18 YEARS OF LPSC ATTENDACE AND PRESENTATION DATA: WHO'S INCLUDED?

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Introduction

Multiple studies to understand representation of women and members of underrepresented minority (URM) groups in the fields of STEM (science, technology, engineering, mathematics) show that they can be affected by isolation [e.g., 1], experience a higher risk of abuse in the workplace [2], are less likely to speak at conferences [3,4], and have stronger inclinations to leave a field of study [5,6,7,8]. In this study, we build on previous results in which we examined gender demographics at the annual Lunar and Planetary Science Conferences (LPSCs) between 1999 and 2017 [9]. Here we describe the distribution of male and female participants as speakers at the LPSCs.

Methodology

>24,240 names of attendees at 18 LPSCs (1999 – 2017) were sorted by year and gender. We understand that gender is not a binary and is not always the same as gender presentation [10], but self-reported data are not available at this time. Gender of ~98% of the names in the database has been assigned or inferred using public information, such as personal and professional bios and photographs [3,11] or a commonly used website [12].

For each year of the conference, a list of speakers was created from the online LPSC authors index, which only includes last name and first and middle initials. For each attendee name (which includes first and last), we matched the last name and first initial to those in the speaker list. If a match was found, then this attendee presented a talk. Then, for each gender, we calculated the percentage of attendees who presented a talk.

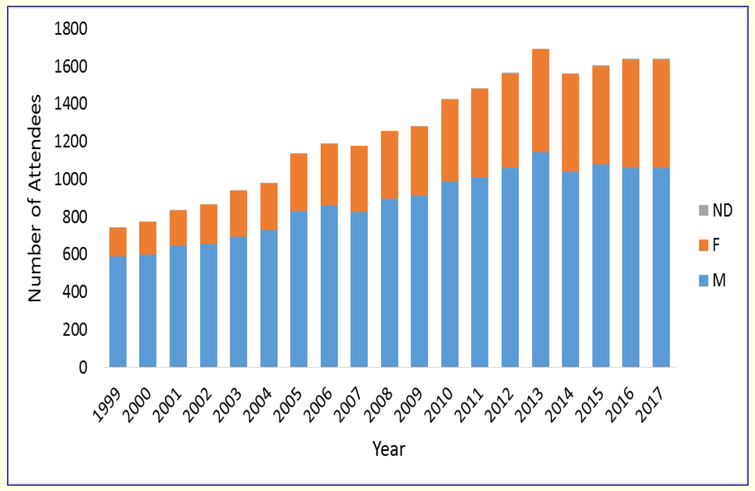

Figure 1. Total LPSC attendance from 1999 to 2017, with number of attendees identified by gender. F= female, M = male, ND = not inferred

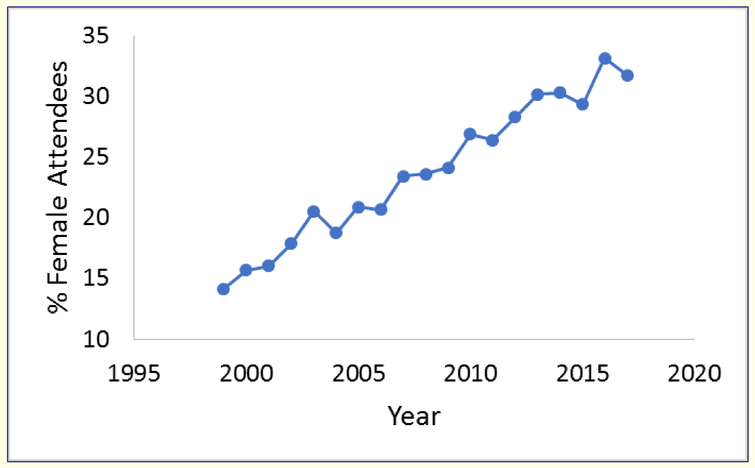

Figure 2. Percentage of women attending LPSC from 1999 to 2017, with ~98% of the data complete.

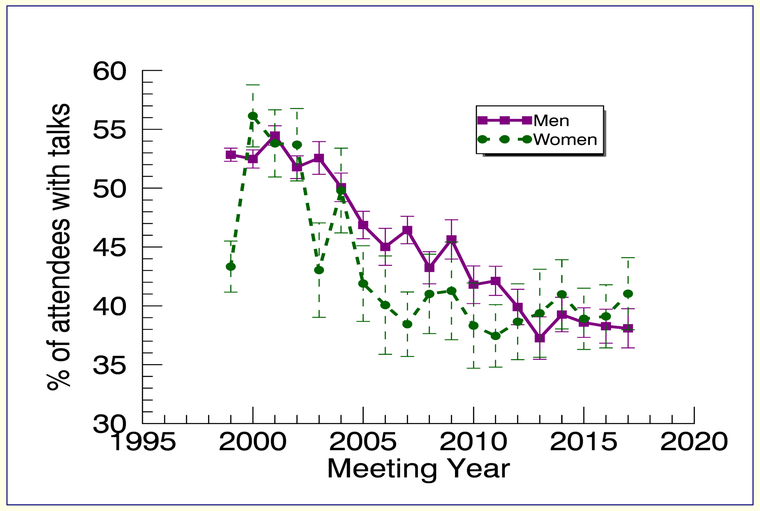

Figure 3. The percentage of men and women attendees who also presented talks at LPSC.

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Results & Discussion

Figure 1: Total attendance at LPSC has increased. In 1999, total attendance was 1082, while in 2017, total attendance was 1792 (+66%). Figure 1 also shows that the number of women attending LPSCs has increased more rapidly than the number of men, with 98% of the database completed.

Figure 2: The number of women attending LPSCs has increased substantially but may be slowing; for the past few years, ~30% of the LPSC attendees were female. The observed increase in attendance agrees with a recent NSF study [11] that reported that the number of women with PhDs in science, engineering, or health has more than doubled since 1997. The slowing agrees with the 2011 estimate that ~27% of working planetary scientists identify as female [e.g., 13].

Figure 3: The decrease in number of attendees with talks is expected because the number of attendees has increased while the number of slots for oral presentations has not. Uncertainties result from inferring gender and in matching names when one list (attendance) has a first name and the other (speakers) has only initials. There are some years when a larger percentage of men had talks, but from 2012-2017 the percentage was identical (within uncertainty) for men and women.

Conclusion

With ~98% of LPSC attendee gender inferred, several positive trends can be seen in the data:

- the number of women who attend LPSCs is increasing;
- the % of women in attendance in recent years is more than that in the 2011 workforce study; and
- current trends suggest that women are speaking as often as men.

The difference in representation of session speakers at LPSCs compared to other conferences may be due to having a central organizing committee as opposed to separate session organizers. Thus LPSC organizing may be a model for other conferences. One of the largest sources in uncertainty in this study is inferring gender. We continue to recommend that LPI collect self-reported demographic information to address this short-coming and enable studies of other minorities axes of representation.

References

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