



University of Colorado
Boulder

Going Blind to See the Stars: Removing PI Name Decreases Gender Bias in Hubble Proposal Ratings

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Background

Gender diversity leads to greater innovation

Women represent only 28% of all S&E occupations

Evidence that bias against women does exist

Institutional forces – gender role expectations and available role models

Blinding

Hubble implemented blinding procedure

No studies have tested impact of blinding procedures



Method

Quasi-experimental field study

Investigate the effects of Hubble blinding

Cycle 21 and Cycle 24

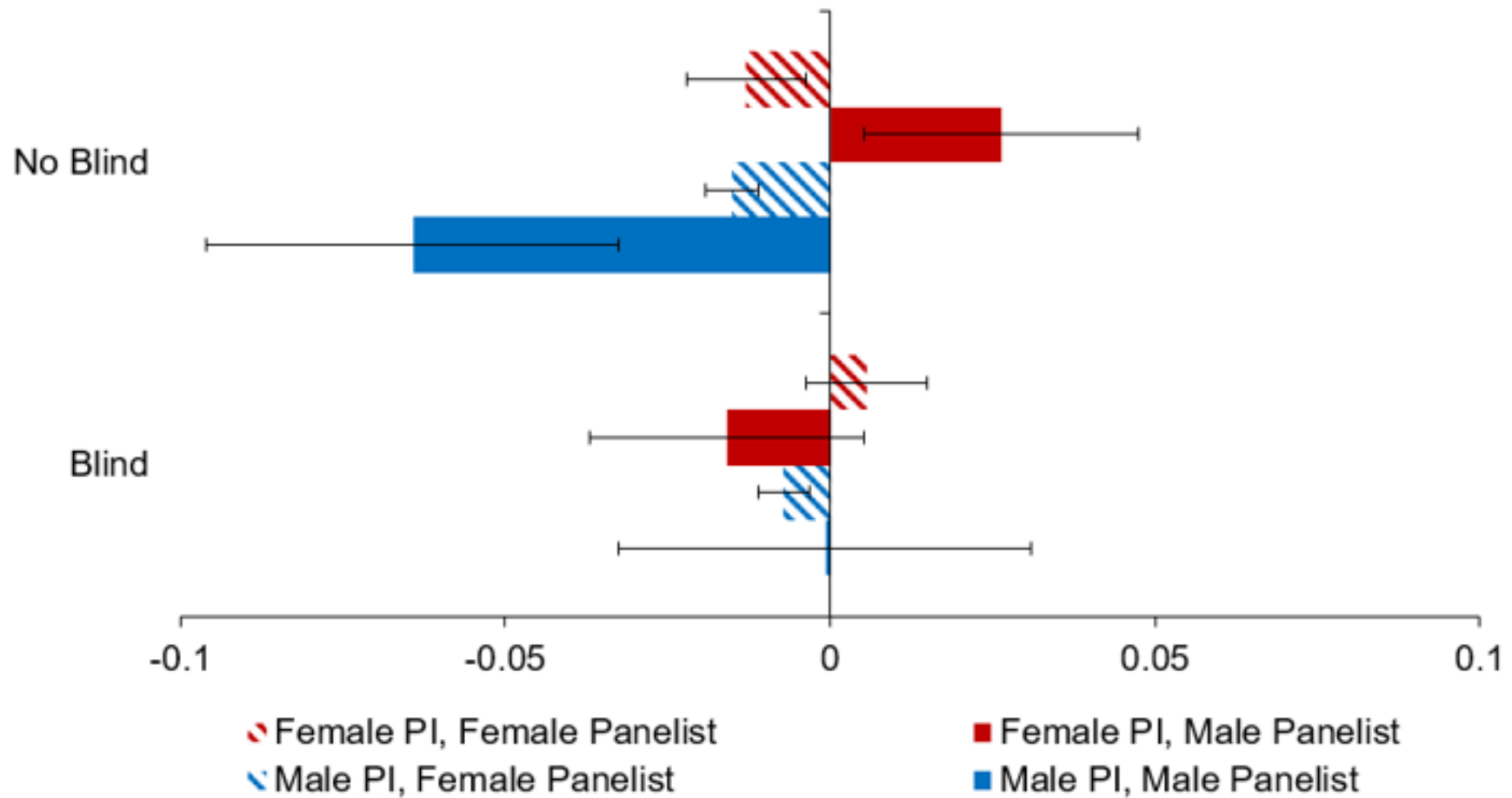
Only about 20% of applications receive access



Variables	Estimates (with AR)	Estimates (without AR)
<i>PI PhD Year</i>	-.003**	-.002**
<i>Panelist PhD Year</i>	.000	.000
<i>Blind[†]</i>	.038	.050
<i>PI Sex[‡]</i>	.085*	.070
<i>Panelist Sex[‡]</i>	.029	.034
<i>Blind X PI Sex</i>	-.108	-.139*
<i>Blind X Panelist Sex</i>	-.032	-.018
<i>PI Sex X Panelist Sex</i>	-.095*	-.081
<i>Blind X PI Sex X Panelist Sex</i>	.141*	.160*



Panelists' Average Preliminary Ratings (z-score)



Prelim to
Final Pass
Rate



59.0%

60.6%

Significant
difference

Non-significant
difference



66.3%

63.3%



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HST Visit

Two researchers attended the 2017 TAC meeting

Qualitative approach

Blinding removed first name (leaving initial) and did not identify PI

Focused on content and tone of conversations

Qualitative Approach

Observed 13 of the 16 panels across three days

Recorded notes on application conversations

Observed that 50% of application conversations include some mention of the PI or team



The PI and Team

“He [referring to the author] is very well qualified”

“My group has benefitted a lot from previous work from this team”

Panel members even pulled up research articles by the team and noted their high citation count



Recommendations

- Fully blind the applications
- Author guidelines
- Separate evaluation of science and management
- More training for panel chairs
- Training on use of scale and discussions

