

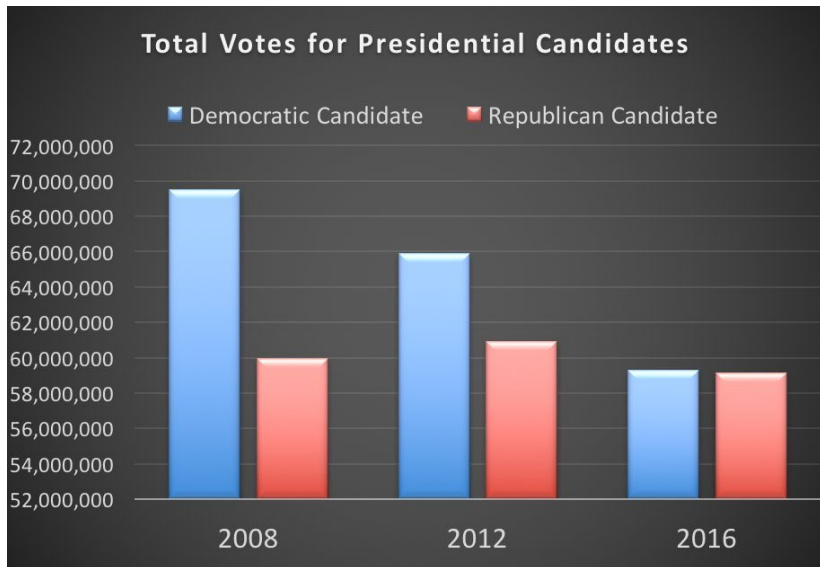
Today: 1-D Categorical  
Bar, Spine, Rose, Pie  
Statistical Tests for Categorical Data  
Wednesday: 2-D Categorical

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# Friday's Oral Evaluation Graphic



# What Does a Bar Chart Show?

**Marginal Distribution:**

**Empirical Distribution:**

# Bar Charts: Counts vs. Proportions

**Counts/Frequencies of each category:**

**Proportions:**

# Chi-Square Test for Independence

**Chi-squared test:** Statistical test used to determine whether there is a significant difference between the expected frequencies and the observed frequencies in one or more categories (of a categorical variable).

2-D Categorical: Used to test differences in the conditional distributions (more on this Wednesday)

1-D Categorical:

# Computing and Interpreting the Chi-Square Test

**Test Statistic:**

**Interpretation:**