



# 2013 SALARIES & EMPLOYMENT

Unemployment edged down and **SALARIES ROSE**, according to survey of ACS members

SOPHIE L. ROVNER, C&EN WASHINGTON

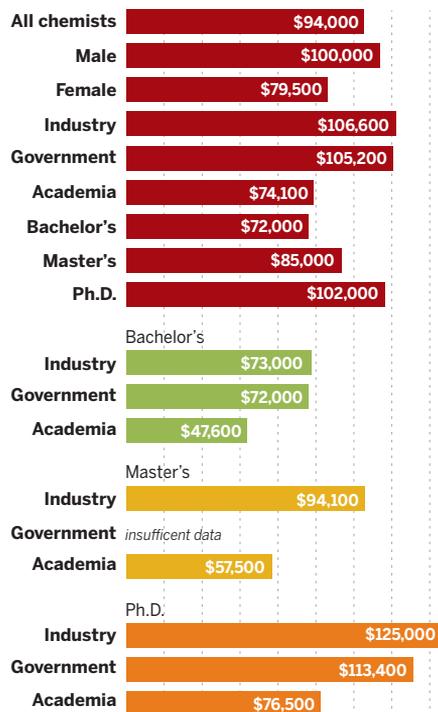
**REFLECTING THE MODEST** recovery in the U.S. economy, both salaries and the job market are improving for chemists, according to the latest figures compiled by the American Chemical Society. Full-time employment for chemists in 2013 is at its highest level in five years, while unemployment continues to retreat from its 2011 peak. And this year's rise in median salary for chemists more than made up for last year's dip. These results come from the 2013 Comprehensive Salary & Employment Survey of ACS members in the workforce, which the society conducted from March through early May this year.

The survey also shows that men continue to make more money than women, and that chemical engineers bring home bigger paychecks than chemists. In the U.S., salaries rose in the New England region while they dipped in the Central Southeast.

For overall employment, the pickup in the economy has generated moderate improvement in chemical company results, leading to a slight increase in hiring and a drop in layoffs, says David Harwell, assistant director for career management at ACS, which publishes C&EN.

"As unemployment declines, we're seeing full-time employment rise," says Elizabeth C. McGaha, assistant direc-

## MEDIAN BASE SALARIES Industry and government salaries outstripped those in academia.



**NOTE:** Median annual base salaries for chemists employed full-time as of March 1, 2013.  
**SOURCE:** ACS salary and employment survey 2013

tor of ACS's Research & Brand Strategy (RBS) department, which conducted the survey. That suggests that chemists are finding jobs in full-time positions—defined as at least 35 hours of work per week—rather than having to make do with part-time jobs. What's more, the percentage of chemists holding part-time positions keeps dropping, and the percentage in postdoc positions is about the same in 2013 as it was last year. "That's good news," McGaha says, "because in previous years we were concerned that unemployment was being mitigated by underemployment."

Still, Harwell cautions that the unemployment numbers might be artificially lowered by a small number of out-of-work chemists who have given up on searching for a job and thus are no longer counted in unemployment statistics. "We know that some people are dropping out," he says. "We're seeing people leaving chemistry."

The situation is toughest for what he terms the "very long-term unemployed," who find it difficult to reenter the workforce for myriad reasons. "Their connections go cold; it's hard for them to keep up their skills," Harwell says. "They can go back to school, but that costs money, and if they have kids or a mortgage that is also eating through their savings, they

just have to do something to survive.”

And that doesn't mean they are “making a targeted move from one sector of professional employment to another,” says Harwell. Instead, some of these chemists are now working at retail chains or in restaurants to make ends meet.

Nevertheless, says Harwell, the ACS survey results show that salaries for chemists are rising. And that lends credence to the notion that demand for chemists is edging up.

RBS conducted and analyzed the survey in a project headed by Gareth S. Edwards and guided by the ACS Committee on Economic & Professional Affairs.

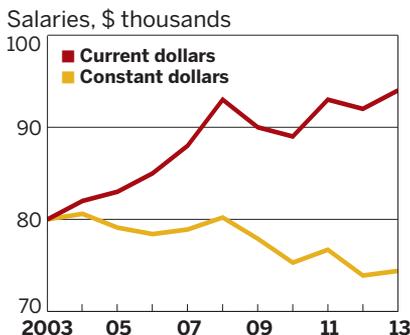
The survey was sent to a random sample of 25,000 ACS members under the age of 70. The sample excluded student, emeritus, and retired members, as well as members living outside the U.S. The survey recipients returned 7,078 complete responses, for a response rate of 28%.

**IN THE SURVEY,** members were queried about their status as of March 1, 2013. Some of the survey results reported in this article are based on answers from all respondents; those data shed light on the demographics of the ACS membership as a whole. Other reported results focus on those ACS members who are in the chemical workforce and exclude members who work in other fields, such as chemical engineering, business administration, computer science, or law. In each table in this article, the headline and footnote indicate the group whose data are presented. In some cases, data differ between tables because some respondents didn't answer all the questions.

Some 91.1% of chemists who responded to this year's survey indicated they were employed full-time, up from 90.0% in 2012 and considerably better than the low of 88.1% seen in 2010.

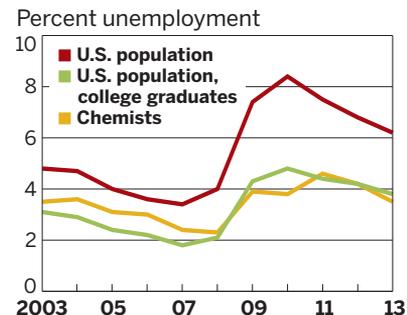
Concurrently, the fraction of chemists without full-time employment dropped from 10.0% to 8.9% between 2012 and 2013. This group includes the 2.7% of respondents who indicated they had part-time

### WAGES Countering a long-term trend, salaries adjusted for inflation avoided another drop in 2013



**NOTE:** Median annual base salaries for chemists employed full-time as of March 1 each year.  
**SOURCES:** Annual ACS salary and employment surveys, Bureau of Labor Statistics (Consumer Price Index data)

### UNEMPLOYMENT Chemists fare significantly better than the U.S. population but about the same as other college graduates.



**NOTE:** Data are for March each year and exclude those fully retired or otherwise not seeking employment. U.S. population data are for ages 25 and older.  
**SOURCES:** Annual ACS salary and employment surveys, Bureau of Labor Statistics

## ACS MEMBERS BY HIGHEST DEGREE

Diversity generally increased with degree level

	BACHELOR'S	MASTER'S	PH.D.	TOTAL
<b>BY GENDER</b>				
Men	63.6%	64.2%	73.3%	70.2%
Women	36.4	35.8	26.7	29.8
<b>BY CITIZENSHIP</b>				
Native born	94.3	86.1	74.8	79.9
Naturalized	3.8	9.7	12.9	10.9
Permanent resident	1.7	3.7	8.9	6.9
Other visa	0.3	0.5	3.3	2.4
<b>BY ETHNICITY</b>				
Hispanic	4.2	3.3	3.7	3.7
<b>BY RACE</b>				
American Indian	0.3	0.3	0.2	0.2
Asian	4.0	8.4	12.0	10.1
Black	3.5	2.2	2.3	2.5
White	89.6	86.8	83.8	85.3
Other	2.7	2.3	1.7	1.9
<b>BY EMPLOYER</b>				
Industry	82.9	68.4	44.1	54.3
Government	7.7	7.6	7.6	7.6
Academia	8.2	21.8	46.8	36.5
Self-employed	1.2	2.1	1.5	1.6

**NOTE:** Data for ACS members employed full-time as of March 1, 2013. Totals may not add to 100% because of rounding.

**SOURCE:** ACS salary and employment survey 2013

jobs in 2013, down from 3.1% the prior year. Another 2.7% of respondents said they were holding postdoctoral positions, up a tick from last year's 2.6%. The biggest change occurred in the fraction of chemists who were unemployed but looking for a job; their ranks thinned from 4.2% of respondents in 2012 to 3.5% in 2013. In fact, this improvement brings unemployment

down to levels not seen since 2008–09. Over the past decade, the unemployment rate for chemists has ranged from a low of 2.3% in 2008—early in the Great Recession—to a high of 4.6% in 2011.

“We were encouraged that unemployment fell across all degree levels,” which hasn't always been the case in recent years, McGaha says.

Still, the ACS data show that “the higher your education level, the better off you tend to be,” Harwell says.

Ph.D.s—who account for about two-thirds of survey respondents—are in fact the least likely to be unemployed, McGaha says (respondents with bachelor's and M.S. degrees account for roughly equal shares of the remaining one-third). Just 3.0% of this group of ACS members were seeking work as of this March, compared with 3.4%

a year ago. Some 4.7% of those holding a master's degree were seeking work this March, down from 5.4% in 2012. The situation improved even more for bachelor's degree members, dropping from 5.9% to 4.6%.

Disparities among degree levels also show up in the salary data from the survey. The median salary for chemists who were

employed full-time rose 2.2% to \$94,000 between March 2012 and March 2013, but that increase was due solely to a rise in median pay for Ph.D.s. Between 2012 and 2013, the median salary for Ph.D.s grew 1.4% to \$102,000. Salaries for M.S. degree holders remained unchanged at \$85,000 over that period. Chemists with a bachelor's degree fared worse, suffering a 2.6% drop in median pay to \$72,000.

These findings are stated in current dollars, and therefore don't account for changes in the cost of living. Calculating salaries in constant dollars—a practice that eliminates the effects of inflation—shows that chemists at all degree levels are losing ground with respect to the rising cost of living.

Between 2012 and 2013, salaries in constant dollars slipped 0.1% for Ph.D. chemists, 1.5% for M.S. chemists, and 4.0% for those with a bachelor's degree. Salaries for all three groups are also lower than they were a decade ago, with Ph.D. paychecks shrinking the most. Measured in constant dollars, the median salary for this group plunged from \$90,000 in 2003 to \$80,700 in 2013.

Limiting the pool to chemists working full-time who had not changed jobs during the prior year, the median salary rose 2.5% in current dollars between 2012 and 2013. Within this group, it slipped 1.2% for bachelor's-level chemists. The median pay for master's degree and Ph.D. chemists rose 2.9% and 2.0%, respectively.

**ALL KINDS OF** dissimilarities emerge when survey responses are broken down into other subgroups. For instance, the survey confirms that industry and government jobs pay much better than those in academia, on average.

Slightly more than half the survey respondents work in industry and about one-third work in

academia; government accounts for most of the rest of the positions. This year's median salary was \$106,600 for a chemist in industry, \$105,200 for one in government, and just \$74,100 for a chemist in academia.

The discrepancy between the sectors is most marked for Ph.D. chemists. For this group, the median academic salary was \$76,500. Median pay in a government job was \$113,400, whereas in industry it was \$125,000.

Men and women are still far apart in pay. Male chemists reported a median salary of \$100,000 as of March 2013, far greater than the \$79,500 reported by women, who represent about 30% of survey respondents. It should be noted, however, that the salary gulf between men and women diminishes when respondents are grouped by the number of years since they earned a bachelor's degree.

For instance, for chemists who earned the degree two to four years ago, the median salary for men was \$48,500 and for women was \$45,500. The median salary

for chemists who earned their degree 10 to 14 years ago was \$80,000 for men and \$75,100 for women. The gender-based gap was much greater for chemists who earned a bachelor's degree more than 14 years ago.

Some of the other large differences revealed by the survey arise in a comparison of chemists and chemical engineers: Chemists continue to make considerably less than their engineering colleagues. As of this March, the median salary for chemical engineers who are members of ACS was \$117,900—or 25% higher than the median salary for chemists.

The spread was greatest for those with a bachelor's degree. For this group, chemical engineers earned a median salary of \$103,200, which is 43% higher than the median salary for chemists.

The only subcategory in which the median salary for chemists was similar to that for chemical engineers was in government.

Geographic differences in compensation are also apparent. For instance, U.S. regions in which median salaries rose the most for Ph.D. chemists between 2012 and

## EMPLOYMENT STATUS OF CHEMISTS

Full-time employment reached highest level in five years

	FULL-TIME	OTHER THAN FULL-TIME EMPLOYMENT			SUBTOTAL
		PART-TIME	POSTDOC	UNEMPLOYED/ SEEKING EMPLOYMENT	
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
2009	90.3	3.2	2.5	3.9	9.6
2010	88.1	3.9	4.2	3.8	11.9
2011	89.7	3.7	1.9	4.6	10.3
2012	90.0	3.1	2.6	4.2	10.0
2013	91.1	2.7	2.7	3.5	8.9

**NOTE:** Employment of chemists as of March 1 of each year. Excludes those fully retired or otherwise not seeking employment. Totals may not add to 100% because of rounding.

**SOURCE:** Annual ACS salary and employment surveys

## SALARIES OF CHEMISTS

Salaries dropped only for bachelor's degree holders and permanent residents

\$ THOUSANDS	2012	2013	2012-13	
			\$ CHANGE	% CHANGE
<b>ALL</b>	<b>\$92.0</b>	<b>\$94.3</b>	<b>\$2.3</b>	<b>2.5%</b>
<b>BY DEGREE</b>				
Bachelor's	74.2	73.3	-0.9	-1.2
Master's	86.0	88.5	2.5	2.9
Ph.D.	100.0	102.0	2.0	2.0
<b>BY GENDER</b>				
Men	99.9	100.9	1.0	1.0
Women	77.8	79.1	1.3	1.7
<b>BY EMPLOYER</b>				
Industry	106.6	108.0	1.4	1.3
Government	100.0	103.1	3.1	3.1
Academia	70.0	72.0	2.0	2.9
<b>BY CITIZENSHIP</b>				
Native born	91.0	94.0	3.0	3.3
Naturalized	108.2	109.0	0.8	0.7
Permanent resident	90.0	89.0	-1.0	-1.1
Other visa	47.0	52.5	5.5	11.7
<b>BY ETHNICITY</b>				
Hispanic	85.0	90.5	5.5	6.5
<b>BY AGE</b>				
20-29	47.0	49.2	2.2	4.7
30-39	75.0	75.0	0.0	0.0
40-49	93.8	98.0	4.2	4.5
50-59	108.0	111.7	3.7	3.4
60-69	110.0	115.1	5.1	4.6

**NOTE:** Median annual base salaries for chemists who were employed full-time as of March 1 each year and who had not changed jobs over the prior year.

**SOURCES:** Annual ACS salary and employment surveys

2013 include Mountain States such as Colorado, and the New England region. Those increases were 9.5% and 8.1%, respectively. In contrast, salaries for Ph.D. chemists fell the most—some 4.9%—in the East South Central region comprising Alabama, Kentucky, Mississippi, and Tennessee.

**UNEMPLOYMENT** rates among ACS members also varied across the U.S. The percentage of out-of-work members who were looking for a job as of March 2013 was lowest in the East North Central region, which consists of Illinois, Indiana, Ohio, Michigan, and Wisconsin, and highest in the Pacific region. New England, which at 6.9% had the highest unemployment rate last year, saw that number drop to 4.2% this year. The unemployment rate in the Pacific region eased from 6.5% to 4.9% during that same period.

The ACS survey collects additional information beyond salary and employment status. For instance, organic, analytical, and physical chemistry are the top fields in which ACS members who responded to the survey earned their highest degree. Organic chemistry alone accounted for 22.1% of terminal degrees for respondents. And some 10.5% of ACS members reported that they work

in the field of organic chemistry. The only larger contingent is analytical chemistry, which employs 14.5% of members. Medicinal and pharmaceutical chemistry follow, with 9.0% of members, and chemical education employs 7.6%.

Responses to the survey indicate that 85.3% of members are white and 10.1% are Asian. Some 79.9% are native born, and 10.9% are naturalized citizens.

**EACH YEAR**, the survey also includes a group of topical questions; this time around, those questions focused on globalization.

The survey revealed that 16.2% of ACS members have a native language other than English. More than a quarter of respon-

dents are fluent in two or more languages.

Almost two-thirds of members in industry who responded to the survey reported that they had worked with someone internationally in the month prior to taking the survey. Only one-quarter of chemists in academia and in government had done so.

Much of the international collaboration involved sharing data or information; collaborating on a research project; and jointly developing or designing a product, process, or program.

Nearly a third of members traveled abroad for work in the two years prior to the survey. The most likely to travel abroad for work were the self-employed and those in industry. Overall, about a quarter of

## SALARY TRENDS FOR CHEMISTS

Removing the effects of inflation shows that salaries for many chemists are lower now than they were a decade ago

\$ THOUSANDS	BACHELOR'S		MASTER'S		PH.D.		ALL CHEMISTS	
	CURRENT \$	CONSTANT \$	CURRENT \$	CONSTANT \$	CURRENT \$	CONSTANT \$	CURRENT \$	CONSTANT \$
2003	\$59.7	\$59.7	\$71.3	\$71.3	\$90.0	\$90.0	\$80.0	\$80.0
2004	62.0	60.9	72.3	71.1	91.6	90.0	82.0	80.6
2005	63.0	60.0	74.0	70.5	93.0	88.6	83.0	79.1
2006	65.2	60.1	77.5	71.4	95.0	87.6	85.0	78.4
2007	69.7	62.5	80.0	71.8	96.7	86.7	88.0	78.9
2008	73.0	63.0	82.0	70.7	101.0	87.1	93.0	80.2
2009	66.7	57.8	81.0	70.1	100.0	86.6	90.0	77.9
2010	69.8	59.1	80.0	67.7	98.0	82.9	89.0	75.3
2011	72.0	59.3	85.0	70.1	102.0	84.1	93.0	76.7
2012	73.9	59.3	85.0	68.3	100.6	80.8	92.0	73.9
2013	72.0	57.0	85.0	67.3	102.0	80.7	94.0	74.4
<b>AVERAGE ANNUAL SALARY CHANGE</b>								
2012–13	-2.6%	-4.0%	0.0%	-1.5%	1.4%	-0.1%	2.2%	0.7%
2003–13	1.9	-0.5	1.8	-0.6	1.3	-1.1	1.6	-0.7

**NOTE:** Median annual base salaries for chemists employed full-time as of March 1 each year. Consumer Price Index rose 1.5% from March 2012 to March 2013 and an average of 2.4% annually from March 2003 to March 2013. Constant dollars are calculated using 2003 as the base year.  
**SOURCES:** Annual ACS salary and employment surveys, Bureau of Labor Statistics (Consumer Price Index data)

## INDUSTRIAL CHEMISTS' SALARIES BY EXPERIENCE AND GENDER

Women's salaries most closely matched men's for chemists who earned their bachelor's degree five to nine years ago

YEARS SINCE BACHELOR'S DEGREE	BACHELOR'S			MASTER'S			PH.D.		
	(IN THOUSANDS)		WOMEN AS % OF MEN	(IN THOUSANDS)		WOMEN AS % OF MEN	(IN THOUSANDS)		WOMEN AS % OF MEN
	MEN	WOMEN		MEN	WOMEN		MEN	WOMEN	
2–4	\$48.5	\$46.4	96%	id	id	na	na	na	na
5–9	59.3	60.0	101	\$66.6	\$65.4	98%	\$92.3	\$90.9	98%
10–14	71.2	70.0	98	83.0	77.6	93	103.5	97.5	94
15–19	76.5	71.3	93	97.5	94.5	97	119.0	119.6	101
20–24	95.0	88.3	93	101.2	93.2	92	131.0	119.0	91
25–29	96.9	85.8	89	105.8	96.9	92	134.8	125.5	93
30–34	106.2	108.4	102	107.9	102.8	95	145.0	130.0	90
35–39	101.5	93.0	92	107.0	id	na	148.0	114.5	77
40 or more	100.0	id	na	102.0	id	na	144.5	id	na

**NOTE:** Median annual base salaries for industrial chemists employed full-time as of March 1, 2013. **id** = insufficient data. **na** = not applicable.  
**SOURCE:** ACS salary and employment survey 2013

## ACS MEMBERS IN THE WORKFORCE

Ph.D.s and those working in academe  
continued to increase their share of membership

	1995	2000	2005	2010	2011	2012	2013
<b>BY DEGREE</b>							
Bachelor's	24.3%	22.1%	19.9%	17.7%	17.3%	17.1%	17.0%
Master's	16.9	17.4	17.0	17.9	17.3	16.6	15.6
Ph.D.	58.8	60.5	63.1	64.4	65.4	66.3	67.3
<b>BY GENDER</b>							
Men	78.5	75.8	74.9	71.5	72.5	70.7	70.2
Women	21.5	24.2	25.1	28.5	27.5	29.3	29.8
<b>BY EMPLOYER</b>							
Industry	65.5	64.7	62.0	52.7	59.1	56.2	54.3
Government	7.9	6.9	7.4	7.3	7.7	7.4	7.6
Academia	25.1	26.4	28.8	32.1	31.2	34.9	36.5
Self-employed	1.4	2.0	1.8	7.9	1.9	1.6	1.6
<b>BY CITIZENSHIP</b>							
Native born	82.3	79.5	79.8	76.0	80.0	78.2	79.9
Naturalized	8.5	10.2	10.2	13.1	11.0	11.4	10.9
Permanent resident	7.1	6.9	6.5	8.0	6.6	7.2	6.9
Other visa	2.1	3.4	3.5	3.0	2.4	3.2	2.4
<b>BY RACE</b>							
American Indian	0.2	0.2	0.2	0.2	0.2	0.3	0.2
Asian	10.3	11.1	10.9	12.8	9.9	10.9	10.1
Black	1.4	1.9	1.9	2.2	2.3	2.4	2.5
White	85.8	85.5	85.8	81.0	84.6	83.4	85.3
Other	2.3	1.3	1.2	3.8	3.0	2.9	1.9
<b>BY ETHNICITY</b>							
Hispanic	2.3	2.5	2.6	3.3	3.3	3.4	3.7
<b>MEDIAN AGE (YEARS)</b>							
	43.3	44.7	47.0	49.0	49.0	48.0	48.0

**NOTE:** Data for ACS members employed full-time as of March 1 each year. Totals may not add to 100% because of rounding.

**SOURCES:** ACS censuses, annual ACS salary and employment surveys

chemists traveled to a professional meeting abroad in the past two years.

Almost half used virtual meeting technology—including Skype Conference, WebEx, GoToMeeting, or some other live electronic forum—to work with colleagues in other countries.

The take-home message, says Harwell, is that “experience with other, non-U.S. cultures is helpful for jobs in industry. You may not work overseas, but you will likely work on a virtual team of international collaborators. And understanding the cultural norms for your collaborators can make you much more successful.”

Looking ahead, Harwell warns that the continued federal budget spending cuts known as sequestration and the upcoming debate about raising the nation’s debt ceiling to avoid a government shutdown could limit further economic recovery in the coming year. But he predicts that growth in sales of cars and new homes—two of the most significant markets for chemicals—will continue to drive a modest increase in demand for chemists. ■

### & DATA ONLINE

More results from the ACS salary and employment survey can be found at <http://cenm.ag/salary2013>.

ACS members can obtain further information about salaries and employment at [www.acs.org/salary](http://www.acs.org/salary). Resources on the website include the Salary Comparator and the ACS Employment Dashboard. Members can use the comparator to find salary data for specific categories of chemists by using filters such as degree level, years since earning a degree, field, and other factors. The dashboard provides highlights of survey results, including salary; employment status; and demographic data broken down by year, employer category, degree level, and geographic region.

Career resources for unemployed ACS members can be found at [www.acs.org/unemployed](http://www.acs.org/unemployed).

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## ACS MEMBERS BY DISCIPLINE AND GENDER

Gender balance came closest in education jobs

DISCIPLINE	BY HIGHEST DEGREE		BY WORK SPECIALTY	
	TOTAL	% WOMEN	TOTAL	% WOMEN
Agricultural/food chemistry	0.8%	46.6%	2.2%	32.5%
Analytical chemistry	11.8	33.2	14.5	33.0
Biochemistry	8.1	36.3	5.4	35.3
Biotechnology	0.5	23.7	3.8	24.8
Chemical education	1.5	56.2	7.6	49.8
Chemical engineering	6.2	21.4	4.7	18.2
Clinical chemistry	0.1	55.6	0.3	38.9
Environmental chemistry	2.5	32.6	4.9	35.1
General chemistry	10.0	40.2	3.2	42.7
Inorganic chemistry	9.3	25.7	3.5	21.5
Materials science	1.3	26.9	6.0	24.7
Medicinal/pharmaceutical chemistry	2.0	29.6	9.0	22.7
Nanochemistry	0.1	12.5	1.1	20.0
Organic chemistry	22.1	22.8	10.5	24.4
Physical chemistry	10.6	27.9	5.5	25.2
Polymer chemistry	3.1	26.6	5.8	19.5
Other chemical sciences	1.9	38.6	2.7	33.2
Business administration	1.4	18.2	1.5	20.6
Computer science	0.1	12.5	0.7	11.8
Law	0.4	40.0	1.1	41.0
Other nonchemistry	6.2	35.7	6.0	39.0

**HOW TO READ THIS TABLE:** Of ACS members employed full- or part-time, 0.8% had their highest degree in agricultural/food chemistry, and 46.6% of those were women; 2.2% worked in agricultural/food chemistry, and 32.5% of those were women.

**SOURCE:** ACS salary and employment survey 2013

## ENGINEERS AND CHEMISTS

Only in government jobs did chemists' salaries approach parity with engineers'

\$ THOUSANDS	CHEMICAL ENGINEERS	CHEMISTS	CHEMISTS AS % OF CHEMICAL ENGINEERS
<b>ALL</b>	<b>\$117.9</b>	<b>\$94.0</b>	<b>80%</b>
<b>BY DEGREE</b>			
Bachelor's	103.2	72.0	70
Master's	111.0	85.0	77
Ph.D.	122.0	102.0	84
<b>BY EMPLOYER</b>			
Industry	120.5	106.6	88
Government	108.0	105.2	97
Academia	108.0	74.1	69
<b>BY AGE</b>			
20-29	68.5	50.0	73
30-39	92.9	75.0	81
40-49	116.8	95.5	82
50-59	142.5	110.0	77
60-69	147.5	110.5	75

**NOTE:** Median annual base salaries as of March 1, 2013.

**SOURCE:** ACS salary and employment survey 2013

## INDUSTRIAL SALARIES

Chemists working in management and in health/safety earned some of the highest salaries

\$ THOUSANDS	BACHELOR'S	MASTER'S	PH.D.
<b>BY WORK FUNCTION</b>			
Analytical services	\$67.0	\$89.0	\$110.0
Health/safety	90.5	102.0	130.0
Management: R&D	129.3	132.5	155.2
Marketing/sales	98.9	107.3	123.2
Production/quality control	74.5	95.0	118.2
Research: applied	77.8	97.0	120.9
Research: basic	64.5	91.2	126.0
<b>BY SIZE OF EMPLOYER</b>			
Fewer than 50	72.0	85.5	101.0
50 to 99	63.0	94.5	126.3
100 to 499	65.0	92.5	118.0
500 to 2,499	73.0	93.1	120.0
2,500 to 9,999	81.4	99.8	123.2
10,000 to 24,999	82.0	95.5	124.0
25,000 or more	97.5	106.0	135.0
<b>ALL</b>	<b>\$79.5</b>	<b>\$100.0</b>	<b>\$128.6</b>

**NOTE:** Median annual base salaries for industrial chemists employed full-time as of March 1, 2013.

**SOURCE:** ACS salary and employment survey 2013

## ACADEMIC SALARIES BY GENDER

Salaries of women were comparable to those of men in several categories

\$ THOUSANDS	NINE- TO 10-MONTH CONTRACTS		
	MEN	WOMEN	WOMEN AS % OF MEN
<b>BACHELOR'S DEGREE-GRANTING SCHOOLS</b>			
Full professor	\$80.0	\$81.3	102%
Associate professor	63.5	62.1	98
Assistant professor	56.0	55.3	99
<b>MASTER'S DEGREE-GRANTING SCHOOLS</b>			
Full professor	93.4	85.0	91
Associate professor	65.0	72.0	111
Assistant professor	56.0	id	na
<b>PH.D.-GRANTING SCHOOLS</b>			
Full professor	136.0	120.0	88
Associate professor	91.0	89.0	98
Assistant professor	75.0	76.4	102

**NOTE:** Median salaries for ACS members in academe as of March 1, 2013. **id** = insufficient data. **na** = not applicable.

**SOURCE:** ACS salary and employment survey 2013