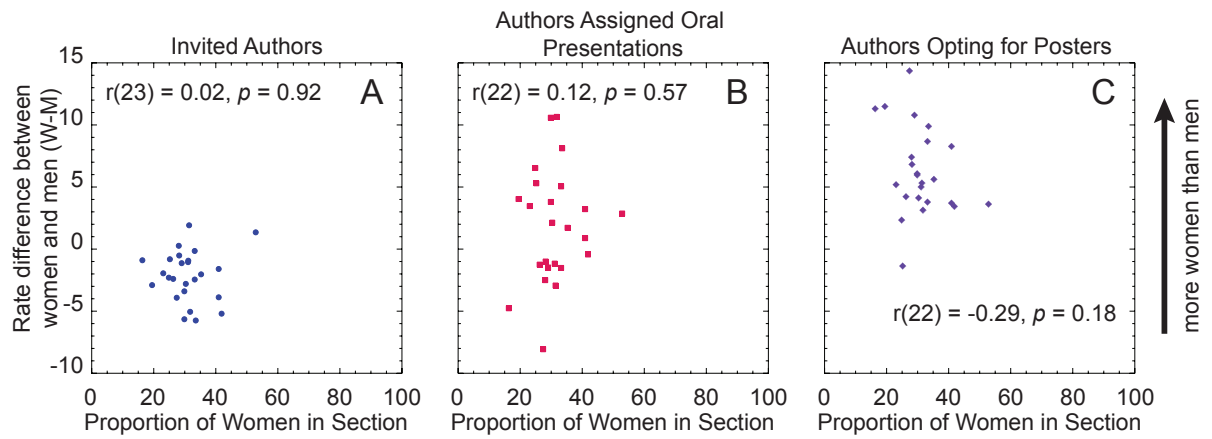


## **Supplementary Materials**

Gender inequity in speaking opportunities at the American Geophysical Union Fall Meeting

Ford et al.,

Supplementary Figure 1. The proportion of women in the Sections and invited authors, author assigned oral presentations and authors opting for “poster only” presentations.



For all Supplementary Tables, significant results ( $p < 0.05$ ) are in **bold**.

Supplementary Table 1. Analysis of Invited Authors by First Author Career Stage

	<i>Total</i>		<i>Student</i>		<i>Early Career</i>		<i>Mid-Career</i>		<i>Experienced</i>		<i>Retired</i>	
<i>Total Abstracts</i>	65,247		18789		23112		14815		7307		186	
	F	M	F	M	F	M	F	M	F	M	F	M
	20900	44347	8042	10747	7900	15212	3548	11267	1157	6150	18	168
	32%	68%	43%	57%	34%	66%	24%	76%	16%	84%	10%	90%
<i>Invited Authors</i>	2040	5499	124	192	862	1501	725	2134	281	1477	2	22
<i>Invited Authors %</i>	9.8%	12.4%	1.5%	1.8%	10.9%	9.9%	20.4%	18.9%	24.3%	24.0%	11.1%	13.1%
<i>mean</i>	1.10	1.12	1.02	1.02	1.11	1.10	1.20	1.19	1.24	1.24	1.11	1.13
<i>std</i>	0.297	0.330	0.123	0.132	0.312	0.298	0.403	0.392	0.429	0.427	0.323	0.338
$\chi^2$	<b>96.8</b>		1.66		<b>6.18</b>		<b>3.87</b>		0.0391		0.0570	
<i>p-value</i>	<b>&lt;0.001</b>		0.197		<b>0.013</b>		<b>0.049</b>		0.843		0.811	

Supplementary Table 2. Analysis of Oral Presentations by First Author Career Stage

	<i>Total</i>		<i>Student</i>		<i>Early Career</i>		<i>Mid-Career</i>		<i>Experienced</i>		<i>Retired</i>	
<i>Total Abstracts</i>	31348		7275		11293		7913		4138		85	
	F	M	F	M	F	M	F	M	F	M	F	M
	9424	21924	3017	4258	3880	7413	1808	6105	584	3554	10	75
	30%	70%	41%	59%	34%	66%	23%	77%	14%	86%	12%	88%
<i>Assigned Oral</i>	3874	9759	869	1173	1633	3080	960	3138	340	2064	3	38
<i>Assigned Oral %</i>	41.1%	44.5%	28.8%	27.5%	42.1%	41.5%	53.1%	51.4%	58.2%	58.1%	30.0%	50.7%
<i>mean</i>	1.59	1.55	1.71	1.72	1.58	1.58	1.47	1.49	1.42	1.42	1.70	1.49
<i>std</i>	0.492	0.485	0.453	0.447	0.494	0.493	0.499	0.500	0.494	0.494	0.483	0.503
$\chi^2$	<b>31.1</b>		1.38		0.304		1.61		0.00430		1.51	
<i>p-value</i>	<b>&lt;0.001</b>		0.24		0.581		0.205		0.948		0.219	

Supplementary Table 3. Analysis of Invited Authors, Authors Assigned Oral Presentation and Authors Opting for “Poster Only” Presentations by Sections. Due to the relatively small numbers within each Section, the absolute numbers are not provided in order to maintain anonymity.

<i>Rate Difference Between Women and Men (Women - Men)</i>				
<i>Sections</i>	<i>Proportion of Women</i>	<i>Invited Authors</i>	<i>Assigned Oral Presentation</i>	<i>Authors Opting for “Poster Only” Presentations</i>
<i>Atmospheric and Space Electricity</i>	16%	-0.9%	-4.8%	11.3%
<i>Atmospheric Sciences</i>	32%	-5.1%	10.6%	3.1%
<i>Biogeosciences</i>	41%	-3.9%	3.2%	3.7%
<i>Cryosphere</i>	31%	-0.9%	-1.2%	5.0%
<i>Earth and Planetary Surface Processes</i>	33%	-0.1%	-1.5%	3.8%
<i>Earth and Space Science Informatics</i>	26%	-2.4%	-1.3%	4.2%
<i>Education</i>	53%	1.3%	2.9%	3.6%
<i>Geodesy</i>	25%	-2.3%	6.5%	2.3%
<i>Geomagnetism, Paleomagnetism and Electromagnetism</i>	27%	-3.9%	-8.1%	14.4%
<i>Global Environmental Change</i>	34%	-5.8%	8.1%	9.9%
<i>Hydrology</i>	30%	-3.4%	3.8%	6.1%
<i>Mineral and Rock Physics</i>	29%	-1.1%	-1.5%	10.8%
<i>Natural Hazards</i>	30%	-5.7%	10.6%	6.0%
<i>Near Surface Geophysics</i>	25%	-0.8%	5.3%	-1.4%
<i>Nonlinear Geophysics</i>	19%	-2.9%	4.0%	11.5%
<i>Ocean Sciences</i>	33%	-2.4%	5.1%	8.7%
<i>Paleoceanography and Paleoclimatology</i>	41%	-1.6%	0.9%	8.3%
<i>Planetary Sciences</i>	28%	0.3%	-2.5%	7.4%
<i>Public Affairs</i>	42%	-5.2%	-0.4%	3.4%
<i>Seismology</i>	28%	-0.5%	-1.0%	6.8%
<i>Space Physics &amp; Aeronomy</i>	23%	-2.0%	3.5%	5.2%
<i>Study of Earth's Deep Interior</i>	31%	1.9%	-2.9%	5.3%
<i>Tectonophysics</i>	30%	-2.8%	2.1%	4.1%
<i>Union</i>	31%	-1.0%	-	-
<i>Volcanology, Geochemistry and Petrology</i>	35%	-2.0%	1.7%	5.6%
	<i>r</i>	0.02	0.12	-0.29
	<i>df</i>	23	22	22
	<i>p-value</i>	0.92	0.57	0.18

Supplementary Table 4. Analysis of Primary Convener Allocation of Invited Authors by First Author Career Stage

	<i>Total</i>		<i>FA Student</i>		<i>FA Early Career</i>		<i>FA Mid-Career</i>		<i>FA Experienced</i>		<i>FA Retired</i>	
<i>Total Abstracts</i>	7442		314		2336		2818		1733		24	
<i>Female Primary Convener</i>	2081	28%	87	28%	695	30%	790	28%	447	26%	9	38%
	F	M	F	M	F	M	F	M	F	M	F	M
<i>Invited Authors</i>	716	1365	38	49	309	386	258	532	93	354	2	7
<i>Invited Authors %</i>	34%	66%	44%	56%	44%	56%	33%	67%	21%	79%	22%	78%
<i>mean</i>	0.656		0.563		0.555		0.673		0.792		0.778	
<i>std</i>	0.475		0.499		0.497		0.469		0.406		0.441	
<i>Male Primary Convener</i>	5361	72%	227	72%	1641	70%	2028	72%	1286	74%	15	63%
	F	M	F	M	F	M	F	M	F	M	F	M
<i>Invited Authors</i>	1302	4059	86	141	542	1099	458	1570	186	1100	0	15
<i>Invited Authors %</i>	24%	76%	38%	62%	33%	67%	23%	77%	14%	86%	0%	100%
<i>mean</i>	0.757		0.621		0.670		0.774		0.855		1.00	
<i>std</i>	0.429		0.486		0.470		0.418		0.352		0.000	
$\chi^2$	<b>77.7</b>		0.883		<b>27.6</b>		<b>30.4</b>		<b>9.88</b>		3.64	
<i>p-value</i>	<b>&lt;0.001</b>		0.347		<b>&lt;0.001</b>		<b>&lt;0.001</b>		<b>0.002</b>		0.057	

Supplementary Table 5. Analysis of Primary Convener Allocation of Oral Presentations by First Author Career Stage

	<i>Total</i>		<i>FA Student</i>		<i>FA Early Career</i>		<i>FA Mid-Career</i>		<i>FA Experienced</i>		<i>FA Retired</i>	
<i>Total Abstracts</i>	17553		5187		6519		3784		1713		44	
<i>Female Primary Convener</i>	4665	27%	1357	26%	1749	27%	1023	27%	448	26%	14	32%
	F	M	F	M	F	M	F	M	F	M	F	M
<i>Assigned Authors</i>	1733	2932	610	747	708	1041	307	716	90	358	2	12
<i>Assigned Authors %</i>	37%	63%	45%	55%	40%	60%	30%	70%	20%	80%	14%	86%
<i>mean</i>	0.629		0.550		0.595		0.700		0.799		0.857	
<i>std</i>	0.483		0.498		0.491		0.459		0.401		0.363	
<i>Male Primary Convener</i>	12888	73%	3830	74%	4770	73%	2761	73%	1265	74%	30	68%
	F	M	F	M	F	M	F	M	F	M	F	M
<i>Assigned Authors</i>	3769	9119	1521	2309	1519	3251	532	2229	152	1113	5	25
<i>Assigned Authors %</i>	29%	71%	40%	60%	32%	68%	19%	81%	12%	88%	17%	83%
<i>mean</i>	0.708		0.603		0.682		0.807		0.880		0.833	
<i>std</i>	0.455		0.489		0.466		0.394		0.325		0.379	
$\chi^2$	<b>99.5</b>		<b>11.4</b>		<b>42.4</b>		<b>49.9</b>		<b>17.8</b>		0.0404	
<i>p-value</i>	<b>&lt;0.001</b>		<b>0.001</b>		<b>&lt;0.001</b>		<b>&lt;0.001</b>		<b>&lt;0.001</b>		0.841	

Supplementary Table 6. Analysis of Primary Convener Allocation of Invited Authors by Primary Convener Career Stage

	<i>PC Student</i>		<i>PC Early Career</i>		<i>PC Mid-Career</i>		<i>PC Experienced</i>		<i>PC Retired</i>	
<i>Total Abstracts</i>	358		3068		2580		1217		67	
<i>Female Primary Convener</i>	164	46%	1069	35%	533	21%	257	21%	27	40%
	F	M	F	M	F	M	F	M	F	M
<i>Invited Authors</i>	61	103	358	711	184	349	91	166	8	19
<i>Invited Authors %</i>	37%	63%	33%	67%	35%	65%	35%	65%	30%	70%
<i>mean</i>	0.628		0.665		0.655		0.646		0.704	
<i>std</i>	0.485		0.472		0.476		0.479		0.465	
<i>Male Primary Convener</i>	194	54%	1999	65%	2047	79%	960	79%	40	60%
	F	M	F	M	F	M	F	M	F	M
<i>Invited Authors</i>	58	136	497	1502	509	1538	192	768	13	27
<i>Invited Authors %</i>	30%	70%	25%	75%	25%	75%	20%	80%	33%	68%
<i>mean</i>	0.701		0.751		0.751		0.800		0.675	
<i>std</i>	0.459		0.432		0.432		0.400		0.474	
$\chi^2$	2.13		<b>25.8</b>		<b>20.1</b>		<b>27.0</b>		0.0617	
<i>p-value</i>	0.144		<b>&lt;0.001</b>		<b>&lt;0.001</b>		<b>&lt;0.001</b>		0.804	



Supplementary Table 7. Analysis of Primary Convener Allocation of Oral Presentations by Primary Convener Career Stage

	<i>PC Student</i>		<i>PC Early Career</i>		<i>PC Mid-Career</i>		<i>PC Experienced</i>		<i>PC Retired</i>	
<i>Total Abstracts</i>	785		7717		5921		2598		118	
<i>Female Primary Convener</i>	339	43%	2471	32%	1228	21%	503	19%	38	32%
	F	M	F	M	F	M	F	M	F	M
<i>Assigned Authors</i>	142	197	904	1567	447	781	197	306	12	26
<i>Assigned Authors %</i>	42%	58%	37%	63%	36%	64%	39%	61%	32%	68%
<i>mean</i>	0.581		0.634		0.636		0.608		0.684	
<i>std</i>	0.494		0.482		0.481		0.489		0.471	
<i>Male Primary Convener</i>	446	57%	5246	68%	4693	79%	2095	81%	80	68%
	F	M	F	M	F	M	F	M	F	M
<i>Assigned Authors</i>	122	324	1599	3647	1359	3334	565	1530	20	60
<i>Assigned Authors %</i>	27%	73%	30%	70%	29%	71%	27%	73%	25%	75%
<i>mean</i>	0.726		0.695		0.710		0.730		0.750	
<i>std</i>	0.446		0.460		0.454		0.444		0.436	
$\chi^2$	<b>18.2</b>		<b>28.6</b>		<b>25.4</b>		<b>29.1</b>		0.564	
<i>p-value</i>	<b>&lt;0.001</b>		<b>&lt;0.001</b>		<b>&lt;0.001</b>		<b>&lt;0.001</b>		0.453	

Supplementary Table 8. Analysis of Poster Only Selection by First Author by Career Stage

<i>Total Abstracts</i>	<i>Total</i>		<i>Student</i>		<i>Early Career</i>		<i>Mid-Career</i>		<i>Experienced</i>		<i>Retired</i>	
	43515		12660		15039		9982		4903		100	
	F	M	F	M	F	M	F	M	F	M	F	M
	13784	29731	5386	7274	5130	9909	2323	7659	735	4168	13	87
	32%	68%	43%	57%	34%	66%	23%	77%	15%	85%	13%	87%
<i>Poster Only</i>	4360	7807	2369	3016	1250	2496	515	1554	151	614	3	12
<i>Poster Only %</i>	32%	26%	44%	41%	24%	25%	22%	20%	21%	15%	23%	14%
<i>mean</i>	1.32	1.26	1.44	1.41	1.24	1.25	1.22	1.20	1.21	1.15	1.23	1.14
<i>std</i>	0.465	0.440	0.496	0.493	0.429	0.434	0.415	0.402	0.404	0.354	0.439	0.347
$\chi^2$	<b>135</b>		<b>8.05</b>		1.22		<b>3.83</b>		<b>16.0</b>		0.765	
<i>p-value</i>	<b>&lt;0.001</b>		<b>0.005</b>		0.269		<b>0.050</b>		<b>&lt;0.001</b>		0.382	