

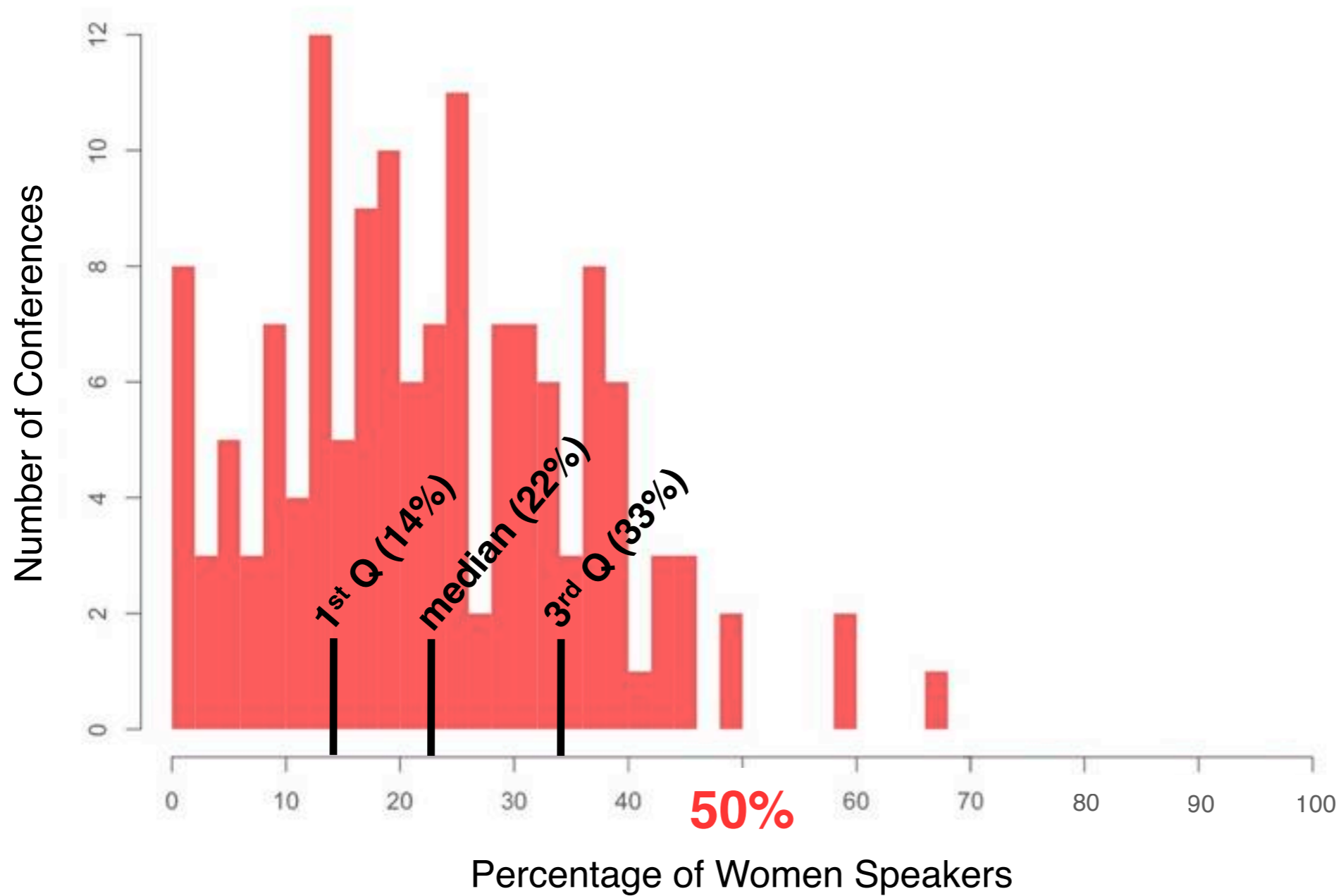
The r-process: another challenge

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The r-process: status and challenges
Workshop 14-56W, Institute for Nuclear Theory, University of Washington
31 July 2014

Histogram of Percentage of Women Speakers

(141 astrophysics conferences from 2008-2013)



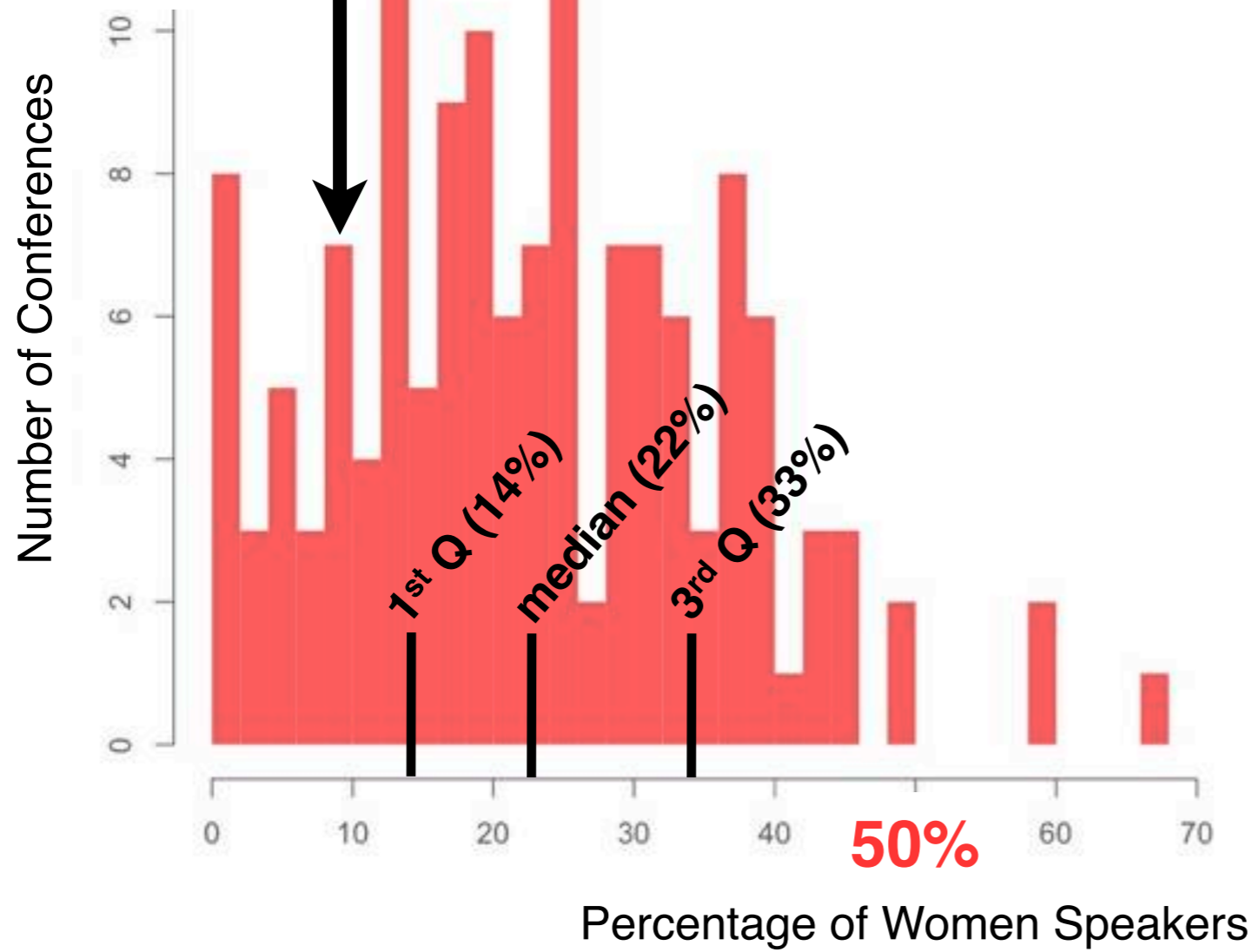
data compiled by the Committee on the Status of Women in Astronomy (CSWA)

<http://www.aas.org/cswa/percent.html>

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THIS MEETING
(9.5%)



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Number of Conferences

1st Q (14%)
median (22%)
3rd Q (33%)

50%

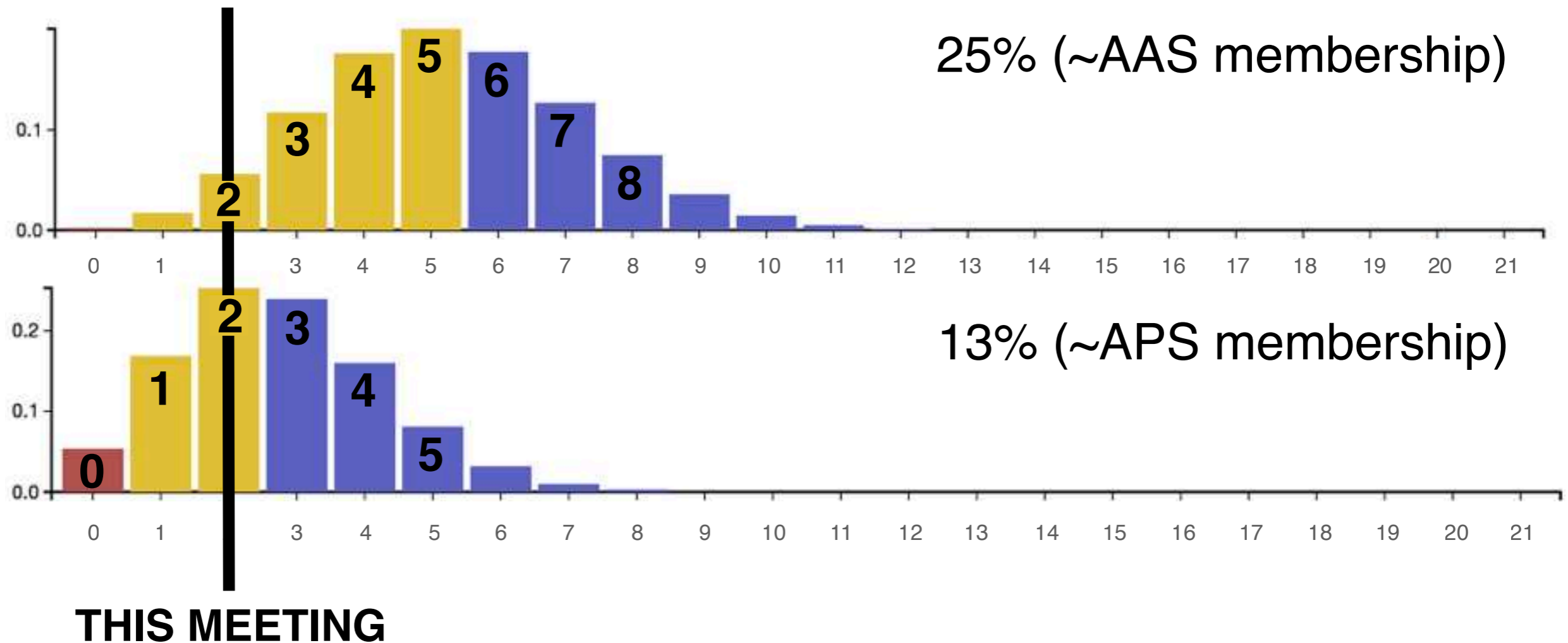
Percentage of Women Speakers

Society	Membership % women
 AAS	25%
APS/DAP	18%
 IAU	15%
 APS	13%
APS/DNP	13%

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How many women speakers would you expect
in a random selection of 21 speakers,
assuming women constitute **X%** of available speakers?



binomial distribution calculations from Dave Wilkinson & Paul Battley:

<http://aanandprasad.com/diversity-calculator>

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The r-process: another challenge

(short 5-minute discussion talk)

This week we've been discussing the status of our understanding of the r-process and some of the ongoing challenges. I'd like to highlight our status on a related front, and I contend that it is among the most significant challenges we face when tackling this interesting problem.

This point was driven home for me on Monday morning when I read the agenda for this week, looked around the room, and made some observations about who was here. Specifically, it seemed like the fraction of women in the audience and on the invited speaker list was unusually small. So, I went online to see how our meeting stacks up against other ones. [] This figure shows a histogram of the percentage of women among the invited speakers at 141 astrophysics conferences from 2008 through 2013. These data were compiled by the Committee on the Status of Women in Astronomy, and the source data can be found on the webpage listed here. On the histogram, I've highlighted the median and quartiles of the distribution. [] Our meeting falls here, at 9.5%, well below the first quartile point.

Next, I wanted to see how this percentage stacks up against the typical membership in the various professional societies that some of us might be a part of. [] Those numbers are shown in the table on the right. The American Astronomical Society clocks in at 25%, and at the other end of the scale the American Physical Society and its division of nuclear physics each come in at 13%. So the AAS membership is not too different from the median of the distribution, but to be honest all of these percentages are several factors lower than we would like.

So the next question you could ask is whether the percentage at this meeting is representative of any of these societies. [] This figure shows binomial distributions calculated assuming you have 21 random drawings from a sample population with 25% women, as in the AAS, and 13% women, as in the APS. In the case of the APS, having only two women invited speakers is actually the most likely outcome of the random drawing. So I conclude from this that we cannot blame the organizers for the low percentage of women invited speakers: this is consistent with the available pool.

But of course that is just a reminder that we have a much larger monster to deal with. [b] Characteristics of the astrophysics culture—reflected in the membership of our professional societies and the colleagues with us today—these characteristics are still systematically driving women out of the field or discouraging them from ever joining in the first place. To me, this is yet another reminder that we still have a lot of work to do to ensure equal opportunity of participation. Like the r-process, this will not be solved overnight, and it will

not solve itself. If you see an opportunity to make a positive corrective action, and you feel comfortable doing so, go for it. I believe that we can change this! In 30 years, I would love to come to another meeting at U-Dub on the status of the r-process and not have to make this presentation again. Trying to understand the r-process is hard enough. Why should we make it even harder by denying ourselves full participation?

At this point, with the permission of the session chair, I'd like to open the floor to discussion.