Pre-Analysis Steps

We started off by cleaning the HotDogSurvey data in excel by omitting the 'Timestamp' column fully since it was irrelevant to our analysis. We then removed the only 3 out of 79 records that answered 'No' to 'Are you a full-time undergraduate UVA student?', and then removed the column entirely as our sample size must consist of full-time UVA students. This left us with 76 records across 2 columns. We renamed the remaining columns to "Year" and "Sandwich?" respectively for ease of use in analysis.
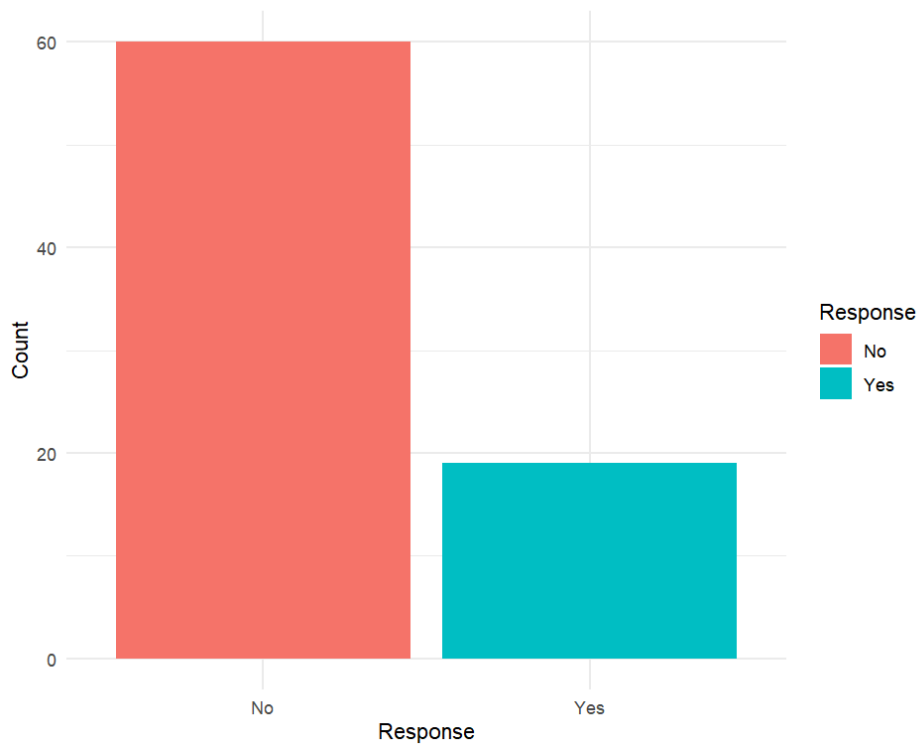
Analysis Methods

We performed a chi-squared analysis to determine if our findings significantly deviated from an expected ½ of UVA undergraduate students believing a hotdog is a sandwich.

We also conducted exploratory data analysis using one-sample t-tests and visualizations such as bar charts to illustrate patterns in the data. In particular, we examined whether students' class year was associated with their belief about whether a hotdog qualifies as a sandwich, allowing us to explore potential trends or differences across undergraduate years. Additionally, we included a basic bar graph displaying the total counts of 'Yes' and 'No' responses to whether a hotdog is considered a sandwich. This visualization is necessary because it provides an immediate and intuitive summary of the overall distribution of responses, allowing readers to quickly assess the balance of opinions in the sample before interpreting the results of the statistical tests.
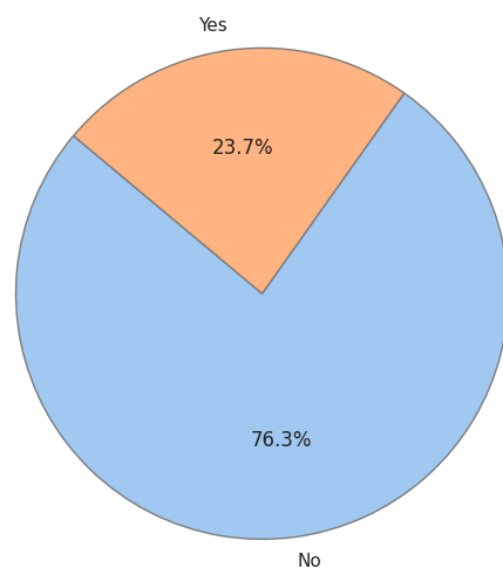
Evaluation of Success

The success of our analysis will be evaluated based on the findings from the planned statistical tests and visualizations. For the chi-squared analysis, success means determining if the observed proportion of students who consider a hotdog a sandwich significantly deviates from the expected 50/50 split. For the EDA, success will be measured by the ability to identify any clear association, trend, or significant difference in belief across the various class years. EDA results show a much higher proportion of 4th-year respondents (55 vs 10 3rd-year & 11 2nd-year & 0 1st-year).

Is a Hotdog a Sandwich? Survey Responses

Do you believe a hotdog is a sandwich?

Distribution of Students by Year