

SUPPLEMENTARY MATERIALS FOR

BLACK WOMEN IN OCEAN SCIENCE

BARRIERS TO ADVANCEMENT AND STRATEGIES TO MOVE FORWARD

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Q33 Key Information

Introduction and Purpose: In this survey, as a person of color in marine sciences, you will be asked about your experiences as a racially minoritized group in your education and career, your perceptions of barriers and opportunities specific to your career ambitions, and your thoughts on what would improve your experience in your field.

The purpose of the survey is to identify the barriers and opportunities for people of color in the marine sciences. Your responses may be shared among a group of collaborators who identify as Black women in marine sciences interested in research on the same topic.

Procedures: Completing this survey should take 10 to 15 minutes. Your participation is completely voluntary. We will also be collecting demographic information such as income, nationality, gender identity, sexual orientation, disability status, and parental/familial background. We will also ask questions about your experiences in the marine sciences related to isolation, discrimination, barriers, and enabling factors. Although questions cannot be skipped you can select a “Prefer not to answer” option if there is a question you would rather not answer.

Voluntariness and Confidentiality: You can withdraw from the survey at any time for any reason by closing the browser window. If you decide to withdraw from the survey, any responses you have provided up to that point will be deleted. While we may collect personal information about you (e.g., demographics), your identity will remain confidential. Although collected data may be made public or used for future research purposes, your identity will always remain confidential.

Risks and Benefits: There are no foreseeable risks associated with participating in this survey. While your participation in this survey may not benefit you directly, your responses will contribute to the growing body of research interrogating the disproportionate challenges faced by racial minorities in pursuing a career in the field of Science, Technology, Engineering, and Math (STEM).

Compensation: If you want to be entered in a raffle for one of four prizes (a choice of marine-themed coffee mugs, water bottles, and shirts), we will ask for your email address. Email addresses will be collected separate from your survey responses.

Contact: If you have any questions about this study, please contact Dr. Miranda Bernard (miranda.bernard@duke.edu). For questions about your rights as a participant contact the Duke Campus Institutional Review Board at campusirb@duke.edu. Please reference Protocol ID# 2023-0438 in your email.

Do you consent to participate in this survey and confirm that you are a person of color who is 18 years or older and working in or being educated in marine sciences?

- Prefer not to say (3)
- Non-binary / third gender (4)
- Female (5)
- Male (6)

End of Block: Introduction

Start of Block: Demographics Questions

Q1 1. Which category includes your age?

- 18-24 (1)
- 25-34 (2)
- 35-44 (3)
- 45-54 (4)
- 55-64 (5)
- 65 and over (6)
- Prefer not to say (7)



country What is your nationality?

▼ Afghanistan (1) ... Zimbabwe (1357)



Q3 Where are you located? Please provide the country in which you currently reside.

▼ Afghanistan (1) ... Prefer not to answer (1358)

Q4 Gender: How do you identify?

- Non-binary (1)
 - Man (2)
 - Woman (3)
 - Prefer not to answer (4)
 - Prefer to self-describe: (5)
-

Q5 Do you consider yourself transgender?

- Yes (1)
 - No (2)
 - Prefer not to answer (3)
-

Q6 Sexual orientation: How do you identify?

- Asexual (1)
 - Bisexual (2)
 - Gay (3)
 - Heterosexual or straight (4)
 - Lesbian (5)
 - Pansexual (6)
 - Queer (7)
 - Prefer to self describe: (8)
-
- Prefer not to answer (9)

Q7 Race/Ethnicity: How do you identify? We recognize that these are U.S.-centric, so please feel free to identify (or not respond) as you see fit. Please check all that apply.

My race or ethnicity is best described as: (1)

American Indian or Alaska Native (2)

Asian or Asian American (3)

Black or African American (4)

Hispanic or Latino/a (5)

Middle Eastern or North African (6)

Native Hawai'ian or Pacific Islander (7)

White or European (8)

Prefer not to answer (9)

Q8 Is English your first language?

Yes (1)

No (2)

Prefer not to answer (3)

Q9 Do you speak any other languages? If so, please list them.

Q10 Did you grow up less than three hours away from an ocean?

- Yes (1)
 - No (2)
 - Prefer not to answer (3)
-

Q11 Are you now married, widowed, divorced, separated, or never married?

- Married (1)
 - Widowed (2)
 - Divorced (3)
 - Separated (4)
 - Never married (5)
 - Prefer not to answer (6)
-

Q12 How many children are you parent or guardian for that live in your household (aged 17 or younger only)?

- None (1)
 - 1 (2)
 - 2 (3)
 - 3 (4)
 - 4 (5)
 - More than 4 (6)
 - Prefer not to answer (7)
-

Q13 Do you identify as having a disability as defined under the Americans with Disabilities Act (<https://adata.org/faq/what-definition-disability-under-ada>)?

- Yes, Cognitive (1)
 - Yes, Emotional (2)
 - Yes, Hearing (3)
 - Yes, Mental (4)
 - Yes, Physical (5)
 - Yes, Visual (6)
 - Yes, Self Identify: (7)
-
- No (8)
 - Prefer not to answer (9)
-

Q14 What is the highest degree or level of education you have completed?

- Some high school (not yet completed) (1)
 - High school graduate (2)
 - Some college (not yet completed) (3)
 - Associated degree (4)
 - Bachelor's degree (5)
 - Master's degree (6)
 - Professional degree (7)
 - Doctorate (8)
 - Prefer not to answer (9)
-

Q15 Which category best describes your employment/work status? (please select no more than 2 options)

- High school student (1)
 - Undergraduate student (2)
 - Graduate student (3)
 - Instructor/ Adjunct Professor (4)
 - Tenured or Tenure Track Faculty (5)
 - Professional (you can specify in the next question) (6)
 - Prefer not to answer (7)
-

Q16 What sector best represents your current employment or activity?

- Academic (student, professor, post-doc, etc.) (1)
 - Non-Profit (2)
 - State or Federal Government (3)
 - NGO (4)
 - Industry (5)
 - Other: (6) _____
 - Prefer not to answer (7)
-

Q17 What is your total annual income in USD?

- \$0-\$30,000 (1)
 - \$31,000-\$60,000 (2)
 - \$61,000-\$90,000 (3)
 - \$91,000-\$120,000 (4)
 - \$120,000+ (5)
 - Prefer not to answer (6)
-

Q18 What is your annual household income?

- 0-\$30,000 (1)
 - \$31,000-\$60,000 (2)
 - \$61,000-\$90,000 (3)
 - \$91,000-\$120,000 (4)
 - \$120,000+ (5)
 - Prefer not to answer (6)
-

Q19 What is the highest level of education of your parent(s) or guardian(s)?

Parent/Guardian	
1 (1)	2 (2)

Did not finish high school (1)	<input type="checkbox"/>	<input type="checkbox"/>
Graduate from high school or equivalent (GED) (2)	<input type="checkbox"/>	<input type="checkbox"/>
Graduated from high school and attended a two-year school (such as a vocational or technical school, junior college, or a community college), but did not complete a degree (3)	<input type="checkbox"/>	<input type="checkbox"/>
Graduated from a two-year school (such as a vocational or technical school, junior college, or a community college) (4)	<input type="checkbox"/>	<input type="checkbox"/>
Graduated from high school and went to college but did not complete a four-year degree (5)	<input type="checkbox"/>	<input type="checkbox"/>
Graduated from college with a four-year degree (6)	<input type="checkbox"/>	<input type="checkbox"/>
Completed a Master's degree or equivalent (7)	<input type="checkbox"/>	<input type="checkbox"/>
Completed a Ph.D., M.D., or other advanced professional degree (8)	<input type="checkbox"/>	<input type="checkbox"/>
Don't know (9)	<input type="checkbox"/>	<input type="checkbox"/>
Prefer not to answer (10)	<input type="checkbox"/>	<input type="checkbox"/>

Q20 Which of the following best describes your subfield(s) of interest?

- Aquaculture (1)
- Biology (2)
- Chemistry (3)
- Conservation (4)
- Ecology (5)
- Fisheries (6)
- Geology (7)
- Oceanography (8)
- Social sciences (9)
- Other (10) _____

End of Block: Demographics Questions

Start of Block: Barriers and Opportunities Questions

Q22 Have you had more than one job at a time?

- Yes; If so, what time in your career and why? (1)

 - No (2)
-

Q23 Have you ever done an unpaid internship?

Yes (1)

No (2)

Q24 Have you ever been the only person of color in your department/class?

Never (1)

Sometimes (2)

About half the time (3)

Most of the time (4)

Always (5)

If you feel comfortable, are there any experiences you would like to share? (6)

Q25 Have you ever experienced discrimination in the workplace or classroom?

- Never (1)
 - Sometimes (2)
 - About half the time (3)
 - Most of the time (4)
 - Always (5)
 - If you feel comfortable, are there any experiences you would like to share? (6)
-

Q26 Do you feel your concerns are taken seriously at your institution or workplace?

- Never (1)
 - Sometimes (2)
 - About half the time (3)
 - Most of the time (4)
 - Always (5)
 - If you feel comfortable, are there any experiences you would like to share? (6)
-

Q27 Please rate the extent to which you think they represent or have represented a barrier to your career goals:

	Funding (1)	Project availability (2)	Position/job availability (3)	Personal/family responsibilities (4)
Not a barrier (1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Minor barrier (2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Moderate barrier (3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Major barrier (4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extreme barrier (5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q28 If you feel comfortable, are there any experiences or thoughts you would like to share?

Q29 What resources have enabled you to reach your current career or educational stage?

	Undergraduate education (1)	Graduate education (2)	Career (3)
Peers (1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mentors (2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organizations (3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Childhood experiences (4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Classes (5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scholarships (6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Summer internships (7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Summer programs (8)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not applicable (9)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prefer not to say (10)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (11)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q30 What resources would help you to advance your career or education?

Q31 Is there anything else that you would like to share?

End of Block: Barriers and Opportunities Questions

Start of Block: Raffle

Q26 Would you like to enter the raffle to win a prize? Your response will still remain anonymous.

Yes (1)

No (2)

End of Block: Raffle
