

SCIENCE IN SOCIETY:

“Underrepresented faculty play a disproportionate role in advancing diversity and inclusion”

Jimenez M F, *et al.* 2019 Nature Ecology & Evolution 3:1030-1033

CONTEXT

- **Benefits of diversity in STEM fields:**
 - Increases productivity, problem solving, innovation, and relevance.
 - Dispels stereotypes of STEM professionals as older white men, a necessity for recruiting diverse new scientists.
- **Barriers to diversity in STEM fields**
 - Implicit bias in hiring, gender-based family responsibilities, family pressure on minority students to pursue other careers, and imposter syndrome (See: [Helping students \(re\)think of themselves as scientists](#))
 - *Academic culture fails to provide historically marginalized groups with adequate support and opportunities.*

QUESTIONS

- **To what degree do faculty actively engage in advancing diversity and inclusion?**
 - Specifically within ecology and evolutionary biology faculty
- **What are the characteristics of the most involved faculty?**
 - Male/Female, white/non-white, first gen, associate/full professor, etc
- **What are the motivations or barriers to participation?**
- **How can we reduce these barriers?**

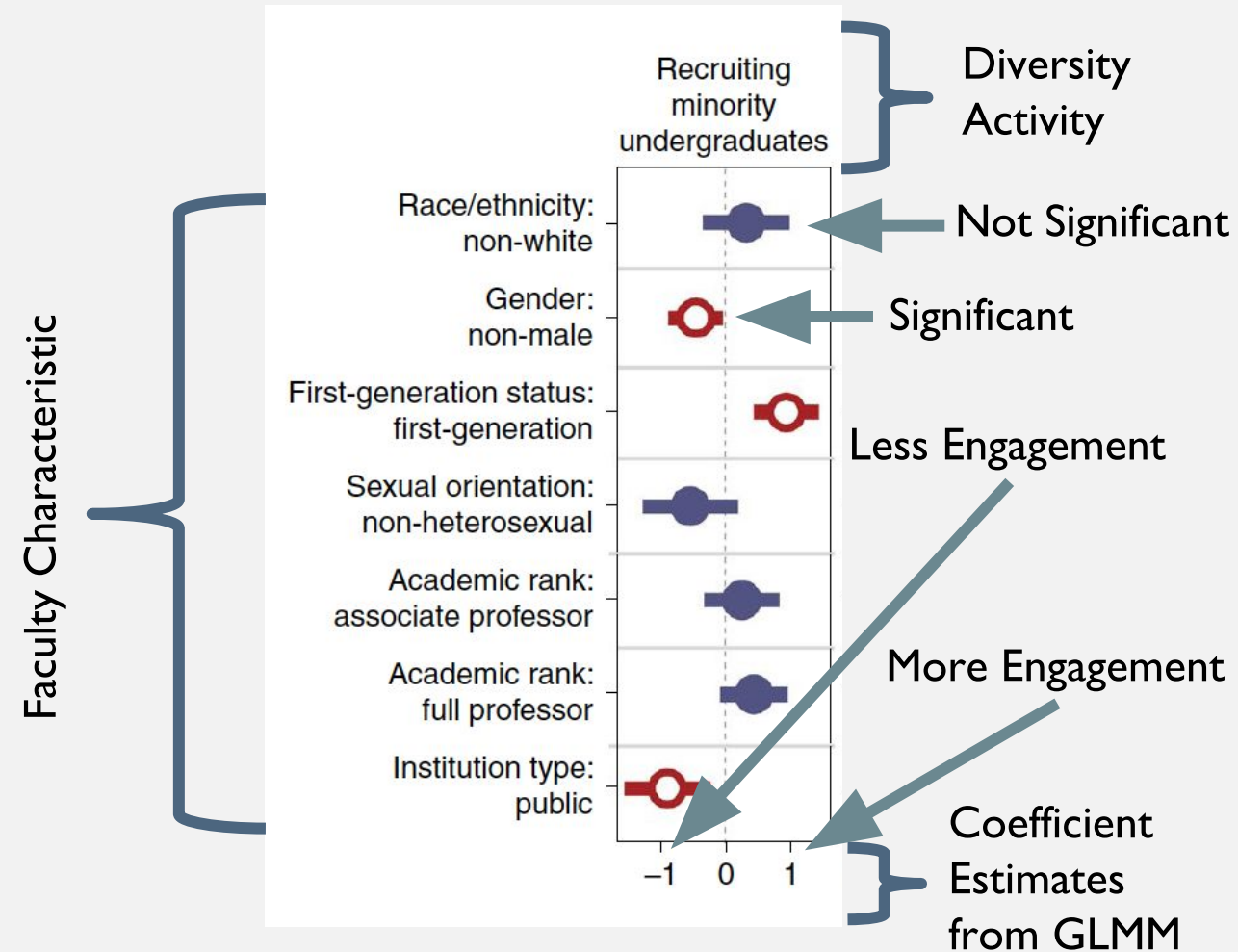
APPROACH

- **Online Survey**
 - Faculty in Ecology & Evolutionary Biology
 - One month response window in 2018
 - 2361 valid email addresses across 94 Eco & Evo programs
 - 469 Survey respondents (19.9% response rate)
 - 87.6% white
 - 51.6% male
 - 22.0% first-gen college student
 - Due to low numbers in non-white responses, data was categorized as either “non-Hispanic white” or “non-white”

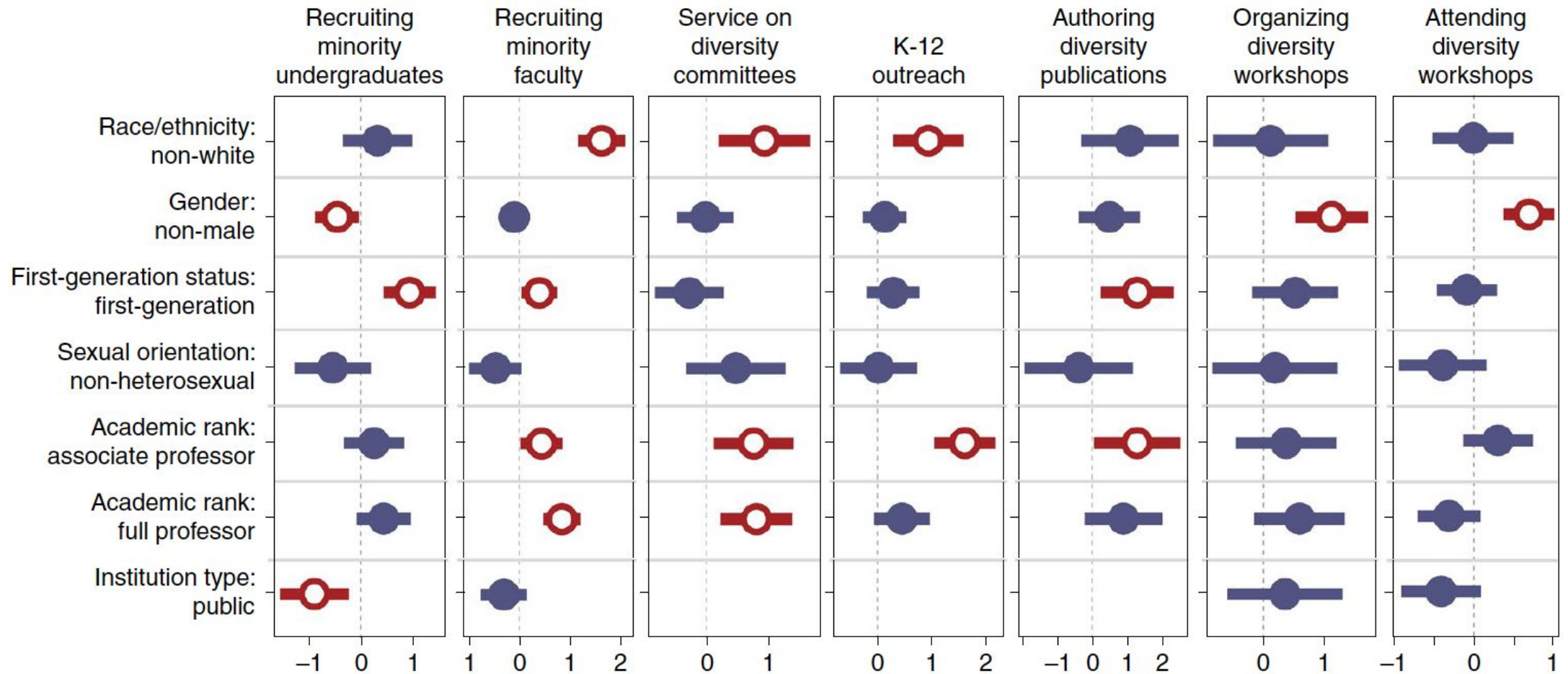
**INITIAL
THOUGHTS?**

RESULTS

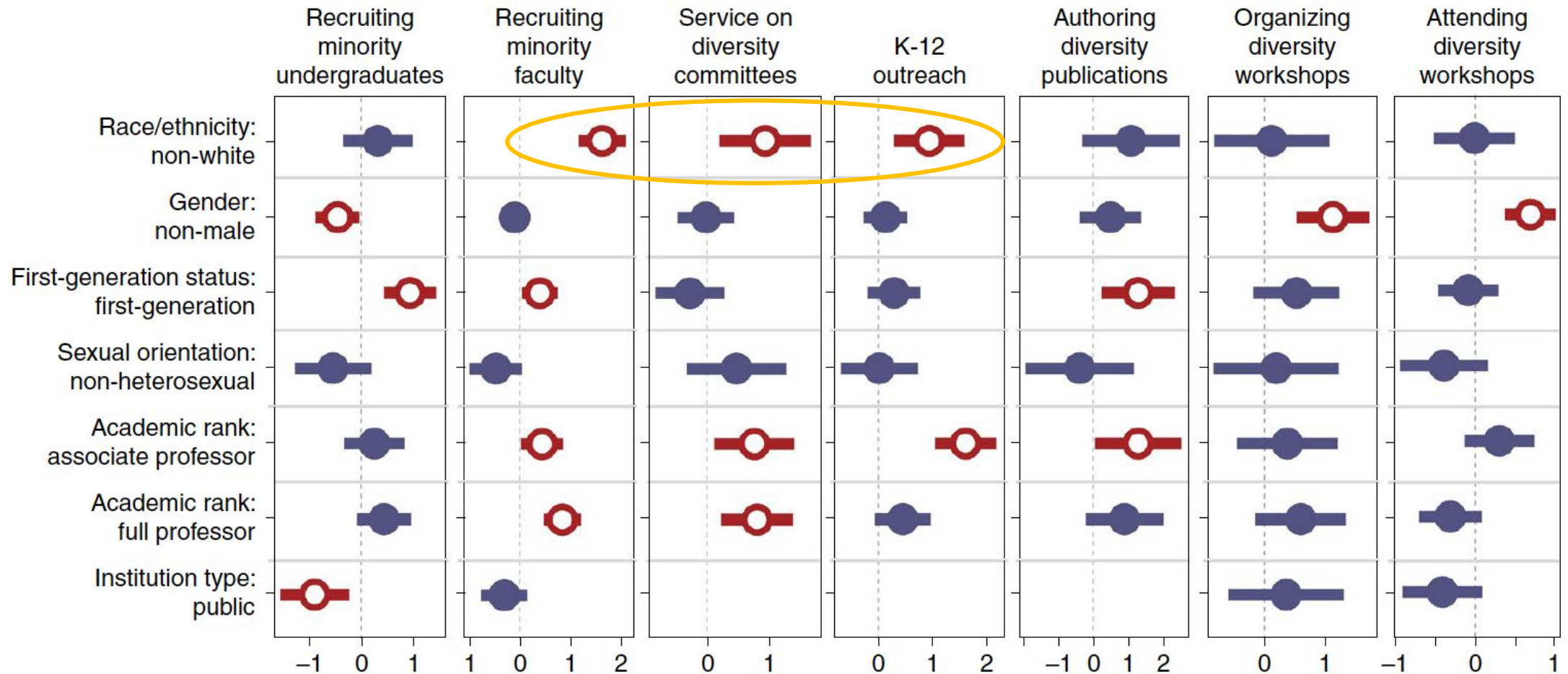
- 91.7% of respondents engaged in diversity and inclusion activities
- 71.7% felt that participating in these activities was relatively **unimportant for tenure decisions.**



Characteristics of faculty that engaged with diversity and inclusion activities

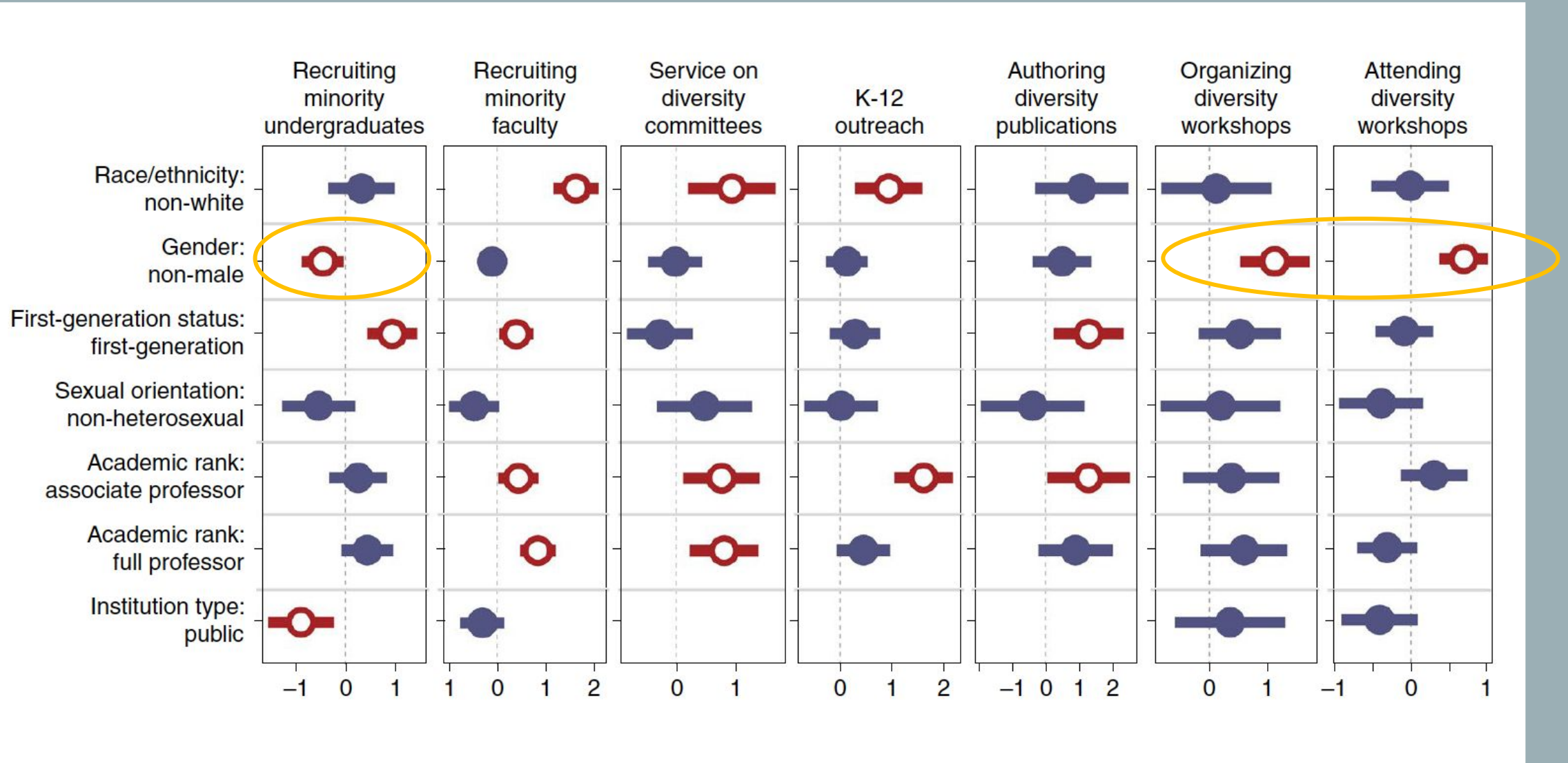


Characteristics of faculty that engaged with diversity and inclusion activities



Non-white faculty disproportionately serve on diversity committees, perform outreach, and recruit minority faculty.

Characteristics of faculty that engaged with diversity and inclusion activities



Non-male faculty are more likely to organize and attend diversity workshops.

Interestingly, male faculty recruit more minority undergraduates.

Characteristics of faculty that engaged with diversity and inclusion activities



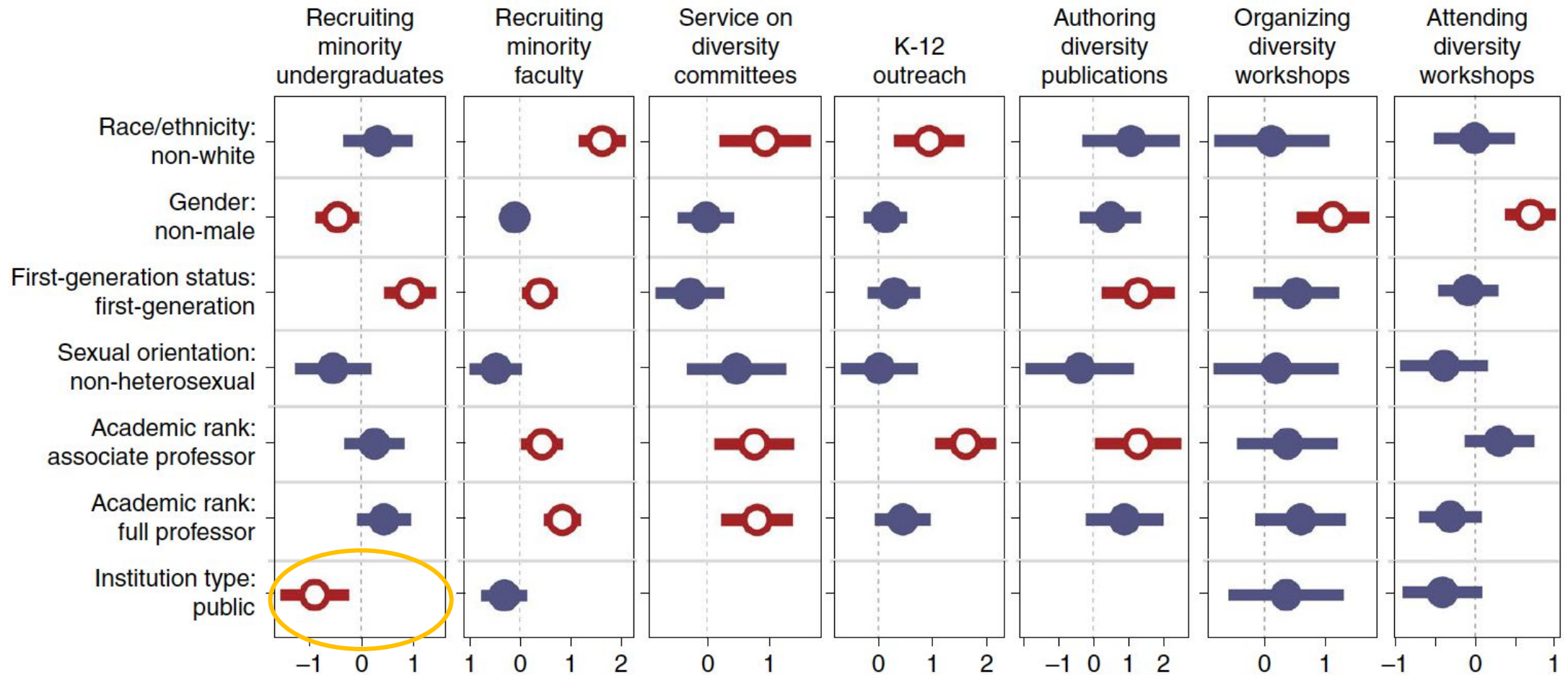
First-gen faculty engage in recruiting minority faculty and undergraduates and author diversity publications

Characteristics of faculty that engaged with diversity and inclusion activities



Associate professors (typically younger) are more involved in outreach, recruiting minority faculty, serving on diversity committees, and authoring diversity publications.

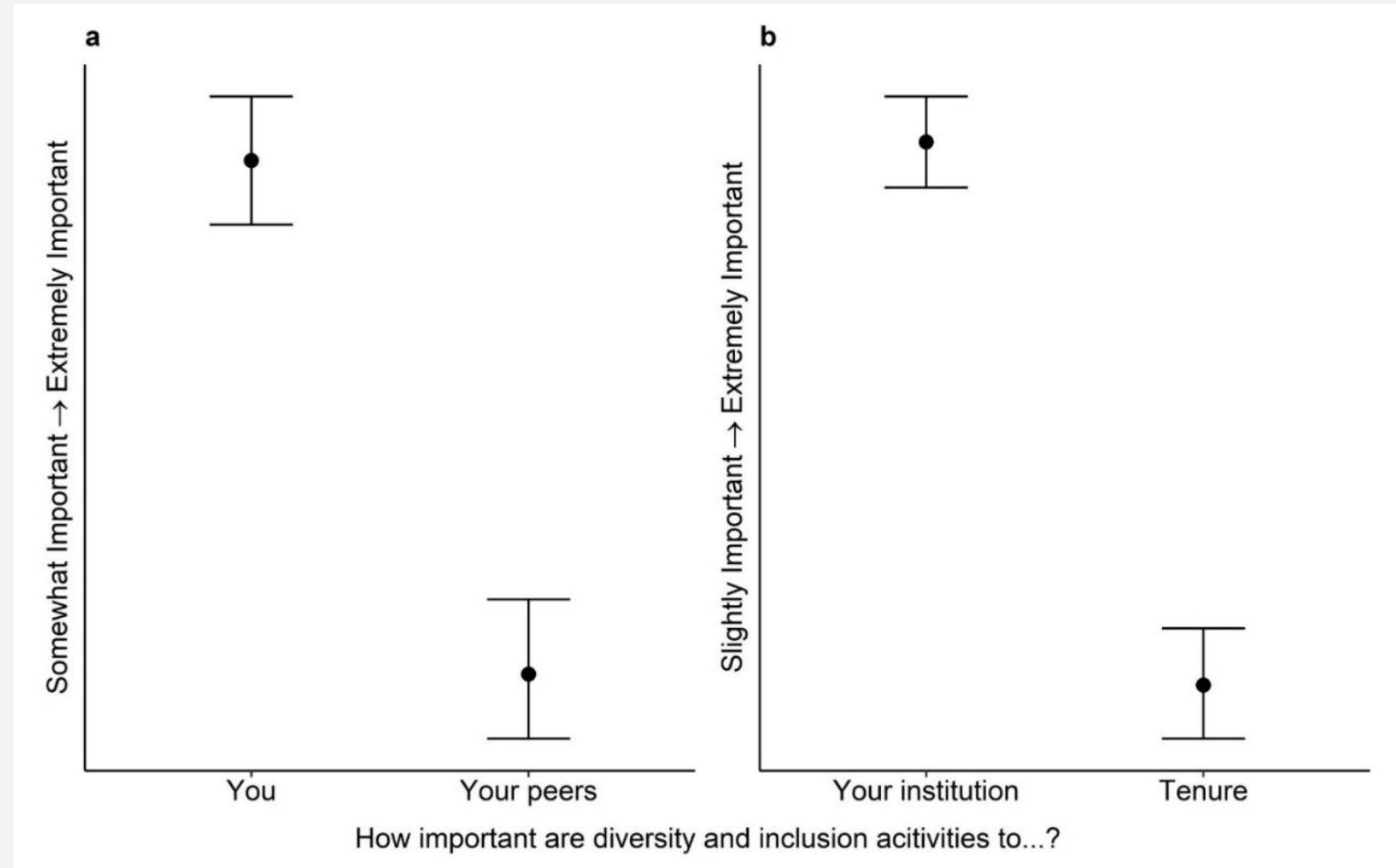
Characteristics of faculty that engaged with diversity and inclusion activities



Public institutions are not more engaged in recruiting minority undergraduates

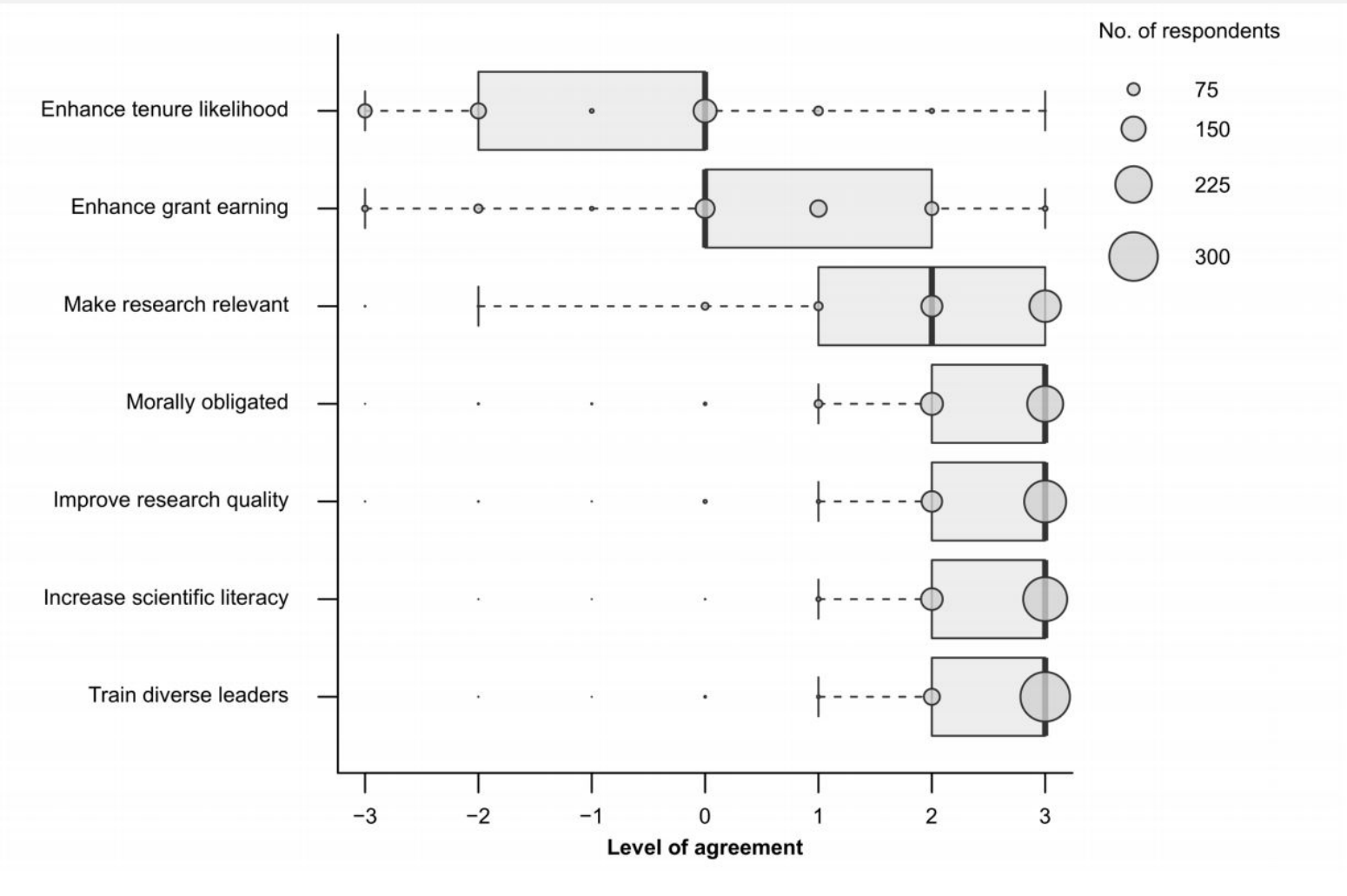
Supplemental Figure 1: Faculty perception on the importance of diversity and inclusion.

- Individual faculty feel that they value diversity more than their peers.
 - *Is this a departmental environment issue? Is the importance of diversity not being openly discussed?*
- Faculty feel that institutions value diversity, yet that incorporating diversity activities is unimportant for tenure
 - *Should diversity activities be more heavily weighted for tenure consideration?*

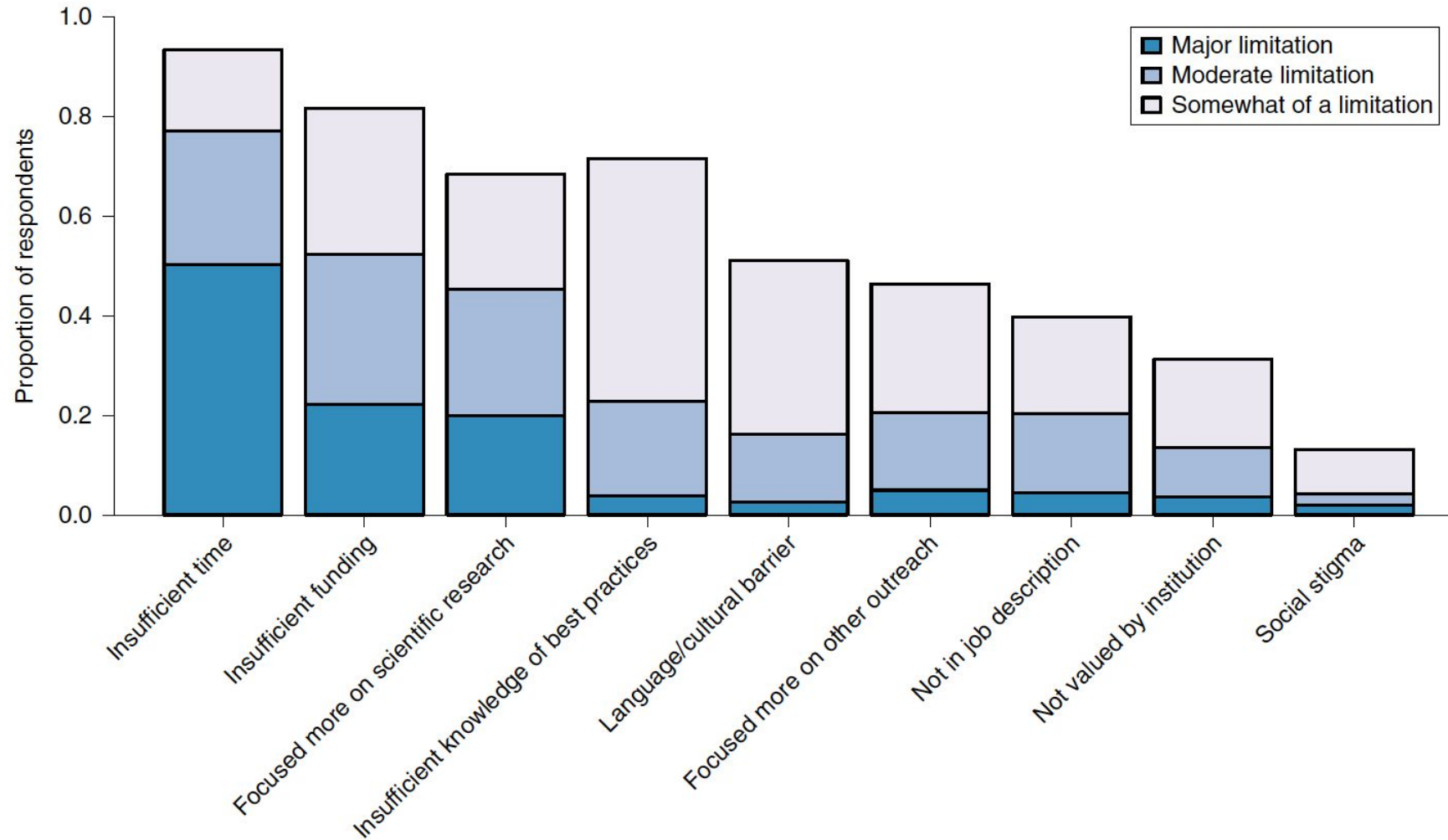


Supplemental Figure 2: Factors motivating faculty participation in activities related to diversity and inclusion

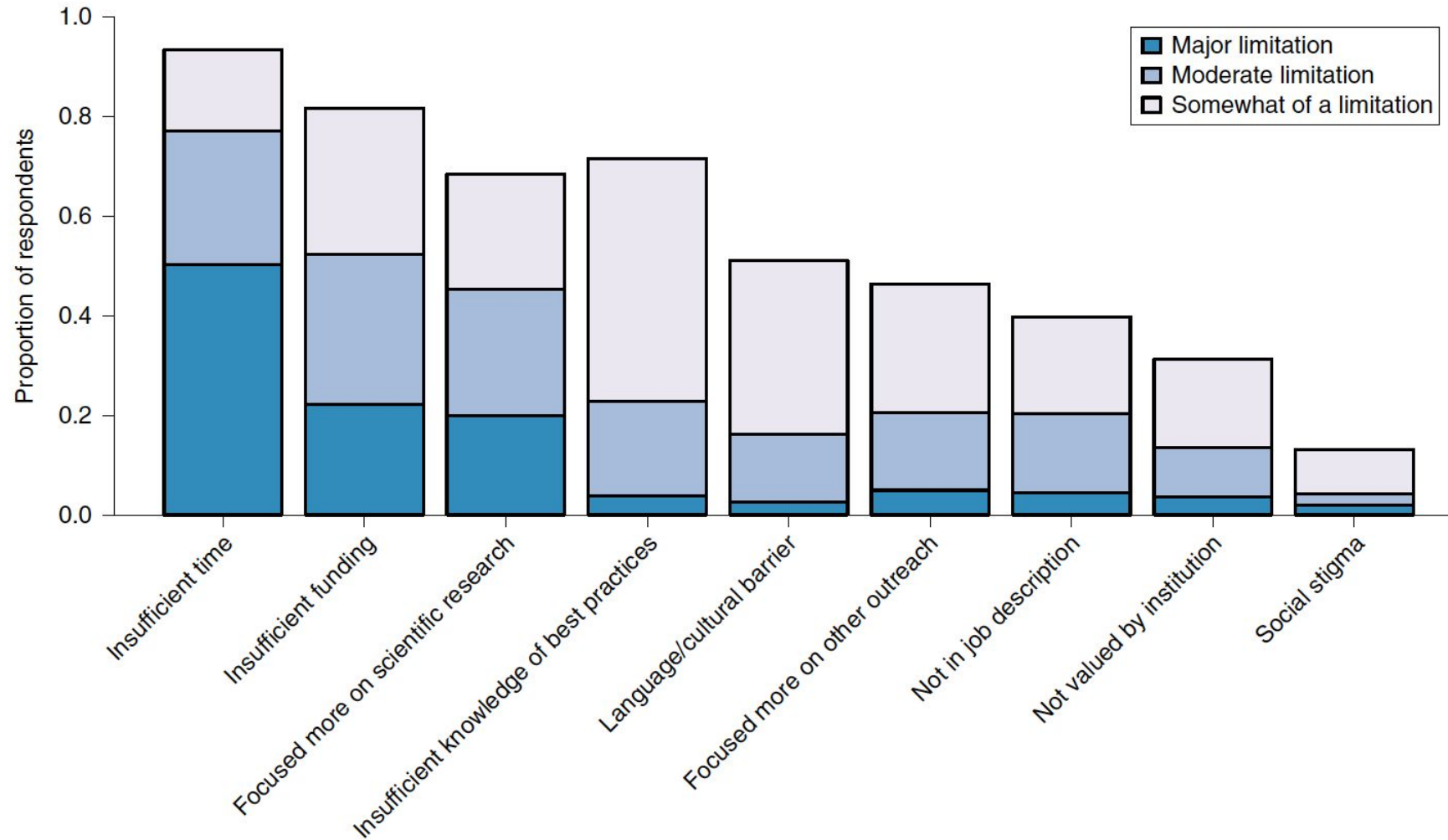
- Tenure credit is low on motivation list.
 - *Self-reporting bias? Or genuinely less of a motivator?*
- Moral obligations, improved research quality, increased scientific literacy, and training of diverse leadership all highly rated!



Factors limiting faculty participation in activities related to diversity and inclusion:

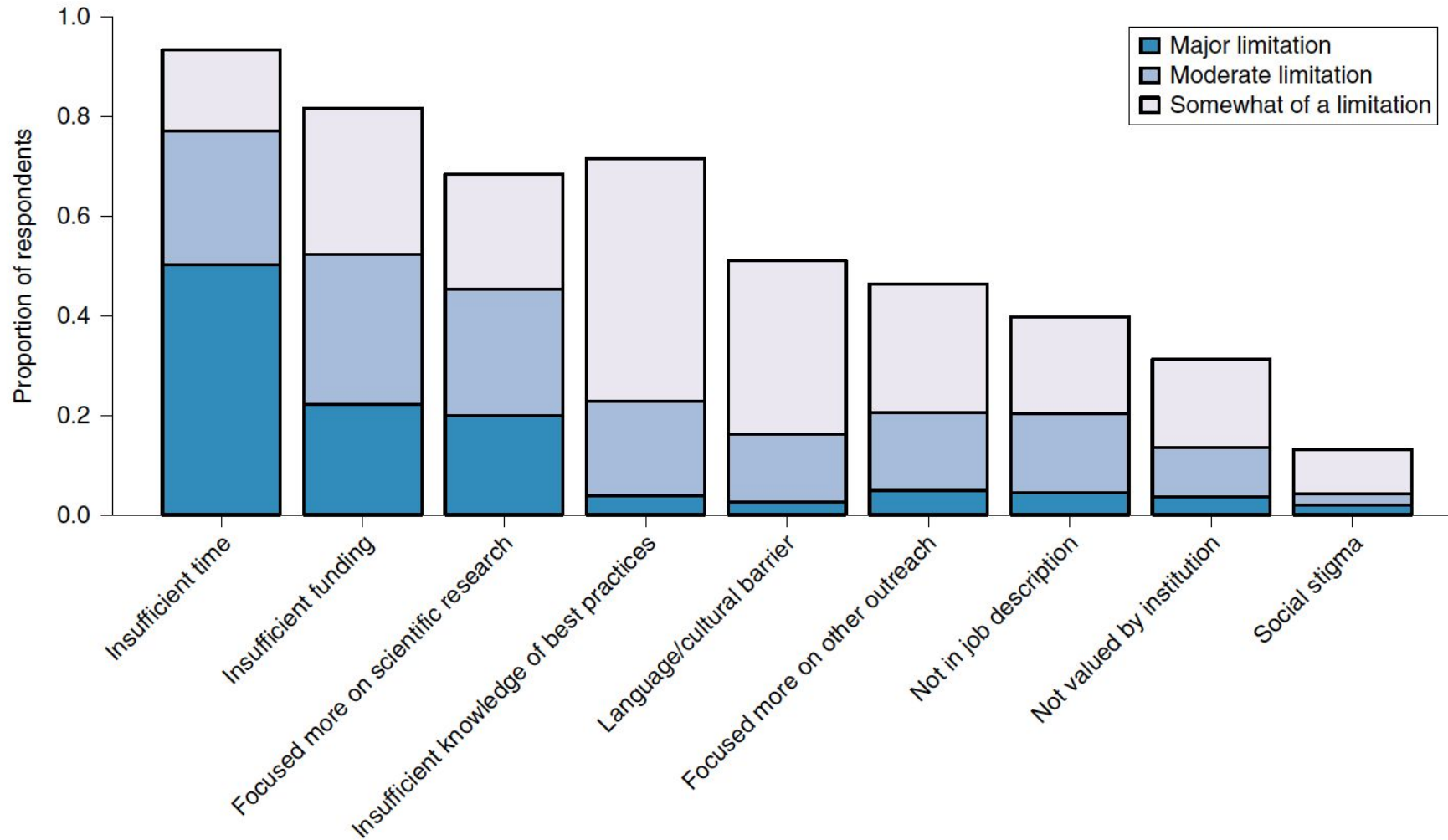


Factors limiting faculty participation in activities related to diversity and inclusion:



Time and Money are the biggest barriers to participation

Factors limiting faculty participation in activities related to diversity and inclusion:



Insufficient knowledge is largely "somewhat of a limitation"

DISCUSSION

- Non-white, non-male, and first-gen faculty disproportionately engage in and contribute to diversity and inclusion activities.
 - *Who should bear the most responsibility to engage in diversity activities? Should all faculty participate equally?*
- If time and money are the biggest barriers to participation, how can universities encourage engagement in diversity activities?
 - *Would internal diversity grants help? Would weighing participation for tenure status encourage faculty to spend more time on diversity activities?*
- Insufficient knowledge is “somewhat of a limitation”, yet more knowledge about how to participate in diversity and inclusion efforts can be learned through workshops... which are disproportionately attended by women.
 - How can faculty become more educated about how to create environments suitable for diverse scientists?

DISCUSSION

- **How will this influence our discussion with MCB faculty regarding the anti-racism memo?**

THANK YOU



- This resource was found on Dr. Needhi Bhalla's Equity Reading List: <https://www.bhallalab.com/equity-reading-list>
- Follow her: @NeedhiBhalla on twitter! She's a badass *C. elegans* meiosis/mitosis biologist at UC Santa Cruz