

SEPM 2020 DEI SURVEY SUMMARY REPORT

ABSTRACT

This summary includes the results of all of the questions in the survey with some introductory and concluding comments. These results are a snapshot of the diversity of SEPM's responding members and a small number of the non-member sedimentary geology community.

Compiled by **Howard Harper**

SEPM Executive Director

SEPM Miscellaneous Publication # 22

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SEPM (Society for Sedimentary Geology) is an international not-for-profit Society based in Broken Arrow, Oklahoma. Through its network of international members, the Society is dedicated to the dissemination of scientific information on sedimentology, stratigraphy, paleontology, environmental sciences, marine geology, hydrogeology, and many additional related specialties.

The Society supports members in their professional objectives by publication of two major scientific journals, the Journal of Sedimentary Research (JSR) and PALAIOS, in addition to producing technical conferences, short courses, and Special Publications. Through SEPM's Continuing Education, Publications, Meetings, and other programs, members can both gain and exchange information pertinent to their geologic specialties.

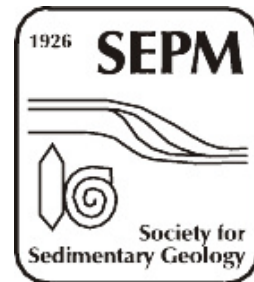
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SEPM (Society for Sedimentary Geology)
Jean C.C. Hsieh, SEPM Special Publications Editor
Michele Tomlinson, Managing Editor, SEPM Publications

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1621 S. Eucalyptus Avenue, Suite 204
Broken Arrow, Oklahoma 74012, USA



SEPM's 2020 DEI Survey Summary

February 11, 2022

Executive Summary

The purpose of this survey was to gain a snapshot of the diversity of the both the SEPM Society of Sedimentary Geology membership and the sedimentary geoscience community. With repetitive offering of this survey, SEPM hopes to track the overall diversity of the community and how its membership compares. A goal of STEM is increase its diversity and to be inclusive of all people to better expand the understanding of science and in our case of the earth and its sedimentary crust.

While there are about 2% of the respondents questioned the need for such a survey as SEPM is foremost a scientific society, SEPM leadership recognizes that all science is done by people and thus their diversity of viewpoints often coming from many cultural backgrounds is a very important aspect of any progress within a science. Unconscious bias remains a constant characteristic of most all individuals and is mostly correlated with an individual's background of experiences no matter their demographic. SEPM considers it an important responsibility of scientific societies to ensure that all individuals interested in that science topic feel welcome and safe as members and can be free to contribute to the enhancement of the science.

Over 800 individuals participated in an anonymous survey with questions about their persona, including gender, sexuality, race and ethnicity as well more standard demographics of age, career position, etc. While this first survey data point does have a majority of input by senior, white, male respondents (55%), we hope that future surveys will include a much more diverse input. The 702 SEPM members that responded represents about one-third of total membership at the time. However the results show that even with this relatively small sample of the community and SEPM membership, there is a large diversity of individuals across all of the areas that the survey covers.

This report was compiled by Howard Harper with comments and edits from the SEPM ad hoc DEI Committee (Michael Blum, Peter Burgess, Anjali Fernandes, Christopher Jackson, Dawn Jobe, Erin Pemberton, Keriann Pederson, Celina Suarez and Marina Suarez). SEPM is thankful to this group for its input to SEPM on this topic. The SEPM Council continues to follow up on the many recommendations from this ad hoc committee, one of which is to repeat this survey periodically and review changes in both SEPM's and the sedimentary geoscience community's diversity. The next edition of this survey will occur in 2022.

Introduction

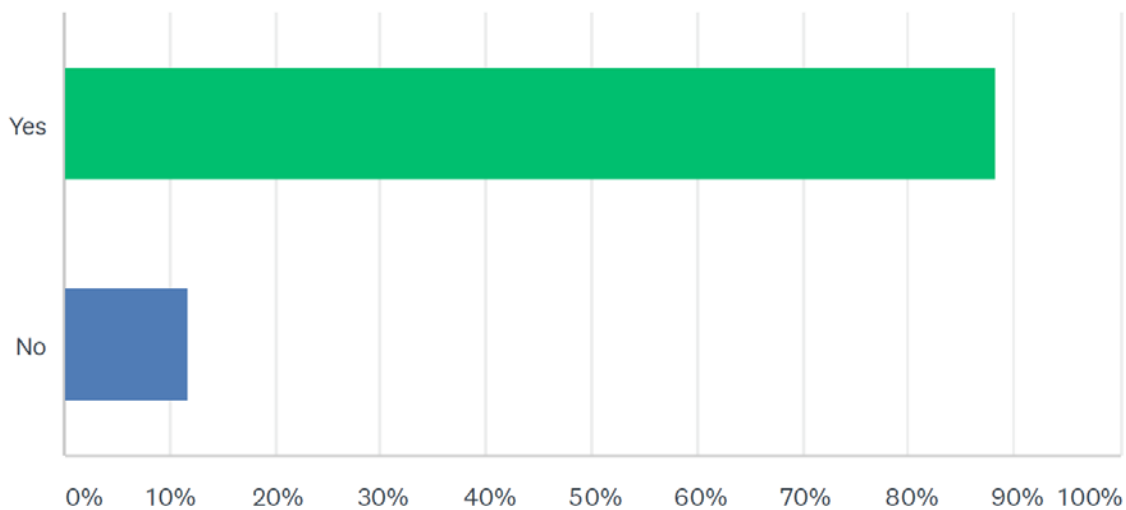
In order to better understand the demographics of SEPM membership and the sedimentary geoscience community in general, SEPM opened an online anonymous survey in October, 2020. The survey links were sent out to the SEPM Membership and posted on SEPM social media, including SEPM LinkedIn group with over 7,000 members, most of which are not SEPM members. As a voluntary survey, it is not wise to use the results as equivalent to a random sample of the population. Note that not all questions were answered by all of the participants.

Data Review

A total of 807 people responded to the survey request which went to both the SEPM membership and the general sedimentary community. However, only 95 non-SEPM members participated, so basically, we are looking at the results for those members of SEPM that did fill out the survey. The slight majority of the responders are by senior, late career, and retired geoscientists at 55% of the total and by those that are greater than 50 years old at 55%.

Q1 Are you a current SEPM member?

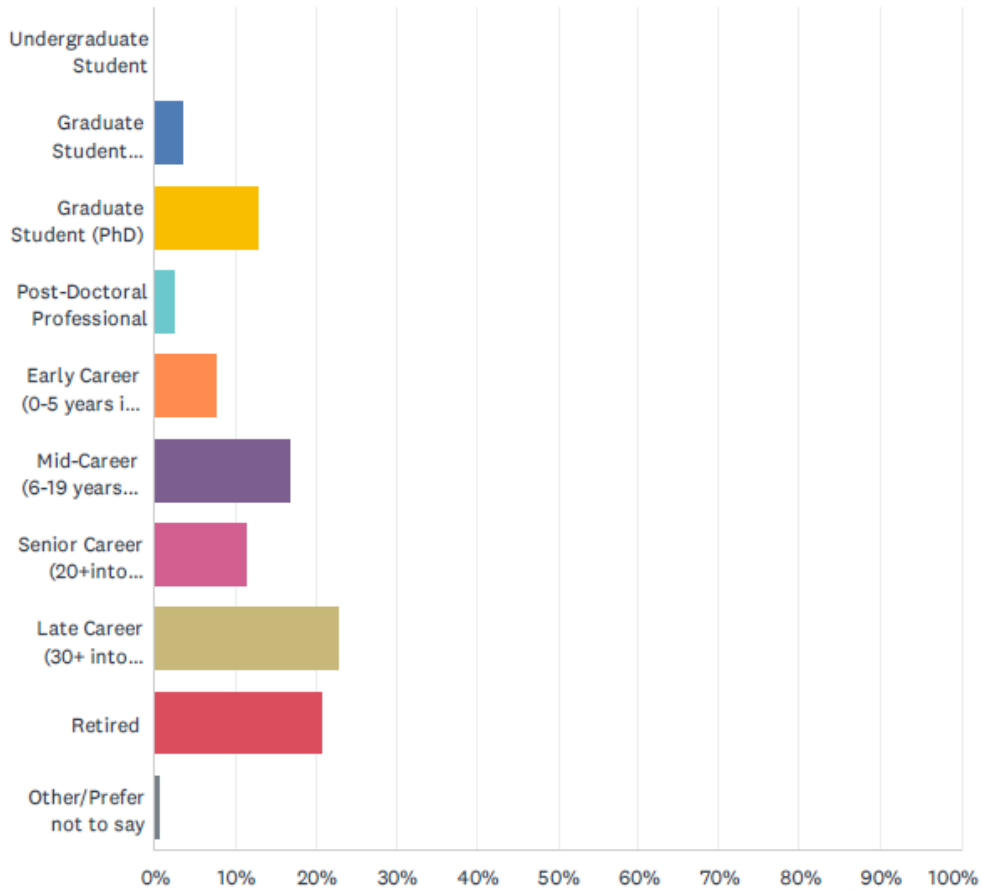
Answered: 807 Skipped: 0



Career Stage

Q2 What career stage are you in?

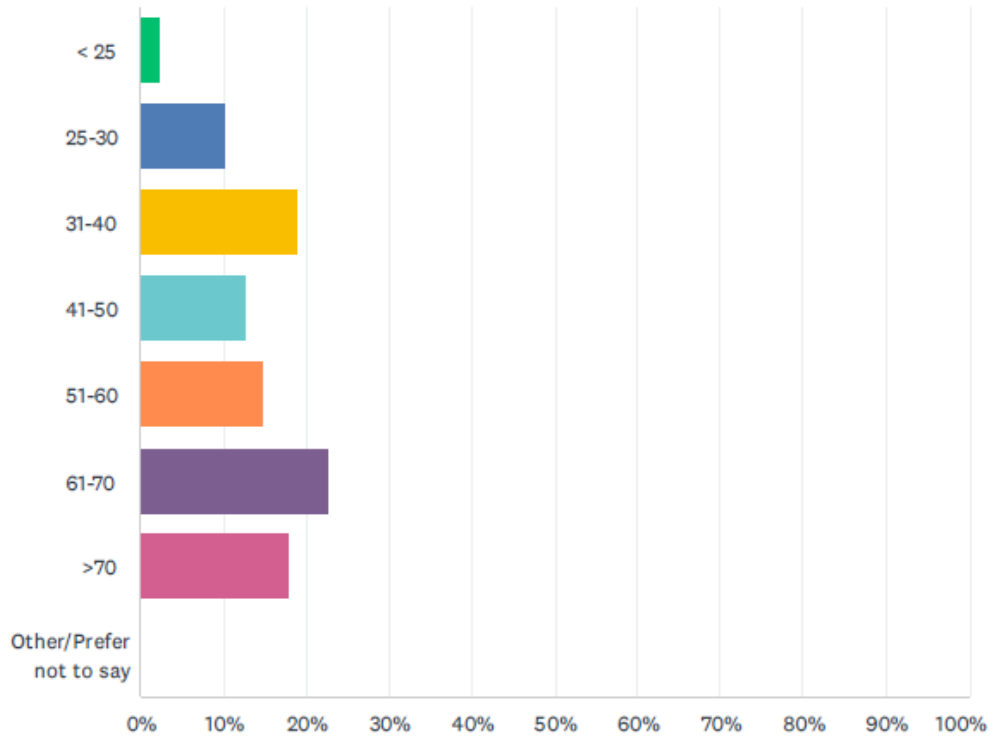
Answered: 807 Skipped: 0



Age

Q3 What age bracket are you in?

Answered: 807 Skipped: 0



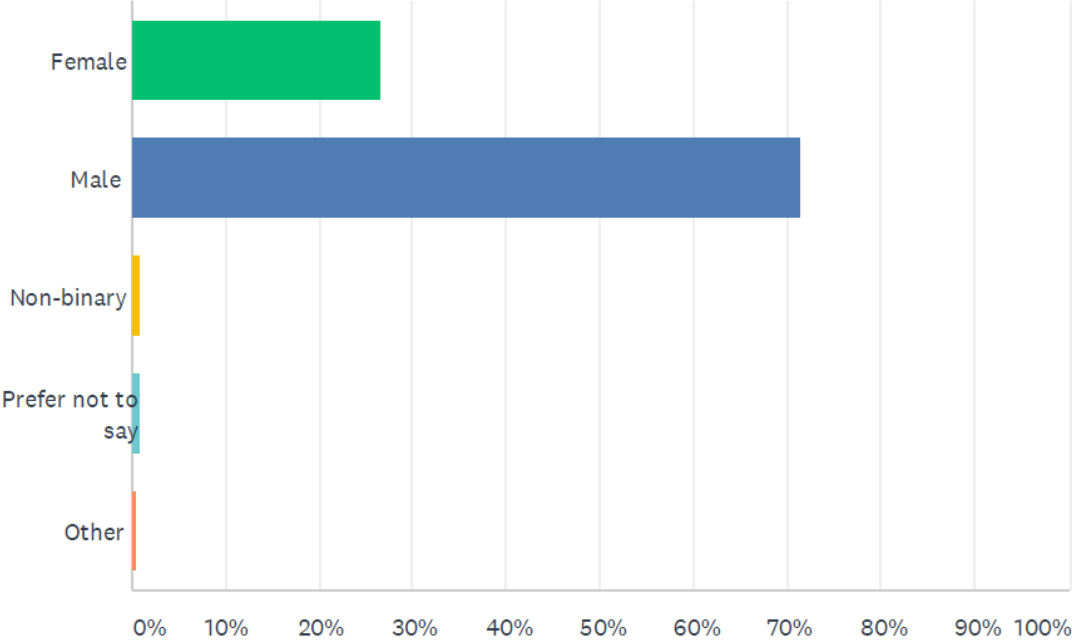
As the anonymous survey began inquiring into the more personal areas of the DEI topic, like gender identity, sexual orientation, religion and ethnicity the responses began to cover a wider range individuals in some areas and not so much in others.

Gender & Sexual Orientation

The gender identity question has males at 71%, females at 26% and non-binary at less than 1% and the sexual orientation question has heterosexual at 90% other orientations (Gay/Lesbian, Bisexual, Asexual and Other) at 6% with 4% preferring not to say.

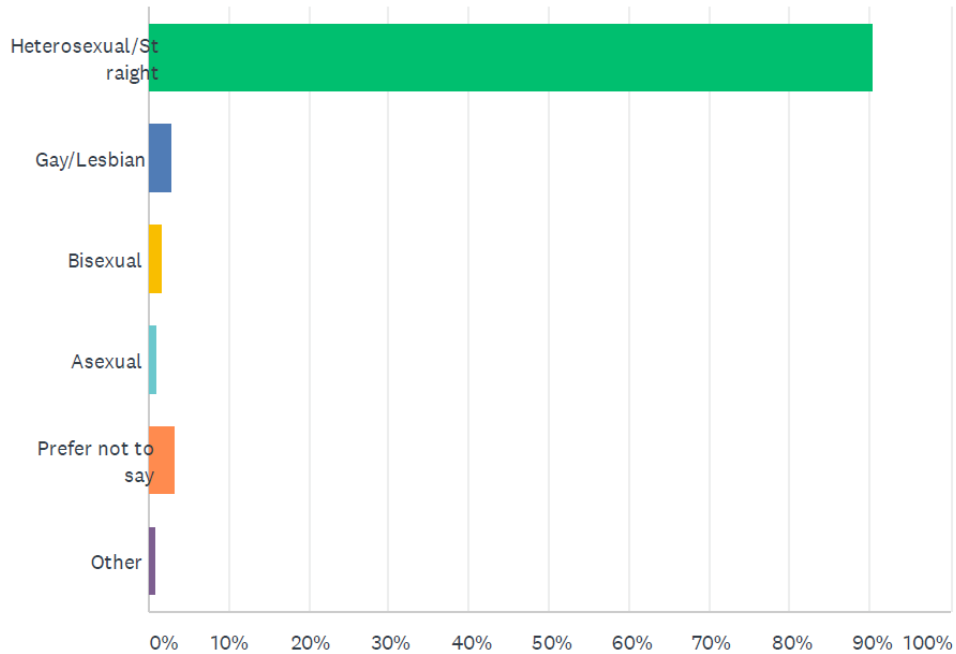
Q4 What gender do you identify with?

Answered: 807 Skipped: 0



Q5 What best describes your current sexual orientation?

Answered: 807 Skipped: 0

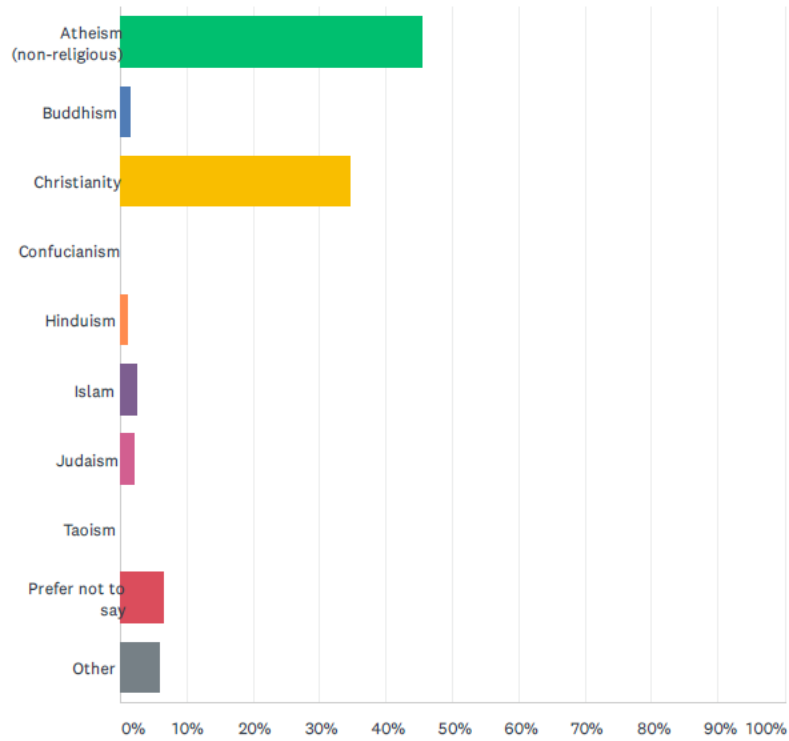


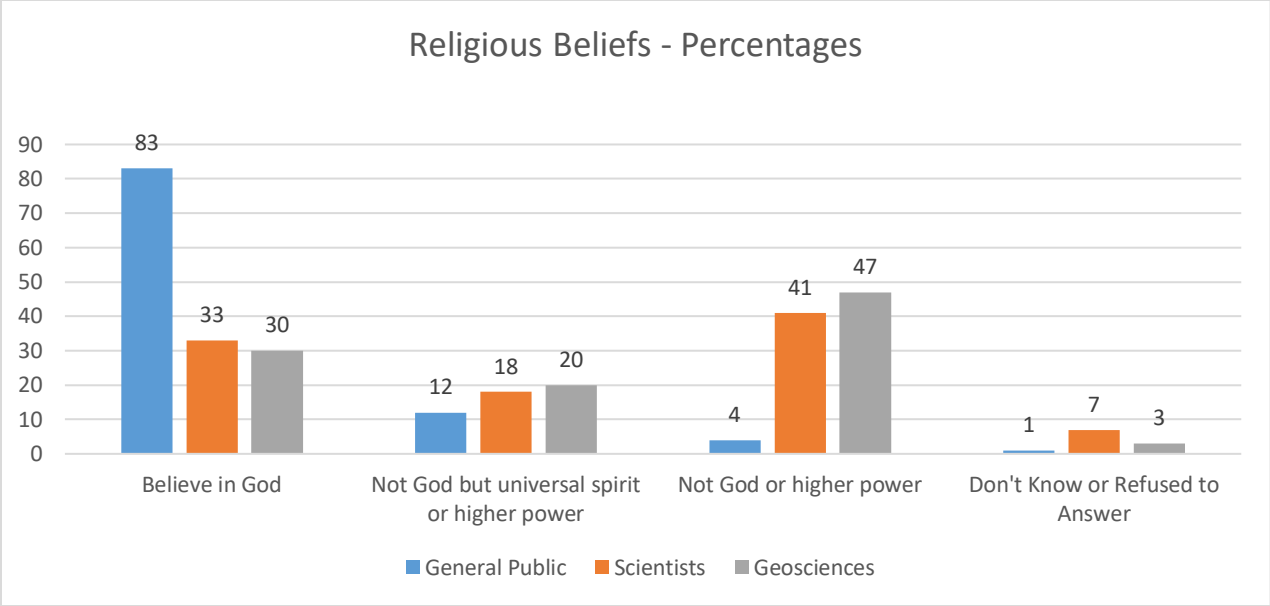
Religion

Religious orientation could of course include a very wide set of choices with estimates of over 4,000 different choices. Our survey has 46% identifying with Atheism (non-religious) although it was pointed out in the comments that this should have included Agnostics to better define the category and including Agnostics, etc. from 'Other' would increase the 'non-religious' to 49%, with then 44% acknowledging a specific religious belief and 7% preferring not to answer. This distribution is close to the results from a Pew survey in 2009 which had Geoscientists at 47% believing in "No God or higher power", which is also close to the all scientists at 41%.

Q6 What is your religious orientation?

Answered: 807 Skipped: 0





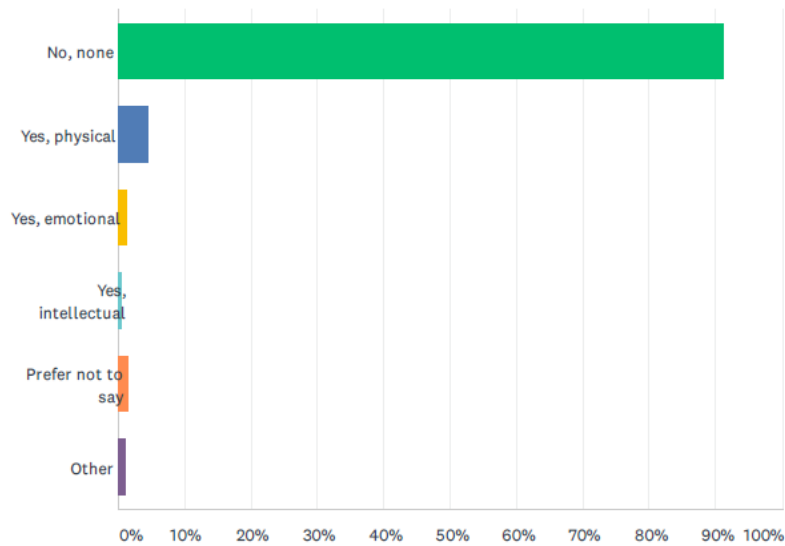
Source: Pew Research Center for the People & the Press survey, conducted in May and June 2009
[Scientists and Belief | Pew Research Center \(pewforum.org\)](https://www.pewforum.org/scientists-and-belief)

Disability

91% of the respondents had no disability, with 5% having a physical disability and about 2% with an intellectual or emotional condition. Accommodation for a disability was difficult as many people responded to question 7, while it was not applicable to them. But after looking into the details about 52% of those with a disability do require some accommodation.

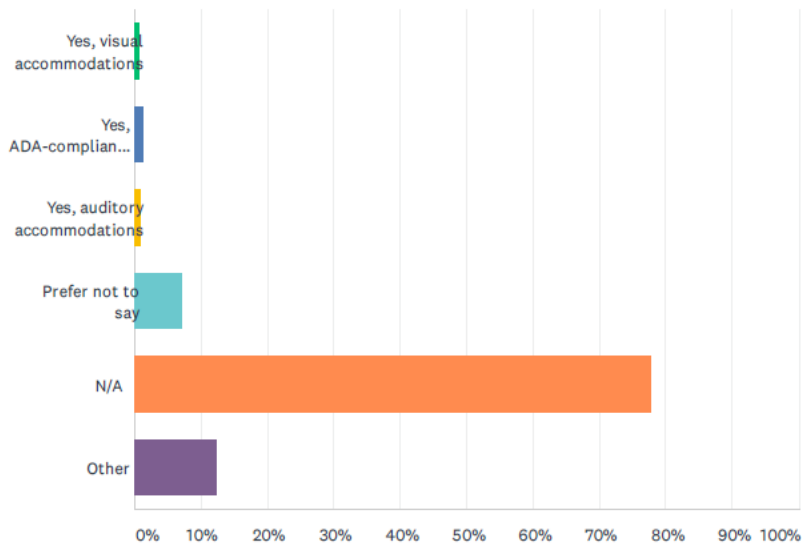
Q7 Do you identify as having a disability?

Answered: 807 Skipped: 0



Q8 If you answered "Yes" to identifying as having a disability, does your disability require any physical accommodations? If you answered "No," please skip this question.

Answered: 428 Skipped: 379



Race and Ethnicity

What is the difference between race and ethnicity? While a very complex issue, according to several sources race describes physical traits, and ethnicity refers to cultural identification. Race may also be identified as something you inherit while ethnicity is something you learn or choose

Race is the word used to describe the physical characteristics of a person. These characteristics can include everything from skin color to eye color and facial structure to hair color. This term is physiological in nature and refers to distinct populations within the larger total group.

Ethnicity is how you identify your cultural self, based on combinations of nationality, language, culture and religion. It can also be based on your geography or your family's origin. The members of a particular ethnicity tend to identify with each other based on these shared cultural traits. This term is considered anthropological in nature because it is based on learned behaviors.

<https://www.worldatlas.com/articles/what-is-the-difference-between-race-and-ethnicity.html>

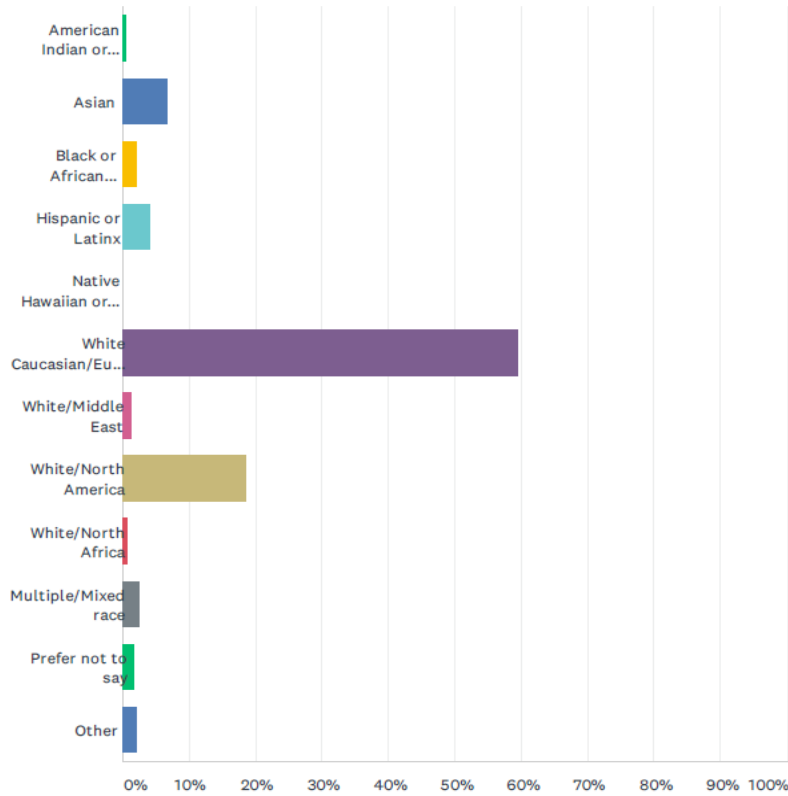
[The Difference Between Race and Ethnicity \(verywellmind.com\)](#)

RACE

The responders are 82% White (European, Middle Eastern, North American, North African) with 7% Asian, 4% Hispanic/Latinx, 2% Black/African American, 3% Mixed Race, and 0.5% Native American or Alaskan.

Q9 What race do you identify with?

Answered: 807 Skipped: 0



Ethnicity

Because of the large number of possible ethnicity options, this question was linked to a long list of ethnic groups to help people think about which group they may identify with.

A summary of the most numerous responses (at least 3%) are listed in this table. Although 'American' is not usually considered an ethnicity but a nationality by many, it is often used for people that have been in America for several generations and no longer identify with an ancestral ethnic group.

Ethnicity	Percentage
English	21%
Germanic	10%
American*	7%
Scottish	5%
Italian	4%
Chinese	3%
European	3%
Irish	3%
Spanish	3%
Others	41%

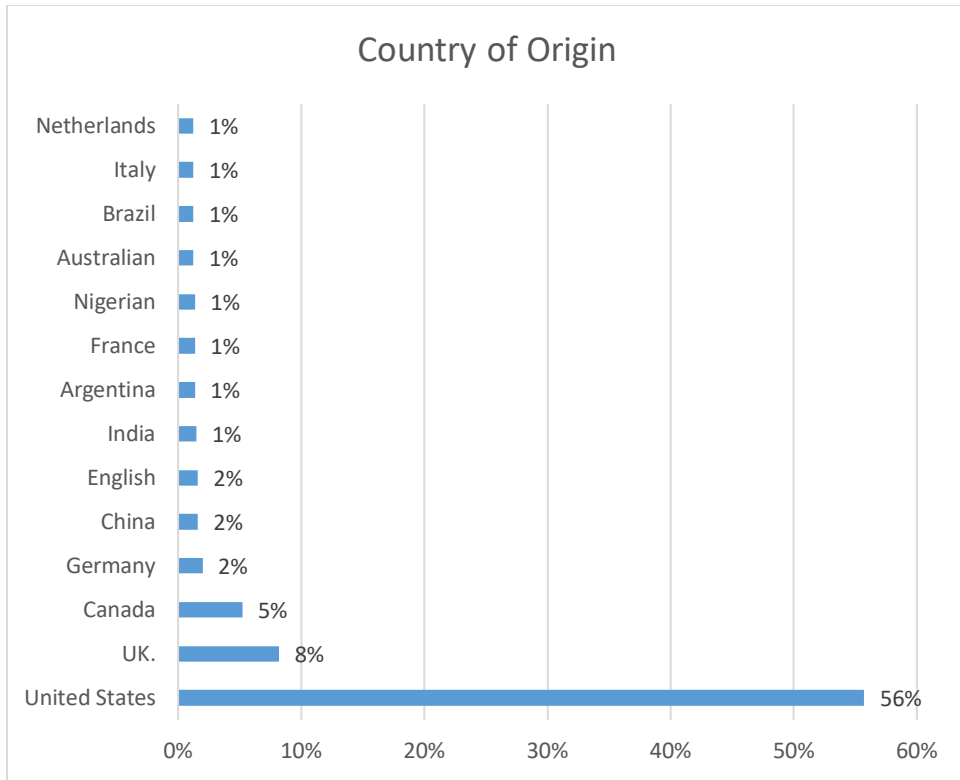
However, the total ethnicity responses show that this survey has a tremendous range across many cultural identifies. The respondents self-identified over 130 distinct ethnicities displaying a wide range of backgrounds including many mixed heritages.

Afar	Emilian	Greek/French	Pakistani/American
African	English/German	Hispanic	Persian
African American	English	Hispanic-/Puerto Rican	Pinoy
American	English Mixed	Hunan	Polish
Anglo Saxon	English Swedish	Hungarian	Polish/Russian
Arabic	English/Eastern	Igbo	Polish/Hungarian
Arabic/Berber	European	Indian	Polish/Irish
Ashkenazi	English/European	Indo-Aryan	Polish/Jewish
Ashkenazim	English/German	Indo-European	Portuguese
Asian	English/German	Iraqi Persian	Punjabi
Ataturk	English/German/Pole	Irish	Russian
Australian	English/Italian	Irish/Ukrainian	Salvadoran
Awadhis	English/European	Irish/French/English	Scandinavian
Basque	English/Welsh/French	Irish/Italian	Scots/Irish
Belarusian	Esan	Italian	Scottish
Bengali	Estonian	Italian/German/Irish	Scottish Hungarian
Berber	European	Japanese	Scottish/Irish/English
Black	European Northern	Jewish	Scottish/Polish/German
Black Caribbean	European Northern	Jewish European	Semitic
British	Flemish/Irish	Kavalan	Slavic
British/European.	Franconian	Kogi	Spanish
Canadian	Franconian	Korean	Swedish
Catalans	French	Lakotah	Tagalog
Caucasian	French/Scots	Latino	Taiwanese
Celtic	Georgian	Latvian/Russian/Tartar	Ukrainian
Chicana	German/Austrian	Lithuanian	Venezuelan/Italian
Chinese	German/Norwegian	Luso-British	Vietnamese
Chinese Han	German/Scots	Malaysian	Viking
Circassians	German/English	Mestizo,	Walloon
Cornish	Germanic	Mexican-American	Welsh
Danish	Germanic/English	Munanese	Welsh/Polish
Dutch	German/Irish	Nigerian	Welsh/Anglo/German
East Indian	German/Slovak	Norwegian	Welsh/German
Efik	Greek	Pakistani	Yoruba

Country of Origin and Current Occupancy

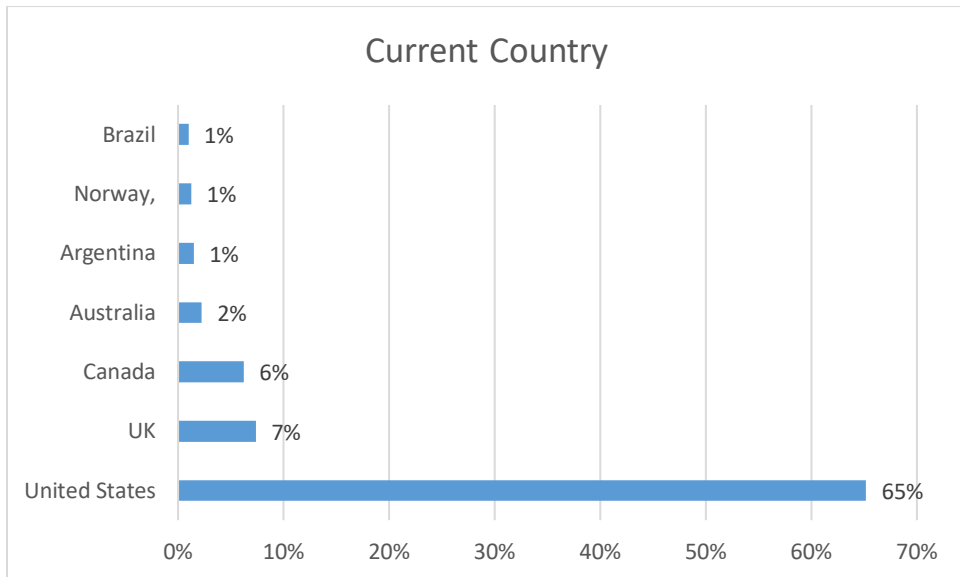
Origin Country

While the United States represents 56% of the survey for the country of origin, thirteen others represent from 1% to 8% and together account for 85% with a total of 55 countries having at least one person in the survey.



Current Country

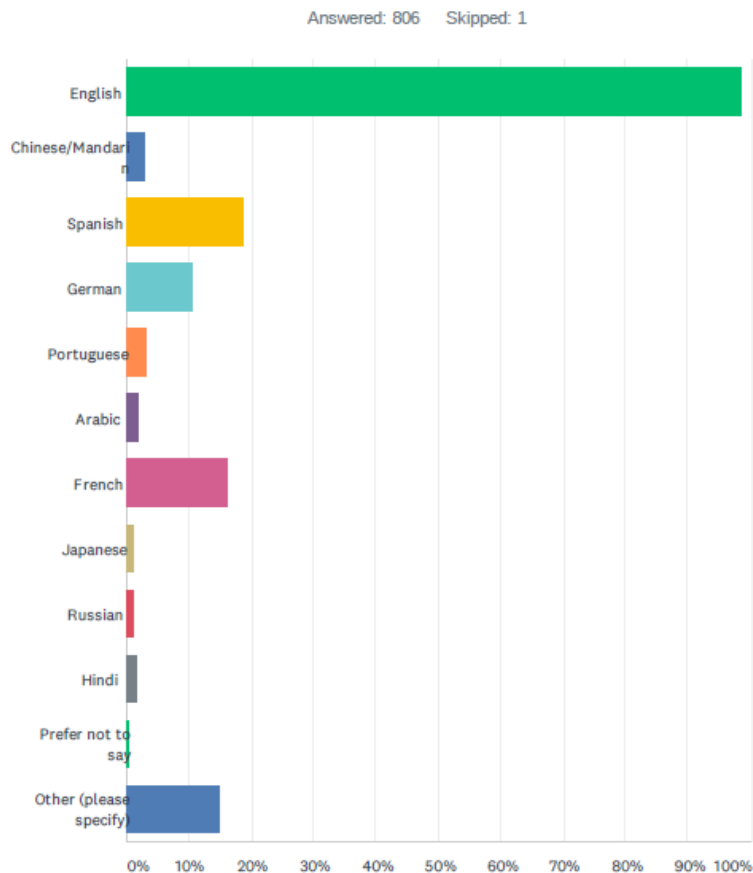
The United States still is the place where most of the respondents currently live at 65% with only six others combining for 85% of out the total of 55 countries represented in the survey. Again the 55 countries indicates a global span of SEPM while dominated by the US.



Languages

The respondents show a wide understanding of many languages, with English being the dominant at 99%. Beyond the languages in the chart, the 'Other' 15% includes over 40 different languages, again showing the global range of the participants.

Q13 What languages are you competent with? (check all that apply)



Other Languages

- | | | | |
|------------------|-----------|-----------|--------------|
| Afrikaans | Esan | Igbo | Scandinavian |
| Bahasa-Indonesia | Finnish | Irish | Swahili |
| Basque | French, | Italian | Swedish |
| Bengali | Georgian | Kiswahili | Tagalog |
| Cantonese | Greek | Korean | Taiwanese |
| Catalan | Gujarati, | Malay | Tarok |
| Croatian | Hausa, | Norwegian | Thai |
| Danish | Hebrew | Persian | Turkish |
| Dutch | Hungarian | Pidgin | Urdu |
| | Hungarian | Polish | Vietnamese |

Other Comments, thoughts or suggestions

The last question in the survey was open ended to allow for pretty much anything that the respondents wanted to voice. There were 107 (13%) that gave some input and here is some of that input that gave some insights or opinions for future discussion.

There were several comments supporting the survey and the DEI efforts by SEPM and several questioning the need or appropriateness of it by a scientific society.

Questioning the survey

1. These diversity studies are only increasing the problems between races and ethnicities-we need less of these studies
2. I am truly sorry you have to do this type of survey.
3. None of these questions are technical or competency based. I see no relevance in you asking these politically charged question
4. You disappoint me.
5. SEPM should not try to "force" the issue and try to "fix" a problem that doesn't exist.
6. I am sick of this nonsense. I don't care about a person's race, gender, religion, or who the sleep with.
7. Seemed like a waste of time!
8. Why is this necessary?
9. I amsort of dumbfounded that we are asking our membership these questions
10. This is a stupid idea but I am cooperating anyway
11. Let's keep it simple. If you are qualified and can do the job, then you are hired. If you are not qualified, no matter your color, and other socio-political-economic considerations, you are not hired. Period.
12. Waste of time
13. This type of survey should be forbidden. Such data are absolutely not necessary to conduct a proper management of our association.
14. We do not need such a survey to conduct a policy that is fair and in the service of all.
15. How this survey helps running a professional sedimentological society beats me
16. The Society should be putting emphases on the scientific abilities of its membership, not the diversity of that membership.
17. I think you're asking the wrong questions
18. There is no place in science for racist surveys such as this one.

Supporting the survey

1. I applaud efforts to diversify geosciences
2. Glad that SEPM is doing this survey! We are not nearly as diverse as we should be and should ask why we are not attracting more diversity into sedimentary geoscience...

3. Thanks for asking!
4. We have worked long and hard over the years to bring women into the geosciences. Now it is time to expand further and bring in a diverse group of men and women. Thanks for working on this now.
5. Great that you are doing this.
6. Good idea to do this survey
7. Important to collect demographic data of membership
8. Diversity is always vital for any society
9. Anything that SEPM can do to actually welcome diversity in our membership would be appreciated
10. Excellent initiative.
11. I have learned consciously and subconsciously that factors such as culture, race, religion and government directly affect how humans think and behave. It is something to be understood, not feared. Living with a diversity of humans presents challenges to human behavior
12. Great idea to collect and analyze this data!
13. Please summarize these survey results as figures for the community
14. Looking forward to the survey results.
15. The society should strive to be color blind
16. We all must live together and support each other irregardless of race, religion, ethnicity, sexual preference, gender, etc. diversity is a strength. Not a weakness.
17. Encourage more diversity.
18. It would be nice if a wider diversity of ethnic groups were able to participate not only in SEPM but in the profession.
19. Looking forward to the new changes and advances SEPM is embracing!
20. Make a conscious effort to elevate qualified, diverse individuals to positions of authority.
21. Socio-economic diversity is the major challenge for our industry
22. Thank you for caring about diversity in the geosciences!
23. It will be interesting to get a snapshot of the membership.
24. Just thanks SEPM.
25. SEPM could be more proactive in showing their intent to provide a fully inclusive environment for everyone of color.
26. I am so glad that SEPM is collecting this demographic data.
27. I appreciate this survey is for gathering factual information and not perceptions but it might be useful to see if members have felt they were, professionally, victims of some possible discrimination.
28. Sedimentary rocks don't discriminate! Lets be like sedimentary rocks!
29. Thank you for everything that the Society does. Keep up the good work!
30. All of Geosciences need to reach out to historically under represented groups. This is decades overdue
31. Thanks for doing this assessment
32. thanks for putting this together

Other Comments

- Sexuality-wise, I am not 'out' in the office ... but I am in no way uncomfortable in this career field because of my sexuality... this is mainly a professional precaution and due to a private personality.
- What's the future of sedimentary geology now that fossil fuels will be displaced by renewables?
- I would like us all to enjoy our field together, not be split off into silos based on any of the various criteria assigned to us by genetics or place of birth.
- Possibly ask for country of university education
- We all know that there is a very small proportion of the global population, even when considering the vast numbers of Chinese colleagues, who pursue a career in the geosciences.
- Just a thought but would a question along the lines of "Have you ever felt your professional career was affected by what you interpreted as negative judgements by others based on your ethnicity, sexuality, gender, color, religion, disabilities, or affiliations?"
- I think SEPM is currently too much perched too the USA community. This surely reflects the history of the society and the location of the majority of members, but without removing the real or perceived barrier it will be difficult to be exposed to other countries.
- All your conferences are in America, so please make conferences in other countries as well so that everyone can benefit
- Thanks - I'll be retiring soon, and hope to have 'time' to finally participate in some meetings!
- I am proud to be part of the society for many years now, even being at the southern end of the world.
- Socio-economic diversity is the major challenge for our industry, good candidates from poor backgrounds are overlooked.
- I think that SEPM is one of the best sedimentological societies there is and an organization to which I have long belonged and to which I have dedicated much of my time and effort.
- Wow that is a lot of ethnic groups.
- What about diversity of thought? How do we make sure all voices are heard?
- Mentorship and visibility are key
- I'm Venezuelan, female. Never have had any issue about how I was treated within the SEPM.
- I have many friends from different cultures, and listen to music from many cultures, etc.
- A priority for our field should be creating field experiences that are accessible and welcoming to all, as it is currently a significant barrier to increased diversity.

Survey Conclusions

It is easy to see that the survey respondents are mostly from a group composed of geoscientists that are older than 50, white, male, and heterosexual. However, the fact that so many from this group did participate in the survey and many included very supportive comments about this topic shows that no one should classify the beliefs of any individual based on their age, experience, culture, gender, sexual orientation or in fact any other characteristic. As SEPM's Code of Conduct indicates, there should be no harassment of any kind, intellectual, sexual, etc. associated with our society's pursuit of improving sedimentary geoscience. It is clear from the free-text comments that there is some hostility towards the mere fact SEPM chose to run this survey. However, SEPM remains steadfast in their support of geoscientists representing historically excluded groups. We recognize that pure meritocratic frameworks do not exist, and that discrimination of various kinds have contributed to the lack of diversity we have amongst our membership. This lack of diversity needs to be understood and tackled to ensure geoscience and sedimentary geology remains relevant for the future socio-economic challenges we face.