



Scientists from *Minority-Serving* Institutions and Their Participation in Grant Peer Review

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Background

Institutional and Individual Discrepancies in Research Funding

- Large disparities in NIH funding success across racial groups (Ginther et al. 2011, Hoppe et al., 2019)
- Large disparities in NIH funding between Traditionally White Institutions (TWIs) and Minority-Serving Institutions (MSIs):
 - Total 2014 funding of 4 TWIs was more than that for 89 HBCUs combined (Toldson 2016, 2019).
- One potential source of these discrepancies in funding is the peer review process.
- Participation levels, motivations and barriers to engage in grant review are relatively understudied

Gender/Racial Bias in Grant Review Feedback Appropriateness and Usefulness:

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• *“Reviewers these days are often quite biased towards specific methodologies, often the ones they use.”*

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• *“It takes just one biased or not knowledgeable reviewer to sink a grant application.”*

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• *“There is too much personal bias in grant review. Reviewers seem to have the people they want to champion and shoot down others they do not know.”*

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• *“I believe there is too much in the way of politics and also bias against women in the peer review process.”*

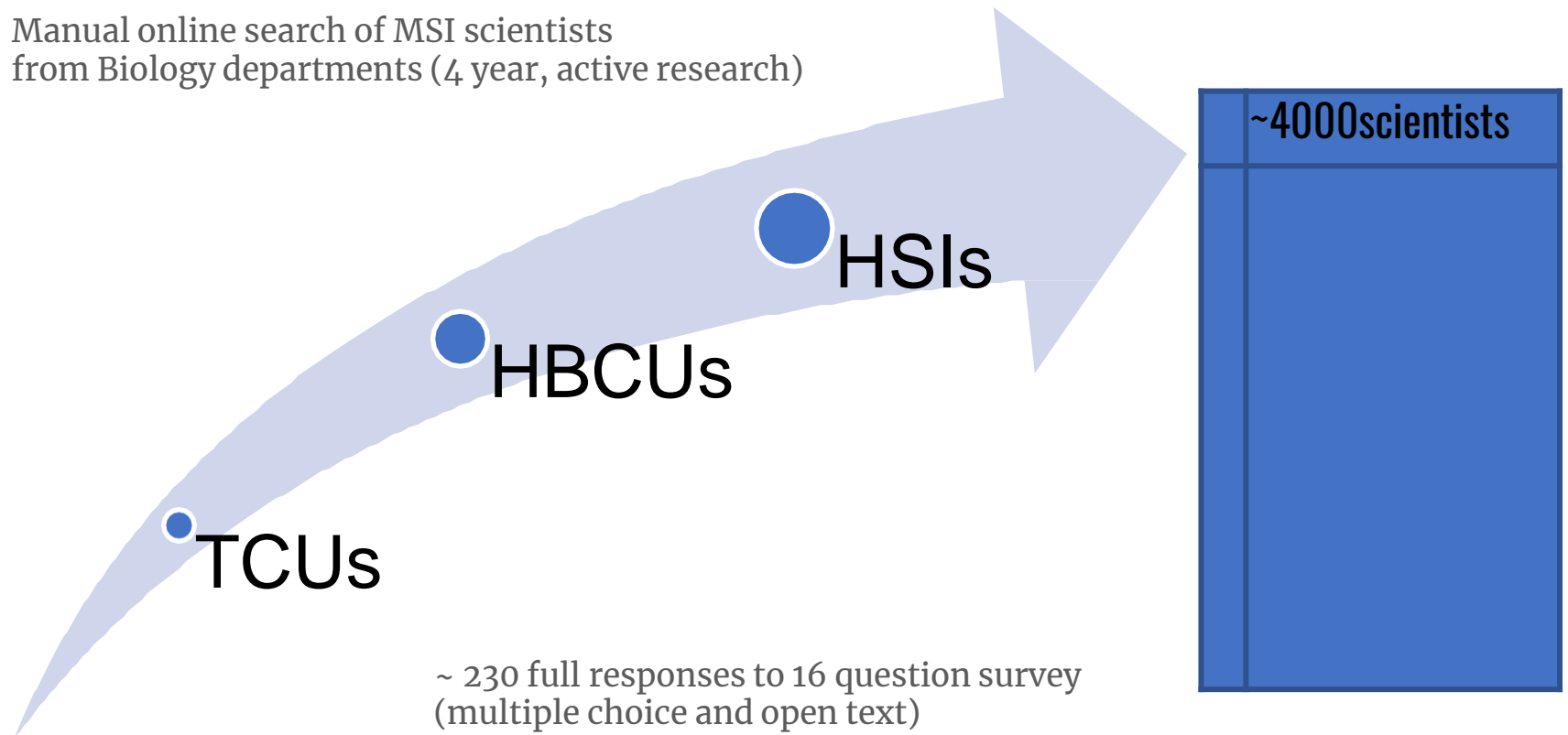
“Feedback Fair and Unbiased”

64% Whites

49% non-Whites

MSI Scientist Survey

Manual online search of MSI scientists
from Biology departments (4 year, active research)

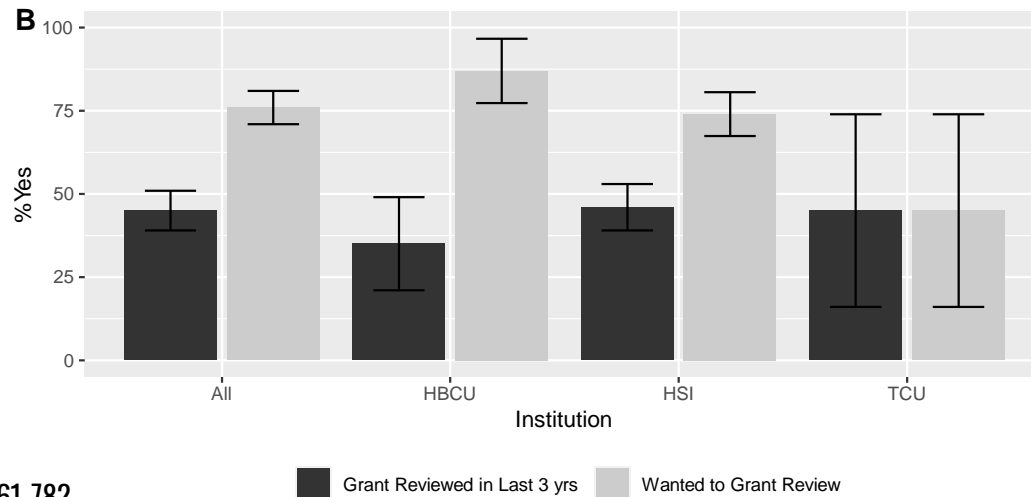
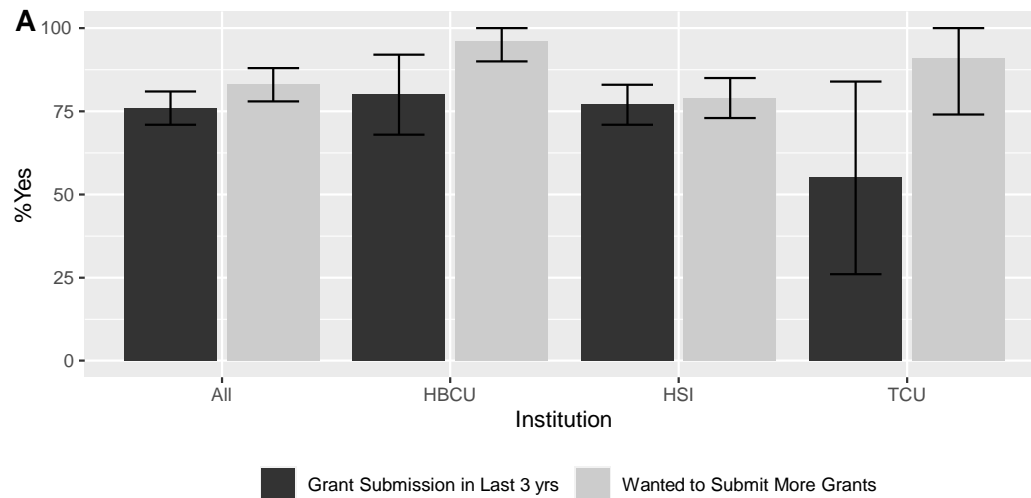


Demographics of Survey Respondents

Table 1. Respondent demographics for minority-serving institution groups.

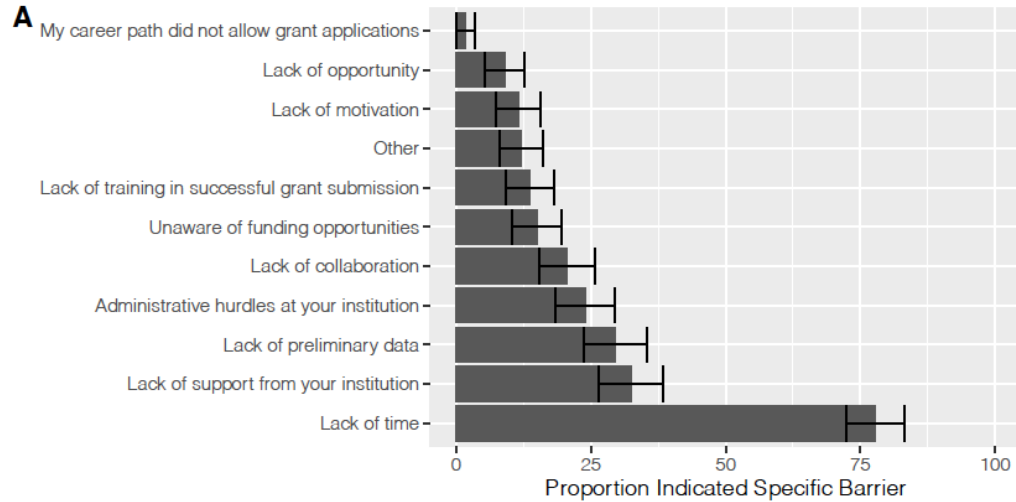
Factor		Historically Black colleges and universities		Tribal colleges and universities		Hispanic-serving institutions		Total		
		Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	
Gender	Female	57	26	46	5	51	87	53	124	
	Male	43	20	55	6	45	78	44	103	
	Nonbinary	0	0	0	0	1	2	1	2	
	No answer	0	0	0	0	3	5	2	5	
Race or ethnicity	African American or African origin	57	26	0	0	2	3	13	31	
	American Indian or Alaska Native origin	0	0	27	3	1	2	2	5	
	Asian origin	11	5	0	0	8	14	8	19	
	Caucasian or European origin	24	11	82	9	75	129	65	151	
	Hispanic, Latino or Spanish origin	2	1	0	0	17	30	14	32	
	Middle Eastern or North African origin	4	2	0	0	2	3	2	5	
	No answer	4	2	0	0	3	6	3	8	
	Years since degree	Less than 10 years	22	10	27	3	20	34	21	48
		10–20 years	48	22	45	5	30	51	35	82
		20–30 years	17	8	18	2	23	39	21	49
	More than 30 years	13	6	9	1	27	47	23	54	
	No answer	0	0	0	0	1	1	<1	1	

MSI Scientist Grant Submission and Peer Review Participation Levels vs Interest

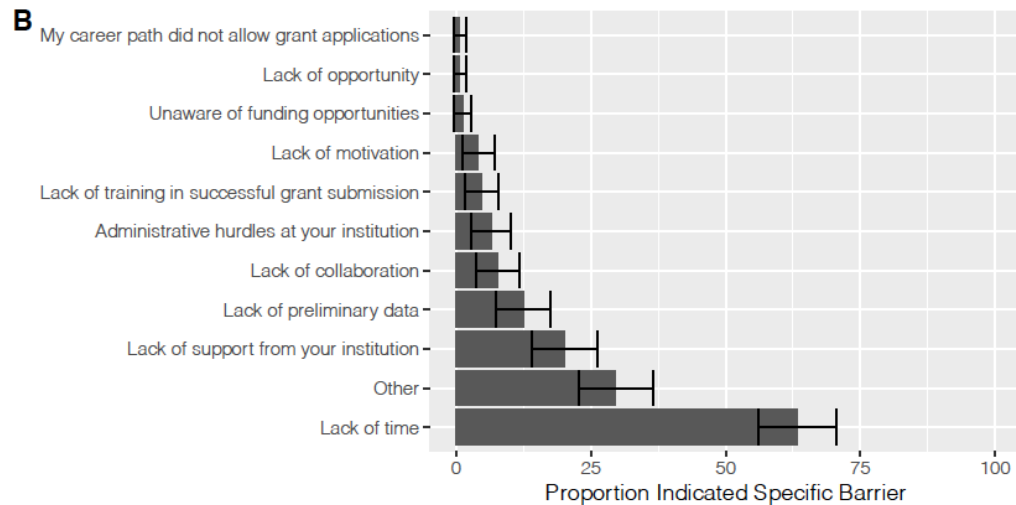


76% of TWI Scientists Reviewed in Last 3 years*

Barriers to Grant Submission



A. Multiple Choice



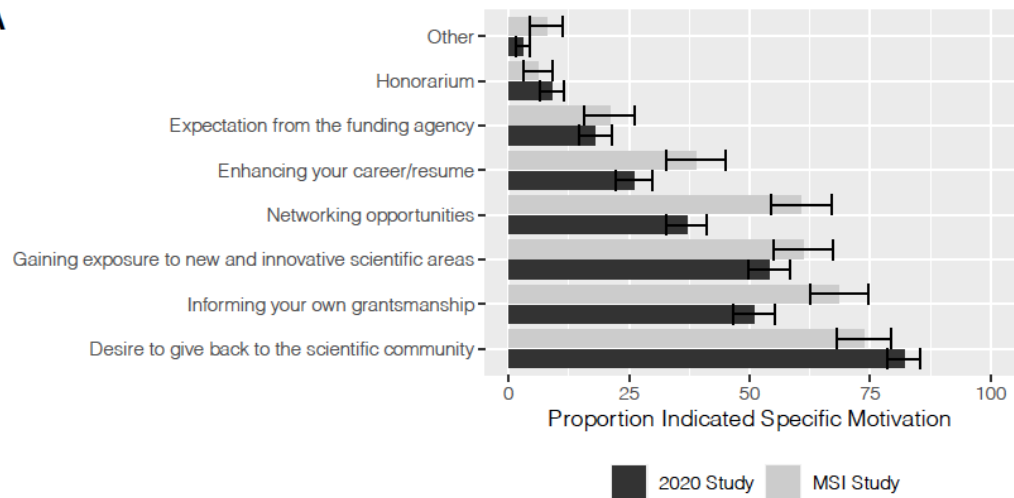
B. Comments

Barriers to Grant Submission - Comments

“As junior faculty, there has not been much training on how to successfully submit grant applications for large funders such as NSF, NIH, etc. Also, as a faculty member at an HBCU, time is very limited. Our teaching load is relatively high (12-15 hours) and we are also responsible for advising and service to the university. This leaves very little time for writing effective grants.”

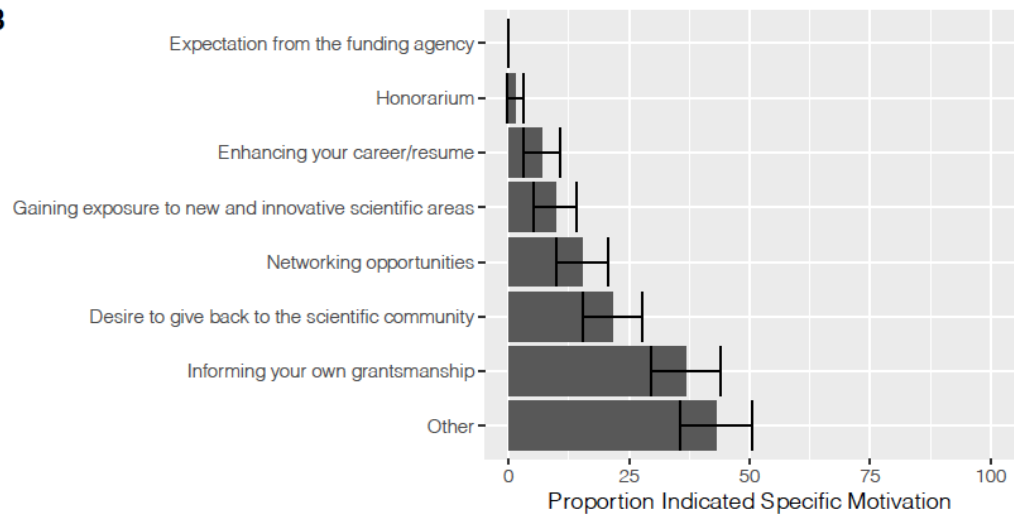
Grant Review Motivation

A



A. Multiple Choice

B

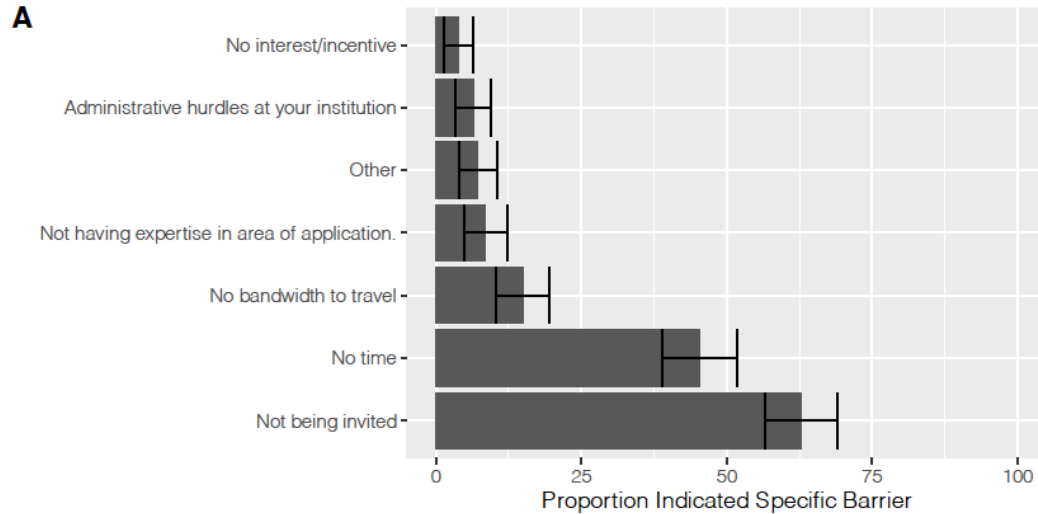


B. Comments

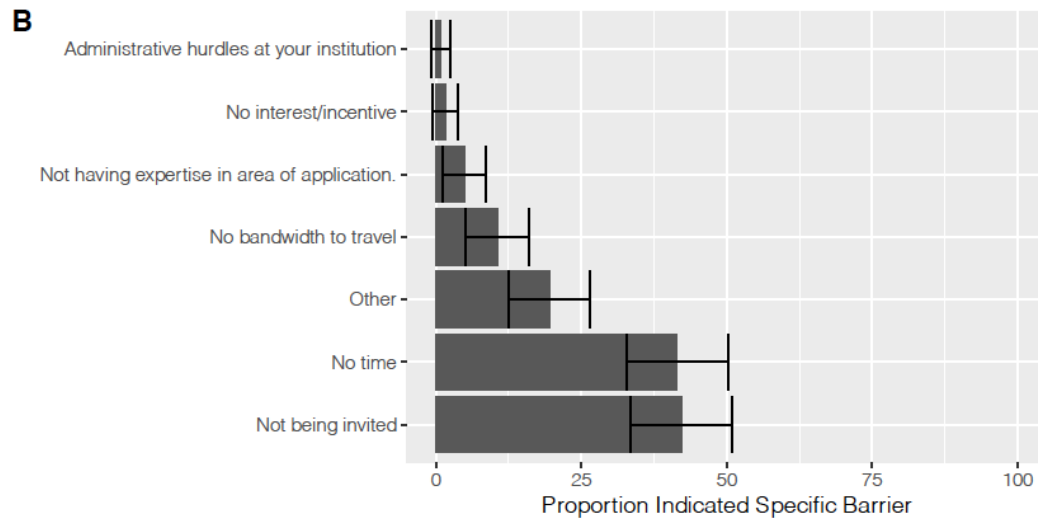
Grant Review Motivation- Comments

“I have served on a variety of panels, not just restricted to minority programs over the past 20 years. I have often encountered an amazement that faculty at an HBCU would be engaged in substantial and nationally (internationally) competitive research. I feel that my presence on research panels educates other panelists and often also review officers. It also gives me the opportunity to advocate for investigators from institutions such as mine and for URM investigators.”

Barriers to Grant Review Participation



A. Multiple Choice

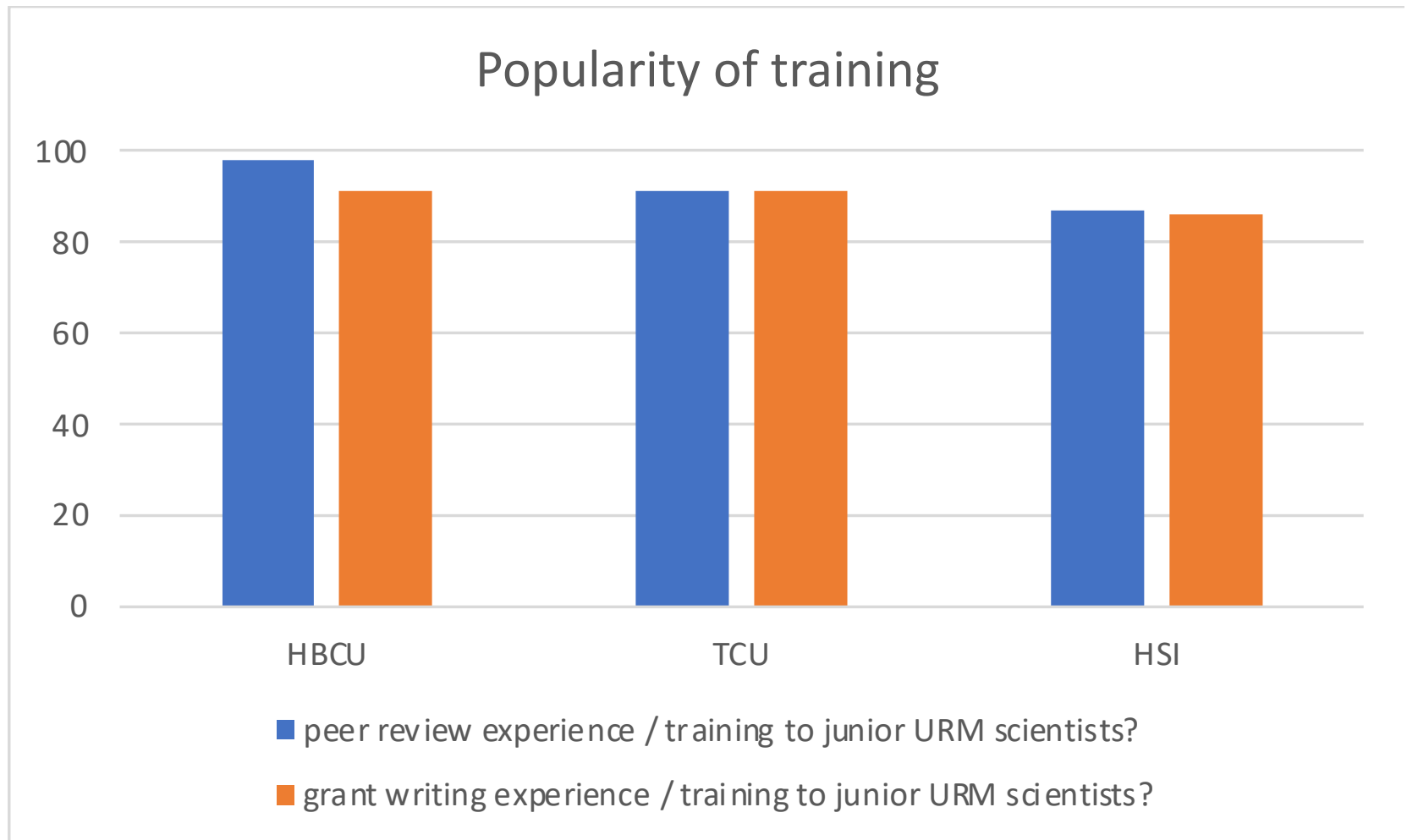


B. Comments

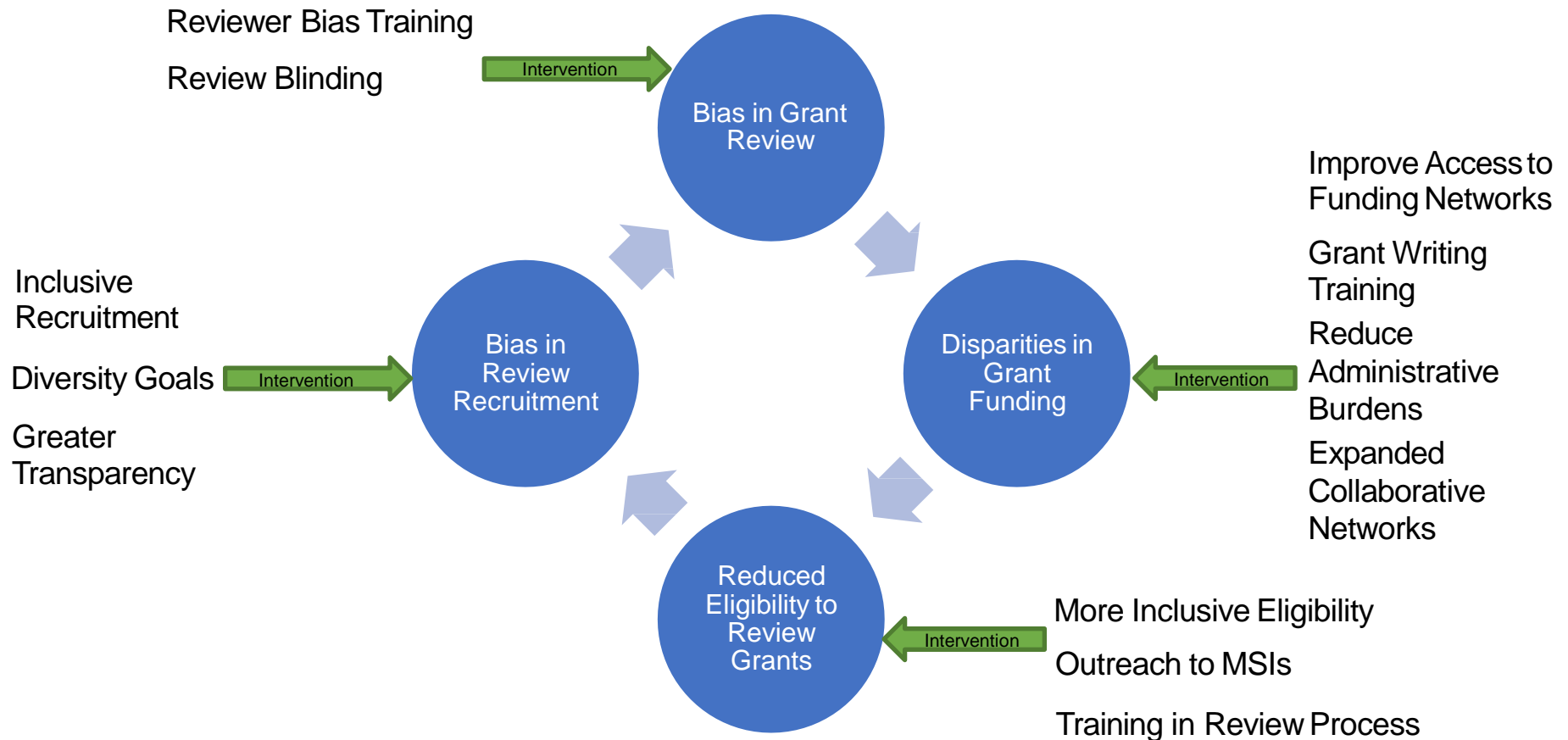
Barriers to Grant Review Participation - Comments

“I do not believe the peer review facilitators make an effort to reach a more diverse population. It would be a very easy decision to specifically reach out to HBCU communities. While I do not have this issue, I'm sure some other faculty members may have difficulty finding time to participate on peer review boards. Additionally, if the board does not pay for travel, some faculty at HBCUs may find it difficult to participate.”

Interest in Grant Writing and Peer Review Training



Model of Relationship of Grant Submission and Grant Review



AIBS Diversity Initiatives

AIBS is committed to increasing diversity, equity, and inclusion (DEI) in the biological sciences. Our efforts focus on developing programs that center around our core activities of assessment, training, and communication.



Assessment

- Reviewer Diversity
- Personnel Practices
- Member Societies



Communication

- *BioScience*
- Internally Generated Papers
- URM Reviewer Recruitment



Training

- DEIA Training
- Minority Policy Fellowship
- Minority Peer Review Training



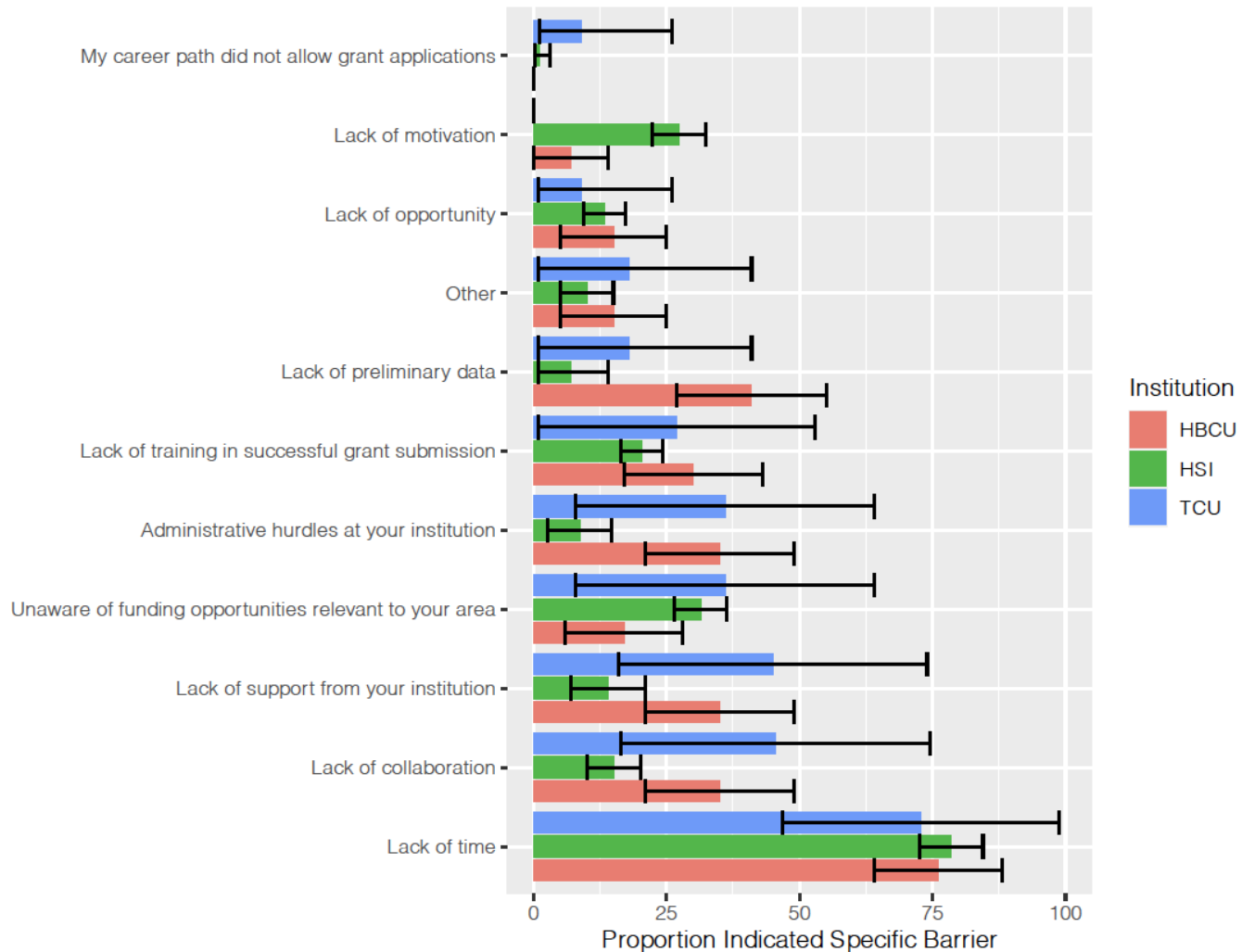
Thank You

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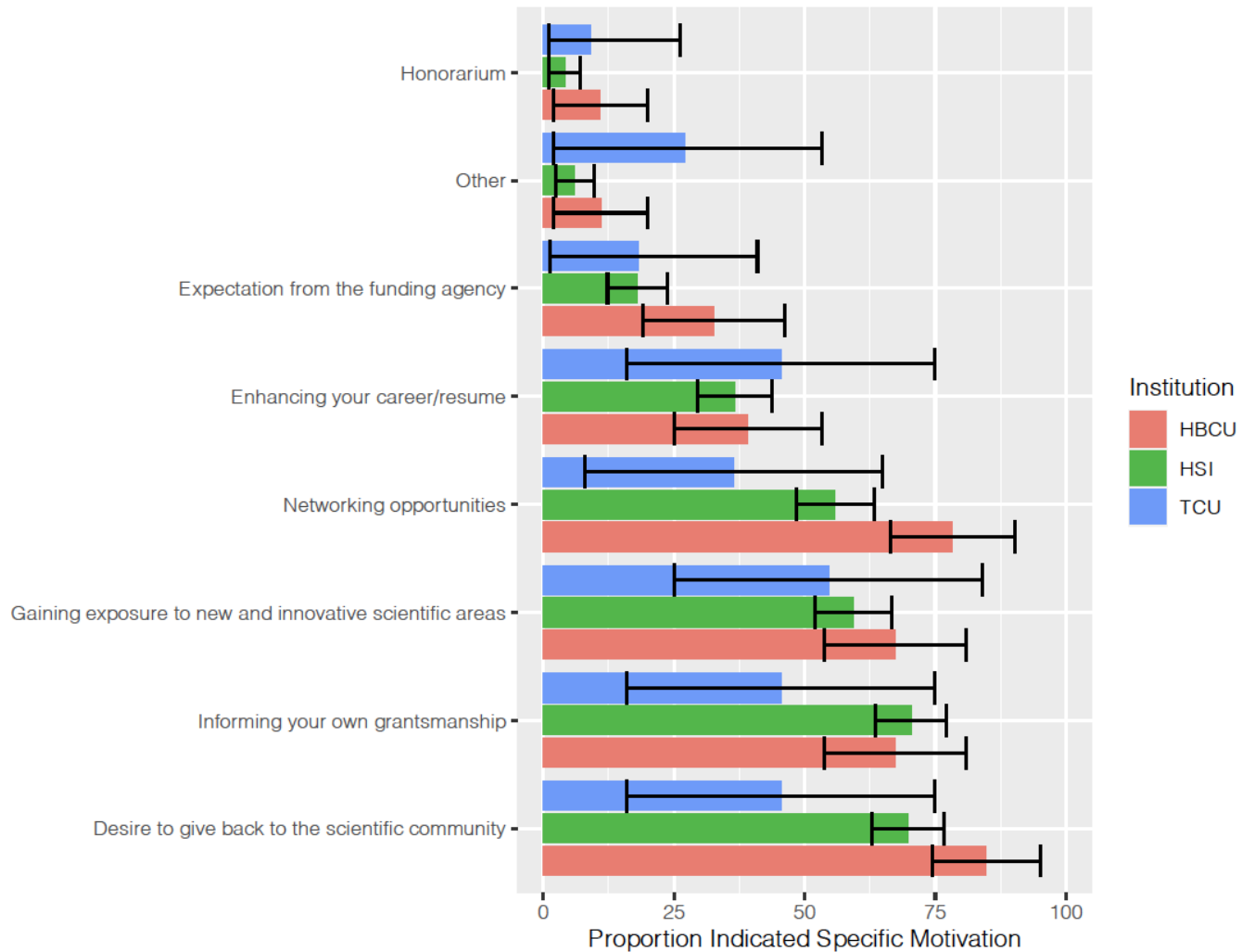
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Barriers to Grant Submission vs Institution Type



Grant Review Motivation vs Institution Type



Barriers to Grant Review Participation vs Institution Type

