



## SUMMARY OF RECOMMENDATIONS RELATED TO RESOURCES AND WORKLOAD

**The Problem:** Female scientists are often substantially under-resourced compared to their male counterparts. Gender plays a significant role in hiring: at all levels, female applicants are rated as less competent and less hireable than otherwise identical male applicants. Once hired, women receive lower salaries and less lab and office space, disparities compounded by societal expectations around agreeableness and compliance, which result in penalties for women who negotiate assertively. Women also shoulder a disproportionate amount of service work, particularly “invisible” and uncompensated roles. This additional service burden reduces the time available for research, which in turn makes women less likely to submit proposals for funding opportunities for which they are eligible. When they do submit, their proposals—and the grants awarded—tend to be smaller. In astronomy specifically, telescope proposals led by women are graded more harshly than those by male principal investigators (PI); when review panels can no longer see the gender of the PI, this disparity disappears. These gendered inequities affect not only access to resources and their day-to-day experience of science, but also the perceived “productivity” metrics that drive hiring, promotion, and awards. Bias in resourcing therefore becomes a significant systematic barrier to long-term retention in science.

### Recommendations:

- **Provide training and transparency around negotiation.** Departments should offer training in negotiation and accurate, effective self-promotion. Where possible, salaries and key negotiables (e.g., discretionary funding, lab/office space) should be made transparent to support more equitable outcomes at the hiring and negotiation stage.
- **Clarify and value service work.** Service expectations should be explicit, with minimum, average, and high workloads clearly defined. Departments should recognize and reward service contributions and intentionally distribute service roles equitably by tracking who performs which tasks.
- **Require ongoing anti-bias training for evaluators.** Mentors and individuals serving on hiring, promotion, and award committees should participate in regular anti-bias training to improve both interactions with mentees and the fairness of candidate evaluation.
- **Limit reliance on letters of reference in faculty hiring and promotion.** Letters should be requested only at the final stage—if at all—as they introduce opportunities for gender-biased language without meaningfully increasing information available to the evaluators.

Picture an Astronomer: Best Practices for Retaining Talent in Astrophysics

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

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