



SALARIES

What US chemists make, according to the 2019 ACS salary survey

ACS's reintroduced salary survey shows that unemployment is flat and salaries overall are slightly up since 2016

by **Andrea Widener**

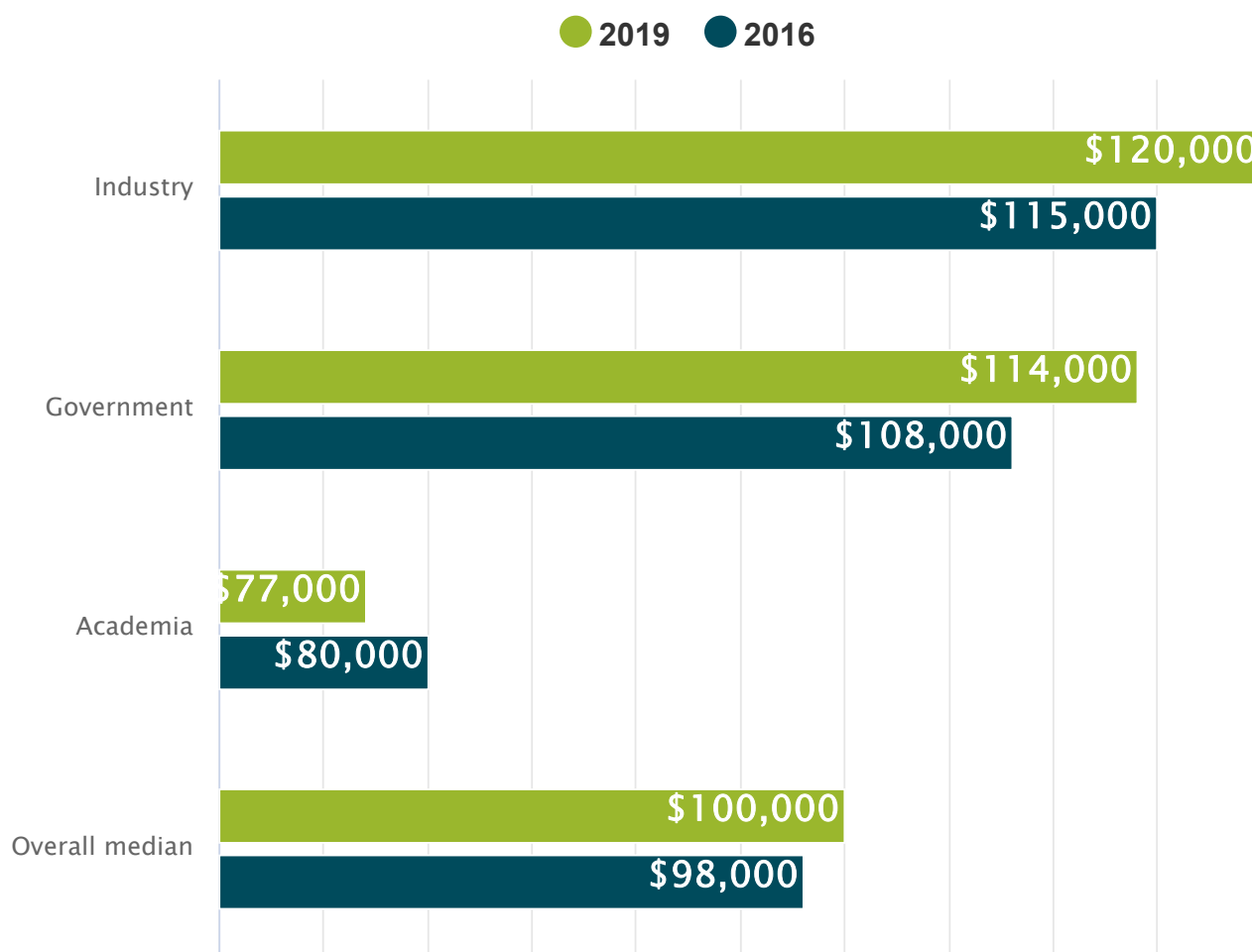
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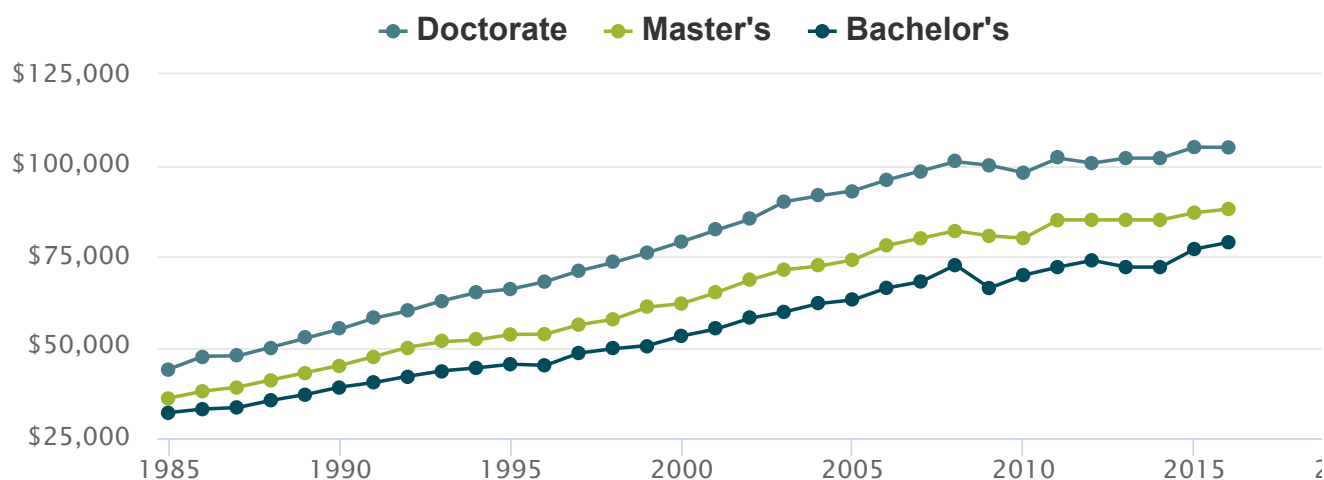
redit: C&EN/Shutterstock

SALARY BREAKDOWN BY DEMOGRAPHICS

Overall, salaries were up slightly since 2016

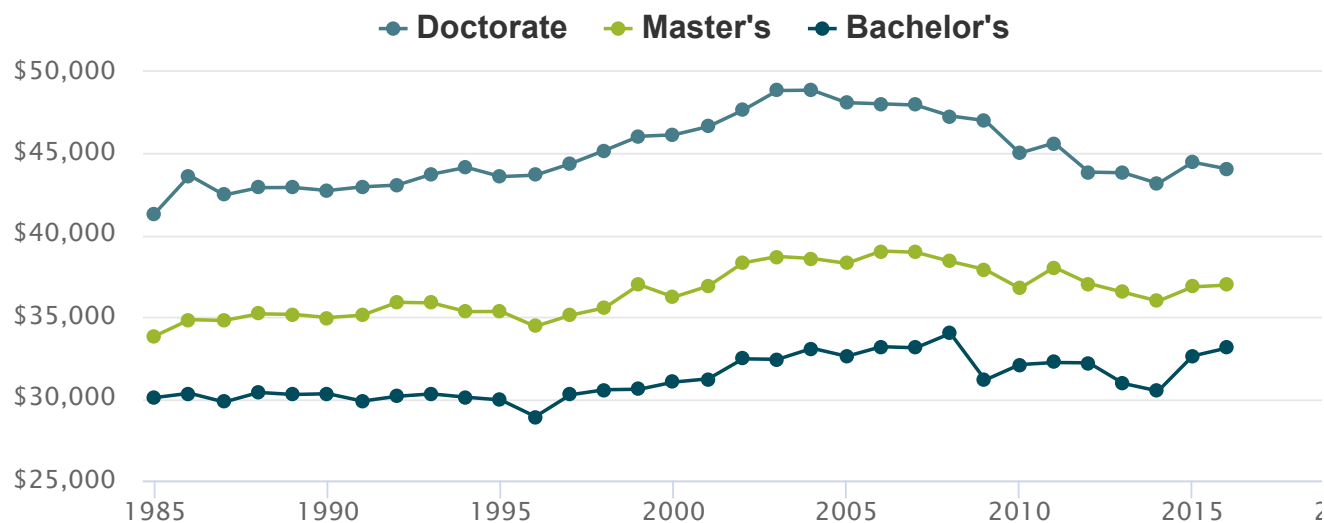


Salaries have increased since 1985 when viewed in current dollars



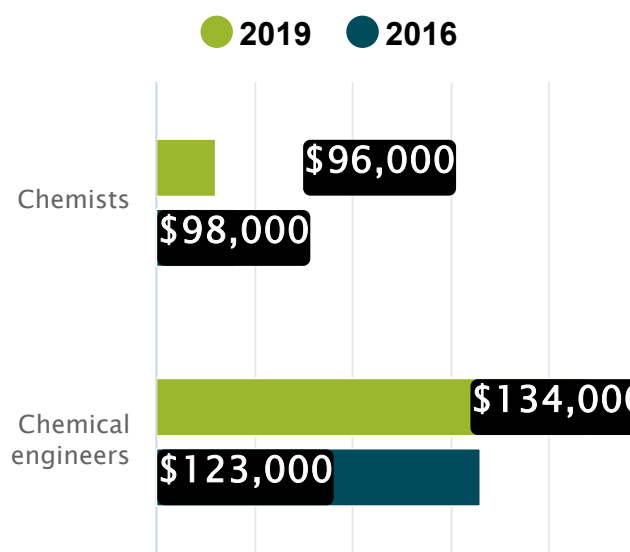
Note: Current dollars are the value in the year the salary was reported.

But when adjusted for inflation, salaries have been flat

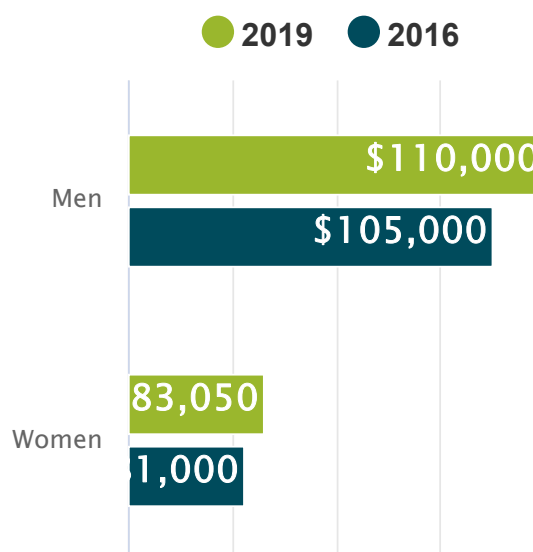


Note: Constant dollars are calculated using 1982 as the base year.

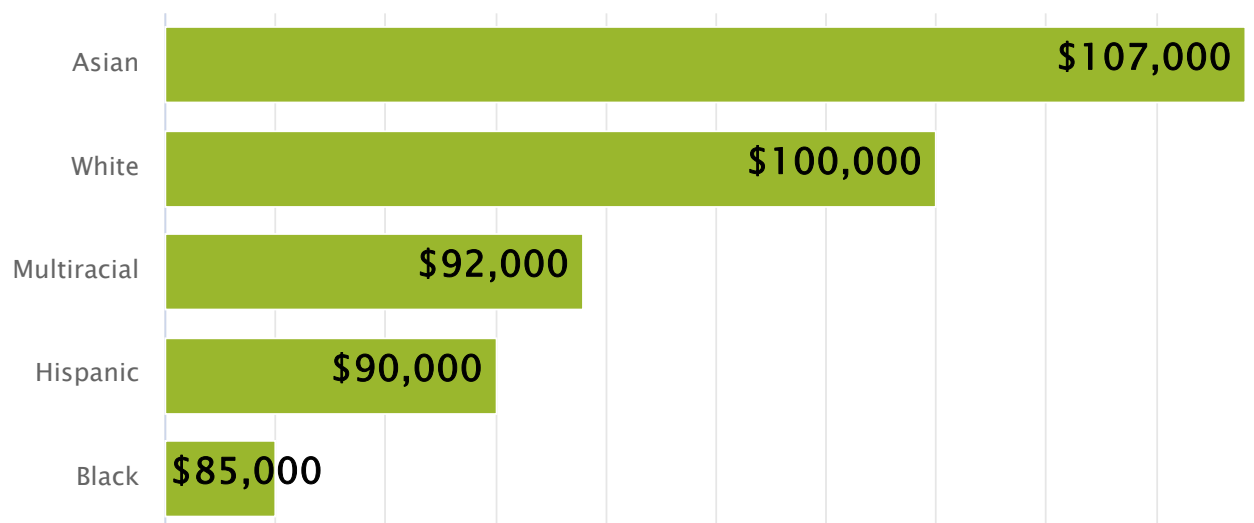
Chemical engineers made more than chemists



Men made significantly more than women



Asian respondents earned the highest salaries in 2019



Note: Hispanic respondents are included in more than one category because that question was asked separately. Salaries for other categories are not reported because of the small number of people who responded.

SALARY BREAKDOWN BY REGION

Salaries varied widely depending on where respondents worked.

Some people with a master's degree made less than those with a bachelor's degree

Bachelor's	\$86,000
Master's	\$91,000
Doctorate	\$122,500
Regional median	\$110,000
Unemployment	2.2%

Bachelor's	\$75,420
Master's	\$69,000
Doctorate	\$102,000
Regional median	\$93,000
Unemployment	1.0%

Bachelor's	\$75,600
Master's	\$73,000
Doctorate	\$92,000
Regional median	\$86,000
Unemployment	3.0%

Bachelor's	\$69,000
Master's	\$64,000
Doctorate	\$103,000
Regional median	\$92,000
Unemployment	1.9%

Bachelor's	\$70,000
Master's	\$82,000
Doctorate	\$102,000
Regional median	\$92,000
Unemployment	2.5%

EAST SOUTH CENTRAL

Bachelor's	\$73,000
Master's	\$67,000
Doctorate	\$103,000
Regional median	\$92,000
Unemployment	2.2%

UNEMPLOYMENT

**Unemployment for ACS
members was flat since 2016**

2019

2.6%

2016

2.6%

WHY IS THERE A 2-YEAR GAP

In 2016, the American Chemical Society decided to r

Response rates had fallen from around 40% in the 1: toward lower survey responses. Additionally, the soci—which are published in C&EN and power the **ACS S** ACS community. Older members were more likely to (ACS publishes C&EN.)

“It was a little rigid and out of date,” says Frank Rom: Professional Affairs (CEPA), which oversees the surve

So the society planned to switch from a once-a-year survey to a more continual and modular survey method. Every quarter it would send out a survey to a small, representative sample of ACS members. This change would allow ACS to ask questions about current topics of interest, such as elections or the economy, in addition to traditional salary-survey questions.

After several months of planning, ACS tried the modular method starting in 2017. Unfortunately, that survey had an even lower response rate—so low that analysts could not confidently use the data, says Steven Meyers, the director of membership for ACS.

No one is sure why the response rate was so low. It could be that the survey requests came from a vendor rather than directly from ACS, Romano says. Or it could be that members were not prepared for a survey at a different time of year.

After trying for a year, ACS decided to return to its traditional once-a-year survey technique. When relaunched in April 2019, around 7% of members responded to the survey, enough to ensure the data are reliable.

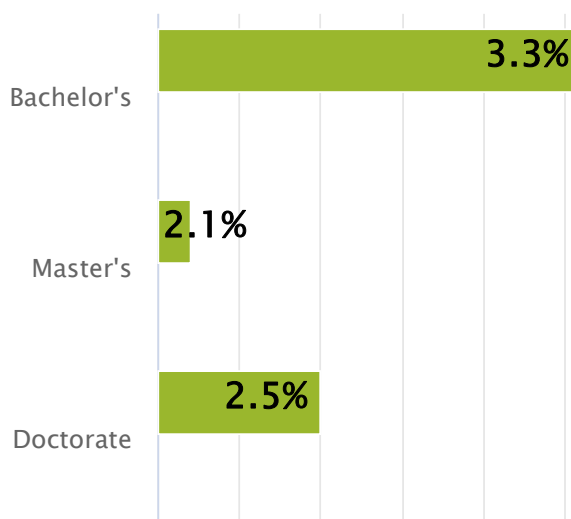
In addition, the society hired a survey statistician to determine whether the results reflect the larger ACS community, and this time, they did, Meyers says. Going forward, the society will continue to check that its data are statistically sound.

The confidence in the current data set allowed for the return of the salary data to C&EN and the return of the Salary Calculator, which should be available in November.

CEPA has heard from many members who are eager to get the most up-to-date information on salaries, CEPA member Eric Bruton says. The data “give us a better understanding of where our industry lies as a whole, and that is very valuable to people as we manage our careers,” he says.

In 2019 the society returned to basically the same questions it sent in 2016, but in the future it hopes to be able to gather more information while keeping the survey at a reasonable length. “That

Unemployment was highest for chemists with only a bachelor's degree



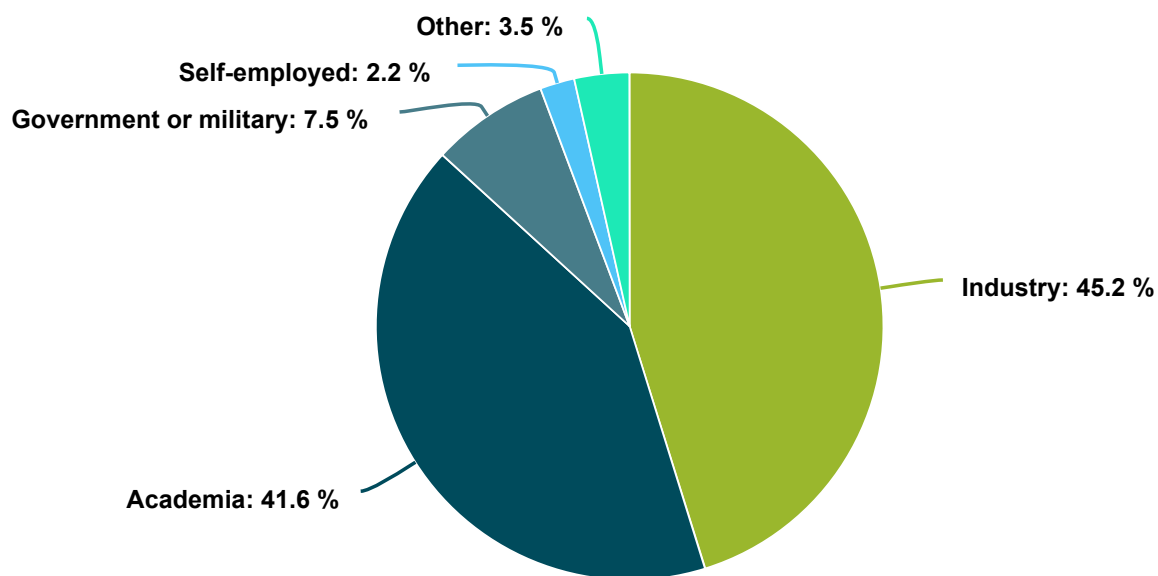
SOUTH ATLANTIC

would show that ACS is just being current and really helping its members with information that they are looking for," Romano says.

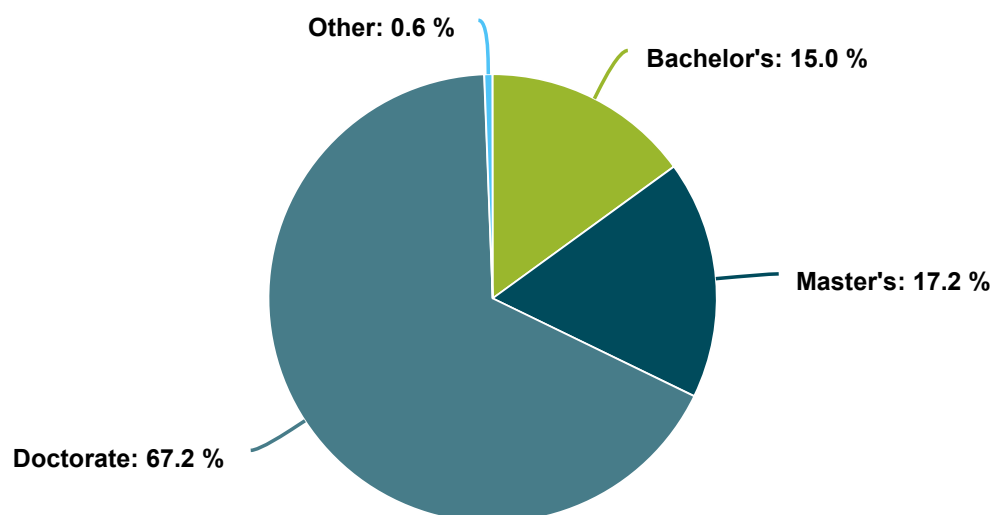
Bachelor's	\$91,000
Master's	\$85,000
Doctorate	\$109,000
Regional Health	\$100,000
Unemployment	3.8%

WHO TOOK THE SURVEY?
These are the ACS members who took the 2019 survey

An almost equal proportion worked in industry and academia

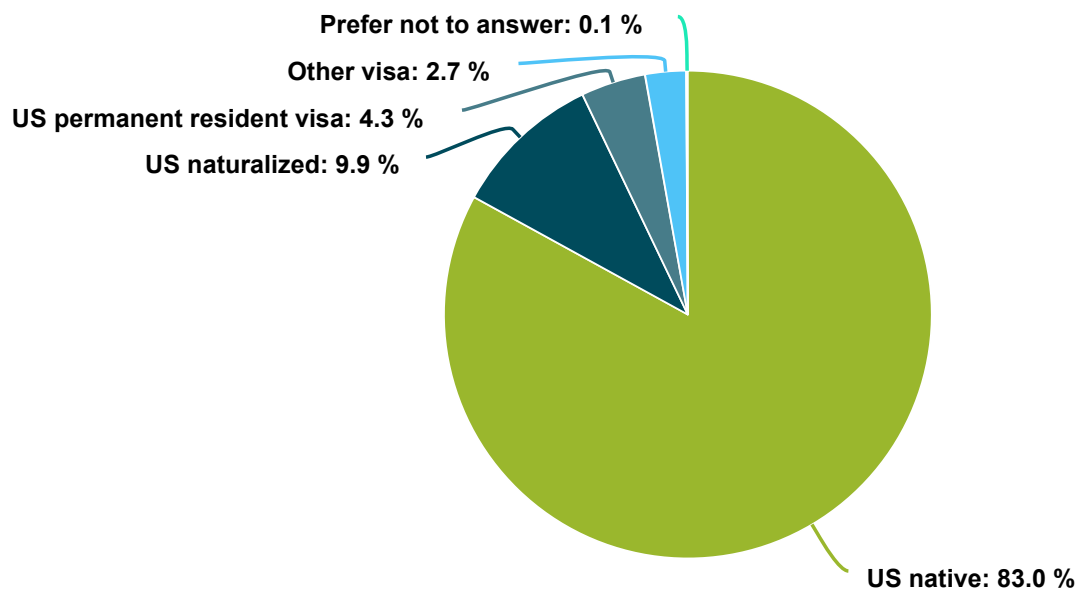


The majority had a doctoral degree

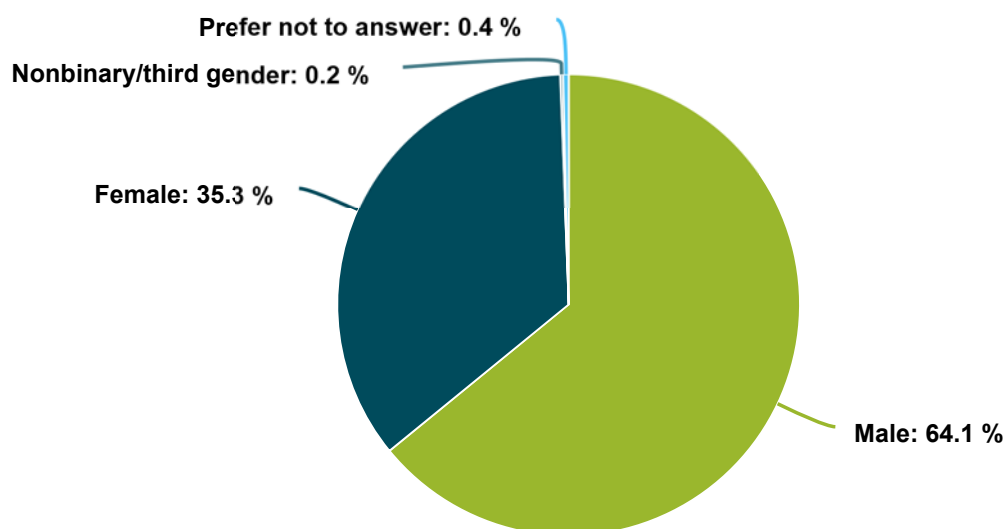


Note: Other includes associate's or equivalent degree, or no degree.

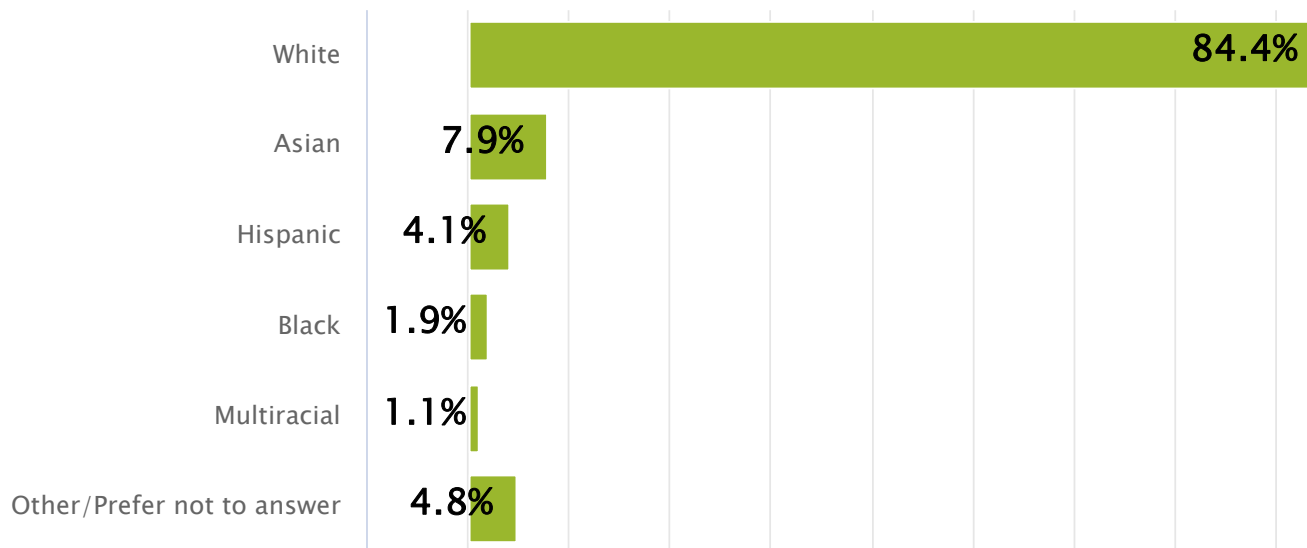
Most respondents were native US citizens



ACS for the first time collected gender information for members who are nonbinary

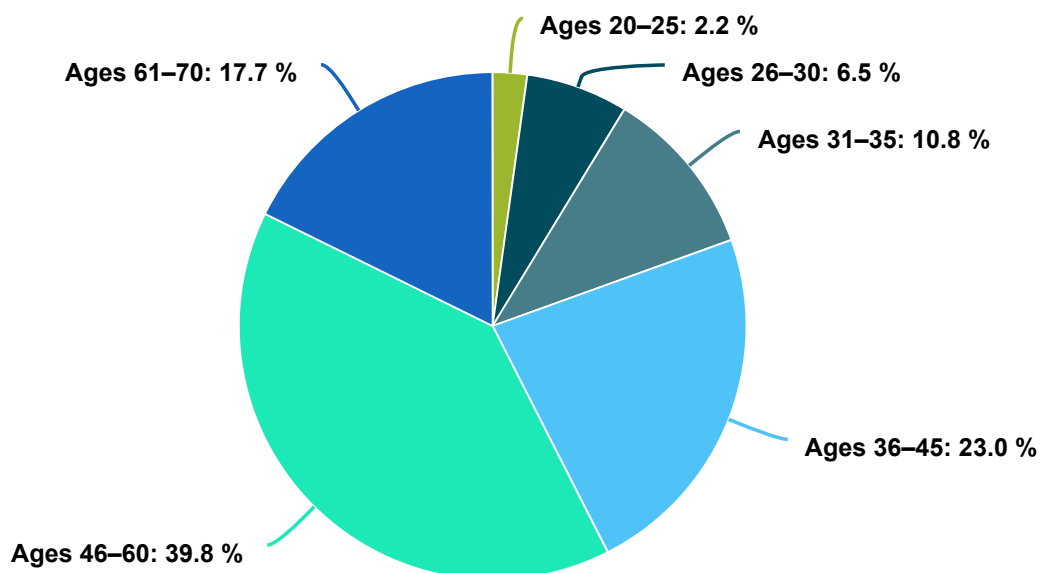


Respondents were predominantly white



Note: Numbers do not add to 100% because Hispanic was asked as a separate question and some people preferred not to an

Most were 46–60 years old, and the median age was 49

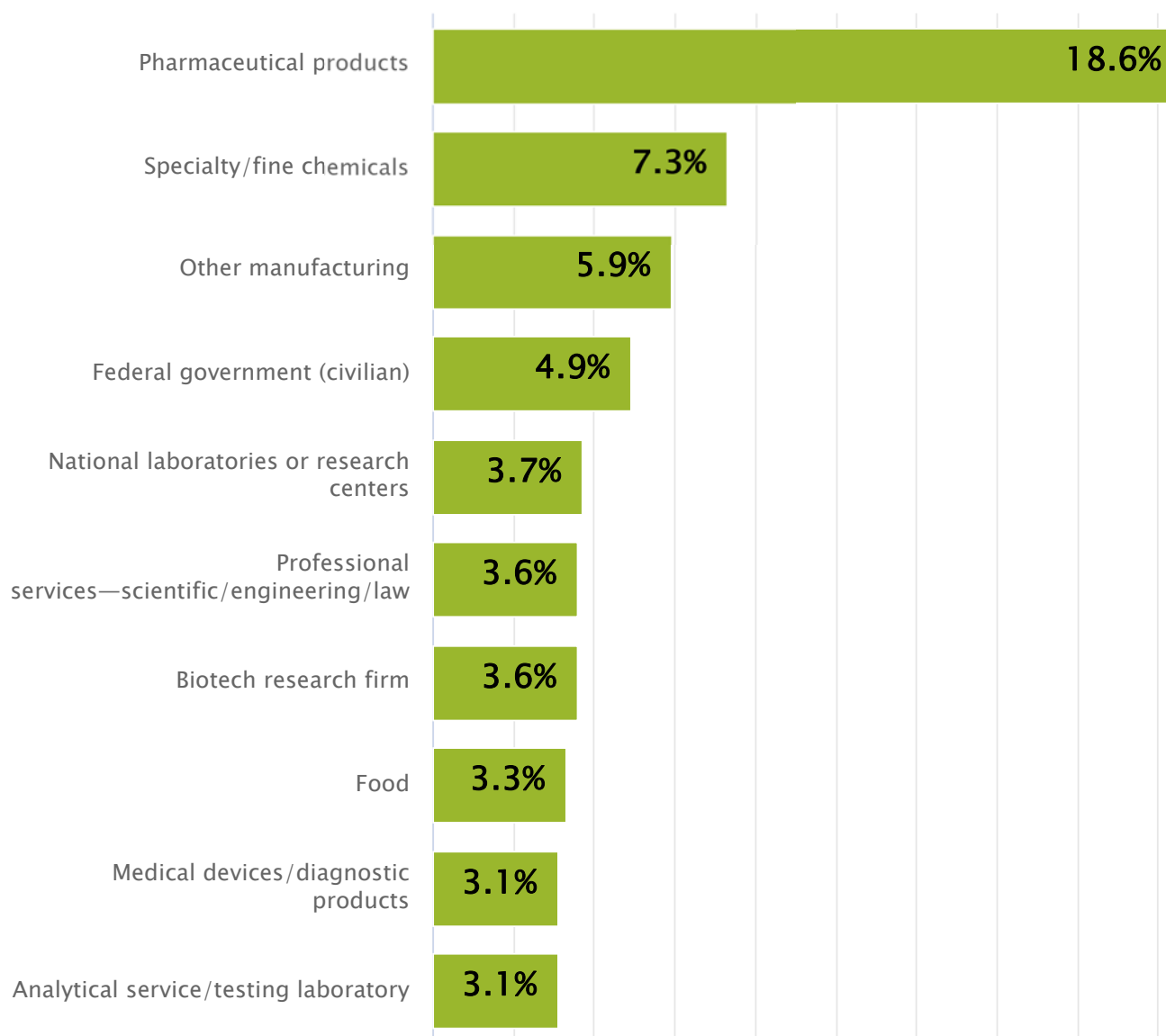


A small percentage identified themselves as disabled

3.5%

NEW ENGLAND

These are the top 10 industries in which respondents worked



COMMENTS

James Smith

(October 30, 2019 2:16 PM)

The numbers are misleading at best since they are neither normalized by job type or by years since graduation - or by any other parameter. The survey packs a disheartening punch to those chemists newly graduated with a BS, since these individuals typically make less than half the reported median salary. Having additional summary statistics can be a valuable aid in determining just how far out of line ones salary might be, but in the end more data describing the type of work performed and the years since graduation can provide a real tool for those who have a job or just got a job.

Reply »

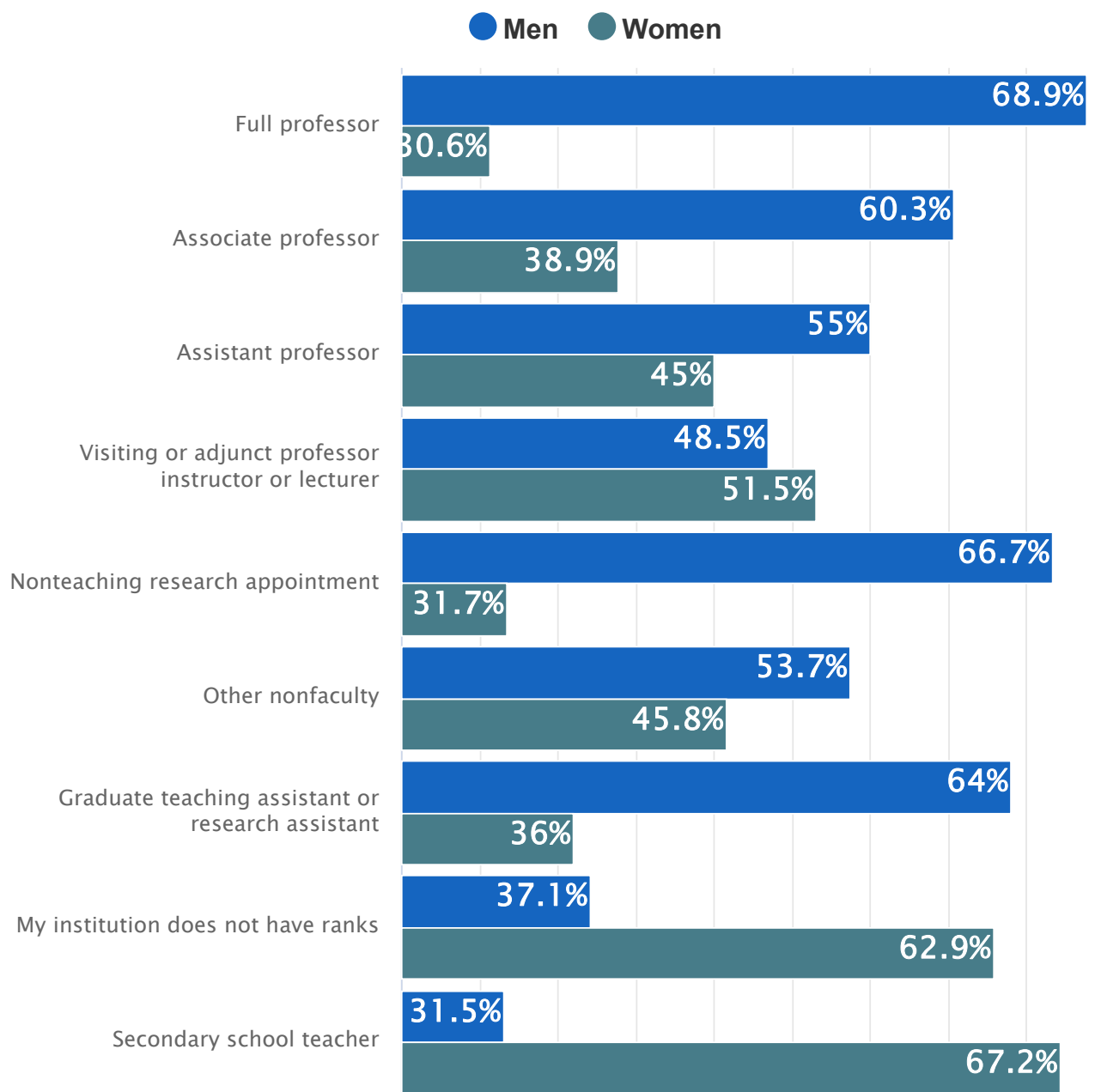
Philip Farris Jr

(October 30, 2019 2:19 PM)

It would be helpful to see a salary vs. experience breakdown.

Reply »

Those in education fields worked in a variety of jobs, with men ≡ significantly outnumbering women in faculty positions



Reply »

Aaron Simpson

(November 14, 2019 6:13 PM)

I really wish someone would have told me that bachelor degrees make more than masters degrees. I wouldn't have wasted two years in grad school. In fact, in the midwest you're better off being a truck driver than getting a degree. You can make 60-80 thousand as a truck driver pretty easily. My masters in chemistry got me 38 thousand a year as a starting salary. 100 thousand for law education and 50 thousand in student loans for my education versus 6 thousand dollars for my brother's truck driving school.

Reply »

James Fox

(January 1, 2020 11:41 AM)

ACS members on average fared better than the industry/company does not value your additional education, keep looking and be paid for it. Considered leaving chemistry for a high-paying job with minimal education and training, but

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laboratory worlds**

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and now after a couple of years I have a job in a well paid position doing something I like. I also have a graduate degree in chemistry and I use my educational background for my job.

than young graduates in employment surveys

David
(January 4, 2020 1:50 PM)
Every single category from degree, race, gender, type of job (academia, industry, government), etc. should also be broken down into subcategories by years of experience.

Reply »

Extending the survey to include unemployed members

demystifying ACS's employment surveys

The ACS Side of "Do More with Less"
by Agilent Technologies

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Email*

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