

# Is a Hotdog a Sandwich?

DS 4002 Project 0



# Motivation

- The question of whether a hot dog is a sandwich has been debated for years, and we wanted to see what UVA students thought
- Literature on this subject had varying opinions so we wanted to see if surveying several students would give a clearer answer



???

# Hypothesis

Less than half of full-time undergraduate students at UVA believe that a hotdog is a sandwich.



# Data

Do you believe a hot dog is a sandwich?

Count of students who responded “Yes”: 13

Responses: 79

Count of students who responded “No”: 63

Full-time students: 76

Year	1st	2nd	3rd	4th
Count	0	8	21	47

Google form survey ↓

Timestamp	Are you a full-time undergraduate UVA student?	What year are you?	Do you believe a hotdog is a sandwich?
1/14/2026 14:54:44	Yes	3rd	No
1/14/2026 14:55:14	Yes	4th	No
1/14/2026 14:56:49	Yes	4th	No
1/14/2026 14:58:15	Yes	4th	Yes
1/14/2026 14:58:25	Yes	4th	Yes
1/14/2026 14:58:27	Yes	4th	Yes
1/14/2026 14:58:31	Yes	3rd	Yes
1/14/2026 15:02:11	Yes	3rd	No

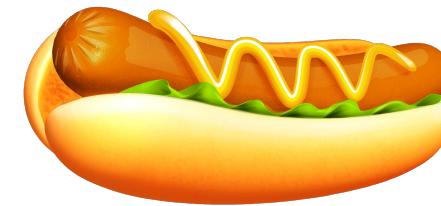
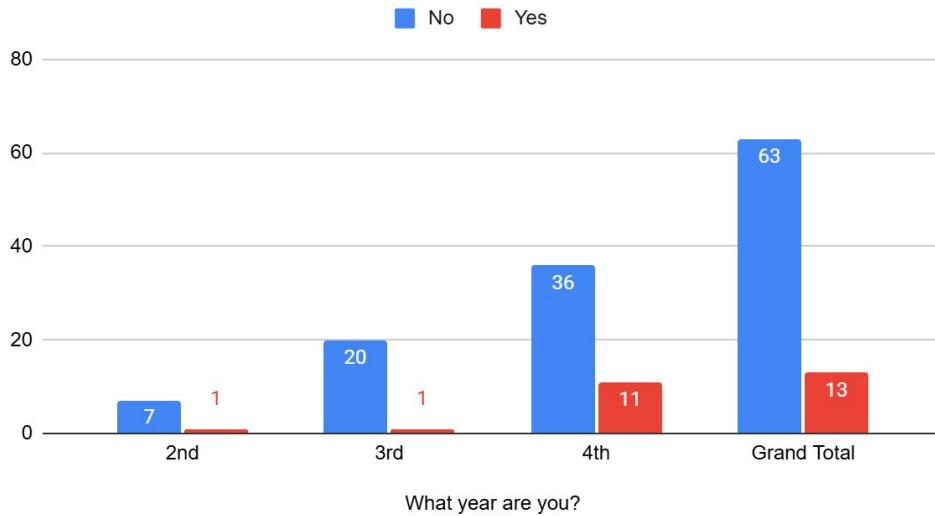
# Analysis Plan

- Data cleaning:
  - Removed rows where respondents were not full-time undergraduate students
- Visualizations:
  - Created various plots and charts in Google Sheets to convey survey results
  - Built a pie chart to visually show yes vs. no
  - Created a Pivot Table from the data to show breakdown by student year
- Statistical Significance:
  - Conducted one-tailed z-test to determine if sample proportion had significant difference from null value (0.5)
  - Also conducted chi-square test to see if the difference in opinions between each student year was significant

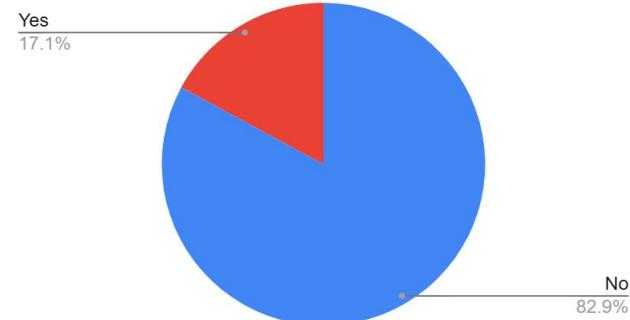


# Results/Findings

Do you believe a hotdog is a sandwich?



Do you believe a hotdog is a sandwich?



**Z-test:** z-statistic of -5.74 and p-value of <0.0001, indicating statistical difference in the sample proportion from null value. Thus, we reject the null hypothesis and our hypothesis is supported.

**Chi-square test:** Contrary to our visual observations, we found that the distribution of opinions did not differ significantly between the years

# Next Steps

- Survey more 1st and 2nd year students. This data is biased towards 3rd and 4th years
- Survey by major or school department to make sure all undergraduate students at UVA are represented

Year Breakdown by Percentage

