



Invited speakers and moderators gender distribution at the 59th AAPM annual meeting

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INTRODUCTION

Invited speakers at annual meetings are generally held in high esteem in their field and have opportunities to showcase their knowledge further developing their reputation as experts. This impacts subsequent career advancement and promotions. Invitations to annual meetings can lead to a self-reinforced feedback loop, creating a disadvantage for female researchers if they are underrepresented at these meetings [1]. A low representation of invited women could perpetuate the gender gap that still exists in science in the US [2].

AIM

To evaluate the gender distribution of the invited speakers and moderators at the 2017 AAPM Annual Meeting when considering factors such as age and research impact (using the h-index).

METHODS

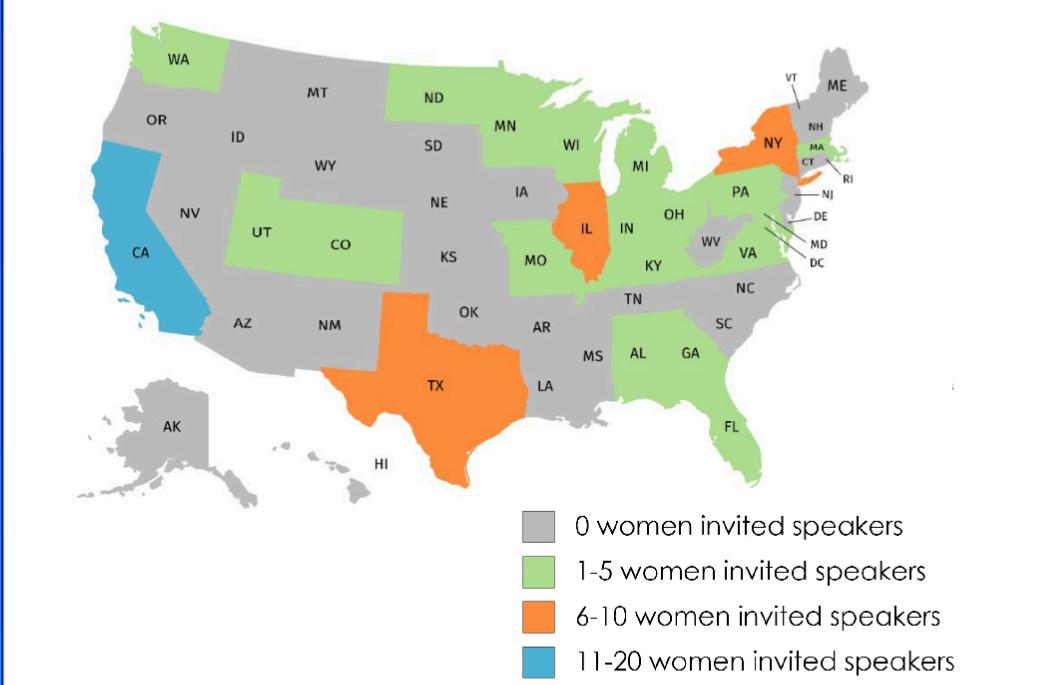
Demographic data of AAPM members was collected from 2002 to 2017.

At the 2017 Annual Meeting, there were 345 invited speakers and 218 moderators. AAPM member profiles and public data profiles were reviewed to determine gender and other collected data of speakers and moderators such as h-index, m-index, year of first publication, number of coauthors, institution, and state.

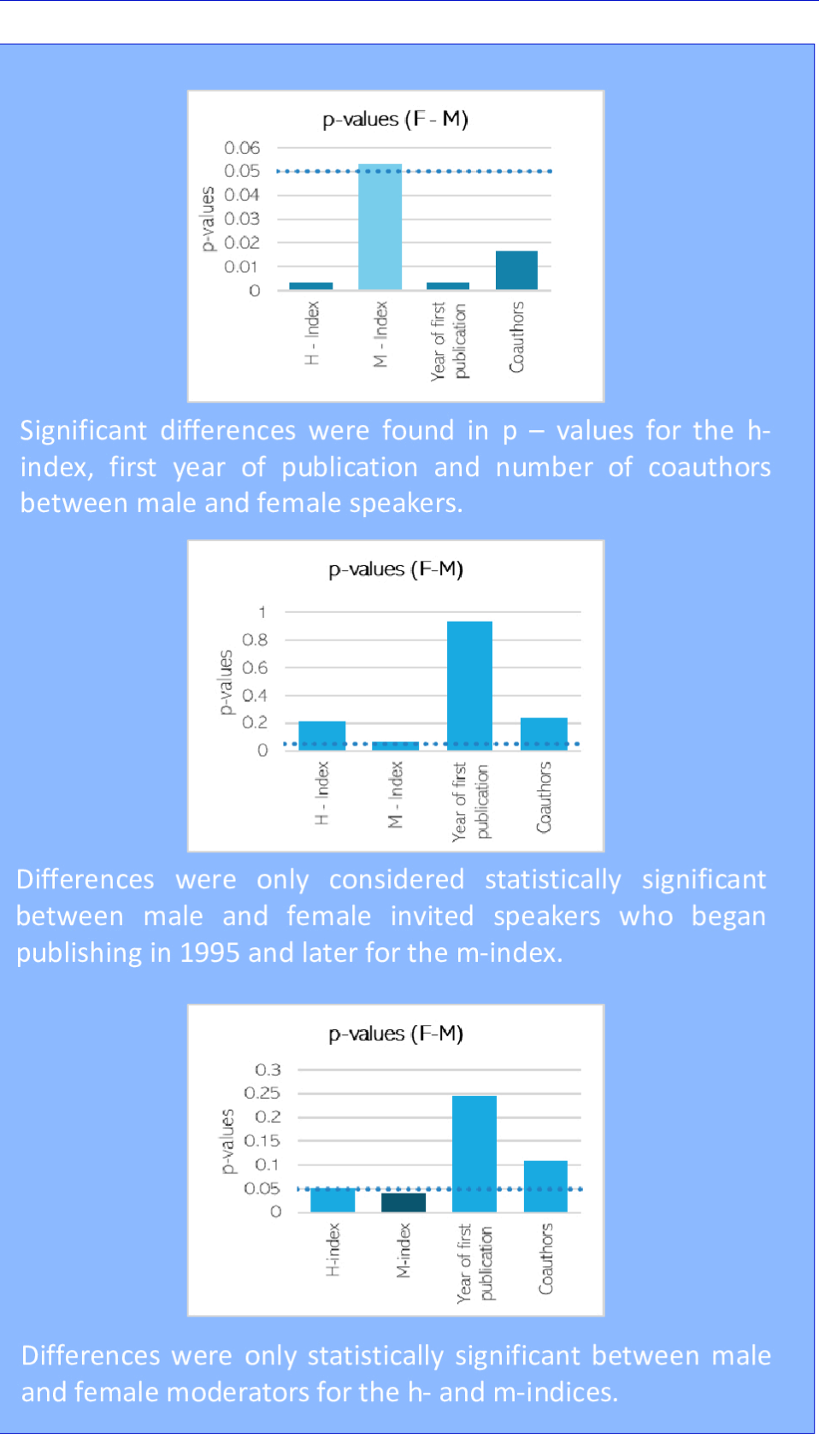
Statistical analysis was performed for the speakers and moderators separately using a Mann-Whitney-Wilcoxon U test to compare between the median of two samples (women and men).

Analyses were performed with XLSTAT of Excel. A p-value <0.05 was considered statistically significant.

- ## RESULTS
- In 2017, the female-male ratio among the AAPM members was 1:3.2, the largest it has been in the past sixteen years.
 - The women-men ratio among invited speakers was 1:3, close to the ratio in overall membership.
 - Men invited as speakers had higher H-indexes (Mean 23.992, SD 19.184) than women (Mean 17.147, SD 14.558).
 - Invited speakers with less than 20 years of academic experience were more likely to be female than the total. (Female-male ratio 1:2.4).
 - No statistically significant differences were found among their h-indexes, m- indexes, first year of publication or number of coauthors, for male and female invited speakers.



- Female moderators were underrepresented compared to membership composition with a women-men ratio of 1:4. Male moderators had higher m-indexes (Mean 1.050, SD 0.654) than women (Mean 0.834, SD 0.467). The largest representation of women came from California, Texas and Illinois.



CONCLUSIONS

Despite growing numbers of female members in the AAPM, women remained underrepresented in medical physics through 2017, constituting a 23% of the total membership.

In 2017, the percentage of women invited speakers matched the percentage of AAPM women members. However, the percentage of women moderators was lower than expected based on the membership composition. This imbalance of opportunity decreases the visibility of female physicists and can subsequently adversely impact their career advancement and promotion.

The analysis and publication of these data provide opportunities for the AAPM to work towards equitable participation of women in medical physics, especially with respect to incorporating a gender balance of moderators at AAPM meetings.

REFERENCES

[1] Schroeder J, Dugdale HL, Radersma R, et al. Fewer invited talks by women in evolutionary biology symposia. *J Evol Biol.* 2013;26(9):2063-2069.

[2] Mehta S, Rose L, Cook D, Herridge M, Owais S, Metaxa V. The Speaker Gender Gap at Critical Care Conferences. *Crit Care Med.* 2018;46(6):991-996.

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