

APPENDIX 5:

Data & Analysis

This section of the report was prepared by Kristi Lemm.

PHASE 1 - EPISODES 1-44

Total Guests and Appearances

There was a total of 209 guests across 44 episodes. Five of those guests spoke on two different episodes and one spoke on three episodes, so there were 215 guest appearances.

Detailed breakdown of guests by race/ethnicity and gender

	TOTAL BY RACE	FEMALE	MALE	NO GENDER PROVIDED
White	162 (77.5%)	76*	84**	2
South Asian	11 (5.3%)	7	4	
East Asian	9 (4.3%)	7	2	
Hispanic/Latino	8 (3.8%)	4	4	
African American/Black	7 (3.3%)	6	1	
Native American/Indigenous	6 (2.9%)	4	2	
Asian (unspecified)	2 (1%)	2		
Middle Eastern	2 (1%)		2	
No race/ethnicity provided	2 (1%)		1	1
Total by gender		106* (50.7%)	100 (47.8%)	3 (1.4%)

* Includes 1 identified as female/genderqueer

** Includes 1 identified as white/Middle Eastern and 2 identified as white/Jewish

SUMMARY BREAKDOWN BY GENDER

Number of guests (guest = one person, regardless of multiple appearances):

Women = 106 (50.7%; Includes one identified as female/genderqueer)

Men = 100 (47.8%)

No response = 3 (1.4%)

Number of guest appearances:

Women = 110 (51.2%)

Men = 102 (47.4%)

No response = 3 (1.4%)

Average number of guests per episode (all topics combined):

	MEAN	MEDIAN
Women	2.48	2.0
Men	2.34	2.0
No Response	.07	0*

* In this and all other tables, a median of zero indicates that more than 50% of the episodes included no guests/speaking time by people in this category.

The average number of men and women per episode is not statistically significantly different.

Average number of guests per episode (science topics only):

	MEAN	MEDIAN
Women	1.20	1.0
Men	1.10	1.0
No Response	.03	0

Average seconds of speaking time per episode (all topics combined):

	MEAN	MEDIAN	AVERAGE % OF TIME PER EPISODE
Women	600.32	461.5	53.22%
Men	500.09	467.5	44.51%
No Response	24.75	0	2.27%

Difference between men and women in speaking time (total time or %) is not statistically significant.

The percentage of overall talking time by women (53.22%) is significantly higher than 40%.

Average seconds of speaking time per episode (science topics only):

40 of the 44 episodes included science content. The four that did not are “Inventing the Restaurant,” “Southern Food,” “Cooking the Books,” and “Fluff.”

	MEAN	MEDIAN	AVERAGE % OF TIME PER EPISODE
Women	327.48	234.0	59.50%
Men	230.23	110.0	38.21%
No Response	18.6	0	2.28%

The difference between men and women in mean speaking time about science is not statistically significant.

The percentage of science talking time by women (59.5%) is significantly higher than 40%.

SUMMARY BREAKDOWN BY RACE/ETHNICITY

Guests who identified as white or white + another ethnicity were grouped together as white. Guests who provided any response other than white as their first response were grouped together as BIPOC.

Number of guests (guest = one person, regardless of multiple appearances):

White = 162 (77.5%)

BIPOC = 45 (21.5%)

No response = 2 (1%)

Average number of guests per episode (all topics combined):

	MEAN	MEDIAN
White	3.8	3.5
BIPOC	1.05	1.0
No Response	.05	0

Difference between groups (excluding the no response group) is statistically significant.

Average number of guests per episode (science topics only):

	MEAN	MEDIAN
White	1.7	1.0
BIPOC	0.57	0
No Response	.05	0

Average seconds of speaking time per episode (all topics combined):

	MEAN	MEDIAN	AVERAGE % OF TIME PER EPISODE
White	919.05	986.0	82.03%
BIPOC	166.05	70.0	14.76%
No Response	42.07	0	3.21%

Difference between groups (excluding the no response group) is statistically significant.

The percentage of talking time by BIPOC voices (14.76%) is significantly lower than 40%.

Average seconds of speaking time per episode (science topics only):

	MEAN	MEDIAN	AVERAGE % OF TIME PER EPISODE
White	398.07	231.5	67.21%
BIPOC	95.32	0	28.82%
No Response	29.89	0	3.96%

Difference between groups (excluding the no response group) is statistically significant.

The percentage of talking time by BIPOC voices (29.89%), although lower than the target of 40%, is not significantly lower than 40%.

PHASE 2 – EPISODES 45-69**Total Guests and Appearances**

Across 25 episodes, there was a total of 113 guest speakers. (This number includes six speakers who were recorded live and appeared on the podcast but were not formally invited and were not contacted for follow-up data collection.) Eight of the invited guests appeared on two different episodes and one appeared on three episodes, resulting in a total of 122 guest appearances. In addition, there were 9 speakers (2 women and 7 men, all white or unknown ethnicity^o) who appeared in one or more pre-recorded clips (e.g. news reports or comedy archives); these individuals and the time of their pre-recorded appearances are not included in the analyses reported here.

Detailed breakdown of guests by race/ethnicity and gender

	TOTAL BY RACE	FEMALE	MALE
White	82 (72.6%)	37	45
South Asian	5 (4.4%)	3	2
East Asian	4 (3.5%)	3*	1
Hispanic/Latino	5 (4.4%)	4	1
African American/Black	4 (3.5%)	2**	2
Native American/Indigenous	2 (1.8%)	2***	0
Asian (unspecified)	1 (0.9%)	1	0
Middle Eastern	2 (1.8%)	2	0
Other	3 (2.7%)	3	0
No race/ethnicity provided	5 (4.4%)	4	1
Total by gender		61 (54.0%)	52 (46.0%)

* Includes 2 identified as biracial East Asian/white

** Includes 2 identified as biracial African American/white

*** Includes 1 identified as biracial Native American/white

^oSix of these speakers are celebrities whose gender and ethnicity is known. Three of these speakers (one woman and two men) represent composites of multiple newscasters/broadcasters whose gender was determined by voice but whose ethnicity is unknown.

SUMMARY BREAKDOWN BY GENDER

Number of guests (guest = one person, regardless of multiple appearances):

Women = 61 (54.0%)

Men = 52 (46%)

Number of guest appearances:

Women = 63 (51.6%)

Men = 59 (48.4%)

Average number of guest appearances per episode (all topics combined):

	MEAN	MEDIAN
Women	2.52	3.0
Men	2.36	2.0

The average number of men and women per episode is not statistically significantly different.

Average number of guest appearances per episode (science topics only):

	MEAN	MEDIAN
Women	1.85	2.0
Men	1.85	2.0

The average number of men and women speaking about science topics per episode is not statistically significantly different (it is in fact exactly the same!).

Seconds speaking (per episode) about all topics (all topics combined):

	MEAN	MEDIAN	AVERAGE % OF TIME PER EPISODE
Women	597.36	497.0	57.46%
Men	408.84	361.0	42.66%

The number of seconds we hear women speaking is significantly more than the number of seconds we hear men speaking, but I had to use a slightly sneaky statistical trick to be able to say this (a “one-tailed” test).

However, no sleight of hand is required to say that the percentage of overall talking time by women is statistically significantly higher than the target of 40%. Yay!

Seconds speaking about science only:

21 of the 25 episodes included science content. The four that did not are “Mole,” “Curry,” “Jack Daniels,” and “Mac & Cheese.”

	MEAN	MEDIAN	AVERAGE % OF TIME PER EPISODE*
Women	370.67	268	49.27%
Men	331.29	301	50.73%

The difference between men and women in average speaking time per episode about science is not statistically significant.

The percentage of science talking time by women is not statistically significantly higher than 40%. This is because the sample size is small—only 21 episodes.

Note: It appears that women speak for more seconds per episode on average than men, so why is the % of time speaking by men slightly higher? It's not a math mistake. The reason is that the episodes where men spoke more than women tended to be shorter episodes. So men spoke fewer seconds than women on average, but on average their speaking was a higher proportion of each episode's length.

SUMMARY BREAKDOWN BY RACE/ETHNICITY

Guests who provided any response other than white were grouped together as BIPOC, so the BIPOC group includes some guests who identified as bi-racial including white.

Number of guests (guest = one person, regardless of multiple appearances):

White = 82 (72.6%)

BIPOC = 26 (23.0%)

Unknown = 5 (4.4%)

Number of guest appearances:

White = 90 (73.8%)

BIPOC = 28 (23.0%)

Unknown = 4* (3.3%)

** The reason why the number of “unknown” guest appearances is smaller than the number of unknown guests is because there were two women who were given cognitive tests in the Alzheimer's episode. They are entered as separate guests in the demographics file. However, they were both given the same ID code in the time data file, so they appear to be a single person when I count guest appearances (that analysis is done using the time code data).*

Average number of guest appearances per episode (all topics combined):

	MEAN	MEDIAN
White	3.60	3.0
BIPOC	1.12	1.0
Unknown	.16	0

Note: in this and all other tables, a median of zero indicates that more than 50% of the episodes included no guests/speaking time by people in this category. Difference in the number of white vs. BIPOC appearances is statistically significant.

Average number of guests per episode (science topics only):

	MEAN	MEDIAN
White	2.76	3.0
BIPOC	0.76	0
Unknown	0.19	0

Average seconds of speaking time per episode (all topics combined):

	MEAN	MEDIAN	AVERAGE % OF TIME PER EPISODE
Women	809.72	811.0	81.57%
BIPOC	208.79	112.5	20.71%
Unknown	10.76	0	0.91%

Difference between time of white voices and BIPOC voices is statistically significant. The percentage of talking time by BIPOC voices is significantly lower than the target of 40%.

Average seconds of speaking time per episode (science topics only):

	MEAN	MEDIAN	AVERAGE % OF TIME PER EPISODE
Women	620.19	698.0	83.09%
BIPOC	74.57	0	15.84%
Unknown	12.81	0	1.10%

Difference between groups (excluding the unknown group) is statistically significant. The percentage of talking time by BIPOC voices is significantly lower than the target of 40%.