***. *% 0.0%	0 ***. *% ***. *%	0 ***. *% 0.0%	0 ***. *% 0.0%		
TOTAL	0 0.0% ***. *%	0 0.0% ***. *%	11 25.6% 100.0%	0 0.0% ***. *%	32 74.4% 100.0%	43 100.0% 100.0%		

TABLE F-5

CITIZENSHIP of CHEMICAL ENGINEERING GRADUATES by Degree and Sex
1984 Starting Salary Survey

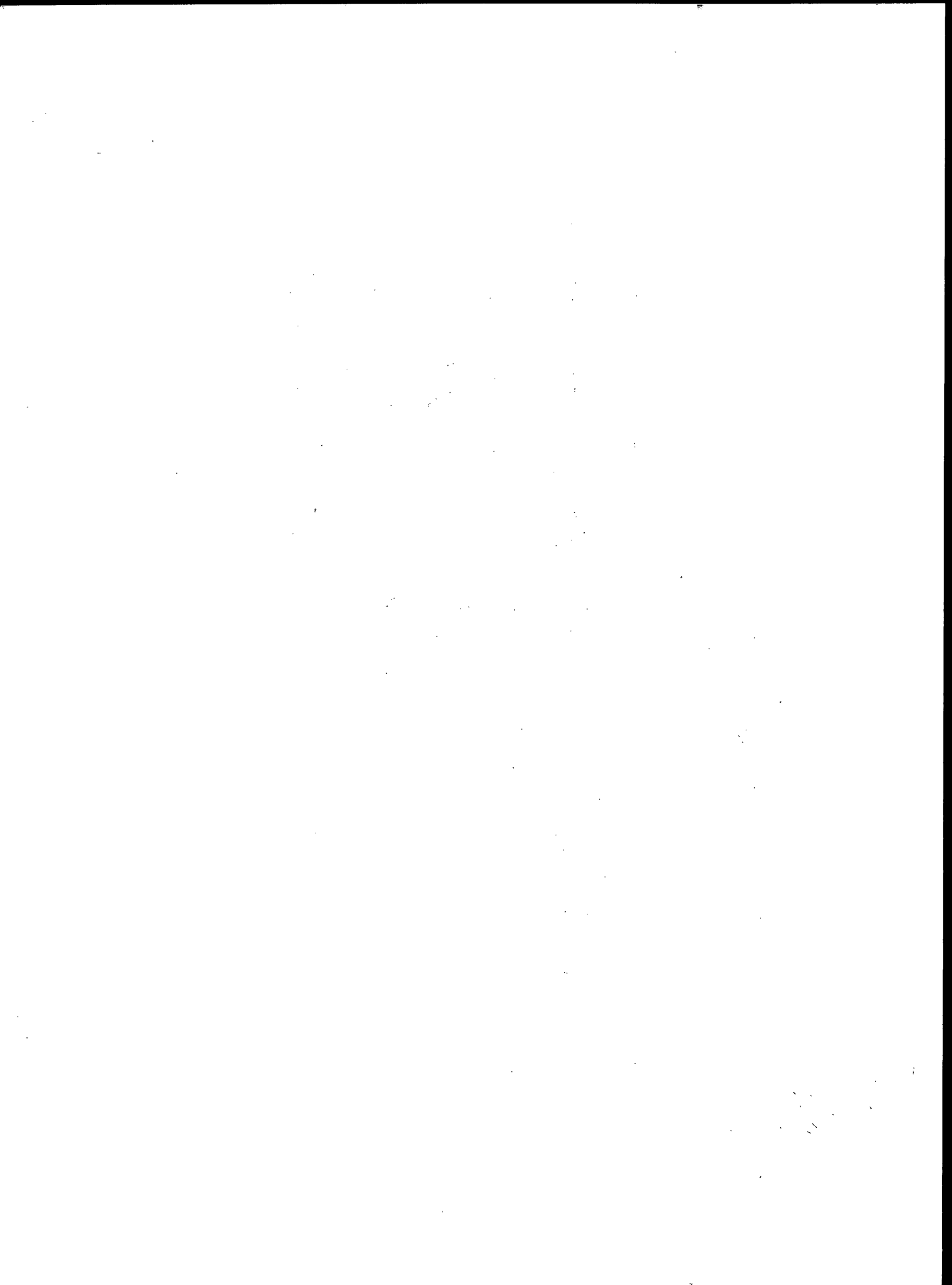
CITIZENSHIP	Bachelors		Masters		Doctorate		TOTAL	-Count -% of Row	TOTAL	-% of Col			
	Men	Women	Men	Women	Men	Women							
	No Response	No Response	No Response	No Response	No Response	No Response							
US Citizen	839 69.7% 97.4%	362 30.1% 98.6%	3 0.2% 100.0%	27 19.9% 93.1%	109 80.1% 77.9%	27 19.9% 93.1%	0 0.0% ***.***%	136 100.0% 80.5%	32 94.1% 78.0%	2 5.9% 100.0%	0 0.0% 0.0%	34 100.0% 77.3%	-Count -% of Row
Permanent Resident	16 80.0% 1.9%	4 20.0% 1.1%	0 0.0% 0.0%	2 28.6% 6.9%	5 71.4% 3.6%	2 28.6% 6.9%	0 0.0% ***.***%	7 100.0% 4.1%	3 100.0% 7.3%	0 0.0% 0.0%	0 0.0% 0.0%	3 100.0% 6.8%	
Other Visa	5 83.3% 0.6%	1 16.7% 0.3%	0 0.0% 0.0%	0 0.0% 0.0%	26 100.0% 18.6%	0 0.0% 0.0%	0 0.0% ***.***%	26 100.0% 15.4%	6 100.0% 14.6%	0 0.0% 0.0%	0 0.0% 0.0%	6 100.0% 13.6%	
No Response	1 100.0% 0.1%	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 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 2.3%	1 100.0% 2.3%	
TOTAL	861 69.9% 100.0%	367 29.8% 100.0%	3 0.2% 100.0%	29 17.2% 100.0%	140 82.8% 100.0%	29 17.2% 100.0%	0 0.0% ***.***%	169 100.0% 100.0%	41 93.2% 100.0%	2 4.5% 100.0%	1 2.3% 100.0%	44 100.0% 100.0%	

TABLE F-6

 MINORITY CLASSIFICATION OF CHEMICAL ENGINEERS GRADUATES by Degree and Sex
 1984 Starting Salary Survey

MINORITY CLASSIFICATION	Bachelors			Masters			Doctorate		
	Men	Women	TOTAL	Men	Women	TOTAL	Men	Women	TOTAL
Black	8	12	20	1	1	2	0	0	0
	40.0% 13.1%	60.0% 29.3%	100.0% 19.6%	50.0% 4.3%	50.0% 11.1%	100.0% 6.3%	***.%% 0.0%	***.%% 0.0%	***.%% 0.0%
Hispanic	1	0	1	0	1	1	0	0	0
	100.0% 1.6%	0.0% 0.0%	100.0% 1.0%	0.0% 0.0%	100.0% 11.1%	100.0% 3.1%	***.%% 0.0%	***.%% 0.0%	***.%% 0.0%
Asian	36	21	57	22	5	27	10	1	11
	63.2% 59.0%	36.8% 51.2%	100.0% 55.9%	81.5% 95.7%	18.5% 55.6%	100.0% 84.4%	90.9% 100.0%	9.1% 100.0%	100.0% 100.0%
American Indian	16	8	24	0	2	2	0	0	0
	66.7% 26.2%	33.3% 19.5%	100.0% 23.5%	0.0% 0.0%	100.0% 22.2%	100.0% 6.3%	***.%% 0.0%	***.%% 0.0%	***.%% 0.0%
TOTAL	61	41	102	23	9	32	10	1	11
	59.8% 100.0%	40.2% 100.0%	100.0% 100.0%	71.9% 100.0%	28.1% 100.0%	100.0% 100.0%	90.9% 100.0%	9.1% 100.0%	100.0% 100.0%

 -Count
 -% of Row
 -% of Col





American Chemical Society

1155 SIXTEENTH STREET, N.W.
WASHINGTON, D.C. 20036
Phone (202) 872-4534

JOHN K CRUM
Executive Director

Summer 1984

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 non-member 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 minutes 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.

Preliminary results of this survey will be reported this fall in CHEMICAL AND ENGINEERING NEWS' Careers Issue. A more exhaustive report will be published by the American Chemical Society later in the year.

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

Sincerely yours,

A handwritten signature in cursive script that reads "John K. Crum".
John K Crum

JKC/tyf

Enclosure

AMERICAN CHEMICAL SOCIETY

SURVEY OF STARTING SALARIES AND EMPLOYMENT STATUS OF
1984 CHEMISTRY AND CHEMICAL ENGINEERING GRADUATES

- A. Highest degree earned (Check one.): Bachelors Masters Doctorate
- B. Field of highest degree (Check one):
- | | | | |
|---------------------------------------|--------------------------|---|--------------------------|
| Chemical engineering | <input type="checkbox"/> | Organic chemistry | <input type="checkbox"/> |
| Chemistry, general | <input type="checkbox"/> | Pharmaceutical/medicinal/clinical chemistry | <input type="checkbox"/> |
| Biochemistry | <input type="checkbox"/> | Physical chemistry | <input type="checkbox"/> |
| Agricultural/food chemistry | <input type="checkbox"/> | Theoretical chemistry | <input type="checkbox"/> |
| Analytical chemistry | <input type="checkbox"/> | Polymer/macromolecular chemistry | <input type="checkbox"/> |
| Inorganic chemistry | <input type="checkbox"/> | Chemistry, other | <input type="checkbox"/> |
| | | Non-chemical | <input type="checkbox"/> |
- C. Please describe the school that granted your degree: Public . . . Private . . .
- D. Geographic Location of school: State _____
- E. Number of students:
- | | | | |
|---------------------------|--------------------------|----------------------------|--------------------------|
| Less than 1,500 | <input type="checkbox"/> | 10,000 to 20,000 | <input type="checkbox"/> |
| 1,500 to 4,999 | <input type="checkbox"/> | Over 20,000 | <input type="checkbox"/> |
| 5,000 to 9,999 | <input type="checkbox"/> | | |
- F. The highest degree offered by your department is: B.S. . . M.S. . . Ph.D. . .
- G. Do you plan further advanced studies in fall 1984? (Check one):
Yes, full time Yes, part-time No Go to Question I.
- H. Field of further studies (Check one):
- | | | | |
|--|--------------------------|--|--------------------------|
| Chemistry | <input type="checkbox"/> | Dentistry | <input type="checkbox"/> |
| Other physical science or math | <input type="checkbox"/> | Pharmacy, pharmacology | <input type="checkbox"/> |
| Chemical engineering | <input type="checkbox"/> | Business management | <input type="checkbox"/> |
| Other engineering | <input type="checkbox"/> | Education | <input type="checkbox"/> |
| Biochemistry | <input type="checkbox"/> | Law | <input type="checkbox"/> |
| Life science | <input type="checkbox"/> | Social science or humanities | <input type="checkbox"/> |
| Medicine | <input type="checkbox"/> | Other | <input type="checkbox"/> |
- I. Age: _____
- J. Sex: Male Female
- K. Citizenship or visa status (Check one):
U.S. citizen . . U.S. permanent resident visa . . Other visa . . .
- L. Racial or ethnic group:
- | | |
|--|--------------------------|
| Black (not of Hispanic origin) | <input type="checkbox"/> |
| American Indian or Alaskan Native | <input type="checkbox"/> |
| Asian or Pacific Islander (of Chinese, Japanese, Korean, Filipino, or
Subcontinental Indian origin) | <input type="checkbox"/> |
| Hispanic (of Mexican, Puerto Rican, Cuban, Central or South American, or
other Spanish origin) | <input type="checkbox"/> |
| White (not of Hispanic origin) | <input type="checkbox"/> |

M. 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[]
 and not seeking full-time employment 5[]

→ Please stop. Return the
 questionnaire in the envelope
 provided.

N. 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[]

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

- 12 months or less. 1[] More than 12 months. 2[]

P. How many firm offers of employment did you receive in a field of chemistry or chemical engineering? Specify number _____

Q. 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[]
 Military 15[]
 State and local government 16[]
 Hospital or independent laboratory. 17[]
 Other non-profit organization or
 research institute 18[]
 Other 19[]

R. Employers' approximate number of employees:

- Less than 500 1[] 10,000 to 24,999 4[]
 500 to 2,499 2[] Over 25,000 5[]
 2500 to 9,999 3[]

S. Check the ONE specialty most closely related to your employment:

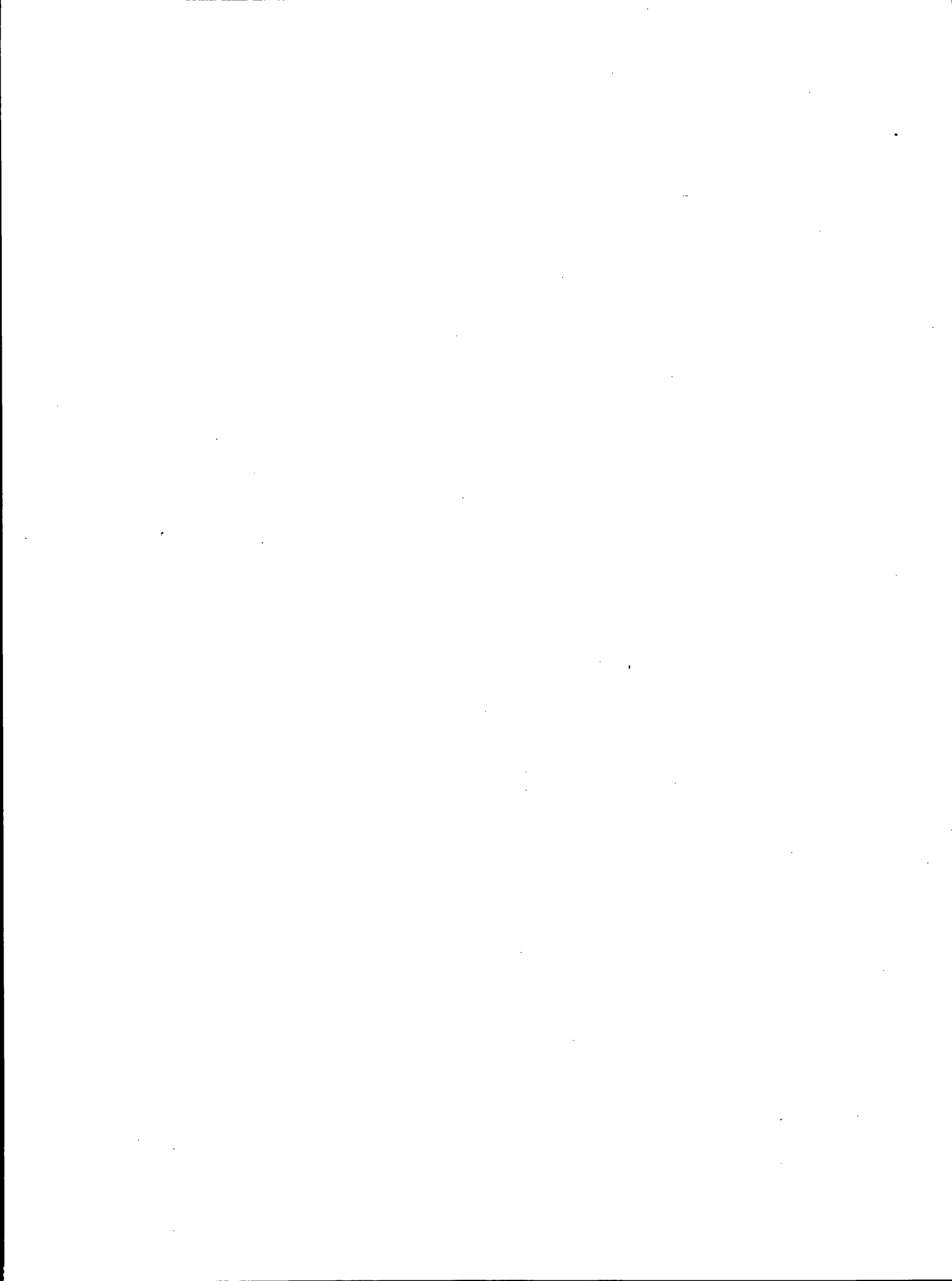
- Chemical Engineering 1[] Organic Chemistry 5[]
 Biochemistry 2[] Polymer Chemistry 6[]
 Analytical Chemistry 3[] Non-Chemical 7[]
 Inorganic Chemistry 4[]

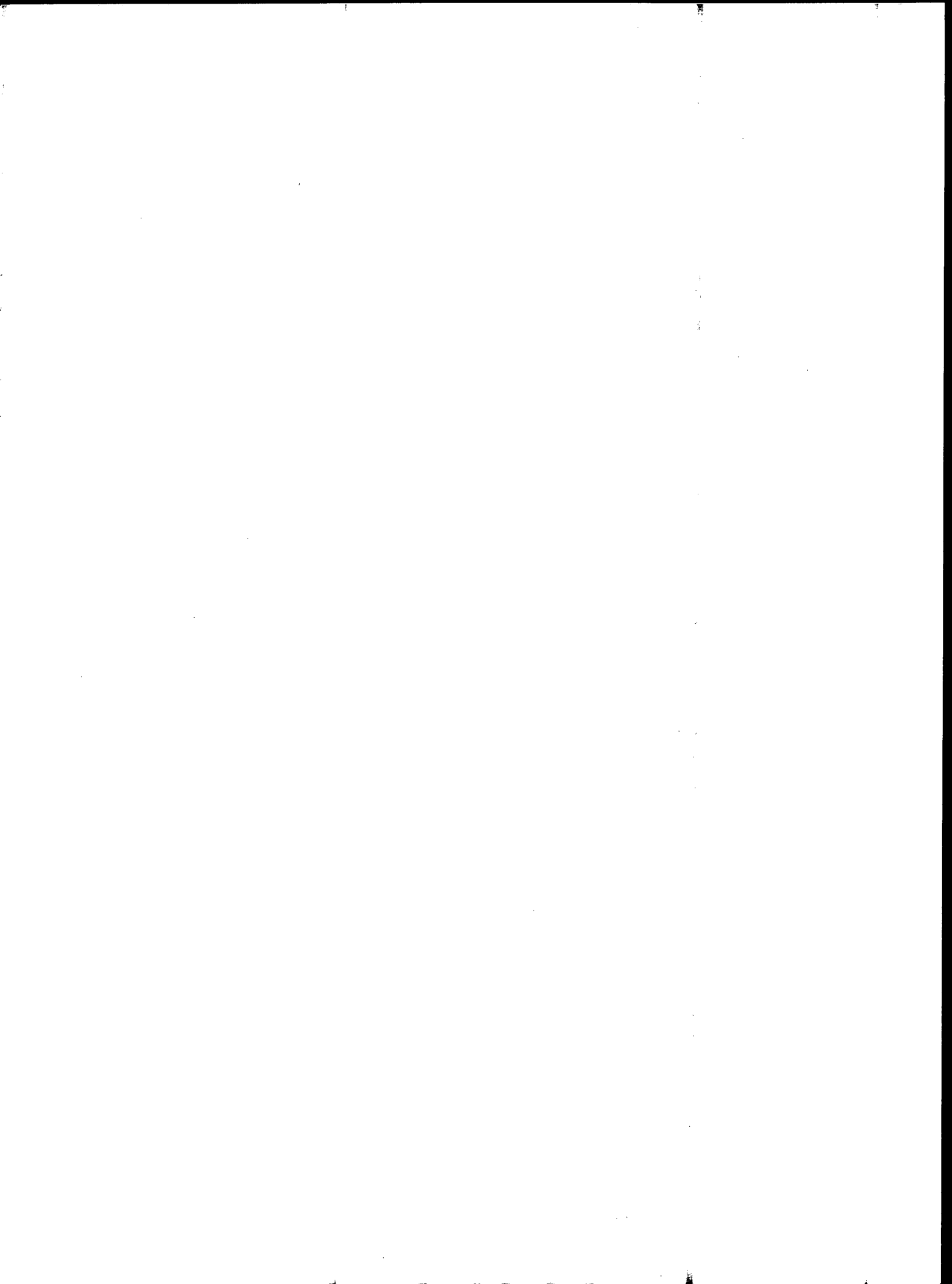
T. Annual salary: \$ _____ per year

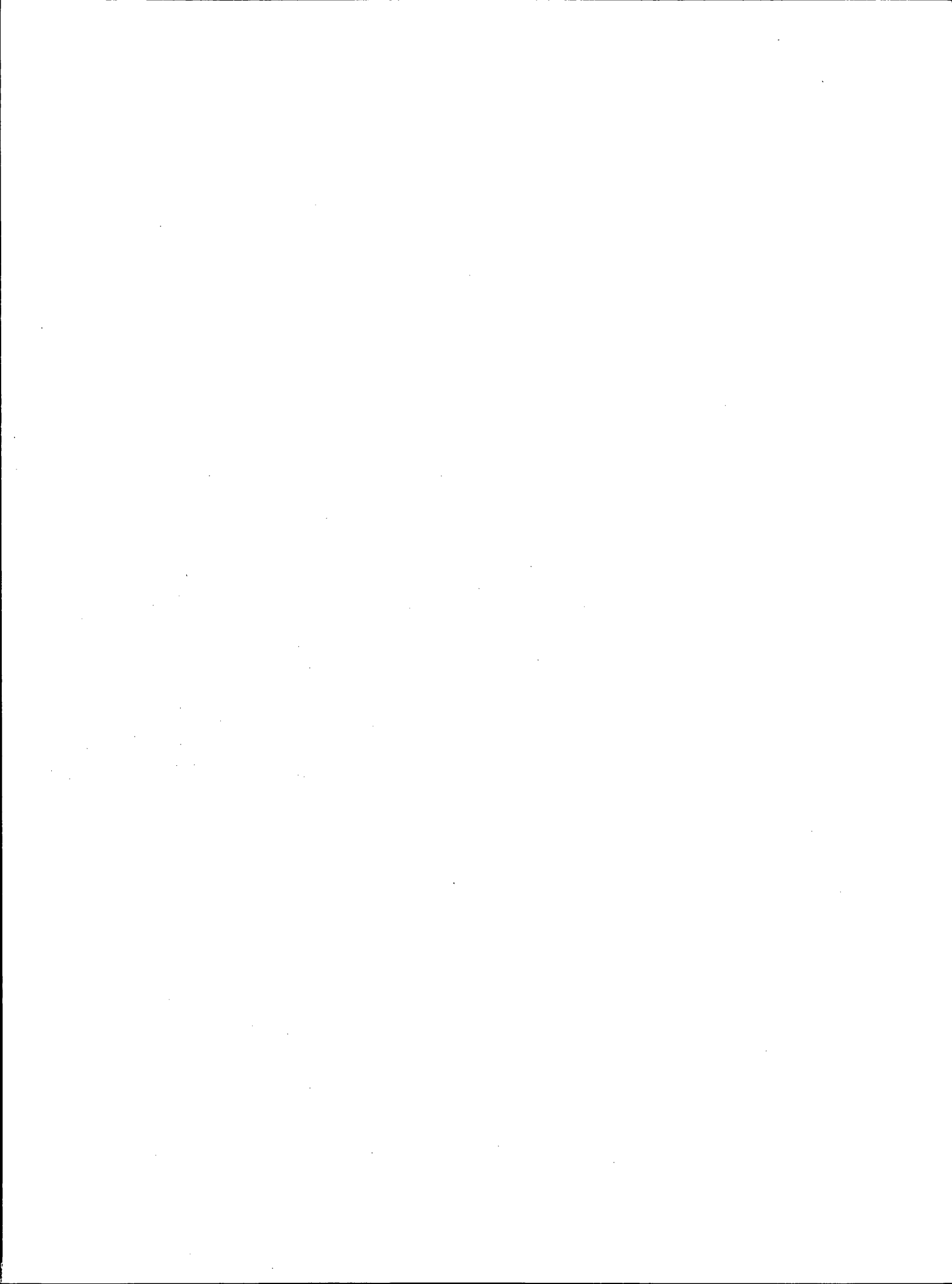
U. Geographic location of employment: State _____

Please return within 7 days to the American Chemical Society,
 Room 202, 1155 16th Street NW, Washington, DC 20036. Thank You.











**Statistical Services
American Chemical Society
Washington, D.C.**

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