

# Get to know ACS

Highlights of the ACS Global  
Membership Community

2023



ACS  
Chemistry for Life®

AMERICAN CHEMICAL SOCIETY

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# Introduction

In 1874, a group of chemists came together to celebrate the centenary of Joseph Priestley's discovery of oxygen. A few dozen of them went on to found the American Chemical Society (ACS). There is a photograph of that meeting, taken in front of a brick building with stone columns buttressing the veranda, where participants are arranged facing the camera. They are all dressed in suit coats, because they are all men, and they appear to be White without exception.

They represent what it looked like to be a chemist in the U.S. almost exactly 150 years ago, an image that held sway over our imaginations for too long. But as this report demonstrates, the notion of who is a chemist has changed dramatically since then. This is our second annual report on the demographic representation of the ACS community, and it has started to reflect the true diversity of the modern chemical community.

In an effort to show how varied the chemical community is, we have restructured the demographic report into three sections. In 'Who is a chemist?' we look at the demographic characteristics of the ACS community by age, gender identity, and race and

ethnicity. The second section, 'What do chemists do?' showcases the breadth of contributions chemists make in a wide-ranging number of fields. Lastly, 'Chemists and the ACS,' reflect how truly global the community has become. This demographic report and the [ACS Diversity Report](#) are painting a fuller picture of the modern chemistry community.

While I'm thrilled to present this data, there is still a long way to go. Gathering information on our global membership community doesn't just help us understand who we are, it can direct what we can do to advance inclusion in chemistry. Knowing who makes up the ACS global membership community helps us serve our constituents better by tailoring products, programs, and services to be more relevant, equitable, and inclusive. By celebrating all the different ways to be a chemist, we can inspire the next generation of scientists.

That aim will be helped by your contribution. Our demographic reports are still in their infancy, and the picture we have been able to paint is still incomplete. By offering information about who you are and what you do, you can be part of our efforts to make sure

that the modern image of a chemist reflects how diverse, global, ambitious and groundbreaking our community truly is. We will continue to honor the sensitivity of your information by reporting the data in aggregate to protect confidentiality.

Please consider [sharing demographic details about yourself](#) to help us support the ACS mission of building a more diverse, equitable, inclusive and respectful chemistry enterprise for all.



**Rajendrani Mukhopadhyay**

Senior Vice President, Office of Diversity, Equity, Inclusion, and Respect  
[acs.org/diversity](https://acs.org/diversity)



**By offering information about who you are and what you do, you can be part of our efforts to make sure that the modern image of a chemist reflects how diverse, global, ambitious and groundbreaking our community truly is.**

# Methodology

This report uses data generated primarily from the ACS Association Management System to report the current demographic representation of our global membership community in the United States and abroad. Multiple data sources were used to build a refined, consolidated demographics profile for each respondent (because no single data source contains all the demographic data for everyone in the global membership community). Tabular versions of the data for each figure is available in the appendix. And each figure's caption contains a hyperlink to the data in the appendix.

## Data Sources

- ACS Society Data Store (the primary data source is the Association Management System); this data was exported on 5th February 2024
- ACS 2023 Salary and Employment Status Survey
- ACS 2023 Membership Satisfaction Survey
- Standardized country data

## Population Summary

- The total ACS global membership community (as of 5th February 2024) was 208,403
  - Community Associates numbered 103,174
  - ACS Members numbered 102,003
  - Society Affiliates numbered 3,226
- U.S.-based population was 139,463
- Non-U.S.-based population was 68,558
- Location was unavailable for 265 respondents

## Notes

- Data representing small populations was aggregated to preserve individual confidentiality.
- This report contains only voluntary, self-reported demographic data as well as additional assigned categorization.

## Definition of Terms

- “Respondent” describes the people within the ACS global membership community that voluntarily shared their data and are included in this report.

- The term “U.S.-based” describes people who live in the United States.
- The term “non-U.S.-based” describes people who live outside the U.S.
- The figures in this report include both U.S.-based and non-U.S.-based people.
- “N” refers to the size of the population (i.e., the number of people) being reported.
- “n” refers to the sample size (i.e., the number of respondents) being reported.

## Global Membership Community Types

- Regular Member: A person who has a degree, certification, or significant work history in a STEM field, or as a teacher of chemical science.
- Society Affiliate: A person whose occupation directly concerns the practice of a chemical science but does not meet degree or work history requirements.
- Graduate Student Member: A student majoring in a chemical science or in a related field of natural science, engineering, technology, or science education at an appropriately accredited educational institution.
- Undergraduate Student Member: A person who is an undergraduate student majoring in a chemical science or in a related field of natural science, engineering, technology, or science education at an appropriately accredited educational institution.
- Retired Member: A person who has 30 or more years of paid ACS membership and is retired from full-time professional employment. They are entitled to a 50% discount on ACS national dues.
- Emeritus Member: A person who has 35 years or more of paid ACS membership and is retired from full-time professional employment. They are entitled to a 100% discount on ACS national dues.
- Community Associate: A person who does not pay dues and receives a limited set of benefits.

For more information about ACS membership, please visit [Dues Categories & Discounts](#) and [ACS Membership](#).

The American Chemical Society holds the copyright for all headshots.

## Data Coverage

Data coverage describes the quality of the data reported. A higher data coverage percentage means that more data is available; more information means the data is higher quality (i.e., 100 percent coverage means we have the data for every respondent in the population). A lower data coverage percentage tells us that some data is missing — either because the respondent did not provide their information or the information was not captured by ACS’ membership management system or the surveys.

Compared to 2022, more than 100,000 additional people shared their education attainment data in 2023 — an increase of 184 percent (from 34 percent in 2022 to 75 percent in 2023). Considering all categories, data coverage improved slightly. People with the membership type ‘Community Associate’ self-reported their demographical characteristics less often — about 50 percent of the time — than any other membership type.

Therefore, taking data quality into consideration, our observations refer only to the people in the ACS global membership community for whom we have valid data (and which they themselves shared voluntarily).

## Data Coverage of Respondents

**Notes:**

- “Not Specified” (or null value) data was excluded from the table below.
- The total population (or N value) was 208,403.

| Category                         | Number of Respondents | Percentage of Respondents Covered (%) |
|----------------------------------|-----------------------|---------------------------------------|
| Global Membership Community Type | 208,403               | 100                                   |
| Location/Country                 | 208,021               | 99.8                                  |
| Educational Attainment           | 155,109               | 74.5                                  |
| Gender                           | 139,503               | 67.0                                  |
| Age                              | 129,977               | 62.4                                  |
| Employment Sector                | 115,968               | 55.6                                  |
| Race and Ethnicity               | 79,124                | 38.0                                  |
| Degree Discipline                | 55,065                | 26.4                                  |

Table 1. Data Coverage of Respondents

## Cross-Tabulation

Cross-tabulation analysis is one method for examining demographics data to reveal the overlapping aspects of identity, such as age, race, or gender. This kind of analysis shows the relationship in a population between two or more categories of data. Think of it like a Venn diagram: if you draw a circle for each category of identity (e.g., gender, age, and race) they all overlap in the middle. All the circles also overlap with each other to create intersecting identities. Each combination of intersecting identities represents a potentially unique experience for an individual. These potential differences (some negligible, some significant) inform the needs and interests of people at each intersection point of these identity groups.



*A young Black man gestures to a technical poster on the wall that contains charts and text to a young Asian man.*



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# Who is a chemist?

There has been an undeniable shift in ideas about who can be a chemist. Now, the make-up of scientists more closely resembles our greater communities than it did a century ago. But it's clear that more data is needed to draw up a robust picture of our ACS membership and, by extension, the chemistry community. One thing to keep in mind about the state of the data is such that there is often more that we don't know about our ACS members than what we do know.

Nevertheless, our data, collated below, shows that women make up at least a quarter of chemists. These ACS members are proud to be women in chemistry, especially when they are breaking ground in their family or community. One ACS Community Associate, Carolina Vega, a chemist with Eli Lilly & Company, said she is the first woman in her family to work in a science or mathematical field. "There is a stereotype that if you do science, you are a White

man. And I was like, no, I want to do that," Vega said recently. "I feel like there are some stereotypes in STEM that I am here trying to overcome. You can be whatever you want, whoever you are, whatever color you are — you can be a scientist."

It's clear from our limited data that chemists represent a crosscut of society. In particular, the multi-faceted aspects of people's individual backgrounds have become clearer — in 2023, the share of respondents who identified as multiracial increased by nearly 70 percent. Although most respondents overall did not specify their race or ethnicity, the majority of those who did identified as White, one-fifth identified as Asian. Young people are well-represented among respondents. Overall, about one-third of respondents were 50 years of age or younger.



**You can be whatever you want, whoever you are,  
whatever color you are — you can be a scientist.**

— Carolina Vega



*Image 1. Headshot of Carolina Vega*

By cross-tabulating the data, we can see that the largest age cohort by gender was men aged 61-70. Men made up the majority of Asians (75 percent), East Asians (72 percent), South Asians (68 percent), and Southeast Asians (56 percent), while Hispanics and people who self-described as multiracial were evenly distributed by gender. (we applied the following gender identity labels: “Men” included people who said they were male, man or transgender male; “Women” included people who said they were female, woman or transgender female and “More identities” included people who said they were nonbinary, genderqueer, gendernonconforming or preferred to self-describe)

Making sure people like Vega are reflected in the data on chemists is an important way to encourage the chemistry enterprise to become more inclusive. “I’m grateful and glad ACS provided me a space to be part of their community,” Yolmarie Del Valle, a first-generation Puerto Rican student chapter president at the Inter American University of Puerto Rico said. “If other people from my background see that, maybe they can also feel like they have a place in chemistry too.

“Chemistry is everything,” Del Valle continued. “Chemistry brings not only atoms and molecules together, chemistry brings fields together, it brings knowledge together. I believe that it is capable of bringing people together as well.”



**Chemistry brings not only atoms and molecules together, chemistry brings fields together, it brings knowledge together. I believe that it is capable of bringing people together as well.**

— Yolmarie Del Valle



*Image 2. Headshot of Yolmarie Del Valle*

# Gender Identity

## Total Membership Community by Gender: 2022 vs. 2023

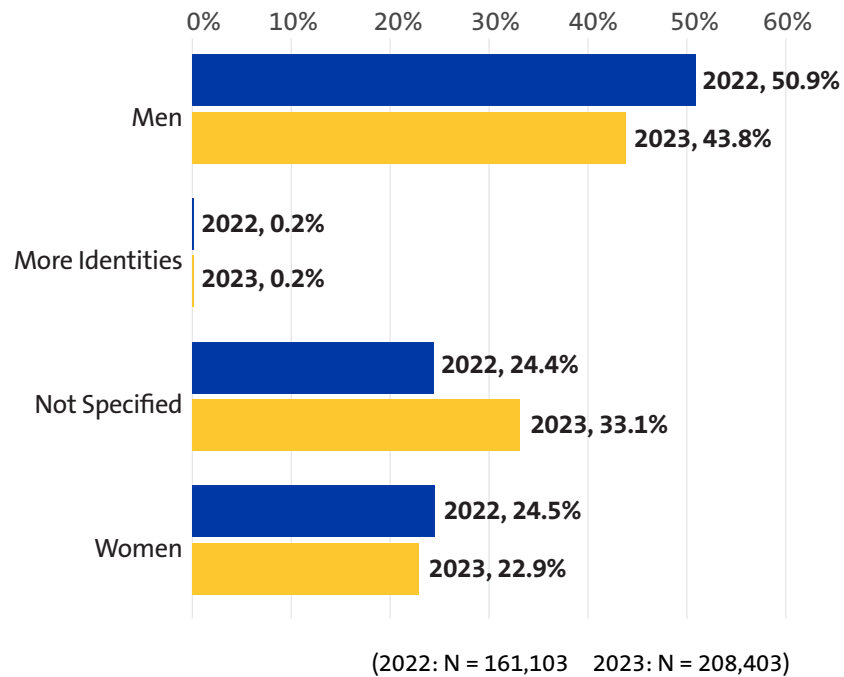


Figure 1-A. Comparison of gender identity from 2022 to 2023

## Year over Year Comparisons

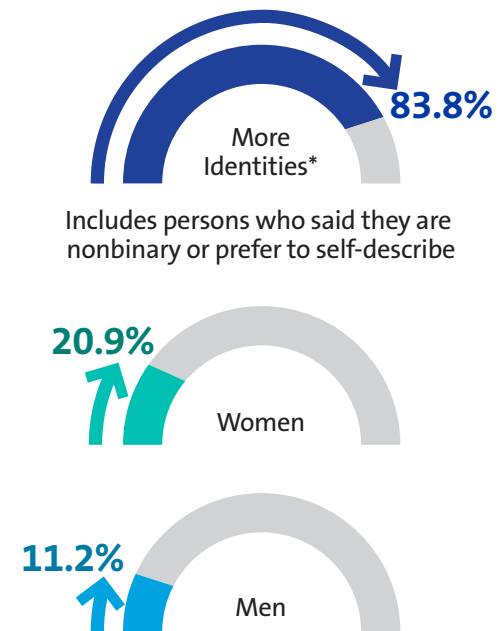
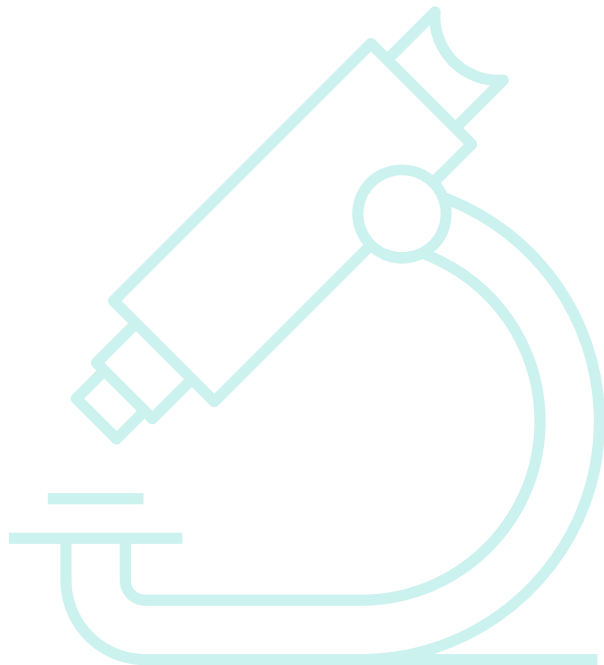


Figure 1-B. Year over year comparisons of gender identity from 2022 to 2023

# Race and Ethnicity

## Notes:

- People in the ACS global membership community have considerable flexibility in describing their race and ethnicity.
- In the chart below, the “not specified” (or null value) data was removed for clarity.



## Member Community by Race and Ethnicity: 2022 vs. 2023 (null values removed)

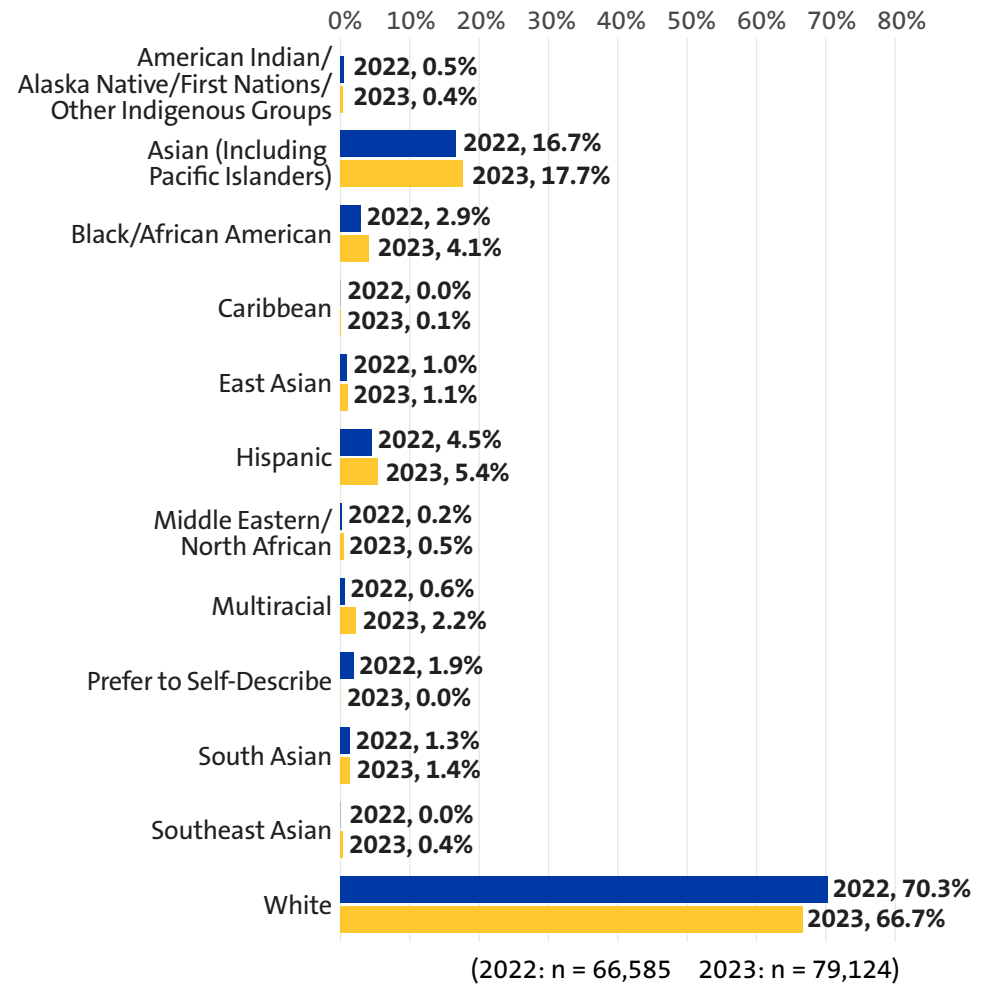
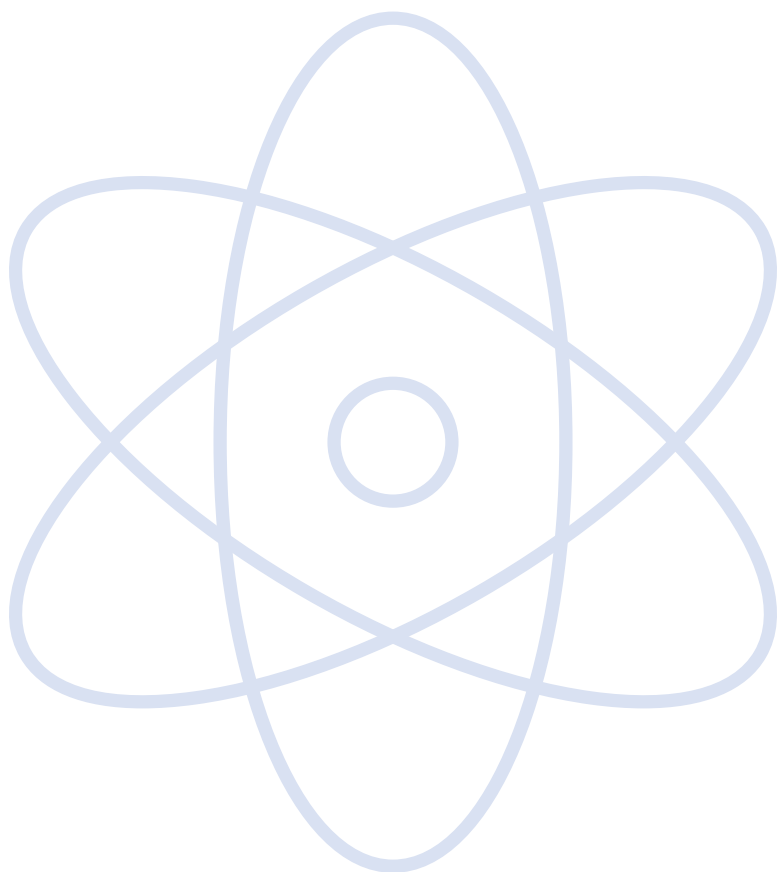


Figure 2. Comparison of race and ethnicity from 2022 to 2023  
(with null values removed)

# Age

**Note:** In the chart below, the “not specified” (or null value) data was removed for clarity.



## Member Community by Age: 2022 vs. 2023 (null values removed)

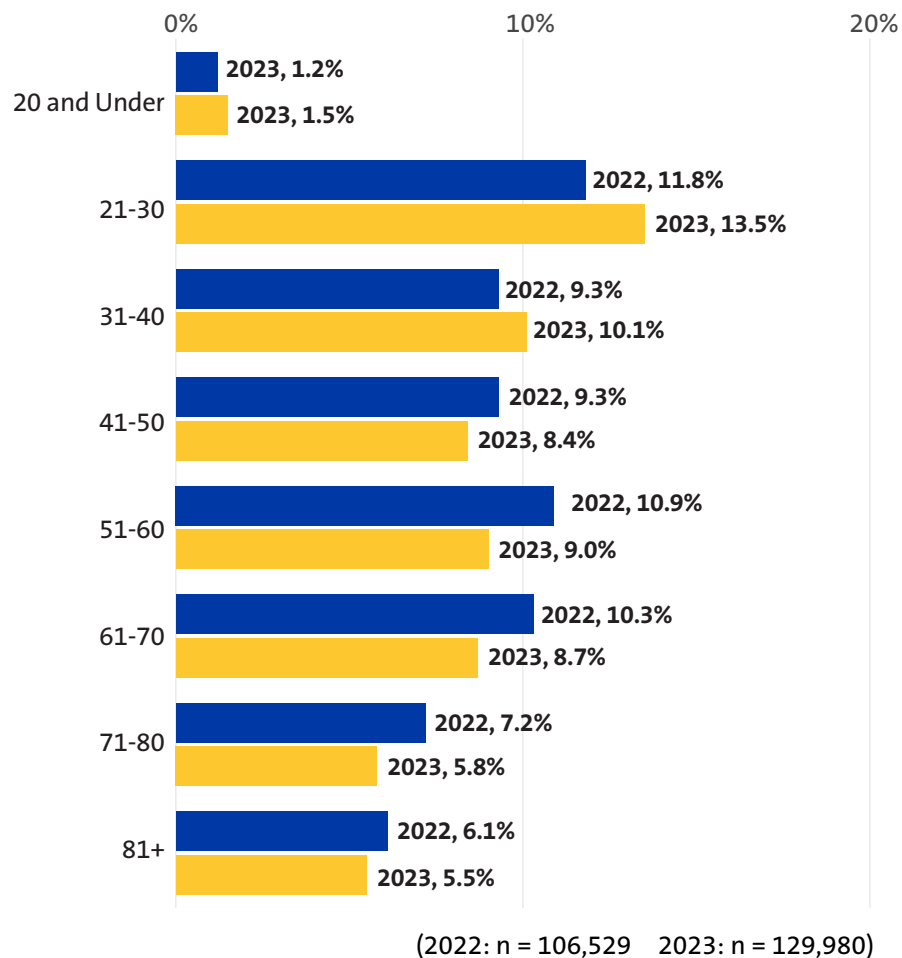


Figure 3. Comparison of age band from 2022 to 2023



# Race and Ethnicity by Age Band

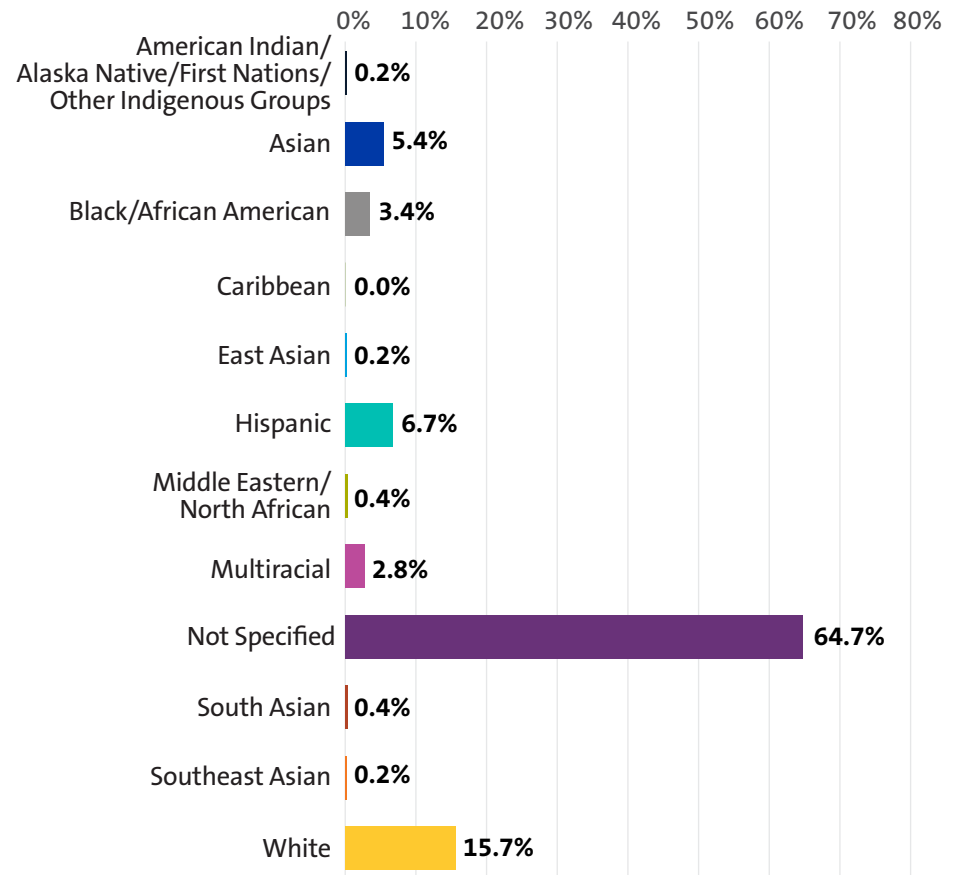
## Notes:

- Each of the nine charts that follow describes a separate age band; thus, the sum total of the race and ethnicity bands within a chart does not equal 100%.
- The total population (or N value) was 208,403.



## Race and Ethnicity by 20-and-Under Age Band

Total Membership Community



(n = 3,168)

Figure 4. Comparison of race and ethnicity by the age band, 20 and under

### Race and Ethnicity by 21-30 Age Band

Total Membership Community

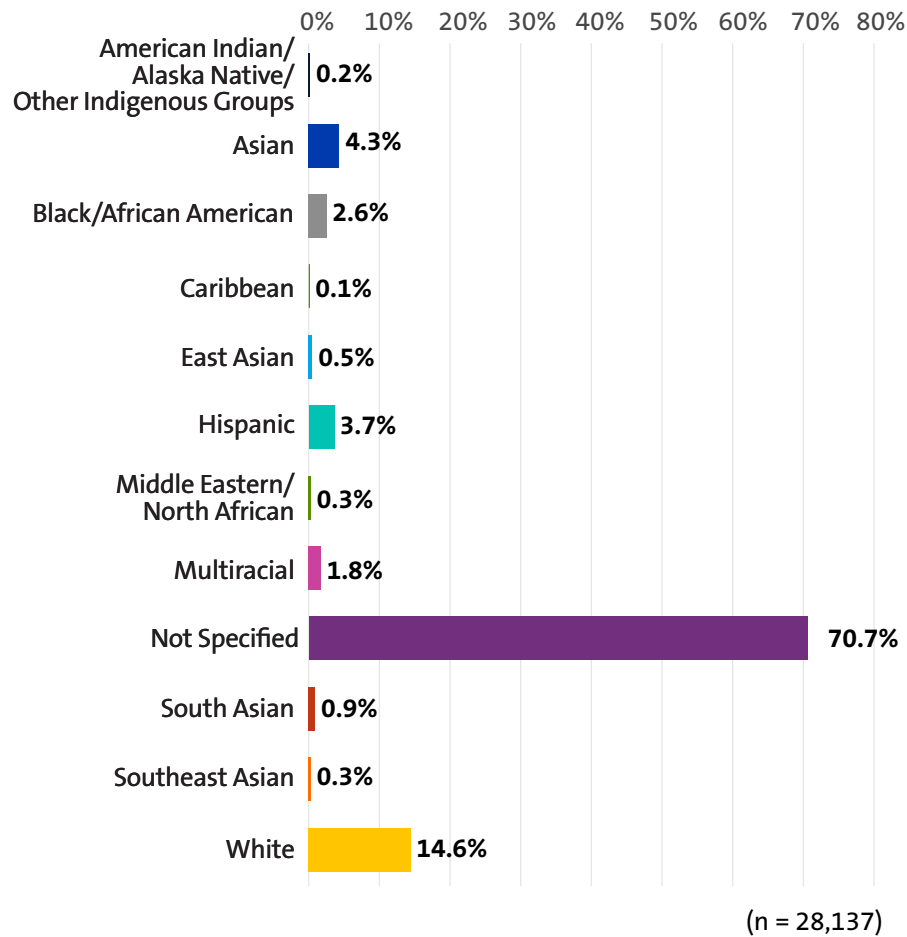


Figure 5. Comparison of race and ethnicity by the age band, 21-30

### Race and Ethnicity by 31-40 Age Band

Total Membership Community

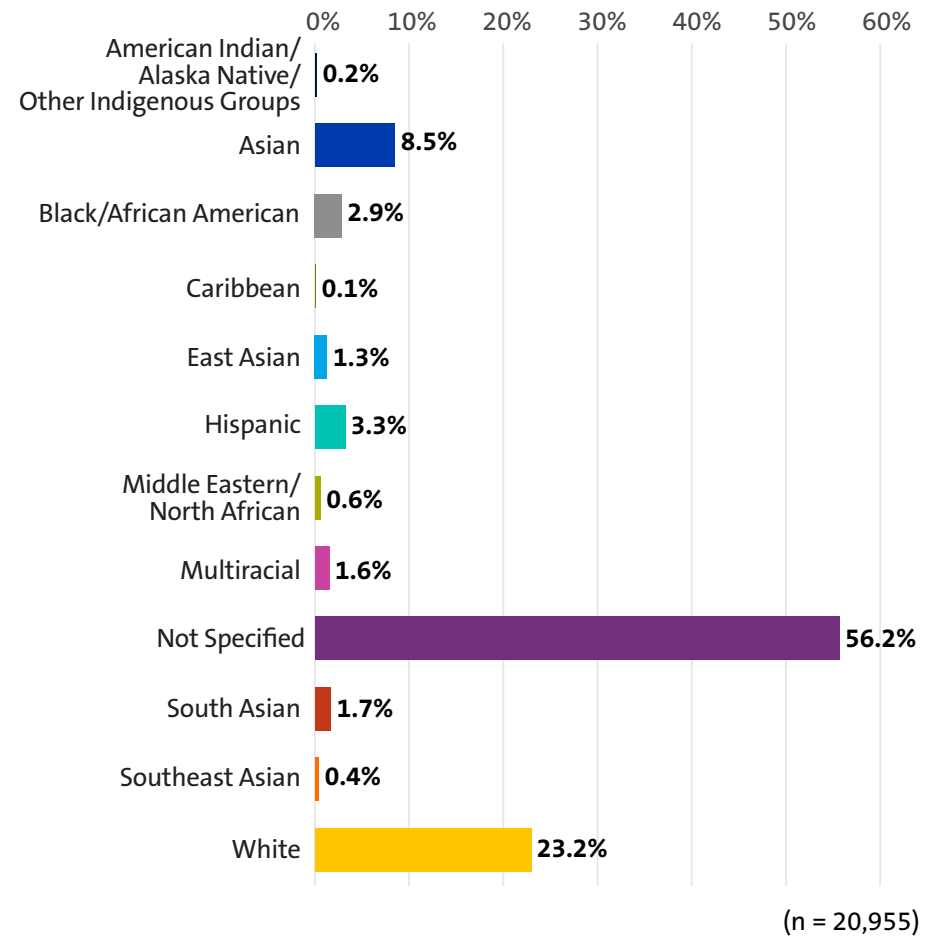


Figure 6. Comparison of race and ethnicity by the age band, 31-40

### Race and Ethnicity by 41-50 Age Band Total Membership Community

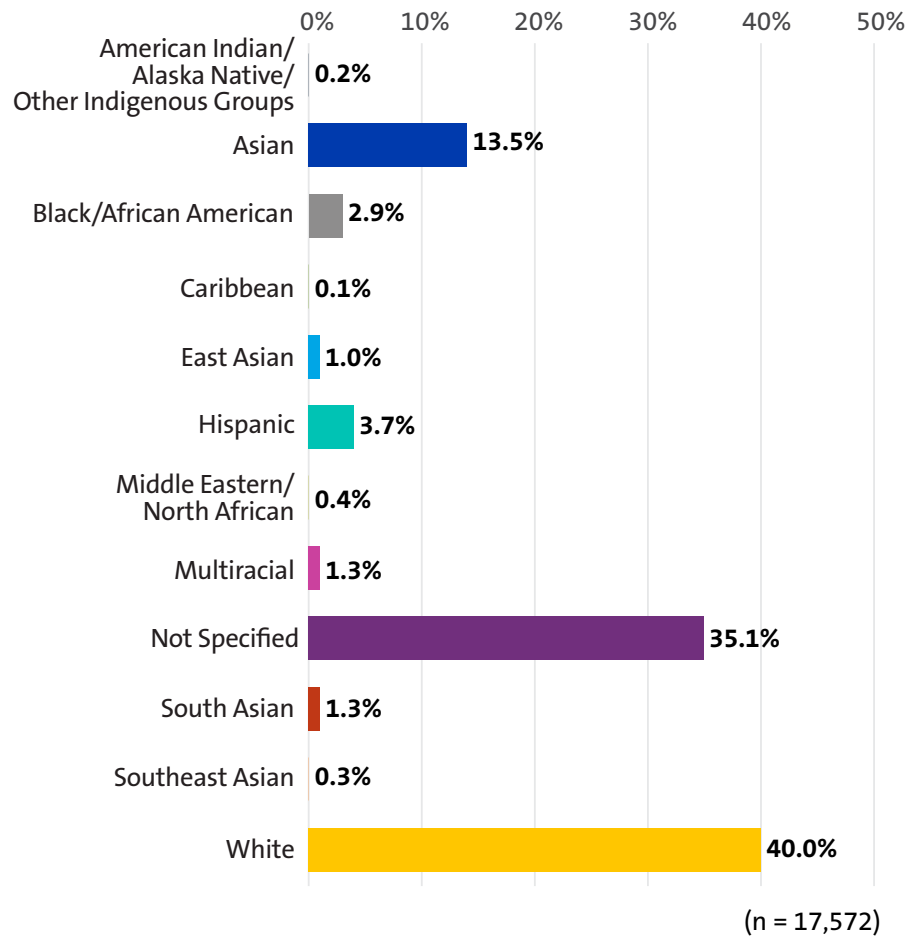


Figure 7. Comparison of race and ethnicity by the age band, 41-50

### Race and Ethnicity by 51-60 Age Band Total Membership Community

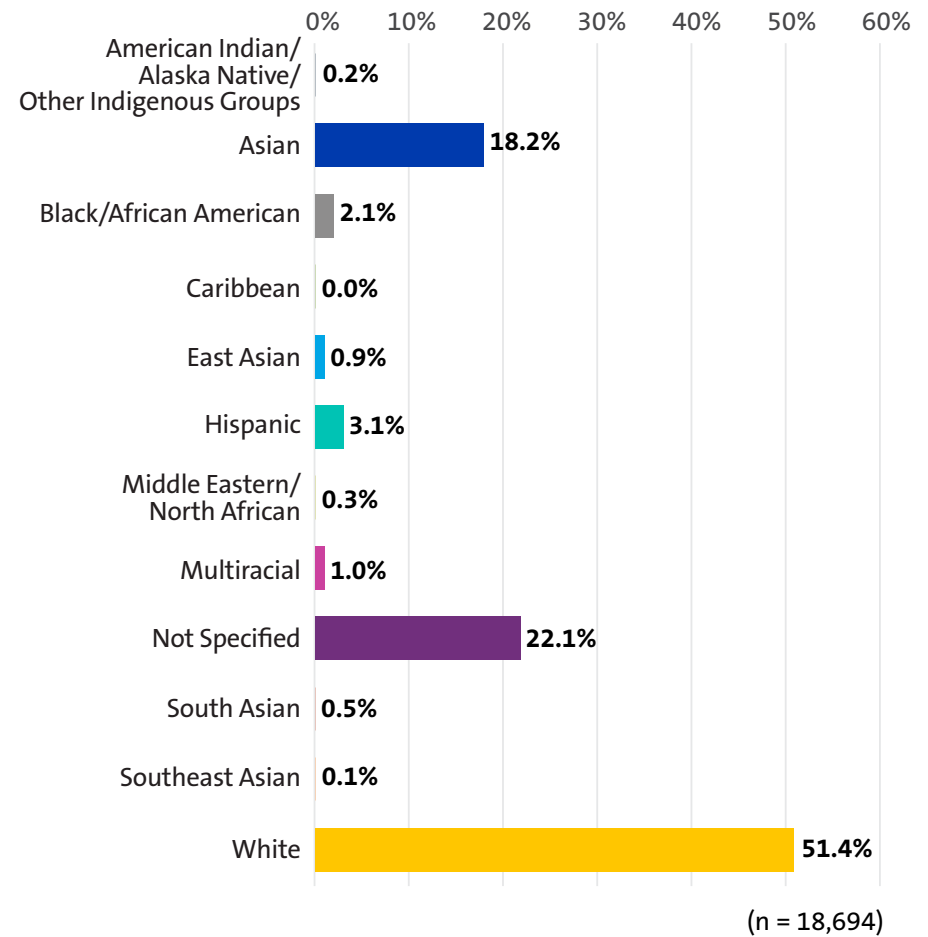


Figure 8. Comparison of race and ethnicity by the age band, 51-60

### Race and Ethnicity by 61-70 Age Band Total Membership Community

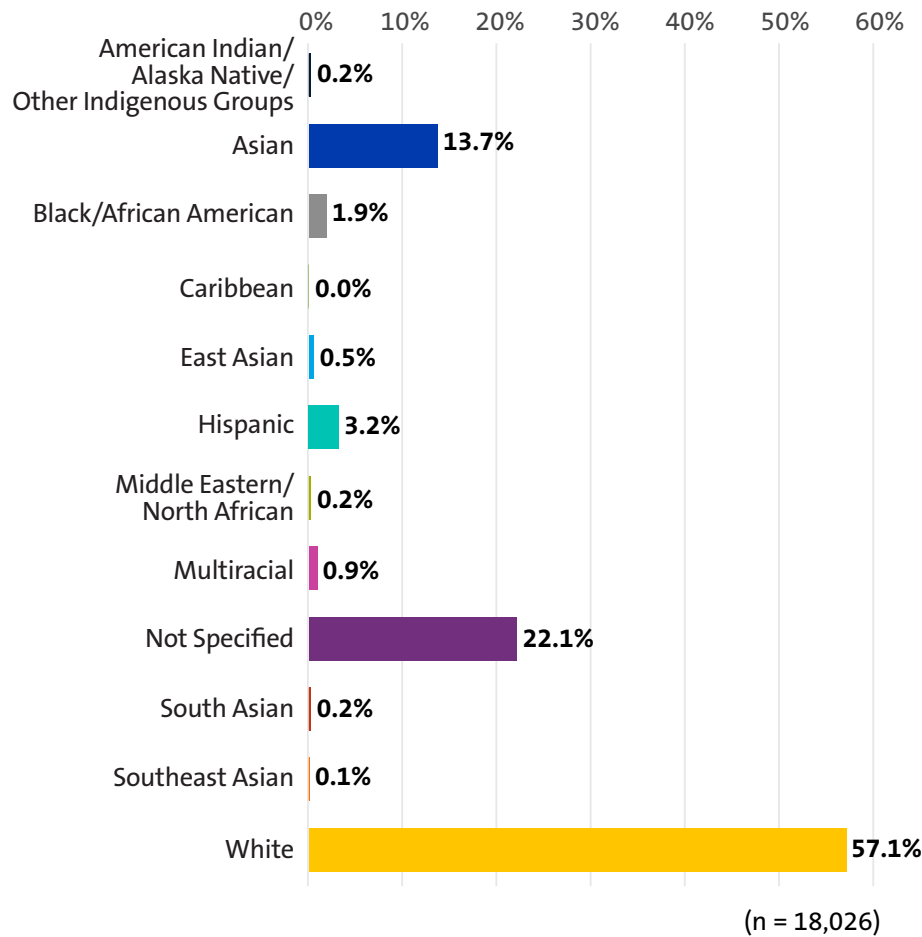


Figure 9. Comparison of race and ethnicity by the age band, 61-70

### Race and Ethnicity by 71-80 Age Band Total Membership Community

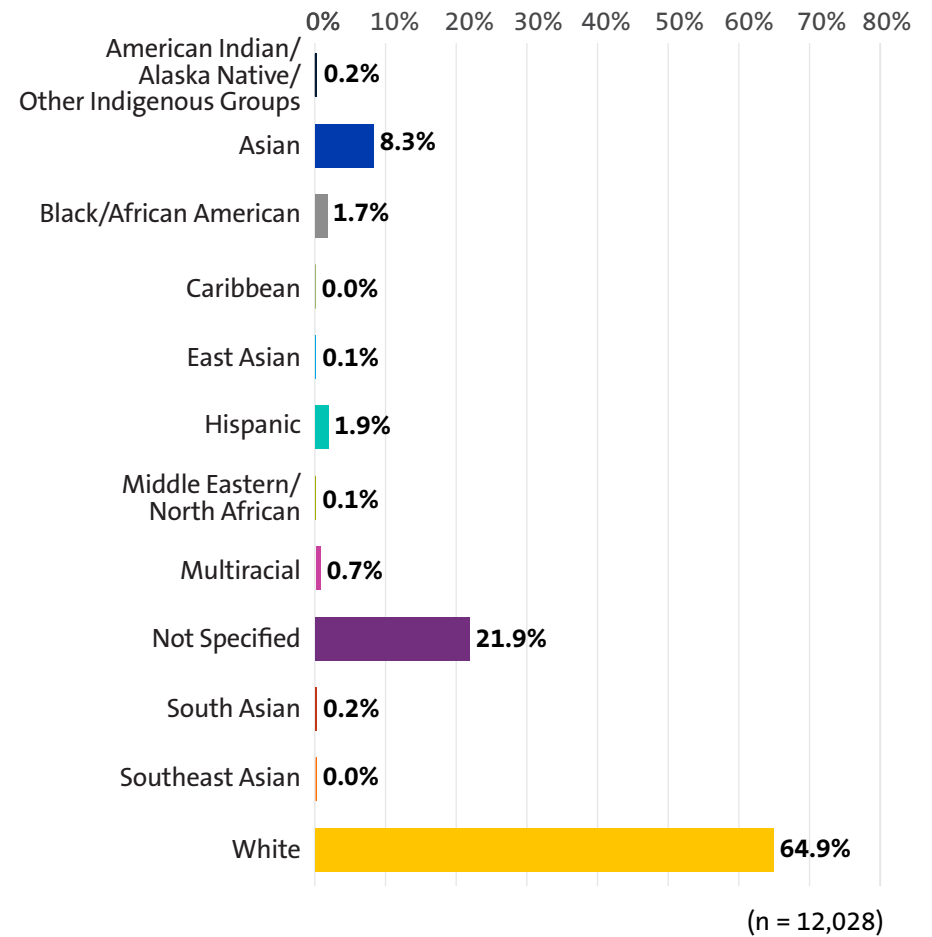


Figure 10. Comparison of race and ethnicity by the age band, 71-80

### Race and Ethnicity by 81+ Age Band Total Membership Community

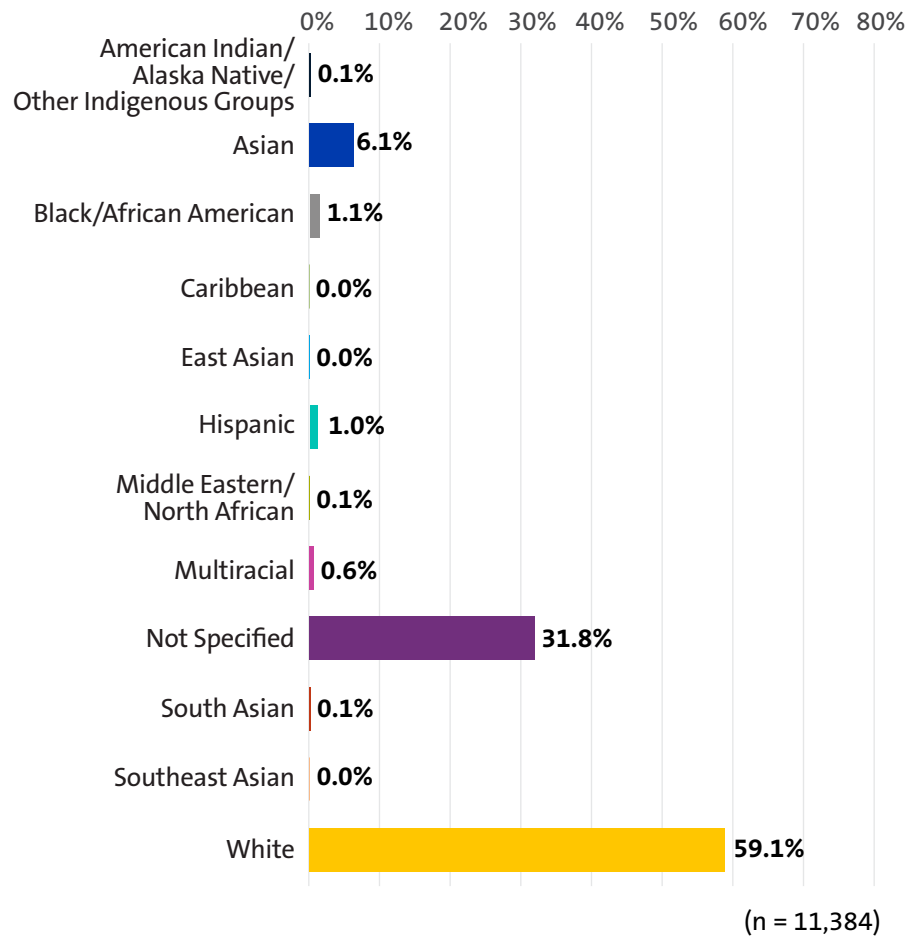


Figure 11. Comparison of race and ethnicity by the age band, 81+

### Race and Ethnicity by Not Specified Age Band Total Membership Community

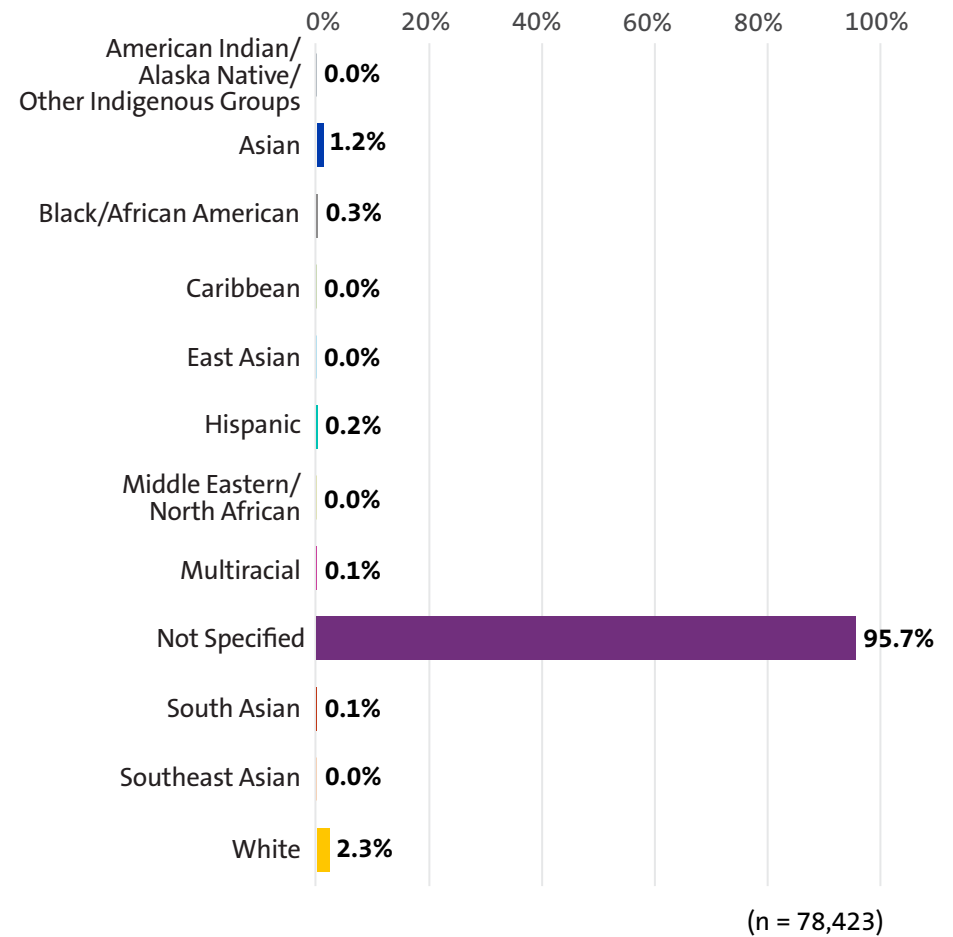
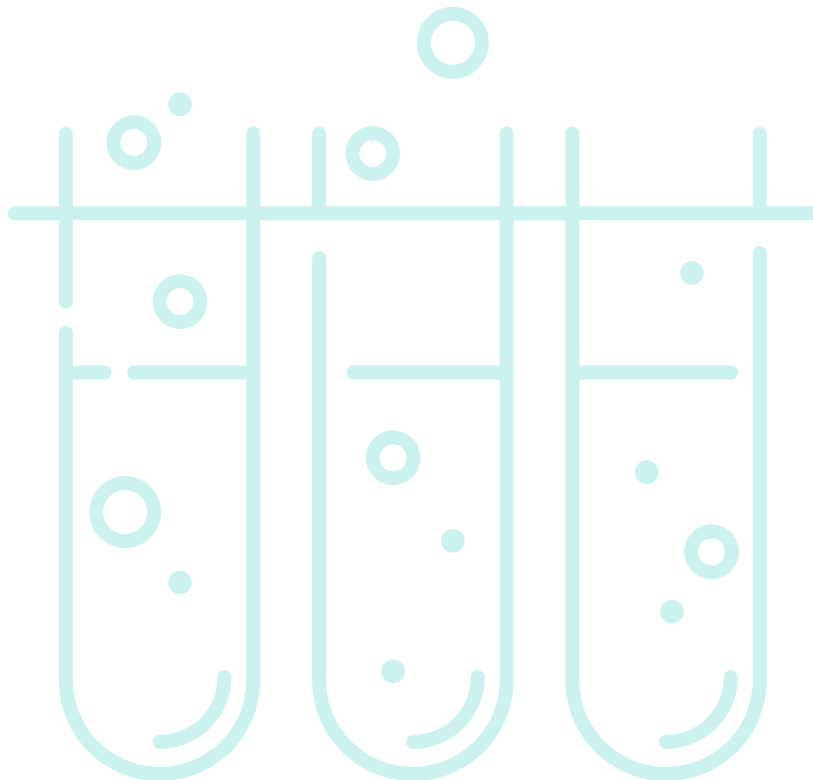


Figure 12. Comparison of race and ethnicity by the age band, not specified

# Race and Ethnicity by Gender

**Note:**

- Each of the four charts that follow describes a separate gender identity; thus, the sum total of the race and ethnicity bands within a chart does not equal 100%.
- The total population (or N value) was 208,403.



## Race and Ethnicity by Gender (Man)

Total Membership Community

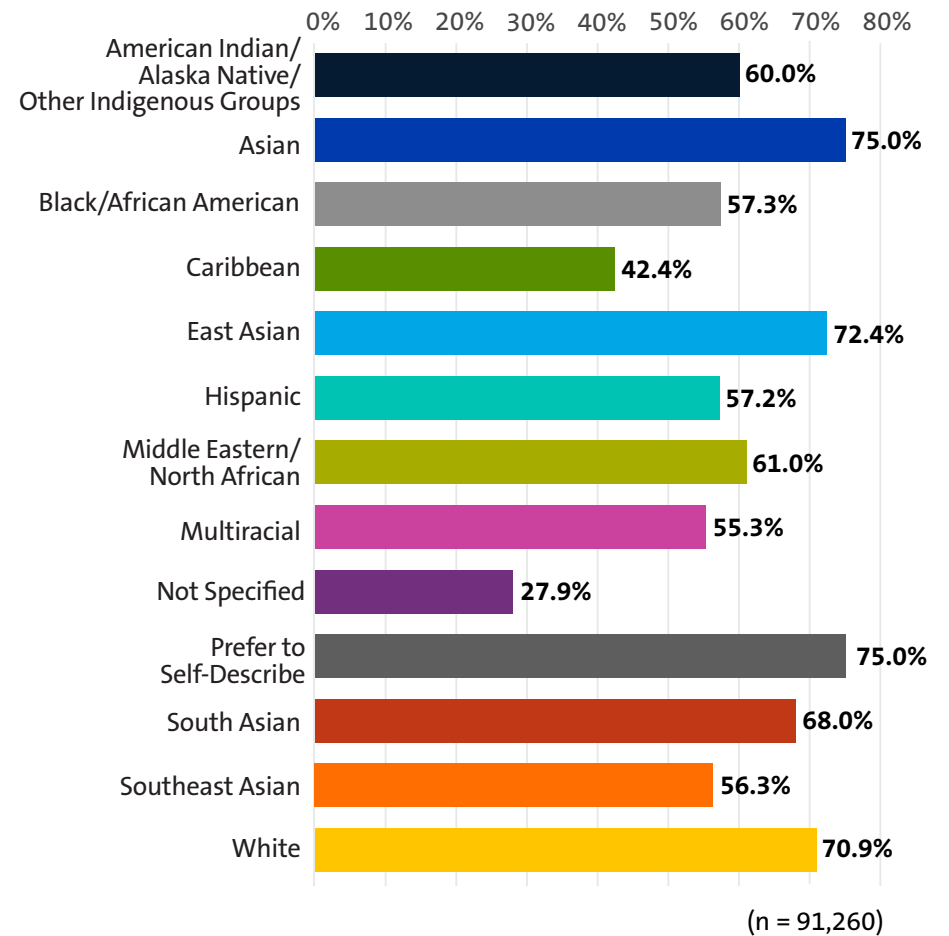


Figure 13. Comparison of race and ethnicity by the gender, man

**Note:** “More Identities” includes persons who said they are nonbinary or prefer to self-describe.

### Race and Ethnicity by Gender (Woman)

Total Membership Community

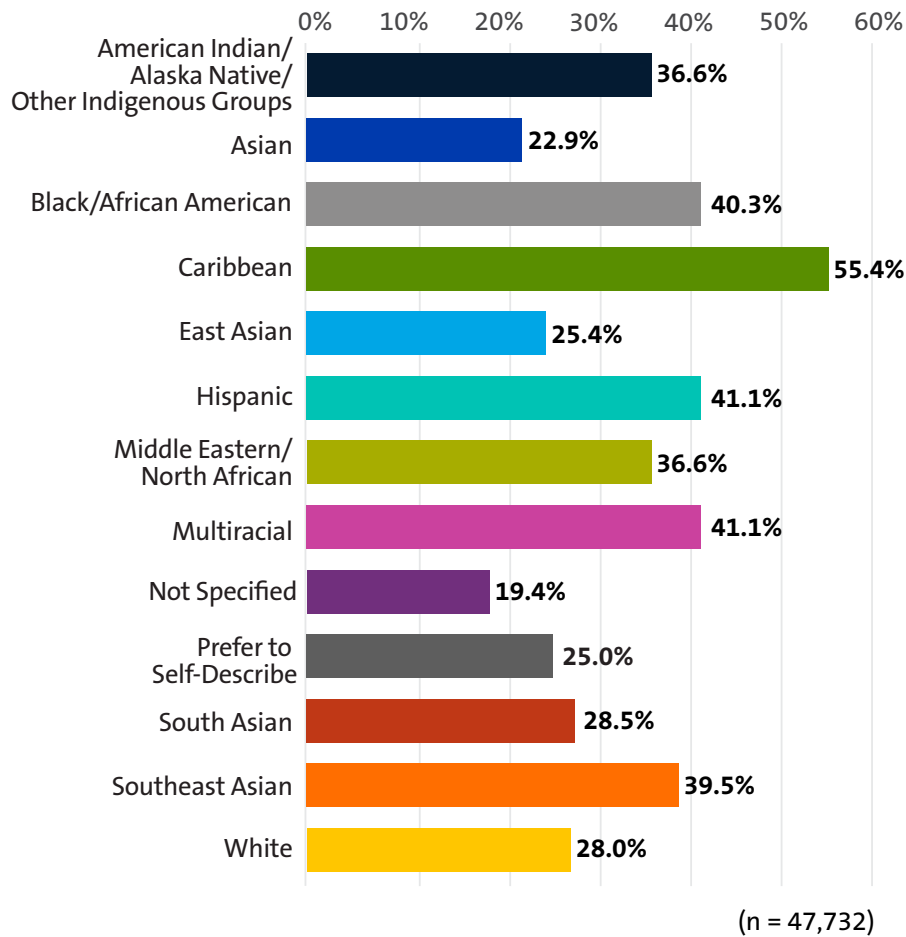


Figure 14. Comparison of race and ethnicity by the gender, woman

### Race and Ethnicity by Gender (More Identities)

Total Membership Community

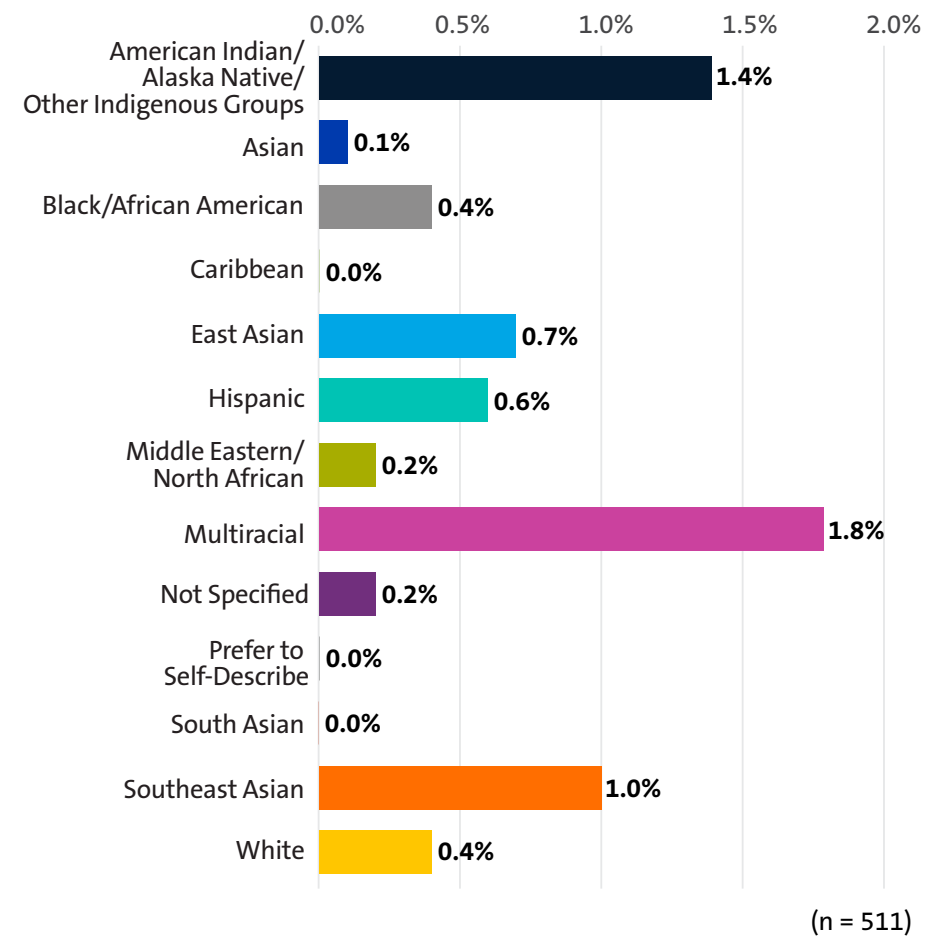


Figure 15. Comparison of race and ethnicity by the gender, more identities

### Race and Ethnicity by Gender (Not Specified)

Total Membership Community

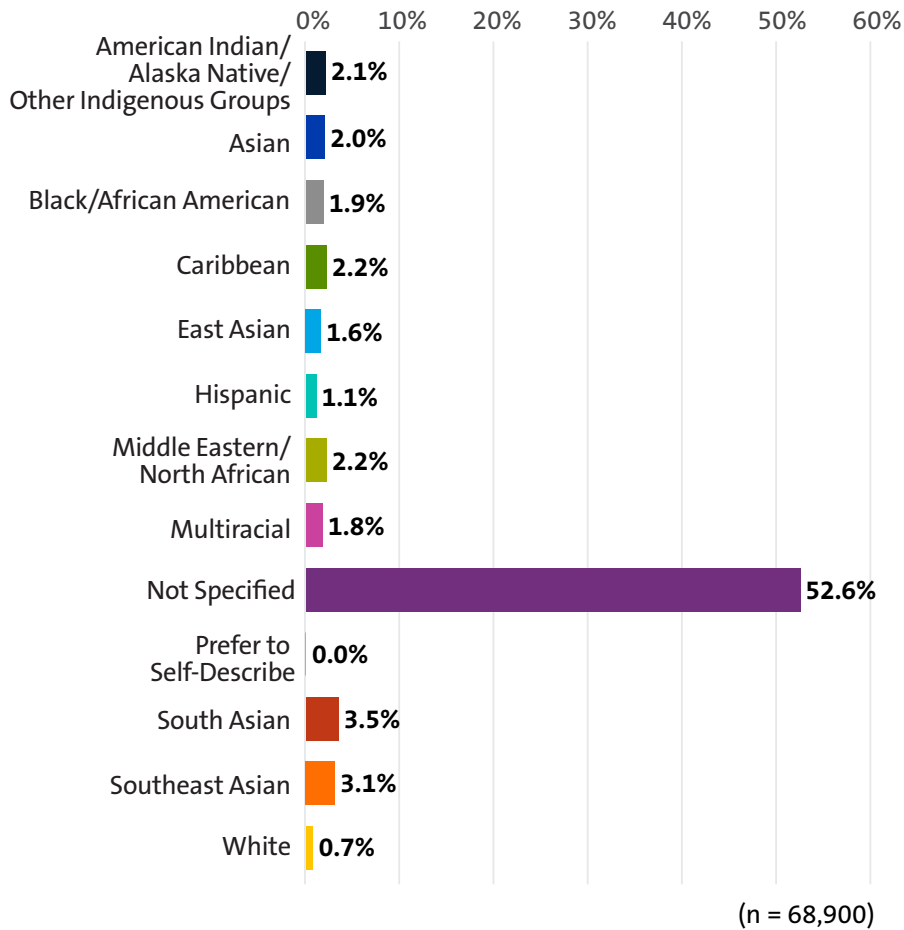


Figure 16. Comparison of race and ethnicity by the gender, not specified

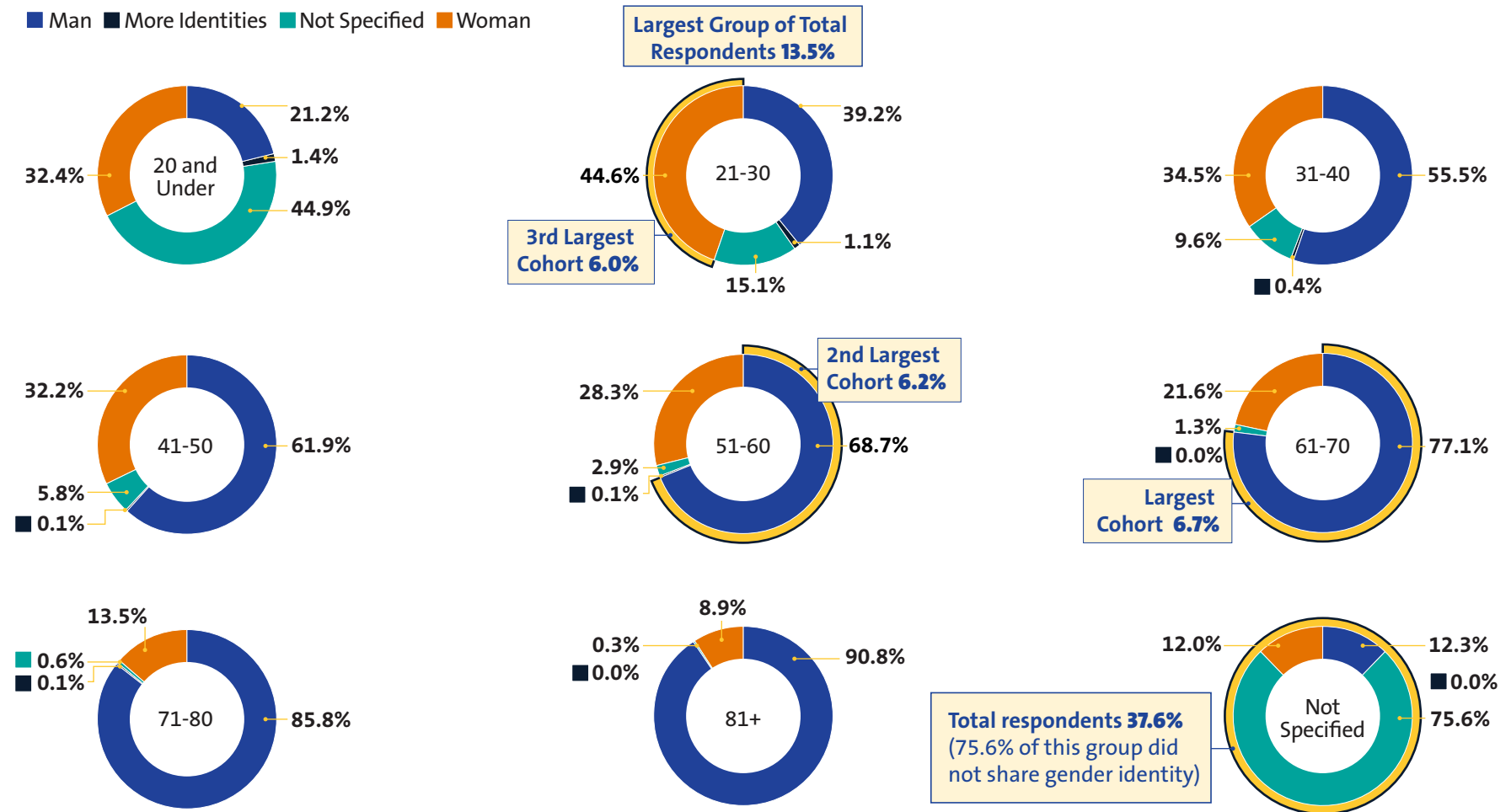


# Age Band by Gender

## Age Band by Gender

Total Membership Community

■ Man ■ More Identities ■ Not Specified ■ Woman



(N = 208,403)

Figure 17. Comparison of age band by gender

# What do chemists do?

It's rare for a chemist to have a very linear career path. It's clear that chemists work across a variety of scientific sub-disciplines and professional fields. While most respondents in the ACS global membership community hold a post-college degree, with the majority of those who chose to specify having obtained a doctorate, they are using their educational background across academia, industry, government and beyond.

ACS member Susannah Banziger, who is the formulation automation leader at Corteva Agriscience, captured this sentiment with her career approach. Banziger, who grew up in a farming town in Indiana and went into STEM to follow her interest in agriculture and sustainability, said that her career has been full of

surprises. "My journey is not a very linear one," Banziger said. "In many ways I've taken opportunities along the way; I often like to call it a career adventure."

In general, the picture of educational attainment has become clearer this year, having improved its data coverage considerably. Compared to 2022, 100,000 more respondents answered details about their level of educational attainment. Even with some holes in the data still present, nearly half of respondents hold a doctorate degree. Their disciplines range from materials chemistry to biochemistry. The number of choices in discipline that respondents could give increased to 40 in 2023 from 14 in 2022, hopefully capturing a greater degree of detail. Organic chemistry and physical chemistry were the most represented disciplines.



**In many ways I've taken opportunities along the way;  
I often like to call it a career adventure.**

— Susannah Banziger



*Image 3. Headshot of Susannah Banziger*

While most respondents work in academia (of those who specified), many also work across industry, pharmaceuticals and government sectors. “Part of the reason I went into industry rather than academia is I was interested in how to solve real-world problems on an industrial scale,” ACS member Evelyn Auyeung, of Dow said. “I think right now one of the important aspects of learning how these industrial processes occur is knowing then how to improve upon them.”

No matter what chemists do in their work, however, they share the same basic conviction of the importance of chemistry. “One of the things I believe in is that one chemical reaction can change the world,” said LC Campeau, an Associate VP at Merck and Co. and ACS Community Associate. “I’ve seen it over and over again in my work and that’s something I’m extremely proud of. It’s something I talk about with non-chemists when I talk about the work that we do and ultimately the impact we can have on the world.”



**I think right now one of the important aspects of learning how these industrial processes occur is knowing then how to improve upon them.**

— Evelyn Auyeung



*Image 4. Headshot of Evelyn Auyeung*

# Educational Attainment

## Total Membership Community by Educational Attainment: 2022 vs 2023

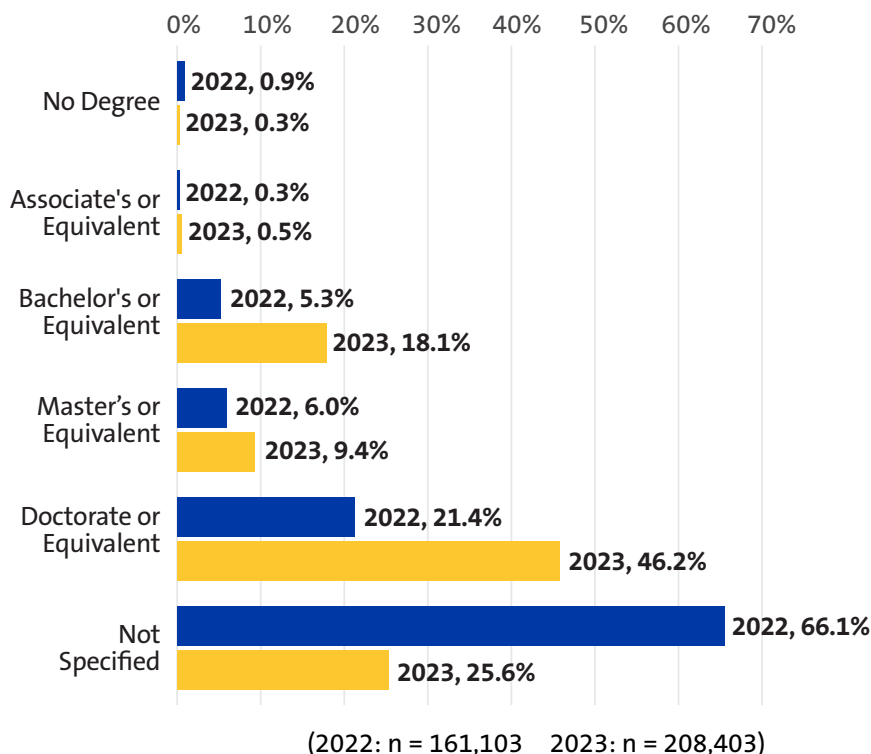


Figure 18-A. Comparison of educational attainment from 2022 to 2023

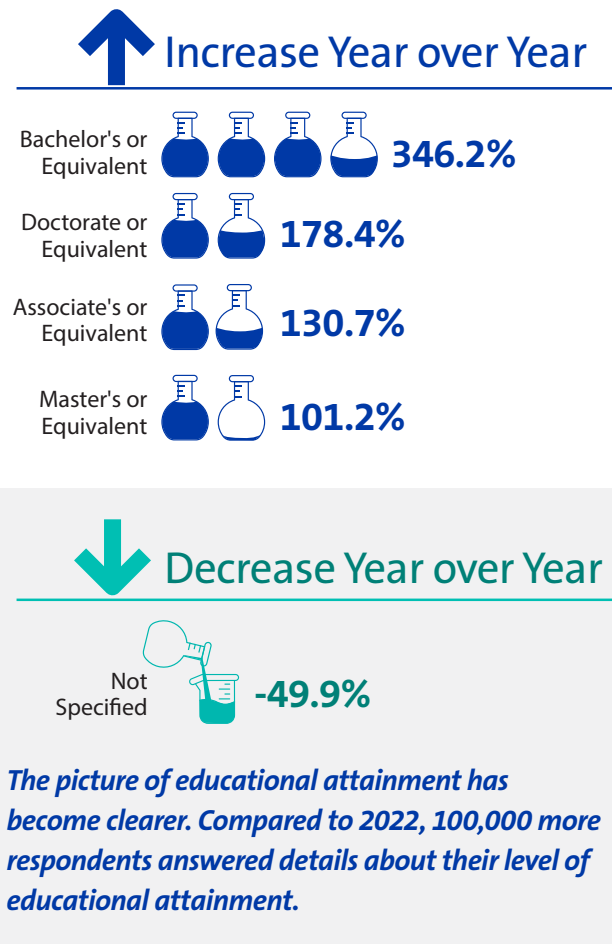


Figure 18-B. Increases and decreases of educational attainment year over year (2022 to 2023)

# Degree Discipline

## Total Membership Community by Degree Discipline: 2022 vs 2023

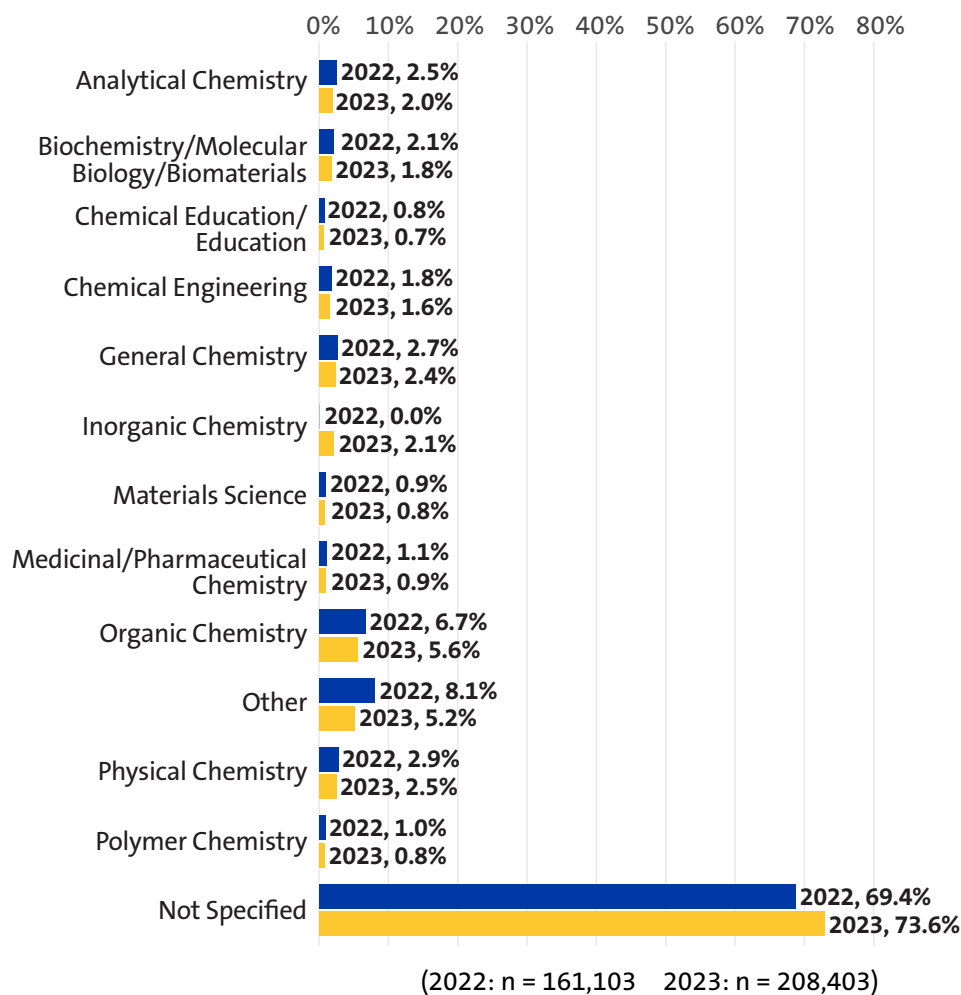


Figure 19. Comparison of degree discipline from 2022 to 2023

## Notes:

- From 2022 to 2023, the number of degree disciplines increased from 14 to 40.
- In 2022, “Other” included:
  - Agricultural/Food
  - Chemical Education
  - Environmental Chemistry
  - Materials Science
  - Polymer Chemistry
- In 2023, the Inorganic Chemistry option was added. Thus, the 2022 value for that option is 0%.
- In 2023, “Other” included:
  - Agricultural/Food Chemistry/Food Science
  - Applied Chemistry
  - Biochemical Engineering
  - Biology
  - Biotechnology
  - Business Administration
  - Clinical Chemistry
  - Combinational Chemistry
  - Computational Chemistry

- Computational/Computers/Informatics & Computer Science
- Energy/Petroleum
- Environmental Chemistry/Environmental Science
- Forensic Chemistry
- Green Chemistry/Sustainable Chemistry
- Health and Safety
- Instrumentation Design/Development
- Law and Legal
- Materials Engineering
- Medicinal/Clinical
- Nanochemistry
- Neurochemistry
- Nuclear Chemistry
- Other Chemical Sciences
- Other Non-Chemistry
- Paints/Coatings
- Plastics/Polymer/Rubber
- Toxicology



**One of the things I believe in is that one chemical reaction can change the world.**

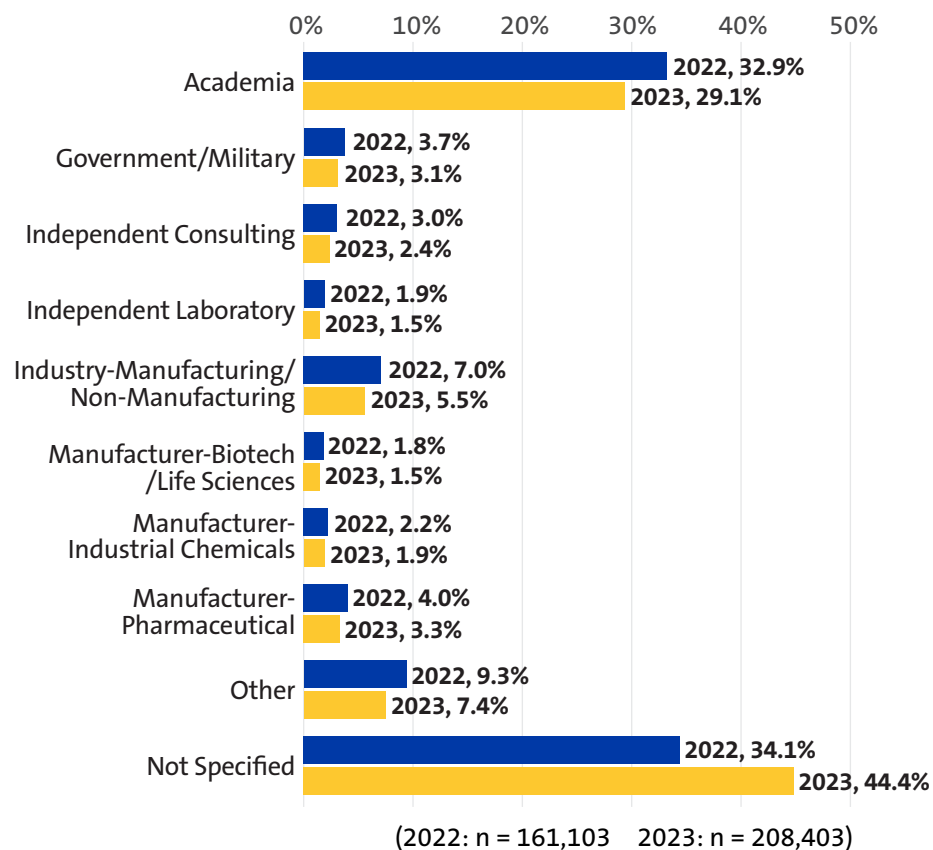
— LC Campeau



*Image 5. Headshot of LC Campeau*

# Employment Sector

## Total Membership Community by Employment Sector: 2022 vs 2023



**Note:** Due to small sample sizes, “Other” included:

- Engineering/Construction
- Hospital Clinic
- Manufacturer-Agricultural
- Manufacturer-Environmental/Water
- Manufacturer-Food/Beverage/Flavors
- Manufacturer-Petrochemical
- Other
- Public Utility/Transportation
- Retail/Wholesale Trade
- Self-Employed

Figure 20. Comparison of employment sector from 2022 to 2023

# Educational Attainment by Age Band

## Notes:

- Each of the eight charts that follow describes a separate age band; thus, the sum total of the educational attainment bands within a chart does not equal 100%.
- The total population (or N value) was 208,403.

## Educational Attainment by 20-and-Under Age Band Total Membership Community

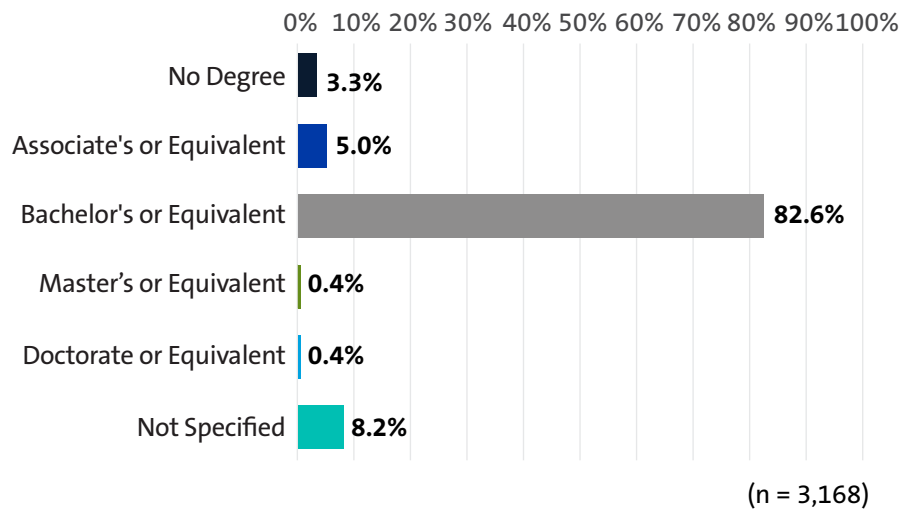


Figure 21. Comparison of educational attainment by the 20 and under age band

## Educational Attainment by 21–30 Age Band Total Membership Community

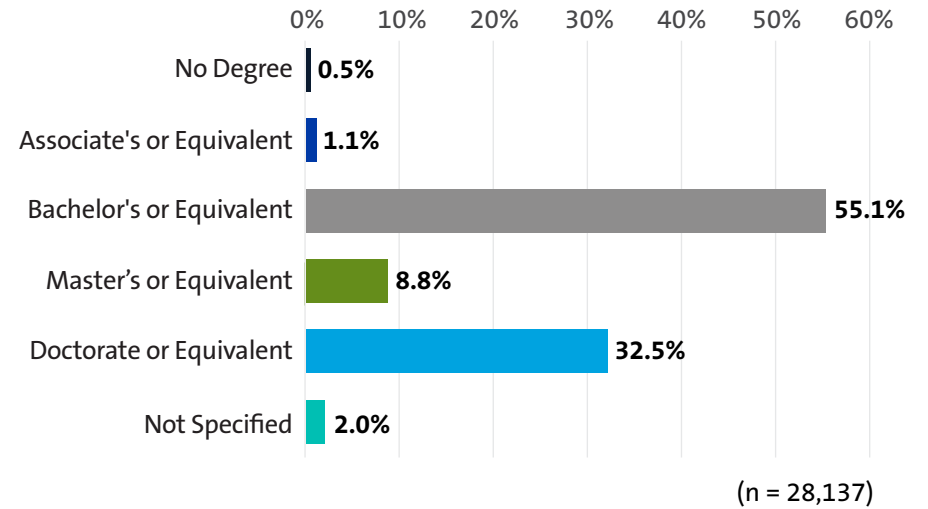


Figure 22. Comparison of educational attainment by the 21-30 age band



### Educational Attainment by 31–40 Age Band Total Membership Community

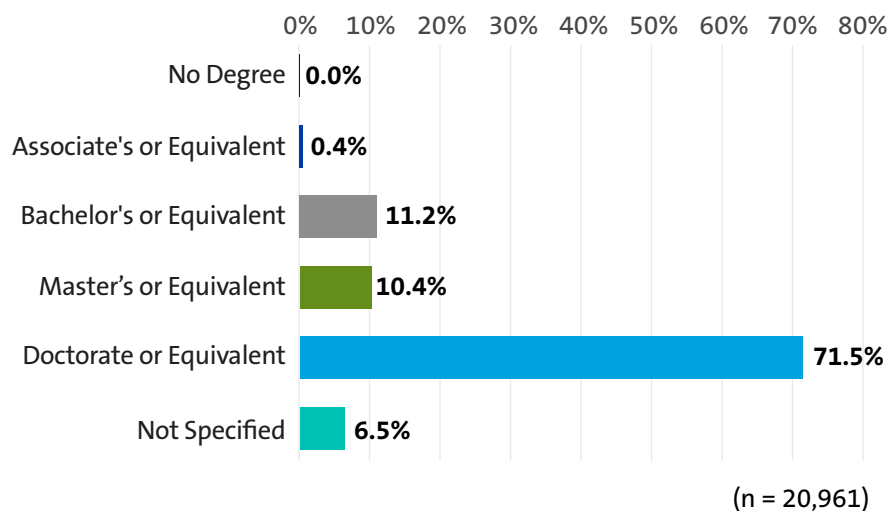


Figure 23. Comparison of educational attainment by the 31-40 age band

### Educational Attainment by 41–50 Age Band Total Membership Community

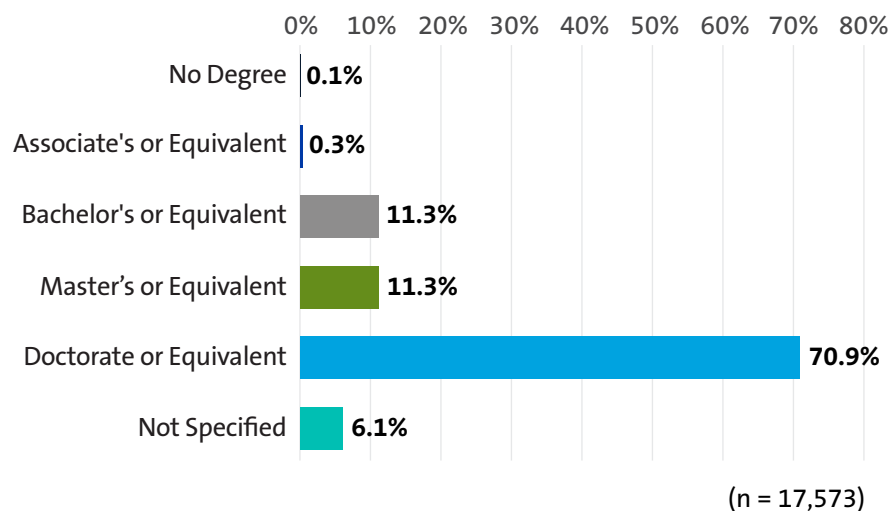


Figure 24. Comparison of educational attainment by the 41-50 age band

### Educational Attainment by 51–60 Age Band Total Membership Community

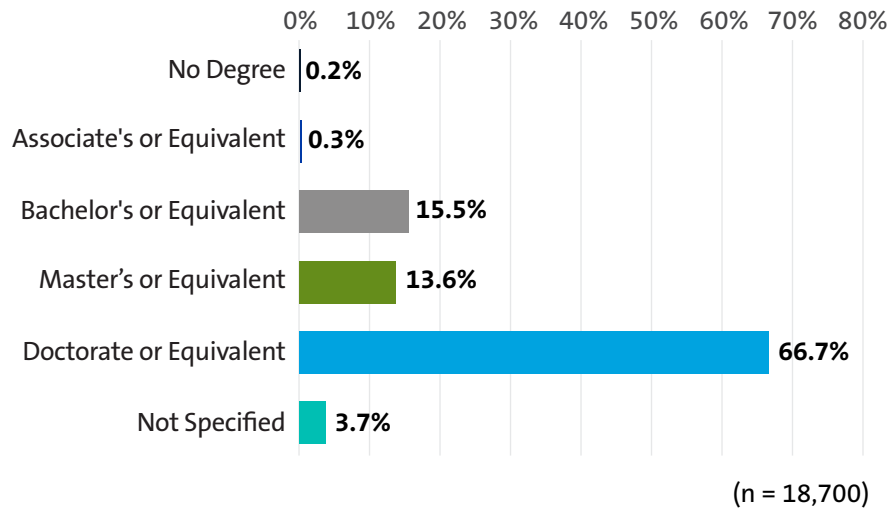


Figure 25. Comparison of educational attainment by the 51-60 age band

### Educational Attainment by 61–70 Age Band Total Membership Community

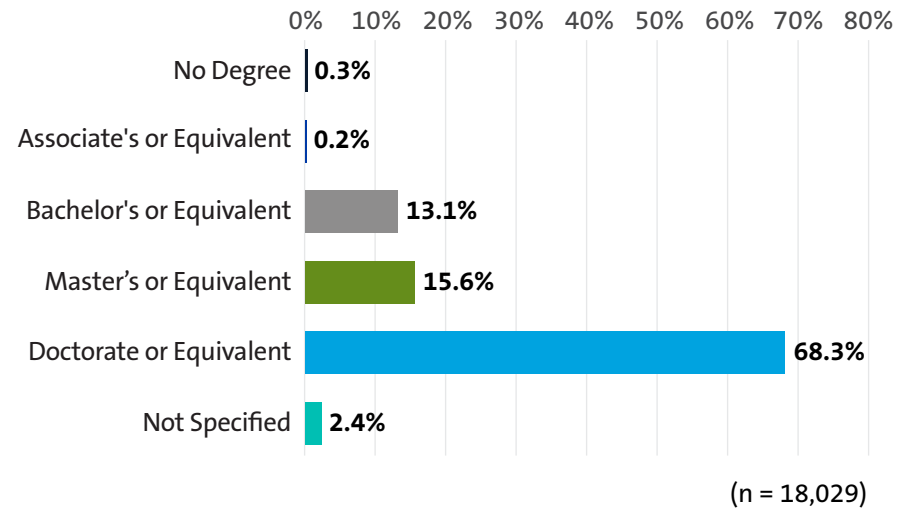


Figure 26. Comparison of educational attainment by the 61-70 age band

### Educational Attainment by 71–80 Age Band Total Membership Community

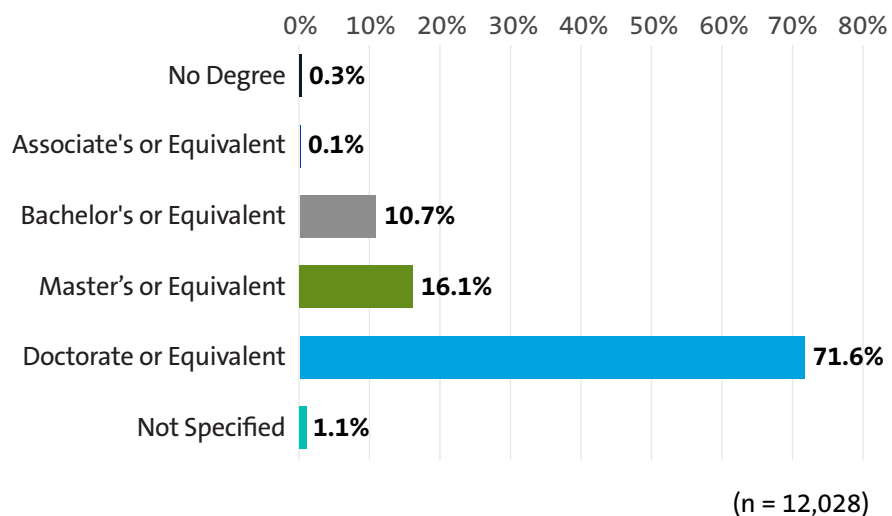


Figure 27. Comparison of educational attainment by the 71-80 age band

### Educational Attainment by 81+ Age Band Total Membership Community

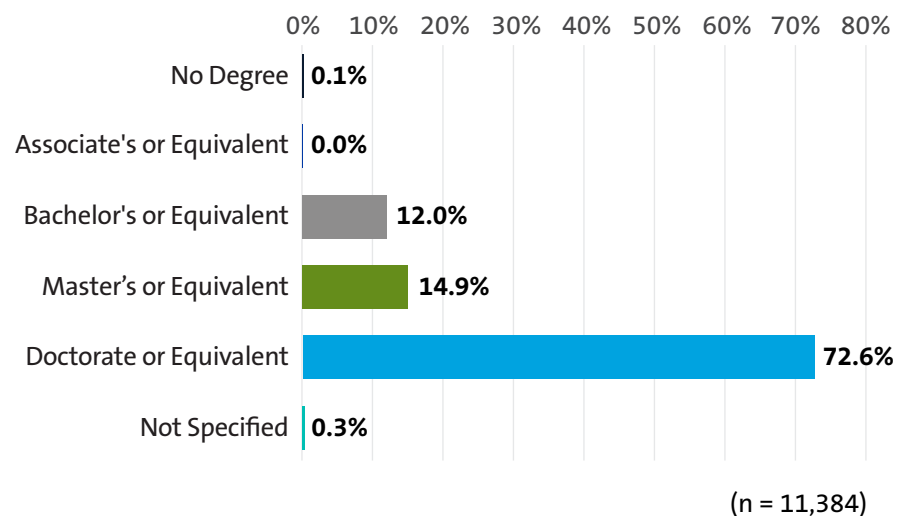


Figure 28. Comparison of educational attainment by the 81+ age band

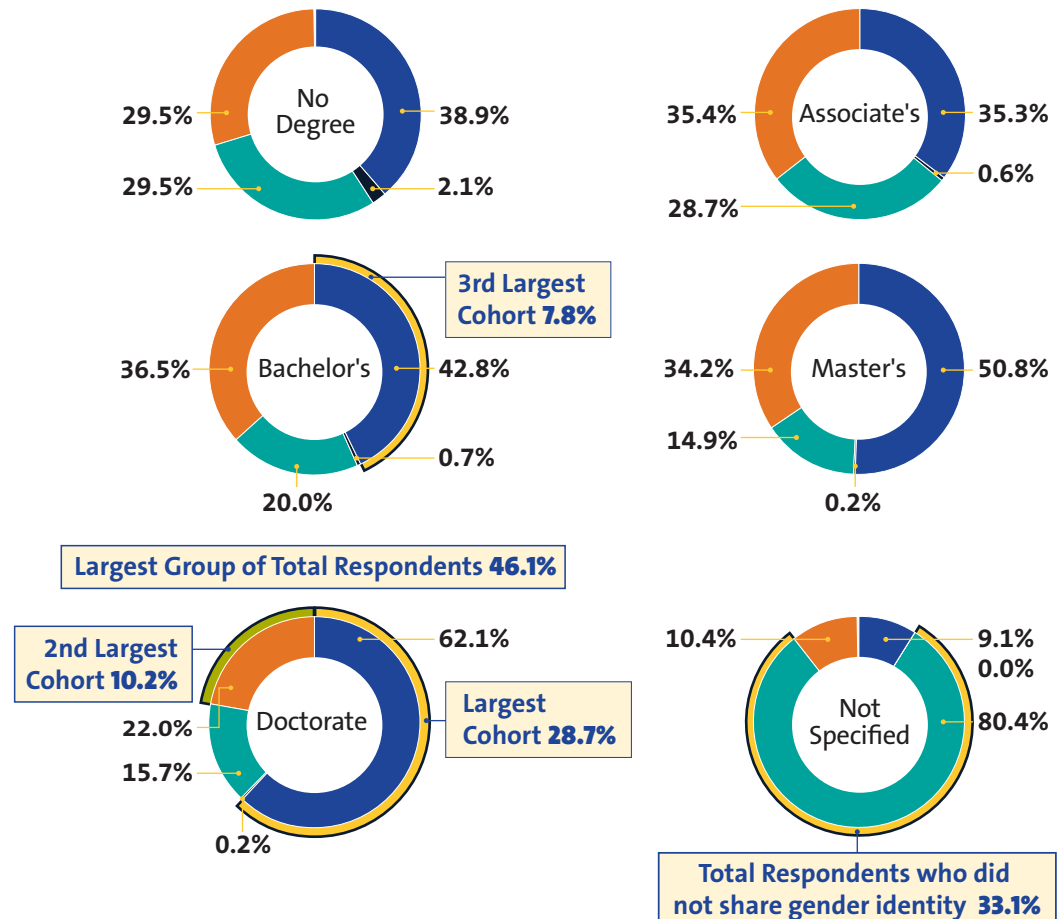
# Educational Attainment by Gender

**Note:** Multiple data sources were used for this report. Among these sources, gender identifiers and terms varied. To include as many respondents as possible we applied these gender identity labels:

- “Man” includes persons who said they are male, man, or transgender male.
- “Woman” includes persons who said they are female, woman, or transgender female.
- “More Identities” includes persons who said they are nonbinary or prefer to self-describe.

## Educational Attainment by Gender Total Membership Community

■ Man ■ More Identities ■ Not Specified ■ Woman



(N = 208,403)

Figure 29. Comparison of educational attainment by gender

# Degree Discipline by Age Band

## Notes:

- “Not Specified” (or null value) data was removed for clarity from the charts in this section.
- The number of degree disciplines increased from 14 in 2022 to 40 in 2023.
- Due to small sample sizes, “Other” included:
  - Agricultural/Food Chemistry/Food Science
  - Applied Chemistry
  - Biochemical Engineering
  - Biology
  - Biotechnology
  - Business Administration
  - Chemical Education
  - Clinical Chemistry
  - Combinational Chemistry
  - Computational Chemistry
  - Computational/Computers/Informatics & Computer Science
  - Education
  - Energy/Petroleum
  - Environmental Chemistry/Environmental Science
  - Forensic Chemistry
  - Green Chemistry/Sustainable Chemistry
  - Health and Safety
  - Instrumentation Design/Development
  - Law and Legal
  - Materials Engineering
  - Medicinal/Clinical
  - Nanochemistry
  - Neurochemistry
  - Nuclear Chemistry
  - Other Chemical Science
  - Other Non-Chemistry
  - Paints/Coatings
  - Plastics/Polymer/Rubber
  - Toxicology

**Notes:**

- Each of the eight charts that follow describes a separate age band; thus, the sum total of the degree discipline bands within a chart does not equal 100%.
- The total population (or N value) was 208,403.



**Degree Discipline by 20-and-Under Age Band**  
Total Membership Community

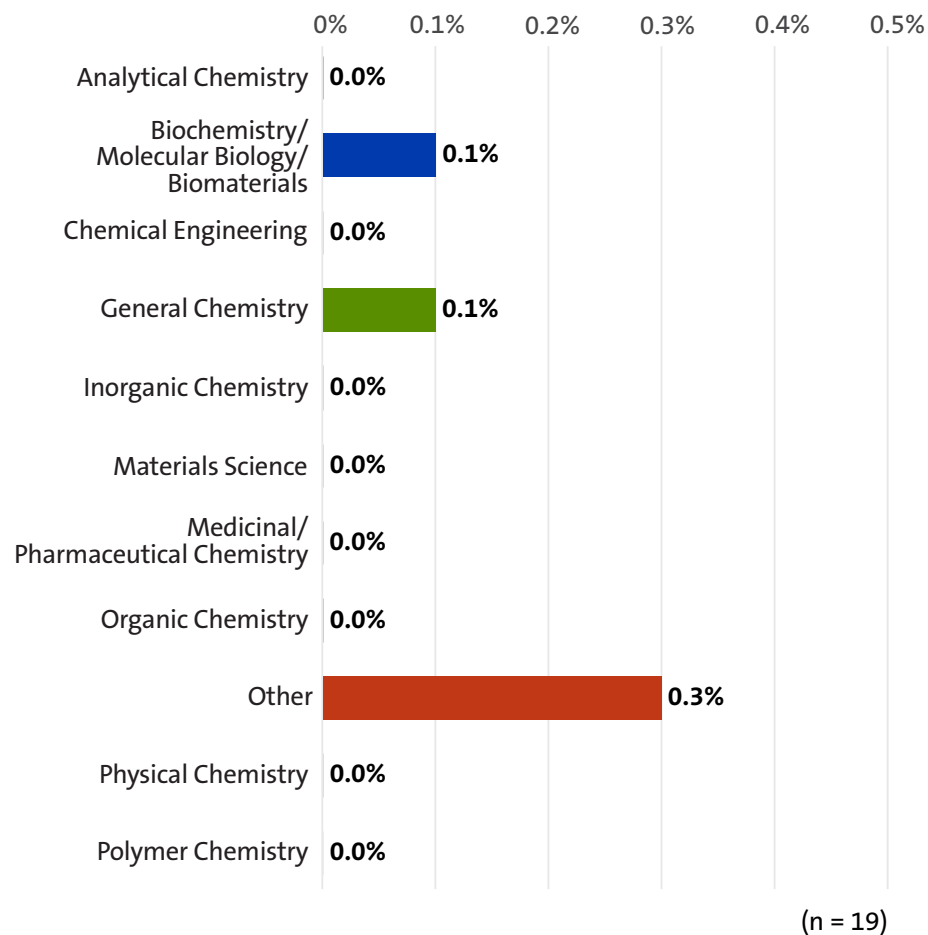


Figure 30. Comparison of degree discipline by the 20 and under age band

### Degree Discipline by 21–30 Age Band Total Membership Community

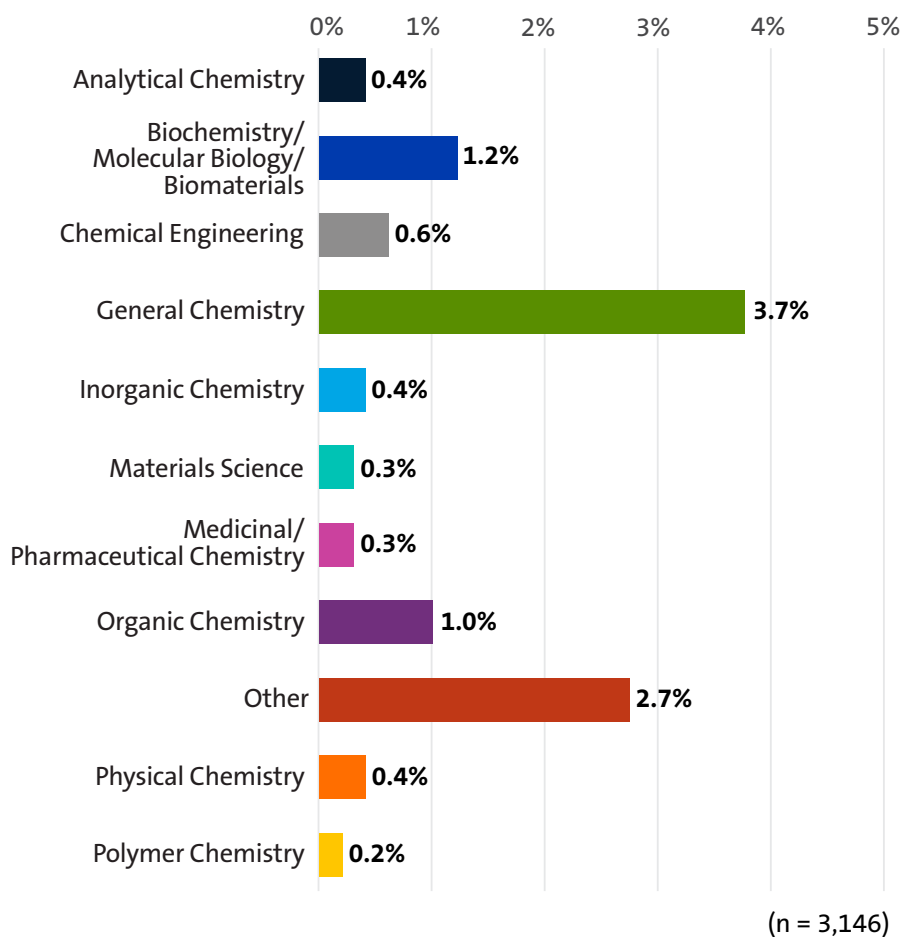


Figure 31. Comparison of degree discipline by the 21-30 age band

### Degree Discipline by 31–40 Age Band Total Membership Community

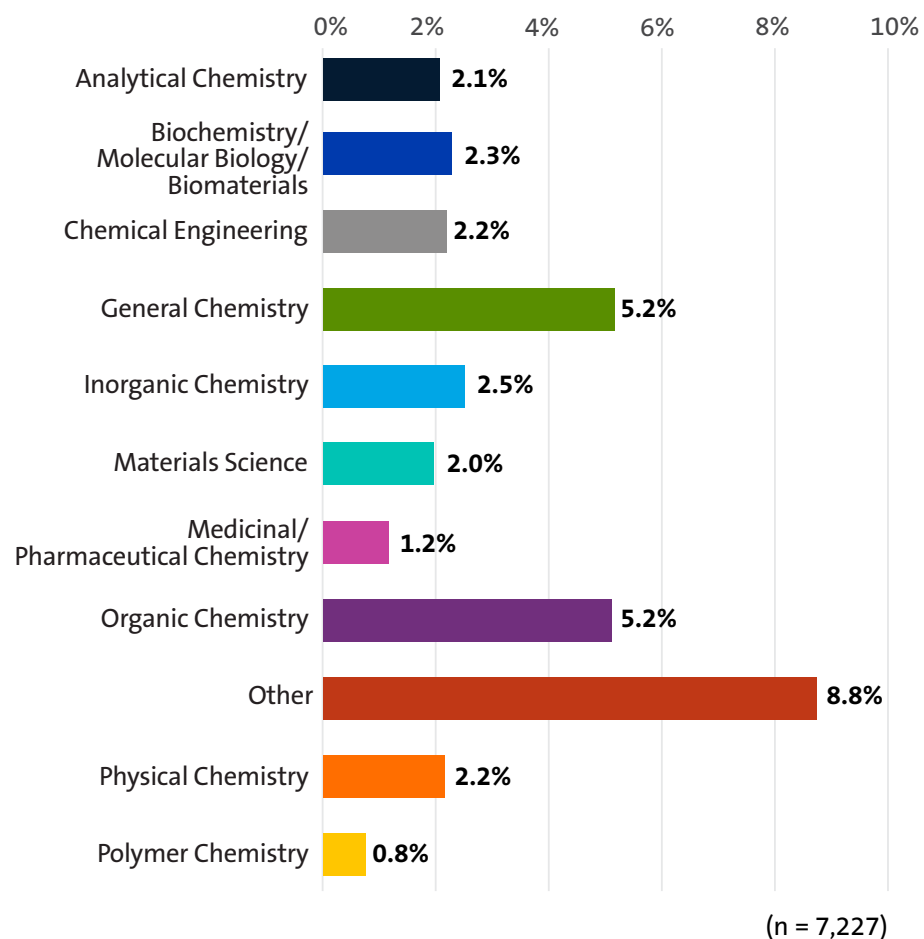


Figure 32. Comparison of degree discipline by the 31-40 age band

### Degree Discipline by 41–50 Age Band Total Membership Community

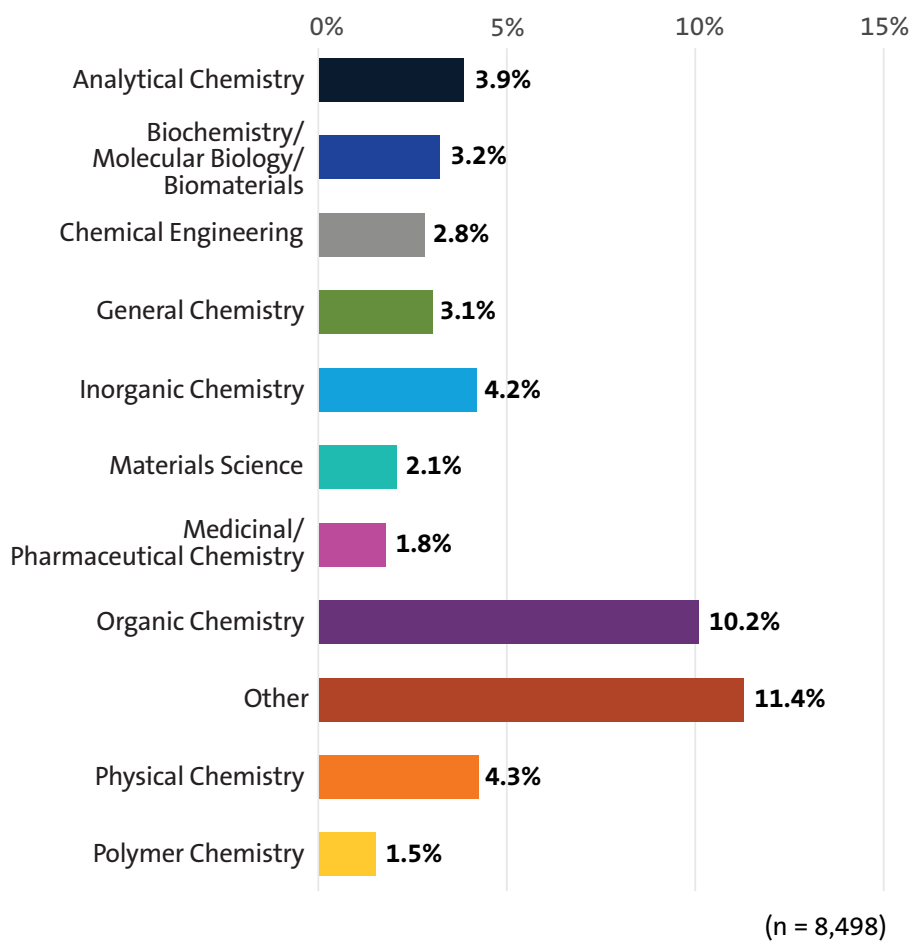


Figure 33. Comparison of degree discipline by the 41-50 age band

### Degree Discipline by 51–60 Age Band Total Membership Community

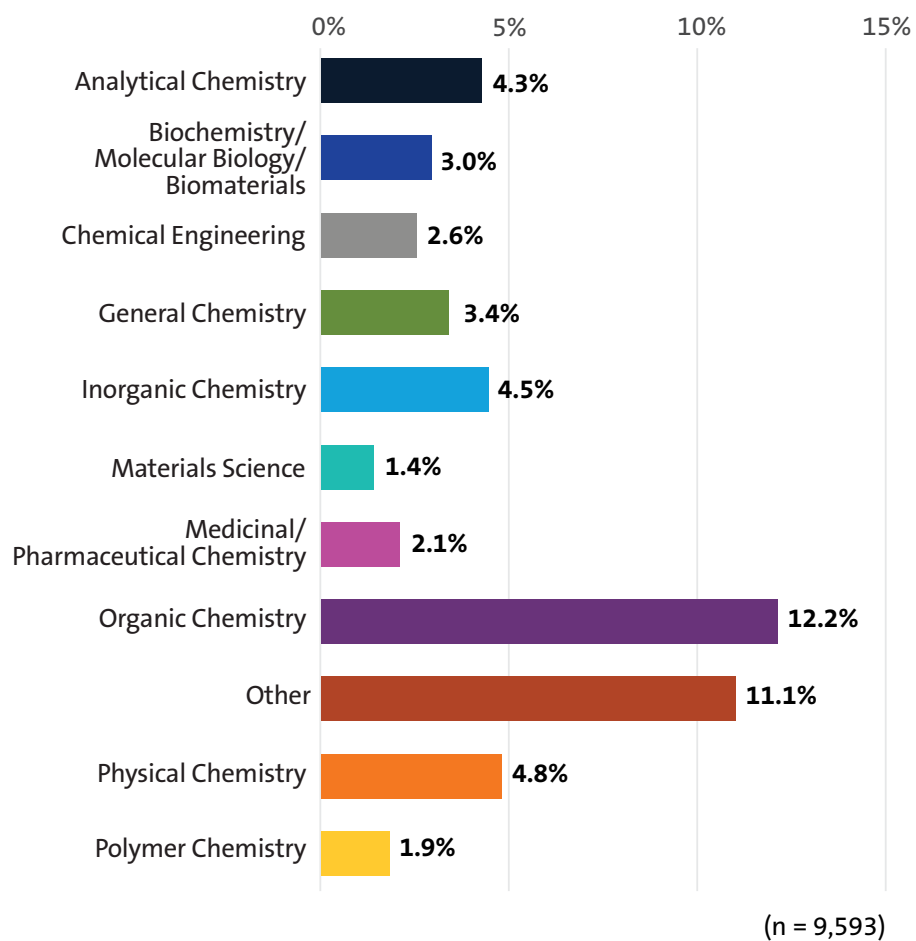


Figure 34. Comparison of degree discipline by the 51-60 age band



### Degree Discipline by 61–70 Age Band Total Membership Community

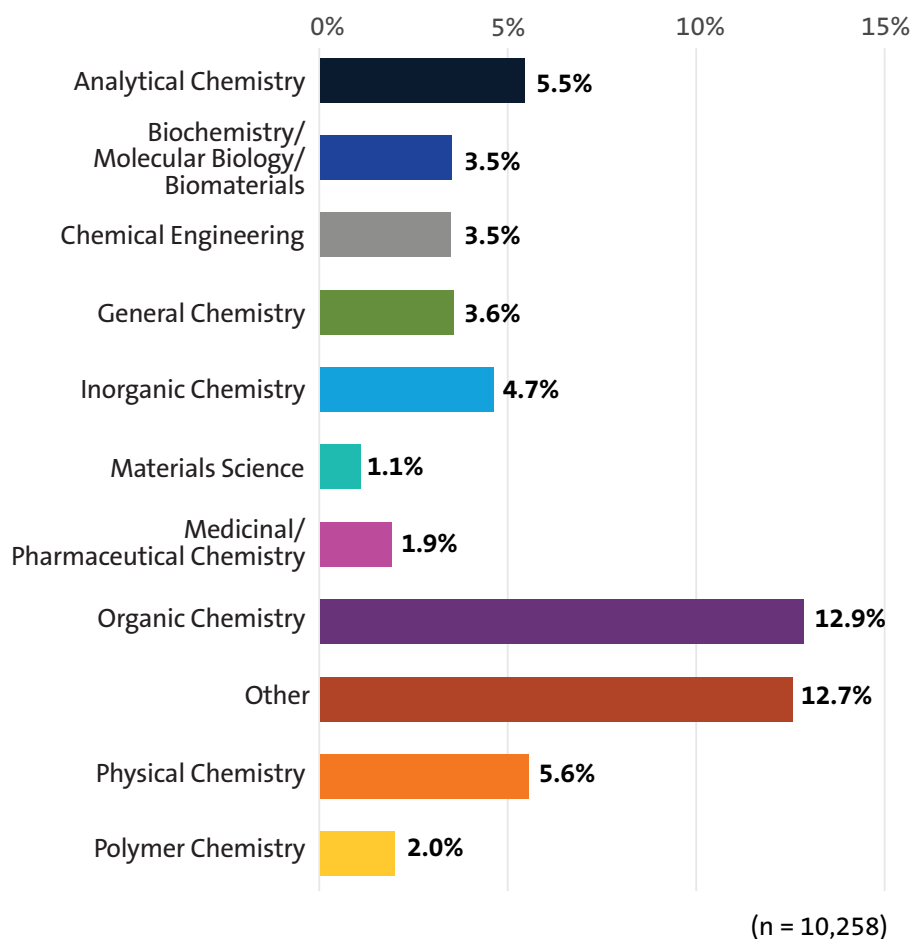


Figure 35. Comparison of degree discipline by the 61-70 age band

### Degree Discipline by 71–80 Age Band Total Membership Community

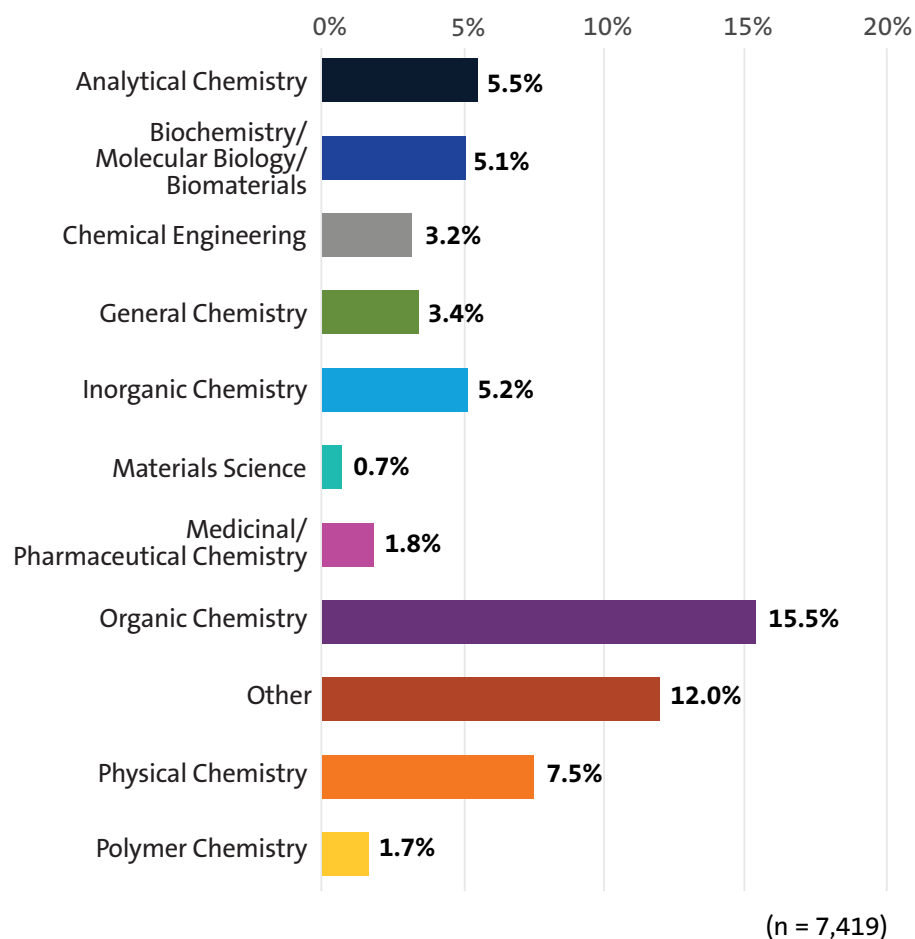


Figure 36. Comparison of degree discipline by the 71-80 age band

### Degree Discipline by 81+ Age Band Total Membership Community

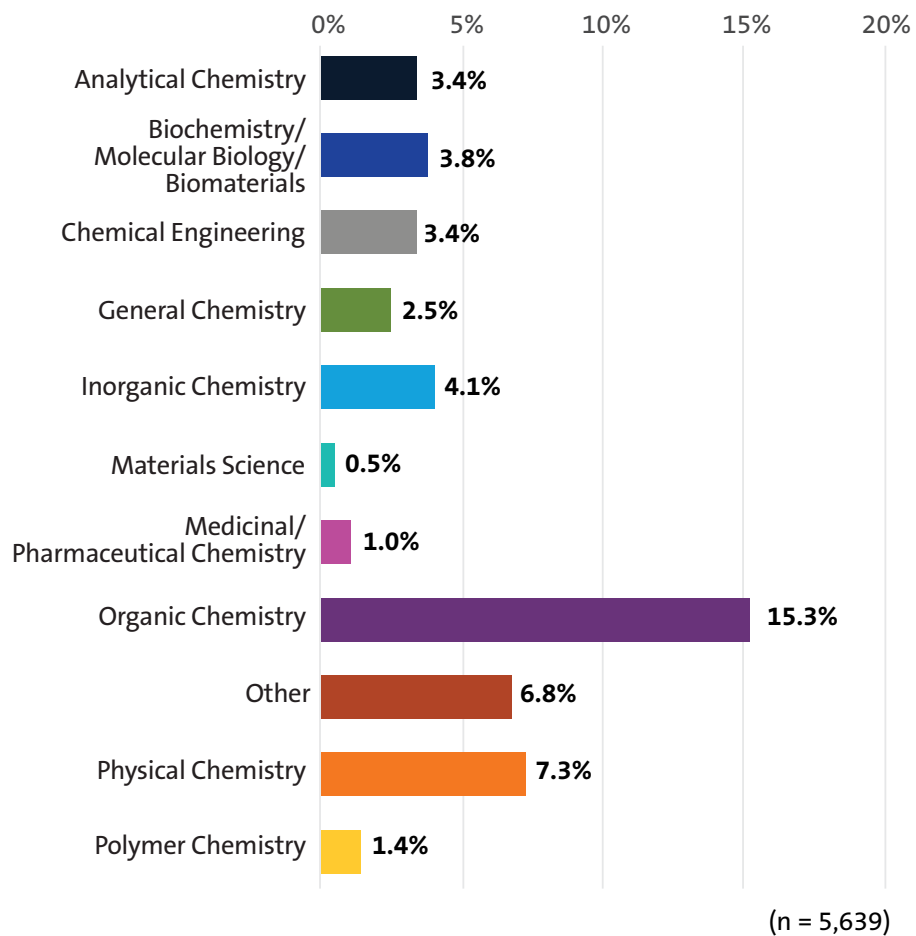


Figure 37. Comparison of degree discipline by the 81+ age band

### Degree Discipline by Not Specified Age Band Total Membership Community

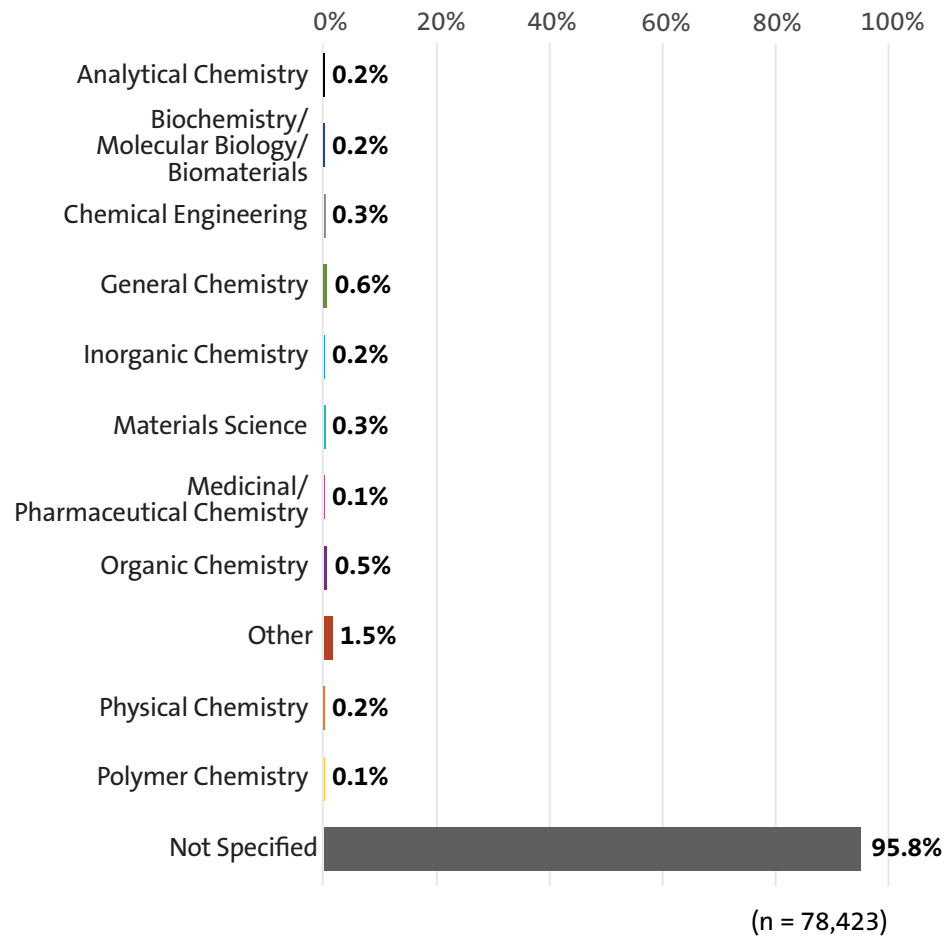


Figure 38. Comparison of degree discipline by the age band, not specified

# Chemists and the ACS

More than anything else, ACS is a global community. With global membership community representation in 185 countries, the organization connects scientists and brings them together to share research and find a place to belong. By providing a network of peers, aspiring chemists and seasoned scientists, ACS paves the way for new connections and perspectives.

“In the limited peer group that we work with, it’s not always possible to get very broad feedback with different backgrounds,” said ACS Community Associate Abishek Shete, in research and development at Dow. “But with ACS, you have chemists who are organic chemists, inorganic chemists, polymer scientists, material scientists — you name it, we have it. And something I really appreciate is the feedback coming from different backgrounds

helping me solve problems in my research as well as helping them to identify something that could be important from my research.”

In 2023, non-U.S.-based representation within the global membership community increased by more than 100 percent, representing a 28-point increase as a percentage of the total population. While U.S.-based membership also increased overall, it decreased as a percentage of the total population. ACS membership in India increased the most, by 211 percent (from 4,959 in 2022 to 15,422 in 2023), and China’s membership increased by 151 percent (from 4,698 in 2022 to 11,797 in 2023). In South Korea, membership increased by 91 percent (from 846 in 2022 to 1,620 in 2023); the United Kingdom membership



**Something I really appreciate is the feedback coming from different backgrounds helping me solve problems in my research as well as helping them to identify something that could be important from my research.**

— Abishek Shete



*Image 6. Headshot of Abishek Shete*

increased by 65 percent (from 1,894 in 2022 to 3,117 in 2023) and in Germany it increased by 45 percent (from 1,461 in 2022 to 2,117 in 2023). Most respondents — 49.5 percent (or 103,174) — were community associates, while 28.5 percent (59,322) were regular members and about 10 percent (or 20,740) were student members.

The benefits of ACS membership, and the global community it serves, can enable the next generation of chemists to reach their potential. By providing young chemists the opportunity to connect with a broader base of working scientists, it can also contribute to changing the face of chemistry in the future. As Raisa Andeme

Ela, at the University of Minnesota, said of ACS, “an institution like this means there are so many structures put in place to help you advance your career.”

“When other girls and women see me in a place like [ACS], they believe that there are people supporting me,” Ela said. “Especially if you come from a background where it’s not common for women to pursue careers in STEM, when you see that I’m in a place where people are supporting me, you feel more empowered to pursue that career because you feel like you’re not alone in this journey. There are so many other people who believe in you and who will support you.”



**If you come from a background where it’s not common for women to pursue careers in STEM, when you see that I’m in a place where people are supporting me, you feel more empowered to pursue that career because you feel like you’re not alone in this journey.**

— Raisa Andeme Ela



*Image 7. Headshot of Raisa Andeme Ela*

# Global Membership Community by Location

## Total Membership Community by Location: 2022 vs 2023

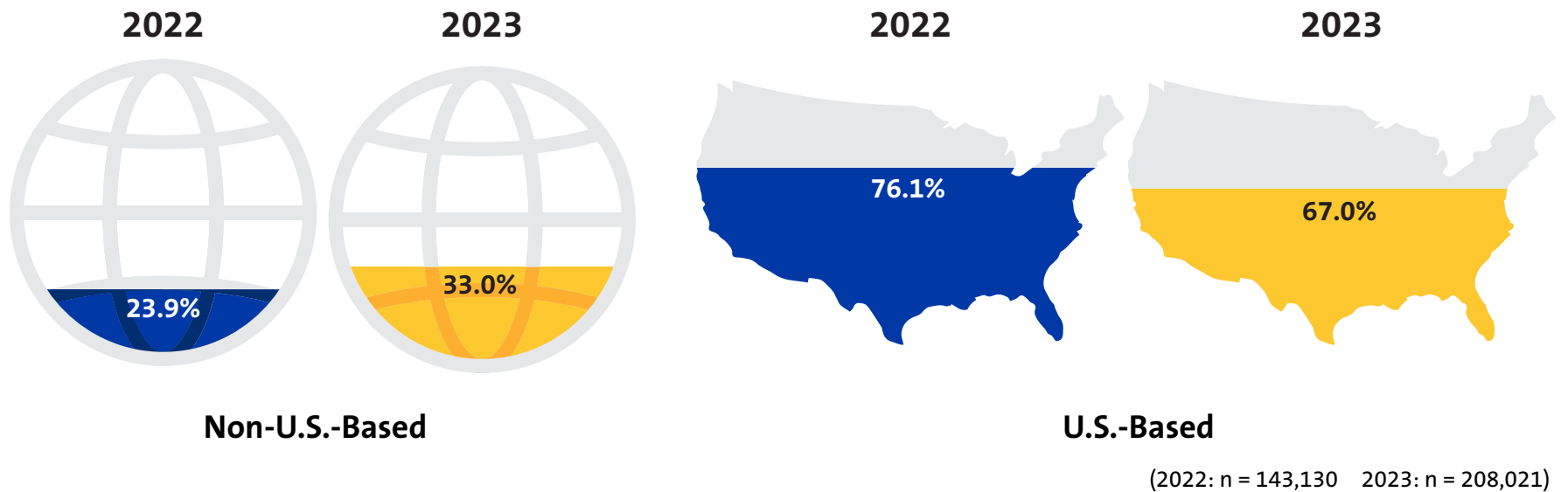


Figure 39. Comparison of location (U.S. and non-U.S.-based) from 2022 to 2023

# Global Membership Community by Type and Location

Total Membership Community by Type and Location

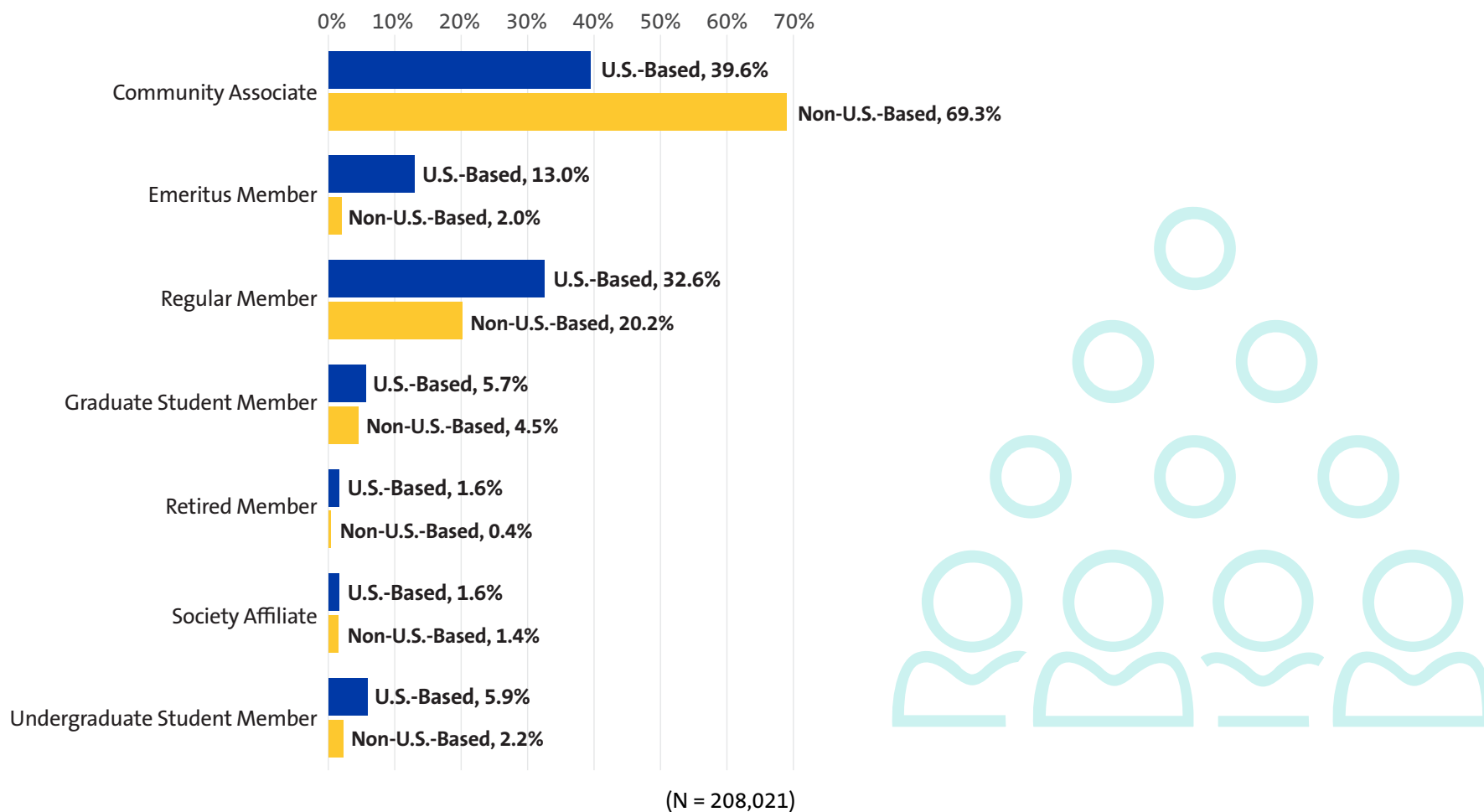
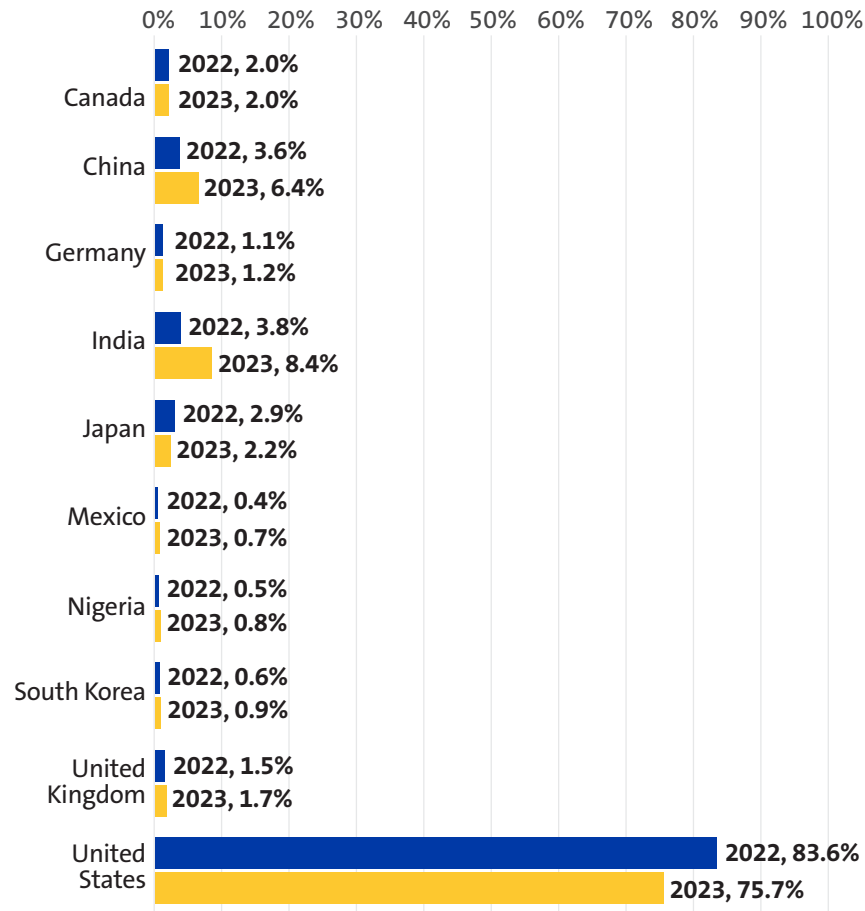


Figure 40. Comparison of global membership community by type and location (U.S. and non-U.S.-based)

# Top 10 Countries Comprising the Global Membership Community

## Top 10 Countries of the Membership Community: 2022 vs 2023



(2022: n = 130,852 2023: n = 183,537)



**Note:** See [Appendix](#) for the list of countries, territories and special municipalities comprising the ACS global membership community.

Figure 41. Comparison of the top 10 countries comprising the global membership community from 2022 to 2023

# Appendix

## Countries, Territories and Special Municipalities Comprising the 2023 ACS Global Membership Community (185 in Total)

|                     |                                   |                    |               |
|---------------------|-----------------------------------|--------------------|---------------|
| Afghanistan         | Belgium                           | China              | Ethiopia      |
| Albania             | Belize                            | Colombia           | Faroe Islands |
| Algeria             | Benin                             | Congo              | Fiji          |
| American Samoa      | Bermuda                           | Cook Islands       | Finland       |
| Andorra             | Bolivia                           | Costa Rica         | France        |
| Angola              | Bonaire, Saint Eustatius and Saba | Côte d'Ivoire      | Gabon         |
| Antarctica          | Bosnia and Herzegovina            | Croatia            | Gambia        |
| Antigua and Barbuda | Botswana                          | Cuba               | Georgia       |
| Argentina           | Brazil                            | Cyprus             | Germany       |
| Armenia             | Brunei Darussalam                 | Czech Republic     | Ghana         |
| Australia           | Bulgaria                          | Denmark            | Greece        |
| Austria             | Burkina Faso                      | Djibouti           | Guam          |
| Azerbaijan          | Cabo Verde                        | Dominican Republic | Guatemala     |
| Bahamas             | Cambodia                          | Ecuador            | Guernsey      |
| Bahrain             | Cameroon                          | Egypt              | Guinea-Bissau |
| Bangladesh          | Canada                            | El Salvador        | Guyana        |
| Barbados            | Cayman Islands                    | Estonia            | Haiti         |
| Belarus             | Chile                             | Eswatini           | Honduras      |



|            |               |                          |                                     |
|------------|---------------|--------------------------|-------------------------------------|
| Hong Kong  | Lebanon       | Myanmar                  | Portugal                            |
| Hungary    | Liberia       | Namibia                  | Puerto Rico                         |
| Iceland    | Libya         | Nepal                    | Qatar                               |
| India      | Liechtenstein | Netherlands              | Romania                             |
| Indonesia  | Lithuania     | New Zealand              | Russia                              |
| Iran       | Luxembourg    | Nicaragua                | Rwanda                              |
| Iraq       | Macau         | Niger                    | Saint Kitts and Nevis               |
| Ireland    | Madagascar    | Nigeria                  | Saint Lucia                         |
| Israel     | Malawi        | North Korea              | Saint Vincent and<br>The Grenadines |
| Italy      | Malaysia      | North Macedonia          | Samoa                               |
| Jamaica    | Maldives      | Northern Mariana Islands | Saudi Arabia                        |
| Japan      | Malta         | Norway                   | Senegal                             |
| Jordan     | Martinique    | Oman                     | Serbia                              |
| Kazakhstan | Mauritius     | Pakistan                 | Seychelles                          |
| Kenya      | Mayotte       | Palestine                | Sierra Leone                        |
| Kiribati   | Mexico        | Panama                   | Singapore                           |
| Kosovo     | Moldova       | Papua New Guinea         | Slovakia                            |
| Kuwait     | Mongolia      | Paraguay                 | Slovenia                            |
| Kyrgyzstan | Montenegro    | Peru                     | Somalia                             |
| Laos       | Morocco       | Philippines              | South Africa                        |
| Latvia     | Mozambique    | Poland                   |                                     |

|                     |                             |
|---------------------|-----------------------------|
| South Korea         | Tunisia                     |
| Spain               | Turkey                      |
| Sri Lanka           | Uganda                      |
| Sudan               | Ukraine                     |
| Suriname            | United Arab Emirates        |
| Sweden              | United Kingdom              |
| Switzerland         | United States               |
| Syria               | U.S. Minor Outlying Islands |
| Taiwan              | Uruguay                     |
| Tajikistan          | Uzbekistan                  |
| Tanzania            | Venezuela                   |
| Thailand            | Vietnam                     |
| Timor-Leste         | Yemen                       |
| Togo                | Zambia                      |
| Trinidad and Tobago | Zimbabwe                    |

List 1. 185 countries comprising the global membership community



AMERICAN CHEMICAL SOCIETY

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advancing ACS' core value of Diversity,  
Equity, Inclusion and Respect,  
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