

EMPLOYMENT & SALARY SURVEY

Salary gains and **STEADY EMPLOYMENT** for chemists mark 2008 survey

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GIVEN THESE TUMULTUOUS economic times and signs of things to come, one can only look at last year's employment and salary situation for chemists with envy. As it turns out, 2008 was a very good year for chemists, who enjoyed higher salaries and lower unemployment. The results from the 2008 American Chemical Society comprehensive salary and employment status survey show that the median salary for chemists increased 5.7% from the year before to \$93,000. Meanwhile, the unemployment rate dropped to only 2.3%, the lowest since 2001.

The annual survey, which was done in March 2008, indicates that, as the economy continued to be strong at that time, chemists at every level and professional category were also faring well. Median base pay for bachelor's degree chemists rose 4.7% to \$73,000 and the base pay for those with a Ph.D. degree went up 2.6% to \$101,000. The median salary for all chemists who are men rose to \$98,000, a 4.2% increase, and the median salary for women went up to \$75,500, marking a 3.4% gain.

A comparison of 2008 median salaries

with their equivalents from 10 years ago shows that chemists' pay has increased at a rate greater than inflation. In 1999, chemists with a bachelor's degree earned the equivalent of \$63,900 in 2008 dollars, but the 2008 median salary is \$93,000, or 14%, higher. Ph.D. chemists' median salary from 1999 in 2008 dollars was \$96,900, but it has risen when calculated against inflation by \$4,100, or 4%. Department of Labor data from the Bureau of Labor Statistics indicate that the Consumer Price Index went up an average of 2.5% per year during those 10 years.

Substantial gains in 2008 were also evident in the major categories of employment for chemists. The median base pay for all chemists working in business or industry rose above the century mark last year, reaching \$102,000, a 4.1% jump compared with the prior year. For

chemists employed by the government, the median salary was \$96,000, up from \$92,500 the year before, and those in academia saw a 4.3% gain in pay to \$70,500.

At the same time, in 2008, more chemists were employed full-time and fewer were seeking jobs than in 2007. The survey found that 92.5% of chemists had full-time jobs, up slightly from 92.3% the previous year. Part-time employment increased as well, rising to 3.9% of chemists, up from 3.6% in 2007, but postdoctoral jobs were down, dipping to 1.3% from 1.7% a year earlier. The total of 7.5% of chemists who were either looking for work, employed part-time, or in postdoc positions was the lowest percentage since 2001, when the total dipped to 5.4%.

The 2008 annual survey was sent to 20,753 regular ACS members who were under the age of 70 and were most likely to be in the domestic workforce. Ultimately, 7,400 usable surveys, electronic and paper, were received

SALARIES OF CHEMISTS AS INDIVIDUALS

Average pay increased by 5.7% for chemists overall

\$ THOUSANDS	2007	2008	2007-08	
			\$ GAIN	% GAIN
ALL	\$88.0	\$93.0	\$5.0	5.7%
BY DEGREE				
Bachelor's	69.7	73.0	3.3	4.7
Master's	81.6	82.0	0.4	0.5
Ph.D.	98.4	101.0	2.6	2.6
BY GENDER				
Men	94.0	98.0	4.0	4.2
Women	73.0	75.5	2.5	3.4
BY ETHNICITY				
Hispanic	81.6	82.7	1.1	1.3
BY CITIZENSHIP				
Native born	88.2	91.5	3.3	3.7
Naturalized	100.0	103.8	3.8	3.8
Permanent resident	89.9	93.4	3.5	3.9
Other visa	65.0	70.0	5.0	7.7
BY EMPLOYER				
Industry/business	98.0	102.0	4.0	4.1
Government	92.5	96.0	3.5	3.8
Academia	67.5	70.4	2.9	4.3
BY AGE				
20-29	50.0	54.0	4.0	8.0
30-39	73.0	76.4	3.4	4.7
40-49	92.5	96.0	3.5	3.8
50-59	100.6	105.1	4.5	4.5
60-69	98.5	103.0	4.5	4.6

EMPLOYMENT STATUS

Employment of chemists remained high

	FULL-TIME	OTHER THAN FULL-TIME EMPLOYMENT			TOTAL
		PART-TIME	POSTDOC	UNEMPLOYED/SEEKING EMPLOYMENT	
1998	92.9%	2.5%	2.3%	2.3%	6.4%
1999	92.9	2.7	2.1	2.3	7.1
2000	92.9	3.0	2.1	2.0	7.1
2001	94.6	2.5	1.4	1.5	5.4
2002	92.2	3.0	1.5	3.3	7.8
2003	92.1	3.0	1.4	3.5	7.9
2004	90.9	3.6	1.9	3.6	9.1
2005	90.8	4.1	2.0	3.1	9.2
2006	91.3	3.4	2.3	3.0	8.7
2007	92.3	3.6	1.7	2.4	7.7
2008	92.5	3.9	1.3	2.3	7.5

NOTE: As of March 1 of each year. Based on population that excludes those fully retired or otherwise not employed and not seeking employment.

SOURCE: ACS salary survey 2008

NOTE: Median salaries for full-time employed chemists as of March 1, 2008.

SOURCE: ACS salary survey 2008

by ACS from members, for a response rate of 35.7%. This rate was up slightly from the 2007 survey but still below the 50% rates characteristic of the late 1990s.

The survey was conducted and analyzed by Gareth S. Edwards and Jeffrey R. Allum of the ACS Department of Member Research & Technology under the guidance of the ACS Committee on Economic & Professional Affairs.

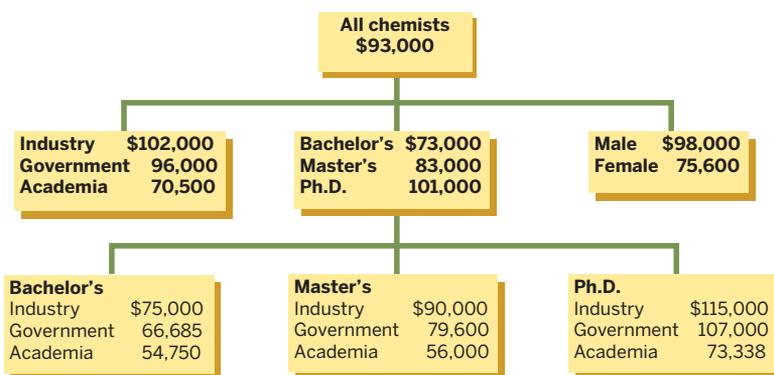
Several trends in the chemical workforce can be seen in the survey results. Notably, the percentage of men relative to women continues to steadily decline. In 1995, 78.5% of chemists surveyed were men. Last year, men composed just 73.9% of the total. Data that indicate the proportion of men and women working, broken down by the number of years since they received a bach-

elor's degree, show a steady increase in the percentage of women. They also show that for the most recent category, which is two to four years after an initial degree is earned, more than 51% of working chemists are women.

Another noteworthy trend is that the

MEDIAN BASE SALARIES FOR CHEMISTS

Base salaries for academic chemists lagged behind those for other fields



NOTE: Median annual base salaries for chemists with full-time employment.
SOURCE: ACS salary survey 2008

percentage of chemists working with bachelor's as their highest degree, at least among ACS members, is declining. In 1985, 25.4% of employed chemists said the bachelor's was their highest degree. By 2008, that number had fallen to 17.9%, and it has been dropping about 1% each year. Between 1985 and 2008, the percentage of chemists working with master's degrees varied little, but the proportion of Ph.D. holders rose. The survey found that 64.2% of those surveyed in 2008 had a Ph.D. as

their highest degree, compared with just 56.7% in 1985.

Although these trends are positive for the chemical profession, another is less so. The survey found that the age of employed chemists, and in particular that of ACS members, is steadily increasing. The average age of the chemists surveyed in 2008 was 48.1 years, an increase of 0.8 years from 2007. The average for men was 49.6 years and for women, 44.2. Moreover, an analysis of employed chemists finds that 42.8% were younger than 40 in 1985, but this under-40 figure fell to just 24.4% by 2008. The fact that those who responded to the survey are getting older and that older chemists generally receive higher salaries might mean that the median salary from the survey suggests a higher rate of salary increase than is true for the larger chemistry community.

SALARIES RELATED to age and experience also show an interesting trend. For most categories of chemists, such as gender or the highest degree achieved, the median salary rises until 30 to 40 years after the awarding of a bachelor's degree but then drops off slightly. This is also true for chemists working in industry. But for those employed by the government or academia, the increasing trend of median salary continues beyond the 40-year mark since the bachelor's degree.

Other demographic data for chemists seem to have shifted very little during the past few years. The percentage of employed African Americans responding to the survey has been just less than 2% of the total for

ACS MEMBERS IN THE WORKFORCE

Percentage of women resumed its growing trend in 2008

	1995	2000	2005	2006	2007	2008
BY GENDER						
Men	78.5%	75.8%	74.9%	74.2%	74.6%	73.9%
Women	21.5	24.2	25.1	25.8	25.4	26.1
BY DEGREE						
Bachelor's	24.3	22.1	19.9	19.6	18.9	17.9
Master's	16.9	17.4	17.0	17.7	17.3	18.0
Ph.D.	58.8	50.5	63.1	62.7	63.8	64.2
BY RACE						
American Indian	0.2	0.2	0.2	0.2	0.2	0.4
Asian	10.3	11.1	10.9	11.7	11.4	10.8
Black	1.4	1.9	1.9	1.9	1.9	1.8
White	85.8	85.5	85.8	84.3	84.5	84.8
Other	2.3	1.3	1.2	1.9	2.0	2.2
BY ETHNICITY						
Hispanic	2.3	2.5	2.6	2.8	3.0	2.7
BY CITIZENSHIP						
Native born	82.3	79.5	79.8	79.3	79.7	80.3
Naturalized	8.5	10.2	10.2	10.7	10.5	10.9
Permanent residents	7.1	6.9	6.5	6.5	6.2	6.5
Other visa	2.1	3.4	3.5	3.5	3.6	2.3
BY AGE						
Under 40	40.7	34.1	27.8	33.0	27.9	24.4

SOURCE: ACS annual salary surveys

INDUSTRIAL SALARIES BY WORK FUNCTION

Management jobs offered the highest pay overall

\$ THOUSANDS	BACHELOR'S	MASTER'S	PH.D.
RESEARCH			
Basic research	\$68.3	\$85.0	\$113.2
Applied research	73.0	87.0	108.9
MANAGEMENT/SALES			
R&D management	110.0	116.9	143.0
General management	113.0	114.1	134.3
Marketing/sales	85.0	97.0	111.3
ANALYTICAL			
Analytical services	65.0	81.0	101.0
Production/quality control	66.0	85.0	108.0
OTHER			
Health/safety	74.0	95.7	131.0
Chemical information	id	93.2	111.5
Computers	id	id	115.0
Patents	id	id	160.0

NOTE: Median full-time base salaries. **id** = insufficient data to be meaningful.

SOURCE: ACS salary survey 2008

PH.D. FACULTY SALARIES BY GENDER

Women and men chemists were paid about the same at most levels

\$ THOUSANDS	MEN	WOMEN	WOMEN AS % OF MEN
FULL PROFESSOR			
Bachelor's granting	\$76.0	\$73.6	97%
Master's granting	81.7	82.1	101
Ph.D. granting	120.0	117.5	98
ASSOCIATE PROFESSOR			
Bachelor's granting	60.0	58.0	97
Master's granting	63.9	61.2	96
Ph.D. granting	72.0	80.6	112
ASSISTANT PROFESSOR			
Bachelor's granting	51.8	51.5	99
Master's granting	56.0	54.9	98
Ph.D. granting	69.5	65.5	94

NOTE: Median salaries for nine-month contracts as of March 1, 2008.

SOURCE: ACS salary survey 2008

the past eight years; the percentage of those claiming Hispanic ethnicity has been fairly constant, at about 3%; and the proportion of Asians has held steady at around 11%.

Most chemists work for industry or business. The 2008 survey found that more than 62% of chemists are employed by industry (including more than 82% of respondents with a bachelor's as their highest degree), whereas 29% are in academia and less than 8% have government jobs.

The percentage of chemists working in industry and academia has held steady for the past three surveys, indicating at least a pause in a trend in which more chemists were moving from industry to universities. In 2002, for instance, only 24% of respondents surveyed worked in academia,

compared with 29% recorded since 2006.

For those chemists in academia, the survey found that the largest percentage of chemists, 37.5%, work for Ph.D.-granting institutions. Schools that confer only bachelor's degrees employ 26% of academic chemists; two-year institutions that grant associate's degrees employ 8.3%; high schools hire 8.7% of chemists; and medical schools provide work for 8.9% of chemists serving professorial roles.

ONE INCENTIVE to work for industry is that it seems to pay more, both in base salary and bonuses. The survey found that the greatest portion of nonacademic chemists, 26.9%, work in the pharmaceutical industry. The remaining industrial chemists are

spread in much smaller percentages among a wide variety of employers. Some of these categories include 7.7% in the specialty chemical industry; 4.8% in biotechnology research; 4.1% in the coating, ink, and paint industries; and 3.7% in the plastics industry.

Chemists with a bachelor's degree working full-time in industry received a median salary of \$75,000 in 2008, with men getting \$78,450 and women receiving \$68,000, or 86.7% of men's salaries. Those with a master's degree were paid a median base pay of \$90,000, with men getting \$95,500 and women earning 17.8% less at \$78,500. A bigger salary gap was found for Ph.D. industrial chemists, who earned a median pay of \$115,000 in 2008. Men at this level received \$117,000, and women were compensated at

INDUSTRIAL CHEMISTS' SALARIES BY EXPERIENCE AND GENDER

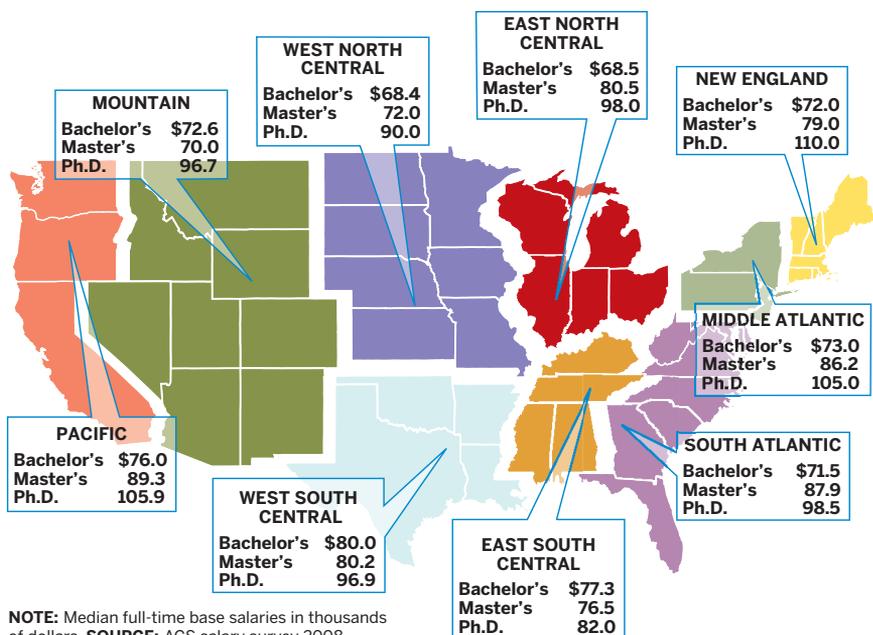
Women with Ph.D. degrees made salaries nearly equal to those of men

YEARS SINCE BACHELOR'S DEGREE	BACHELOR'S			MASTER'S			PH.D.		
	MEN	WOMEN	WOMEN AS % OF MEN	MEN	WOMEN	WOMEN AS % OF MEN	MEN	WOMEN	WOMEN AS % OF MEN
2-4	\$48.0	\$45.7	95%	na	na	na	na	na	na
5-9	60.0	58.6	98	\$63.4	\$63.5	100%	\$90.8	\$88.0	97%
10-14	68.5	62.5	91	73.0	72.4	99	95.0	94.0	99
15-19	73.0	84.4	116	87.4	83.0	95	105.0	106.0	101
20-24	85.0	72.6	85	96.5	87.0	90	120.0	114.9	96
25-29	91.4	85.0	93	103.0	83.0	81	127.5	124.3	97
30-34	98.8	86.4	88	105.0	103.7	99	130.0	126.6	97
35-39	85.0	83.0	98	106.0	96.0	91	128.8	132.0	102
40 or more	88.8	84.1	95	103.0	89.9	87	127.1	102.8	81

NOTE: Median full-time base salaries in thousands of dollars as of March 1, 2008. **na** = not applicable. **SOURCE:** ACS salary survey 2008

CHEMISTS' SALARIES BY REGION

Pacific coastal states, New England still paid slightly higher salaries



NOTE: Median full-time base salaries in thousands of dollars. SOURCE: ACS salary survey 2008

base salary for a bachelor's chemists performing R&D management is \$110,000, up 12.2% from a year ago, and the Ph.D. chemist managing R&D has a median income of \$143,000, up \$3,000 from last year's survey.

Other industrial jobs that pay well are those involving health and safety. Chemists with bachelor's degrees earned a median salary of \$74,000 in 2008 in this field, although that is a drop from the \$83,500 median reported in the 2007 survey. Ph.D. chemists in health and safety earned \$131,000 for 2008, a 5.2% increase from a year ago.

The base median pay difference between men and women chemists working in industry varies somewhat depending on the years of experience of the individual. ACS data show that younger chemists generally have smaller differentials based on gender than do those with 20 years or more in the workforce. For example, women with bachelor's degrees working in industry for five to nine years made 98% of their male colleagues' pay and those with a master's degree earned 100%. Women with 20 to 24 years' experience and a bachelor's degree, however, earned just 85% of what men with the same experience were paid. With a master's degree, women chemists made 90% of the base pay for comparably experienced men.

Compared with the salaries paid to chemists in industry, salaries paid to chemists employed at U.S. universities are somewhat lower. Moreover, only about 29% of survey respondents said they work in academia, compared with 62% who reported

\$107,000, or at 91.5% of the median men's base pay.

Not surprisingly, salary levels for industrial chemists are linked to the type of position held. Overall, chemists in analytical services or quality control companies make the lowest industrial salaries, regardless of

their final degree. Ph.D. chemists in analytical services earned \$101,000 in 2008, up just 1.0% from the year before.

The highest salaries at any degree level are paid to managers. These chemists are probably older and have more experience, and their pay reflects that. The median

working in industry. The median salary for chemists working in academia with nine- to 10-month contracts was \$70,500, which is 69.1% of the industrial median yearly pay.

Academic salaries consistently vary on the basis of the degree held by the employee and the degree level granted by the university. Professors working at schools that grant only bachelor's degrees generally receive lower pay, whereas those at Ph.D.-granting universities receive the highest pay. More specifically, assistant

SALARY TRENDS

Chemists' salaries at all levels rose in 2008

\$ THOUSANDS	BACHELOR'S		MASTER'S		PH.D.		ALL CHEMISTS	
	CURRENT \$	CONSTANT \$ 2008	CURRENT \$	CONSTANT \$ 2008	CURRENT \$	CONSTANT \$ 2008	CURRENT \$	CONSTANT \$ 2008
1998	49.6	64.6	57.7	75.2	73.3	95.5	65.0	82.1
1999	50.1	63.9	61.0	77.8	76.0	96.9	68.0	86.7
2000	53.1	65.5	64.4	76.5	79.0	97.5	70.0	86.4
2001	55.0	66.0	65.0	78.0	82.2	98.6	73.0	87.6
2002	58.0	68.5	68.5	80.9	85.2	100.6	76.5	90.3
2003	59.7	68.9	71.3	82.3	90.0	103.9	80.0	92.4
2004	62.0	69.7	72.3	81.3	91.6	103.1	82.0	92.2
2005	63.0	68.5	74.0	80.5	93.0	101.2	83.0	90.3
2006	65.2	68.7	77.5	81.7	95.0	100.1	85.0	89.6
2007	69.7	71.4	80.0	82.0	96.7	99.1	88.0	90.2
2008	73.0	73.0	82.0	82.0	101.0	101.0	93.0	93.0
AVERAGE ANNUAL CURRENT-DOLLAR SALARY INCREASE								
2007-08	4.7%		2.5%		4.4%		5.7%	
1998-08	4.7		2.7		3.8		4.3	

NOTE: Median base salaries for those with full-time jobs as of March 1 each year. Average annual increase in Consumer Price Index is 2.1% for 2007-08 and 2.5% for 1998-08.

SOURCES: ACS salary surveys, Bureau of Labor Statistics (Consumer Price Index data)

SALARIES FOR ALL CHEMISTS BY EXPERIENCE

Salaries peaked in all areas after 30 years of experience

\$ THOUSANDS	YEARS SINCE BACHELOR'S DEGREE									ALL ^a
	2-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
ALL CHEMISTS	\$46.8	\$62.7	\$75.5	\$84.0	\$95.0	\$101.0	\$109.2	\$108.0	\$106.0	\$93.0
BY GENDER										
Men	48.0	66.0	79.9	88.8	98.0	105.6	111.3	110.3	109.0	98.0
Women	46.0	58.6	70.0	72.5	85.0	87.1	95.7	85.6	79.6	76.0
BY DEGREE										
Bachelor's	46.4	59.7	66.9	73.3	80.0	80.2	92.7	82.5	82.5	73.0
Master's	52.0	60.3	69.0	75.5	90.0	92.0	98.0	94.9	90.0	82.0
Ph.D.	id	76.0	82.0	89.6	100.0	109.0	118.2	120.0	110.0	101.0
BY EMPLOYER										
Industry	48.0	65.8	85.6	97.5	105.0	112.5	115.4	120.0	116.0	102.0
Government	43.1	72.0	79.0	87.5	98.0	96.7	100.0	107.0	115.0	96.6
Academia	30.0	45.5	58.0	60.6	68.7	72.6	80.0	83.7	94.0	70.3

NOTE: Median full-time salaries as of March 1, 2008. **a** Respondents giving their age. **id** = insufficient data to be meaningful. **SOURCE:** ACS salary survey 2008

professors with nine-month contracts at non-Ph.D.-granting schools were paid a median salary of \$52,000 in 2008, and Ph.D.-granting universities paid assistant professors \$69,000, a 32.7% difference. A bigger differential existed at the full professor level. At non-Ph.D.-granting institutions, full professors received a median salary of \$76,000, whereas the median salary for same category at a Ph.D.-granting school was \$120,000, a jump of 57.9%.

The data on salaries in academia, when broken down according to the gender of the employee, also differ from the business and industry data. In general, women and men at universities receive similar pay. The median salary in 2008 for women full professors at Ph.D.-granting institutions was \$117,500, or 98% of that for their male colleagues. For the assistant professor position, the median salary shift was just slightly greater at the same schools, with women getting \$65,500 and men receiving \$69,500, or about 6% more.

IN ONE CATEGORY, the median salary earned by women jumped ahead of that earned by men in 2008. For associate professors at Ph.D.-granting schools, women earned \$80,600, or 112% of the median pay for male associate professors, who reported earning \$72,000.

Although the gender gap in salary has been closing at universities, salary increases in academia have been fairly meager. Only larger, Ph.D.-granting institutions

ACADEMIC SALARIES

Doctorate-granting schools paid the highest for nine-month contracts

\$ THOUSANDS	NINE-MONTH CONTRACTS		11- TO 12-MONTH CONTRACTS	
	NON-PH.D. SCHOOL	PH.D. SCHOOL	NON-PH.D. SCHOOL	PH.D. SCHOOL
Full professor	\$76.0	\$120.0	\$128.5	\$120.6
Associate professor	60.0	72.0	89.3	79.6
Assistant professor	52.0	69.0	74.6	72.1
Instructor/adjunct	48.5	51.3	51.6	51.8
Research appointment	id	id	60.0	62.0

NOTE: Median salaries. **id** = insufficient data to be meaningful. **SOURCE:** ACS salary survey 2008

seem to be increasing chemists' salaries very much. At those schools, the median reported salary for all full professors with nine-month contracts rose 9.1% last year from \$110,000 to \$120,000. The median salary for full professors at non-Ph.D.-granting schools did not change significantly, staying at about \$76,000.

Chemical engineers represent only a modest fraction of the membership of ACS, and last year only 3% of the respondents identified themselves in this category. With such a small response, the numbers ACS has on salaries are likely not representative of the whole of chemical engineering.

The chemical engineering survey respondents were 81% men and 19% women, and they reported a median base salary of \$112,000, higher than the median \$93,000 for chemists. The range of salaries across degree categories was small among chemi-

cal engineers, with those holding a bachelor's degree earning \$100,900 and those with a Ph.D. earning \$119,300, an 18.2% change. For chemists the differential was 38.4%. Women chemical engineers reported a median income of \$110,000, and men, an income of \$113,750, a 3.4% difference.

This ACS employment and salary survey was conducted a year ago at a time when business and universities were only beginning to feel the impact of the current deep recession. Since then, numerous companies have laid off large numbers of employees, including many chemists, and some universities have stopped hiring new professors. The higher salaries and low unemployment figures in this survey are not likely to resurface in the near future.

Still, the growth in employment and strong base pay increases experienced by chemists last year, particularly by younger graduates and by women entering the workforce, indicate a positive longer term future for the profession. ■



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AGE OF CHEMISTS

Median age of all chemists was one year older than last year

	MEDIAN AGE	MEAN AGE
ALL CHEMISTS	49	48.1
BY GENDER		
Men	51	49.6
Women	44	44.2
BY DEGREE		
Bachelor's	47	45.8
Master's	50	48.3
Ph.D.	49	48.6
BY EMPLOYER		
Industry/business	47	46.6
Government	51	49.0
Academia	48	48.1
BY RACE		
Asian	44	44.9
Black	49	47.3
White	50	48.6
BY ETHNICITY		
Hispanic	46	45.9
BY CITIZENSHIP		
Native born	49	48.0
Naturalized	51	50.7
Permanent resident	41	42.4
Other visa	35	35.9

NOTE: Median age of all chemists employed full time as of March 1, 2008.
SOURCE: ACS salary survey 2008

EMPLOYMENT DEMOGRAPHICS

Overall employment of chemists remained very high for 2008

	EMPLOYED		POSTDOC	UNEMPLOYED/ SEEKING EMPLOYMENT
	FULL-TIME	PART-TIME		
ALL CHEMISTS	92.5%	3.8%	1.3%	2.3%
BY DEGREE				
Bachelor's	93.5	3.8	0.3	2.4
Master's	90.8	5.6	0.0	3.6
Ph.D.	92.7	3.4	1.9	1.9
BY GENDER				
Men	93.5	2.9	1.2	2.4
Women	90.0	6.4	1.5	2.1
BY RACE				
Asian	90.1	2.5	4.8	2.5
Black	96.4	0.9	0.9	1.8
White	92.8	4.0	0.8	2.3
BY AGE				
20-29	90.2	3.0	5.6	1.3
30-39	91.7	3.0	4.1	1.2
40-49	96.6	1.2	0.5	1.7
50-59	91.9	4.3	0.1	3.8
60-69	88.3	9.3	0.0	2.5

NOTE: As of March 1, 2008. Excludes those retired or otherwise unemployed but not seeking employment. **SOURCE:** ACS salary survey 2008

DEMOGRAPHICS BY DEGREE

Industry hires the greatest percentage of bachelor's degree chemists

	BACHELOR'S	MASTER'S	PH.D.	ALL
BY GENDER				
Men	66.3%	68.8%	77.6%	74.1%
Women	33.7	31.2	22.4	25.9
BY RACE				
American Indian	0.3	0.6	0.4	0.4
Asian	5.2	8.8	13.5	11.2
Black	3.4	1.2	1.6	1.8
White	88.5	86.4	82.6	84.3
Other	2.6	3.0	2.0	2.3
BY ETHNICITY				
Hispanic	3.0	2.4	2.8	2.8
BY CITIZENSHIP				
Native born	92.8	87.8	73.7	79.6
Naturalized	5.6	7.8	13.4	11.1
Permanent resident	1.6	3.6	9.3	7.0
Other visa	0.1	0.8	3.5	2.4
BY EMPLOYER				
Business/industry	82.3	71	53.0	61.3
Government	8.6	7.6	7.1	7.4
Academia	7.0	18.7	38.3	29.4

HOW TO READ THIS TABLE: Using the example of men, 66.3% of bachelor's degree respondents are male, as are 68.8% of master's, 77.6% of Ph.D. and 74.1% of all respondents. **NOTE:** Data are for employed ACS members as of March 1, 2008. **SOURCE:** ACS salary survey 2008

SALARY SPREAD FOR INDUSTRIAL CHEMISTS

Almost all categories saw significant gains in salary in 2007

\$ THOUSANDS	YEARS SINCE BACHELOR'S DEGREE									ALL
	2-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
BACHELOR'S										
90th percentile	\$67.5	\$78.9	\$92.1	\$112.5	\$125.0	\$130.0	\$145.6	\$153.0	\$140.0	\$122.7
75th	55.0	69.3	78.0	96.0	101.0	108.5	120.0	120.0	120.0	97.5
50th	47.5	60.0	65.5	78.0	83.2	91.0	96.0	85.0	88.8	75.0
25th	39.4	51.0	56.5	62.2	66.4	73.0	73.2	65.5	73.0	58.1
10th	32.6	43.2	46.0	50.0	54.3	59.9	55.0	51.0	54.0	46.7
MASTER'S										
90th percentile	id	76.0	91.0	111.0	131.0	140.0	145.0	144.0	135.0	131.0
75th	id	70.0	81.4	98.0	108.0	120.0	120.0	120.0	120.0	110.0
50th	id	63.4	73.0	86.0	93.9	101.0	105.0	103.0	101.4	90.0
25th	id	56.0	62.5	70.5	79.3	79.0	85.9	84.0	84.0	70.0
10th	id	52.0	54.0	54.9	68.0	55.0	64.3	65.0	62.0	55.0
PH.D.										
90th percentile	na	105.0	118.0	147.7	170.0	185.0	190.0	205.0	202.0	175.0
75th	na	98.0	107.0	122.0	140.0	152.0	153.0	160.0	152.0	141.0
50th	na	89.5	95.0	105.5	119.0	126.0	130.0	128.9	126.6	115.0
25th	na	80.0	85.0	93.0	98.0	103.3	106.6	105.0	103.0	96.3
10th	na	61.2	73.0	78.5	85.0	92.0	91.0	87.0	82.9	82.0

HOW TO READ THIS TABLE: Using the example of bachelor's degree chemists 10-14 years after they received their degrees: The 10% best paid had a median base salary of \$92,100, whereas the 10% worst paid had a median base salary of \$46,000. **id** = insufficient data to be meaningful. **na** = not applicable. **SOURCE:** ACS salary survey 2008

INDUSTRIAL SALARIES BY SIZE OF EMPLOYER

Larger companies continued to pay the most

EMPLOYEES	SALARY (\$ THOUSANDS)		
	BACHELOR'S	MASTER'S	PH.D.
Fewer than 50	\$71.5	\$78.5	\$100.0
50-99	66.0	78.8	104.0
100-499	64.0	82.0	105.0
500-2,499	70.4	88.2	110.0
2,500-9,999	75.0	90.1	116.6
10,000-24,999	79.6	96.7	118.3
25,000 and up	82.0	94.5	122.0

NOTE: Median full-time base salaries. **SOURCE:** ACS salary survey 2008

BONUSES

Practice of increasing pay with bonuses was up from a year earlier

	INDUSTRY			GOVERNMENT	ACADEMIA	ALL
	MANUFACTURING	NONMANUFACTURING				
Eligible for bonus	77%	65%		42%	11%	53%
Percent of those eligible who received a bonus	95	89		91	79	93
Median bonus	\$10,600	\$7,500		\$2,000	\$3,000	\$9,000

SOURCE: ACS salary survey 2008