



SUMMARY OF RECOMMENDATIONS RELATED TO BIAS AND PERCEPTION

The Problem: Bias, whether implicit or explicit, conscious or unconscious, is not simply a matter of perception, but also of how stereotypes and beliefs are expressed in social and professional interactions. Ideas about who can do – or typically does – science shape participation in the field and influence hiring and award decisions. In astrophysics, men preferentially collaborate with male co-authors, Time Allocation Committees rate proposals with female principal investigators (PIs) lower than those with male PIs (an effect that disappears when proposals are reviewed anonymously), and papers led by men receive more citations than comparable papers led by women. Across academia, tightly controlled experiments show that female researchers are rated as less competent, offered lower compensation, and are less likely to be hired than men with identical qualifications. Female instructors also receive harsher evaluations that more often comment on personality and appearance.

Recommendations:

- **In hiring:** standardized rubrics should be used for all candidates to ensure that selection criteria are applied consistently. Candidates should be evaluated on their own merit before letters of recommendation are considered, and efforts should be made to exclude career interruptions and potentially biased metrics like ‘time to degree’ from hiring and award decisions.
- **Departments should offer – and incentivize attendance at – in-person trainings** on recognizing and effectively addressing bias. Similarly, department members should be encouraged to receive formal instruction in teaching and mentorship.
- **Clear scientific communication should be prioritized**, and the assumption that avoiding jargon signals a lack of expertise should be challenged. Making expectations explicit for department members – in research, service, and teaching – and rewarding effort and improvement can help counter stereotypes about brilliance and competence.
- **Service work disproportionately falls to women in academia.** Departments and institutions can reduce inequitable burden by eliminating policies that require demographic representation on committees. Service should instead be assigned using transparent systems (e.g., first come, first served sign ups for preferred roles), and workloads should be tracked and moderated to ensure that work is distributed fairly.

Picture an Astronomer: Best Practices for Retaining Talent in Astrophysics

<https://arxiv.org/abs/2512.24465>

<https://pictureanastronomer.github.io/whitepaper>