### Report of the GSA Diversity Working Group to GSA Council, Spring 2021

The GSA Diversity Working Group was tasked by GSA President Doug Walker to distill the Society's goals for diversity and inclusion and to provide a road map of key tangible actions and success metrics that would guide GSA in meeting those goals. This report describes GSA's role within the framework of current diversity in the Society and geosciences profession; states GSA's vision for becoming an inclusive and equitable organization; and recommends a strategy and set of immediate actions for GSA to take as steps towards lasting systemic change. The Author's Note addresses language used in this report. Recent GSA Member demographic data are summarized in Appendix A. Appendix B presents feedback on an earlier draft of this report that was solicited via a survey.

Geosciences is a vibrant field of discovery that is more critical to society than ever as humanity faces urgent challenges to the sustainability of civilizations and biodiversity. Increasing diversity benefits such efforts by driving innovation <sup>1,2</sup>; improving problem solving, research team productivity and impact <sup>3</sup>; benefitting geoscience education and public science literacy <sup>4,5</sup>; and increasing the relevance of science to marginalized populations <sup>6,7</sup>. Yet geosciences remains one of the least diverse STEM fields. Geoscience lags other disciplines with respect to racial and ethnic representation <sup>8,9,10</sup>, and while White women have experienced gains, women geoscientists remain underrepresented in academia <sup>11</sup> and experience bias and harassment <sup>12,13</sup>. Geoscientists face barriers based on race, gender, gender identity, sexuality, physical ability, neurological difference, citizenship, and other factors, which are exacerbated in field settings <sup>14,15</sup>. The exclusion of minoritized groups from scientific research, knowledge, and associated power harms our science and is also unethical <sup>16,17</sup>. The lack of diversity and inclusion places the future of the geoscience enterprise at risk.

As the premier geoscience professional society, GSA has taken concrete steps to improve diversity and inclusion within its ranks. Examples include sustained investment in On To the Future; adoption of an enforceable Code of Ethics; prohibition of alcohol at poster sessions; and increasing representation of women and non-White scientists on GSA Council. Despite such actions, just 4.1 % of GSA Members self-identify as Hispanic/Latino and 1.4 % as Black/African American (compare to, for example, >18.5 % and 13.4 %, respectively, in the U.S. population), and growth of Membership for these and other racial and ethnic groups that are marginalized in the geosciences has remained stagnant over the last six years (Appendix A).

The lack of diversity in GSA reflects broader trends in diversity and inclusion in the geosciences profession, and creates a positive feedback loop: low diversity makes it harder to recruit, and lack of inclusion impedes retention, thus offering a less diverse pool of mentors and role-models, making it harder to recruit, etc. GSA has a fundamental decision: address issues of justice, equity, diversity, and inclusion based on the status quo with the potential for stagnant or slow change, or view the persistent lack of diversity in the geosciences as an existential problem that we have the power to change; this committee unequivocally recommends the latter.

This report articulates GSA's aspirations for becoming an inclusive and equitable organization that engages diverse students, professional and academic geoscientists, and the communities they serve, and creates an environment in which all can thrive. As a Society and as individual Leaders, Staff, and Members, we must recognize that championing a deliberate justice, equity, diversity, and inclusion (JEDI) strategy is essential to GSA's mission and continued relevance. We must accept responsibility for changing our own institution and for leading change in the geosciences profession.

**GSA envisions** a bright future in which diverse identities and perspectives are embraced as integral to excellence. In this future, GSA Leaders, Staff, Members, and the geosciences profession reflect the

demographics of society, and all GSA Members are supported in reaching their full potential. The GSA Code of Ethics, justice, equity, diversity and inclusion represent core operating principles. A culture of respect and inclusion enables all Members to make essential contributions to GSA's mission. Diversity of experience, point of view, identity and talent enhance GSA's ability to advance geoscience research and discovery, service to society, stewardship of Earth, and the geosciences profession.

**Achieving this vision** requires an intentional approach that engages all GSA Leaders, Members, and Staff in transforming GSA's culture and practices<sup>12</sup>. To enhance GSA's existing efforts and accelerate this transformation, GSA will:

- Focus on data collection, measurement, and reporting. GSA will take a deliberate approach to
  increasing justice, equity, diversity, and inclusion that prioritizes evidence-based strategies,
  transparency and accountability. GSA will track the implementation of actions in priority areas,
  measure the impact on GSA Members and functions, and effectively communicate progress and
  adjustments in approach.
- 2. Increase diversity and inclusion at all levels. GSA will improve and develop processes that enhance diversity and equity throughout the Society, especially in positions of power and Leadership, decision making, and standard setting, including GSA Fellows and awardees, and in new Member recruitment. To attract and retain Members, GSA must bring value to a broader audience and foster a culture of inclusion and sense of belonging for all.
- 3. **Focus on structural change.** GSA will weave justice, equity, diversity, and inclusion into the operations, policies, and norms associated with all GSA governance, services, programs, activities, and events. This integrated approach will elevate the importance of this work and, coupled with the measurement and reporting focus described above, will enable ongoing monitoring to facilitate continuous learning and help ensure sustained, impactful change.
- 4. Engage, empower, and hold responsible the GSA community. GSA must engage Members and Staff at all levels with empathy to foster individual ownership of this challenge and understanding of its value. GSA will provide practical guidance and engagement opportunities, empowering Members and Staff to contribute to systemic and cultural change that foster a sense of belonging in GSA for all identity groups, including both marginalized groups and those associated with relative positions of power or privilege. Responsibility for this work must be shared without overburdening minoritized people.

**GSA's vision defines diversity broadly** to encompass all expressions of human identity and the full spectrum of personal, cultural, professional, and socioeconomic statuses. To disrupt structures of exclusion, **GSA's strategy will prioritize people from the most marginalized groups and focus on racial disparity.** Recognizing that diversity does not ensure inclusion, and equality is not synonymous with equity, efforts to improve inclusion in the Society will strive to increase numbers of the most marginalized groups. Within the geological sciences profession, racial identity can be readily identified as an area of greatest apparent disparity <sup>9,10</sup> (Appendix A). Decades-long efforts to reduce this disparity have been unsuccessful and can be attributed to a continuous dilution of the role of race in favor of one that generalizes diversity <sup>18</sup>. More recent diversity, equity and inclusion efforts that include race-conscious recruitment, retention, and recognition have been shown to lead to more equity in practice <sup>19</sup>.

Efforts focused on race provide a strategy to increase access and inclusion for all identity groups. Because many individuals associate with more than one marginalized group, effective strategies for increasing racial equity and inclusion must address intersectionality—the intertwined nature of different facets of identity, for example Black, Hispanic, Indigenous, neurodiverse, woman, or LGBTQ+ <sup>20,21</sup>. GSA's anti-racist focus will therefore address the intersections of racism <sup>9</sup> with sexism <sup>13,22</sup> and other gender-

based "isms" <sup>14,23</sup>, ableism <sup>15,24,25</sup>, and xenophobia <sup>13,27</sup>, among others. The structural and cultural change required to overhaul systems of power that exclude people with marginalized identities will create a more ethical and inclusive GSA for all.

GSA will prioritize structural and cultural change, data gathering and reporting in each part of the organization that impacts current Members at all career stages and future Members we hope to attract. GSA will examine evidence-based practices (e.g., 28,29,30) and prioritize implementation of those that are most *effective*, *scalable*, *and relevant to GSA's mission and Members (figure below*). Data will be used to evaluate and adjust practices. Implementation will require GSA to increase resources for diversity Staff and program support. The Society must collaborate with the GSA Foundation, other societies and partners to fund this work, to implement and refine best practices, and to help lead change in the profession.



**Recommendation to Council: GSA will take the following actions in the next 1-12 months** as steps toward lasting systemic change, and commit to the long-term sustained effort that will be required to achieve this vision. GSA must:

• Measure and regularly report to GSA Council and to the community on the demographics and experience of GSA Members and Staff, to assess diversity and inclusion in GSA opportunities (see figure), track progress, and guide adjustments in approach. Report baseline quantitative data currently collected during Membership application (e.g., Appendix A). Identify additional quantitative and qualitative information needed, and ethical ways of collecting those data, in order to understand demographics including racial identity, intersectionality, experience and needs of our current Members and meeting participants; recognize groups that are not sufficiently included in our Membership, publications, meetings, Leadership, and honors; and create opportunities to recruit,

retain, and engage them.

- Embed JEDI in GSA's governance structure and operations. Charge GSA Council with assessing the effectiveness of key JEDI initiatives. Include JEDI progress in the evaluation of GSA's Executive Director. Build JEDI work into the job descriptions of all GSA Staff. Amend Rules & Guidelines documents for all Committees, Divisions, Sections, and Publications to instruct these groups to apply an equity lens to all aspects of their work; identify biases and barriers to participation, inclusion, and selection; institute transparent and equitable processes; and assess their effectiveness in advancing JEDI.
- Institutionalize culture change and responsibility for action beginning with GSA Leaders. Enhance
  orientation, training, and expectations for GSA elected and appointed leaders, including the GSA
  Executive Committee and Council, Section and Division leaders, Editors, and all GSA Committees, to
  align with best practices for advancing JEDI. Prepare and expect GSA Executive Committee and Council
  to model inclusivity and foster a sense of belonging in Council meetings and all activities they assume
  on behalf of GSA.
- Increase funding for Diversity Staff, programs, and service-leadership, including funding a full-time Diversity Officer. Fund additional Staff to facilitate ongoing education, engagement, communication, and accountability in support of GSA's JEDI efforts. Avoid overburdening, and compensate and recognize Members who identify with minoritized groups for their service leadership in advancing GSA's diversity efforts, particularly those who are also students or early-career. Increase support and professional development opportunities for all Members through workshops, training and publications to strengthen engagement in JEDI and help all to work effectively across differences. Empower Members to contribute to and feel belonging in a transforming GSA.
- Redouble efforts to make meetings and publications diverse and inclusive. Charge the Annual Program
  Committee and other applicable committees with promoting diversity among conveners and
  presenters when organizing panels, keynotes, and other invitational sessions. Normalize talking about
  JEDI in scientific settings; continue and increase offerings of technical sessions, workshops, lectures,
  and events that focus on JEDI, anti-racism, and the contributions of geoscience to a more just and
  equitable society. Increase opportunities for JEDI discourse and research in GSA Publications.
- Form a standing GSA JEDI advisory group to help advise GSA Staff, Council, Committees, Leaders and other groups on JEDI efforts. Use this group to help GSA better include and leverage the expertise and experience of Bromery Awardees; members of past ad hoc committees, task forces, working groups, leadership retreats, and the GSA Diversity in the Geosciences Committee; and other Members. Consider using the advisory group to enhance coordination and communication on JEDI issues across the Society.
- Cultivate diversity among future GSA leaders. Identify Member professional development needs, and address those needs through mentorship and training, especially for people who identify with marginalized and minoritized racial and ethnic groups. Broadly recruit from those groups to diversify representation in positions of power and leadership, decision-making, honors and awards. Accelerate existing efforts to implement equitable, transparent processes to minimize bias in leader, honoree, and awardee selection. Support new leaders to minimize "sink-or-swim" scenarios.

Communication and outreach are vital components of implementation and transparency. Coordination among the GSA President, Executive Director, GSA Foundation, and SAC will benefit these efforts. See **Appendix B** for a summary of feedback we received on an earlier draft of this report, which showed strong support for this vision, strategy, and specific recommendations, and contained useful suggestions for implementation and for communicating plans, progress, and adjustments in approach.

### Authors' Note on Language

The GSA Diversity Working Group members recognize the significance that language plays in JEDI efforts particularly in reinforcing the ideals of inclusion, and that the language used in this report will set the tone for the Society and its activities and programs. The search for the most accurate terminology can lead to the dehumanization of the communities that this report is meant to more fully engage. In this report, we attempt to engage GSA Members and prospective Members by leading with the focus on the community and people first. We have chosen not to use the term "underrepresented minorities" and instead refer to communities and groups that have been marginalized, minoritized, racialized and/or excluded <sup>31</sup>. We have strived to be respectful and inclusive by avoiding the use of deficit language to describe people who identify with those groups, and by respecting specific self-identified terms. Terms including Black, Hispanic, Indigenous, and White are capitalized when referring to race and ethnicity because they are historically created racial/ethnic identities; capitalizing White along with other racial and ethnic identifiers invites us to acknowledge White as a racial identity and challenges the implicit assumption that it is the standard and norm. GSA Staff and Leaders should consult with scholars of diversity in the geosciences and the JEDI advisory group on appropriate language relating to accessibility, justice, equity, diversity and inclusion going forward.

### **GSA Diversity Working Group Members**

Katharine Huntington, Councilor and Chair of GSA Diversity Working Group
Tahlia Bear, GSA Diversity and Career Officer
Carmala Garzione, Councilor
Suzanne O'Connell, Councilor
Jeff Rubin, Councilor
Nan Stout, GSA Ethics and Compliance Officer
Sherilyn Williams-Stroud, Chair of the GSA Diversity in the Geosciences Committee

### **References Cited**

- [1] Nielsen, M.W., S. Alegria, L. Börjeson, H. Etzkowitz, H. J. Falk-Krzesinski, A. Joshi, E. Leahey, L. Smith-Doerr, A. W. Woolley, and L. Schiebinger (2017). Gender diversity leads to better science. Proceedings of the National Academy of Sciences of the United States of America 114(8):1740-1742. DOI: 10.1073/pnas.1700616114.
- [2] Hofstra, B., Kulkarni, V. V., Munoz-Najar Galvez, S., He, B., Jurafsky, D., McFarland, D. A. (2020). The Diversity–Innovation Paradox in Science. Proceedings of the National Academy of Sciences 117 (17) 9284-9291; DOI: 10.1073/pnas.1915378117.
- [3] Horowitz, S. K., and Horowitz, I. B. (2007). The Effects of Team Diversity on Team Outcomes: A Meta-Analytic Review of Team Demography. Journal of Management 33: 987-1015. DOI: 10.1177/0149206307308587.
- [4] Feinstein, N. (2010). Salvaging Science Literacy. Science Education 95 (1): 168-85.
- [5] Snow, C. E. and Dibner, K. A., editors (2014). Science Literacy: Concepts, Contexts and Consequences. Committee on Science Literacy and Public Perception of Science; Board on Science Education; Division of Behavioral and Social Sciences and Education; National Academies of

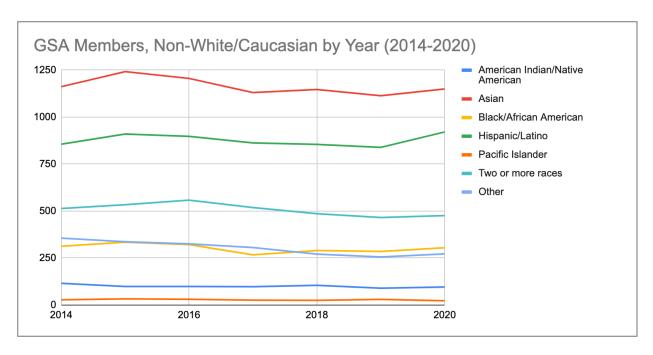
- Sciences, Engineering, and Medicine. Oct. 16, National Academies Press, www.ncbi.nlm.nih.gov/books/NBK396091.
- [6] Dietze, P., Gantman, A., Hannah Nam, H. H. and Niemi, L. (2019). Marginalised ideas are key to scientific progress. Nat Hum Behav 3, 1024. DOI: 10.1038/s41562-019-0699-y.
- [7] Stewart, A. J., and V. Valian. (2018). An Inclusive Academy: Achieving Diversity and Excellence. Cambridge, Massachusetts: The MIT Press.
- [8] Dutt, K. (2020). Race and racism in the geosciences. Nature Geoscience. Nature Research. https://doi.org/10.1038/s41561-019-0519-z.
- [9] Bernard, R. E., & Cooperdock, E. H. G. (2018). No progress on diversity in 40 years. Nature Geoscience, 11(5), 292–295. https://doi.org/10.1038/s41561-018-0116-6.
- [10] McDaris, J. R., C. A. Manduca, E. R. Iverson, and C. Huyck Orr. (2018). Looking in the right places: Minority-serving institutions as sources of diverse Earth science learners. Journal of Geoscience Education 65:407-415.
- [11] Holmes, M. A. and O'Connell, S. (2003). Where are the Women Geoscience Professors?, https://digitalcommons.unl.edu/geosciencefacpub/86/.
- [12] St. John, K., Riggs, E., and Mogk., D. (2003). Sexual Harassment in the Sciences: A Call to Geoscience Faculty and Researchers to Respond. Journal of Geoscience Education 65:407-415. 64: 255–257.
- [13] Societies consortium on sexual harassment in STEMM (2020). Societies consortium on sexual harassment in STEMM, second annual all member convening report, Sept 16-17, 2020.
- [14] Olcott, A. N. & Downen, M. R. (2020) The Challenges of Fieldwork for LGBTQ+ Geoscientists. Eos 101,. https://eos.org/features/the-challenges-of-fieldwork-for-lgbtq-geoscientists.
- [15] Carabajal, I. G., Marshall, A. M., Atchison, C. L. (2017). A Synthesis of Instructional Strategies in Geoscience Education Literature That Address Barriers to Inclusion for Students With Disabilities. Journal of Geoscience Education 65, 531–541. https://doi.org/10.5408/16-211.1.
- [16] NASEM (2020). A Vision for NSF Earth Sciences 2020-2030: Earth in Time. Washington, DC: The National Academies Press. https://doi.org/10.17226/25761.
- [17] Bhatti, G. (2019). Social and educational inclusion in schools and their communities. Education for Democratic Intercultural Citizenship. In: Education for Democratic Intercultural Citizenship. 61–80. https://doi.org/10.1163/9789004411944 004.
- [18] Felix, E. R., & Trinidad, A. (2020). The decentralization of race: tracing the dilution of racial equity in educational policy. International Journal of Qualitative Studies in Education, 33(4), 465–490. https://doi.org/10.1080/09518398.2019.1681538.
- [19] Liera, R. (2020). Moving Beyond a Culture of Niceness in Faculty Hiring to Advance Racial Equity. American Educational Research Journal, 57(5), 1954–1994. https://doi.org/10.3102/0002831219888624.
- [20] Crenshaw, K. (1989). Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics. University of Chicago Legal Forum 1989, (1), 139–168.
- [21] Keisling, B., Bryant, R., Golden, N., Stevens, L., & Alexander, E. (2020). Does Our Vision of Diversity Reduce Harm and Promote Justice? GSA Today, 30(10), 64–65. https://doi.org/10.1130/gsatg429gw.1.

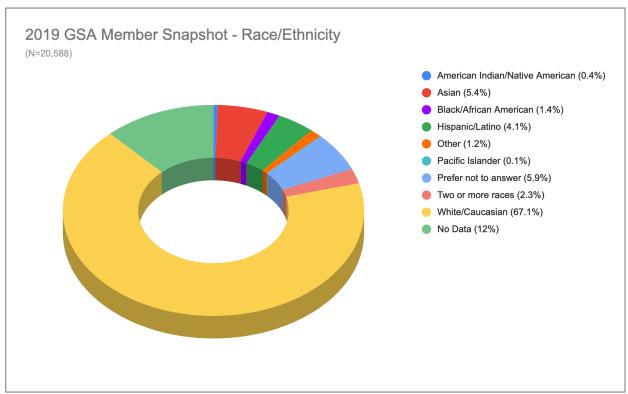
- [22] Wilson, C. (2019). Status of the Geoscience Workforce 2018, American Geosciences Institute, 166 pp. 10 Societies consortium on sexual harassment in STEMM, second annual all member convening report, Sept 16-17, 2020.
- [23] Cech, E. A. & Waidzunas, T. J. (2021). Systemic inequalities for LGBTQ professionals in STEM. Science Advances 7(3). DOI: 10.1126/sciadv.abe0933.
- [24] National Science Foundation (NSF), National Center for Science and Engineering Statistics (2017). Women, minorities, and persons with disabilities in science and engineering: 2017 digest. Special Report NSF, 17-310. Available at http://www.nsf.gov/statistics/2015/nsf15311/.
- [25] Carabajal, I. G., Marshall, A. M., Atchison, C. L. (2017). A Synthesis of Instructional Strategies in Geoscience Education Literature That Address Barriers to Inclusion for Students With Disabilities. Journal of Geoscience Education 65, 531–541. Doi: 10.5408/16-211.1.
- [26] Atchison, C. L. and Libarkin, J. C. (2016). Professionally held perceptions about the accessibility of the geosciences, Geosphere, 12, 1154–1165, https://doi.org/10.1130/ges01264.1, 2016.
- [27] Mani, B.V. (2020). Fighting the shadow pandemic, Inside Higher Ed, available at: https://www.insidehighered.com/views/2020/05/14/inclusive-teaching-needed-help-combat-xenophobia-racism-and,
- [28] Karsten, J. L. (2019). Insights from the OEDG program on broadening participation in the geosciences. Journal of Geoscience Education 67(4):287-299. DOI: 10.1080/10899995.2019.1565982.
- [29] Anadu, J., Ali, H., Jackson, C. (2020). Ten steps to protect BIPOC scholars in the field. EOS, 101, https://doi.org/10.1029/2020EO150525.
- [30] Nelson, J., and Brooks, L. (2016) Racial equity toolkit: An opportunity to operationalize equity. Local and Regional Government Alliance on Race & Equity. https://www.racialequityalliance.org/wp-content/uploads/2015/10/GARE-Racial\_Equity\_Toolkit.pdf.
- [31] Morris, V. R. (2021). Combating racism in the geosciences: Reflections from a black professor. AGU Advances 2(1) https://doi.org/10.1029/2020AV000358.

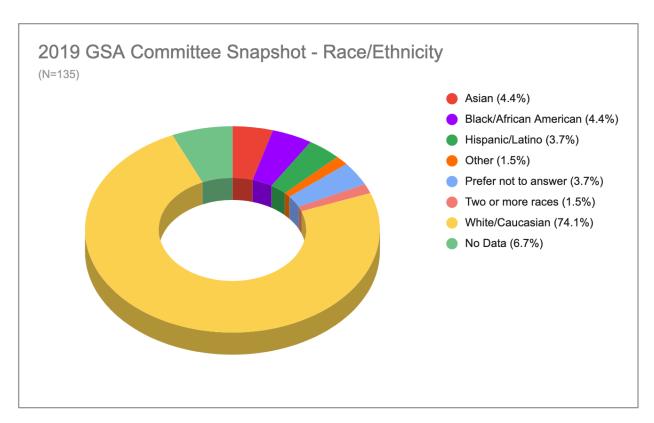
### **Appendix A:**

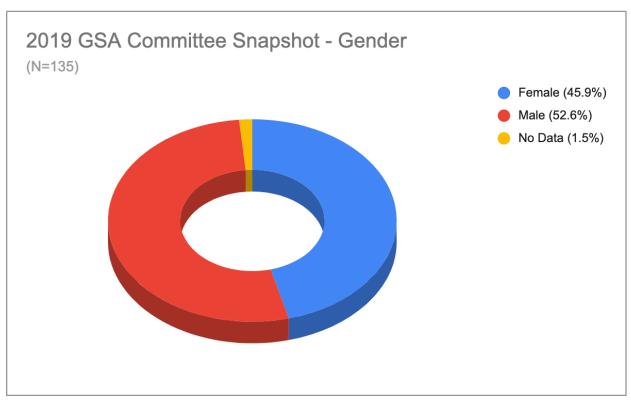
## **Current GSA Member Demographic Data**

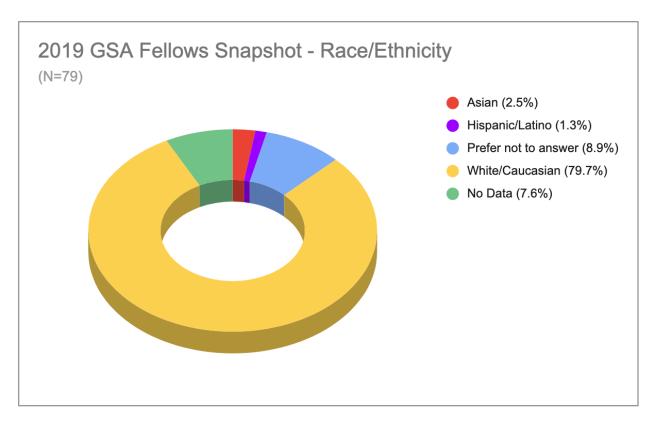
GSA started collecting race and ethnicity data on its 2013 Membership renewal forms. Gender data has been collected on Membership renewal forms since 1995. The first graphic below shows numbers of Non-White/Caucasian GSA Members from 2014-2020, which indicate no significant change in participation of these groups over that time period. The data reflected in the other graphics below are examples of snapshot self-reported data for GSA Membership and Leadership for 2019. The data for 2020 have not yet been aggregated. GSA currently only collects data related to the gender and race and ethnicity categories indicated in the graphics, and does not collect data related to other identified minoritized and marginalized groups in the geosciences.

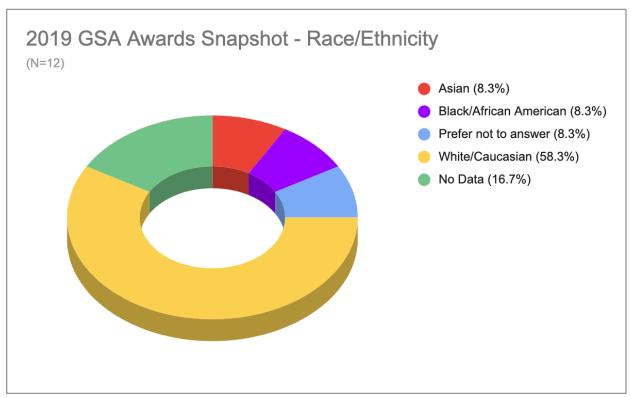


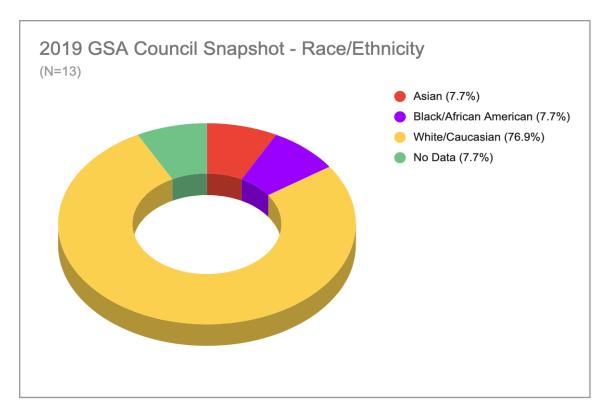


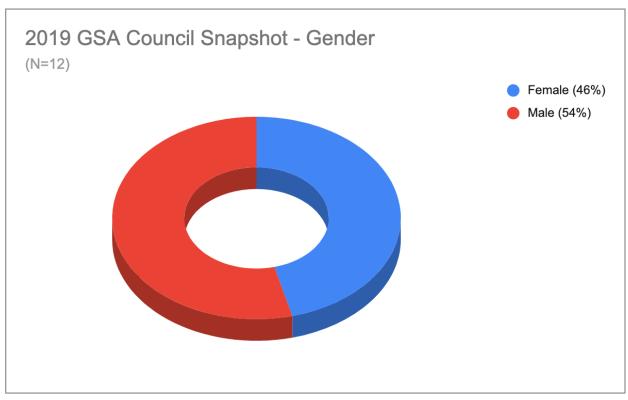












### **Appendix B:**

### Survey and Feedback on DRAFT Report of the GSA Diversity Working Group

In March 2021, a draft Report of the GSA Diversity Working Group to GSA Council was shared with several GSA groups to solicit feedback via an <u>anonymous survey</u>. The survey questions and results are provided below, as well as detailed comments provided by Wes Ward, Chair of the GSA Foundation Board of Trustees. Updates to the report following the survey are also summarized below.

### Members of the following groups were invited to review the Draft and take the survey:

- GSA Diversity in the Geosciences Committee
- GSA Staff URGE (Unlearning Racism in the Geosciences) Pod
- People who attended the GSA Ex Comm retreat in August 2020
- Ad Hoc Committee on Nominations
- Ad Hoc Committee on Awards and Fellowships
- Ad Hoc Culture Task Force

At least one survey respondent self-reported identifying with each of these groups. 22 people completed the summary, and one additional respondent (Wes Ward) sent detailed feedback by email.

### The following updates were made to the final report following the survey:

- Paragraphs 2, 3 and 4 were added to provide context and data, and to spell out the critical need to increase JEDI with respect to the geosciences and to GSA
- Specific recommendations were added or strengthened.
- Author's Note on Language was added to explain rationale for language choices.
- Appendix A was added to report recent demographic data for GSA.
- Appendix B (this appendix) was added to report survey results.
- Additional minor wording changes were made to the report.

### **Survey questions:**

Question 1) How clear do you consider the document purpose, vision, and goals?

Question 2) To what extent do you agree with the statement, "the vision and goals are desirable and appropriate for GSA"?

Question 3) How clear do you consider the stated recommendations and actions?

Question 4) To what extent do you agree with the statement, "the recommendations and actions will advance the stated vision"?

Question 5) To what extent do you agree with the statement, "the figure is useful"?

Short Essay Question 6) Please use this space to elaborate on your responses to questions 1-5:

Question 7) Consider the actions for GSA to take in the next 12 months that are listed on Page 3 of the Draft Report. On a scale of 1 to 10 where 10 is "Most useful", indicate how useful you think each action will be in advancing the JEDI vision and goals.

Question 8) What critical content do you think is missing from the document?

Question 9) Please provide any other comments on the document or topic with respect to GSA.

For questions requiring a numerical response, respondents were given one of the following options:

10. Computatoly along	10. Strangly ages	10 Mast wasful
10- Completely clear	10- Strongly agree	10 - Most useful
9-	9-	9 -
8- Very clear	8- Somewhat agree	8 - Very useful
7-	7-	7 -
		5/6 - Somewhat useful
5/6- Moderately clear	5/6- Neither agree nor disagree	4 -
4 -	4 -	3 - Not very useful
3 - A little clear	3 - Somewhat disagree	2 -
2 -	2 -	1 - Not at all useful
1 - Not at all clear	1 - Strongly disagree	

Respondents were also given the opportunity to elaborate on their numerical responses with short essay questions.

### Summary of survey results: Report clarity, vision, and goals

- 68.2 % of respondents considered the document purpose, vision, and goals "Very clear" to "Completely clear", 31.8% of which thought it was "completely clear", and 27.2% "moderately clear" to between "moderately clear" and "very clear". One person (4.6 %) responded "not at all clear".
- 59.1% consider the stated recommendations and actions "Very clear" to "Completely clear"
   (31.8% of which thought it was "completely clear"). 31.8 % "moderately clear" to between
   "moderately clear" and "very clear". One person "a little clear". One person "not at all clear".
- 63.7% "somewhat strongly" to "strongly agree" that the vision and goals are desirable and appropriate for GSA. 31.8% "somewhat agree". One person somewhat disagreed.
- 45.4% "somewhat strongly" to "strongly agree" that the recommendations and actions will advance the stated vision. 77.2% between "somewhat agree" and "strongly agree" 31.8% somewhat agree. 18.2%% neither agree nor disagree. One person was between somewhat agree and strongly disagree.
- 81.9% somewhat agree to strongly agree that the figure is useful.
- Pie charts and bar graphs of survey results are reported below.
- See complete survey results below for essay responses elaborating on the numerical responses.

### Summary of survey results: Recommended actions GSA must take in the next 12 months

- On a scale of 1 to 10 where 10 is "Most useful", respondents indicated how useful they think each action (listed in the section beginning "GSA will take the following actions in the next 1-12 months as steps") will be in advancing the JEDI vision and goals.
- Each of the actions got at least 23% "Most useful" votes. At least 59% ranked each of the actions between "very useful" and "most useful".
- For each action, between 1 and 3 individuals responded with a rating lower than "5/6 Somewhat useful".

### Summary of survey results: Essay responses

- The survey asked respondents to elaborate on their numerical responses; discuss what critical content was missing from the draft report; and provide any other comments on the document or topic with respect to GSA.
- The comments generally endorsed the vision, goals, and approach, and many provided specific suggestions for the report or its implementation. The one respondent who had negative comments cited a lack of evidence that there is a problem and argued that GSA is already doing enough for JEDI.
- All respondent comments provide valuable perspectives, and are reported (with identifying information removed) below.

### Complete survey essay responses

# 6. Please use this space to elaborate on your responses to Questions 1-5 General

- · I think the document is specific and well written.
- The document does a great job of delineating the goals and the vision for how to achieve those goals. I know this is an overview document and each area will get more specific and focused as the work progresses and those in charge of executing the goals start their work.
- · I think this is all clear to those of us who think about these issues. I would test it on some random people who may not be as 'educated' In the language, goals, etc. For clarity, if not agreement.
- I really like this document. There are some things in the 1 to 12 month actions that will really rely on what GSA staff can do, but that is the only barrier that I see. Oh, and anything that costs money, but that can be worked out.
- The report is well written and articulates the findings of the committee. As a visual learner I always appreciate useful figures and the figure gives the reader a good idea of the groups that are accountable and where Members may be able to be impactful. As to whether these recommendations will "advance the stated vision" is questionable in my opinion especially to envision that GSA or geosciences will reflect the "demographics of society". That vision requires many more societal actions than GSA has influence over. That said it is an admirable vision.
- · While likely captured under 'Division and Section Leadership' and/or 'Committees', might be worth listing 'Student Representatives' under Leadership in the figure.
- · "actionable items" are not specific.
- The goals and actions stated are clear. They provide clear statements and use language that is inclusive and respectful, meaning the document does not use deficit language to describe underrepresented scholars.
- · Nicely conceived and written. thank you. overarching aspirational statements are difficult commonly to place into action. The specifics are helpful. Consider wording changes

such as 'positions of power' to 'positions of leadership'; 'establish' to 'improve/enhance' which recognizes that actions have been taken; use feedback to improve next steps - this is analogous to assessment strategies to improve learning outcomes. Is the recommended committee to replace an existing committee?

- · I think the figure is good, but I'm not sure where participants in programs like GeoCorps America and Scientists in Parks (SIP) fit. They aren't quite a grantee or awardee, but more like "education program participants". (That said, it's perhaps not necessary for the figure to encompass everything.)
- My answer to #4 is rooted in the concern that we may do significant work to advance these goals but will it be enough to modify the organization into one that has more diversity and inclusivity? Related to that, I appreciate the use of the word "intentional" in the "Achieving this vision..." paragraph on page 1. My hope is that we will be proactive in these efforts, in addition to removing barriers and framing our various programs in ways that will show our greater desire for inclusivity.

Data Related

- I see no data whatsoever. How can you argue GSA has done poorly with respect to JEDI without showing data?
- · I think that there could be better clarity in regard to "Recommendations to Council" versus just the header "GSA will take the following actions within the next 1-12 months".
  - You need to include a focus on intersectional data collection, not just data collection the figure doesn't indicate any relationships between your different boxes, when clearly there is some. It feels too static for an idea that is dynamic and fluid. Figure & text have been changed
- really like the focus on reporting demographics, question: will GSA council (or a few select members) get training on how to evaluate JEDI work in GSA and with GSA staff? evaluation is important, but if councilors don't have experience with that, they should be trained in some capacity, LOVED the normalize talking about JEDI in scientific settings- I've seen examples recently where people giving department talks have included a slide with their JEDI efforts- some way to integrate that in technical sessions at GSA meetings?
- Talk of quantification should include examples of current quantifiable metrics and the statistics at present. The figure is just what the text says but doesn't provide any additional meaningful clarity.

### 8. What critical content do you think is missing from the document?

### Communication

• The recognition of just how much time and work will be needed to implement some of these actions. I also suggest that transparency is very useful but only if properly communicated. The need to identify communication and outreach is very important.

- Increasing JEDI efforts in Publications and GSA's Policy work. As two of the other big endeavors that GSA undertakes (in addition to Meetings), it seems important to increase the number of intersectional voices in publication and perhaps more writings that view geoscience through a JEDI lens. The Policy Office already does a great job of advocating for JEDI, but they should also be included in this document.
- communicating progress to change perceptions in the wider community

### **Broader Social Issues**

- The one thing that stood out to me was a lack of accountability for the past I think recognizing the failures of the past is really important to moving forward in a positive way. So acknowledging that GSA has failed its members in the past, especially its members from minoritized groups.
- please add something that refers to the overall atmosphere of meetings I'm thinking the exhibit hall GSA is known for the beer sessions there which is NOT welcoming to many students and people of various faiths. you have technical. sessions, panels, etc does that cover it all? I know the Code of Conduct covers off-site dinners etc.
- There is no statement of the need for social justice.

### <u>Data</u>

- Data. Any data.
- · Current statistics on metrics GSA Council would like to see improvement. Figures on that would be more useful than the bubble table which is just in the text.
- 'Identify additional quantitative and qualitative information needed, and ethical ways of collecting those data, in order to understand the demographics, experience and needs of our current members and meeting participants' It might be helpful to have some sort of statistical software or data coding instruction to assist with data interpretation. Perhaps that's implied/captured with the 'Increase funding for Diversity Staff and programs' item.

### General

- At this time nothing is missing. The stated goals are optimistic but doable, additional content can be added once initial items are addressed and the Geo community sees change happening. Adding too much would/could bog down the process.
- · nicely done; where to secure funding for the initiatives proposed, increasing in staff, tracking?
- Nothing, it is excellent and very thorough. I appreciate that GSA Staff are mentioned in a few areas, because, as a staff member, I think we can also play an important role in supporting GSA's broader DEI efforts. In paragraph 4, "Achieving this vision requires an intentional approach that engages all GSA Leaders and Members in transforming GSA's culture

and practices" might also mention staff ("GSA Leaders, Members, and Staff") -- I think that would be a powerful statement, empowering all staff to step up to support these efforts.

Nothing for right now. We will see what the full council does.

### 9) Please provide any other comments on the document or topic with respect to GSA

### **Positive**

- I really like the goals and coming changes. Notable to me is the the use of respectful language which will serve as a model to the broader GEO community.
- · acknowledge work that has been done/is being done...thank you!
- This is a great document, and I look forward to supporting its goals in my role as a GSA staff member :)
- · Overall, the document makes me proud of GSA. However, it could come with some improvemen.t
- · I found myself yelling YES multiple times out loud when reading this- great job integrating and summarizing and providing new ideas based on a lot of conversations that have happened over the last year! I'm excited for the future of GSA.
- · From a GSA staff perspective, I was pleased to see that a focus on data collection, measurement and reporting was a top-level consideration for achieving this vision!
- The document is clearly written and serves to challenge GSA to enact significant structural and cultural/institutional changes across GSA leadership and membership functions. I do think many elements of the vision are attainable over the next 1-2 years, with some efforts already underway. I would recommend highest priority areas be the formation of a DEI/JEDI advisory group, increasing funding support, and enacting institutional change that begins with buy-in from GSA leadership and governance.

### Concerns

- · Very much disagree with increasing staff in this area especially during a period when GSA is experiencing financial challenges.
- I see no evidence from data that GSA has not meaningfully addressed diversity but for including industry more in admin and fellowships. Woman are a bit behind men but catching up. Blacks and hispanics and asians are commensurate more or less with percentages in membership. The new president will in all likelihood be black. The head of GSA Foundation is black. I do not understand the angst throughout this document. I really do not. Show me the data form which you base your premises. That blacks, hispanics, native Americans do not choose to go into geology is an issue GSA cannot address to increase numbers. We are at the end of the pipeline. Given what comes into the pipeline, it seems to me we are doing well in

addressing JEDI. We need to be cognizant of continuing it, but I do not understand what you are striving to achieve in this document. State it out clearly and why.

- I think it's critical to make sure that we do not over-burden our BIPoC colleagues during this process of change and transformation. I also think we need to find ways to \*compensate\* BIPoC who 'volunteer' for the society especially students and early career members.
- Really good document congratulations! How does this. affect Associated Societies that co-mingle. with GSA? and I think all this work needs to. be addressed in the GSA Foundation pretty much an old, white group (I know Wes Ward is chair now). The same values and JEDI principles should apply to those who manage the members' money/donations. I think the values of the Foundation should be visible, how members. are selected. any ethical issues in investments etc. Another study. but if GSA and the geoscience profession is going to adapt the foundation should too.
- · I am not sure how GSA will manage a process that is focused on race. Race is not a set of discrete options but rather a continuum.
- · I truly appreciate the work to put this together and I hope we can develop an implementable roadmap to achieve it.
  - o 1) consider having the JEDI group include people who are not currently GSA members
  - o 2) GSA should consider elevating the importance of this above just GSA and taking a leadership role across the geosciences more broadly by creating a coalition that includes AGU and others

### Comments from Wes Ward, Chair of the GSA Foundation Board of Trustees

- In addition to survey responses, we received comments from Wes Ward. Comments applaud the direction of the document and furthermore ask for more to be turned into requirements and deliberate actions.
- He challenges us to ask if this represents the best we can do. "GSA may find that external
  reviewers, especially minority scientists, find that the report falls short, in aspiration and
  commitment. While perhaps "should do" and "can do" are seen differently by those running
  GSA and those belonging to it (or those part of and not part of the writing it), GSA will be judged
  by what it asks and commits of itself and others with this report."
- He gave permission to share his comments with attribution here:

On Mar 23, 2021, at 5:40 PM, Wes Ward wrote:

You and your crew have done a fine job in getting things going. I'd like to add a few thoughts:

The document is both aspirational and a road map, which is critical. I think it strikes a good balance.

You may have understated or deliberately decided to state subtly the peril our profession faces (I think) if we don't improve who we are. I like your statement about "reflecting the demographics of society", but we really need to make it clear that medicine and other sciences are going to be more attractive to minority students (for reasons we already can enumerate). Plus, our relevance to society will decrease in the decades they need us most because larger percentages of the population and elected officials will not be listening to us -- for they and their constituents never understood what resources, hazards, and incremental natural and artificial change meant to them. In an increasingly diverse workforce and general population, our relevancy must increase, not decrease.

I like a lot of your proposals, but I feel more could be turned into requirements and deliberate actions. We are increasingly paying the price for decades, if not centuries, of exclusion and inattention that have resulted in a representational imbalance that will persist for decades more in the geosciences without deliberate actions and requirements. Studies and assessments are fine, but I hope GSA understands there are several out there (you cite some) that have proven effective and need to be adopted.

So then, I'd change some of the language from "GSA will" to "GSA members need to" or "must", simply because they are the ones who need to carry out the needed actions. Society leadership can cite best practices and perhaps diversify our staff and recipients of support or recognition over time, but the bulk of this work will be accomplished by the membership -- or not accomplished at all. A diverse leadership is important, but commitment among the membership is what will carry the day.

More strongly, then, we (stereotypical introverts) need to be told why diversity is important to the science we love.

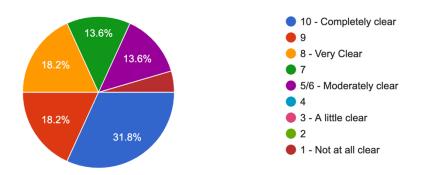
We must place the word "responsibility" for change, as well as the consequences for not doing so, in the minds of our professionals (and students). And we must lead by example. Hiring practices aside, if GSA does not offer real opportunity, information, money, and expertise (and encourage its full membership to do the same, with recognition and reward for doing so), we're going to be drifting in the backwaters. We don't have decades to solve this problem.

On Mar 30, 2021, at 12:14:00 PM PDT, Wes Ward wrote:

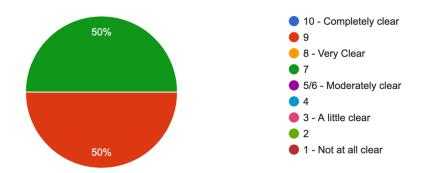
GSA may find that external reviewers, especially minority scientists, find that the report falls short, in aspiration and commitment. While perhaps "should do" and "can do" are seen differently by those running GSA and those belonging to it (or those part of and not part of the writing it), GSA will be judged by what it asks and commits of itself and others with this report. I'd run it by my team one more time to see if everybody says it represents the best we can do.

### Pie charts and bar graphs of numerical survey results

1) How clear do you consider the document purpose, vision, and goals? 22 responses

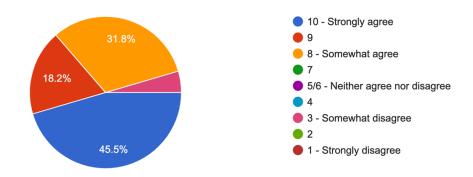


1) How clear do you consider the document purpose, vision, and goals? 2 responses

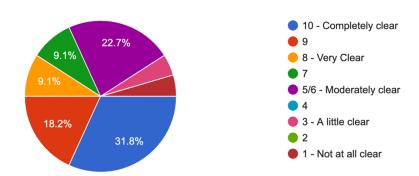


2) To what extent do you agree with the statement, "the vision and goals are desirable and appropriate for GSA"?

22 responses

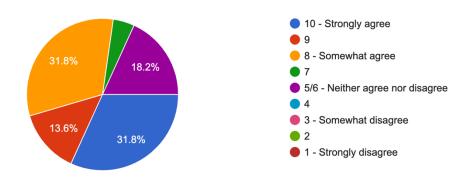


## 3) How clear do you consider the stated recommendations and actions? <sup>22 responses</sup>

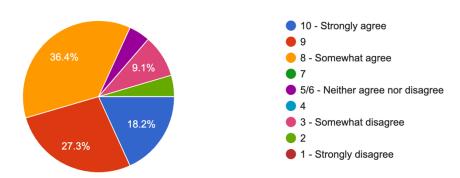


# 4) To what extent do you agree with the statement, "the recommendations and actions will advance the stated vision"?

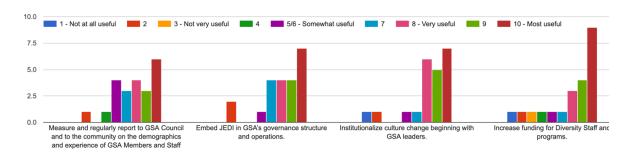
22 responses



## 5) To what extent do you agree with the statement, "the figure is useful"? <sup>22 responses</sup>



7) Consider the actions for GSA to take in the next 12 months that are listed on Page 3 of the Draft Report. On a scale of 1 to 10 where 10 is "Most



tuseful", indicate how useful you think each action will be in advancing the JEDI vision and goals.

