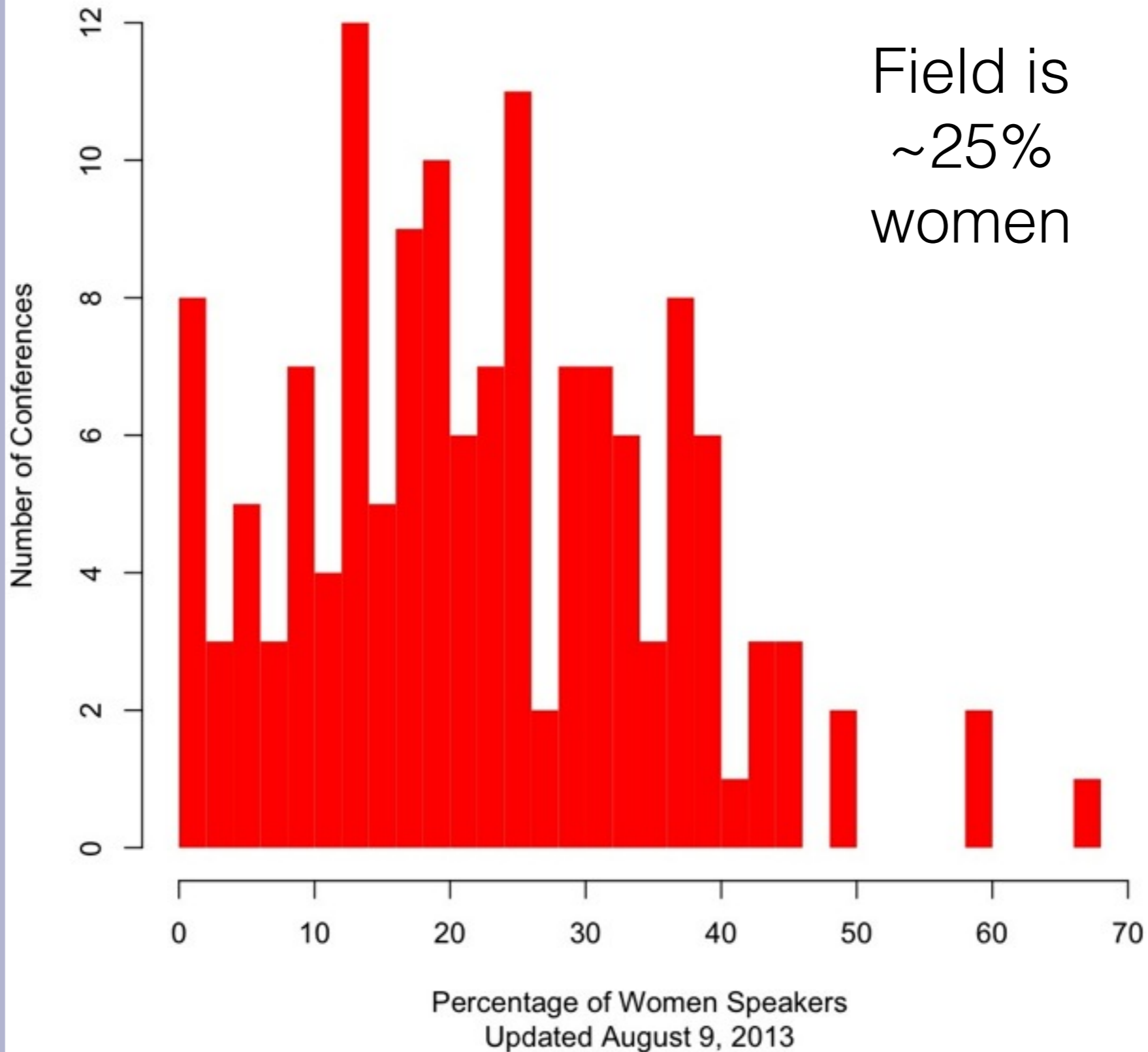


Who Asks Questions at Astronomy Meetings? An Overview of the Gender Questions Project

Sarah Jane Schmidt
E&I Lunch
19 May 2017

- In the US and Europe, population is 51% women
- The IAU is 17% women (83% men)
- The American Astronomical Society is 25% women (73% men, no respondents identifying as non-binary)
- The AAS notes that astronomers born before 1980 are 21% women, while after 1980 are 40% women

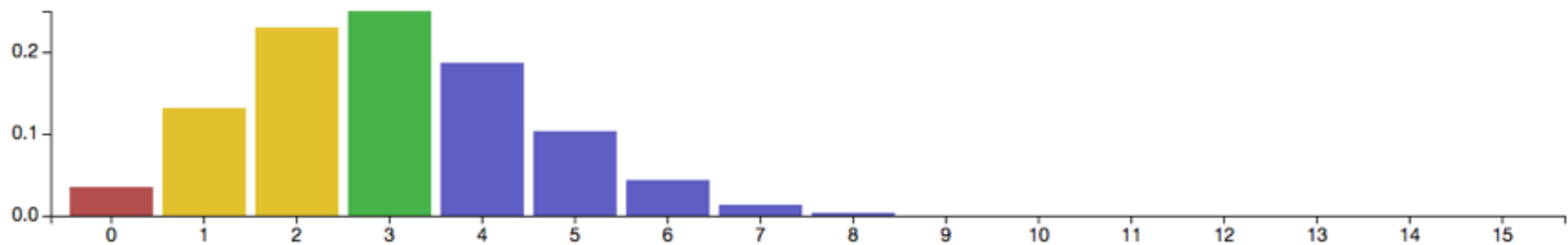
Histogram of Percentage of Women Speakers



What fluctuation would you expect from small number statistics?

Conference Diversity Distribution Calculator

How many would you expect in a random selection of people, assuming they constitute % of available speakers?



This selection has:

- a 35% chance of **over-representing women**
- a 25% chance of **representing women exactly**
- a 3.5% chance of **not representing women at all**

Over-representation is therefore about **10.0 times** as likely as no representation.

- Conference speakers are important, but not the only way gender comes into play at conferences
- Many of us noticed that women seem to interact less in question and answer sessions
- Is this true? Is this important?

- Meta-analysis of women vs. men, looking at who speaks more in group settings
- The amount of time people speak correlated with their self-perceived amount of power
- The amount of power people perceive you to have correlates with your speaking time

Mast 2002, "Dominance as Expressed and Inferred Through Speaking Time," Human Communication Research, Vol. 28, #3, p. 420

- Performed a set of studies to see if correlations between power and speaking time equally apply to men and women
- Found that women with more power speak the same as less powerful women due to fear of backlash for speaking a lot
- Found that there is indeed a negative perception of women with power who speak too much

Brescoll 2011, "Who Takes the Floor and Why: Gender, Power, and Volubility in Organizations," *Administrative Science Quarterly*, Vol. 56, #4, p. 622

- The Swedish Parliament has a relatively large representation of women (40%)
- Women make significantly fewer speeches, however, especially about issues like defense
- Reasons for disparity are unclear, but it is clear that participation is not the same as inclusion

Bäck et al. 2014, "Who Takes the Parliamentary Floor? The Role of Gender in Speech-making in the Swedish Riksdag," *Political Research Quarterly*, Vol. 67, #3, p. 504

Gender in Astro Talks

Speaker

Talk ID

e.g. 123.45 or Speaker Name

Speaker Gender

Female

Male

Questioners

Gender of Questioners

Female

Male

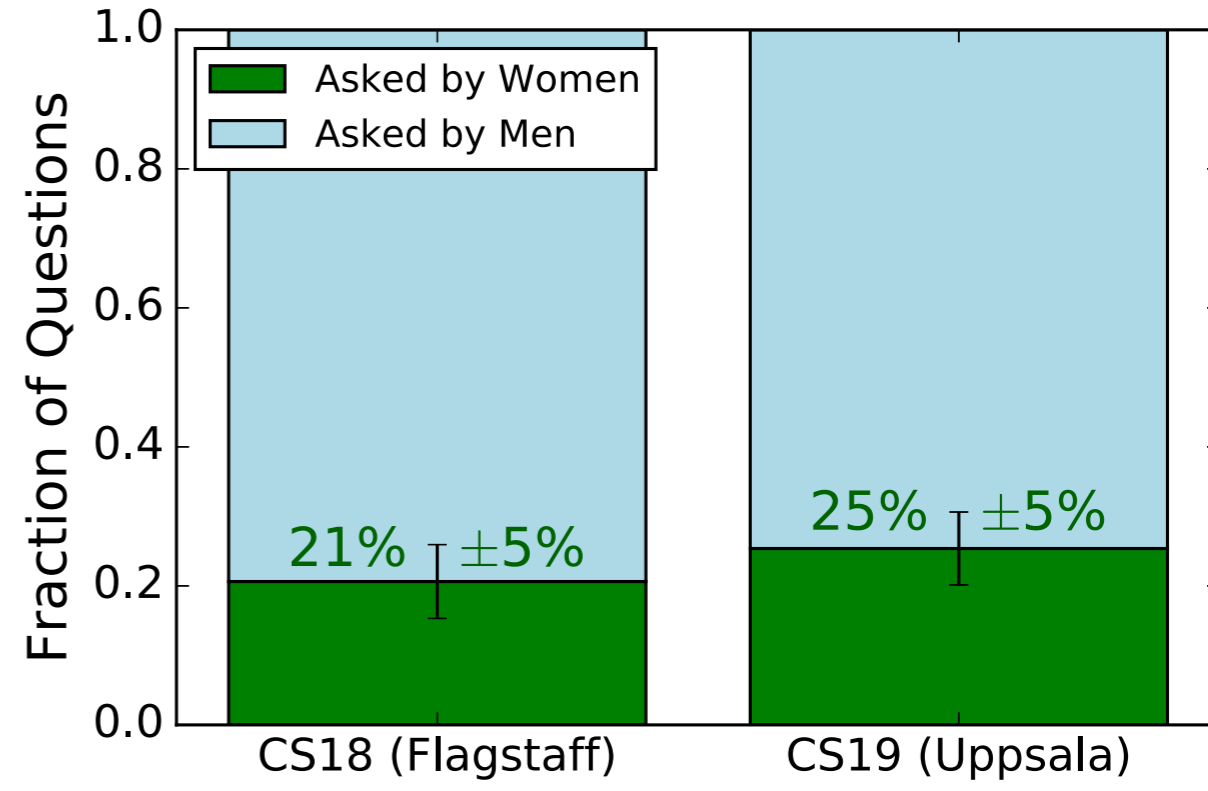
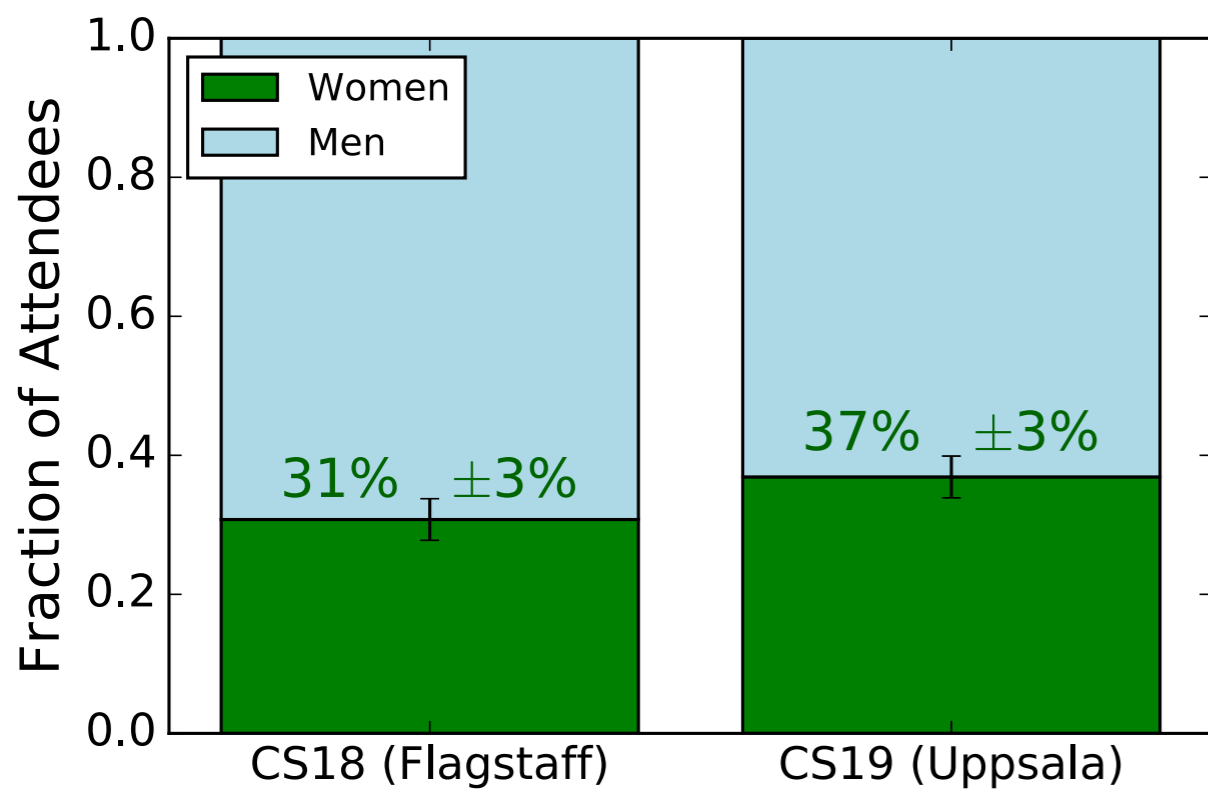
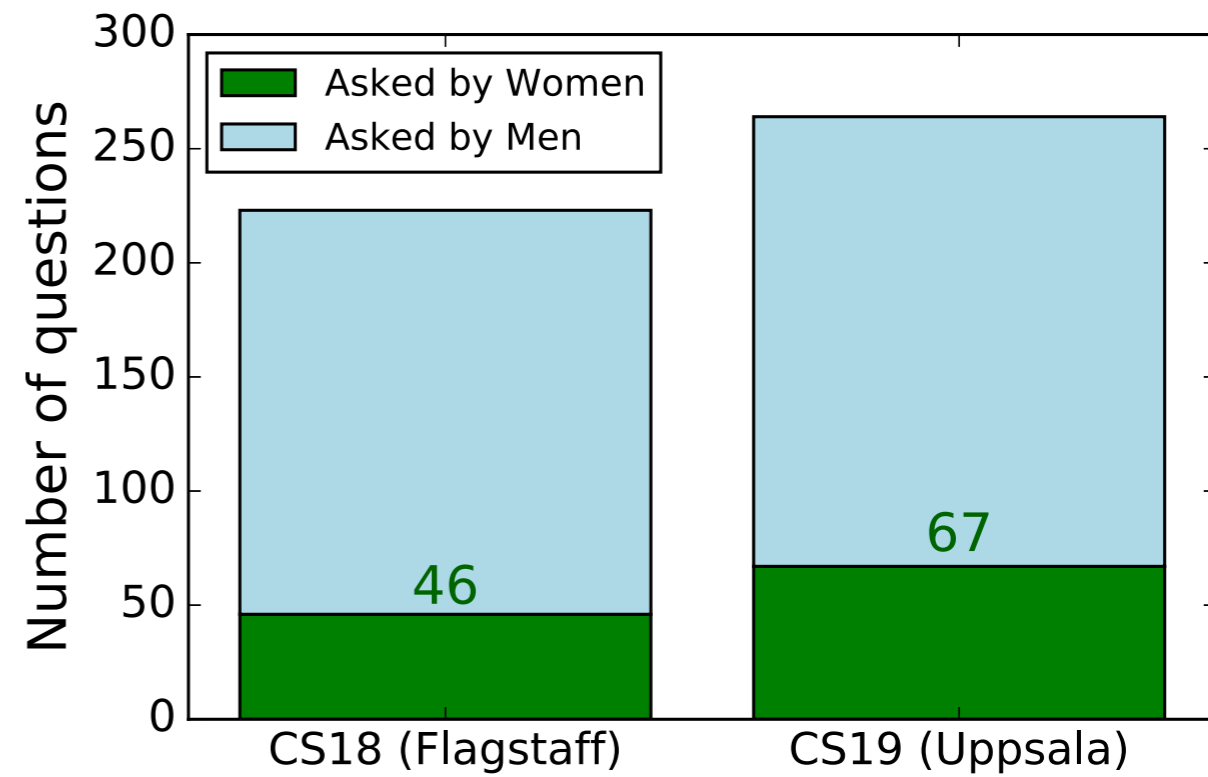
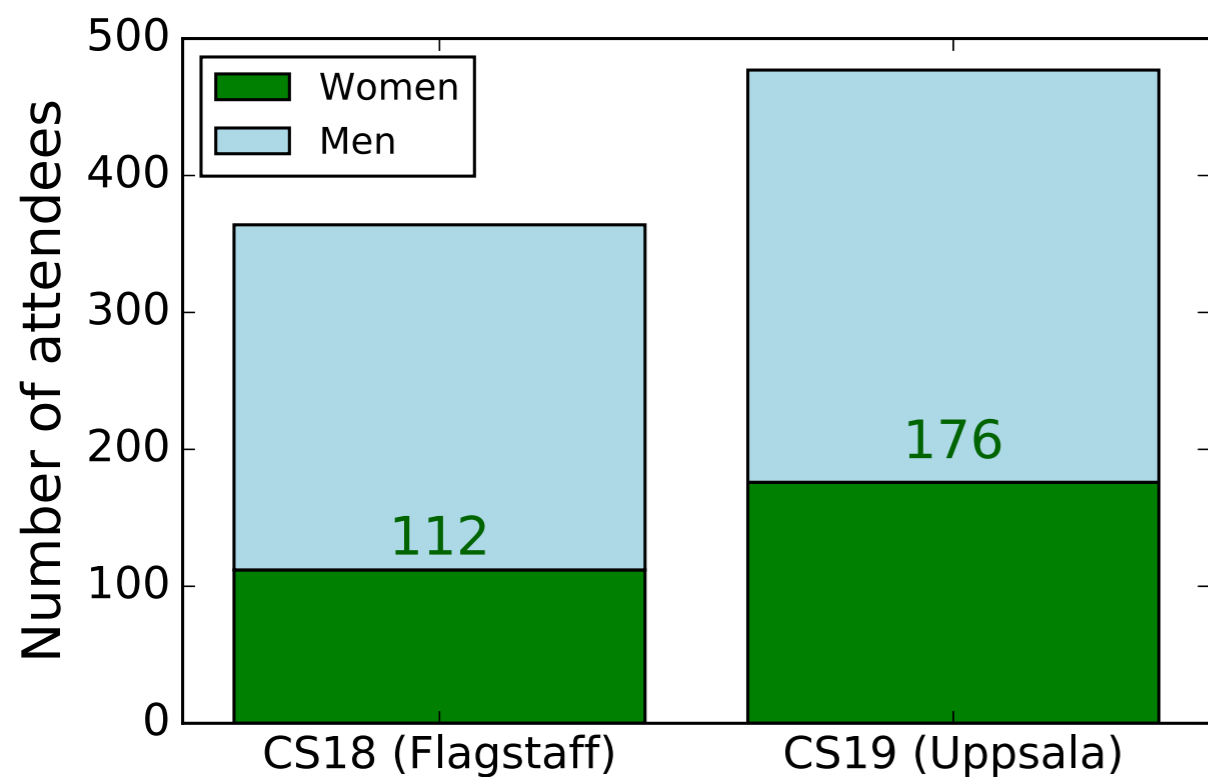
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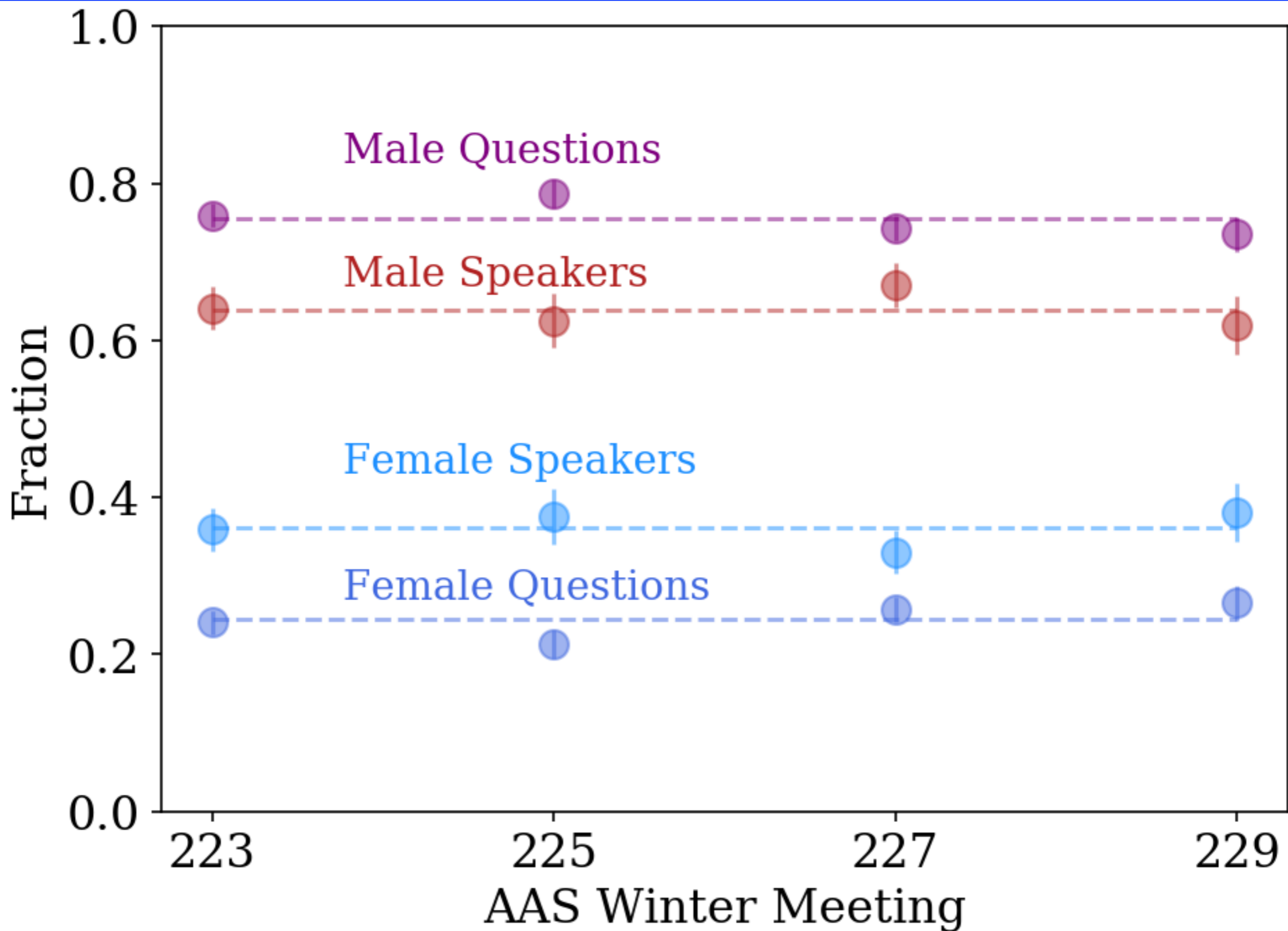
Any Comments?

Submit Data

- Four meetings of the American Astronomical Society (Davenport et al. 2014, Schmidt + Davenport 2017)
- One meeting of the British Royal Astronomical Society (Pritchard et al. 2014)
- Two meetings on Cool Stars (Schmidt et al. 2017)

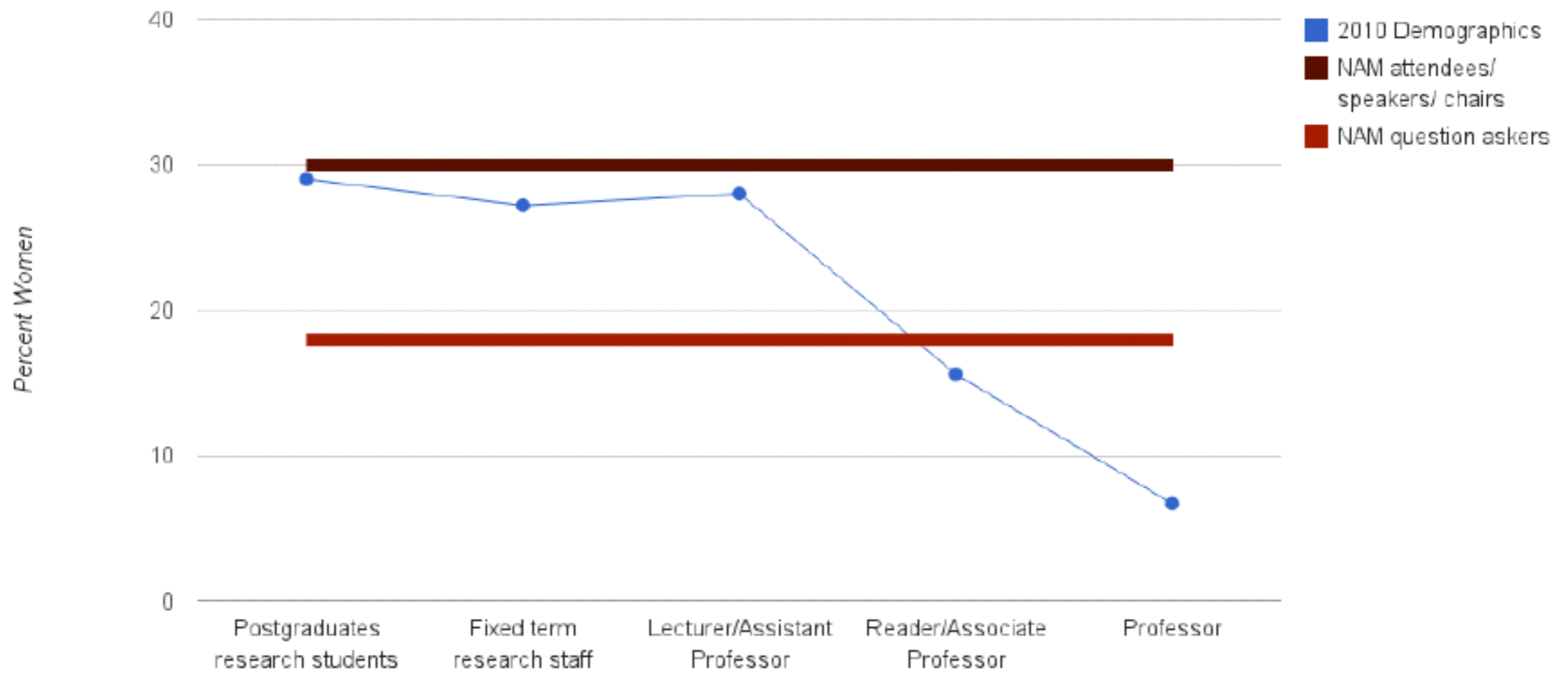
- Men are over-represented during question and answer sessions after talks





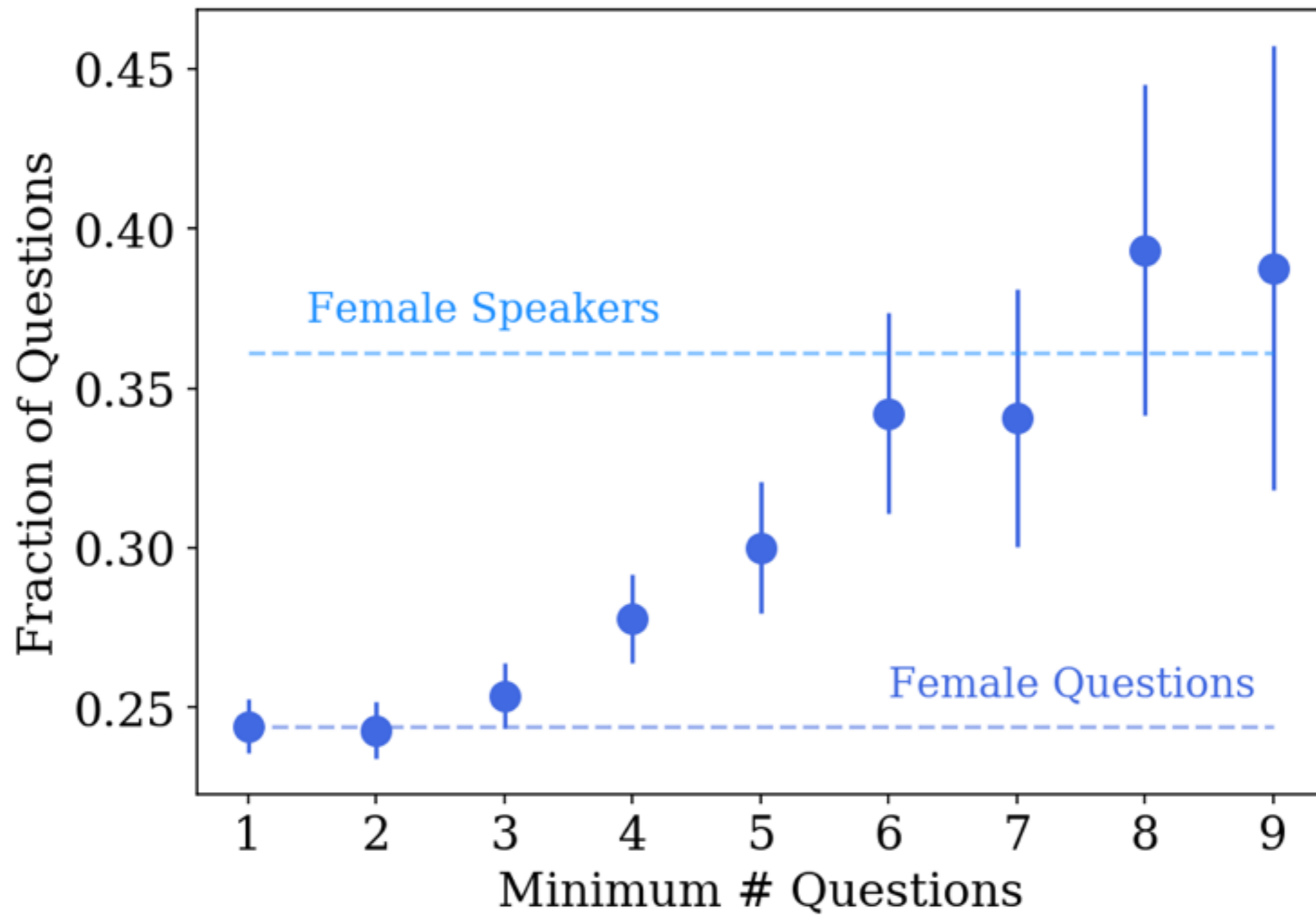
- Men are over-represented during question and answer sessions after talks
- This may be related to a lack of senior women

Gender Demographics in UK Astronomy



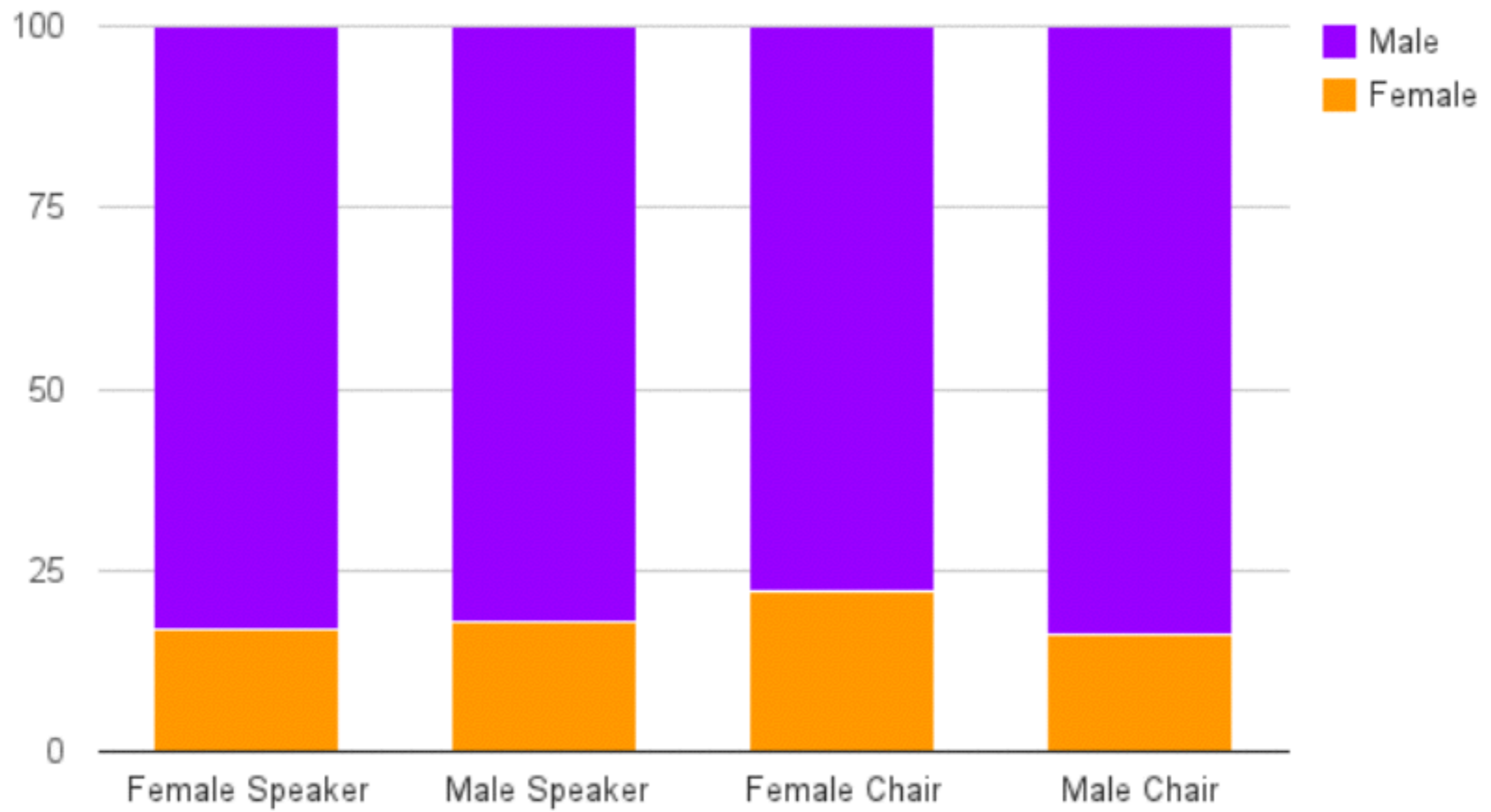
more senior —>

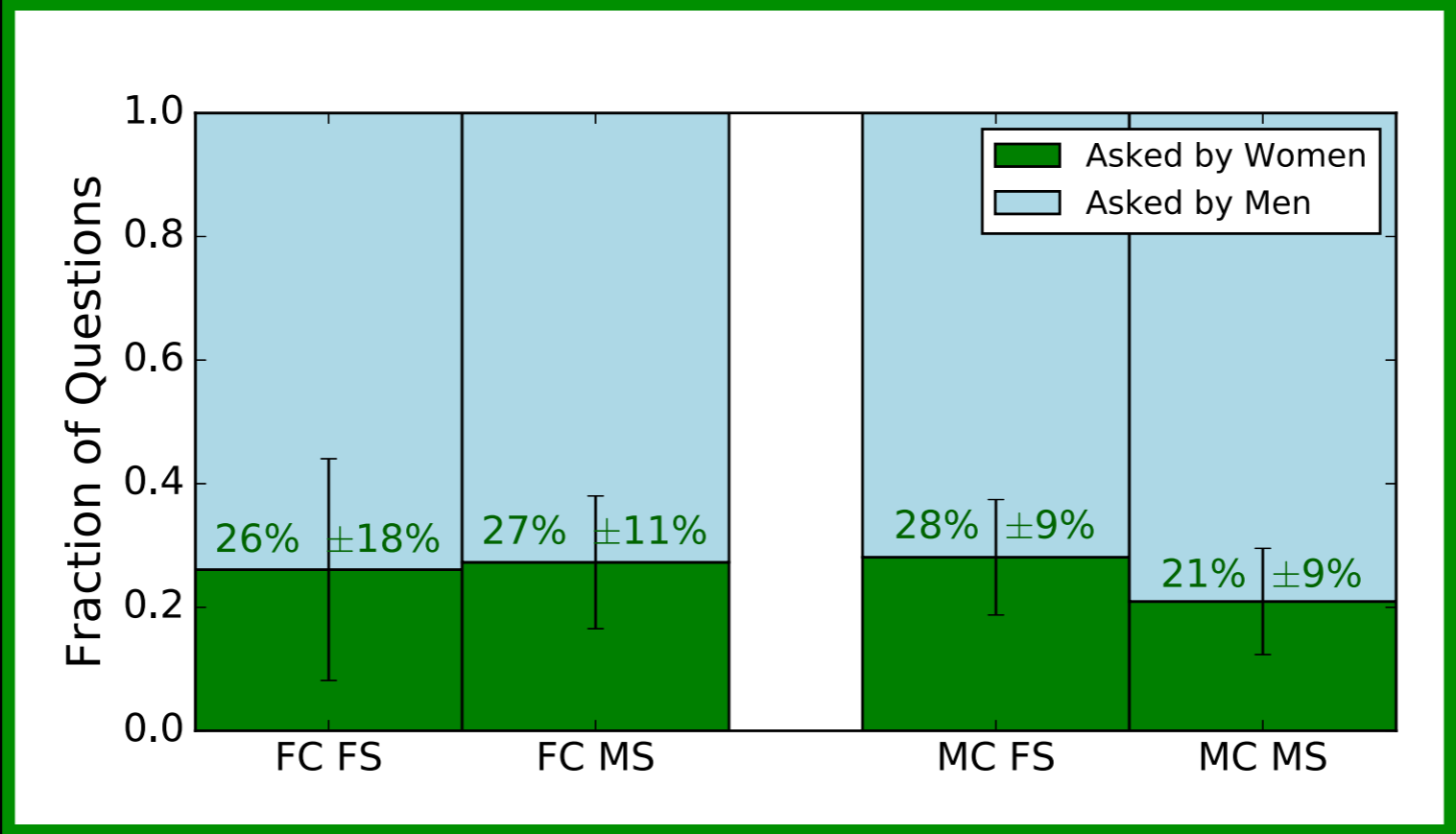
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- This may be related to a lack of senior women
- Women are more likely to ask a question if the question and answer period is long



- Men are over-represented during question and answer sessions after talks
- This may be related to a lack of senior women
- Women are more likely to ask a question if the question and answer period is long
- Female season chairs may increase the number of questions from women

Gender of Question Askers





Gender in Astro Talks

Talk ID

e.g. 110.07 or Speaker Name

Chair Gender

Female

Male

Speaker Gender

Female

Male

Gender of Questioners

Female

Male

In order asked - Use buttons above.

Any Comments?

Submit Data

Gender in Astro Talks

Talk ID

e.g. 110.07 or Speaker Name

Chair Gender

Female

Male

Speaker Gender

Female

Male

Questioner Gender and Question Type

Female : Question

Male : Question

Female : Comment

Male : Comment

In order asked - Use buttons above.

Anything else?

Submit Data

- In the future....
- We want to continue to look at conferences of different sizes and scopes
- Also hope to use self-identification to get past the gender binary and examine other axes of minoritization (race, ethnicity, sexual identity, disability, national origin, etc.)
- Have put together a set of recommendations based on ours and other work ([link](#))

Questions?

