

# The Hot Dog Dilemma: Is it a Sandwich?

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# Motivation

- Hotdogs are an affordable and commonly eaten food
- This American staple is highly contested for its status as a sandwich
- Understanding the consensus or lack thereof regarding hotdog classification may help to utilize or advertise this meal more effectively and avoid conflict or confusion

# Hypothesis

Null hypothesis: 50% of Undergraduate students at UVA believe that a hotdog is a sandwich



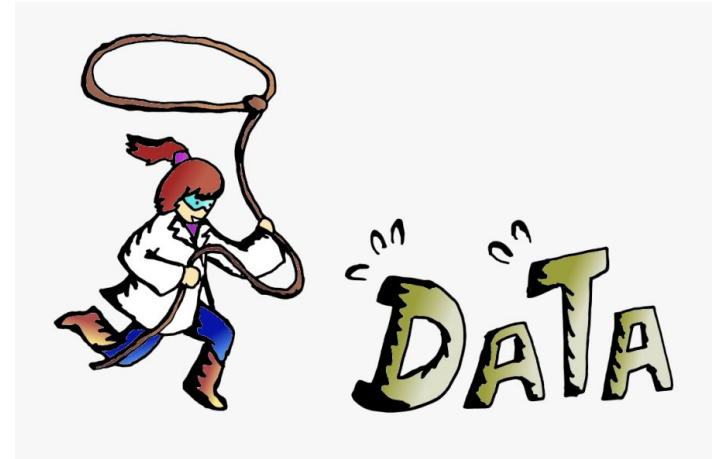
# Data

We surveyed UVA students using a Google Form containing the following questions and received 65 responses:

1. Do you believe that a hotdog falls under the category of a sandwich
2. What is the rationale behind your opinion?
3. Are you currently enrolled as an undergraduate or graduate student at the University of Virginia?
4. What is your field of study or major?
5. What state or country were you born in?
6. If you are an undergraduate, what is your current academic year?
7. Gender: How do you identify?
8. You preferred to self-describe for gender; please, share your identity below

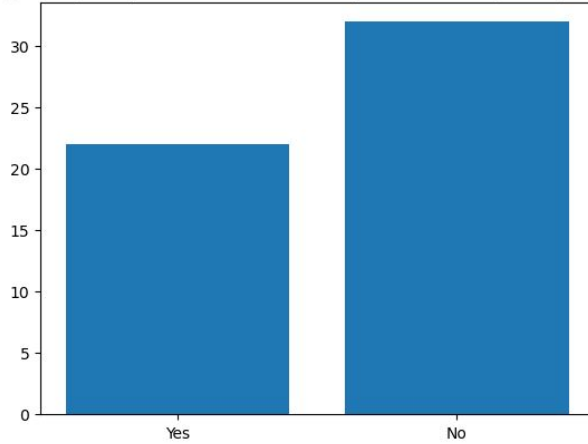
# Analysis Plan

- Pre-Analysis Steps
  - Aggregating Data
  - Cleaning Data: Remo
- Analysis Methods
  - 1-sample proportion test
  - Null Hypothesis: 50% of UVA undergraduates believe a hotdog is a sandwich
- Evaluation
  - $P\text{-value} < 0.05$  to reject null hypothesis

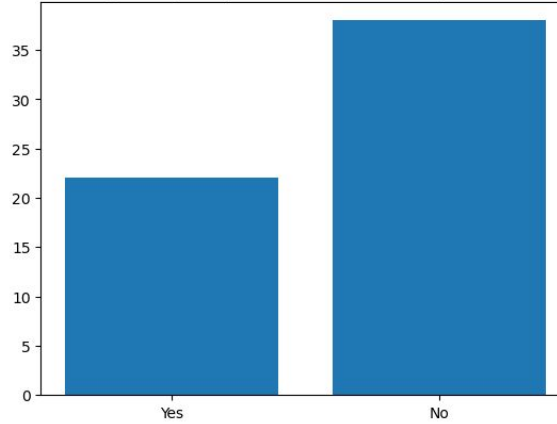


# Results/Findings

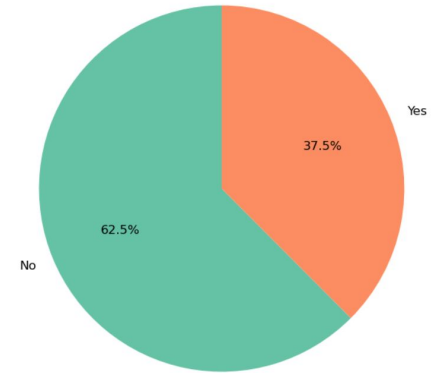
Hot Dog Survey Response 2025 - Is A Hotdog a Sandwich? (Undergrad Students)



Hot Dog Survey Response 2025 - Is A Hotdog a Sandwich?



Is it a Sandwich?



# Results/Findings Part 2

Inputs yes: 24

Total sample: 58

null value = 0.5    Null hypothesis: 50% proportion

Z-Statistic: -1.325

P-Value: 0.185

$$\text{test statistic: } z = \frac{\hat{p} - p}{\sqrt{\frac{p(1-p)}{n}}}$$

$\hat{p}$  = sample proportion

$p$  = population proportion

$n$  = sample size

p-value is 0.185, which is greater than 0.05, so we fail to reject the null hypothesis

# Next Steps

- Collecting more data:
  - Because we were only able to collect response from 58 UVA undergraduate students, the confidence levels for the responses accurately representing the UVA student population is low
- Exploring other foods:
  - Is there similar division regarding subs, tacos, etc.