Salaries

2003

Analysis of the American Chemical Society's 2003 Comprehensive Salary and Employment Status Survey.

American Chemical Society
Committee on Economic and Professional Affairs
Department of Career Services

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Contents

Acknowledgements

This report presents detailed results of the 2003 ACS Comprehensive Salary and Employment Status Survey. Summaries of the survey findings were published in the August 4, 2003 issue of *Chemical & Engineering News* and the September 2003 issue of *Today's Chemist at Work*.

The ACS Council Committee on Economic and Professional Affairs, chaired by Marinda Li Wu, and its Subcommittee on Surveys, chaired by H.N Cheng, planned and provided general oversight of the survey and its analysis in 2003. The committee is grateful to the nearly 9,500 members who provided a valuable service to the profession by completing the survey questionnaire.

Mary Jordan, Workforce Specialist, conducted this year's survey and produced the data tables. Richard Ellis, Ellis Research Services, wrote the following summary. Blake Stenning, Pittny Creative, designed this report.

Ena Castro, *Assistant Director*
Department of Career Services

Summary and Comments

Salaries

DATA FROM THE ACS 2003 COMPREHENSIVE salary and employment status survey reinforce trends reported in 2002: for members who held full-time positions in industry, government, or academia, salary scales held up, at least for those with advanced degrees, but levels of unemployment remained at their highest proportions since these annual studies began in 1972.

ALL CHEMISTS

The overall median salary for chemists responding to the 2003 survey was $80,000, up 4.4% From the $76,610 level recorded in 2002. Much of this gain was absorbed by inflation, and when it is measured in constant dollars, the improvement in compensation scales shrinks to 1.4%. Chemists whose highest degree was a bachelor's did not do as well; their absolute gain of 2.9% was not large enough to overcome losses in buying power due to increases in the cost of living.[1] These are group results for all of the chemical scientists who participated in the survey; many individuals may have done better, receiving raises reflecting an additional year of experience.

INDUSTRIAL/ PRIVATE SECTOR CHEMISTS

As in the past, private sector pay scales for chemists, especially in manufacturing industries, fall on the higher end of the range, while chemists in non-manufacturing workplaces such as analytical laboratories tend to be paid less. 2003 Results for the private sector as a whole mirror those for all chemists, reported above: increases in pay scales for those with advanced degrees were about as good as in 2002, but improvements in compensation for those with a bachelor's degree were not large enough to keep up with inflation.

TABLE 1. CHANGE IN ALL CHEMISTS SALARIES, 2002–2003

Degree	Median Salary 2003 (2002)	%Change from 2002 (current dollars)	(constant dollars)
TOTAL	$80,000 (76,600)	UP 4.4	UP 1.4
BACHELOR'S	$59,700 (58,000)	UP 2.9	DOWN 0.1
MASTER'S	$71,300 (68,500)	UP 4.1	UP 1.1
DOCTORATE	$90,000 (85,200)	UP 5.6	UP 2.6

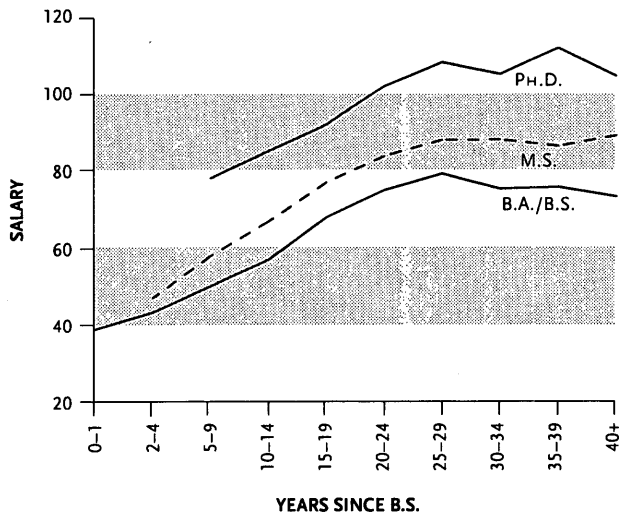
[1] The U.S. Consumer price index for urban areas (cpi-u), the most widely used measure of inflation, increased from 178.8 to 184.2, or 3.0 percent, between march, 2002 and march, 2003.

TABLE 2. CHANGE IN INDUSTRIAL/PRIVATE SECTOR CHEMISTS' SALARIES, 2002–2003

Degree	Median Salary 2003 (2002)	%Change from 2002 (current dollars)	(constant dollars)
Bachelor's	$60,000 (59,000)	up 1.7	down 1.3
Master's	$76,500 (71,900)	up 6.4	up 3.4
Doctorate	$98,000 (94,000)	up 4.3	up 1.3

Figure 1 provides traditional "maturity curves" for 2003 salaries of chemists in industry, by level of highest earned degrees. As is common for such data, rapid gains in pay scales occur during the earliest years of service. The scales then flatten out for mature practitioners, for whom the impact of another year of experience will have become less critical. For the most senior people, salary scales tail off, because the composition of each cohort of chemists changes as its members grow older, and retirements of some of the more highly-paid people cause median levels of pay for the group of very experienced professionals to decline.

FIGURE 1. 2003 INDUSTRIAL CHEMISTS' SALARIES BY YEARS SINCE B.S. AND DEGREE



ACADEMIC CHEMISTS

Salary scales for academic chemists failed to keep up with inflation in 2003. The only exception was the set of assistant professors on 11–12 month contracts, which are likely to be research appointments; median salaries for those chemists increased by 8.9%. Scales improved for other assistant professors on 9–10 month contracts and for full professors with either 9–10 or 11–12 month contracts, but in these cases the improvements were not quite large enough, on average, to match increases in costs of living. Scales for associate professors remained virtually identical to those recorded in 2002.

TRENDS IN CHEMISTS' SALARIES

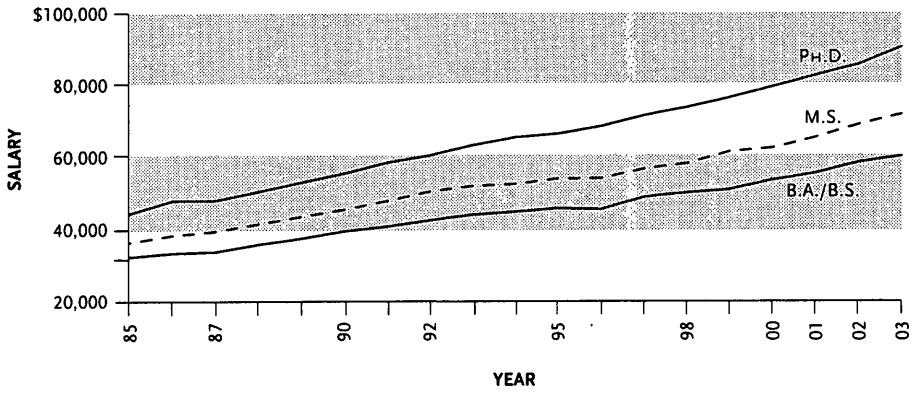
Results of these surveys from 1985 to the present are displayed in Figure 2. This year corrected values for the U.S. Consumer price index for urban areas (cpi-u) were used to plot trends; the corrections show that gains in the real purchasing power of chemists' salaries were somewhat overstated in the previous editions of this report. For those whose highest degree is a bachelor's, the constant dollar value of salary scales stayed remarkably consistent at around $30,000 per annum in 1982–84 dollars until the final years of the 20th century, when an improvement began that has led to the current levels of $32,410 (again, in 1982–84 dollars). For those with a master's degree, the buying power of salary scales has improved gradually over the entire period, from $33,835 in 1985 to $38,708 in 2003. And for those with doctoral degrees, a similar progression has raised purchasing power from $41,353 to $48,860 again, all of these constant values are stated in 1982–84 dollars.

TABLE 3. CHANGE IN PH.D. ACADEMIC CHEMISTS' SALARIES, 2002–2003

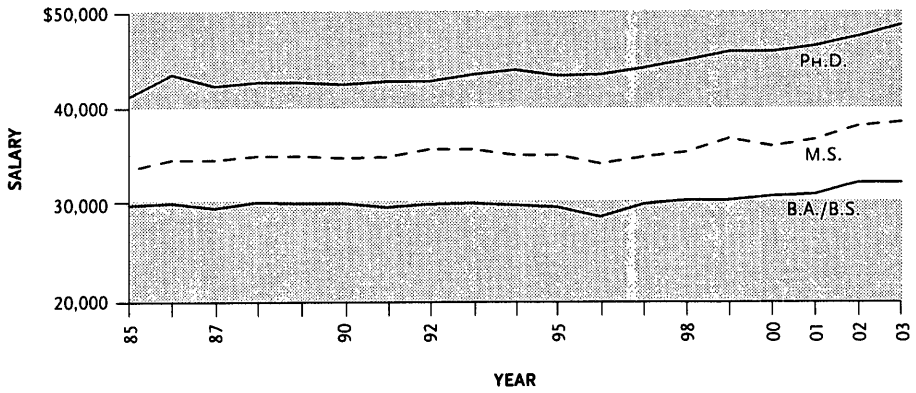
Rank/ Contract	Median Salary 2002 (2001)	% Change from 2002 (current dollars)	(constant dollars)
Full 9/10	$81,000 (79,000)	up 2.5	down 0.5
Full 11/12	$111,400 (108,600)	up 2.6	down 0.4
Assoc 9/10	$55,000 (55,100)	down 0.02	down 3.2
Assoc 11/12	$75,000 (75,000)	no change	down 3.0
Asst 9/10	$48,200 (47,000)	up 2.5	down 0.4
Asst 11/12	$61,000 (56,000)	up 8.9	up 5.9

FIGURE 2. CHEMISTS' MEDIAN SALARIES IN CURRENT AND CONSTANT DOLLARS

(IN CURRENT YEAR DOLLARS)



(IN CONSTANT 1984 DOLLARS)



Non-Salary Income

Assessing the total compensation of technical professionals has become increasingly complex, as base pay has become more and more likely to be augmented with different types of bonuses, stock options, profit sharing plans, consulting fees, and many other kinds of earned income or benefits. Most chemists obtain one or more of these additional kinds of compensation. Base salaries for March 1, 2003 and March 1, 2002 are asked in the survey. However, non-salary income is most often tallied for the entire prior year. Respondents are asked for their income, consulting, bonuses, and stock receipt for the prior year. This section shows the 2002 receipt of non-salary income as requested by the 2003 survey.

CONSULTING Despite both a small rise in the proportion of respondents who reported earnings from consulting assignments in 2002, to 10.2% From the 2001 level of 9.5%, and also increases in typical consulting rates from $100 to $115 an hour, the median level of consulting income for all chemists in the 2003 survey declined again, falling from $1,000 in 2001 to just $600 in 2002. The drop was especially sharp for chemists with doctoral degrees, where median consulting earnings were reduced by half. Chemists with master's degrees managed to come fairly close to their levels of consulting earnings in 2001, and the relatively rare chemists with a bachelor's degree and earnings from consulting improved their median incomes from this source, raising them from $1,000 in 2001 to $1,310 in 2002. As in the past, academic chemists and those employed outside manufacturing were the most likely to have earnings from consulting. Men were more likely than women to tap these sources of income. Differences in typical rates widened considerably, going from $100 per hour for men and $90 per hour for women in 2001 to $125 and $75, respectively, in 2002. Much of the difference between the rates for men and women is a product of the younger age and generally lower degree levels for women. As in earlier surveys, increased professional experience is strongly associated with both having consulting income and having higher consulting rates.

TABLE 4. CONSULTING DONE IN 2002

	% Consult	Hourly Rate	Median Income
ALL CHEMISTS	10.2%	$115	$600
DEGREE			
B.S.	4.7%	$8	$1,310
M.S.	7.2%	$90	$1,110
PH.D.	12.7%	$125	$500
EMPLOYER			
INDUSTRY–MFG.	3.6%	$100	$600
INDUSTRY–NON MFG.	11.9%	$100	$1,290
GOVERNMENT	4.6%	$100	$300
COLLEGE OR UNIV.	21.3%	$125	$500
SEX			
MEN	11.3%	$125	$650
WOMEN	6.3%	$75	$470
AGE			
20–29	1.1%	$75	$240
30–39	6.0%	$90	$400
40–49	8.8%	$120	$560
50–59	14.0%	$125	$800
60–69	20.2%	$140	$810

Note: This year's respondents asked for previous year's consulting.

BONUSES Nearly half (49.3%) of the chemists participating in the 2003 survey were eligible for bonuses in 2002, a rise compared to 2001 when 45.6% of the respondents reported that they were eligible. In both surveys, close to 90% of those eligible for bonuses received them; those with doctoral degrees were somewhat less likely to be eligible but receiving the largest awards when they were eligible. Those who worked for manufacturers were both more likely to be eligible and to receive larger awards when they were eligible; and similar distinctions applied to men.

TABLE 5. BONUSES RECEIVED IN 2002

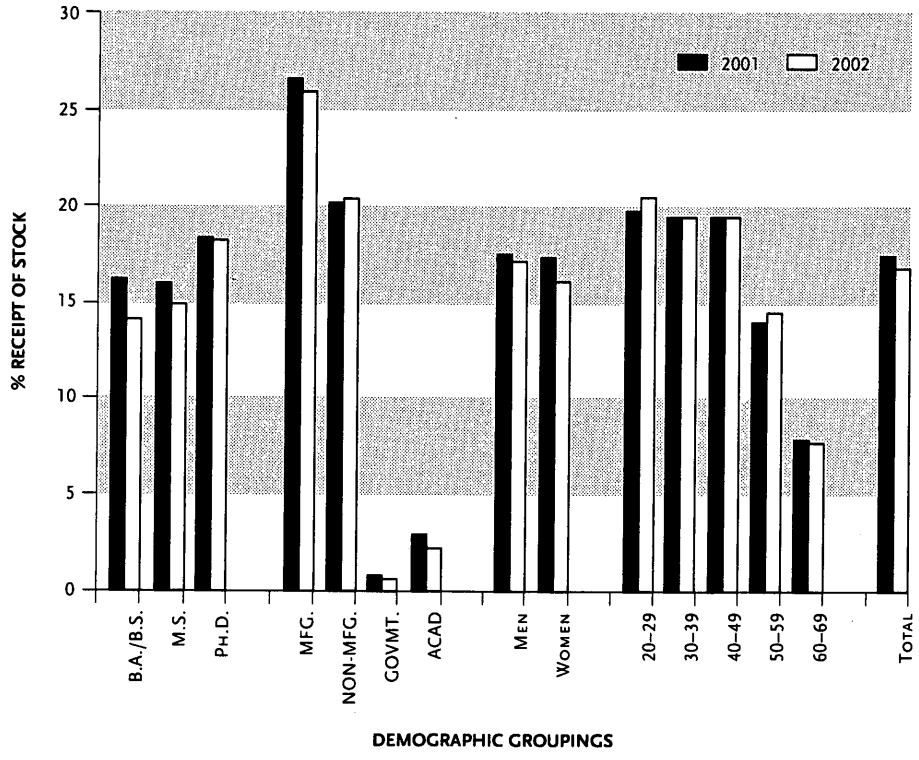
	% Eligible	% of Eligible Received	Median Bonus
All chemists	49.3%	88.0%	$5,240
Degree			
B.S.	56.6%	87.4%	$3,000
M.S.	55.1%	88.8%	$4,830
Ph.D.	45.6%	88.0%	$7,500
Employer			
Industry–mfg.	70.3%	89.7%	$6,500
Industry–non mfg.	52.4%	81.9%	$4,000
Government	36.5%	82.8%	$1,500
College or univ.	8.6%	84.7%	$2,500
Sex			
Men	50.8%	87.6%	$6,000
Women	44.4%	89.8%	$4,000
Age			
20–29	49.7%	88.4%	$2,000
30–39	52.0%	89.6%	$4,000
40–49	53.8%	87.7%	$7,000
50–59	48.4%	87.3%	$8,220
60–69	32.6%	85.9%	$5,220

Note: This year's respondents asked for pervious year's bonuses.

STOCK AS PART OF PROFESSIONAL INCOME

Beginning in 2002, ACS asked its salary survey respondents if they receive stock as a part of their compensation. Results for this question in 2003, asking for 2002 information, are virtually identical to those in 2001: 16.5% report receiving stock. This kind of compensation is reported by 25.5% of those employed in manufacturing and by 20.0% of those working for private companies outside manufacturing. Very few academic chemists also report receiving stock, and a few chemists employed by governments also reported such awards. Those with doctoral degrees were more likely to report awards of stock (17.9%) In 2002 than were those with master's degrees or bachelor's degrees (14.6% And 13.8%, respectively).

FIGURE 3. RECEIPT OF STOCK AS PART OF PROFESSIONAL INCOME FOR CHEMISTS RECEIVED IN 2001 & 2002



Note: This year's respondents asked for previous year's receipt of stock.

Employment and Unemployment

EMPLOYMENT STATUS

Respondents are asked for their employment status as of March 1st of the year of the survey. The mid-1990s witnessed relatively high unemployment[2] for chemists. By 2001, 91.8% of the salary survey respondents had full-time jobs and the unemployment rate declined to only 1.5 percent. However, since 2001, full-time employment declined to 88.3 percent in 2002, and it continued to drop in 2003, to 87.9%. At the same time, the unemployment rate rapidly climbed to record levels with a record-breaking 3.5 percent in 2003. Proportions of those with part-time positions remained relatively high at 2.9% And the share of those with postdoctoral appointments remained very low at 1.4%.

TABLE 6. EMPLOYMENT STATUS OF CHEMISTS, 1995–2003

(% by Year)

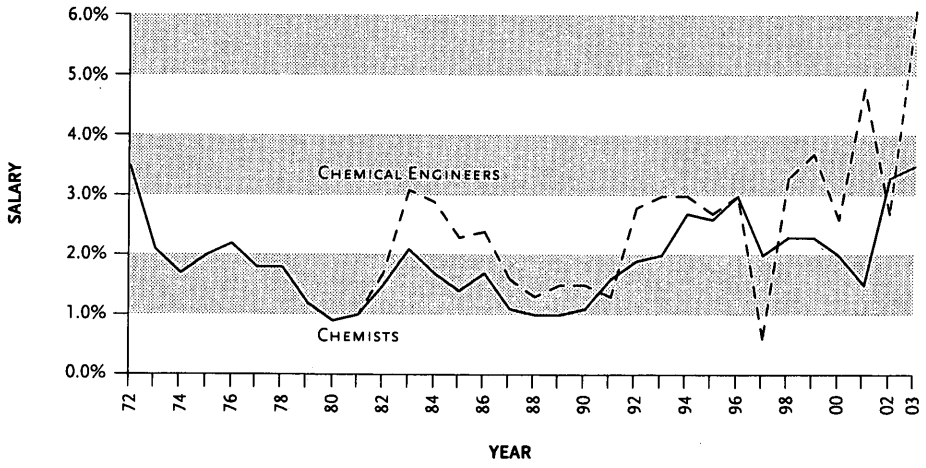
	1995	1996	1997	1998	1999	2000	2001	2002	2003
Full Time	88.8	89.4	90.5	89.8	89.4	88.7	91.8	88.3	87.9
Part Time	2.7	2.7	2.1	2.4	2.6	2.9	2.4	2.8	2.9
Post Doc	3.5	2.7	2.3	2.2	2	2	1.3	1.4	1.3
Not Employed									
Seeking	2.5	2.9	1.9	2.3	2.2	2.9	1.5	3.1	3.3
Not Seeking	2.6	2.3	0.8	0.9	1.3	1.7	1.4	1.5	1.7
Fully Retired	—	—	2.3	2.4	2.5	2.8	1.6	2.8	2.9
Unemployment Rate	2.6	3.0	2.0	2.3	2.3	2.0	1.5	3.3	3.5

[2] The Unemployment rate is calculated according to federal measure. Those not in the workforce – either retired or not seeking employment – are dropped from the calculation of the unemployment rate.

UNEMPLOYMENT TRENDS

Unemployment among the chemical scientists surveyed by ACS remained at historically high levels in 2003, and rates of joblessness for chemical engineers reached an unprecedented 6.1%. Detailed tabulations appended to this report (see tables 7–1 through 9–2) show that, as in 2002, increased unemployment has been concentrated in chemists working in manufacturing and over the age of 45, although unemployment among the youngest entry-level people has also increased. Traditional employers of chemists such as agricultural chemical and rubber products manufacturers had unemployment rates of 10.0% or more. A third of the unemployed chemists consisted of persons aged 40 or more who had been out of work for a year or more.

FIGURE 4. UNEMPLOYMENT RATES FOR CHEMISTS AND CHEMICAL ENGINEERS, 1972–2003



Technical Notes

THE SAMPLE

The target population of the 2003 ACS Comprehensive Salary and Employment Status Survey is ACS regular members under the age of 70 who have U.S. mailing addresses and have neither student, retired, nor emeritus membership status. This year, a general sample was drawn from a database consisting of all members meeting the above criteria. The sample was not available during the traditional mailing period of the last week in February. Thus a postcard asking members to complete the survey at the ACS Website was mailed to 22,500 members during the first week of March 2003. For those who did not complete the survey on the Web, the printed survey questionnaires were mailed to members by first-class mail during the third week of March 2003. The third mailing consisted of a reminder postcard mailed about a week after the first printed mailing. A follow-up fourth and another full mailing consisting of the survey questionnaire was sent to non-respondents during the week of April 15, 2003. By the May 15th cut-off date, 9,492 usable questionnaires (42 percent of the original mailing) had been returned. The 42 percent response rate represents a continuation of the response rate decrease over the past three years that saw response rates of 51 percent in 1999 and 53 percent in 2000 for the survey, 44 percent in 2001 and in 2003, the lowest (42%) in more than a decade.

Because the sample and subsequent respondents were deemed significantly older than the ACS workforce population, the responses were weighted in this report, *C&EN* and *Today's Chemists* stories to reflect the actual age distribution of the ACS workforce population from which the sample was drawn. However, since the detailed tables in this report are by "years since bachelor's and age-related detail, they are not weighted.

DEFINITIONS

For the purposes of the survey analysis, the following definitions were used:

Chemist: A respondent who indicated a work specialty of chemistry or biochemistry (categories 2 through 16 of Part 1, Question 3 of the questionnaire) or, if a non-chemistry work specialty (categories 17 through 20 of the same question), a degree field of chemistry or biochemistry.

Chemical Engineer: A respondent who indicated a work specialty of chemical engineering (category 1 of Part 1, Question 3 of the questionnaire).

Nonchemist: A respondent whose work specialty category is other than chemistry or chemical engineering, or if non-chemistry work specialty, no degree field of chemistry or biochemistry.

Academic: Pertaining to Ph.D.s working in a college or university, i.e., a private or public institution that awards a degree of associate or higher.

Unemployed: A respondent who was not employed and was seeking employment (category 4 of Part 1, Question 4 of the questionnaire). The unemployment rate calculated to compare with the national rate drops those "not seeking" or "fully retired" from the labor force.

Respondents indicated their employment status, base annual salaries, and ages as of March 1, 2003. The respondent's place of employment (current or most recent) determines geographic region. The listing of states by geographic regions follows this section.

DISCREPANCIES AMONG TABLES

Some pairs of tables contain totals that should be identical but are not. For example, two tables that represent information about Ph.D. respondents should show the same total number of PhDs. However, they might show different totals. This phenomenon is generally caused by missing response items in a survey. Not every respondent answers all questions all of the time. To illustrate, if one table groups the Ph.D.s according to specialty and another groups them according to work function, the totals will differ unless the number who did not indicate their specialty is the same number (or person even) that did not indicate their work function.

COMPARING SALARIES

Questions arise frequently about salary comparisons, such as between degrees of men and women. All such comparisons require caution. The salaries here represent the medians and means of ACS members. Most of the statistics in this report are descriptive in nature, not analytical.

Tests of significance should be performed on any salary discrepancies to see whether the observed salary differences between groups are mere chance resulting from some peculiarity of the sample itself. The significance of a difference between subpopulations depends on multiple factors. These factors include, among other things, the magnitude of the difference within the sample and between sample groups, and sample size.

NONRESPONSE BIAS

One source of sample error may arise from a response bias. Members who respond may be different than members who do not respond. Past comparisons of ACS membership records showed no bias in terms of age, sex, employer, or geographic region. In addition, a telephone follow-up of 388 nonrespondents to the 1991 survey showed the nonrespondents' salaries were virtually the same as the respondents. The mean salary for the respondents was $57,007; for nonrespondents it was $57,982. A t-test of the difference between the mean salaries of the two groups resulted in no significant difference between the means. Student's t[3] was only 0.57 between the two groups. The percent in both groups that were unemployed was also the same – 1.6%.

[3] Student's t, or the distribution of t, is a test statistic that evaluates the randomness of a given distribution. In this case, the sample of the nonrespondents vs. responders of the 1991 Comprehensive Survey was tested with the Student's t of .057 showing very closely aligned groups.

List of Possible Abbreviations for Tables

DEGREES

Abbreviation	Degree
B.A.	Bachelor of Arts
B.S.	Bachelor of Science or all bachelor's degrees
M.S.	Master of Sciences
Ph.D.	Doctor of Philosophy

FIELDS OF DEGREE AND WORK SPECIALTIES

Chem eng	Chemical Engineering
Ag chem	Agricultural/food chemistry
Analyt chem	Analytical chemistry
Biochem	Biochemistry
Biotech	Biotechnology
Chem ed	Chemical education
Clinical chem	Clinical chemistry
Environ chem	Environmental chemistry
Gen chem	General Chemistry
Inorg chem	Inorganic chemistry
Material sci	Materials science
Med/pharma	Medicinal/pharmaceutical chemistry
Organic chem	Organic chemistry
Physical chem	Physical chemistry
Polymer chem	Polymer chemistry
Other chem	Other chemical sciences
Bus admin	Business administration
Computer sci	Computer science
Othr non-chem	Other non-chemistry

REGIONS

Abbreviation	Region
Pacific	Pacific
Mountain	Mountain
WN Central	West North Central
WS Central	West South Central
EN Central	East North Central
ES Central	East South Central
Mid-Atlantic	Middle Atlantic
So-Atlantic	South Atlantic
New England	New England
WN Central	West North Central

EMPLOYERS

Abbreviation	Employer
Mfg	**Manufacturing**
Aero/auto	Aerospace/auto/transportation
Ag chem	Agricultural chemicals
Basic chem	Basic commodity chemicals
Biochem prods	Biochemical products
Building mats	Building materials
Coating/ink	Coatings/ink/paints
Electronics	Electronics/computers/semiconductors
Food	—
Instruments	—
Med products	Medical devices/diagnostic products
Metals	Metals/minerals
Paper	—
Personal care	—
Petroleum	Petroleum/natural gas
Pharma prods	Pharmaceutical products
Plastics	—
Rubber	—
Soaps	Soaps/detergents/surfactants
Spec chem	Specialty/fine chemicals
Textiles	—
Othr mfg	Other manufacturing
Non-mfg	**Non-manufacturing**
Analyt lab	Analytical service/testing laboratory
Biotech resrch	Biotech research firm
Indep research	Independent or contract research firm
Hospital lab	Hospital or clinical laboratory
Non-profit	Non-profit organization
Private utility	Private utility company
Profl services	Professional services-scientific/engineering/law
Research inst	Research institution
Science temp	Scientific temporary or personnel agency
Othr non-mfg	Other non-manufacturing

	Abbreviation	Employer
EMPLOYERS (CONT'D)	**Government**	—
	Federal	Federal (civilian)
	Military	—
	State or local	—
	Othr govmt	Other Government
	Self-employed	—
WORK FUNCTIONS	Analyt svcs	Analytical services, other than forensics
	Chem info	Chemical information services
	Computer	Computer programming, analysis, design
	Consulting	—
	Forensic	Forensic analysis
	Gen mgmt	General management or administration, other than R&D
	Health/safety	Health and safety/regulatory affairs
	Marketing	Marketing, sales, purchasing, technical service, economic evaluation
	Patents	Patents, licensing, trademarks
	Production QC	Production, quality control
	R&D-applied	R&D-Applied research, development, design
	R&D-basic	R&D-Basic research
	R&D-mgmt	R&D-Management or administration of R&D
	Training	Training or teaching
	Other	—

Geographic Regions

Pacific
- Alaska
- California
- Hawaii
- Oregon
- Washington

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

West North Central
- Iowa
- Kansas
- Minnesota
- Missouri
- Nebraska
- North Dakota
- South Dakota

West South Central
- Arkansas
- Louisiana
- Oklahoma
- Texas

East North Central
- Illinois
- Indiana
- Michigan
- Ohio
- Wisconsin

East South Central
- Alabama
- Kentucky
- Mississippi
- Tennessee

Middle Atlantic
- New Jersey
- New York
- Pennsylvania

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

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

List of Tables

Table 1.1.1
SALARIES of BS CHEMISTS employed FULL-TIME
by EMPLOYER TYPE and YEARS SINCE BS
2003 ACS Salary Survey

		Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
Industry_Mfg	Total	915	69,376	27,434	50,000	65,160	81,789
	0-1	19	40,091	12,920	32,000	38,665	44,000
	2-4	84	44,527	8,118	37,000	45,700	50,000
	5-9	131	50,508	11,422	41,000	50,500	59,500
	10-14	107	60,224	16,888	49,000	60,000	70,000
	15-19	115	70,266	19,982	56,500	69,000	80,000
	20-24	130	76,536	21,254	62,000	76,000	87,450
	25-29	157	84,704	29,573	65,000	80,000	99,800
	30-34	89	83,100	30,042	61,000	78,000	101,878
	35-39	59	85,727	29,846	69,000	80,600	100,000
	40 or more	24	88,931	47,453	60,000	71,939	89,000
Industry_Non-MFG	Total	201	57,808	23,525	42,000	54,098	71,000
	2-4	30	38,973	11,002	30,500	37,000	45,000
	5-9	31	48,186	10,813	40,000	46,135	57,000
	10-14	19	50,407	13,124	44,000	50,000	52,000
	15-19	32	62,811	16,114	51,000	60,000	71,000
	20-24	30	68,207	19,722	52,000	65,000	85,000
	25-29	18	72,351	20,114	59,000	71,201	80,000
	30-34	15	59,522	25,463	29,870	60,573	71,866
Government	Total	119	61,700	20,564	49,152	60,268	71,614
	10-14	15	47,442	9,496	40,000	48,588	51,000
	20-24	20	58,052	13,207	48,000	55,590	65,083
	25-29	22	68,749	20,801	53,000	60,268	83,952
	30-34	22	70,967	24,921	60,000	66,664	84,424
Self-Employer	Total	16	62,238	30,817	44,000	51,000	66,000
High School	Total	16	42,672	11,847	32,000	42,000	45,123
College or University	Total	62	54,538	24,483	35,000	51,000	68,400

Note: Categories with fewer than 15 cases have been suppressed.

Table 1.1.2
SALARIES of MS CHEMISTS employed FULL-TIME
by EMPLOYER TYPE and YEARS SINCE BS
2003 ACS Salary Survey

		Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
Industry_Mfg	Total	744	83,122	28,444	63,400	79,000	95,567
	5-9	80	58,223	10,912	52,500	58,000	63,050
	10-14	78	68,460	13,203	60,843	66,800	76,700
	15-19	93	77,481	20,590	63,000	77,000	87,300
	20-24	127	89,217	25,975	72,364	85,000	100,582
	25-29	133	89,307	28,708	73,500	87,000	100,760
	30-34	127	94,268	30,933	76,000	89,000	106,000
	35-39	69	91,478	31,471	64,800	86,400	110,270
	40 or more	32	91,071	39,788	58,800	89,000	110,000
Industry_Non-MFG	Total	128	79,097	31,014	57,000	72,000	95,300
	15-19	19	70,326	18,062	57,000	70,000	80,000
	20-24	22	70,044	31,821	50,000	61,172	86,000
	25-29	27	93,329	30,959	67,200	93,600	112,500
	30-34	20	87,208	43,668	56,000	70,000	102,000
Government	Total	112	67,554	18,535	54,000	66,000	77,200
	20-24	21	65,625	15,001	54,000	61,000	74,558
	25-29	22	67,398	12,904	61,000	67,700	77,200
	30-34	23	74,983	19,481	60,000	73,000	82,812
	35-39	17	80,945	20,790	63,000	90,000	96,985
High School	Total	71	55,347	16,344	42,000	52,000	63,000
	25-29	16	55,451	16,350	38,070	53,000	62,000
	35-39	15	62,969	17,683	48,500	60,000	79,092
College or University	Total	97	56,441	21,641	41,600	53,146	66,000
	30-34	16	57,429	19,186	45,765	55,000	64,000
	40 or more	16	58,713	23,684	50,000	61,575	74,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 1.1.3
SALARIES of PhD CHEMISTS employed FULL-TIME
by EMPLOYER TYPE and YEARS SINCE BS
2003 ACS Salary Survey

		Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
Industry_Mfg	Total	2139	107,708	35,312	86,205	101,000	121,000
	5-9	64	78,128	14,646	71,147	78,000	84,000
	10-14	210	83,972	16,062	77,000	85,000	93,156
	15-19	334	97,246	22,305	83,300	93,000	108,000
	20-24	427	108,978	33,166	89,364	102,000	120,000
	25-29	415	113,627	31,915	93,300	109,596	127,755
	30-34	317	117,629	40,311	93,000	108,000	130,450
	35-39	255	120,599	44,817	97,960	112,000	140,000
	40 or more	117	115,754	42,717	88,400	104,440	134,105
Industry_Non-MFG	Total	468	102,945	47,885	79,000	94,000	115,000
	5-9	18	75,135	10,932	69,000	76,000	84,000
	10-14	58	84,012	20,881	72,000	82,990	96,000
	15-19	64	92,322	23,039	79,189	87,000	102,150
	20-24	92	100,802	38,905	78,000	95,040	120,000
	25-29	73	107,489	40,853	85,000	100,000	132,000
	30-34	67	114,460	80,555	80,000	98,000	118,500
	35-39	52	111,635	45,324	76,892	103,000	141,500
	40 or more	44	123,874	57,787	82,000	103,123	144,000
Government	Total	323	93,730	24,266	76,190	92,000	110,000
	10-14	23	75,195	17,321	56,000	78,000	86,000
	15-19	32	89,208	20,083	73,000	84,000	102,000
	20-24	52	88,361	24,582	70,210	87,043	103,366
	25-29	41	88,240	20,159	75,400	89,742	98,000
	30-34	57	101,854	25,006	80,565	105,000	119,300
	35-39	52	95,337	23,250	81,640	94,140	106,000
	40 or more	62	103,855	24,089	85,000	106,000	123,388
Self-Employer	Total	32	113,356	111,778	55,000	75,400	150,000
High School	Total	40	50,824	12,528	42,000	48,700	55,400
College or University	Total	1543	78,218	37,952	52,000	69,555	93,000
	5-9	44	48,595	12,772	40,500	44,000	53,000
	10-14	134	53,268	18,717	42,139	48,600	60,000
	15-19	181	58,931	19,312	46,245	54,000	70,000
	20-24	199	67,579	24,975	50,000	61,000	78,500
	25-29	200	76,324	31,829	53,000	68,000	89,900
	30-34	208	87,062	39,840	60,000	74,594	103,000
	35-39	292	92,283	41,066	64,984	84,000	109,850
	40 or more	285	94,663	45,662	65,400	88,900	112,112

Note: Categories with fewer than 15 cases have been suppressed.

Table 2.1.1
SALARIES of INDUSTRIAL CHEMISTS employed FULL-TIME
by DEGREE and YEARS SINCE BS
2003 ACS Salary Survey

		Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
BA/BS	Total	915	69,376	27,434	50,000	65,160	81,789
	0-1	19	40,091	12,920	32,000	38,665	44,000
	2-4	84	44,527	8,118	37,000	45,700	50,000
	5-9	131	50,508	11,422	41,000	50,500	59,500
	10-14	107	60,224	16,888	49,000	60,000	70,000
	15-19	115	70,266	19,982	56,500	69,000	80,000
	20-24	130	76,536	21,254	62,000	76,000	87,450
	25-29	157	84,704	29,573	65,000	80,000	99,800
	30-34	89	83,100	30,042	61,000	78,000	101,878
	35-39	59	85,727	29,846	69,000	80,600	100,000
	40 or more	24	88,931	47,453	60,000	71,939	89,000
MS	Total	744	83,122	28,444	63,400	79,000	95,567
	5-9	80	58,223	10,912	52,500	58,000	63,050
	10-14	78	68,460	13,203	60,843	66,800	76,700
	15-19	93	77,481	20,590	63,000	77,000	87,300
	20-24	127	89,217	25,975	72,364	85,000	100,582
	25-29	133	89,307	28,708	73,500	87,000	100,760
	30-34	127	94,268	30,933	76,000	89,000	106,000
	35-39	69	91,478	31,471	64,800	86,400	110,270
	40 or more	32	91,071	39,788	58,800	89,000	110,000
Ph.D	Total	2139	107,708	35,312	86,205	101,000	121,000
	5-9	64	78,128	14,646	71,147	78,000	84,000
	10-14	210	83,972	16,062	77,000	85,000	93,156
	15-19	334	97,246	22,305	83,300	93,000	108,000
	20-24	427	108,978	33,166	89,364	102,000	120,000
	25-29	415	113,627	31,915	93,300	109,596	127,755
	30-34	317	117,629	40,311	93,000	108,000	130,450
	35-39	255	120,599	44,817	97,960	112,000	140,000
	40 or more	117	115,754	42,717	88,400	104,440	134,105

Note: Categories with fewer than 15 cases have been suppressed.

Table 2.1.2
SALARIES of MEN CHEMISTS employed FULL-TIME in INDUSTRY
by DEGREE and YEARS SINCE BS
2003 ACS Salary Survey

		Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
BA/BS	Total	647	73,348	28,993	53,000	70,000	87,150
	2-4	40	44,096	9,053	37,000	45,000	50,800
	5-9	80	52,720	11,277	44,000	53,000	61,500
	10-14	58	60,811	19,103	48,750	60,400	70,000
	15-19	80	71,367	20,977	56,000	69,000	81,120
	20-24	100	77,765	21,454	63,890	76,344	89,000
	25-29	127	85,552	31,007	64,036	80,896	100,000
	30-34	80	84,577	30,946	64,000	79,500	104,000
	35-39	51	88,500	29,687	69,550	85,729	102,000
	40 or more	22	90,025	48,507	62,000	71,939	89,000
MS	Total	548	85,548	28,878	66,000	81,709	98,500
	5-9	39	58,295	8,825	54,000	58,580	62,000
	10-14	51	69,686	13,523	60,700	68,900	77,000
	15-19	59	81,140	21,435	68,000	78,984	91,000
	20-24	94	88,992	24,640	72,400	85,000	100,582
	25-29	115	89,592	29,883	75,000	87,500	97,000
	30-34	102	93,351	30,387	76,300	88,000	104,000
	35-39	59	93,981	32,572	66,000	88,000	113,000
	40 or more	28	88,653	41,429	56,000	84,355	110,000
Ph.D	Total	1807	108,658	35,612	87,000	102,000	122,800
	5-9	45	77,897	10,298	71,147	78,000	82,740
	10-14	164	83,814	16,817	77,000	85,000	93,000
	15-19	266	98,084	23,260	84,000	94,113	109,500
	20-24	355	110,278	34,809	89,500	103,000	121,500
	25-29	348	113,627	32,451	93,300	108,654	127,069
	30-34	288	115,789	36,341	92,500	106,000	130,000
	35-39	233	121,688	45,378	100,000	113,800	141,000
	40 or more	108	116,788	43,309	90,000	105,000	134,105

Note: Categories with fewer than 15 cases have been suppressed.

Table 2.1.3
SALARIES of WOMEN CHEMISTS employed FULL-TIME in INDUSTRY
by DEGREE and YEARS SINCE BS
2003 ACS Salary Survey

		Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
BA/BS	Total	264	59,704	20,309	45,700	56,000	70,592
	2-4	43	44,987	7,321	39,100	46,000	49,980
	5-9	51	47,039	10,869	39,000	47,840	54,000
	10-14	49	59,529	13,985	49,700	60,000	69,000
	15-19	35	67,750	17,521	56,500	68,000	75,000
	20-24	29	72,523	20,744	55,000	75,000	83,300
	25-29	30	81,110	22,597	65,000	76,325	91,000
MS	Total	191	76,285	26,256	60,000	70,300	87,721
	5-9	40	58,359	12,789	52,000	58,000	63,200
	10-14	26	65,905	12,676	60,843	66,000	70,300
	15-19	34	71,133	17,576	58,000	67,777	79,000
	20-24	33	89,857	29,861	71,968	84,617	104,000
	25-29	17	86,438	20,288	72,000	83,000	102,637
	30-34	23	99,401	34,497	76,000	90,000	115,000
Ph.D	Total	320	102,666	33,437	84,000	96,100	114,660
	5-9	19	78,673	22,160	70,000	77,368	84,500
	10-14	46	84,534	13,164	75,000	83,200	94,000
	15-19	66	94,512	17,821	83,000	90,000	104,000
	20-24	70	102,684	22,854	86,000	100,000	114,660
	25-29	64	113,037	28,826	92,664	112,000	128,500
	30-34	28	137,720	66,972	95,616	117,540	140,000
	35-39	21	109,596	38,156	85,000	100,000	139,800

Note: Categories with fewer than 15 cases have been suppressed.

Table 2.2.1
SALARIES of BS CHEMISTS employed FULL-TIME in INDUSTRY
by WORK SPECIALTY and YEARS SINCE BS
2003 ACS Salary Survey

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
WORK SPECIALTY	Ag/Food chemistry	Total	42	58,641	23,026	46,000	54,098	70,200
	Analytical chemistry	Total	391	63,121	22,716	47,500	60,000	75,000
		2-4	37	41,101	8,875	34,560	41,370	48,000
		5-9	57	48,426	9,727	40,374	50,000	55,250
		10-14	55	57,890	12,763	50,000	58,200	66,600
		15-19	58	64,982	18,014	53,900	66,357	78,000
		20-24	58	68,916	18,297	55,000	67,500	84,238
		25-29	55	80,784	24,846	62,272	75,000	94,000
		30-34	36	78,095	27,644	60,000	72,321	96,000
		35-39	19	75,438	27,128	58,620	72,600	90,180
	Biochemistry	Total	17	67,380	33,087	40,000	58,000	72,000
	Biotechnology	Total	25	73,317	33,836	46,135	60,000	90,000
	Environmental	Total	86	59,883	23,198	46,000	56,000	73,320
	General chemistry	Total	52	67,452	23,023	50,000	62,500	81,635
	Inorganic chemistry	Total	20	69,275	34,148	49,000	61,000	72,000
	Materials science	Total	38	69,066	24,394	49,755	64,000	86,000
	Medicinal-Pharmaceutical	Total	99	66,358	26,025	50,000	61,000	79,040
		2-4	17	46,949	9,842	39,050	47,000	50,000
		5-9	21	51,907	10,837	40,000	54,000	60,800
	Organic chemistry	Total	101	73,833	35,017	50,500	70,000	90,000
	Physical chemistry	Total	15	67,040	20,184	50,850	62,700	80,000
	Polymer chemistry	Total	101	74,883	25,289	56,000	73,600	87,000
		20-24	16	86,082	16,407	73,600	82,500	93,000
		25-29	20	88,245	27,259	73,230	82,500	94,000
	Other chemical	Total	30	77,846	39,012	52,000	70,000	90,500
	Business	Total	21	105,577	39,071	78,000	98,500	117,990
	Other nonchemistry	Total	52	64,690	22,616	48,000	65,000	73,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 2.2.2
SALARIES of BS CHEMISTS employed FULL-TIME in INDUSTRY
by WORK FUNCTION and YEARS SINCE BS
2003 ACS Salary Survey

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
WORK FUNCTION	Analytical services	Total	257	55,510	18,547	42,000	52,147	66,500
		2-4	32	39,022	8,938	33,248	35,000	45,000
		5-9	42	44,498	8,508	37,500	42,682	50,850
		10-14	41	55,696	12,746	48,000	52,000	65,000
		15-19	37	60,027	14,932	47,500	58,900	70,000
		20-24	35	63,526	17,462	50,439	59,000	76,344
		25-29	27	68,795	22,806	53,000	65,000	77,000
		30-34	21	62,795	23,472	48,000	63,000	74,400
	Consulting	Total	19	76,684	27,710	55,000	71,000	80,412
	General mgmt	Total	87	90,054	40,615	63,000	80,000	105,000
		15-19	16	86,100	27,587	63,000	78,200	106,000
		20-24	16	84,349	25,805	62,000	77,200	95,000
		25-29	23	101,155	48,095	72,000	90,000	108,117
	Health & Safety	Total	39	76,754	32,781	53,676	70,000	90,000
	Marketing,sales	Total	72	77,274	24,211	60,000	75,000	90,900
	Production, QC	Total	145	63,060	22,427	48,960	62,000	73,176
		5-9	24	49,554	10,197	39,000	50,203	58,000
		10-14	16	54,306	13,011	45,000	52,000	63,875
		15-19	24	66,636	23,667	53,900	67,000	84,000
		20-24	23	72,100	22,402	63,890	70,000	78,300
		25-29	22	75,531	18,663	60,000	72,000	83,000
	Applied Research	Total	336	65,078	22,746	49,137	60,200	78,247
		2-4	58	45,108	8,945	38,000	45,000	50,800
		5-9	57	53,049	9,846	45,000	54,000	61,000
		10-14	29	60,393	14,722	48,000	56,160	71,000
		15-19	34	69,443	13,154	62,000	68,200	80,000
		20-24	40	75,884	16,576	60,000	78,000	88,900
		25-29	51	78,033	19,494	65,000	77,100	86,000
		30-34	29	80,906	24,606	59,800	79,500	100,000
		35-39	18	77,588	20,505	60,200	72,000	93,000
	Basic Research	Total	30	57,807	21,246	43,000	56,000	68,000
	R&D mgmt	Total	50	90,352	29,533	73,985	93,000	105,000
	Other function	Total	44	66,813	29,005	45,000	67,000	76,564

Note: Categories with fewer than 15 cases have been suppressed.

Table 2.2.3
SALARIES of BS CHEMISTS employed FULL-TIME in INDUSTRY
by INDUSTRY and YEARS SINCE BS
2003 ACS Salary Survey

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
INDUSTRY	Aerospace	Total	16	65,381	15,990	54,000	66,000	75,000
	Ag chemicals	Total	20	64,893	28,204	45,000	55,071	72,000
	Basic chemicals	Total	39	76,400	25,374	58,440	68,000	90,500
	Biochemical prods	Total	19	74,402	37,813	46,000	63,000	86,440
	Coatings, inks,	Total	48	71,685	23,400	57,278	70,000	82,500
	Electronics/semicon	Total	16	67,730	29,901	45,000	65,000	92,300
	Food	Total	52	64,306	24,184	47,600	62,000	76,344
	Instruments	Total	22	75,383	28,540	50,000	71,939	91,000
	Medical devices	Total	32	70,946	25,568	50,000	68,000	80,000
	Metals	Total	29	65,245	37,390	47,000	54,650	66,752
	Personal Care	Total	22	76,108	44,416	48,000	61,000	86,000
	Petroleum	Total	33	75,929	31,078	53,100	67,000	90,000
	Pharmaceuticals	Total	288	67,148	25,479	49,980	62,500	80,000
		2-4	36	46,734	7,305	41,370	47,000	52,000
		5-9	56	51,947	10,143	45,000	51,000	60,000
		10-14	39	63,928	21,349	52,000	63,875	70,860
		15-19	42	71,345	18,114	64,500	70,000	81,000
		20-24	34	78,826	22,477	65,000	78,280	89,000
		25-29	39	87,108	23,637	66,297	83,000	102,000
		30-34	19	95,591	30,091	75,000	95,000	110,000
	Plastics	Total	29	70,747	27,501	50,500	65,000	86,000
	Rubber	Total	24	72,397	20,267	53,348	72,000	86,000
	Soaps	Total	17	62,368	19,808	46,000	58,000	78,000
	Specialty chems	Total	84	69,073	23,846	49,875	66,600	85,000
		25-29	15	86,685	24,498	62,272	85,000	100,000
	Other manufacturing	Total	103	69,694	27,106	52,000	66,050	80,600
		20-24	20	74,588	18,303	57,500	71,000	81,635
		25-29	18	78,950	23,099	63,718	78,000	93,500
	Analytical serv lab	Total	78	53,444	20,962	40,000	51,000	62,000
		15-19	16	56,697	13,919	49,800	57,000	63,000
	Contract res firm	Total	15	61,320	22,543	38,000	57,400	73,320
	Profl services	Total	26	63,235	16,803	52,500	60,320	76,564
	Research institution	Total	18	54,659	17,281	42,000	50,000	60,000
	Other nonmanuf	Total	22	66,950	40,881	44,000	57,000	72,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 2.2.4
SALARIES of BS CHEMISTS employed FULL-TIME in INDUSTRY
by GEOGRAPHIC REGION and YEARS SINCE BS
2003 ACS Salary Survey

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
REGION	Pacific	Total	136	71,099	27,415	52,000	67,000	82,000
		5-9	16	52,198	10,497	42,000	53,000	58,000
		15-19	24	75,906	23,535	60,000	70,000	78,200
		20-24	22	69,856	16,089	58,000	71,800	81,000
		25-29	21	89,634	25,199	72,000	82,500	108,000
	Mountain	Total	46	66,754	29,187	50,000	64,036	75,000
	West North Central	Total	86	58,010	20,455	44,000	53,000	69,900
		5-9	17	46,179	9,498	39,000	44,720	50,000
	West South Central	Total	80	69,013	26,240	51,000	61,764	85,729
		30-34	15	84,844	23,683	67,860	76,000	90,000
	East North Central	Total	246	66,291	24,357	49,836	61,932	80,000
		2-4	21	43,394	9,828	34,000	45,000	49,000
		5-9	30	49,113	12,608	38,000	48,280	58,000
		10-14	29	56,699	14,564	48,000	56,160	66,600
		15-19	39	62,916	18,809	52,000	64,500	79,950
		20-24	38	72,698	21,090	54,000	70,400	90,000
		25-29	42	83,188	24,144	62,272	80,000	94,320
		30-34	24	71,390	25,608	56,000	78,247	91,000
	East South Central	Total	41	60,521	26,715	40,020	56,778	74,000
	Middle Atlantic	Total	234	70,347	28,974	50,500	65,100	81,000
		2-4	26	46,314	7,000	40,000	45,700	50,000
		5-9	32	54,630	12,018	46,000	54,000	62,700
		10-14	32	64,201	22,983	49,700	62,000	75,000
		15-19	22	72,391	18,890	58,500	70,000	85,316
		20-24	31	81,657	20,974	70,000	80,000	88,900
		25-29	38	80,263	24,185	65,000	77,000	93,500
		30-34	19	82,913	28,962	60,000	73,900	101,878
		35-39	17	95,943	45,638	70,000	73,800	105,000
	South Atlantic	Total	155	66,548	29,382	47,268	62,000	80,000
		2-4	21	43,882	10,710	36,900	42,000	49,000
		5-9	28	48,104	10,943	39,000	46,000	57,600
		10-14	20	58,107	12,742	50,000	53,676	69,000
		15-19	21	69,013	18,445	51,000	67,600	84,000
		20-24	19	74,441	22,307	54,000	70,000	81,500
		25-29	20	100,445	42,616	72,000	94,000	115,000
		30-34	16	71,948	31,400	32,000	72,321	93,400
	New England	Total	79	70,635	29,539	52,300	69,000	82,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 2.2.5
SALARIES of BS CHEMISTS employed FULL-TIME in INDUSTRY
by TOTAL SUBORDINATES and YEARS SINCE BS
2003 ACS Salary Survey

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
TOTAL SUBORDINATES	None	Total	516	59,860	21,658	44,900	56,000	72,000
		0-1	21	38,736	13,444	30,000	38,665	45,000
		2-4	83	42,877	8,388	36,900	43,750	49,000
		5-9	96	49,527	11,162	40,000	50,000	57,000
		10-14	69	57,527	14,721	48,020	57,000	67,400
		15-19	51	64,159	15,741	52,200	64,500	72,000
		20-24	60	68,736	19,623	50,439	70,400	82,300
		25-29	64	75,634	19,742	60,000	74,000	86,186
		30-34	33	79,525	30,251	60,000	77,000	95,940
		35-39	27	77,771	30,427	53,000	75,000	96,700
	1-2	Total	250	64,210	20,912	49,755	63,400	77,500
		2-4	23	44,304	12,248	34,900	42,000	52,000
		5-9	40	50,690	10,556	40,800	50,850	60,000
		10-14	23	60,001	25,469	45,000	51,000	69,000
		15-19	36	66,712	16,596	55,000	69,000	76,268
		20-24	33	72,447	17,085	58,300	72,000	81,000
		25-29	40	75,119	18,225	56,250	77,392	86,000
		30-34	26	69,014	25,759	54,000	66,248	80,000
		35-39	19	78,217	17,500	60,200	73,800	90,180
	3-9	Total	89	75,628	28,498	56,250	72,000	86,000
		20-24	16	78,057	19,653	63,890	78,000	85,000
		25-29	16	86,994	26,802	65,000	80,000	101,000
	10-14	Total	38	82,285	29,112	55,071	77,000	102,960
	15-29	Total	73	76,183	33,167	54,650	69,624	91,000
	30-49	Total	62	77,321	25,474	60,000	73,230	90,800
	50 or more	Total	88	90,287	40,740	63,000	84,238	106,000
		15-19	19	82,677	19,404	67,000	82,000	94,760
		20-24	16	93,147	32,365	60,011	87,000	116,000
		25-29	26	105,719	46,187	71,201	100,000	117,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 2.2.6
SALARIES of BS CHEMISTS employed FULL-TIME in INDUSTRY
by EMPLOYER SIZE and YEARS SINCE BS
2003 ACS Salary Survey

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
EMPLOYER SIZE	Less than 50	Total	115	67,071	38,398	44,000	57,000	75,000
		5-9	15	44,532	11,639	32,760	42,640	52,790
		15-19	15	63,368	22,157	50,000	57,000	69,000
		25-29	17	74,147	29,013	54,500	70,000	78,000
	50 to 99	Total	76	54,832	20,110	39,050	51,000	62,500
	100 to 499	Total	200	60,443	23,131	45,000	56,000	70,000
		2-4	22	38,507	7,778	34,000	35,780	43,260
		5-9	35	47,833	14,506	37,500	48,880	56,300
		10-14	18	55,496	11,050	48,000	50,173	65,000
		15-19	24	61,666	14,032	53,000	60,000	66,357
		20-24	26	70,483	21,192	52,000	70,000	82,500
		25-29	25	69,594	23,195	50,500	64,036	89,500
		30-34	24	75,547	29,531	56,000	69,900	86,440
	500 to 2,499	Total	167	62,757	22,412	46,000	60,573	75,000
		2-4	22	41,993	8,843	37,000	42,000	47,000
		5-9	24	50,348	10,570	38,885	49,000	58,000
		10-14	21	56,090	12,845	46,000	56,000	67,500
		20-24	25	69,047	13,758	57,500	69,000	80,000
		25-29	25	78,432	23,577	58,000	79,850	93,500
		30-34	16	70,296	21,029	60,573	66,000	79,200
	2,500 to 9,999	Total	181	74,266	26,140	53,000	70,000	87,450
		2-4	15	44,521	7,636	39,100	44,500	48,000
		5-9	25	55,501	10,353	48,280	57,400	63,000
		10-14	22	68,405	21,917	52,000	65,000	73,000
		15-19	24	78,605	22,745	58,900	78,000	86,500
		20-24	27	81,130	22,024	66,000	80,000	88,000
		25-29	34	89,469	28,117	68,000	86,000	114,900
		30-34	16	88,221	28,868	60,000	90,000	104,000
	10,000 to 24,999	Total	112	75,515	29,684	57,000	70,000	90,000
		10-14	16	64,105	13,122	54,650	60,000	70,000
		20-24	20	75,554	18,553	57,278	78,280	90,500
		25-29	23	102,430	43,236	78,755	94,320	108,000
	25,000 or more	Total	249	71,331	25,219	53,348	69,000	85,000
		2-4	25	48,813	7,999	46,000	49,836	55,000
		5-9	41	51,138	8,834	45,000	51,000	56,000
		10-14	21	63,146	17,376	52,000	66,800	72,513
		15-19	43	72,283	18,620	65,100	70,000	80,000
		20-24	35	81,451	26,034	69,000	78,000	88,900
		25-29	42	86,177	21,213	74,000	80,896	98,500
		30-34	24	92,217	33,987	73,900	93,500	110,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 2.3.1
SALARIES of MS CHEMISTS employed FULL-TIME in INDUSTRY
by WORK SPECIALTY and YEARS SINCE BS
2003 ACS Salary Survey

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
WORK SPECIALTY	Ag/Food chemistry	Total	36	81,166	31,713	59,916	71,000	93,000
	Analytical chemistry	Total	195	74,726	24,205	56,500	71,916	87,000
		5-9	17	52,337	7,995	44,640	50,000	59,000
		10-14	19	63,487	14,298	52,500	64,862	70,300
		15-19	31	73,117	20,888	57,000	71,000	80,000
		20-24	31	76,671	22,755	58,900	72,000	85,320
		25-29	40	83,069	21,643	68,010	80,000	95,000
		30-34	31	80,292	25,168	60,000	80,000	89,837
	Biochemistry	Total	16	78,762	31,148	53,500	72,364	93,000
	Biotechnology	Total	31	90,509	26,782	74,000	85,995	100,000
	Environmental	Total	54	77,097	27,644	60,278	71,000	91,000
	General chemistry	Total	25	84,253	23,132	64,800	84,000	99,600
	Materials science	Total	25	85,657	32,715	63,000	80,000	104,000
	Medicinal-Pharmaceutical	Total	142	82,365	25,805	64,000	78,500	95,500
		5-9	30	60,853	7,102	58,580	60,000	63,699
		10-14	19	72,639	14,611	64,000	68,452	80,000
		15-19	25	78,839	14,362	67,777	78,500	90,000
		20-24	20	83,983	21,517	71,350	84,000	95,500
		30-34	20	109,865	38,315	84,000	100,020	126,000
	Organic chemistry	Total	104	80,181	25,135	61,500	77,000	90,000
		10-14	15	65,968	8,312	58,642	65,000	72,000
		15-19	18	75,804	15,531	63,000	77,000	90,100
		25-29	18	87,810	20,885	76,000	83,400	95,000
	Polymer chemistry	Total	87	81,635	23,632	62,000	80,000	95,600
		20-24	17	89,748	21,863	72,400	85,000	106,000
		25-29	18	86,440	16,903	78,200	85,000	100,000
		30-34	16	86,374	23,124	71,500	88,000	94,000
	Other chemical	Total	32	84,113	29,865	63,000	74,000	100,000
	Business	Total	30	116,974	52,018	80,000	112,000	132,000
	Computer science	Total	15	79,716	29,471	52,000	75,000	96,000
	Other nonchemistry	Total	45	89,690	25,785	72,000	83,000	104,230

Note: Categories with fewer than 15 cases have been suppressed.

Table 2.3.2
SALARIES of MS CHEMISTS employed FULL-TIME in INDUSTRY
by WORK FUNCTION and YEARS SINCE BS
2003 ACS Salary Survey

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
WORK FUNCTION	Analytical services	Total	118	67,160	19,485	53,472	66,000	79,000
		15-19	17	67,860	16,506	57,000	70,000	79,000
		20-24	21	63,194	17,007	55,000	58,900	71,916
		25-29	24	76,926	17,091	70,000	76,527	84,000
		30-34	21	76,170	26,540	48,500	74,000	89,837
	Chemical info	Total	23	80,756	18,770	66,000	74,884	91,029
	Consulting	Total	21	86,575	38,319	63,000	83,200	98,000
	General mgmt	Total	47	112,776	50,290	78,984	100,400	132,600
	Health & Safety	Total	36	92,765	28,201	71,500	91,000	103,000
	Marketing,sales	Total	54	86,944	29,056	67,000	80,000	99,350
	Production, QC	Total	62	80,145	26,355	62,000	76,000	98,000
		25-29	15	94,325	32,392	67,000	91,000	112,000
		30-34	15	81,734	23,016	64,000	80,000	100,000
	Applied Research	Total	330	77,016	20,953	62,000	74,000	90,000
		5-9	50	57,668	8,655	52,887	58,000	63,000
		10-14	49	68,507	13,138	60,843	66,000	73,000
		15-19	41	74,525	15,896	62,550	77,000	84,335
		20-24	49	82,331	15,862	72,000	81,115	93,000
		25-29	52	86,853	19,172	74,000	87,000	96,000
		30-34	48	90,134	22,970	76,890	88,000	100,000
		35-39	26	81,446	21,937	63,000	74,700	95,000
	Basic Research	Total	38	80,101	19,534	66,000	78,648	87,300
	R&D mgmt	Total	68	105,187	26,273	85,000	100,760	120,000
	Other function	Total	46	84,386	34,488	60,000	80,000	104,230

Note: Categories with fewer than 15 cases have been suppressed.

Table 2.3.3
SALARIES of MS CHEMISTS employed FULL-TIME in INDUSTRY
by INDUSTRY and YEARS SINCE BS
2003 ACS Salary Survey

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
INDUSTRY	Aerospace	Total	15	89,482	27,831	76,300	80,000	98,600
	Ag chemicals	Total	16	81,823	32,362	55,000	74,000	94,000
	Basic chemicals	Total	16	93,597	36,483	64,000	85,320	102,072
	Coatings, inks,	Total	46	80,429	23,923	61,507	79,248	97,000
	Food	Total	30	83,498	31,615	60,000	71,000	99,600
	Instruments	Total	25	80,777	34,306	56,000	79,380	88,300
	Medical devices	Total	19	89,327	25,521	72,250	80,000	95,000
	Petroleum	Total	20	86,184	20,881	69,000	82,000	96,000
	Pharmaceuticals	Total	293	81,042	25,072	63,400	77,900	95,000
		5-9	47	59,137	11,487	55,000	60,000	63,400
		10-14	42	70,177	11,188	63,500	67,900	77,000
		15-19	47	78,791	17,535	66,000	77,700	85,000
		20-24	42	86,754	21,208	74,000	84,617	100,000
		25-29	39	94,445	17,164	84,000	93,000	105,500
		30-34	41	101,089	36,743	80,275	92,000	109,000
		35-39	21	84,378	20,473	64,500	85,000	102,701
	Plastics	Total	29	87,523	25,179	71,500	85,000	92,000
	Soaps	Total	16	73,474	21,941	59,500	67,500	74,000
	Specialty chems	Total	70	90,927	41,013	63,000	83,000	104,000
		25-29	15	99,455	60,226	72,000	85,650	95,000
	Other manufacturing	Total	84	80,312	26,076	64,000	78,370	90,000
		25-29	20	82,431	19,591	68,792	83,000	90,000
		30-34	21	79,043	28,166	53,472	78,370	88,000
	Analytical serv lab	Total	30	59,082	16,654	46,000	56,000	70,000
	Private utility	Total	17	89,897	21,002	72,000	89,200	105,000
	Profl services	Total	35	91,526	36,515	63,000	87,100	107,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 2.3.4
SALARIES of MS CHEMISTS employed FULL-TIME in INDUSTRY
by GEOGRAPHIC REGION and YEARS SINCE BS
2003 ACS Salary Survey

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
REGION	Pacific	Total	99	82,812	26,985	63,200	79,380	99,000
		20-24	26	92,275	31,836	76,520	86,000	110,000
		25-29	20	82,502	25,698	60,000	79,044	107,000
	Mountain	Total	28	74,303	25,022	55,000	70,000	82,000
	West North Central	Total	45	79,881	24,516	60,125	75,000	91,470
	West South Central	Total	54	82,710	27,026	63,150	77,700	95,000
	East North Central	Total	183	81,106	26,165	62,000	78,000	94,000
		5-9	18	54,455	10,539	48,792	55,500	60,000
		10-14	15	74,329	21,030	62,000	70,000	78,375
		15-19	24	74,249	19,161	58,000	71,000	84,000
		20-24	20	76,215	17,431	60,000	72,400	85,000
		25-29	27	86,867	19,253	72,000	89,000	96,000
		30-34	40	98,584	32,748	78,370	90,000	120,000
		35-39	23	84,823	23,368	65,049	76,000	95,567
	East South Central	Total	22	78,925	25,338	70,000	78,150	89,000
	Middle Atlantic	Total	227	83,249	33,518	61,172	77,900	95,000
		5-9	24	56,928	7,550	52,000	55,500	61,800
		10-14	27	64,958	10,055	57,000	66,000	69,950
		15-19	26	75,679	17,747	63,000	77,000	87,000
		20-24	49	84,719	23,681	66,898	84,000	98,000
		25-29	44	96,523	41,036	78,400	90,000	107,000
		30-34	28	95,345	45,873	67,900	84,000	94,000
		35-39	17	89,199	30,851	60,000	86,000	113,000
	South Atlantic	Total	104	85,707	32,346	60,500	80,000	105,000
		20-24	15	81,449	33,035	55,000	77,584	94,700
		25-29	23	95,594	27,804	76,527	94,400	108,000
		30-34	21	97,052	31,086	70,000	90,000	110,000
	New England	Total	98	82,259	23,808	65,000	81,000	93,460
		10-14	19	74,643	17,506	64,633	74,000	82,000
		15-19	15	89,392	31,418	70,300	83,200	95,000
		25-29	16	85,586	16,617	78,200	85,650	90,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 2.3.5
SALARIES of MS CHEMISTS employed FULL-TIME in INDUSTRY
by TOTAL SUBORDINATES and YEARS SINCE BS
2003 ACS Salary Survey

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
TOTAL SUBORDINATES	None	Total	384	78,022	25,945	60,278	74,800	90,000
		5-9	51	58,051	9,251	53,000	57,600	63,050
		10-14	45	68,568	15,878	60,000	66,144	77,000
		15-19	47	71,945	16,396	62,000	70,300	83,200
		20-24	63	80,106	23,532	61,880	75,500	91,450
		25-29	65	86,828	20,723	73,500	83,400	100,000
		30-34	58	92,269	34,973	70,000	86,000	106,000
		35-39	35	85,782	25,817	64,800	80,000	104,308
		40 or more	15	83,743	42,321	49,266	80,062	97,000
	1-2	Total	242	78,114	22,859	62,000	74,000	91,208
		5-9	25	57,531	8,965	49,755	59,000	62,000
		10-14	26	65,739	10,185	62,000	65,000	70,300
		15-19	35	76,284	23,351	60,960	77,000	82,500
		20-24	36	78,978	17,691	66,000	80,000	92,000
		25-29	45	82,608	20,877	68,792	85,000	94,400
		30-34	42	88,223	23,183	71,500	84,000	100,020
		35-39	19	91,127	32,627	61,000	91,000	107,066
	3-9	Total	76	81,943	22,182	63,500	84,000	95,856
		30-34	16	86,032	20,959	68,000	88,000	102,072
	10-14	Total	30	89,842	26,080	71,000	87,000	105,000
	15-29	Total	54	86,178	31,289	60,000	83,000	109,000
		25-29	15	87,662	30,926	62,000	83,000	98,000
	30-49	Total	25	99,297	26,450	78,000	100,000	110,000
	50 or more	Total	61	115,475	46,169	83,200	107,000	135,000
		20-24	18	117,424	44,813	92,000	120,000	145,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 2.3.6
SALARIES of MS CHEMISTS employed FULL-TIME in INDUSTRY
by EMPLOYER SIZE and YEARS SINCE BS
2003 ACS Salary Survey

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
EMPLOYER SIZE	Less than 50	Total	84	74,693	30,846	55,000	66,000	90,000
		20-24	19	78,562	34,547	55,000	61,172	90,000
	50 to 99	Total	46	79,228	35,305	56,000	68,000	97,000
	100 to 499	Total	124	76,900	27,876	54,000	71,500	90,000
		5-9	15	55,822	17,971	45,000	50,000	60,000
		15-19	20	68,759	17,950	56,000	63,000	77,300
		20-24	18	83,542	34,455	61,880	75,300	103,000
		25-29	26	85,969	25,132	70,000	83,000	95,000
		30-34	20	87,389	32,744	62,565	76,000	100,000
	500 to 2,499	Total	126	82,875	25,769	64,000	79,044	94,700
		20-24	19	88,074	19,469	72,000	91,000	97,850
		25-29	24	87,523	16,711	74,000	80,000	93,600
		30-34	24	88,889	34,057	62,000	82,475	109,000
	2,500 to 9,999	Total	137	84,488	30,592	63,600	80,000	96,000
		20-24	36	90,059	28,064	72,000	84,500	96,800
		25-29	22	92,524	25,602	78,400	94,400	105,000
		30-34	18	97,103	43,514	74,884	87,000	104,000
	10,000 to 24,999	Total	102	84,320	23,309	68,452	80,000	98,000
		20-24	16	89,831	20,573	74,000	85,320	95,500
		25-29	20	90,316	17,525	73,298	90,000	101,500
		30-34	17	101,803	25,289	82,350	91,000	117,500
	25,000 or more	Total	246	86,835	29,285	67,900	82,500	100,000
		5-9	24	57,783	5,731	54,500	58,580	60,000
		10-14	33	70,527	10,359	61,500	70,000	77,000
		15-19	38	79,404	15,687	67,777	78,684	90,100
		20-24	34	89,619	24,521	72,364	85,000	102,000
		25-29	41	99,359	41,321	80,000	91,119	106,000
		30-34	47	102,730	31,303	81,300	94,000	107,000
		35-39	21	90,544	19,825	74,700	87,721	108,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 2.4.1
SALARIES of PhD CHEMISTS employed FULL-TIME in INDUSTRY
by WORK SPECIALTY and YEARS SINCE BS
2003 ACS Salary Survey

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
WORK SPECIALTY	Ag/Food chemistry	Total	86	101,865	28,182	84,488	100,000	117,825
		25-29	25	110,317	20,450	93,300	110,000	122,800
		30-34	19	110,059	31,894	90,000	108,240	134,000
	Analytical chemistry	Total	372	95,898	28,164	80,000	93,168	109,000
		10-14	37	78,637	15,126	70,018	80,000	87,000
		15-19	57	91,969	20,398	80,000	89,400	104,000
		20-24	93	100,819	26,336	82,000	99,200	120,000
		25-29	68	104,439	27,671	85,000	99,000	120,000
		30-34	55	98,228	27,652	85,775	96,708	105,498
		35-39	38	97,083	35,323	76,892	95,000	110,000
	Biochemistry	Total	76	114,382	38,385	82,000	107,117	130,000
		20-24	16	102,649	27,397	80,000	103,000	115,000
		25-29	18	120,386	28,942	102,000	120,000	138,800
		30-34	15	109,639	35,165	77,617	107,117	120,000
	Biotechnology	Total	143	120,037	49,381	88,000	108,000	139,800
		10-14	27	86,871	15,058	78,000	87,007	94,000
		15-19	18	103,721	21,448	85,000	98,500	118,000
		20-24	21	120,901	40,036	96,600	110,500	149,000
		25-29	28	129,166	30,198	103,000	125,468	143,555
		30-34	20	160,358	85,160	113,000	123,320	159,000
		35-39	16	140,472	49,526	108,000	120,000	153,920
	Clinical chemistry	Total	18	100,309	36,009	77,450	92,040	105,000
	Environmental chemistry	Total	72	98,385	36,733	78,000	96,000	115,000
		30-34	17	101,513	30,110	80,000	107,000	125,800
		35-39	17	98,812	41,962	70,000	96,000	123,000
	General chemistry	Total	29	102,904	37,674	86,000	100,500	110,000
	Inorganic chemistry	Total	75	100,665	25,272	85,000	95,500	109,750
		20-24	16	104,966	29,037	85,000	95,500	114,560
		25-29	16	104,787	29,105	85,000	100,000	111,732
	Materials science	Total	169	106,483	35,328	85,000	101,000	120,000
		10-14	17	74,371	21,439	68,300	77,000	84,000
		15-19	24	97,862	14,873	86,400	94,323	107,640
		20-24	34	107,000	43,444	83,000	100,000	115,000
		25-29	36	114,741	28,699	91,000	106,719	138,000
		30-34	23	108,976	29,957	90,000	103,000	120,000
		35-39	17	120,400	32,312	105,700	120,000	144,430
	Medicinal-Pharmaceutical	Total	439	114,765	42,812	89,330	104,440	130,000
		5-9	16	85,012	12,584	79,000	83,000	86,000
		10-14	72	92,506	14,849	84,300	92,900	97,000
		15-19	89	103,333	25,897	86,000	99,846	115,880
		20-24	101	115,208	34,678	94,500	109,000	126,000
		25-29	66	123,357	38,559	94,000	116,000	141,000
		30-34	41	146,924	78,552	104,000	130,000	165,000
		35-39	34	137,658	48,718	104,000	121,560	176,000
		40 or more	20	134,134	51,100	88,000	120,000	171,000
	Organic chemistry	Total	365	103,419	34,986	83,000	98,000	116,000
		10-14	33	81,141	12,165	75,000	81,000	85,000
		15-19	66	92,341	21,836	79,200	89,000	104,698
		20-24	72	107,107	33,222	85,000	103,000	126,000
		25-29	60	103,533	25,891	89,000	105,000	118,800
		30-34	49	108,604	35,644	88,420	101,000	116,000
		35-39	46	126,136	56,365	100,000	112,759	140,000
		40 or more	27	109,199	33,806	82,000	100,000	140,000

Note: Categories with fewer than 15 cases have been suppressed. (cont.)

Table 2.4.1
SALARIES of PhD CHEMISTS employed FULL-TIME in INDUSTRY
by WORK SPECIALTY and YEARS SINCE BS
2003 ACS Salary Survey (cont.)

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
WORK SPECIALTY	Physical chemistry	Total	123	108,130	33,430	87,000	101,000	120,000
		15-19	16	93,125	24,622	77,000	83,000	99,500
		20-24	23	104,940	25,807	88,000	101,000	118,000
		25-29	25	103,032	25,005	78,300	100,000	114,400
		30-34	16	122,155	24,494	102,000	119,000	132,500
		35-39	20	135,809	52,797	103,000	116,047	150,000
	Polymer chemistry	Total	312	103,780	33,868	84,000	97,152	115,645
		10-14	27	77,315	11,499	70,000	76,827	82,000
		15-19	40	93,578	17,154	82,000	91,000	97,900
		20-24	55	105,941	40,416	88,000	96,676	102,000
		25-29	64	106,162	25,924	91,300	103,356	121,000
		30-34	51	114,895	38,717	95,000	104,000	129,000
		35-39	41	116,326	40,577	92,000	111,816	126,500
		40 or more	21	111,019	32,675	86,660	110,000	120,000
	Other chemical science	Total	65	101,704	29,728	82,000	96,090	112,000
		25-29	15	120,603	27,423	102,000	112,000	130,000
	Business	Total	68	123,670	46,945	90,000	116,880	143,500
	Computer science	Total	35	98,010	36,671	73,000	95,000	110,000
	Law	Total	31	123,132	58,882	85,000	118,500	132,000
	Other nonchemistry	Total	123	113,666	42,537	89,000	104,000	132,000
		15-19	17	93,061	17,434	80,000	97,000	101,088
		20-24	23	116,672	28,649	90,000	110,000	135,000
		25-29	26	122,605	55,732	97,000	115,000	155,000
		30-34	19	133,091	61,271	90,000	128,750	140,000
		35-39	20	115,973	32,987	99,500	116,000	129,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 2.4.2
SALARIES of PhD CHEMISTS employed FULL-TIME in INDUSTRY
by WORK FUNCTION and YEARS SINCE BS
2003 ACS Salary Survey

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
WORK FUNCTION	Analytical services	Total	211	89,239	25,040	75,500	89,000	102,000
		10-14	15	71,155	22,715	52,000	78,500	86,108
		15-19	32	88,577	18,034	72,000	86,466	99,980
		20-24	49	91,159	21,786	78,000	95,000	104,000
		25-29	37	99,119	23,013	84,500	95,352	108,000
		30-34	37	90,417	26,380	76,000	94,950	104,250
		35-39	24	93,780	33,530	76,500	88,000	107,000
	Chemical info	Total	32	89,925	24,578	76,500	88,900	100,600
	Computers	Total	29	94,308	31,402	71,073	91,153	113,400
	Consulting	Total	24	111,576	49,892	75,000	96,000	120,000
	General mgmt	Total	119	139,083	78,551	92,040	119,000	156,000
		20-24	17	144,532	70,876	97,500	116,000	170,000
		25-29	20	141,926	64,642	99,800	129,782	162,000
		30-34	17	181,424	132,631	96,404	130,000	204,000
		35-39	31	139,005	67,522	108,000	129,000	150,000
		40 or more	16	141,031	66,360	80,500	112,000	222,000
	Health & Safety	Total	54	116,918	46,835	86,000	102,150	136,000
		30-34	16	138,014	72,867	85,090	116,832	139,000
	Marketing,sales	Total	117	100,606	26,108	85,622	98,000	115,000
		15-19	15	93,295	31,498	80,000	90,000	100,000
		20-24	26	98,637	24,158	92,000	97,500	107,000
		25-29	27	109,296	28,352	97,000	112,000	124,000
		30-34	21	110,661	23,077	90,000	107,000	124,000
	Patents	Total	39	128,268	51,097	99,000	120,500	135,000
	Production, QC	Total	77	101,250	33,361	80,000	95,124	121,000
		20-24	18	92,113	30,290	68,000	84,000	121,000
		25-29	15	125,653	35,700	92,000	117,000	152,000
	Applied Research	Total	1210	97,619	25,864	82,680	94,200	109,000
		5-9	54	76,709	13,417	70,000	77,340	84,000
		10-14	173	83,143	15,483	75,000	85,000	92,600
		15-19	203	91,708	17,166	81,195	89,981	100,000
		20-24	231	99,121	21,566	85,510	96,540	108,000
		25-29	205	102,180	25,972	88,400	100,000	113,800
		30-34	157	108,651	30,185	90,000	104,000	120,000
		35-39	127	108,978	35,173	86,700	107,000	123,000
		40 or more	60	103,902	27,998	84,096	102,000	111,000
	Basic Research	Total	132	105,039	27,466	87,614	102,000	119,000
		10-14	28	88,880	16,661	75,000	90,000	98,000
		20-24	23	101,036	24,945	88,000	108,000	110,000
		25-29	23	110,047	23,181	94,000	116,000	125,000
		30-34	20	113,925	20,472	95,000	109,000	125,000
	R&D mgmt	Total	453	132,402	39,282	105,000	126,000	150,000
		10-14	16	99,218	18,169	84,000	95,800	100,700
		15-19	80	113,431	26,242	96,000	108,000	130,000
		20-24	104	134,286	37,345	111,000	131,000	150,000
		25-29	106	133,431	29,939	110,000	129,000	150,000
		30-34	66	141,093	48,770	105,000	135,000	173,000
		35-39	55	147,584	46,253	113,000	140,000	164,000
		40 or more	21	158,729	44,323	130,000	164,600	180,000

Note: Categories with fewer than 15 cases have been suppressed. (cont.)

Table 2.4.2
SALARIES of PhD CHEMISTS employed FULL-TIME in INDUSTRY
by WORK FUNCTION and YEARS SINCE BS
2003 ACS Salary Survey (cont.)

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
WORK FUNCTION	Other function	Total	81	109,163	36,203	87,000	104,080	130,000
		20-24	16	109,884	24,685	90,000	105,000	117,500
		25-29	18	104,851	42,091	83,750	110,000	130,000
		35-39	17	117,427	41,758	97,218	104,903	125,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 2.4.3
SALARIES of PhD CHEMISTS employed FULL-TIME in INDUSTRY
by INDUSTRY and YEARS SINCE BS
2003 ACS Salary Survey

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
INDUSTRY	Aerospace	Total	46	108,736	29,651	87,000	104,000	130,000
		25-29	16	111,532	26,085	95,000	106,719	130,000
	Ag chemicals	Total	70	102,887	28,801	86,000	100,000	110,076
		25-29	23	106,476	21,278	92,500	105,000	113,400
		30-34	15	114,832	43,614	92,064	103,570	111,000
	Basic chemicals	Total	111	104,226	24,703	92,000	100,000	115,000
		20-24	23	105,300	16,051	96,000	100,000	116,500
		25-29	31	100,542	17,058	90,640	99,060	108,000
		30-34	23	114,985	34,891	96,500	103,000	118,800
	Biochemical prods	Total	42	95,610	30,969	70,000	90,000	118,000
	Coatings, inks, paints	Total	84	97,935	26,840	80,000	95,000	104,000
		20-24	20	104,123	28,411	87,000	95,300	102,000
	Electronics/semiconductors	Total	84	110,443	46,420	86,561	101,000	120,000
		15-19	16	98,285	11,781	87,450	98,000	108,000
		20-24	15	102,297	22,267	85,000	101,760	107,000
		25-29	16	109,892	39,475	93,000	100,000	115,000
	Food	Total	48	108,960	47,742	84,300	104,000	122,800
	Instruments	Total	66	91,944	34,326	75,000	89,000	100,860
		25-29	15	98,350	17,034	85,000	98,000	104,000
	Medical devices	Total	78	112,166	43,517	84,565	97,000	135,000
		20-24	15	123,178	55,305	87,226	103,000	135,000
	Metals	Total	19	86,527	18,726	75,000	84,488	97,080
	Paper	Total	21	101,927	24,867	84,000	97,910	109,000
	Personal Care	Total	33	101,937	24,017	82,000	99,500	118,000
	Petroleum	Total	65	114,438	26,687	97,500	110,000	127,500
		30-34	22	117,714	24,740	102,655	112,000	129,000
	Pharmaceuticals	Total	719	114,544	37,182	90,000	108,000	130,000
		5-9	26	83,321	19,589	79,000	83,000	90,900
		10-14	94	89,994	15,381	82,869	90,000	96,600
		15-19	138	104,622	24,293	86,500	100,500	120,000
		20-24	166	113,452	30,625	95,000	110,000	128,200
		25-29	125	124,601	32,742	102,000	122,000	142,500
		30-34	90	135,832	51,776	103,423	130,000	160,000
		35-39	54	137,323	50,090	104,000	120,000	166,400
		40 or more	26	124,817	40,473	99,000	115,000	151,000
	Plastics	Total	105	107,649	34,918	90,000	99,644	113,208
		15-19	18	95,210	9,548	90,000	96,000	104,000
		20-24	19	111,612	58,417	90,000	102,000	103,152
		25-29	27	111,733	20,266	96,000	109,596	123,000
		35-39	17	121,479	42,916	95,300	103,000	132,000
	Rubber	Total	22	95,609	21,456	79,380	93,168	110,000
	Soaps	Total	33	97,939	43,371	75,000	90,200	113,000
	Specialty chems	Total	252	101,993	29,883	84,000	96,476	115,000
		10-14	20	78,779	8,318	71,000	78,000	84,504
		15-19	38	87,092	15,448	80,000	87,000	96,000
		20-24	56	106,053	34,219	85,000	98,000	115,000
		25-29	42	108,887	30,698	96,000	105,000	121,000
		30-34	38	105,647	25,377	85,250	101,100	119,000
		35-39	30	113,246	30,108	90,168	109,415	123,044
		40 or more	25	107,485	35,352	80,000	102,000	120,500

Note: Categories with fewer than 15 cases have been suppressed. (cont.)

Table 2.4.3
SALARIES of PhD CHEMISTS employed FULL-TIME in INDUSTRY
by INDUSTRY and YEARS SINCE BS
2003 ACS Salary Survey (cont.)

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
INDUSTRY	Other manufacturing	Total	216	106,059	35,117	85,000	100,000	121,300
		10-14	15	79,160	22,927	60,000	82,000	87,000
		15-19	28	90,855	12,912	82,000	89,400	95,000
		20-24	36	103,942	25,465	88,000	97,000	118,000
		25-29	41	111,810	25,573	91,000	113,800	129,782
		30-34	35	115,193	40,771	92,000	105,000	123,541
		35-39	37	114,953	39,880	95,124	106,000	126,000
		40 or more	19	116,747	56,302	90,428	110,000	120,000
	Analytical serv lab	Total	47	78,745	31,596	58,747	75,000	85,000
	Biotech research	Total	113	108,902	45,193	85,000	97,000	117,800
		10-14	24	93,823	14,788	82,990	94,000	97,000
		15-19	24	103,655	25,678	85,000	98,500	115,000
		20-24	28	109,580	30,680	88,600	100,000	123,600
	Contract res firm	Total	80	100,061	62,451	74,500	85,404	109,500
	Hospitals	Total	17	91,645	21,884	76,000	92,040	102,150
	Non-profit	Total	42	100,299	54,635	71,073	87,000	118,440
	Profl services	Total	58	116,555	56,811	80,000	99,800	150,000
	Research institution	Total	70	103,420	33,765	81,100	96,000	115,700
		30-34	16	103,457	25,407	90,000	98,000	119,000
	Other nonmanuf	Total	41	107,232	35,064	81,000	104,000	140,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 2.4.4
SALARIES of PhD CHEMISTS employed FULL-TIME in INDUSTRY
by GEOGRAPHIC REGION and YEARS SINCE BS
2003 ACS Salary Survey

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
REGION	Pacific	Total	392	111,151	42,391	85,000	102,000	125,000
		5-9	16	79,542	8,665	70,000	82,500	85,000
		10-14	53	90,091	16,184	80,000	90,000	96,600
		15-19	64	100,495	24,155	82,000	95,000	115,000
		20-24	80	116,441	38,704	94,000	106,000	135,000
		25-29	51	123,410	37,442	100,000	120,000	140,000
		30-34	61	123,126	66,486	86,000	108,000	140,000
		35-39	44	112,761	39,339	87,500	108,000	134,000
		40 or more	23	130,901	50,639	100,000	108,000	170,000
	Mountain	Total	98	102,098	37,155	80,000	92,000	114,560
		15-19	18	93,681	28,763	76,500	85,000	96,000
		20-24	21	104,753	51,565	65,000	90,000	114,560
		25-29	18	106,769	34,364	85,000	100,000	121,200
	West North Central	Total	155	103,527	36,429	82,000	97,000	118,500
		15-19	19	93,210	23,652	79,379	93,000	108,000
		20-24	28	98,421	29,400	82,000	92,040	107,000
		25-29	26	104,696	24,552	89,940	100,000	115,000
		30-34	32	112,741	39,431	90,000	104,000	121,000
		35-39	24	112,106	35,986	80,000	119,000	125,040
	West South Central	Total	176	102,120	27,567	84,000	101,000	116,000
		10-14	19	79,085	22,082	70,018	79,800	83,000
		15-19	27	94,486	16,251	88,000	99,900	104,000
		20-24	41	102,272	20,434	85,000	102,550	116,000
		25-29	24	109,977	27,156	91,300	109,596	120,000
		30-34	31	109,366	26,622	92,633	102,655	125,800
		35-39	20	116,750	26,236	97,152	114,000	130,300
	East North Central	Total	453	103,150	32,716	83,750	99,200	117,500
		10-14	52	80,816	12,808	73,500	80,820	90,000
		15-19	68	93,516	18,571	80,300	90,000	101,000
		20-24	82	104,295	26,732	87,030	103,000	118,500
		25-29	104	108,183	35,753	90,000	105,000	125,000
		30-34	59	109,707	35,433	90,000	107,000	128,000
		35-39	54	117,317	39,376	96,000	110,000	135,000
		40 or more	22	119,400	46,251	97,910	107,000	125,000
	East	Total	53	94,368	25,583	81,515	94,000	104,000
	Middle Atlantic	Total	632	109,371	34,788	86,760	102,000	125,000
		5-9	17	76,382	20,553	70,000	79,000	84,500
		10-14	55	87,717	13,044	80,000	85,300	93,900
		15-19	96	97,795	23,265	81,000	93,000	107,000
		20-24	129	108,186	30,765	89,500	101,000	120,000
		25-29	124	118,191	34,299	97,500	110,000	130,000
		30-34	92	123,865	38,675	95,000	115,000	139,000
		35-39	80	114,160	43,401	87,500	106,650	141,000
		40 or more	39	114,649	38,474	83,000	104,000	136,000

Note: Categories with fewer than 15 cases have been suppressed. (cont.)

Table 2.4.4
SALARIES of PhD CHEMISTS employed FULL-TIME in INDUSTRY
by GEOGRAPHIC REGION and YEARS SINCE BS
2003 ACS Salary Survey (cont.)

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
REGION	South Atlantic	Total	351	105,131	41,917	82,000	97,500	118,200
		10-14	26	79,125	14,282	69,000	78,000	86,000
		15-19	45	91,536	19,625	80,000	90,000	100,000
		20-24	70	103,389	34,111	84,500	97,080	113,000
		25-29	79	109,203	28,895	86,600	103,020	125,000
		30-34	58	111,841	68,424	84,700	98,000	115,000
		35-39	43	127,563	44,681	103,000	121,028	144,430
		40 or more	21	107,130	41,341	75,000	104,440	125,000
	New England	Total	270	111,827	45,765	86,000	101,900	130,000
		10-14	36	83,267	25,468	71,000	87,000	96,400
		15-19	54	100,143	23,655	86,000	94,323	113,000
		20-24	47	114,162	36,176	92,000	111,000	135,216
		25-29	45	118,217	33,408	95,000	116,000	140,000
		30-34	30	127,538	60,517	88,087	110,000	140,000
		35-39	23	156,554	76,856	107,827	130,000	173,300
		40 or more	22	118,434	53,102	80,000	95,082	155,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 2.4.5
SALARIES of PhD CHEMISTS employed FULL-TIME in INDUSTRY
by TOTAL SUBORDINATES and YEARS SINCE BS
2003 ACS Salary Survey

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
TOTAL SUBORDINATES	None	Total	734	101,934	40,049	82,000	95,000	116,500
		5-9	28	75,379	15,806	72,000	77,368	82,740
		10-14	80	78,758	18,074	70,000	81,000	89,000
		15-19	101	94,111	22,779	80,000	89,981	100,000
		20-24	133	98,234	30,742	82,000	96,500	110,000
		25-29	136	107,440	37,943	85,000	101,520	125,000
		30-34	106	113,815	60,631	86,000	103,000	128,000
		35-39	99	114,192	38,178	88,000	110,076	131,000
		40 or more	51	114,838	51,011	82,000	100,000	125,000
	1-2	Total	832	95,845	24,774	82,000	93,000	106,000
		5-9	35	79,800	12,659	70,000	79,000	85,000
		10-14	119	84,774	13,197	78,000	85,000	93,900
		15-19	140	89,970	18,179	80,000	87,747	99,360
		20-24	163	97,513	30,302	84,000	94,244	105,000
		25-29	134	100,355	23,167	87,186	97,500	112,000
		30-34	124	102,994	25,938	88,095	101,700	116,500
		35-39	73	105,883	28,897	87,800	103,000	114,641
		40 or more	44	100,520	25,900	80,000	100,000	115,000
	3-9	Total	310	106,996	29,111	90,000	105,000	120,000
		10-14	28	85,401	24,625	73,500	86,790	96,000
		15-19	59	99,703	17,387	86,466	101,404	110,000
		20-24	72	111,468	23,000	100,000	111,000	120,000
		25-29	54	111,769	25,045	94,000	109,000	126,400
		30-34	33	107,345	26,917	94,000	105,600	120,000
		35-39	36	111,608	33,958	97,218	109,700	118,000
		40 or more	20	130,874	54,413	99,000	105,780	148,500
	10-14	Total	134	113,855	36,142	92,000	107,000	133,000
		15-19	19	109,003	26,077	85,452	107,640	120,000
		20-24	25	113,646	30,428	90,000	104,000	130,000
		25-29	28	118,784	23,893	98,000	118,500	139,000
		30-34	23	130,084	46,181	96,708	125,000	140,000
		35-39	20	112,344	52,978	78,232	105,700	127,000
	15-29	Total	172	110,680	33,306	88,464	104,000	130,000
		15-19	23	105,719	31,987	86,000	93,000	118,960
		20-24	41	108,803	26,494	91,045	104,000	120,000
		25-29	33	119,175	31,761	97,800	118,800	130,000
		30-34	22	104,455	29,511	82,000	100,000	130,000
		35-39	22	121,429	38,264	101,000	110,000	150,000
	30-49	Total	135	116,563	37,374	95,000	107,000	130,000
		15-19	21	99,700	22,941	80,000	95,000	115,000
		20-24	27	117,251	24,065	100,000	112,000	127,000
		25-29	27	114,866	30,218	100,000	105,480	113,208
		30-34	29	120,960	41,648	92,040	115,000	135,990
	50 or more	Total	290	140,708	51,770	108,000	130,000	165,000
		15-19	35	108,822	25,537	94,323	104,000	118,000
		20-24	58	144,037	46,859	115,000	135,000	160,000
		25-29	76	138,776	35,653	115,000	131,420	150,500
		30-34	47	165,561	64,177	113,000	147,400	200,000
		35-39	43	150,904	63,534	120,000	143,000	166,400
		40 or more	20	143,272	59,429	100,000	150,000	180,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 2.4.6
SALARIES of PhD CHEMISTS employed FULL-TIME in INDUSTRY
by EMPLOYER SIZE and YEARS SINCE BS
2003 ACS Salary Survey

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
EMPLOYER SIZE	Less than 50	Total	274	98,259	45,142	72,000	86,000	118,500
		10-14	31	77,089	18,333	69,000	77,900	88,000
		15-19	41	86,811	30,725	72,000	85,000	95,368
		20-24	52	106,913	51,396	72,000	95,000	123,600
		25-29	38	105,593	52,498	70,000	96,500	132,000
		30-34	33	96,413	43,966	65,300	90,000	118,500
		35-39	37	109,433	49,680	71,500	110,000	139,800
		40 or more	30	107,152	52,882	75,000	95,000	120,000
	50 to 99	Total	145	102,875	52,579	81,000	90,488	114,500
		10-14	18	83,304	15,929	71,000	85,000	95,000
		15-19	23	97,159	27,165	81,195	90,000	104,750
		20-24	30	96,608	28,456	81,100	92,000	115,000
		25-29	19	97,581	27,826	84,000	91,400	100,000
		30-34	23	118,991	99,443	83,917	93,574	120,000
		35-39	15	129,157	59,118	81,000	102,000	150,000
	100 to 499	Total	322	107,166	45,401	81,346	96,800	120,500
		10-14	47	84,447	19,638	75,000	85,000	95,000
		15-19	42	96,521	28,414	76,000	85,000	115,000
		20-24	76	107,544	40,594	82,000	97,750	126,100
		25-29	49	114,605	33,871	86,000	105,000	139,000
		30-34	39	115,008	66,761	86,000	97,000	123,541
		35-39	42	116,889	49,480	85,000	107,000	134,000
		40 or more	18	145,260	72,405	96,000	109,000	199,000
	500 to 2,499	Total	321	103,486	37,712	80,500	96,000	115,000
		10-14	30	81,352	14,183	74,000	79,300	90,000
		15-19	56	97,580	22,663	81,100	93,000	110,000
		20-24	59	104,845	38,579	80,000	96,800	120,000
		25-29	59	108,595	29,524	85,000	105,000	125,000
		30-34	37	107,860	29,260	85,000	103,000	120,000
		35-39	43	121,039	65,639	84,488	103,000	126,000
		40 or more	27	102,282	35,295	79,000	97,910	112,000
	2,500 to 9,999	Total	412	107,010	36,876	85,622	100,000	120,000
		10-14	34	82,847	21,468	75,000	80,000	90,249
		15-19	64	92,872	17,717	80,000	90,000	102,150
		20-24	59	105,820	27,746	89,000	100,000	115,000
		25-29	92	110,784	34,661	94,000	105,000	122,000
		30-34	76	119,461	50,877	91,000	105,000	127,128
		35-39	45	118,753	42,043	96,000	115,000	144,430
		40 or more	29	118,563	32,494	94,000	108,120	134,617
	10,000 to 24,999	Total	273	103,550	28,271	85,000	99,000	115,000
		10-14	22	79,632	10,085	75,000	79,619	83,740
		15-19	33	93,036	17,019	82,000	91,660	101,088
		20-24	62	103,111	23,272	87,030	98,500	111,500
		25-29	58	107,120	27,195	93,000	103,301	122,914
		30-34	46	109,931	32,809	90,000	102,000	120,000
		35-39	34	112,770	26,800	97,960	107,000	120,000

Note: Categories with fewer than 15 cases have been suppressed. (cont.)

Table 2.4.6
SALARIES of PhD CHEMISTS employed FULL-TIME in INDUSTRY
by EMPLOYER SIZE and YEARS SINCE BS
2003 ACS Salary Survey (cont.)

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
EMPLOYER SIZE	25,000 or more	Total	848	112,684	31,386	93,000	105,700	126,000
		5-9	21	76,554	19,153	69,420	77,368	85,500
		10-14	83	88,931	15,165	82,000	89,000	96,000
		15-19	139	101,168	18,617	88,000	98,000	110,000
		20-24	179	112,569	29,564	96,000	105,000	120,000
		25-29	173	119,697	29,839	99,060	116,000	134,829
		30-34	127	127,124	38,220	102,756	117,600	136,658
		35-39	90	124,492	31,184	106,000	118,500	145,691
		40 or more	36	119,398	33,460	99,924	110,000	136,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 3.1.1
SALARIES of GOVERNMENTAL CHEMISTS employed FULL-TIME
by DEGREE and YEARS SINCE BS
2003 ACS Salary Survey

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
HIGHEST DEGREE	BA/BS	Total	119	61,700	20,564	49,152	60,268	71,614
		10-14	15	47,442	9,496	40,000	48,588	51,000
		15-19	12	58,806	15,888	50,000	62,000	69,091
		20-24	20	58,052	13,207	48,000	55,590	65,083
		25-29	22	68,749	20,801	53,000	60,268	83,952
		30-34	22	70,967	24,921	60,000	66,664	84,424
	MS	Total	112	67,554	18,535	54,000	66,000	77,200
		20-24	21	65,625	15,001	54,000	61,000	74,558
		25-29	22	67,398	12,904	61,000	67,700	77,200
		30-34	23	74,983	19,481	60,000	73,000	82,812
		35-39	17	80,945	20,790	63,000	90,000	96,985
	Ph.D	Total	323	93,730	24,266	76,190	92,000	110,000
		10-14	23	75,195	17,321	56,000	78,000	86,000
		15-19	32	89,208	20,083	73,000	84,000	102,000
		20-24	52	88,361	24,582	70,210	87,043	103,366
		25-29	41	88,240	20,159	75,400	89,742	98,000
		30-34	57	101,854	25,006	80,565	105,000	119,300
		35-39	52	95,337	23,250	81,640	94,140	106,000
		40 or more	62	103,855	24,089	85,000	106,000	123,388

Note: Categories with fewer than 15 cases have been suppressed.

Table 4.1.1
SALARIES of PhD ACADEMIC CHEMISTS employed FULL-TIME
by CONTRACT STATUS and RANK
2003 ACS Salary Survey

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
9-10 month	RANK	Full professor	474	87,422	37,027	64,961	81,315	100,000
		Assoc professor	212	57,834	11,604	49,556	55,000	65,000
		Asst professor	161	51,155	14,391	42,500	48,000	56,000
		Instructor, adjunct	42	45,779	10,131	38,000	46,000	51,000
		No ranks	15	57,381	12,342	49,000	54,640	62,000
		Secondary teacher	28	50,509	12,544	40,000	47,000	55,400
11-12 month	RANK	Full professor	221	119,390	41,242	91,000	112,000	141,964
		Assoc professor	68	79,742	27,373	65,000	75,000	91,000
		Asst professor	42	63,849	23,210	47,000	61,000	72,000
		Instructor, adjunct	29	54,545	17,591	41,000	53,000	63,000
		Research appt	86	61,721	26,185	40,000	58,000	75,000
		Other nonfaculty	53	71,958	33,926	47,000	65,000	82,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 4.2.1
SALARIES of PhD ACADEMIC CHEMISTS employed FULL-TIME
by RANK and YEARS SINCE PhD - 9 or 10 Month Contract
2003 ACS Salary Survey

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
RANK	Full professor	Total	474	87,422	37,027	64,961	81,315	100,000
		15-19	46	76,298	27,168	57,000	64,915	89,000
		20-24	71	89,980	29,166	69,000	84,000	105,000
		25-29	77	83,921	31,729	63,062	75,000	99,096
		30-34	137	90,057	50,220	69,200	82,671	97,591
		35-39	96	87,211	26,248	66,000	84,000	97,100
		40+	30	107,019	35,822	79,004	97,400	126,000
	Assoc professor	Total	212	57,834	11,604	49,556	55,000	65,000
		5-9	24	51,092	12,260	42,228	49,000	55,000
		10-14	69	57,927	10,877	49,422	55,165	65,000
		15-19	56	61,030	11,490	53,000	58,000	70,000
		20-24	22	57,081	10,937	50,000	53,586	64,700
		25-29	21	56,585	12,486	45,000	54,722	65,000
	Asst professor	Total	161	51,155	14,391	42,500	48,000	56,000
		2-4	35	48,602	11,895	41,000	44,010	52,000
		5-9	76	52,409	16,348	42,572	50,000	58,000
		10-14	30	51,670	14,365	42,800	47,000	51,500
	Instructor, adjunct	Total	42	45,779	10,131	38,000	46,000	51,000
	No ranks	Total	15	57,381	12,342	49,000	54,640	62,000
	Secondary teacher	Total	28	50,509	12,544	40,000	47,000	55,400

Note: Categories with fewer than 15 cases have been suppressed.

Table 4.2.2
SALARIES of PhD ACADEMIC CHEMISTS employed FULL-TIME
by RANK and YEARS SINCE PhD - 11 or 12 Month Contract
2003 ACS Salary Survey

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
RANK	Full professor	Total	221	119,390	41,242	91,000	112,000	141,964
		15-19	17	106,456	38,385	74,400	95,000	125,000
		20-24	18	108,367	36,557	87,430	100,000	143,772
		25-29	40	133,906	55,907	89,000	110,000	171,500
		30-34	67	114,346	35,047	90,000	113,765	140,000
		35-39	61	121,635	33,310	98,000	115,000	134,988
	Assoc professor	Total	68	79,742	27,373	65,000	75,000	91,000
		20-24	16	81,812	12,293	70,000	81,000	91,700
		25-29	15	84,545	35,379	66,672	72,500	85,000
	Asst professor	Total	42	63,849	23,210	47,000	61,000	72,000
		5-9	18	58,617	16,554	47,000	58,000	72,000
	Instructor, adjunct	Total	29	54,545	17,591	41,000	53,000	63,000
	Research appt	Total	85	61,800	26,330	40,000	58,000	75,000
		5-9	19	57,034	20,533	44,000	51,600	65,000
		20-24	19	63,876	23,566	50,000	60,238	71,900
	Other nonfaculty	Total	53	71,958	33,926	47,000	65,000	82,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 4.3.1
SALARIES of PhD ACADEMIC CHEMISTS employed FULL-TIME
by RANK and ACADEMIC WORK FUNCTION - 9 or 10 Month Contract
2003 ACS Salary Survey

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
Teaching	RANK	Full professor	278	76,218	36,789	60,000	70,300	85,000
		Assoc professor	152	54,634	10,355	48,000	52,841	59,693
		Asst professor	119	48,601	10,552	42,000	45,000	51,000
		Instructor, adjunct	39	44,839	8,837	36,000	46,000	50,500
		No ranks	15	57,381	12,342	49,000	54,640	62,000
Research	RANK	Full professor	109	108,313	31,570	84,000	104,000	127,000
		Assoc professor	41	64,896	11,257	55,000	62,000	71,510
		Asst professor	33	60,894	21,898	49,185	56,000	63,000
Administration	RANK	Full professor	16	98,542	32,277	65,000	94,000	110,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 4.3.2
SALARIES of PhD ACADEMIC CHEMISTS employed FULL-TIME
by RANK and ACADEMIC WORK FUNCTION - 11 or 12 Month Contract
2003 ACS Salary Survey

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
Teaching	RANK	Full professor	50	88,863	40,784	69,000	85,000	93,550
		Assoc professor	24	62,030	18,985	51,000	60,000	73,000
		Asst professor	17	52,519	13,685	39,935	50,000	61,000
Research	RANK	Full professor	74	129,420	36,871	100,000	121,000	154,000
		Assoc professor	20	84,656	17,214	68,500	85,000	93,264
		Asst professor	19	72,386	26,189	58,808	67,000	73,500
		Research appt	76	61,482	27,444	39,334	58,000	75,000
Administration	RANK	Full professor	67	128,274	37,337	101,300	120,000	144,000
		Other nonfaculty	20	85,949	33,692	61,488	80,200	93,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 4.4.1
SALARIES of PhD ACADEMIC CHEMISTS employed FULL-TIME
by RANK and SPECIALTY - 9 or 10 Month Contract
2003 ACS Salary Survey

				Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
SPECIALTY	Analytical chemistry	RANK	Full professor	36	87,893	32,232	64,000	79,905	104,124
			Assoc professor	17	57,566	15,074	48,000	55,000	62,000
	Biochemistry	RANK	Full professor	38	91,816	33,462	68,292	84,000	114,000
			Assoc professor	22	57,185	12,340	49,422	54,000	65,000
			Asst professor	18	47,848	7,749	42,139	45,000	54,000
	Chemical education	RANK	Full professor	107	74,566	53,395	56,000	66,400	80,149
			Assoc professor	55	54,927	10,780	48,000	52,736	58,492
			Asst professor	26	44,954	6,512	40,000	42,572	50,900
			Secondary teacher	25	49,878	12,207	39,600	47,000	55,400
	Environmental	RANK	Full professor	21	101,851	37,534	73,545	89,000	130,000
	Inorganic chemistry	RANK	Full professor	36	90,434	23,528	73,000	85,000	100,885
			Assoc professor	15	53,435	8,661	48,000	54,471	55,140
			Asst professor	18	52,020	8,898	45,000	48,000	60,500
	Materials science	RANK	Full professor	16	89,837	17,681	77,600	91,078	96,000
	Organic chemistry	RANK	Full professor	86	86,407	29,106	67,500	80,000	96,000
			Assoc professor	38	59,221	9,801	53,300	57,744	65,000
			Asst professor	29	49,089	11,900	40,000	44,313	51,974
	Physical chemistry	RANK	Full professor	74	92,307	29,739	64,915	90,000	105,700
			Assoc professor	26	59,578	9,916	52,000	56,000	68,500
			Asst professor	20	51,792	12,997	44,010	50,000	52,025
	Polymer chemistry	RANK	Full professor	19	96,021	16,462	81,000	94,000	107,793

Note: Categories with fewer than 15 cases have been suppressed.

Table 4.4.2
SALARIES of PhD ACADEMIC CHEMISTS employed FULL-TIME
by RANK and SPECIALTY - 11 or 12 Month Contract
2003 ACS Salary Survey

				Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
SPECIALTY	Biochemistry	RANK	Full professor	59	126,627	41,736	96,300	123,000	148,681
			Assoc professor	22	81,323	14,218	70,000	79,900	93,264
	Chemical education	RANK	Full professor	30	87,741	28,959	65,000	86,000	104,000
	Organic chemistry	RANK	Full professor	19	105,484	34,625	80,000	99,660	113,765
	Physical chemistry	RANK	Full professor	16	123,073	41,107	90,642	115,500	125,823
	Other nonchemistry	RANK	Full professor	15	155,815	59,878	108,000	150,000	167,979

Note: Categories with fewer than 15 cases have been suppressed.

Table 4.5.1
SALARIES of PhD ACADEMIC CHEMISTS employed FULL-TIME
by RANK and TENURE - 9 or 10 Month Contract
2003 ACS Salary Survey

				Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
TENURE	Yes	RANK	Full professor	456	88,095	37,293	65,000	82,692	100,885
			Assoc professor	188	58,545	11,487	50,000	55,165	65,315
	No, in tenure track	RANK	Assoc professor	17	54,188	12,315	42,228	52,000	62,633
			Asst professor	143	51,523	14,905	42,572	48,174	56,274
	No, no tenure track	RANK	Instructor, adjunct	30	43,436	8,598	35,696	40,000	48,384
	Not applicable	RANK	Full professor	10	61,549	11,531	54,000	60,000	71,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 4.5.2
SALARIES of PhD ACADEMIC CHEMISTS employed FULL-TIME
by RANK and TENURE - 11 or 12 Month Contract
2003 ACS Salary Survey

				Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
TENURE	Yes	RANK	Full professor	211	120,061	41,269	92,000	112,112	140,464
			Assoc professor	49	82,491	24,228	66,672	76,032	92,112
	No, in tenure track	RANK	Asst professor	21	63,144	20,581	47,000	65,000	67,672
	No, no tenure track	RANK	Instructor, adjunct	24	57,409	17,522	44,000	53,045	64,900
			Research appt	51	64,415	26,831	45,000	60,000	75,000
	Not applicable	RANK	Research appt	32	56,134	24,187	38,000	50,125	70,000
			Other nonfaculty	35	67,270	30,730	47,000	61,488	75,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 4.6.1
SALARIES of PhD ACADEMIC CHEMISTS employed FULL-TIME
by RANK and INSTITUTIONAL CONTROL - 9 or 10 Month Contract
2003 ACS Salary Survey

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
Public	RANK	Full professor	303	90,592	39,877	68,000	84,000	104,000
		Assoc professor	117	59,118	10,910	51,000	55,140	65,000
		Asst professor	101	52,044	15,560	44,000	50,000	56,000
		Instructor, adjunct	26	46,860	11,267	36,000	48,000	54,000
		Secondary teacher	21	50,174	11,912	40,300	47,000	55,400
Private	RANK	Full professor	164	81,488	30,292	60,050	74,594	95,500
		Assoc professor	91	56,221	12,079	48,000	54,000	65,000
		Asst professor	60	49,660	12,153	42,000	44,975	54,000
		Instructor, adjunct	16	44,022	7,978	38,000	42,997	47,500

Note: Categories with fewer than 15 cases have been suppressed.

Table 4.6.2
SALARIES of PhD ACADEMIC CHEMISTS employed FULL-TIME
by RANK and INSTITUTIONAL CONTROL - 11 or 12 Month Contract
2003 ACS Salary Survey

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
Public	RANK	Full professor	152	121,286	40,678	94,000	112,000	140,000
		Assoc professor	40	78,585	14,871	66,672	76,032	89,500
		Asst professor	24	63,260	13,628	53,000	65,000	72,000
		Instructor, adjunct	15	56,760	20,012	41,000	54,500	60,000
		Research appt	53	56,922	21,123	40,000	57,000	71,450
		Other nonfaculty	35	74,444	39,010	47,000	63,500	81,000
Private	RANK	Full professor	62	112,748	43,067	85,000	101,300	143,772
		Assoc professor	25	82,138	41,467	55,267	74,000	95,000
		Asst professor	17	64,555	33,349	39,935	50,000	86,000
		Research appt	28	71,656	33,260	39,718	68,000	88,000
		Other nonfaculty	17	69,308	19,390	49,350	70,000	82,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 4.7.1
SALARIES of PhD ACADEMIC CHEMISTS employed FULL-TIME
by RANK and TYPE OF INSTITUTION - 9 or 10 Month Contract
2003 ACS Salary Survey

				Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
TYPE SCHOOL	NonPhD-granting	RANK	Full professor	244	72,493	36,770	58,600	67,777	81,000
			Assoc professor	133	53,561	9,391	47,500	52,000	57,422
			Asst professor	98	45,860	7,415	40,800	44,000	50,000
			Instructor, adjunct	17	44,378	12,171	35,000	39,900	49,250
			No ranks	15	57,381	12,342	49,000	54,640	62,000
	PhD-granting	RANK	Full professor	227	102,708	29,512	83,600	97,000	118,000
			Assoc professor	77	65,068	11,174	55,000	64,700	72,000
			Asst professor	62	59,302	18,444	50,000	55,000	63,000
			Instructor, adjunct	24	46,663	8,795	40,000	47,500	51,000
	Secondary School	RANK	Secondary teacher	27	49,803	12,204	40,000	47,000	54,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 4.7.2
SALARIES of PhD ACADEMIC CHEMISTS employed FULL-TIME
by RANK and TYPE OF INSTITUTION - 11 or 12 Month Contract
2003 ACS Salary Survey

				Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
TYPE SCHOOL	NonPhD-granting	RANK	Full professor	64	92,063	30,316	73,000	90,000	105,000
			Assoc professor	16	69,583	37,836	50,100	56,100	70,964
	PhD-granting	RANK	Full professor	108	129,000	37,200	101,124	120,000	149,000
			Assoc professor	26	82,484	18,128	71,697	78,000	91,700
			Instructor, adjunct	19	56,463	20,268	39,800	54,500	63,000
			Research appt	64	61,407	27,551	38,712	60,000	73,144
			Other nonfaculty	44	70,035	31,190	49,350	63,500	82,000
	Medical school	RANK	Full professor	49	133,902	45,674	96,300	123,000	160,000
			Assoc professor	26	83,251	27,090	70,000	77,000	95,000
			Asst professor	17	78,318	24,331	65,000	67,672	82,000
			Research appt	17	58,575	19,735	44,539	51,600	72,957

Note: Categories with fewer than 15 cases have been suppressed.

Table 4.8.1
SALARIES of PhD ACADEMIC CHEMISTS employed FULL-TIME
by RANK, INST CONTROL and TYPE OF INSTITUTION - 9 or 10 Month Contract
2003 ACS Salary Survey

					Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
Public	TYPE SCHOOL	NonPhD-granting	RANK	Full professor	126	75,147	47,607	60,000	69,200	82,000
				Assoc professor	57	53,828	8,028	49,056	52,841	56,000
				Asst professor	57	47,000	8,534	41,500	44,500	51,000
		PhD-granting	RANK	Full professor	176	101,335	28,635	82,764	96,000	116,900
				Assoc professor	59	63,824	10,770	55,000	62,000	70,418
				Asst professor	43	58,428	19,977	49,500	55,000	59,200
				Instructor, adjunct	16	47,276	9,485	39,000	48,000	54,000
		Secondary School	RANK	Secondary teacher	20	49,205	11,340	40,300	47,000	53,000
Private	TYPE SCHOOL	NonPhD-granting	RANK	Full professor	114	69,384	19,434	56,000	65,800	80,149
				Assoc professor	74	53,640	10,329	47,500	51,420	60,000
				Asst professor	41	44,276	5,189	40,000	43,000	46,300
		PhD-granting	RANK	Full professor	48	107,609	30,517	84,000	97,100	125,000
				Assoc professor	16	68,918	11,895	61,720	70,000	76,000
				Asst professor	19	61,278	14,688	50,000	59,000	68,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 4.8.2
SALARIES of PhD ACADEMIC CHEMISTS employed FULL-TIME
by RANK, INST CONTROL, and TYPE OF INSTITUTION - 11 or 12 Month Contract
2003 ACS Salary Survey

					Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
Public	TYPE SCHOOL	NonPhD-granting	RANK	Full professor	42	99,245	29,634	83,400	92,052	108,000
		PhD-granting	RANK	Full professor	82	127,813	37,943	101,000	120,000	144,000
				Assoc professor	20	80,129	15,860	66,000	78,000	89,000
				Research appt	41	56,579	21,803	34,716	58,000	71,450
				Other nonfaculty	31	70,560	34,546	47,000	63,500	80,200
		Medical school	RANK	Full professor	28	135,230	50,147	98,000	115,795	150,700
				Assoc professor	16	79,554	12,032	68,500	75,000	89,500
Private	TYPE SCHOOL	NonPhD-granting	RANK	Full professor	22	78,352	27,252	56,480	73,000	91,000
		PhD-granting	RANK	Full professor	20	131,344	36,336	101,300	120,000	154,000
				Research appt	20	72,176	35,996	39,718	60,000	87,000
		Medical school	RANK	Full professor	20	131,987	41,111	92,410	124,000	160,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 4.9.1
SALARIES of PhD ACADEMIC CHEMISTS employed FULL-TIME
by RANK and SEX - 9 or 10 Month Contract
2003 ACS Salary Survey

				Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
SEX	Men	RANK	Full professor	417	88,617	38,392	64,968	82,671	101,000
			Assoc professor	150	58,983	11,667	50,000	56,000	67,500
			Asst professor	101	52,282	16,494	42,000	48,600	56,760
			Instructor, adjunct	23	47,795	11,908	36,000	48,000	55,000
			Secondary teacher	15	50,884	11,472	40,000	49,500	58,000
	Women	RANK	Full professor	53	79,049	23,638	62,000	75,600	91,000
			Assoc professor	62	55,054	11,054	48,000	54,000	60,000
			Asst professor	60	49,257	9,731	42,572	46,500	54,340
			Instructor, adjunct	19	43,339	7,001	38,250	43,000	48,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 4.9.2
SALARIES of PhD ACADEMIC CHEMISTS employed FULL-TIME
by RANK and SEX - 11 or 12 Month Contract
2003 ACS Salary Survey

				Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
SEX	Men	RANK	Full professor	191	121,053	40,551	92,052	115,000	143,772
			Assoc professor	55	78,259	29,627	65,000	73,000	85,000
			Asst professor	32	63,488	25,672	44,000	56,230	72,000
			Instructor, adjunct	21	57,521	19,483	44,000	54,500	68,376
			Research appt	67	64,142	27,531	41,000	60,000	75,720
			Other nonfaculty	37	70,023	24,564	52,000	65,630	81,554
	Women	RANK	Full professor	27	111,308	46,258	84,233	100,000	120,000
			Research appt	19	53,186	18,968	38,000	50,125	61,008
			Other nonfaculty	16	76,435	50,112	45,000	60,000	82,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 4.10.1
SALARIES of PhD ACADEMIC CHEMISTS employed FULL-TIME
by RANK and GEOGRAPHIC REGION - 9 or 10 Month Contract
2003 ACS Salary Survey

				Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
REGION	Pacific	RANK	Full professor	58	98,994	31,393	82,000	87,049	109,000
			Assoc professor	15	56,938	8,574	53,000	55,000	56,600
			Asst professor	17	54,734	13,803	42,900	52,000	61,000
	Mountain	RANK	Full professor	37	100,181	85,245	62,000	89,000	105,000
	West North Central	RANK	Full professor	34	71,000	21,895	56,000	66,800	82,692
			Assoc professor	23	50,430	9,512	41,107	50,000	56,000
			Asst professor	15	43,279	7,334	37,000	40,800	48,000
	West South Central	RANK	Full professor	43	77,937	29,369	60,000	72,000	81,000
	East North Central	RANK	Full professor	70	86,896	31,451	64,968	75,730	101,000
			Assoc professor	46	55,923	10,886	49,000	54,471	62,000
			Asst professor	33	48,422	9,142	42,000	46,750	51,500
	East South Central	RANK	Full professor	27	65,796	22,001	50,971	64,000	68,000
			Assoc professor	15	54,315	9,184	49,600	52,841	55,000
	Middle Atlantic	RANK	Full professor	70	97,521	30,347	77,000	90,000	114,000
			Assoc professor	39	62,979	11,003	56,029	62,000	70,418
			Asst professor	28	50,607	8,475	44,000	48,000	55,838
	South Atlantic	RANK	Full professor	92	84,120	26,026	64,846	76,400	100,000
			Assoc professor	34	58,344	13,469	47,500	54,800	66,000
			Asst professor	27	57,454	25,597	44,000	50,000	59,000
	New England	RANK	Full professor	33	89,869	24,125	70,633	87,000	97,100
			Assoc professor	23	61,829	11,899	52,983	59,000	71,510

Note: Categories with fewer than 15 cases have been suppressed.

Table 4.10.2
SALARIES of PhD ACADEMIC CHEMISTS employed FULL-TIME
by RANK and GEOGRAPHIC REGION - 11 or 12 Month Contract
2003 ACS Salary Survey

				Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
REGION	Pacific	RANK	Full professor	36	117,795	45,379	82,400	103,866	135,000
	West North Central	RANK	Full professor	16	124,028	48,879	86,300	120,000	160,000
	West South Central	RANK	Full professor	22	128,767	31,627	101,598	123,000	143,000
	East North Central	RANK	Full professor	44	119,201	45,157	90,917	105,500	134,988
			Research appt	16	55,795	21,018	38,000	57,660	68,000
	Middle Atlantic	RANK	Full professor	29	119,719	36,077	92,410	115,000	140,000
	South Atlantic	RANK	Full professor	37	111,110	36,275	87,430	108,000	123,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 5.1.1
STIPENDS of ACADEMIC POSTDOCTORAL FELLOWS
by INSTITUTIONAL CONTROL and WORK SPECIALTY
2003 ACS Salary Survey

			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
SPECIALTY	Chemistry	Total	64	31,741	5,378	27,000	30,200	35,000
		Public	39	31,499	5,666	26,000	30,000	35,000
		Private	25	32,120	4,983	28,000	32,000	34,000

Note: Categories with fewer than 15 cases have been suppressed.

Table 6.1.1
SALARIES of CHEMICAL ENGINEERS employed FULL-TIME in INDUSTRY
by DEGREE and YEARS SINCE BS
2003 ACS Salary Survey

			Columns					
Rows			Count	Mean	Std Dev	25th %-ile	50th %-ile	75th %-ile
HIGHEST DEGREE	BA/BS	Total	53	81,975	27,113	57,500	78,156	98,500
	MS	Total	53	90,942	22,438	72,000	91,000	104,200
		20-24	18	91,254	17,852	76,000	91,000	104,200
	Ph.D	Total	120	111,355	53,840	89,000	99,730	124,500
		15-19	18	96,645	18,378	89,600	92,775	102,900
		20-24	20	101,950	19,726	85,000	94,000	110,000
		25-29	22	147,925	88,731	100,000	124,500	153,000
		30-34	17	136,236	73,269	100,770	127,000	139,900

Note: Categories with fewer than 15 cases have been suppressed.

Table 7.1.1
EMPLOYMENT STATUS OF ALL RESPONDENTS
by WORK SPECIALTY
2003 ACS Salary Survey

			EMPLOYMENT STATUS						
			Full-time	Part-time	Postdoc	Seeking empl	Not seeking empl	Fully retired	Total
SPECIALTY	Chemical engineering		319	15	4	22	4	22	386
		Row Percent	82.6%	3.9%	1.0%	5.7%	1.0%	5.7%	100.0%
		Column Percent	3.9%	5.0%	4.0%	6.5%	2.5%	6.6%	4.1%
	Ag/Food chemistry		251	9	0	6	8	9	283
		Row Percent	88.7%	3.2%	.0%	2.1%	2.8%	3.2%	100.0%
		Column Percent	3.0%	3.0%	.0%	1.8%	4.9%	2.7%	3.0%
	Analytical chemistry		1342	38	6	58	20	39	1503
		Row Percent	89.3%	2.5%	.4%	3.9%	1.3%	2.6%	100.0%
		Column Percent	16.3%	12.7%	5.9%	17.1%	12.3%	11.8%	15.8%
	Biochemistry		393	10	14	4	8	9	438
		Row Percent	89.7%	2.3%	3.2%	.9%	1.8%	2.1%	100.0%
		Column Percent	4.8%	3.3%	13.9%	1.2%	4.9%	2.7%	4.6%
	Biotechnology		273	4	2	19	7	10	315
		Row Percent	86.7%	1.3%	.6%	6.0%	2.2%	3.2%	100.0%
		Column Percent	3.3%	1.3%	2.0%	5.6%	4.3%	3.0%	3.3%
	Chemical education		514	45	0	4	12	37	612
		Row Percent	84.0%	7.4%	.0%	.7%	2.0%	6.0%	100.0%
		Column Percent	6.2%	15.1%	.0%	1.2%	7.4%	11.2%	6.4%
	Clinical chemistry		49	4	0	5	3	3	64
		Row Percent	76.6%	6.3%	.0%	7.8%	4.7%	4.7%	100.0%
		Column Percent	.6%	1.3%	.0%	1.5%	1.8%	.9%	.7%
	Environmental chemistry		456	26	7	15	7	22	533
		Row Percent	85.6%	4.9%	1.3%	2.8%	1.3%	4.1%	100.0%
		Column Percent	5.5%	8.7%	6.9%	4.4%	4.3%	6.6%	5.6%
	General chemistry		197	11	1	7	4	10	230
		Row Percent	85.7%	4.8%	.4%	3.0%	1.7%	4.3%	100.0%
		Column Percent	2.4%	3.7%	1.0%	2.1%	2.5%	3.0%	2.4%
	Inorganic chemistry		237	4	7	10	6	11	275
		Row Percent	86.2%	1.5%	2.5%	3.6%	2.2%	4.0%	100.0%
		Column Percent	2.9%	1.3%	6.9%	2.9%	3.7%	3.3%	2.9%
	Materials science		359	14	9	26	5	16	429
		Row Percent	83.7%	3.3%	2.1%	6.1%	1.2%	3.7%	100.0%
		Column Percent	4.3%	4.7%	8.9%	7.6%	3.1%	4.8%	4.5%
	Medicinal-Pharmaceutical		839	19	9	38	15	13	933
		Row Percent	89.9%	2.0%	1.0%	4.1%	1.6%	1.4%	100.0%
		Column Percent	10.2%	6.4%	8.9%	11.2%	9.2%	3.9%	9.8%
	Organic chemistry		889	21	24	23	18	43	1018
		Row Percent	87.3%	2.1%	2.4%	2.3%	1.8%	4.2%	100.0%
		Column Percent	10.8%	7.0%	23.8%	6.8%	11.0%	13.0%	10.7%
	Physical chemistry		390	6	8	13	8	16	441
		Row Percent	88.4%	1.4%	1.8%	2.9%	1.8%	3.6%	100.0%
		Column Percent	4.7%	2.0%	7.9%	3.8%	4.9%	4.8%	4.6%
	Polymer chemistry		620	21	5	32	10	25	713
		Row Percent	87.0%	2.9%	.7%	4.5%	1.4%	3.5%	100.0%
		Column Percent	7.5%	7.0%	5.0%	9.4%	6.1%	7.6%	7.5%
	Other chemical science		210	12	1	11	3	11	248
		Row Percent	84.7%	4.8%	.4%	4.4%	1.2%	4.4%	100.0%
		Column Percent	2.5%	4.0%	1.0%	3.2%	1.8%	3.3%	2.6%
	Business Administration		216	3	0	8	5	10	242
		Row Percent	89.3%	1.2%	.0%	3.3%	2.1%	4.1%	100.0%
		Column Percent	2.6%	1.0%	.0%	2.4%	3.1%	3.0%	2.5%
	Computer science		89	2	1	12	1	4	109
		Row Percent	81.7%	1.8%	.9%	11.0%	.9%	3.7%	100.0%
		Column Percent	1.1%	.7%	1.0%	3.5%	.6%	1.2%	1.1%
	Law		101	7	0	2	4	0	114
		Row Percent	88.6%	6.1%	.0%	1.8%	3.5%	.0%	100.0%
		Column Percent	1.2%	2.3%	.0%	.6%	2.5%	.0%	1.2%
	Other nonchemistry		514	28	3	25	15	21	606
		Row Percent	84.8%	4.6%	.5%	4.1%	2.5%	3.5%	100.0%
		Column Percent	6.2%	9.4%	3.0%	7.4%	9.2%	6.3%	6.4%
Total			8258	299	101	340	163	331	9492
	Row Percent		87.0%	3.2%	1.1%	3.6%	1.7%	3.5%	100.0%
	Column Percent		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 7.1.2
EMPLOYMENT STATUS OF ALL RESPONDENTS
by EMPLOYER TYPE
2003 ACS Salary Survey

			EMPLOYMENT STATUS						
			Full-time	Part-time	Postdoc	Seeking empl	Not seeking empl	Fully retired	Total
EMPLOYER TYPE	Industry_Mfg		4317	64	1	226	3	0	4611
		Row Percent	93.6%	1.4%	.0%	4.9%	.1%	.0%	100.0%
		Column Percent	52.3%	21.4%	1.0%	66.5%	1.8%	.0%	48.6%
	Industry_Non-MFG		923	50	5	52	1	0	1031
		Row Percent	89.5%	4.8%	.5%	5.0%	.1%	.0%	100.0%
		Column Percent	11.2%	16.7%	5.0%	15.3%	.6%	.0%	10.9%
	Government		623	11	6	6	0	0	646
		Row Percent	96.4%	1.7%	.9%	.9%	.0%	.0%	100.0%
		Column Percent	7.5%	3.7%	5.9%	1.8%	.0%	.0%	6.8%
	Self-Employer		91	43	0	7	3	0	144
		Row Percent	63.2%	29.9%	.0%	4.9%	2.1%	.0%	100.0%
		Column Percent	1.1%	14.4%	.0%	2.1%	1.8%	.0%	1.5%
	High School		137	6	0	2	0	0	145
		Row Percent	94.5%	4.1%	.0%	1.4%	.0%	.0%	100.0%
		Column Percent	1.7%	2.0%	.0%	.6%	.0%	.0%	1.5%
	College or University		1879	97	83	24	4	0	2087
		Row Percent	90.0%	4.6%	4.0%	1.1%	.2%	.0%	100.0%
		Column Percent	22.8%	32.4%	82.2%	7.1%	2.5%	.0%	22.0%
	No answer		288	28	6	23	152	331	828
		Row Percent	34.8%	3.4%	.7%	2.8%	18.4%	40.0%	100.0%
		Column Percent	3.5%	9.4%	5.9%	6.8%	93.3%	100.0%	8.7%
Total			8258	299	101	340	163	331	9492
	Row Percent		87.0%	3.2%	1.1%	3.6%	1.7%	3.5%	100.0%
	Column Percent		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.1.1
EMPLOYMENT STATUS OF ALL CHEMISTS
by HIGHEST DEGREE
2003 ACS Salary Survey

			EMPLOYMENT STATUS						
			Full- time	Part- time	Postdoc	Seeking empl	Not seeking empl	Fully ret	Total
HIGHEST hdegree	BA/BS		1437	44	0	71	31	54	1637
		Row Percent	87.8%	2.7%	.0%	4.3%	1.9%	3.3%	100.0%
		Column Percent	18.7%	16.2%	.0%	23.2%	20.7%	18.1%	18.6%
	MS		1258	65	1	71	39	58	1492
		Row Percent	84.3%	4.4%	.1%	4.8%	2.6%	3.9%	100.0%
		Column Percent	16.4%	24.0%	1.0%	23.2%	26.0%	19.5%	17.0%
	PhD		4904	158	94	162	78	181	5577
		Row Percent	87.9%	2.8%	1.7%	2.9%	1.4%	3.2%	100.0%
		Column Percent	63.9%	58.3%	97.9%	52.9%	52.0%	60.7%	63.4%
	Other		71	4	1	2	2	5	85
		Row Percent	83.5%	4.7%	1.2%	2.4%	2.4%	5.9%	100.0%
		Column Percent	.9%	1.5%	1.0%	.7%	1.3%	1.7%	1.0%
Total			7670	271	96	306	150	298	8791
	Row Percent		87.2%	3.1%	1.1%	3.5%	1.7%	3.4%	100.0%
	Column Percent		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.1.2
EMPLOYMENT STATUS OF MEN CHEMISTS
by HIGHEST DEGREE
2003 ACS Salary Survey

			EMPLOYMENT STATUS					
			Full- time	Part- time	Postdoc	Seeking empl	Not seeking empl	Total
HIGHEST hdegree	BA/BS		996	24	0	57	13	1090
		Row Percent	91.4%	2.2%	.0%	5.2%	1.2%	100.0%
		Column Percent	16.8%	15.3%	.0%	23.8%	18.8%	16.9%
	MS		880	29	1	48	13	971
		Row Percent	90.6%	3.0%	.1%	4.9%	1.3%	100.0%
		Column Percent	14.8%	18.5%	1.6%	20.0%	18.8%	15.0%
	PhD		4012	101	61	134	41	4349
		Row Percent	92.3%	2.3%	1.4%	3.1%	.9%	100.0%
		Column Percent	67.6%	64.3%	98.4%	55.8%	59.4%	67.3%
	Other		50	3	0	1	2	56
		Row Percent	89.3%	5.4%	.0%	1.8%	3.6%	100.0%
		Column Percent	.8%	1.9%	.0%	.4%	2.9%	.9%
Total			5938	157	62	240	69	6466
	Row Percent		91.8%	2.4%	1.0%	3.7%	1.1%	100.0%
	Column Percent		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.1.3
EMPLOYMENT STATUS OF WOMEN CHEMISTS
by HIGHEST DEGREE
2003 ACS Salary Survey

			EMPLOYMENT STATUS					
			Full- time	Part- time	Postdoc	Seeking empl	Not seeking empl	Total
HIGHEST hdegree	BA/BS		434	18	0	12	18	482
		Row Percent	90.0%	3.7%	.0%	2.5%	3.7%	100.0%
		Column Percent	25.8%	16.5%	.0%	19.0%	22.2%	24.5%
	MS		367	36	0	22	26	451
		Row Percent	81.4%	8.0%	.0%	4.9%	5.8%	100.0%
		Column Percent	21.8%	33.0%	.0%	34.9%	32.1%	22.9%
	PhD		861	54	33	28	37	1013
		Row Percent	85.0%	5.3%	3.3%	2.8%	3.7%	100.0%
		Column Percent	51.2%	49.5%	97.1%	44.4%	45.7%	51.4%
	Other		21	1	1	1	0	24
		Row Percent	87.5%	4.2%	4.2%	4.2%	.0%	100.0%
		Column Percent	1.2%	.9%	2.9%	1.6%	.0%	1.2%
Total			1683	109	34	63	81	1970
	Row Percent		85.4%	5.5%	1.7%	3.2%	4.1%	100.0%
	Column Percent		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.2.1
EMPLOYMENT STATUS OF ALL CHEMISTS
by AGE
2003 ACS Salary Survey

			EMPLOYMENT STATUS						
			Full- time	Part- time	Postdoc	Seeking empl	Not seeking empl	No answer	Total
AGE	20-24		69	4	0	3	0	0	76
		Row Percent	90.8%	5.3%	.0%	3.9%	.0%	.0%	100.0%
		Column Percent	.9%	1.5%	.0%	1.0%	.0%	.0%	.9%
	25-29		282	1	15	3	4	0	305
		Row Percent	92.5%	.3%	4.9%	1.0%	1.3%	.0%	100.0%
		Column Percent	3.7%	.4%	15.6%	1.0%	2.7%	.0%	3.5%
	30-34		597	8	34	12	13	0	664
		Row Percent	89.9%	1.2%	5.1%	1.8%	2.0%	.0%	100.0%
		Column Percent	7.8%	3.0%	35.4%	3.9%	8.7%	.0%	7.6%
	35-39		878	22	23	19	10	0	952
		Row Percent	92.2%	2.3%	2.4%	2.0%	1.1%	.0%	100.0%
		Column Percent	11.4%	8.1%	24.0%	6.2%	6.7%	.0%	10.8%
	40-44		1174	25	14	28	21	0	1262
		Row Percent	93.0%	2.0%	1.1%	2.2%	1.7%	.0%	100.0%
		Column Percent	15.3%	9.2%	14.6%	9.2%	14.0%	.0%	14.4%
	45-49		1311	31	6	56	20	0	1424
		Row Percent	92.1%	2.2%	.4%	3.9%	1.4%	.0%	100.0%
		Column Percent	17.1%	11.4%	6.3%	18.3%	13.3%	.0%	16.2%
	50-54		1203	39	2	77	24	0	1345
		Row Percent	89.4%	2.9%	.1%	5.7%	1.8%	.0%	100.0%
		Column Percent	15.7%	14.4%	2.1%	25.2%	16.0%	.0%	15.3%
	55-59		1120	47	1	57	25	0	1250
		Row Percent	89.6%	3.8%	.1%	4.6%	2.0%	.0%	100.0%
		Column Percent	14.6%	17.3%	1.0%	18.6%	16.7%	.0%	14.2%
	60-64		811	57	1	39	22	0	930
		Row Percent	87.2%	6.1%	.1%	4.2%	2.4%	.0%	100.0%
		Column Percent	10.6%	21.0%	1.0%	12.7%	14.7%	.0%	10.6%
	65-69		225	37	0	12	11	0	285
		Row Percent	78.9%	13.0%	.0%	4.2%	3.9%	.0%	100.0%
		Column Percent	2.9%	13.7%	.0%	3.9%	7.3%	.0%	3.2%
	No answer		0	0	0	0	0	298	298
		Row Percent	.0%	.0%	.0%	.0%	.0%	100.0%	100.0%
		Column Percent	.0%	.0%	.0%	.0%	.0%	100.0%	3.4%
Total			7670	271	96	306	150	298	8791
	Row Percent		87.2%	3.1%	1.1%	3.5%	1.7%	3.4%	100.0%
	Column Percent		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.3.1
EMPLOYMENT STATUS OF ALL CHEMISTS
by RACE/ETHNICITY
2003 ACS Salary Survey

			EMPLOYMENT STATUS						
			Full- time	Part- time	Postdoc	Seeking empl	Not seeking empl	No answer	Total
RACE/ETHNICITY	Hispanic		184	4	3	5	5	0	201
		Row Percent	91.5%	2.0%	1.5%	2.5%	2.5%	.0%	100.0%
		Column Percent	2.4%	1.5%	3.1%	1.6%	3.3%	.0%	2.3%
	American Indian		13	0	0	0	1	0	14
		Row Percent	92.9%	.0%	.0%	.0%	7.1%	.0%	100.0%
		Column Percent	.2%	.0%	.0%	.0%	.7%	.0%	.2%
	Asian		735	15	40	22	8	0	820
		Row Percent	89.6%	1.8%	4.9%	2.7%	1.0%	.0%	100.0%
		Column Percent	9.6%	5.5%	41.7%	7.2%	5.3%	.0%	9.3%
	Black		119	0	4	6	2	0	131
		Row Percent	90.8%	.0%	3.1%	4.6%	1.5%	.0%	100.0%
		Column Percent	1.6%	.0%	4.2%	2.0%	1.3%	.0%	1.5%
	White		6272	242	45	262	129	0	6950
		Row Percent	90.2%	3.5%	.6%	3.8%	1.9%	.0%	100.0%
		Column Percent	81.8%	89.3%	46.9%	85.6%	86.0%	.0%	79.1%
	Other Non Hispanic		125	3	2	6	1	0	137
		Row Percent	91.2%	2.2%	1.5%	4.4%	.7%	.0%	100.0%
		Column Percent	1.6%	1.1%	2.1%	2.0%	.7%	.0%	1.6%
	No answer		222	7	2	5	4	298	538
		Row Percent	41.3%	1.3%	.4%	.9%	.7%	55.4%	100.0%
		Column Percent	2.9%	2.6%	2.1%	1.6%	2.7%	100.0%	6.1%
Total			7670	271	96	306	150	298	8791
	Row Percent		87.2%	3.1%	1.1%	3.5%	1.7%	3.4%	100.0%
	Column Percent		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.4.1
EMPLOYMENT STATUS OF ALL CHEMISTS
by CITIZENSHIP
2003 ACS Salary Survey

			EMPLOYMENT STATUS						
			Full- time	Part- time	Postdoc	Seeking empl	Not seeking empl	No answer	Total
CITIZENSHIP	Native		6225	237	28	248	132	0	6870
		Row Percent	90.6%	3.4%	.4%	3.6%	1.9%	.0%	100.0%
		Column Percent	81.2%	87.5%	29.2%	81.0%	88.0%	.0%	78.1%
	Naturalized		832	21	1	42	14	0	910
		Row Percent	91.4%	2.3%	.1%	4.6%	1.5%	.0%	100.0%
		Column Percent	10.8%	7.7%	1.0%	13.7%	9.3%	.0%	10.4%
	Permanent resident		412	9	9	14	1	0	445
		Row Percent	92.6%	2.0%	2.0%	3.1%	.2%	.0%	100.0%
		Column Percent	5.4%	3.3%	9.4%	4.6%	.7%	.0%	5.1%
	Other visa		163	1	57	2	2	0	225
		Row Percent	72.4%	.4%	25.3%	.9%	.9%	.0%	100.0%
		Column Percent	2.1%	.4%	59.4%	.7%	1.3%	.0%	2.6%
	No answer		38	3	1	0	1	298	341
		Row Percent	11.1%	.9%	.3%	.0%	.3%	87.4%	100.0%
		Column Percent	.5%	1.1%	1.0%	.0%	.7%	100.0%	3.9%
Total			7670	271	96	306	150	298	8791
	Row Percent		87.2%	3.1%	1.1%	3.5%	1.7%	3.4%	100.0%
	Column Percent		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.5.1
EMPLOYMENT STATUS OF ALL CHEMISTS
by EMPLOYER TYPE
2003 ACS Salary Survey

			EMPLOYMENT STATUS						
			Full- time	Part- time	Postdoc	Seeking empl	Not seeking empl	No answer	Total
EMPLOYER TYPE	Industry_Mfg		3989	59	1	205	3	3	4260
		Row Percent	93.6%	1.4%	.0%	4.8%	.1%	.1%	100.0%
		Column Percent	53.9%	24.0%	1.1%	71.7%	27.3%	23.1%	52.9%
	Industry_Non-MFG		830	43	5	44	1	0	923
		Row Percent	89.9%	4.7%	.5%	4.8%	.1%	.0%	100.0%
		Column Percent	11.2%	17.5%	5.6%	15.4%	9.1%	.0%	11.5%
	Government		580	11	5	6	0	1	603
		Row Percent	96.2%	1.8%	.8%	1.0%	.0%	.2%	100.0%
		Column Percent	7.8%	4.5%	5.6%	2.1%	.0%	7.7%	7.5%
	Self-Employer		78	36	0	7	3	0	124
		Row Percent	62.9%	29.0%	.0%	5.6%	2.4%	.0%	100.0%
		Column Percent	1.1%	14.6%	.0%	2.4%	27.3%	.0%	1.5%
	High School		133	6	0	2	0	0	141
		Row Percent	94.3%	4.3%	.0%	1.4%	.0%	.0%	100.0%
		Column Percent	1.8%	2.4%	.0%	.7%	.0%	.0%	1.8%
	College or University		1794	91	79	22	4	9	1999
		Row Percent	89.7%	4.6%	4.0%	1.1%	.2%	.5%	100.0%
		Column Percent	24.2%	37.0%	87.8%	7.7%	36.4%	69.2%	24.8%
	No answer		266	25	6	20	139	285	741
		Row Percent	---	---	---	---	---	---	---
		Column Percent	3.6%	10.2%	6.7%	7.0%	1263.6%	2192.3%	9.2%
Total			7670	271	96	306	150	298	8791
	Row Percent		95.3%	3.4%	1.2%	3.8%	1.9%	3.7%	109.2%
	Column Percent		103.6%	110.2%	106.7%	107.0%	1363.6%	2292.3%	109.2%

Table 8.5.2
EMPLOYMENT STATUS OF BUSINESS OR INDUSTRIAL CHEMISTS
by TYPE OF INDUSTRY
2003 ACS Salary Survey

			EMPLOYMENT STATUS						
			Full- time	Part- time	Postdoc	Seeking empl	Not seeking empl	No answer	Total
NONACADEMIC EMPLOYER	Aerospace		83	2	0	4	0	0	89
		Row Percent	93.3%	2.2%	.0%	4.5%	.0%	.0%	100.0%
		Column Percent	1.7%	1.4%	.0%	1.6%	.0%	.0%	1.7%
	Ag chemicals		109	0	0	15	0	0	124
		Row Percent	87.9%	.0%	.0%	12.1%	.0%	.0%	100.0%
		Column Percent	2.2%	.0%	.0%	5.9%	.0%	.0%	2.3%
	Basic chemicals		171	0	0	7	0	0	178
		Row Percent	96.1%	.0%	.0%	3.9%	.0%	.0%	100.0%
		Column Percent	3.5%	.0%	.0%	2.7%	.0%	.0%	3.4%
	Biochemical prods		76	1	0	5	0	0	82
		Row Percent	92.7%	1.2%	.0%	6.1%	.0%	.0%	100.0%
		Column Percent	1.6%	.7%	.0%	2.0%	.0%	.0%	1.5%
	Building materials		23	1	0	0	0	0	24
		Row Percent	95.8%	4.2%	.0%	.0%	.0%	.0%	100.0%
		Column Percent	.5%	.7%	.0%	.0%	.0%	.0%	.5%
	Coatings, inks, paints		189	3	0	12	0	0	204
		Row Percent	92.6%	1.5%	.0%	5.9%	.0%	.0%	100.0%
		Column Percent	3.9%	2.2%	.0%	4.7%	.0%	.0%	3.8%
	Electronics/semi conductors		119	9	0	11	0	0	139
		Row Percent	85.6%	6.5%	.0%	7.9%	.0%	.0%	100.0%
		Column Percent	2.4%	6.5%	.0%	4.3%	.0%	.0%	2.6%
	Food		135	3	0	4	0	0	142
		Row Percent	95.1%	2.1%	.0%	2.8%	.0%	.0%	100.0%
		Column Percent	2.8%	2.2%	.0%	1.6%	.0%	.0%	2.7%
	Instruments		116	2	0	6	0	0	124
		Row Percent	93.5%	1.6%	.0%	4.8%	.0%	.0%	100.0%
		Column Percent	2.4%	1.4%	.0%	2.3%	.0%	.0%	2.3%
	Medical devices		137	8	0	16	0	0	161
		Row Percent	85.1%	5.0%	.0%	9.9%	.0%	.0%	100.0%
		Column Percent	2.8%	5.8%	.0%	6.3%	.0%	.0%	3.0%
	Metals		57	0	0	11	0	0	68
		Row Percent	83.8%	.0%	.0%	16.2%	.0%	.0%	100.0%
		Column Percent	1.2%	.0%	.0%	4.3%	.0%	.0%	1.3%
	Paper		33	0	0	2	0	0	35
		Row Percent	94.3%	.0%	.0%	5.7%	.0%	.0%	100.0%
		Column Percent	.7%	.0%	.0%	.8%	.0%	.0%	.7%
	Personal Care		73	1	0	5	1	0	80
		Row Percent	91.3%	1.3%	.0%	6.3%	1.3%	.0%	100.0%
		Column Percent	1.5%	.7%	.0%	2.0%	14.3%	.0%	1.5%
	Petroleum		122	1	0	4	0	0	127
		Row Percent	96.1%	.8%	.0%	3.1%	.0%	.0%	100.0%
		Column Percent	2.5%	.7%	.0%	1.6%	.0%	.0%	2.4%
	Pharmaceuticals		1361	13	0	34	1	1	1410
		Row Percent	96.5%	.9%	.0%	2.4%	.1%	.1%	100.0%
		Column Percent	27.8%	9.4%	.0%	13.3%	14.3%	33.3%	26.6%
	Plastics		177	1	0	10	0	0	188
		Row Percent	94.1%	.5%	.0%	5.3%	.0%	.0%	100.0%
		Column Percent	3.6%	.7%	.0%	3.9%	.0%	.0%	3.5%
	Rubber		60	1	0	7	0	1	69
		Row Percent	87.0%	1.4%	.0%	10.1%	.0%	1.4%	100.0%
		Column Percent	1.2%	.7%	.0%	2.7%	.0%	33.3%	1.3%
	Soaps		70	0	0	3	0	0	73
		Row Percent	95.9%	.0%	.0%	4.1%	.0%	.0%	100.0%
		Column Percent	1.4%	.0%	.0%	1.2%	.0%	.0%	1.4%
	Specialty chems		422	5	0	21	0	0	448
		Row Percent	94.2%	1.1%	.0%	4.7%	.0%	.0%	100.0%
		Column Percent	8.6%	3.6%	.0%	8.2%	.0%	.0%	8.4%
	Textiles		26	1	0	2	0	0	29
		Row Percent	89.7%	3.4%	.0%	6.9%	.0%	.0%	100.0%
		Column Percent	.5%	.7%	.0%	.8%	.0%	.0%	.5%
	Other manufacturing		429	7	1	26	1	1	465
		Row Percent	92.3%	1.5%	.2%	5.6%	.2%	.2%	100.0%
		Column Percent	8.8%	5.1%	16.7%	10.2%	14.3%	33.3%	8.8%
	Analytical serv lab		160	5	0	6	0	0	171
		Row Percent	93.6%	2.9%	.0%	3.5%	.0%	.0%	100.0%
		Column Percent	3.3%	3.6%	.0%	2.3%	.0%	.0%	3.2%
	Biotech research		142	0	0	10	0	0	152
		Row Percent	93.4%	.0%	.0%	6.6%	.0%	.0%	100.0%
		Column Percent	2.9%	.0%	.0%	3.9%	.0%	.0%	2.9%
	Contract res firm		110	3	1	6	0	0	120
		Row Percent	91.7%	2.5%	.8%	5.0%	.0%	.0%	100.0%
		Column Percent	2.2%	2.2%	16.7%	2.3%	.0%	.0%	2.3%
	Hospitals		24	2	0	0	0	0	26
		Row Percent	92.3%	7.7%	.0%	.0%	.0%	.0%	100.0%
		Column Percent	.5%	1.4%	.0%	.0%	.0%	.0%	.5%
	Non-profit		72	6	2	2	0	0	82
		Row Percent	87.8%	7.3%	2.4%	2.4%	.0%	.0%	100.0%
		Column Percent	1.5%	4.3%	33.3%	.8%	.0%	.0%	1.5%
	Private utility		14	0	0	1	0	0	15
		Row Percent	93.3%	.0%	.0%	6.7%	.0%	.0%	100.0%
		Column Percent	.3%	.0%	.0%	.4%	.0%	.0%	.3%
	Profl services		126	10	0	7	0	0	143
		Row Percent	88.1%	7.0%	.0%	4.9%	.0%	.0%	100.0%
		Column Percent	2.6%	7.2%	.0%	2.7%	.0%	.0%	2.7%
	Research institution		98	3	2	3	0	0	106
		Row Percent	92.5%	2.8%	1.9%	2.8%	.0%	.0%	100.0%
		Column Percent	2.0%	2.2%	33.3%	1.2%	.0%	.0%	2.0%
	Scientific agency'		4	1	0	1	0	0	6
		Row Percent	66.7%	16.7%	.0%	16.7%	.0%	.0%	100.0%
		Column Percent	.1%	.7%	.0%	.4%	.0%	.0%	.1%
	Other nonmanuf		81	13	0	8	1	0	103
		Row Percent	78.6%	12.6%	.0%	7.8%	1.0%	.0%	100.0%
		Column Percent	1.7%	9.4%	.0%	3.1%	14.3%	.0%	1.9%
	Self-employed		78	36	0	7	3	0	124
		Row Percent	62.9%	29.0%	.0%	5.6%	2.4%	.0%	100.0%
		Column Percent	1.6%	26.1%	.0%	2.7%	42.9%	.0%	2.3%
Total			4897	138	6	256	7	3	5307
	Row Percent		92.3%	2.6%	.1%	4.8%	.1%	.1%	100.0%
	Column Percent		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.5.3
EMPLOYMENT STATUS OF ACADEMIC CHEMISTS
by INSTITUTIONAL TYPE
2003 ACS Salary Survey

			EMPLOYMENT STATUS						
			Full- time	Part- time	Postdoc	Seeking empl	Not seeking empl	No answer	Total
INSTITUTIONAL TYPE	AA-granting		166	20	1	2	3	8	200
		Row Percent	83.0%	10.0%	.5%	1.0%	1.5%	4.0%	100.0%
		Column Percent	8.6%	20.6%	1.3%	8.3%	75.0%	88.9%	9.4%
	BS-granting		467	25	1	2	1	0	496
		Row Percent	94.2%	5.0%	.2%	.4%	.2%	.0%	100.0%
		Column Percent	24.3%	25.8%	1.3%	8.3%	25.0%	.0%	23.2%
	MS-granting		205	13	1	1	0	1	221
		Row Percent	92.8%	5.9%	.5%	.5%	.0%	.5%	100.0%
		Column Percent	10.6%	13.4%	1.3%	4.2%	.0%	11.1%	10.3%
	PhD-granting		800	26	65	16	0	0	907
		Row Percent	88.2%	2.9%	7.2%	1.8%	.0%	.0%	100.0%
		Column Percent	41.6%	26.8%	82.3%	66.7%	.0%	.0%	42.4%
	Medical school		154	7	11	1	0	0	173
		Row Percent	89.0%	4.0%	6.4%	.6%	.0%	.0%	100.0%
		Column Percent	8.0%	7.2%	13.9%	4.2%	.0%	.0%	8.1%
	High school		133	6	0	2	0	0	141
		Row Percent	94.3%	4.3%	.0%	1.4%	.0%	.0%	100.0%
		Column Percent	6.9%	6.2%	.0%	8.3%	.0%	.0%	6.6%
	No answer		2	0	0	0	0	0	2
		Row Percent	---	.0%	.0%	.0%	.0%	.0%	---
		Column Percent	.1%	.0%	.0%	.0%	.0%	.0%	.1%
Total			1927	97	79	24	4	9	2140
	Row Percent		90.1%	4.5%	3.7%	1.1%	.2%	.4%	100.1%
	Column Percent		100.1%	100.0%	100.0%	100.0%	100.0%	100.0%	100.1%

Table 8.6.1
EMPLOYMENT STATUS OF NON-ACADEMIC CHEMISTS
by WORK FUNCTION
2003 ACS Salary Survey

			EMPLOYMENT STATUS						
			Full- time	Part- time	Postdoc	Seeking empl	Not seeking empl	No answer	Total
WORK FUNCTION	Analytical services		725	13	0	33	1	0	772
		Row Percent	93.9%	1.7%	.0%	4.3%	.1%	.0%	100.0%
		Column Percent	13.2%	8.7%	.0%	12.6%	14.3%	.0%	13.1%
	Chemical info		81	3	0	3	0	0	87
		Row Percent	93.1%	3.4%	.0%	3.4%	.0%	.0%	100.0%
		Column Percent	1.5%	2.0%	.0%	1.1%	.0%	.0%	1.5%
	Computers		55	2	1	6	0	0	64
		Row Percent	85.9%	3.1%	1.6%	9.4%	.0%	.0%	100.0%
		Column Percent	1.0%	1.3%	9.1%	2.3%	.0%	.0%	1.1%
	Consulting		110	36	0	9	1	0	156
		Row Percent	70.5%	23.1%	.0%	5.8%	.6%	.0%	100.0%
		Column Percent	2.0%	24.2%	.0%	3.4%	14.3%	.0%	2.6%
	Forensics		67	0	0	2	0	0	69
		Row Percent	97.1%	.0%	.0%	2.9%	.0%	.0%	100.0%
		Column Percent	1.2%	.0%	.0%	.8%	.0%	.0%	1.2%
	General mgmt		312	7	0	15	0	0	334
		Row Percent	93.4%	2.1%	.0%	4.5%	.0%	.0%	100.0%
		Column Percent	5.7%	4.7%	.0%	5.7%	.0%	.0%	5.7%
	Health & Safety		189	7	0	8	0	0	204
		Row Percent	92.6%	3.4%	.0%	3.9%	.0%	.0%	100.0%
		Column Percent	3.5%	4.7%	.0%	3.1%	.0%	.0%	3.5%
	Marketing,sales		262	7	0	22	1	0	292
		Row Percent	89.7%	2.4%	.0%	7.5%	.3%	.0%	100.0%
		Column Percent	4.8%	4.7%	.0%	8.4%	14.3%	.0%	4.9%
	Patents		67	5	0	1	0	0	73
		Row Percent	91.8%	6.8%	.0%	1.4%	.0%	.0%	100.0%
		Column Percent	1.2%	3.4%	.0%	.4%	.0%	.0%	1.2%
	Production, QC		309	4	0	13	0	0	326
		Row Percent	94.8%	1.2%	.0%	4.0%	.0%	.0%	100.0%
		Column Percent	5.6%	2.7%	.0%	5.0%	.0%	.0%	5.5%
	Applied Research		2094	32	5	101	3	0	2235
		Row Percent	93.7%	1.4%	.2%	4.5%	.1%	.0%	100.0%
		Column Percent	38.2%	21.5%	45.5%	38.5%	42.9%	.0%	37.8%
	Basic Research		288	7	4	11	0	0	310
		Row Percent	92.9%	2.3%	1.3%	3.5%	.0%	.0%	100.0%
		Column Percent	5.3%	4.7%	36.4%	4.2%	.0%	.0%	5.2%
	R&D mgmt		643	6	0	30	0	0	679
		Row Percent	94.7%	.9%	.0%	4.4%	.0%	.0%	100.0%
		Column Percent	11.7%	4.0%	.0%	11.5%	.0%	.0%	11.5%
	Training		20	5	0	2	0	0	27
		Row Percent	74.1%	18.5%	.0%	7.4%	.0%	.0%	100.0%
		Column Percent	.4%	3.4%	.0%	.8%	.0%	.0%	.5%
	Other function		227	11	1	5	1	0	245
		Row Percent	92.7%	4.5%	.4%	2.0%	.4%	.0%	100.0%
		Column Percent	4.1%	7.4%	9.1%	1.9%	14.3%	.0%	4.1%
	No answer		28	4	0	1	0	4	37
		Row Percent	75.7%	10.8%	.0%	2.7%	.0%	10.8%	100.0%
		Column Percent	.5%	2.7%	.0%	.4%	.0%	100.0%	.6%
Total			5477	149	11	262	7	4	5910
	Row Percent		92.7%	2.5%	.2%	4.4%	.1%	.1%	100.0%
	Column Percent		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.7.1
EMPLOYMENT STATUS OF ALL CHEMISTS
by SPECIALTY
2003 ACS Salary Survey

			EMPLOYMENT STATUS						
			Full- time	Part- time	Postdoc	Seeking empl	Not seeking empl	No answer	Total
SPECIALTY	Ag/Food chemistry		251	9	0	6	8	9	283
		Row Percent	88.7%	3.2%	.0%	2.1%	2.8%	3.2%	100.0%
		Column Percent	3.3%	3.3%	.0%	2.0%	5.3%	3.0%	3.2%
	Analytical chemistry		1342	38	6	58	20	39	1503
		Row Percent	89.3%	2.5%	.4%	3.9%	1.3%	2.6%	100.0%
		Column Percent	17.5%	14.0%	6.3%	19.0%	13.3%	13.1%	17.1%
	Biochemistry		393	10	14	4	8	9	438
		Row Percent	89.7%	2.3%	3.2%	.9%	1.8%	2.1%	100.0%
		Column Percent	5.1%	3.7%	14.6%	1.3%	5.3%	3.0%	5.0%
	Biotechnology		273	4	2	19	7	10	315
		Row Percent	86.7%	1.3%	.6%	6.0%	2.2%	3.2%	100.0%
		Column Percent	3.6%	1.5%	2.1%	6.2%	4.7%	3.4%	3.6%
	Chemical education		514	45	0	4	12	37	612
		Row Percent	84.0%	7.4%	.0%	.7%	2.0%	6.0%	100.0%
		Column Percent	6.7%	16.6%	.0%	1.3%	8.0%	12.4%	7.0%
	Clinical chemistry		49	4	0	5	3	3	64
		Row Percent	76.6%	6.3%	.0%	7.8%	4.7%	4.7%	100.0%
		Column Percent	.6%	1.5%	.0%	1.6%	2.0%	1.0%	.7%
	Environmental chemistry		456	26	7	15	7	22	533
		Row Percent	85.6%	4.9%	1.3%	2.8%	1.3%	4.1%	100.0%
		Column Percent	5.9%	9.6%	7.3%	4.9%	4.7%	7.4%	6.1%
	General chemistry		197	11	1	7	4	10	230
		Row Percent	85.7%	4.8%	.4%	3.0%	1.7%	4.3%	100.0%
		Column Percent	2.6%	4.1%	1.0%	2.3%	2.7%	3.4%	2.6%
	Inorganic chemistry		237	4	7	10	6	11	275
		Row Percent	86.2%	1.5%	2.5%	3.6%	2.2%	4.0%	100.0%
		Column Percent	3.1%	1.5%	7.3%	3.3%	4.0%	3.7%	3.1%
	Materials science		359	14	9	26	5	16	429
		Row Percent	83.7%	3.3%	2.1%	6.1%	1.2%	3.7%	100.0%
		Column Percent	4.7%	5.2%	9.4%	8.5%	3.3%	5.4%	4.9%
	Medicinal-Pharmaceutical		839	19	9	38	15	13	933
		Row Percent	89.9%	2.0%	1.0%	4.1%	1.6%	1.4%	100.0%
		Column Percent	10.9%	7.0%	9.4%	12.4%	10.0%	4.4%	10.6%
	Organic chemistry		889	21	24	23	18	43	1018
		Row Percent	87.3%	2.1%	2.4%	2.3%	1.8%	4.2%	100.0%
		Column Percent	11.6%	7.7%	25.0%	7.5%	12.0%	14.4%	11.6%
	Physical chemistry		390	6	8	13	8	16	441
		Row Percent	88.4%	1.4%	1.8%	2.9%	1.8%	3.6%	100.0%
		Column Percent	5.1%	2.2%	8.3%	4.2%	5.3%	5.4%	5.0%
	Polymer chemistry		620	21	5	32	10	25	713
		Row Percent	87.0%	2.9%	.7%	4.5%	1.4%	3.5%	100.0%
		Column Percent	8.1%	7.7%	5.2%	10.5%	6.7%	8.4%	8.1%
	Other chemical science		210	12	1	11	3	11	248
		Row Percent	84.7%	4.8%	.4%	4.4%	1.2%	4.4%	100.0%
		Column Percent	2.7%	4.4%	1.0%	3.6%	2.0%	3.7%	2.8%
	Business Administration		150	1	0	5	1	6	163
		Row Percent	92.0%	.6%	.0%	3.1%	.6%	3.7%	100.0%
		Column Percent	2.0%	.4%	.0%	1.6%	.7%	2.0%	1.9%
	Computer science		78	2	1	12	1	4	98
		Row Percent	79.6%	2.0%	1.0%	12.2%	1.0%	4.1%	100.0%
		Column Percent	1.0%	.7%	1.0%	3.9%	.7%	1.3%	1.1%
	Law		64	5	0	1	3	0	73
		Row Percent	87.7%	6.8%	.0%	1.4%	4.1%	.0%	100.0%
		Column Percent	.8%	1.8%	.0%	.3%	2.0%	.0%	.8%
	Other nonchemistry		359	19	2	17	11	14	422
		Row Percent	85.1%	4.5%	.5%	4.0%	2.6%	3.3%	100.0%
		Column Percent	4.7%	7.0%	2.1%	5.6%	7.3%	4.7%	4.8%
Total			7670	271	96	306	150	298	8791
	Row Percent		87.2%	3.1%	1.1%	3.5%	1.7%	3.4%	100.0%
	Column Percent		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.8.1
EMPLOYMENT STATUS OF ALL CHEMISTS
by GEOGRAPHIC REGION
2003 ACS Salary Survey

			EMPLOYMENT STATUS						
			Full- time	Part- time	Postdoc	Seeking empl	Not seeking empl	No answer	Total
GEOGRAPHIC REGION	Pacific		1072	50	17	55	1	0	1195
		Row Percent	89.7%	4.2%	1.4%	4.6%	.1%	.0%	100.0%
		Column Percent	14.0%	18.5%	17.7%	18.0%	.7%	.0%	13.6%
	Mountain		385	22	7	12	1	0	427
		Row Percent	90.2%	5.2%	1.6%	2.8%	.2%	.0%	100.0%
		Column Percent	5.0%	8.1%	7.3%	3.9%	.7%	.0%	4.9%
	West North Central		512	17	5	16	0	0	550
		Row Percent	93.1%	3.1%	.9%	2.9%	.0%	.0%	100.0%
		Column Percent	6.7%	6.3%	5.2%	5.2%	.0%	.0%	6.3%
	West South Central		521	13	7	14	0	0	555
		Row Percent	93.9%	2.3%	1.3%	2.5%	.0%	.0%	100.0%
		Column Percent	6.8%	4.8%	7.3%	4.6%	.0%	.0%	6.3%
	East North Central		1374	42	17	53	0	0	1486
		Row Percent	92.5%	2.8%	1.1%	3.6%	.0%	.0%	100.0%
		Column Percent	17.9%	15.5%	17.7%	17.3%	.0%	.0%	16.9%
	East South Central		236	5	2	4	0	0	247
		Row Percent	95.5%	2.0%	.8%	1.6%	.0%	.0%	100.0%
		Column Percent	3.1%	1.8%	2.1%	1.3%	.0%	.0%	2.8%
	Middle Atlantic		1578	48	15	62	2	0	1705
		Row Percent	92.6%	2.8%	.9%	3.6%	.1%	.0%	100.0%
		Column Percent	20.6%	17.7%	15.6%	20.3%	1.3%	.0%	19.4%
	South Atlantic		1223	39	17	44	2	0	1325
		Row Percent	92.3%	2.9%	1.3%	3.3%	.2%	.0%	100.0%
		Column Percent	15.9%	14.4%	17.7%	14.4%	1.3%	.0%	15.1%
	New England		769	35	9	46	144	0	1003
		Row Percent	76.7%	3.5%	.9%	4.6%	14.4%	.0%	100.0%
		Column Percent	10.0%	12.9%	9.4%	15.0%	96.0%	.0%	11.4%
	No answer		0	0	0	0	0	298	298
		Row Percent	.0%	.0%	.0%	.0%	.0%	100.0%	100.0%
		Column Percent	.0%	.0%	.0%	.0%	.0%	100.0%	3.4%
Total			7670	271	96	306	150	298	8791
	Row Percent		87.2%	3.1%	1.1%	3.5%	1.7%	3.4%	100.0%
	Column Percent		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 9.1.1
LENGTH OF UNEMPLOYMENT OF CHEMISTS UNEMPLOYED on MARCH 1, 2003
by HIGHEST DEGREE
2003 ACS Salary Survey

			LENGTH OF UNEMPLOYMENT						
			Less than 1 mo	1-3 mos	4-6 mos	7-12 mos	More than 1 yr	No answer	Total
HIGHEST DEGREE	BA/BS		5	9	11	18	27	1	71
		Row Percent	7.0%	12.7%	15.5%	25.4%	38.0%	1.4%	100.0%
		Column Percent	26.3%	16.4%	20.0%	28.1%	24.5%	33.3%	23.2%
	MS		6	13	8	13	30	1	71
		Row Percent	8.5%	18.3%	11.3%	18.3%	42.3%	1.4%	100.0%
		Column Percent	31.6%	23.6%	14.5%	20.3%	27.3%	33.3%	23.2%
	Ph.D		8	33	36	33	51	1	162
		Row Percent	4.9%	20.4%	22.2%	20.4%	31.5%	.6%	100.0%
		Column Percent	42.1%	60.0%	65.5%	51.6%	46.4%	33.3%	52.9%
	Other Degree		0	0	0	0	2	0	2
		Row Percent	.0%	.0%	.0%	.0%	100.0%	.0%	100.0%
		Column Percent	.0%	.0%	.0%	.0%	1.8%	.0%	.7%
Total			19	55	55	64	110	3	306
	Row Percent		6.2%	18.0%	18.0%	20.9%	35.9%	1.0%	100.0%
	Column Percent		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 9.2.1
LENGTH OF UNEMPLOYMENT OF CHEMISTS UNEMPLOYED on MARCH 1, 2003
by AGE
2003 ACS Salary Survey

			LENGTH OF UNEMPLOYMENT						
			Less than 1 mo	1-3 mos	4-6 mos	7-12 mos	More than 1 yr	No answer	Total
AGE	20-24		0	1	0	1	1	0	3
		Row Percent	.0%	33.3%	.0%	33.3%	33.3%	.0%	100.0%
		Column Percent	.0%	1.8%	.0%	1.6%	.9%	.0%	1.0%
	25-29		0	0	0	1	2	0	3
		Row Percent	.0%	.0%	.0%	33.3%	66.7%	.0%	100.0%
		Column Percent	.0%	.0%	.0%	1.6%	1.8%	.0%	1.0%
	30-34		2	4	2	3	1	0	12
		Row Percent	16.7%	33.3%	16.7%	25.0%	8.3%	.0%	100.0%
		Column Percent	10.5%	7.3%	3.6%	4.7%	.9%	.0%	3.9%
	35-39		2	4	6	4	3	0	19
		Row Percent	10.5%	21.1%	31.6%	21.1%	15.8%	.0%	100.0%
		Column Percent	10.5%	7.3%	10.9%	6.3%	2.7%	.0%	6.2%
	40-44		2	4	3	6	13	0	28
		Row Percent	7.1%	14.3%	10.7%	21.4%	46.4%	.0%	100.0%
		Column Percent	10.5%	7.3%	5.5%	9.4%	11.8%	.0%	9.2%
	45-49		4	10	11	14	15	2	56
		Row Percent	7.1%	17.9%	19.6%	25.0%	26.8%	3.6%	100.0%
		Column Percent	21.1%	18.2%	20.0%	21.9%	13.6%	66.7%	18.3%
	40-54		6	15	15	14	27	0	77
		Row Percent	7.8%	19.5%	19.5%	18.2%	35.1%	.0%	100.0%
		Column Percent	31.6%	27.3%	27.3%	21.9%	24.5%	.0%	25.2%
	55-59		3	9	11	10	24	0	57
		Row Percent	5.3%	15.8%	19.3%	17.5%	42.1%	.0%	100.0%
		Column Percent	15.8%	16.4%	20.0%	15.6%	21.8%	.0%	18.6%
	60-64		0	5	5	11	17	1	39
		Row Percent	.0%	12.8%	12.8%	28.2%	43.6%	2.6%	100.0%
		Column Percent	.0%	9.1%	9.1%	17.2%	15.5%	33.3%	12.7%
	65-69		0	3	2	0	7	0	12
		Row Percent	.0%	25.0%	16.7%	.0%	58.3%	.0%	100.0%
		Column Percent	.0%	5.5%	3.6%	.0%	6.4%	.0%	3.9%
Total			19	55	55	64	110	3	306
	Row Percent		6.2%	18.0%	18.0%	20.9%	35.9%	1.0%	100.0%
	Column Percent		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 10.1.1
ALL RESPONDENTS
by SEX and HIGHEST DEGREE
2003 ACS Salary Survey

			HIGHEST DEGREE				
			BA/BS	MS	Ph.D	Other	Total
SEX	Men		1231	1190	4802	74	7297
		Row Percent	16.9%	16.3%	65.8%	1.0%	100.0%
		Column Percent	70.0%	69.2%	81.3%	69.8%	76.9%
	Women		513	517	1070	32	2132
		Row Percent	24.1%	24.2%	50.2%	1.5%	100.0%
		Column Percent	29.2%	30.1%	18.1%	30.2%	22.5%
	No answer		15	13	35	0	63
		Row Percent	23.8%	20.6%	55.6%	.0%	100.0%
		Column Percent	.9%	.8%	.6%	.0%	.7%
Total			1759	1720	5907	106	9492
	Row Percent		18.5%	18.1%	62.2%	1.1%	100.0%
	Column Percent		100.0%	100.0%	100.0%	100.0%	100.0%

Table 10.2.1
ALL RESPONDENTS
by AGE and HIGHEST DEGREE
2003 ACS Salary Survey

			HIGHEST DEGREE				
			BA/BS	MS	Ph.D	Other	Total
AGE	20-29		245	72	87	1	405
		Row Percent	60.5%	17.8%	21.5%	.2%	100.0%
		Column Percent	13.9%	4.2%	1.5%	.9%	4.3%
	30-39		345	278	1070	22	1715
		Row Percent	20.1%	16.2%	62.4%	1.3%	100.0%
		Column Percent	19.6%	16.2%	18.1%	20.8%	18.1%
	40-49		515	554	1812	30	2911
		Row Percent	17.7%	19.0%	62.2%	1.0%	100.0%
		Column Percent	29.3%	32.2%	30.7%	28.3%	30.7%
	50-59		463	541	1830	28	2862
		Row Percent	16.2%	18.9%	63.9%	1.0%	100.0%
		Column Percent	26.3%	31.5%	31.0%	26.4%	30.2%
	60-69		175	255	1061	24	1515
		Row Percent	11.6%	16.8%	70.0%	1.6%	100.0%
		Column Percent	9.9%	14.8%	18.0%	22.6%	16.0%
	No answer		16	20	47	1	84
		Row Percent	19.0%	23.8%	56.0%	1.2%	100.0%
		Column Percent	.9%	1.2%	.8%	.9%	.9%
Total			1759	1720	5907	106	9492
	Row Percent		18.5%	18.1%	62.2%	1.1%	100.0%
	Column Percent		100.0%	100.0%	100.0%	100.0%	100.0%

Table 10.2.2
MEN RESPONDENTS
by AGE and HIGHEST DEGREE
2003 ACS Salary Survey

			HIGHEST DEGREE				
			BA/BS	MS	Ph.D	Other	Total
AGE	20-29		121	32	61	0	214
		Row Percent	56.5%	15.0%	28.5%	.0%	100.0%
		Column Percent	9.8%	2.7%	1.3%	.0%	2.9%
	30-39		220	159	760	15	1154
		Row Percent	19.1%	13.8%	65.9%	1.3%	100.0%
		Column Percent	17.9%	13.4%	15.8%	20.3%	15.8%
	40-49		355	387	1423	17	2182
		Row Percent	16.3%	17.7%	65.2%	.8%	100.0%
		Column Percent	28.8%	32.5%	29.6%	23.0%	29.9%
	50-59		377	408	1578	21	2384
		Row Percent	15.8%	17.1%	66.2%	.9%	100.0%
		Column Percent	30.6%	34.3%	32.9%	28.4%	32.7%
	60-69		153	195	955	21	1324
		Row Percent	11.6%	14.7%	72.1%	1.6%	100.0%
		Column Percent	12.4%	16.4%	19.9%	28.4%	18.1%
	No answer		5	9	25	0	39
		Row Percent	12.8%	23.1%	64.1%	.0%	100.0%
		Column Percent	.4%	.8%	.5%	.0%	.5%
Total			1231	1190	4802	74	7297
	Row Percent		16.9%	16.3%	65.8%	1.0%	100.0%
	Column Percent		100.0%	100.0%	100.0%	100.0%	100.0%

Table 10.2.3
WOMEN RESPONDENTS
by AGE and HIGHEST DEGREE
2003 ACS Salary Survey

			HIGHEST DEGREE				
			BA/BS	MS	Ph.D	Other	Total
AGE	20-29		123	39	26	1	189
		Row Percent	65.1%	20.6%	13.8%	.5%	100.0%
		Column Percent	24.0%	7.5%	2.4%	3.1%	8.9%
	30-39		124	118	309	7	558
		Row Percent	22.2%	21.1%	55.4%	1.3%	100.0%
		Column Percent	24.2%	22.8%	28.9%	21.9%	26.2%
	40-49		157	166	381	13	717
		Row Percent	21.9%	23.2%	53.1%	1.8%	100.0%
		Column Percent	30.6%	32.1%	35.6%	40.6%	33.6%
	50-59		83	126	242	7	458
		Row Percent	18.1%	27.5%	52.8%	1.5%	100.0%
		Column Percent	16.2%	24.4%	22.6%	21.9%	21.5%
	60-69		21	59	100	3	183
		Row Percent	11.5%	32.2%	54.6%	1.6%	100.0%
		Column Percent	4.1%	11.4%	9.3%	9.4%	8.6%
	No answer		5	9	12	1	27
		Row Percent	18.5%	33.3%	44.4%	3.7%	100.0%
		Column Percent	1.0%	1.7%	1.1%	3.1%	1.3%
Total			513	517	1070	32	2132
	Row Percent		24.1%	24.2%	50.2%	1.5%	100.0%
	Column Percent		100.0%	100.0%	100.0%	100.0%	100.0%

Table 10.3.1
ALL RESPONDENTS
by WORK SPECIALTY and HIGHEST DEGREE
2003 ACS Salary Survey

			HIGHEST DEGREE				
			BA/BS	MS	Ph.D	Other	Total
WORK SPECIALTY	Chemical engineering		78	77	229	2	386
		Row Percent	20.2%	19.9%	59.3%	.5%	100.0%
		Column Percent	4.4%	4.5%	3.9%	1.9%	4.1%
	Ag/Food chemistry		62	52	167	2	283
		Row Percent	21.9%	18.4%	59.0%	.7%	100.0%
		Column Percent	3.5%	3.0%	2.8%	1.9%	3.0%
	Analytical chemistry		534	303	647	19	1503
		Row Percent	35.5%	20.2%	43.0%	1.3%	100.0%
		Column Percent	30.4%	17.6%	11.0%	17.9%	15.8%
	Biochemistry		32	37	365	4	438
		Row Percent	7.3%	8.4%	83.3%	.9%	100.0%
		Column Percent	1.8%	2.2%	6.2%	3.8%	4.6%
	Biotechnology		35	39	241	0	315
		Row Percent	11.1%	12.4%	76.5%	.0%	100.0%
		Column Percent	2.0%	2.3%	4.1%	.0%	3.3%
	Chemical education		21	151	434	6	612
		Row Percent	3.4%	24.7%	70.9%	1.0%	100.0%
		Column Percent	1.2%	8.8%	7.3%	5.7%	6.4%
	Clinical chemistry		9	13	39	3	64
		Row Percent	14.1%	20.3%	60.9%	4.7%	100.0%
		Column Percent	.5%	.8%	.7%	2.8%	.7%
	Environmental chemistry		172	118	242	1	533
		Row Percent	32.3%	22.1%	45.4%	.2%	100.0%
		Column Percent	9.8%	6.9%	4.1%	.9%	5.6%
	General chemistry		86	48	94	2	230
		Row Percent	37.4%	20.9%	40.9%	.9%	100.0%
		Column Percent	4.9%	2.8%	1.6%	1.9%	2.4%
	Inorganic chemistry		30	20	224	1	275
		Row Percent	10.9%	7.3%	81.5%	.4%	100.0%
		Column Percent	1.7%	1.2%	3.8%	.9%	2.9%
	Materials science		59	49	314	7	429
		Row Percent	13.8%	11.4%	73.2%	1.6%	100.0%
		Column Percent	3.4%	2.8%	5.3%	6.6%	4.5%
	Medicinal-Pharmaceutical		125	178	627	3	933
		Row Percent	13.4%	19.1%	67.2%	.3%	100.0%
		Column Percent	7.1%	10.3%	10.6%	2.8%	9.8%
	Organic chemistry		141	142	724	11	1018
		Row Percent	13.9%	13.9%	71.1%	1.1%	100.0%
		Column Percent	8.0%	8.3%	12.3%	10.4%	10.7%
	Physical chemistry		19	14	402	6	441
		Row Percent	4.3%	3.2%	91.2%	1.4%	100.0%
		Column Percent	1.1%	.8%	6.8%	5.7%	4.6%
	Polymer chemistry		127	117	460	9	713
		Row Percent	17.8%	16.4%	64.5%	1.3%	100.0%
		Column Percent	7.2%	6.8%	7.8%	8.5%	7.5%
	Other chemical science		45	51	150	2	248
		Row Percent	18.1%	20.6%	60.5%	.8%	100.0%
		Column Percent	2.6%	3.0%	2.5%	1.9%	2.6%
	Business Administration		34	97	109	2	242
		Row Percent	14.0%	40.1%	45.0%	.8%	100.0%
		Column Percent	1.9%	5.6%	1.8%	1.9%	2.5%
	Computer science		24	23	62	0	109
		Row Percent	22.0%	21.1%	56.9%	.0%	100.0%
		Column Percent	1.4%	1.3%	1.0%	.0%	1.1%
	Law		8	15	72	19	114
		Row Percent	7.0%	13.2%	63.2%	16.7%	100.0%
		Column Percent	.5%	.9%	1.2%	17.9%	1.2%
	Other nonchemistry		118	176	305	7	606
		Row Percent	19.5%	29.0%	50.3%	1.2%	100.0%
		Column Percent	6.7%	10.2%	5.2%	6.6%	6.4%
Total			1759	1720	5907	106	9492
	Row Percent		18.5%	18.1%	62.2%	1.1%	100.0%
	Column Percent		100.0%	100.0%	100.0%	100.0%	100.0%

Table 10.4.1
ALL RESPONDENTS
by RACE/ETHNICITY and HIGHEST DEGREE
2003 ACS Salary Survey

			HIGHEST DEGREE				
			BA/BS	MS	Ph.D	Other	Total
RACE with HISPANIC	Hispanic		55	41	130	2	228
		Row Percent	24.1%	18.0%	57.0%	.9%	100.0%
		Column Percent	3.1%	2.4%	2.2%	1.9%	2.4%
	American Indian		4	5	8	0	17
		Row Percent	23.5%	29.4%	47.1%	.0%	100.0%
		Column Percent	.2%	.3%	.1%	.0%	.2%
	Asian		59	152	659	8	878
		Row Percent	6.7%	17.3%	75.1%	.9%	100.0%
		Column Percent	3.4%	8.8%	11.2%	7.5%	9.2%
	Black		44	29	72	2	147
		Row Percent	29.9%	19.7%	49.0%	1.4%	100.0%
		Column Percent	2.5%	1.7%	1.2%	1.9%	1.5%
	White		1540	1404	4766	85	7795
		Row Percent	19.8%	18.0%	61.1%	1.1%	100.0%
		Column Percent	87.5%	81.6%	80.7%	80.2%	82.1%
	Other Non hispanic		25	31	91	3	150
		Row Percent	16.7%	20.7%	60.7%	2.0%	100.0%
		Column Percent	1.4%	1.8%	1.5%	2.8%	1.6%
	No answer		32	58	181	6	277
		Row Percent	11.6%	20.9%	65.3%	2.2%	100.0%
		Column Percent	1.8%	3.4%	3.1%	5.7%	2.9%
Total			1759	1720	5907	106	9492
	Row Percent		18.5%	18.1%	62.2%	1.1%	100.0%
	Column Percent		100.0%	100.0%	100.0%	100.0%	100.0%

Table 10.5.1
ALL RESPONDENTS
by RACE/ETHNICITY and SEX
2003 ACS Salary Survey

			SEX			
			Men	Women	No answer	Total
RACE with HISPANIC	Hispanic		147	81	0	228
		Row Percent	64.5%	35.5%	.0%	100.0%
		Column Percent	2.0%	3.8%	.0%	2.4%
	American Indian		13	4	0	17
		Row Percent	76.5%	23.5%	.0%	100.0%
		Column Percent	.2%	.2%	.0%	.2%
	Asian		641	230	7	878
		Row Percent	73.0%	26.2%	.8%	100.0%
		Column Percent	8.8%	10.8%	11.1%	9.2%
	Black		101	45	1	147
		Row Percent	68.7%	30.6%	.7%	100.0%
		Column Percent	1.4%	2.1%	1.6%	1.5%
	White		6064	1705	26	7795
		Row Percent	77.8%	21.9%	.3%	100.0%
		Column Percent	83.1%	80.0%	41.3%	82.1%
	Other Non Hispanic		129	21	0	150
		Row Percent	86.0%	14.0%	.0%	100.0%
		Column Percent	1.8%	1.0%	.0%	1.6%
	No answer		202	46	29	277
		Row Percent	72.9%	16.6%	10.5%	100.0%
		Column Percent	2.8%	2.2%	46.0%	2.9%
Total			7297	2132	63	9492
	Row Percent		76.9%	22.5%	.7%	100.0%
	Column Percent		100.0%	100.0%	100.0%	100.0%

Table 10.6.1
ALL RESPONDENTS
by RACE/ETHNICITY and CITIZENSHIP
2003 ACS Salary Survey

			CITIZENSHIP					
			Native	Naturalized	Permanent resident	Other visa	No answer	Total
RACE with HISPANIC	Hispanic		117	76	21	12	2	228
		Row Percent	51.3%	33.3%	9.2%	5.3%	.9%	100.0%
		Column Percent	1.5%	7.5%	4.5%	5.0%	4.2%	2.4%
	American Indian		15	2	0	0	0	17
		Row Percent	88.2%	11.8%	.0%	.0%	.0%	100.0%
		Column Percent	.2%	.2%	.0%	.0%	.0%	.2%
	Asian		111	467	183	116	1	878
		Row Percent	12.6%	53.2%	20.8%	13.2%	.1%	100.0%
		Column Percent	1.4%	46.1%	39.2%	48.1%	2.1%	9.2%
	Black		109	20	14	4	0	147
		Row Percent	74.1%	13.6%	9.5%	2.7%	.0%	100.0%
		Column Percent	1.4%	2.0%	3.0%	1.7%	.0%	1.5%
	White		7093	362	226	98	16	7795
		Row Percent	91.0%	4.6%	2.9%	1.3%	.2%	100.0%
		Column Percent	91.8%	35.8%	48.4%	40.7%	33.3%	82.1%
	Other Non Hispanic		94	45	6	5	0	150
		Row Percent	62.7%	30.0%	4.0%	3.3%	.0%	100.0%
		Column Percent	1.2%	4.4%	1.3%	2.1%	.0%	1.6%
	No answer		185	40	17	6	29	277
		Row Percent	66.8%	14.4%	6.1%	2.2%	10.5%	100.0%
		Column Percent	2.4%	4.0%	3.6%	2.5%	60.4%	2.9%
Total			7724	1012	467	241	48	9492
	Row Percent		81.4%	10.7%	4.9%	2.5%	.5%	100.0%
	Column Percent		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 10.7.1
ALL RESPONDENTS
by REGION and AGE
2003 ACS Salary Survey

			AGE						
			20-29	30-39	40-49	50-59	60-69	No answer	Total
GEOGRAPHIC REGION	Pacific		51	278	372	398	161	8	1268
		Row Percent	4.0%	21.9%	29.3%	31.4%	12.7%	.6%	100.0%
		Column Percent	12.6%	16.2%	12.8%	13.9%	10.6%	9.5%	13.4%
	Mountain		12	86	141	142	67	3	451
		Row Percent	2.7%	19.1%	31.3%	31.5%	14.9%	.7%	100.0%
		Column Percent	3.0%	5.0%	4.8%	5.0%	4.4%	3.6%	4.8%
	West North Central		26	113	188	175	76	7	585
		Row Percent	4.4%	19.3%	32.1%	29.9%	13.0%	1.2%	100.0%
		Column Percent	6.4%	6.6%	6.5%	6.1%	5.0%	8.3%	6.2%
	West South Central		21	118	209	201	89	1	639
		Row Percent	3.3%	18.5%	32.7%	31.5%	13.9%	.2%	100.0%
		Column Percent	5.2%	6.9%	7.2%	7.0%	5.9%	1.2%	6.7%
	East North Central		84	301	520	464	210	12	1591
		Row Percent	5.3%	18.9%	32.7%	29.2%	13.2%	.8%	100.0%
		Column Percent	20.7%	17.6%	17.9%	16.2%	13.9%	14.3%	16.8%
	East South Central		8	38	82	104	43	2	277
		Row Percent	2.9%	13.7%	29.6%	37.5%	15.5%	.7%	100.0%
		Column Percent	2.0%	2.2%	2.8%	3.6%	2.8%	2.4%	2.9%
	Middle Atlantic		91	334	613	539	249	11	1837
		Row Percent	5.0%	18.2%	33.4%	29.3%	13.6%	.6%	100.0%
		Column Percent	22.5%	19.5%	21.1%	18.8%	16.4%	13.1%	19.4%
	South Atlantic		55	227	461	471	214	18	1446
		Row Percent	3.8%	15.7%	31.9%	32.6%	14.8%	1.2%	100.0%
		Column Percent	13.6%	13.2%	15.8%	16.5%	14.1%	21.4%	15.2%
	New England		50	175	242	216	99	11	793
		Row Percent	6.3%	22.1%	30.5%	27.2%	12.5%	1.4%	100.0%
		Column Percent	12.3%	10.2%	8.3%	7.5%	6.5%	13.1%	8.4%
	No answer		7	45	83	152	307	11	605
		Row Percent	1.2%	7.4%	13.7%	25.1%	50.7%	1.8%	100.0%
		Column Percent	1.7%	2.6%	2.9%	5.3%	20.3%	13.1%	6.4%
Total			405	1715	2911	2862	1515	84	9492
	Row Percent		4.3%	18.1%	30.7%	30.2%	16.0%	.9%	100.0%
	Column Percent		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 10.8.1
ALL RESPONDENTS
by FUNCTION and REGION
2003 ACS Salary Survey

			GEOGRAPHIC REGION										
			Pacific	Mountain	West North Central	West South Central	East North Central	East South Central	Middle Atlantic	South Atlantic	New England	No answer	Total
WORK FUNCTION	Analytical services		115	49	67	64	145	30	155	145	48	14	832
		Row Percent	13.8%	5.9%	8.1%	7.7%	17.4%	3.6%	18.6%	17.4%	5.8%	1.7%	100.0%
		Column Percent	9.1%	10.9%	11.5%	10.0%	9.1%	10.8%	8.4%	10.0%	6.1%	2.3%	8.8%
	Chemical info		13	3	2	4	34	4	23	13	7	1	104
		Row Percent	12.5%	2.9%	1.9%	3.8%	32.7%	3.8%	22.1%	12.5%	6.7%	1.0%	100.0%
		Column Percent	1.0%	.7%	.3%	.6%	2.1%	1.4%	1.3%	.9%	.9%	.2%	1.1%
	Computers		14	3	5	10	11	1	17	10	5	2	78
		Row Percent	17.9%	3.8%	6.4%	12.8%	14.1%	1.3%	21.8%	12.8%	6.4%	2.6%	100.0%
		Column Percent	1.1%	.7%	.9%	1.6%	.7%	.4%	.9%	.7%	.6%	.3%	.8%
	Consulting		41	9	8	25	30	4	46	39	21	4	227
		Row Percent	18.1%	4.0%	3.5%	11.0%	13.2%	1.8%	20.3%	17.2%	9.3%	1.8%	100.0%
		Column Percent	3.2%	2.0%	1.4%	3.9%	1.9%	1.4%	2.5%	2.7%	2.6%	.7%	2.4%
	Forensics		13	8	4	4	16	3	14	11	4	1	78
		Row Percent	16.7%	10.3%	5.1%	5.1%	20.5%	3.8%	17.9%	14.1%	5.1%	1.3%	100.0%
		Column Percent	1.0%	1.8%	.7%	.6%	1.0%	1.1%	.8%	.8%	.5%	.2%	.8%
	General mgmt		60	20	25	29	74	17	79	87	33	6	430
		Row Percent	14.0%	4.7%	5.8%	6.7%	17.2%	4.0%	18.4%	20.2%	7.7%	1.4%	100.0%
		Column Percent	4.7%	4.4%	4.3%	4.5%	4.7%	6.1%	4.3%	6.0%	4.2%	1.0%	4.5%
	Health & Safety		23	12	19	26	37	0	51	62	17	1	248
		Row Percent	9.3%	4.8%	7.7%	10.5%	14.9%	.0%	20.6%	25.0%	6.9%	.4%	100.0%
		Column Percent	1.8%	2.7%	3.2%	4.1%	2.3%	.0%	2.8%	4.3%	2.1%	.2%	2.6%
	Marketing,sales		33	10	18	46	52	13	71	64	34	6	347
		Row Percent	9.5%	2.9%	5.2%	13.3%	15.0%	3.7%	20.5%	18.4%	9.8%	1.7%	100.0%
		Column Percent	2.6%	2.2%	3.1%	7.2%	3.3%	4.7%	3.9%	4.4%	4.3%	1.0%	3.7%
	Patents		15	3	10	7	12	0	27	24	8	4	110
		Row Percent	13.6%	2.7%	9.1%	6.4%	10.9%	.0%	24.5%	21.8%	7.3%	3.6%	100.0%
		Column Percent	1.2%	.7%	1.7%	1.1%	.8%	.0%	1.5%	1.7%	1.0%	.7%	1.2%
	Production, QC		49	18	21	42	68	14	74	69	23	5	383
		Row Percent	12.8%	4.7%	5.5%	11.0%	17.8%	3.7%	19.3%	18.0%	6.0%	1.3%	100.0%
		Column Percent	3.9%	4.0%	3.6%	6.6%	4.3%	5.1%	4.0%	4.8%	2.9%	.8%	4.0%
	Applied Research		360	111	148	144	499	52	594	327	259	28	2522
		Row Percent	14.3%	4.4%	5.9%	5.7%	19.8%	2.1%	23.6%	13.0%	10.3%	1.1%	100.0%
		Column Percent	28.4%	24.6%	25.3%	22.5%	31.4%	18.8%	32.3%	22.6%	32.7%	4.6%	26.6%
	Basic Research		80	13	13	15	58	9	95	73	37	4	397
		Row Percent	20.2%	3.3%	3.3%	3.8%	14.6%	2.3%	23.9%	18.4%	9.3%	1.0%	100.0%
		Column Percent	6.3%	2.9%	2.2%	2.3%	3.6%	3.2%	5.2%	5.0%	4.7%	.7%	4.2%
	R&D mgmt		112	43	41	40	135	16	165	114	85	12	763
		Row Percent	14.7%	5.6%	5.4%	5.2%	17.7%	2.1%	21.6%	14.9%	11.1%	1.6%	100.0%
		Column Percent	8.8%	9.5%	7.0%	6.3%	8.5%	5.8%	9.0%	7.9%	10.7%	2.0%	8.0%
	Training		25	10	14	14	14	14	29	29	13	1	163
		Row Percent	15.3%	6.1%	8.6%	8.6%	8.6%	8.6%	17.8%	17.8%	8.0%	.6%	100.0%
		Column Percent	2.0%	2.2%	2.4%	2.2%	.9%	5.1%	1.6%	2.0%	1.6%	.2%	1.7%
	Other function		46	18	14	22	51	14	85	73	32	6	361
		Row Percent	12.7%	5.0%	3.9%	6.1%	14.1%	3.9%	23.5%	20.2%	8.9%	1.7%	100.0%
		Column Percent	3.6%	4.0%	2.4%	3.4%	3.2%	5.1%	4.6%	5.0%	4.0%	1.0%	3.8%
	No answer		269	121	176	147	355	86	312	306	167	510	2449
		Row Percent	11.0%	4.9%	7.2%	6.0%	14.5%	3.5%	12.7%	12.5%	6.8%	20.8%	100.0%
		Column Percent	21.2%	26.8%	30.1%	23.0%	22.3%	31.0%	17.0%	21.2%	21.1%	84.3%	25.8%
Total			1268	451	585	639	1591	277	1837	1446	793	605	9492
	Row Percent		13.4%	4.8%	6.2%	6.7%	16.8%	2.9%	19.4%	15.2%	8.4%	6.4%	100.0%
	Column Percent		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 10.9.1
ALL RESPONDENTS
by REGION and WORK SPECIALTY
2003 ACS Salary Survey

			GEOGRAPHIC REGION										
			Pacific	Mountain	West North Central	West South Central	East North Central	East South Central	Middle Atlantic	South Atlantic	New England	No answer	Total
WORK SPECIALTY	Chemical engineering	Row Percent	41 10.6%	19 4.9%	19 4.9%	60 15.5%	48 12.4%	19 4.9%	65 16.8%	61 15.8%	25 6.5%	29 7.5%	386 100.0%
		Column Percent	3.2%	4.2%	3.2%	9.4%	3.0%	6.9%	3.5%	4.2%	3.2%	4.8%	4.1%
	Ag/Food chemistry		35	8	40	19	41	5	38	64	10	23	283
		Row Percent	12.4%	2.8%	14.1%	6.7%	14.5%	1.8%	13.4%	22.6%	3.5%	8.1%	100.0%
		Column Percent	2.8%	1.8%	6.8%	3.0%	2.6%	1.8%	2.1%	4.4%	1.3%	3.8%	3.0%
	Analytical chemistry		180	81	111	113	256	47	274	251	108	82	1503
		Row Percent	12.0%	5.4%	7.4%	7.5%	17.0%	3.1%	18.2%	16.7%	7.2%	5.5%	100.0%
		Column Percent	14.2%	18.0%	19.0%	17.7%	16.1%	17.0%	14.9%	17.4%	13.6%	13.6%	15.8%
	Biochemistry		65	17	35	32	69	12	68	74	48	18	438
		Row Percent	14.8%	3.9%	8.0%	7.3%	15.8%	2.7%	15.5%	16.9%	11.0%	4.1%	100.0%
		Column Percent	5.1%	3.8%	6.0%	5.0%	4.3%	4.3%	3.7%	5.1%	6.1%	3.0%	4.6%
	Biotechnology		98	11	13	5	35	1	43	45	42	22	315
		Row Percent	31.1%	3.5%	4.1%	1.6%	11.1%	.3%	13.7%	14.3%	13.3%	7.0%	100.0%
		Column Percent	7.7%	2.4%	2.2%	.8%	2.2%	.4%	2.3%	3.1%	5.3%	3.6%	3.3%
	Chemical education		80	37	55	36	97	28	94	79	54	52	612
		Row Percent	13.1%	6.0%	9.0%	5.9%	15.8%	4.6%	15.4%	12.9%	8.8%	8.5%	100.0%
		Column Percent	6.3%	8.2%	9.4%	5.6%	6.1%	10.1%	5.1%	5.5%	6.8%	8.6%	6.4%
	Clinical chemistry		8	0	7	3	12	3	11	9	4	7	64
		Row Percent	12.5%	.0%	10.9%	4.7%	18.8%	4.7%	17.2%	14.1%	6.3%	10.9%	100.0%
		Column Percent	.6%	.0%	1.2%	.5%	.8%	1.1%	.6%	.6%	.5%	1.2%	.7%
	Environmental chemistry		99	47	30	42	83	10	72	83	37	30	533
		Row Percent	18.6%	8.8%	5.6%	7.9%	15.6%	1.9%	13.5%	15.6%	6.9%	5.6%	100.0%
		Column Percent	7.8%	10.4%	5.1%	6.6%	5.2%	3.6%	3.9%	5.7%	4.7%	5.0%	5.6%
	General chemistry		32	10	19	18	34	9	38	37	18	15	230
		Row Percent	13.9%	4.3%	8.3%	7.8%	14.8%	3.9%	16.5%	16.1%	7.8%	6.5%	100.0%
		Column Percent	2.5%	2.2%	3.2%	2.8%	2.1%	3.2%	2.1%	2.6%	2.3%	2.5%	2.4%
	Inorganic chemistry		23	19	12	34	41	12	61	42	13	18	275
		Row Percent	8.4%	6.9%	4.4%	12.4%	14.9%	4.4%	22.2%	15.3%	4.7%	6.5%	100.0%
		Column Percent	1.8%	4.2%	2.1%	5.3%	2.6%	4.3%	3.3%	2.9%	1.6%	3.0%	2.9%
	Materials science		67	24	26	27	74	8	79	56	39	29	429
		Row Percent	15.6%	5.6%	6.1%	6.3%	17.2%	1.9%	18.4%	13.1%	9.1%	6.8%	100.0%
		Column Percent	5.3%	5.3%	4.4%	4.2%	4.7%	2.9%	4.3%	3.9%	4.9%	4.8%	4.5%
	Medicinal-Pharmaceutical		171	36	33	14	140	10	258	119	117	35	933
		Row Percent	18.3%	3.9%	3.5%	1.5%	15.0%	1.1%	27.7%	12.8%	12.5%	3.8%	100.0%
		Column Percent	13.5%	8.0%	5.6%	2.2%	8.8%	3.6%	14.0%	8.2%	14.8%	5.8%	9.8%
	Organic chemistry		116	35	54	73	191	36	240	121	74	78	1018
		Row Percent	11.4%	3.4%	5.3%	7.2%	18.8%	3.5%	23.6%	11.9%	7.3%	7.7%	100.0%
		Column Percent	9.1%	7.8%	9.2%	11.4%	12.0%	13.0%	13.1%	8.4%	9.3%	12.9%	10.7%
	Physical chemistry		68	31	26	12	76	15	86	66	35	26	441
		Row Percent	15.4%	7.0%	5.9%	2.7%	17.2%	3.4%	19.5%	15.0%	7.9%	5.9%	100.0%
		Column Percent	5.4%	6.9%	4.4%	1.9%	4.8%	5.4%	4.7%	4.6%	4.4%	4.3%	4.6%
	Polymer chemistry		46	28	30	56	168	24	138	119	61	43	713
		Row Percent	6.5%	3.9%	4.2%	7.9%	23.6%	3.4%	19.4%	16.7%	8.6%	6.0%	100.0%
		Column Percent	3.6%	6.2%	5.1%	8.8%	10.6%	8.7%	7.5%	8.2%	7.7%	7.1%	7.5%
	Other chemical science		30	16	13	12	56	8	42	36	16	19	248
		Row Percent	12.1%	6.5%	5.2%	4.8%	22.6%	3.2%	16.9%	14.5%	6.5%	7.7%	100.0%
		Column Percent	2.4%	3.5%	2.2%	1.9%	3.5%	2.9%	2.3%	2.5%	2.0%	3.1%	2.6%
	Business Administration		12	7	20	21	46	4	51	43	21	17	242
		Row Percent	5.0%	2.9%	8.3%	8.7%	19.0%	1.7%	21.1%	17.8%	8.7%	7.0%	100.0%
		Column Percent	.9%	1.6%	3.4%	3.3%	2.9%	1.4%	2.8%	3.0%	2.6%	2.8%	2.5%
	Computer science		20	2	6	9	16	1	25	16	9	5	109
		Row Percent	18.3%	1.8%	5.5%	8.3%	14.7%	.9%	22.9%	14.7%	8.3%	4.6%	100.0%
		Column Percent	1.6%	.4%	1.0%	1.4%	1.0%	.4%	1.4%	1.1%	1.1%	.8%	1.1%
	Law		16	4	11	10	12	1	24	20	8	8	114
		Row Percent	14.0%	3.5%	9.6%	8.8%	10.5%	.9%	21.1%	17.5%	7.0%	7.0%	100.0%
		Column Percent	1.3%	.9%	1.9%	1.6%	.8%	.4%	1.3%	1.4%	1.0%	1.3%	1.2%
	Other nonchemistry		61	19	25	43	96	24	130	105	54	49	606
		Row Percent	10.1%	3.1%	4.1%	7.1%	15.8%	4.0%	21.5%	17.3%	8.9%	8.1%	100.0%
		Column Percent	4.8%	4.2%	4.3%	6.7%	6.0%	8.7%	7.1%	7.3%	6.8%	8.1%	6.4%
Total			1268	451	585	639	1591	277	1837	1446	793	605	9492
	Row Percent		13.4%	4.8%	6.2%	6.7%	16.8%	2.9%	19.4%	15.2%	8.4%	6.4%	100.0%
	Column Percent		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 10.10.1
ALL RESPONDENTS
by REGION and SEX
2003 ACS Salary Survey

			SEX			
			Men	Women	No answer	Total
GEOGRAPHIC REGION	Pacific		972	287	9	1268
		Row Percent	76.7%	22.6%	.7%	100.0%
		Column Percent	13.3%	13.5%	14.3%	13.4%
	Mountain		346	101	4	451
		Row Percent	76.7%	22.4%	.9%	100.0%
		Column Percent	4.7%	4.7%	6.3%	4.8%
	West North Central		456	127	2	585
		Row Percent	77.9%	21.7%	.3%	100.0%
		Column Percent	6.2%	6.0%	3.2%	6.2%
	West South Central		509	129	1	639
		Row Percent	79.7%	20.2%	.2%	100.0%
		Column Percent	7.0%	6.1%	1.6%	6.7%
	East North Central		1241	342	8	1591
		Row Percent	78.0%	21.5%	.5%	100.0%
		Column Percent	17.0%	16.0%	12.7%	16.8%
	East South Central		222	53	2	277
		Row Percent	80.1%	19.1%	.7%	100.0%
		Column Percent	3.0%	2.5%	3.2%	2.9%
	Middle Atlantic		1400	420	17	1837
		Row Percent	76.2%	22.9%	.9%	100.0%
		Column Percent	19.2%	19.7%	27.0%	19.4%
	South Atlantic		1130	305	11	1446
		Row Percent	78.1%	21.1%	.8%	100.0%
		Column Percent	15.5%	14.3%	17.5%	15.2%
	New England		589	203	1	793
		Row Percent	74.3%	25.6%	.1%	100.0%
		Column Percent	8.1%	9.5%	1.6%	8.4%
	No answer		432	165	8	605
		Row Percent	71.4%	27.3%	1.3%	100.0%
		Column Percent	5.9%	7.7%	12.7%	6.4%
Total			7297	2132	63	9492
	Row Percent		76.9%	22.5%	.7%	100.0%
	Column Percent		100.0%	100.0%	100.0%	100.0%

Table 10.11.1
ALL RESPONDENTS
by REGION and HIGHEST DEGREE
2003 ACS Salary Survey

			HIGHEST DEGREE				
			BA/BS	MS	Ph.D	Other	Total
GEOGRAPHIC REGION	Pacific		215	206	836	11	1268
		Row Percent	17.0%	16.2%	65.9%	.9%	100.0%
		Column Percent	12.2%	12.0%	14.2%	10.4%	13.4%
	Mountain		88	76	282	5	451
		Row Percent	19.5%	16.9%	62.5%	1.1%	100.0%
		Column Percent	5.0%	4.4%	4.8%	4.7%	4.8%
	West North Central		124	90	368	3	585
		Row Percent	21.2%	15.4%	62.9%	.5%	100.0%
		Column Percent	7.0%	5.2%	6.2%	2.8%	6.2%
	West South Central		124	97	411	7	639
		Row Percent	19.4%	15.2%	64.3%	1.1%	100.0%
		Column Percent	7.0%	5.6%	7.0%	6.6%	6.7%
	East North Central		344	295	938	14	1591
		Row Percent	21.6%	18.5%	59.0%	.9%	100.0%
		Column Percent	19.6%	17.2%	15.9%	13.2%	16.8%
	East South Central		52	40	182	3	277
		Row Percent	18.8%	14.4%	65.7%	1.1%	100.0%
		Column Percent	3.0%	2.3%	3.1%	2.8%	2.9%
	Middle Atlantic		324	374	1111	28	1837
		Row Percent	17.6%	20.4%	60.5%	1.5%	100.0%
		Column Percent	18.4%	21.7%	18.8%	26.4%	19.4%
	South Atlantic		253	235	940	18	1446
		Row Percent	17.5%	16.3%	65.0%	1.2%	100.0%
		Column Percent	14.4%	13.7%	15.9%	17.0%	15.2%
	New England		118	166	501	8	793
		Row Percent	14.9%	20.9%	63.2%	1.0%	100.0%
		Column Percent	6.7%	9.7%	8.5%	7.5%	8.4%
	No answer		117	141	338	9	605
		Row Percent	19.3%	23.3%	55.9%	1.5%	100.0%
		Column Percent	6.7%	8.2%	5.7%	8.5%	6.4%
Total			1759	1720	5907	106	9492
	Row Percent		18.5%	18.1%	62.2%	1.1%	100.0%
	Column Percent		100.0%	100.0%	100.0%	100.0%	100.0%

Appendix A: Survey Questionnaire

AMERICAN CHEMICAL SOCIETY

2003 Comprehensive Salary and Employment Status Survey

Please complete and return as soon as possible in the envelope provided.
Thank you for your participation.

MARKING INSTRUCTIONS

- Use a No. 2 pencil or blue or black ink pen only.
- Do not use felt tip pens.
- Fill the oval completely.
- Do not make stray marks on this form.

INCORRECT MARKS ✓ ✗ ~~M~~

CORRECT MARK ●

EDUCATION AND EMPLOYMENT STATUS

What is the highest degree you have received to date? Fill in one.

- Less than Bachelor's
- Bachelor's
- Master's
- Doctorate
- Other (specify) _____

Please indicate the year for each degree you have earned.

	Bachelor's	Master's	Doctorate
	1 0 0 0	1 0 0 0	1 0 0 0
	2 9 1 1	2 9 1 1	2 9 1 1
	2 2	2 2	2 2
	3 3	3 3	3 3
	4 4	4 4	4 4
	5 5	5 5	5 5
	6 6	6 6	6 6
	7 7	7 7	7 7
	8 8	8 8	8 8
	9 9	9 9	9 9

Please indicate the one field of the highest degree you have earned and the one specialty most related to your current or most recent job using the appropriate column below. Fill in one response for each column.

	One field of degree	One work specialty
Chemical engineering		
Agricultural/food chemistry		
Analytical chemistry		
Biochemistry		
Biotechnology		
Chemical education		
Clinical chemistry		
Environmental chemistry		
General chemistry		
Inorganic chemistry		
Materials science		
Medicinal/pharmaceutical chemistry		
Organic chemistry		
Physical chemistry		
Polymer chemistry		
Other chemical science		
Business administration		
Computer science		
Law		
Other non-chemistry		

4. Please indicate your primary employment status as of March 1, 2003. Choose the one category that best fits your situation. Note: Employed includes self-employed.

- Employed full-time (35 hours or more per week) — Go to 5
- Employed part-time — Go to 5
- Postdoctoral or other fellowship — Go to 5
- Not employed but actively seeking employment — Go to 7
- Not employed and not seeking employment — Go to 28
- Fully retired — Go to 28

5. If you are currently employed, how long have you worked for your current employer? Fill in one.

- Less than 1 year
- 1 to 4 years
- 5 to 9 years
- 10 to 19 years
- 20 or more years

6. If you are currently employed, is your job permanent or temporary? Fill in one.

- Permanent - Go to 8
- Temporary - Go to 8
- Agency temp - Go to 8
- Fixed term contract - Go to 8

7. If you were not employed but actively seeking employment on March 1, 2003, how long had you been unemployed? Fill in one.

- Less than 1 month
- 1 to 3 months
- 4 to 6 months
- 7 to 12 months
- More than 1 year

8. Regardless of your current status, was there any period when you were not employed but actively seeking employment in calendar year 2002? Fill in one.

- Yes
- No - Go to 9

If yes, how many total months were you not employed but actively seeking employment in calendar year 2002? Fill in one.

- Less than 1 month
- 1 to 3 months
- 4 to 6 months
- 7 to 11 months
- 12 months

9. What are the first three digits of the zip code of your current or most recent place of employment?

0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

DO NOT MARK IN THIS AREA

12345

II. CURRENT INCOME AND JOB EVALUATION

- **If you are employed, either full-time or part-time, please answer current income and job evaluation.**

— OR —

- **If you are not currently employed, please go to section III.**

10. What was your base annual salary from your primary employer as of March 1, 2003? Do not include bonuses, earnings from second employer, overtime work, summer teaching, or other supplemental earnings. If on a 9 or 10 month contract, report the 9 or 10 month salary rather than an annualized salary. If none, enter zero.

SALARY THIS MARCH — Annual As of 3/1/2003

$ .00

11. What was your base annual salary from your primary employer as of March 1, 2002? Do not include bonuses, earnings from second employer, overtime work, summer teaching, or other supplemental earnings. If on a 9 or 10 month contract, report the 9 or 10 month salary rather than an annualized salary. If none, enter zero.

SALARY LAST MARCH — Annual As of 3/1/2002

$ .00

12. What was your total professional income during calendar year 2002? Include consulting fees, base annual salary, bonuses, earnings from second employer, overtime, summer teaching, and other supplemental earnings.

Calendar Year 2002

$ .00

13. Were you eligible for a cash bonus during calendar year 2002?

○ Yes ○ No - Go to 14

13A. If yes, did you receive a cash bonus?

○ Yes ○ No - Go to 14

13B. If yes, please indicate amount

Calendar Year 2002

$ .00

14. Did you receive stock as part of your annual professional income in 2002?

○ Yes ○ No

15. Was consulting your primary occupation in 2002?

○ Yes - Go to 16A. ○ No

16. Did you do any consulting in 2002?

○ Yes ○ No - Go to Section III.

16A. If yes, how many hours did you consult per mont

○ Less than 10 hrs ○ 20 - 39 hrs ○ 100 or more h
○ 10 - 19 hrs ○ 40 - 99 hrs

16B. If you did any consulting, what was your approximate hourly billing rate?

Per hour

$ .00

16C. What was your total consulting income during calendar year 2002?

Calendar Year 2002

$ .00

II. CURRENT OR MOST RECENT PRIMARY JOB

If your most recent employer is not or was not an academic institution, go to section III. B.

Academic employer.

Please indicate your current or most recent primary academic employer: Fill in only one for Q17.

College or university excluding medical schools where the highest degree offered in chemistry or chemical engineering is:

- ○ Associate's
- ○ Bachelor's
- ○ Master's
- ○ Doctorate

- ○ University medical or professional school
- ○ High school
- ○ Other academic, please specify _____

What is or was your academic employer? Fill in one.

○ Public institution ○ Private institution

What is or was your basic contract period? Fill in one.

○ 9 or 10 months ○ 11 or 12 months

About what fraction of your total working time in your contract period is or was devoted to: Fill in all that apply.

Teaching, undergraduate		
○ 1-25%	○ 34-50%	○ 67-75%
○ 26-33%	○ 51-66%	○ 76-100%
Teaching, graduate		
○ 1-25%	○ 34-50%	○ 67-75%
○ 26-33%	○ 51-66%	○ 76-100%
Research		
○ 1-25%	○ 34-50%	○ 67-75%
○ 26-33%	○ 51-66%	○ 76-100%
Administration		
○ 1-25%	○ 34-50%	○ 67-75%
○ 26-33%	○ 51-66%	○ 76-100%
Other		
○ 1-25%	○ 34-50%	○ 67-75%
○ 26-33%	○ 51-66%	○ 76-100%

What is or was your academic rank? Fill in one.

- ○ Full professor
- ○ Associate professor
- ○ Assistant professor
- ○ Visiting or adjunct professor, instructor, lecturer
- ○ Non-teaching research appointment
- ○ Other non-faculty
- ○ My institution does not have ranks
- ○ Secondary school teacher

22. Have or had you been granted tenure? Fill in one.

- ○ Yes
- ○ Not tenured, in tenure track
- ○ Not tenured, not in tenure track
- ○ Not applicable

Go to 28.

B. Non-academic employer.

23. Please indicate current or most recent primary non-academic employer: Fill in only one for Q23.

Manufacturing company primarily involved in:

- ○ Aerospace/auto/transportation
- ○ Agricultural chemicals
- ○ Basic commodity chemicals
- ○ Biochemical products
- ○ Building materials
- ○ Coatings/paints/inks
- ○ Electronics/computers/semiconductors
- ○ Food
- ○ Instruments
- ○ Medical devices/diagnostic products
- ○ Metals/minerals
- ○ Paper
- ○ Personal care
- ○ Petroleum/natural gas
- ○ Pharmaceutical products
- ○ Plastics
- ○ Rubber
- ○ Soaps/detergents/surfactants
- ○ Specialty/fine chemicals
- ○ Textiles
- ○ Other manufacturing, please specify _____

Or

Non-manufacturing company, not self-employed, primarily involved in:

- ○ Analytical service/testing laboratory
- ○ Biotech research firm
- ○ Independent or contract research firm
- ○ Hospital or clinical laboratory
- ○ Non-profit organization
- ○ Private utility company
- ○ Professional services - scientific/engineering/law
- ○ Research institution
- ○ Scientific temporary or personnel agency
- ○ Other non-manufacturing, please specify _____

Or

Government:

- ○ Federal (civilian)
- ○ Military
- ○ State or local
- ○ Other government, please specify _____

Or

- ○ **Self-employed**

24. Employer's approximate number of employees (total for the whole organization):

- Less than 50
- 50 to 99
- 100 to 499
- 500 to 2,499
- 2,500 to 9,999
- 10,000 to 24,999
- 25,000 or more

25. Please indicate the one work function that best describes or described your job: Fill in one.

- Analytical services, other than forensics
- Chemistry information services
- Computer programming, analysis, design
- Consulting
- Forensic analysis
- General management or administration (other than R&D)
- Health and safety/regulatory affairs
- Marketing, sales, purchasing, technical service, economic evaluation
- Patents, licensing, trademarks
- Production, quality control
- Research and Development:
  - Applied research, development, design
  - Basic research
  - Management or administration of R&D
- Training or teaching
- Other (specify) _____

26. How many people do or did you supervise? Fill in all that apply.

Managers

0	10-14	50 or more
1-2	15-29	
3-9	30-49	

Scientists or engineers

0	10-14	50 or more
1-2	15-29	
3-9	30-49	

Chemical or engineering technicians

0	10-14	50 or more
1-2	15-29	
3-9	30-49	

Others, including production workers

0	10-14	50 or more
1-2	15-29	
3-9	30-49	

27. How is or was your job classified? Fill in one.

- Manager or administrator
- Scientist or engineer
- Chemical or engineering technician
- Other (specify) _____

IV. QUESTIONS ABOUT YOURSELF

28. What is your sex?

Male Female

29. What was your age on March 1, 2003?

Age As of 3/1/2003

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

30. What is your citizenship or visa status? Fill in one.

- U.S. native
- U.S. naturalized
- U.S. permanent resident visa
- Other visa

31. Are you of Hispanic or Latino origin or descent?

Yes No

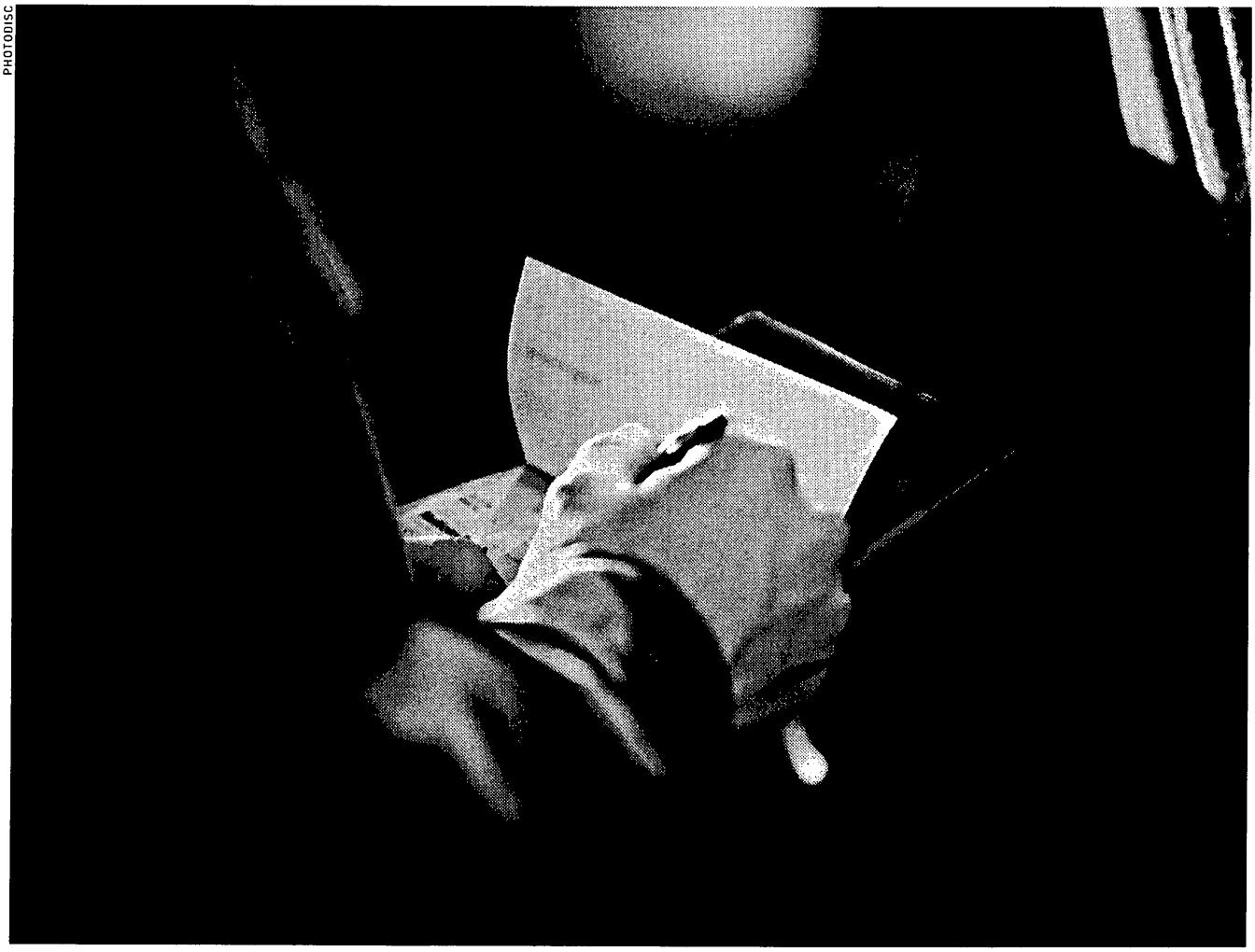
32. What is the one race with which you most identify?

- American Indian or Alaskan Native
- Asian or Pacific Islander
- Black or African American
- White
- Other Race _____

Please provide any additional comments. _____

THANK YOU FOR YOUR PARTICIPATION.
PLEASE RETURN THIS QUESTIONNAIRE IN THE ENVELOPE PROVIDED

Appendix B: Reprint of Salary Survey by Michael Heylin, *C&EN*



PHOTODISC

SALARY SURVEY

Chemists are swept along by the longest decline in jobs since World War II, bringing a record high level of unemployment for ACS members

MICHAEL HEYLIN, C&EN WASHINGTON

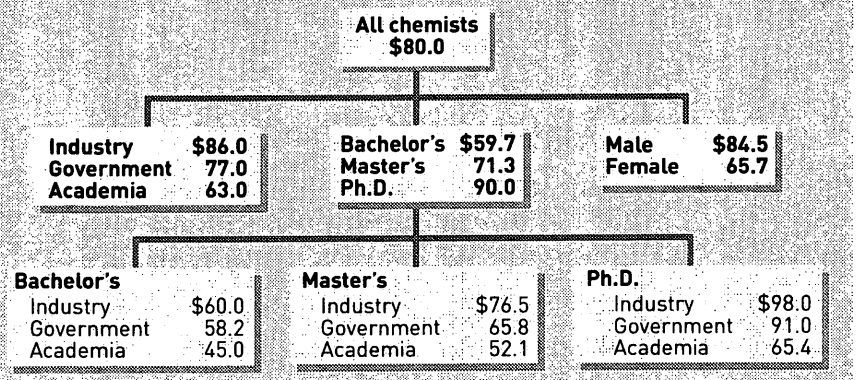
THE DETERIORATION OF THE ECONOMY AND, ESPECIALLY, of the overall employment situation since early 2001 has had a major impact on the chemical profession. With wrenching suddenness, the employment status of chemists—as measured by the experience of American Chemical Society members—has crumbled from the strongest since 1990 to, at least statistically, the weakest since ACS started measuring unemployment on a regular and reasonably consistent basis more than 30 years ago.

ACS's latest annual survey of the employment status and salaries of its members in the domestic workforce indicates that, as of March 1, 3.5% were unemployed but looking for employment. This is a little lower than the 3.7% reported earlier from initial survey results (C&EN, June 23, page 12). But it is still above the previous jobless highs of 3.3% last year and 3.2% in 1972. In 2001, the rate had been 1.5%, indicating essentially full employment.

This year's survey confirms the continued erosion of the big employment advantage that chemists once held over the working population in general. For instance, in 1993, when 2.0% of chemists responding

MEDIAN BASE SALARIES

Male Ph.D. industrial chemists retain big salary edge



NOTE: Median base annual salary in thousands of dollars for chemists employed full time as of March 1, 2003.
SOURCE: ACS salary survey

to the ACS survey that year were jobless, the national unemployment rate was at 7.1%. This March, the jobless rate was down to 5.8% for the overall workforce, just 2.3% above that of chemists.

The small downward adjustment in the 2003 jobless level for chemists was necessary because the random sample of members used for the survey contained a disproportionately high number of older members. And older members are more likely to be unemployed: this year, 2.0% of those up to 44 years of age compared with 4.7% of those 45 and older.

On the national level, by June the seasonally adjusted number of persons on nonfarm payrolls in the U.S.—the most reliable indicator of the employment scene—had been declining for an unprecedented 28 months. This drop amounted to a loss of 2.6 million jobs and pushed the national unemployment rate to a nine-year high of 6.4%. In October 2000, unemployment had been at a 30-year low of 3.9%.

The down phase of the previous eight economic cycles in the U.S. since World War II—as measured by declining payrolls—averaged 12.5 months. On average, it took another 10.5 months to bring payrolls back up to the previous high and start pushing into even higher territory.

With regard to salaries, the new ACS survey also indicates declining gains for chemists as individuals. But these increases remain above the annual growth rate in the consumer price index of just over 2%.

This year, 81% of the survey respondents who were with the same employer this March 1 as last March 1 received a raise. This was down from 85% of such respondents in 2002 and 87% in 2001. In 2003, the median raise for those who received one was 4.2%. This is down from gains of 4.8% in 2002 and 4.9% in 2001. If those who did not receive a raise are included, the 2003 median increase falls to 3.5%. This compares with 4.2% in 2002 and 4.3% in 2001.

For all chemists as a group, the salary increase was from medians of $76,500 in 2002 to $80,000 this year. For bachelor's-degree chemists, the gain was from $58,000 to $59,700; for those with master's, from $68,500 to $71,300; and for Ph.D.s, from $85,200 to $90,000.

All salaries herein are base salaries of chemists with full-time jobs. They do not include bonuses, overtime, or other extra professional income. These components are reported separately at the end of this article.

The median salary of a group is the salary that is equaled or exceeded by one-half of those supplying such data. Medians avoid the distortions that a relatively few very high salaries can bring to means, especially for small subgroups.

THE SURVEY. This year's survey involved sending 22,400 questionnaires to a random sample of the almost 90,000 ACS members who reside in the U.S., are less than 70 years old, and are not in the retired, emeritus, or student member categories.

The total response was 9,492, for a gross response rate of 42%. Of respondents, 701 were not chemists, leaving 8,791 chemists. Of these, 8,706 reported their employment status. In turn, of these, 441 were fully retired or otherwise unemployed and not seeking employment. This all left a total sample of 8,265 workforce chemists.

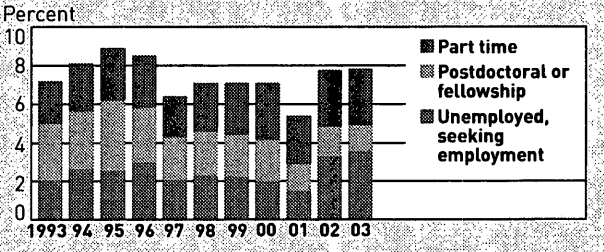
ACS defines the chemical workforce as the total of those with full- or part-time jobs,

EMPLOYMENT STATUS

Unemployment among chemists is very high for a second successive year

EMPLOYMENT STATUS	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Employed full time	92.8%	91.9%	91.1%	91.5%	93.5%	92.9%	92.9%	92.9%	94.6%	92.2%	92.1%
Employed part time	2.2	2.5	2.7	2.7	2.1	2.5	2.7	3.0	2.5	3.0	3.0
Postdoctoral or fellowship	3.0	2.9	3.6	2.8	2.3	2.3	2.1	2.1	1.4	1.5	1.4
Unemployed, seeking employment	2.0	2.7	2.6	3.0	2.0	2.3	2.3	2.0	1.5	3.3	3.5

NOTE: As of March 1 each year. Based on a population that excludes those fully retired or otherwise unemployed and not seeking employment.
SOURCE: ACS salary survey

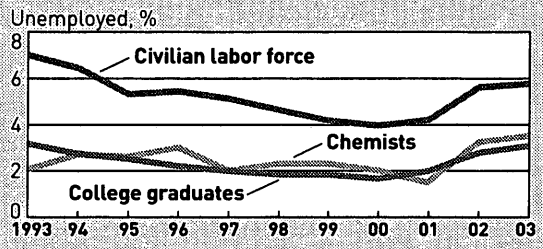


UNEMPLOYMENT

Chemists fare about the same as other college graduates

UNEMPLOYED %	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Civilian labor force	7.0%	6.5%	5.4%	5.5%	5.2%	4.7%	4.2%	4.0%	4.2%	5.7%	5.8%
College graduates	3.2	2.8	2.5	2.2	2.0	1.8	1.8	1.7	2.0	2.8	3.1
Chemists	2.0	2.7	2.6	3.0	2.0	2.3	2.3	2.0	1.5	3.3	3.5

NOTE: Data for civilian labor force and for college graduates are from the Bureau of Labor Statistics and are for March of each year. Data for chemists, as of March 1 each year, are from ACS's annual surveys of the salaries and employment status of its members in the domestic workforce.



on postdocs or fellowships, or unemployed but actively seeking employment.

All data in this article are for chemists only. The society defines chemists as those who—regardless of whether their highest degree is in chemistry or not—identify any one of 15 chemical disciplines or specialties listed in the survey questionnaire as being the most closely related to their current or most recent job. Also counted as chemists are those with chemistry as their highest degree and identifying administration, computer science, law, or "other non-chemistry activities" as their specialty.

As has been the case since 1996, this year's survey was conducted by Mary W. Jordan, workforce specialist for the ACS's Department of Career Services, under the general supervision of the Committee on Economic & Professional Affairs. This year, Jordan was assisted by research associate Janel Kasper-Wolfe. In future years, Kasper-Wolfe will conduct ACS's annual survey of the salaries and employment status of new chemistry graduates (C&EN, April 7, page 45.)

The full report of the 2003 member survey will be available this fall for $250 from the American Chemical Society, Office of Society Services, 1155—16th St., N.W., Washington, DC 20036; phone (800) 227-5558 or (202) 872-4600. Any questions on the content of the survey should be directed to Jordan at (202) 872-4433.

DEMOGRAPHICS. Older chemists are more likely than younger ones to be men, Ph.D.s, academics, white, and non-Hispanic. In light of the uncertainties about the age profile of the sample used for this year's survey, these factors suggest that the demographics of this year's respondents need to be regarded with a little caution—even after an age adjustment has been applied to them.

Any remaining distortions are apparently quite small, however. For instance, the 2003 profile by employer—65.5% industry, 25.9% academia, 7.2% government/other, and 1.4% self-employed—is not significantly different from the 66.0%/25.0%/7.6%/1.4% breakout from the 2002 survey.

The apparent small drop in the percentage of all respondents who are women from 25.0% last year to 24.2% this year is probably not real, especially in light of the substantial and ever-growing percentage of new chemistry graduates who are women. For instance, 55% of chemists with bachelor's and master's degrees who responded to the latest ACS starting salary survey were women, as were 47% of the Ph.D. class. For the 2000–01 classes, these levels had been 57%, 47%, and 39%, respectively.

Women chemists still make up only about a modest 16% of those working in the classic subdivisions of chemistry: inorganic, organic, and physical. On the other hand, they are overrepresented in general chemistry, where they are 40% of the total; chemical education, 35%; and biochemistry, 28%. By work function, women are underrepresented in R&D management, 14%, and general management, 16%.

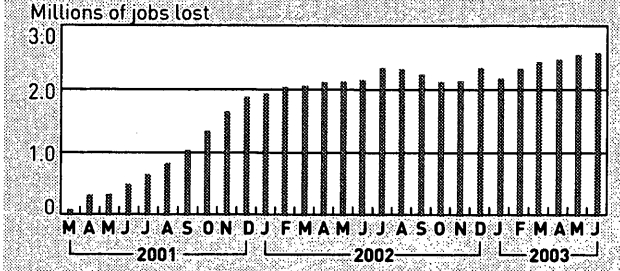
By academic rank, 12% of full professors in chemistry are women, as are 26% of associate professors and 35% of assistant professors. By institution, women make up 18% of the staff at Ph.D.-granting institutions and 30% at bachelor's-granting schools.

By race and ethnicity, blacks and Hispanics, each about 12% of the U.S. population, remain seriously underrepresented in chemistry: 1.7% and 2.5%, respectively. Asians, about 4% of the population, continue to make up about 11% of the chemical workforce. However, only about 4% of bachelor's-degree chemists are Asian. The higher percentages of master's and Ph.D. chemists who are Asian—11% and 13%, respectively—are at least partly accounted for by foreign-born graduates. About 85% of working ACS chemists are white.

Regardless of any perturbations in this year's data, there is no question that working ACS members as a group have been getting older for some time. The median age has moved up from 41 as recently as 1990 to 45 today. This gain is largely an artifact of the aging of the baby boom generation—those born between 1947 and 1968. The median age of 47 of male chemists is six years older than that of female chemists.

DECLINE IN U.S. PAYROLLS

Loss of jobs since February 2001 peak in workforce is now at 2.6 million



NOTE: In February 2001, the number of employees on nonfarm payrolls peaked at 132.6 million. **SOURCE:** Bureau of Labor Statistics

SALARY GAINS FOR INDIVIDUAL CHEMISTS

Annual increases are getting smaller

PERCENTAGE RAISE FOR THOSE WHO RECEIVED A RAISE	MEDIAN INCREASE			MEAN INCREASE		
	2001	2002	2003	2001	2002	2003
TOTAL	4.9%	4.8%	4.2%	6.9%	6.7%	5.8%
BY DEGREE						
Bachelor's	5.0	4.9	4.4	7.5	6.7	6.3
Master's	4.9	4.8	4.2	6.8	6.3	6.0
Ph.D.	4.8	4.8	4.1	6.6	6.7	5.6
BY EMPLOYER						
Business/industry	5.1	5.0	4.3	7.4	6.9	5.8
Academia	4.3	4.2	3.8	5.8	5.9	5.4
Government/other	4.3	4.9	4.0	6.7	6.7	5.6
BY AGE						
20–29	7.7	7.5	6.3	10.5	9.7	9.2
30–39	6.0	5.8	5.1	8.3	7.8	7.1
40–49	4.8	4.6	4.2	6.6	6.4	5.7
50–59	4.2	4.2	3.8	5.5	5.6	5.0
60–69	4.0	3.8	3.5	5.0	5.1	4.5
PERCENTAGE RAISE INCLUDING THOSE WHO DID NOT GET A RAISE						
TOTAL	4.3%	4.2%	3.5%	6.0%	5.7%	4.7%
BY DEGREE						
Bachelor's	4.4	4.1	3.8	6.4	5.5	5.2
Master's	4.3	4.2	3.7	5.8	5.3	4.9
Ph.D.	4.3	4.3	3.4	5.9	5.8	4.5
BY EMPLOYER						
Business/industry	4.6	4.3	3.7	6.4	5.8	4.7
Academia	4.0	3.9	3.2	5.1	5.0	4.3
Government/other	4.0	4.8	3.9	5.8	6.0	5.1
BY AGE						
20–29	6.7	6.4	5.7	9.7	8.4	8.3
30–39	5.5	5.3	4.4	7.5	6.9	6.0
40–49	4.3	4.2	3.7	5.7	5.5	4.7
50–59	3.9	3.8	3.2	4.8	4.7	3.9
60–69	3.4	3.1	3.0	4.0	3.9	3.4

NOTE: Salary increases between March 1, 2002, and March 1, 2003, for individual chemists employed full time by the same employer over the period.

PERCENTAGE WHO RECEIVED A RAISE	2001	2002	2003
TOTAL	87.0%	85.0%	81.2%
BY DEGREE			
Bachelor's	84.9	81.8	83.0
Master's	85.5	83.8	82.2
Ph.D.	88.1	86.4	80.4
BY EMPLOYER			
Business/industry	86.9	84.6	81.2
Academia	87.8	85.6	79.5
Government/other	85.9	90.3	92.4
BY AGE			
20–29	91.6	86.4	90.7
30–39	90.4	88.3	84.2
40–49	86.8	86.1	81.9
50–59	85.9	83.1	79.4
60–69	79.4	76.6	75.9

SOURCE: ACS salary survey

DEMOGRAPHICS OF WORKING CHEMISTS

Industry continues to be the dominant source of jobs for chemists

	BACHELOR'S	MASTER'S	PH.D.	TOTAL
ALL CHEMISTS	19.9%	16.8%	63.3%	100.0%
BY GENDER				
Male	67.8	67.7	80.5	75.8
Female	32.2	32.3	19.5	24.2
BY ETHNICITY				
Hispanic	3.3	2.5	2.3	2.5
BY RACE				
American Indian	0.4	0.4	0.2	0.2
Asian	3.8	11.4	13.0	10.9
Black	2.4	2.1	1.3	1.7
White	90.9	83.3	83.5	84.9
Other	2.4	2.8	2.1	2.3
BY EMPLOYER				
Industry	84.0	75.1	57.1	65.5
Government/other	8.0	8.7	6.6	7.2
Academia	5.9	15.1	35.0	25.9
Self-employed	2.1	1.2	1.2	1.4

NOTE: As of March 1, 2003. **SOURCE:** ACS salary survey

WOMEN IN CHEMISTRY

Inorganic, organic, and physical chemistry are still largely male bastions

BY DISCIPLINE	PERCENTAGE WHO ARE WOMEN: WORK SPECIALTY	PERCENTAGE WHO ARE WOMEN: HIGHEST DEGREE
Agricultural/food chemistry	24.4%	31.5%
Analytical chemistry	27.6	23.0
Biochemistry	28.2	30.4
Biotechnology	21.7	24.5
Chemical education	35.0	41.4
Clinical chemistry	25.1	—
Environmental chemistry	26.1	28.2
General chemistry	40.1	34.6
Inorganic chemistry	15.4	22.7
Materials science	22.8	24.0
Medicinal/pharmaceutical chemistry	27.5	24.7
Organic chemistry	16.9	18.4
Physical chemistry	16.1	19.5
Polymer chemistry	14.3	23.0
Other chemical sciences	20.6	30.5
Business administration	14.1	19.9
Computer science	13.2	—
Law	32.9	—
Other nonchemistry	32.5	35.8

BY WORK FUNCTION	
Research & development management	16%
General management	19
Marketing	26
Production	29
Research & development	22
Teaching	30

HOW TO READ THIS TABLE: 24.4% of chemists who identify agricultural/food chemistry as their work specialty are women, and 31.5% of chemists whose highest degree is in agricultural/food chemistry are women. **SOURCE:** ACS salary survey

WHERE THE JOBS ARE

Today, 85% of chemists work for employers other than chemical manufacturers

% OF CHEMISTS AT ALL DEGREE LEVELS WITH FULL-TIME JOBS	UNDER 40	40+	ALL
MANUFACTURING	59.6%	52.0%	53.9%
Chemical & related	13.7	14.9	14.6
Pharmaceutical & related	30.7	18.2	21.3
Other manufacturing	15.2	18.9	18.0
ACADEMIA	20.7	27.7	26.0
University/four-year college	16.5	21.0	19.9
Medical/professional school	1.2	2.4	2.1
Two-year college	1.4	2.5	2.2
High school	1.7	1.8	1.8
NONMANUFACTURING/NONACADEMIC	19.7	20.2	20.1
Analytical/research services	12.2	7.5	8.7
Government	5.1	8.7	7.8
Self-employed	0.6	1.2	1.1
Other	1.8	2.8	2.6

NOTE: As of March 1, 2003. **SOURCE:** ACS salary survey

ACADEMIC CHEMISTS BY GENDER

Women are quite underrepresented at higher levels

	MALE	FEMALE	% FEMALE
BY RANK			
Full professor	569	76	12%
Associate professor	226	78	26
Assistant professor	166	89	35
Instructor/adjunct	48	31	39
Research appointment	75	22	23
Other nonfaculty	37	19	34
BY DEGREE GRANTED			
Associate's	74	20	21%
Bachelor's	289	126	30
Master's	137	33	19
Ph.D.	569	121	18
M.D.	95	29	23

NOTE: As of March 1, 2003. **SOURCE:** ACS salary survey

SALARY TRENDS

Pay-rate gains continue to outpace inflation

$ THOUSANDS	BACHELOR'S	MASTER'S	PH.D.	ALL CHEMISTS
1993	$43.5	$51.5	$62.8	$56.0
1994	44.3	52.0	65.0	57.9
1995	45.4	53.5	66.0	59.7
1996	45.0	53.6	68.0	60.0
1997	49.4	56.2	71.0	63.0
1998	49.6	57.7	73.3	65.0
1999	50.1	61.0	76.0	68.0
2000	53.1	62.0	79.0	70.0
2001	55.0	65.0	82.2	73.0
2002	58.0	68.5	85.2	76.5
2003	59.7	71.3	90.0	80.0
AVERAGE ANNUAL SALARY INCREASE				
2002–2003	2.9%	4.1%	5.6%	4.6%
1998–2003	3.8	4.3	4.2	4.2
1993–2003	3.2	3.3	3.7	3.6

NOTE: Median base salary of all chemists employed full time as of March 1 each year. **SOURCE:** ACS salary survey

EMPLOYMENT FACTORS

The current economic slowdown hit industrial chemists the hardest by far

	EMPLOYED			UNEMPLOYED
	FULL TIME	PART TIME	POSTDOCS	SEEKING EMPLOYMENT
ALL CHEMISTS	92.1%	3.0%	1.4%	3.5%
BY DEGREE				
Bachelor's	93.1	2.7	0.0	4.2
Master's	90.8	4.3	0.1	4.8
Ph.D.	92.1	2.8	2.2	2.9
BY GENDER				
Male	93.0	2.2	1.2	3.6
Female	89.5	5.4	2.0	3.1
BY RACE/ETHNICITY				
Asian	90.2	1.8	5.7	2.3
Black	92.5	0.0	3.4	4.1
White	92.3	3.3	0.8	3.6
Hispanic	93.7	2.1	1.6	2.6
Non-Hispanic	92.0	3.1	1.4	3.5
BY CURRENT/ MOST RECENT EMPLOYER				
Industry/manufacturing	94.2	1.3	0.0	4.4
Industry/ nonmanufacturing	90.7	4.1	0.6	4.6
Government	96.1	1.8	1.1	1.0
High school	94.3	4.0	0.0	1.6
College/university	89.4	4.4	5.0	1.1
BY CURRENT/MOST RECENT JOB FUNCTION				
R&D	91.6	1.6	3.2	3.6
R&D management	95.2	0.8	0.0	4.0
General management	94.6	2.5	0.0	2.9
Teaching	91.7	6.5	0.4	1.4
Marketing	90.4	2.5	0.0	7.1
Production	94.7	1.8	0.0	3.5
BY AGE				
Under 25	90.8	5.3	0.0	4.0
25 to 29	93.7	0.3	5.0	1.0
30 to 34	91.6	1.2	5.3	1.9
35 to 39	93.3	2.4	2.4	2.0
40 to 44	94.6	2.0	1.1	2.2
45 to 49	93.4	2.2	0.4	4.0
50 to 54	91.0	3.0	0.2	5.9
55 to 59	91.3	3.9	0.1	4.7
60 to 64	89.3	6.2	0.1	4.3
65 to 69	82.9	13.0	0.0	4.1
BY REGION				
Pacific	90.0	3.9	1.8	4.3
Mountain	90.7	4.7	2.1	2.5
West North Central	93.4	2.8	1.0	2.8
West South Central	93.7	2.1	1.6	2.6
East North Central	92.5	2.7	1.4	3.4
East South Central	95.5	1.9	1.0	1.6
Middle Atlantic	92.9	2.6	1.1	3.4
South Atlantic	92.5	3.0	1.4	3.1
New England	90.6	3.8	1.4	4.2

NOTE: Based on a population that excludes those either fully retired or unemployed but not seeking employment. Data as of March 1, 2002. **SOURCE:** ACS salary survey

SALARIES OF ALL CHEMISTS BY EXPERIENCE

The big gains come in the first 20 working years

MEDIAN SALARY, $ THOUSANDS	YEARS SINCE BACHELOR'S DEGREE									
	2–4	5–9	10–14	15–19	20–24	25–29	30–34	35–39	40+	ALL
ALL CHEMISTS	$42.5	$56.0	$68.0	$79.0	$86.0	$91.0	$92.0	$93.0	$93.2	$82.7
BY GENDER										
Male	43.0	59.0	70.0	81.3	89.5	93.0	92.9	96.9	95.0	84.7
Female	42.5	52.0	65.0	68.0	77.0	83.9	88.7	72.8	80.9	66.0
BY DEGREE										
Bachelor's	42.0	50.0	55.0	66.7	71.6	77.0	74.1	73.1	72.8	59.7
Master's	—	58.5	64.0	70.0	77.8	82.0	82.7	80.0	74.1	71.3
Ph.D.	—	70.0	77.9	84.0	93.1	98.9	100.0	100.0	97.1	90.0
BY EMPLOYER										
Industry	43.7	58.0	75.0	85.0	93.2	99.0	100.0	104.0	100.0	86.0
Government	—	59.9	56.1	71.7	72.3	76.6	83.9	90.1	104.0	77.0
Academia	—	44.0	49.2	52.0	60.0	65.0	71.7	81.0	84.3	63.0

NOTE: As of March 1, 2003 **SOURCE:** ACS salary survey

Ph.D. chemists are older than bachelor's-degree chemists by about the same margin. And industrial chemists' median age of 44 is four years younger than those of academic and government chemists.

Another demographic that continues to evolve is where chemists are employed. The percentage of chemists who are working in chemical manufacturing has dropped since 1990 from 23% to 15%, while the percentage of those with jobs in the pharmaceutical area has risen from 12% to 21%. This shift is also illustrated by the fact that, today, 31% of chemists under 40 years of age, but only 18% of those 40 and older, are working in pharmaceuticals.

UNEMPLOYMENT. A little care is also necessary in comparing the unemployment rates for chemists, as measured by ACS, in 1972 and this year.

The 3.2% rate in March 1972 came after a relatively short recession in 1970 that brought an eight-month decline in the number of persons on nonfarm payrolls nationally. However, this setback came after nine years of spectacular growth, especially for the chemical enterprise. The jolt to the chemical industry and academia hit the chemical profession very hard with layoffs and limited hiring.

This March's even higher 3.5% unemployment rate for chemists apparently has not yet caused the same high degree of hardship or alarm for the chemical profession. This may be due to changes in the job market for chemists over the past 30 years.

One shift is the opening of more opportunities for chemists beyond the traditional base of lifetime, one-employee careers largely in chemical manufacturing, academia, or government. There is now greater flexibility for the chemically trained, with a more active job market, growing opportunities in a broader range of fields, more job changes, fewer one-employer careers, and, hence, somewhat higher unemployment rates in both good and bad times.

An uncertainty that has remained throughout the history of the ACS annual member surveys is the real meaning of the unemployment rates they report. These rates have proven to be invaluable and very accurate indicators of year-to-year trends in employment for ACS members and of differences within the profession by age, employer, and other variables. However, the measured rates may somewhat understate the absolute level of unemployment among chemists by a not de-

INDUSTRY SALARIES

When age is taken into account, salary differences by gender are declining

$ THOUSANDS

BY FUNCTION	BACHELOR'S	MASTER'S	PH.D.
Analytical services	$51.0	$64.9	$87.8
Applied research	58.0	72.0	92.6
Basic research	55.6	74.8	99.6
Chemical information	—	74.8	92.2
Computers	—	—	90.4
General management	79.3	95.8	117.7
Health & safety	70.0	90.8	102.1
Marketing & sales	73.0	80.0	97.7
Patents	—	—	120.4
Production/ quality control	59.6	71.2	91.3
R&D management	89.2	100.4	125.0

BY SIZE OF EMPLOYER	BACHELOR'S	MASTER'S	PH.D.
Fewer than 50	$69.0	$62.1	$85.0
50–99	45.1	68.9	89.5
100–499	54.0	71.7	96.0
500–2,499	59.3	75.0	97.1
2,500–9,999	68.1	78.0	98.0
10,000–24,999	66.6	79.6	98.0
25,000 or more	67.0	80.0	104.0

YEARS SINCE BACHELOR'S DEGREE

BY EXPERIENCE & GENDER	MALE			FEMALE		
	BACHELOR'S	MASTER'S	PH.D.	BACHELOR'S	MASTER'S	PH.D.
2–4	$43.8	—	—	$43.1	—	—
5–9	52.9	$58.6	$77.3	46.3	$57.3	$81.3
10–14	58.5	69.0	85.0	56.7	65.5	83.7
15–19	68.9	79.2	93.0	66.5	65.9	89.0
20–24	75.0	84.1	102.0	76.5	76.2	100.0
25–29	80.0	89.0	107.4	75.5	83.0	110.6
30–34	77.4	88.0	105.0	—	89.2	114.5
35–39	80.5	87.2	112.9	—	—	96.4
40 or more	73.8	91.7	105.9	—	—	—
TOTAL	$65.0	$80.0	$99.8	$52.7	$66.1	$92.4

NOTE: Median base salaries of those with full-time industrial jobs as of March 1, 2003. Where no salaries are shown, the sample was too small (fewer than 15) to provide meaningful data. **SOURCE:** ACS salary survey

terminable and possibly variable amount. This condition is due to the presumed greater reluctance of those unemployed to respond to the surveys.

Traditionally, unemployment rates of up to a little over 1% from these surveys have corresponded with full employment. Rates of 3% or more have indicated various degrees of trouble for the profession. It can reasonably be assumed that the absolute unemployment rates range between x in good economic times for chemists and $3x$ in bad times, with x being something like 1.5.

However, there remains no doubt that the market for chemists is not healthy today. For instance, the volume of paid employment advertisements in C&EN, which over the years has been a reliable qualitative indicator of the strength of the job market, is falling toward the low level of the early 1970s from a peak in 2000. Judging by the current dearth of these ads, job opportunities in some recently very actively recruiting areas, such as pharmaceuticals, have seemingly largely dried up, at least for a while.

A substantial 7.1% of respondents to this year's survey were unemployed at some time during 2002. This measure of unemployment will almost certainly be higher for 2003. These levels compare with 6.2% during 2001 and 4.9% in 2000. Particularly vulnerable last year were bachelor's-degree chemists, at 10.9%, and industrial chemists, at 7.9%.

More than half, 54%, of respondents to the new survey, including 60% of those less than 40 years old, indicated that they work for manufacturing concerns. And this is the area most affected by the overall employment weakness.

According to the Bureau of Labor Statistics (BLS) data, between March 2001 and March 2003 seasonally adjusted manufacturing payrolls plunged by 2 million, from 16.9 million to 14.9 million. Throughout the great economic boom of the 1990s, it had peaked at 17.6 million in 1995 before starting to decline slowly.

Recently revised BLS data on "chemicals"—a category that includes pharmaceuticals—indicate payrolls holding at close to 980,000 from 1995 through 2000 before dipping to 918,000 this June.

The job experience for ACS member chemists has to be put into context with the overall U.S. employment situation during the ongoing economic boom-and-bust cycle that started with an initial upturn in payrolls in March 1992. Since then and through June of this year, the seasonally adjusted number of people in the U.S. workforce—those with jobs plus those seeking them—has been growing by an average of 146,000 per month.

Job creation as measured by nonfarm payrolls averaged a considerably higher 225,000 during the boom phase of the cycle—through February 2001—as national unemployment fell from 9.5 million, or 7.4%, to 6 million, or 4.0%. Since then, job creation has been negative, by an average of about 90,000 per month. With the workforce still growing and the number of jobs falling, unemployment has quickly surged to 9.4 million, or a 9-year high of 6.4%, as of June.

Generating the 2.6 million jobs needed to bring payrolls back up to their peak level of a seasonally adjusted 132.6 million in February 2001 by the end of 2004 would require the creation of an average of close to 140,000 jobs per month starting last month. A reversal of such magnitude appears unlikely. This is so in light of the lack of solid early indicators of an upturn, other than a slowing rate of decline.

To date, no administration since World War II has witnessed an overall payroll decline. The weakest administration for job creation was the second Eisenhower term, which brought an 810,000, or 1.5%, payroll increase.

Since the initial upsurge after World War II, the top administrations for job creation have been Johnson's, with a record 16.5% boost in payrolls during his one full term in the booming 1960s; Carter's, with a 13.0% gain; and Reagan's second term, with growth of 11.2%. The two Clinton terms combined added 21.0%.

EMPLOYMENT. In addition to the 3.5% unemployed, the complete employment breakout for chemists as of March 1 is 3.0% with part-time jobs, 1.4% on postdocs or fellowships, and 92.1% employed full time.

The number of part timers is high at 3.0%. This is not unusual for stressful economic times. However, the number of postdocs—something else that has also tended to be higher in tough times—is at its lowest level ever. In 1995, not a good

INDUSTRIAL CHEMISTS: SALARY SPREAD

Salary advantage for top 10% grows sharply with experience

MEDIAN SALARY, $ THOUSANDS	YEARS SINCE BACHELOR'S DEGREE									OVERALL MEDIAN
	2–4	5–9	10–14	15–19	20–24	25–29	30–34	35–39	40+	
BACHELOR'S										
90%	$54.5	$65.0	$76.6	$91.3	$100.0	$117.0	$118.0	$117.0	$131.4	$95.9
75%	49.2	58.0	70.0	80.0	87.0	98.5	97.2	96.7	90.8	77.2
50%	43.2	50.0	57.0	68.0	75.0	79.2	75.3	75.8	73.3	60.0
25%	35.8	40.5	48.8	55.1	59.0	63.7	60.0	65.0	60.0	47.3
10%	30.5	36.4	42.0	46.0	50.0	53.0	40.2	53.0	44.9	37.5
MASTER'S										
90%	—	67.5	87.0	99.0	120.0	115.0	138.0	125.0	128.5	113.5
75%	—	63.0	76.7	87.0	98.6	103.0	106.0	110.0	109.0	93.5
50%	—	57.9	66.8	77.0	83.7	87.9	88.0	86.3	89.1	76.5
25%	—	52.0	60.7	62.5	69.9	73.0	71.5	65.0	60.0	61.2
10%	—	45.0	50.0	52.0	55.7	60.7	60.0	58.4	46.0	52.0
PH.D.										
90%	—	90.0	100.7	128.0	149.0	150.0	164.0	166.6	180.0	146.0
75%	—	84.0	94.0	107.0	120.0	128.5	130.0	141.0	136.0	119.0
50%	—	78.0	85.0	92.0	101.9	108.0	105.0	111.7	104.5	98.0
25%	—	70.0	75.0	82.0	88.0	92.5	91.0	95.3	86.7	84.0
10%	—	62.4	65.0	74.0	75.5	80.3	79.0	75.0	70.5	72.0

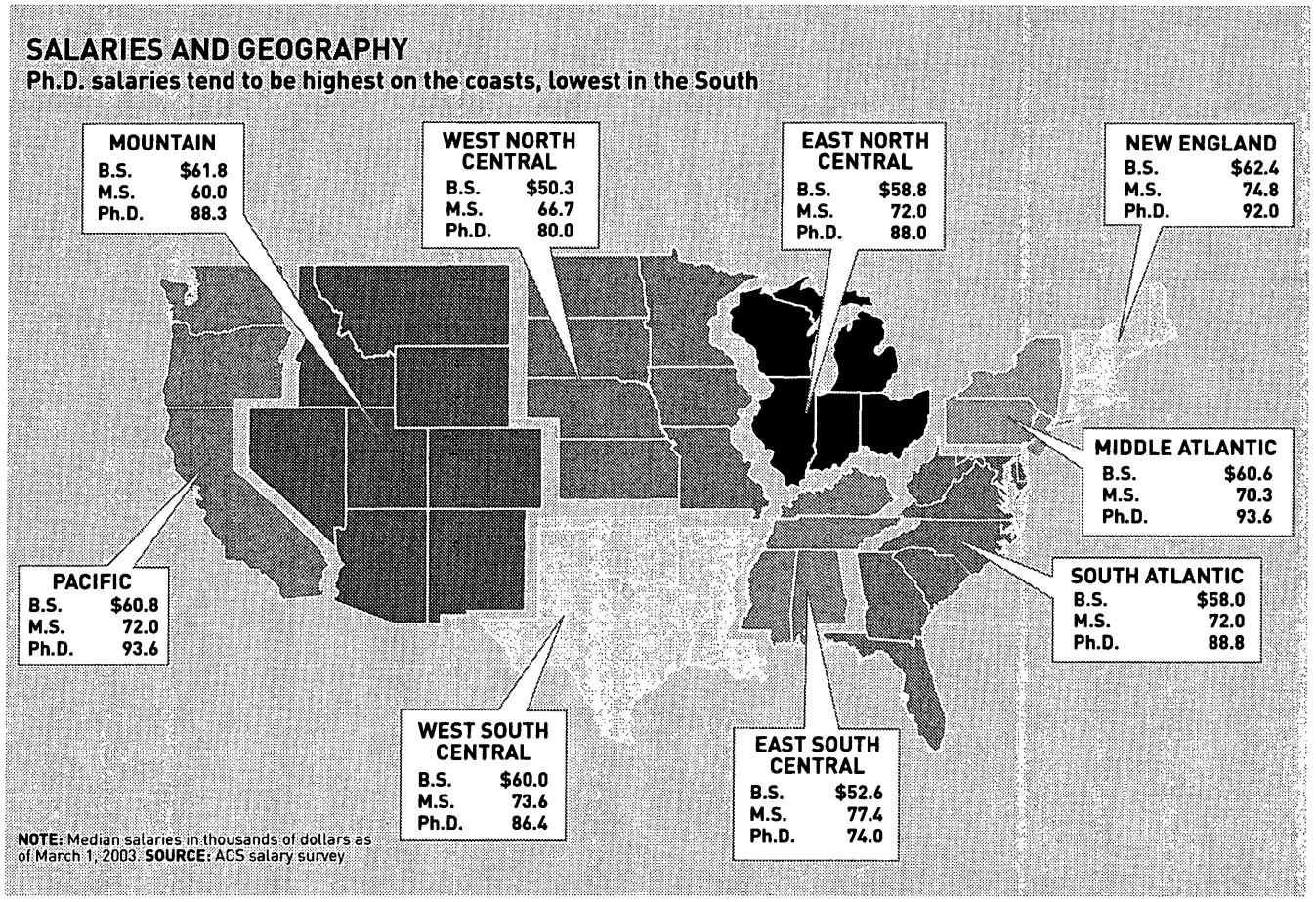
HOW TO READ THIS TABLE: Using the example of bachelor's chemists five to nine years after they have received their bachelor's degrees, 90% have annual base salaries of $65,000 or less, 75% have salaries of $58,000 or less, 50% have salaries of $50,000 or less, 25% have salaries of $40,500 or less, and 10% have salaries of $36,400 or less. All salaries are as of March 1, 2003. **SOURCE:** ACS salary survey

ACADEMIC SALARIES

Full professorship brings the big salary boost

MEDIAN SALARY, $ THOUSANDS	9- TO 10-MONTH CONTRACTS		11- TO 12-MONTH CONTRACTS	
	NON-PH.D. SCHOOL	PH.D. SCHOOL	NON-PH.D. SCHOOL	PH.D. SCHOOL
Full professor	$68.2	$96.6	$98.3	$120.1
Associate professor	52.0	64.1	72.0	80.3
Assistant professor	44.0	56.0	61.2	58.6

NOTE: As of March 1, 2003. **SOURCE:** ACS salary survey



year for chemists, the number of postdocs had been at a record high of 3.6%. This swing down to 1.4% raises the possibility that the survey responses do not accurately reflect the real situation because either postdocs are not joining ACS as full dues-paying members to the extent they once did or they are still joining but fewer are responding to the ACS survey.

By gender, the seemingly lower unemployment rate for women chemists this year, 3.1% compared with 3.6% for men, may not be significant. Last year, men had the edge at 3.2% compared with 3.4%. However, the higher 5.4% of women with part-time jobs this year, compared with 2.2% of men, is a continuation of a well-established pattern.

Industrial chemists, with a 4.5% unemployment rate this year, remain the most vulnerable. Unemployment among more protected chemists in academia and government remains at just about 1%.

The major difference in the employment profile by race is the percentages on postdocs: 5.7% of Asians, 3.4% of blacks, and 0.8% of whites.

SALARIES. As always, experience, degree level, and employer are the big determinants of the 2003 salaries. For all chemists as a group, median salaries grew from $56,000 for those just getting started who are five to nine years beyond their bachelor's degrees, to $79,000 for those in mid-career at 15 to 19 years beyond the bachelor's, and to about $92,000 for those in late career.

Within the same experience brackets, as measured by years since bachelor's degree, Ph.D. chemists earn about 35% more than their bachelor's-degree colleagues. By employer, industrial chemists earn about 15% more than government chemists and about 40% more than academic chemists. However, the academic median salaries are pulled down by the relatively low pay for younger academics. The median salary of $120,000 for full professors with 11- or 12-month contracts at Ph.D.-granting departments is quite competitive with that for experienced Ph.D.s in industry.

For chemists in industry, the most lucrative activity is R&D management, with median salaries of $125,000 for Ph.D.s, $100,000 for those with master's, and $89,000 for those with bachelor's degrees. The least lucrative is "analytical services," with medians of $87,800, $64,900, and $51,000, respectively.

A significant determinant of industrial chemists' salaries is the size of the employer. For instance, for Ph.D.s responding this year, median salaries range from $85,000 for those working for firms with fewer than 50 employees to $104,000 for those working at companies with 25,000 or more employees.

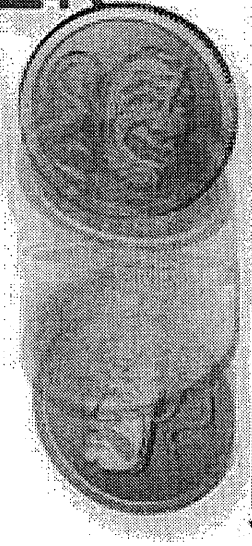
Salaries by geographic regions of the country are spotty, but they indicate that chemists tend to be paid a little more in New England, in the mid-Atlantic states, and on the West Coast.

OTHER PROFESSIONAL INCOME. Of this year's survey respondents, 16% report that they received stock options. Of those who did so, 93% were industrial chemists. There is little variation by gender or degree.

Bonuses, too, are predominantly a phenomenon of industry. This year, 67% of industrial chemists report that they were eligible for a bonus. Of these, 89% got one. The median was $6,000. Of government chemists, 35% were eligible, of whom 83% got a bonus, with a more modest median of $1,500. Only 9% of academics were eligible, of whom 86% got one, with a median value of $2,500. ■

Appendix C: Reprint of "Another Good Year Bad Year" by Mary Jordan and Janel Kasper-Wolfe, *Today's Chemist at Work*

ANOTHER GOOD YEAR BAD YEAR



MARY JORDAN AND JANEL KASPER-WOLFE

As in 2002, the ACS salary survey finds good pay gains for chemists with a "flip side" of record unemployment rates.

As was the case in 2002, the data from the 2003 ACS Comprehensive Salary and Employment Status Survey combines rosy raise percentages for employed ACS members with gloomy highs in jobless rates.

Nearly all degree groups of ACS chemists reported salary growth outpacing inflation (see Table 1); Ph.D. chemists led the way with a 5.3% increase over their 2002 median salary, followed by a 3.9% increase for M.S. chemists and 2.8% for B.S. chemists.

Industrial chemists continue to post higher medians than the general ACS membership across the board (see Table 2). Industrial chemists with M.S. degrees topped the chart with a 6.0% rise in their median salary; those with doctorates followed with a 4.1% increase. The smallest increase, 1.7% for industrial B.S. chemists, was the only pay hike that fell significantly short of the U.S. government's 3.0% consumer price index (CPI) that approximates inflation over the same period. Moreover, the low result for B.S. chemists is the greatest drop-off from last year's increase (5.2%) for any group.

Level of education and time in the field are the two strongest indicators influencing salaries for chemists (Figure 1). For most chemists, salaries by degree across time rise until the end of their careers, about 35 years from earning the B.S. degree. For ACS members in manufacturing, salary medians remain higher than those of members working in all other sectors throughout their careers. But other variables also affect the salaries of chemists, including employment sector, job function, and size of employer. These factors account for about 70% of the variance between salaries. The other 30% of between-salary variance among chemists with the same measured attributes lies outside those indicators and within personal traits like special abilities, personality, and temperament.

Industrial chemists working in manufacturing outearned those working for all other employers, with the highest medians for all three degrees—$62,000 for B.S. chemists, $77,000 for M.S. chemists, and $100,000 for Ph.D. chemists (Figure 2). The high median salaries in manufacturing are followed next by those in nonmanufacturing, except at the bachelor's level, where government chemists held a significant $6200 advantage. Other than

TABLE 1: Median Salary Gains of All ACS Chemists

Highest Degree	Median Salary 2002	Median Salary 2003	Salary Gain 2001–2002	Salary Gain 2002–2003
B.S.	$58,000	$59,700	5.5%	2.8%
M.S.	$68,500	$71,300	5.4%	3.9%
Ph.D.	$85,200	$90,000	3.6%	5.3%

TABLE 2: Median Salary Gains of ACS Industrial Chemists

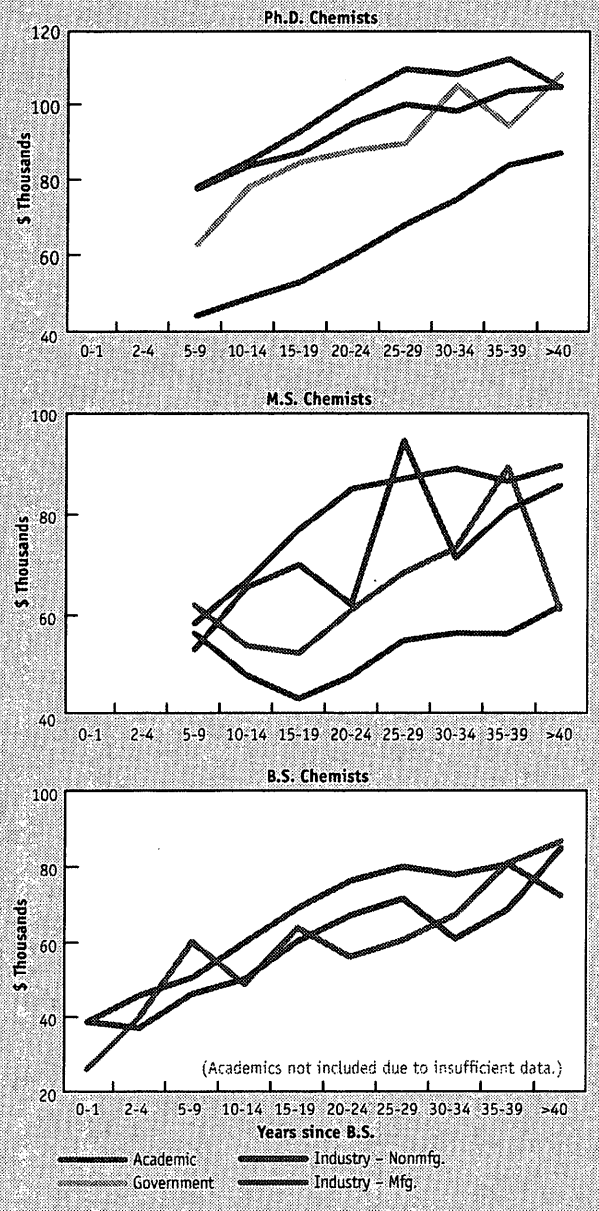
Highest Degree	Median Salary 2002	Median Salary 2003	Salary Gain 2001–2002	Salary Gain 2002–2003
B.S.	$59,000	$60,000	5.2%	1.7%
M.S.	$71,900	$76,500	5.7%	6.0%
Ph.D.	$94,000	$98,000	4.2%	4.1%

in that single category, industrial chemists outearn their counterparts in government and academia.

Job function in industry is also generally thought to be an important variable in setting salaries. For B.S. chemists in industry, the medians distributed by job function and degree show that those in management have the highest median: $89,200 for R&D managers and $79,300 for general managers (Figure 3). These are followed by B.S. chemists in marketing and sales ($73,000) and consulting ($70,500). The order of median salaries for industrial M.S. chemists is similar, with R&D management leading the way ($100,400), followed by general management ($95,800), consulting ($80,500), and marketing and sales ($80,000). Again, Ph.D. chemists report the top two salaries by job function as R&D management ($125,000) and general management ($117,700), followed by the basic research ($99,600) and applied research ($92,600) functions.

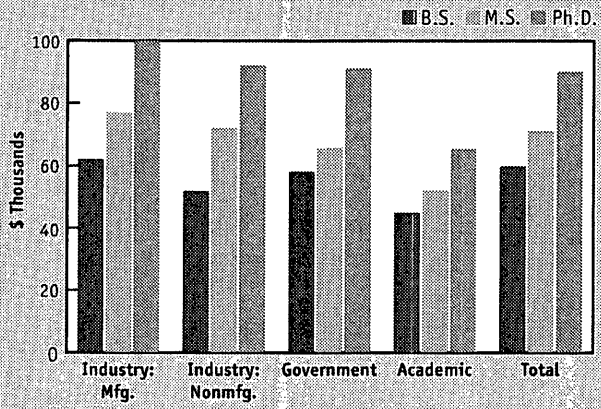
Salaries of industrial members are influenced by the size of their employer (Figure 4). The influence is very nearly a linear and positive correlation—the larger the firm, the higher the expected salary. This holds true across degrees but is especially true this year for Ph.D.s, whose data show a $19,000 difference between firms with fewer than 50 employees and firms that have 25,000 or more employees.

FIGURE 1: Median Salary by Degree and Years since B.S.



Source: ACS 2003 Comprehensive Salary & Employment Status Survey

FIGURE 2: Median Salary per Economic Sector



Source: ACS 2003 Comprehensive Salary & Employment Status Survey

Beyond Basic Salaries

In addition to asking about basic salaries, the survey asks for information on additional professional income in the form of stock,

About the Survey

The data used in this article were derived from the 2003 ACS Comprehensive Salary and Employment Status Survey. The survey was sent to a random sample of 22,350 ACS regular members who resided in the United States and excluded retired, emeritus, and student members. Out of the total 9492 usable responses received, 4905 were from member-chemists working in industry.

Each year, the median data point is used to describe salaries because it is not subject to outlier data that would influence a mean (average). The median salary is the point where half of all salaries are above and half are below it. Also, this year the respondents were older on average than usual, so that the statistical data had to be weighted. A model was formed using five years of ACS employment data, and the age-factor weighting was based on that model. Any questions regarding the data used in this article can be addressed to Mary Jordan via e-mail at m_jordan@acs.org.

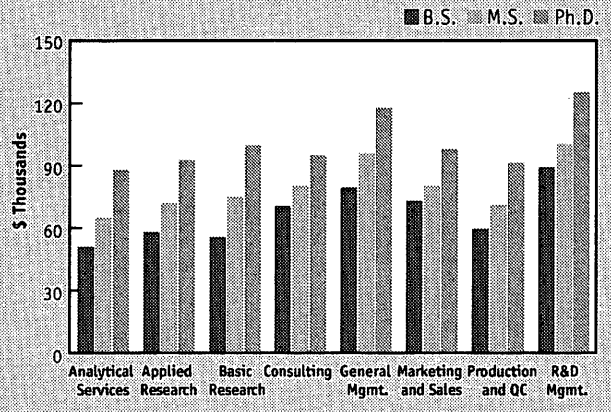
The Office of Employment Information, ACS Department of Career Services, conducts the survey. A more detailed full report, *Salaries 2003*, will be available in the fall for $250 from the ACS Office of Society Services, 1155 16th St., NW, Washington, DC 20036. Copies of previous reports are also available.

bonuses, and consulting fees. Industrial chemists, along with their higher median salaries, are also more apt to have additional income in the form of stock options and bonuses. More than a quarter of chemists working in manufacturing (25.6%) received stock as part of their professional income. Chemists working in nonmanufacturing were less likely to receive stock (20.7%), but more likely than those working in other sectors.

On the other hand, bonuses were prevalent across multiple sectors. Here again, chemists in manufacturing led the list with 70.4% eligible for bonuses and 89% of that group receiving them in 2002. More than half (52.5%) of those working in nonmanufacturing were eligible for bonuses, and 81.5% of that group received them. Fewer government chemists (35.9%) and academic chemists (8.6%) were eligible, but if eligible, they were as likely to receive bonuses (82.6% and 85.9%, respectively) as those working in both manufacturing and nonmanufacturing. Chemists working in manufacturing also received the largest median bonuses at $6500, followed by nonmanufacturing ($4000), academia ($2500), and government ($1500).

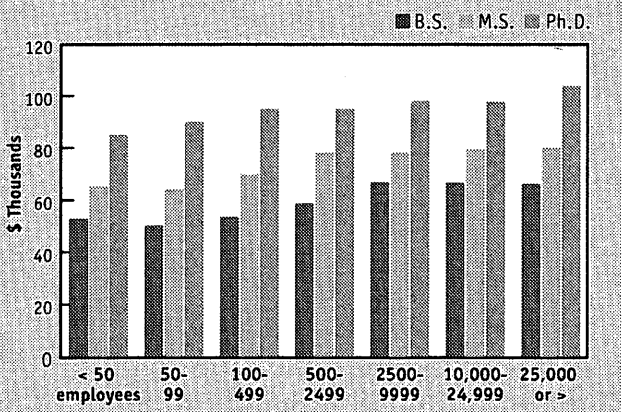
Consulting, other than that performed full-time by industrial chemists, remains primarily the territory of academics. Nonetheless, industrial chemists fared well with their salaries and added income, but also saw an unrelenting decline in jobs, especially in the manufacturing sector.

FIGURE 3: Median Salary vs Job Function



Source: ACS 2003 Comprehensive Salary & Employment Status Survey

FIGURE 4: Median Salary per Size of Employer



Unemployment: Gloomier than Ever

Following the lead of the U.S. economy as a whole, this year's unemployment level exceeded last year's. Manufacturing has shown the longest unabated decline in employment for more than a decade. This includes the chemicals manufacturing sector, with white-collar and professional jobs subject to continuing cuts at an increasing rate.

Overall, ACS workforce members posted a jobless rate of 3.5% on March 1, 2003, slightly exceeding last year's record of 3.3%. The only salve for the wounds is the fact that the total U.S. workforce is considerably worse off at 6.5% for the same March 1 milestone.

Again this year, the record high unemployment rate consists mainly of ACS members working in industry and over the age of 45. Overall, the unemployment in industry was 4.5%, up from 4.1% in 2002.

Joblessness was not spread evenly across employment sectors (Figure 5). Chemists working in the manufacturing sector posted an average unemployment rate of 4.4%, the same as last

How ACS Can Help You Deal with Unemployment

It was a tumultuous year for chemists, with no relief in sight anytime soon. Yet chemical professionals are not alone. In particular, job losses in the manufacturing sector reflect national economic trends. ACS offers numerous forms of support to members who are facing unemployment. They are:

Career Consultants: Seasoned professionals can assist you in your career path. *chemistry.org/portal/a/c/s/1/acsdisplay.html?DOC=careers%5Cguidance%5Ccareerconsult.html*

Coping with Job Loss: This brochure can help you deal with the trauma. *chemistry.org/portal/a/c/s/1/resources?id=67e41acaca4011d6f6636ed9fe800100*

Résumé Reviews: Our experts can help you make it the best it can be. *chemistry.org/portal/resources/ACS/ACSContent/careers/empres/resumetips99.pdf*

C&EN ChemJobs: Check new listings or post your résumé. *www.Cen-chemjobs.org*

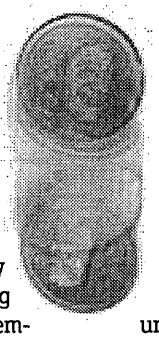
Interviewing Skills: Get some tips from the pros in this publication. *chemistry.org/portal/resources/ACS/ACSContent/careers/empres/interview99.pdf*

Salary Comparator: Determine what you should be paid in your job. *http://center.acs.org/applications/acscomparator/page01.cfm*

Career Development Library: Read publications that can develop your job-searching skills. *chemistry.org/portal/a/c/s/1/career.html?DOC=careers\pub02.html*

Local Sections: Many have career centers already established. Contact your local section for information.

For more tips, visit *chemistry.org/portal/a/c/s/1/career.html?DOC=careers\archive\midcareer_teaser.html.*



year. But those in the nonmanufacturing sector had the highest unemployment rate at 4.6%, up from 3.1% and making up most of the increase in the unemployment rate for 2003. Within each of the industrial sectors—manufacturing and nonmanufacturing—layoffs were more likely in some categories than in others. Among manufacturing employers, agricultural chemicals topped the list of high unemployment with 12.1%, followed by medical devices (10%), electronics (7.9%), plastics (5.4%), and specialty chemicals (4.7%). Pharmaceuticals, the manufacturing sector that employs the largest proportion of ACS members, still shows relative strength with an unemployment rate of 2.4%, virtually even with last year's 2.3%. Within the nonmanufacturing sector, biotech research firms' unemployment leaped from 1.5% last year to 6.6%, undoubtedly reflecting the slowdown in the biotechnology industry as a whole. The rising nonmanufacturing jobless rate also included chemists who work for contract research firms (5.0%) and professional services (4.9%).

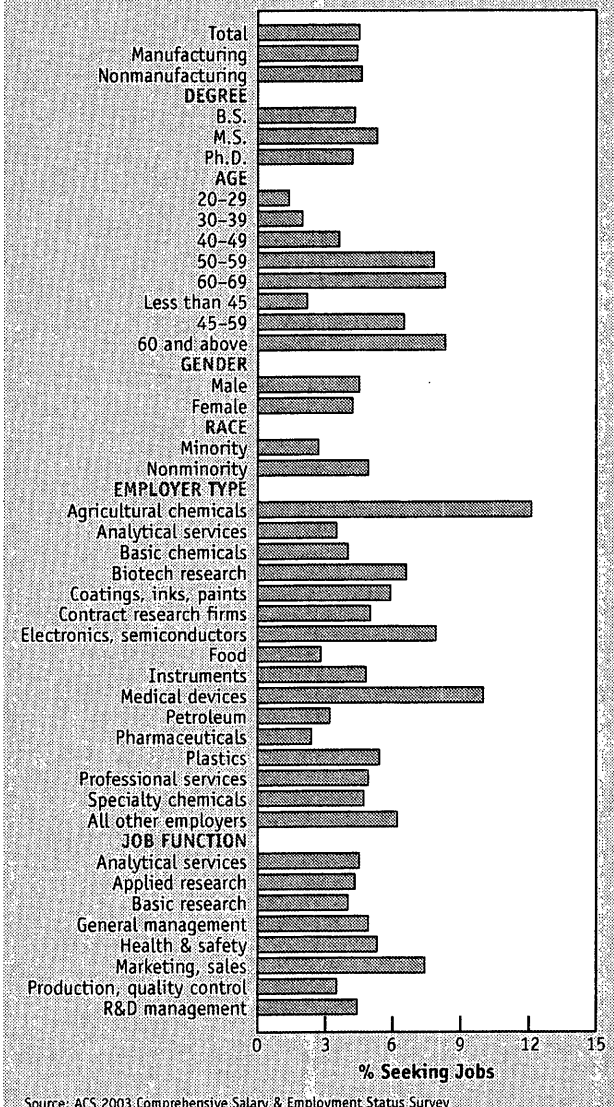
Many of the industrial work functions showing very high unemployment rates last year continued with high rates this year. Production and quality control chemists who suffered through the 1990s actually held a relatively low position this year with an unemployment rate of 3.5%, down from over 4% last year. At the other end of the spectrum, jobs became much scarcer in marketing and sales, which showed a 7.4% unemployment rate. After mostly escaping the high unemployment of the mid-1990s, research and R&D management showed unemployment rates higher than 4%. One of the larger groups of chemists, analytical chemists, sounded a relatively bright note among the symphony of gloom, chiming in with a significant decline in unemployment from last year's 7.8% to 4.5%.

Women in Industry

Female industrial chemists have distinct demographics and employment patterns that set them apart, mainly because so many of them entered the job market in the past two decades. Overall, women constitute about 23% of the industrial workforce. They are far more apt than men to have a B.S. or M.S. as their highest degree. They make up 31% of the B.S. and 30% of the M.S. chemists, but less than 17% of the Ph.D. holders. Industrial women are overrepresented in the 20–29 (49.1%) and 30–39 (30.7%) age groups. Much of the high proportion in the 20–29 age group is a product of the high proportion of B.S. industrial women. Women ACS members have a higher propensity to be a member of a minority group (26.8 vs 21.9%). Workforce trends related to women chemists show particular patterns regarding where they work. Employers that display a higher-than-average proportion of women are those that were hiring and growing new jobs from the mid-1980s through the 1990s. Pharmaceutical manufacturing makes up a large proportion and became the largest single employer of chemists during that period; almost 28% of pharma chemists are women. This is significant because not only are women a high proportion of chemists, but they also represent a large number of chemists. Food manufacturers also have a higher-than-average proportion of women at 24.5%. All the major nonmanufacturing employers show proportions of women close to or above the average. Analytical service labs (27.2%) and research institutions (29.8%) employ the highest proportion of women in the nonmanufacturing sector.

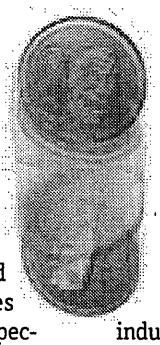
The higher proportion of women in nonmanufacturing carries over to where they are clustered in their job functions. They are an increasing proportion across all work functions, but their largest growth has been as analytical chemists (31.5%) and health and safety chemists (31.6%). They are also well represented in basic research (29.3%) and production and quality control (26.7%). However, so far they fall well below average in general management (13.8%) and R&D management (13.8%).

FIGURE 5: Unemployment among Industrial Chemists



Source: ACS 2003 Comprehensive Salary & Employment Status Survey

Demographically, the age groups most affected by unemployment were those over the age of 45. From age 45 through 59, the unemployment rate rose to 6.5%, and for age 60 and above, the unemployment rate sharply rose to 8.3%. Industrial chemists under age 45 placed well below the average industrial unem-



ployment rate at 2.2%. Chemists in the oldest and youngest age groups tend to have higher jobless rates than those in the middle.

Chemists with master's degrees repeated their ranking as those with the highest unemployment (5.3%), followed by chemists with B.S. degrees (4.3%) and doctorates (4.2%). Men outpaced women with 4.5 versus 4.2%, respectively. Minority chemists had a far lower unemployment rate this year at 2.7 versus 4.9% for nonminority chemists.

The Salary Comparator

The salary disparity between men and women chemists is complex. Much, but certainly not all, of that disparity can be explained by the degrees women obtain, their ages, where they work, and what jobs they perform. Extensive salary modeling is part of the analysis that goes into the ACS Salary Comparator. To see how various factors influence pay differentials for jobs, chemical professionals are encouraged to try the Comparator at *chemistry.org/careers*.

For those who were out of work on March 1, 2003, more than one-third had been out of work for more than a year. Because the unemployment rate only shows a snapshot of employment on one day (March 1, 2003), another way to look at unemployment is to consider those who said they had an unemployed period during which they sought work in 2002. This does not include those who changed jobs without an unemployed period. This figure not only gives us another representation of unemployment for chemical professionals, it also reflects the high mobility of the chemical industrial workforce.

At the youngest age group, 20–29, a whopping 11.5% had an "unemployed and seeking" period in 2002. This is likely the same group that propelled the rate of B.S. chemists with an unemployed period in 2002 to 10.2%. Excluding the youngest age group, the other age groups with a period of unemployment ranged from 5.5% of 30- through 39-year-olds to 11.7% of 60- through 69-year-olds. Overall, almost 8% of ACS industrial chemists had a period of unemployment and sought work in 2002, up from 6.2% in 2001. More than 4% of those employed full-time in industry on March 1 had a period of unemployment in the past year. A third of those who had an unemployed period in 2002 were seeking work for longer than six months.

For those who are facing unemployment problems personally or know others who are, ACS offers coping services (see box, "How ACS Can Help You Deal with Unemployment").

Mary Jordan *is a workforce specialist and* **Janel Kasper-Wolfe** *is a workforce research associate in the ACS Department of Career Services. Send your comments or questions about this article to tcaw@acs.org or to the Editorial Office address on page 3.* ◆

ACS Career Services: Workforce Publications

SALARIES The Society surveys annually that ACS membership, gathering detailed information on member chemists and chemical engineers living in the U.S. The reports based on the survey contain statistical tables describing the respondents' employment status, employer, work function, specialty, salary and demographic characteristics. Reports are available each year from 1973 through the current year.

STARTING SALARIES ACS also surveys new graduates in chemistry and chemical engineering each year and publishes reports detailing the graduates' employment status, post-graduate plans, starting salaries, and other employment and demographic characteristics. Reports are available for each year from 1975.

MILLENNIUM SERIES A series of reports drawn from special studies that detail members' employment characteristics at the turn of the millennium.

Lifetimes in Chemistry 1999–2000—A report drawn from the 1999 study of ACS members, aged 50 through 69.

ChemCensus 2000—A look at the decade of the 1990s through comparing data from the 1990, 1995, and 2000 ACS censuses of working members.

Women Chemists 2000—A look at the decade of the 1990s through comparing data on women chemists from the 1990, 1995, and 2000 ACS censuses of working members

Industrial Chemists 2000—A look at the decade of the 1990s through comparing data on industrial chemists from the 1990, 1995, and 2000 ACS censuses of working members

Academic Chemists 2000—A look at the decade of the 1990s through comparing data on academic chemists from the 1990, 1995, and 2000 ACS censuses of working members.

Early Careers of Chemists 2001—A detailed look at the education and early careers of ACS members under age 40 drawn from survey conducted in 2001.

For prices and ordering information, please call or write:

ACS Office of Society Services
1155 16th Street NW
Washington, DC 20036
Phone: 800.227.5558 or 202.872.4600

For all of ACS Career Services: http://chemistry.org/careers

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