

Module 3 Project

An Exploration of Congressional Voting Behaviour

Kyle Hayes

Ramin Ostad

Last Update: Aug 2019

Key Questions:

High Level Objective: Explore voting patterns among members of Congress over time to understand what factors impact abstain votes and yes/no votes

Questions Phase I:

Abstain votes

1. Are candidates of either party more likely to abstain from voting?
2. Are members of either chamber more likely to abstain?

Yes Votes

1. Are candidates of either party more likely to vote Yes?
2. Are candidates of either party, within the House, more likely to vote Yes?
3. Are candidates of either party, within the Senate, more likely to vote Yes?

Based on these questions, we will formulate next step questions to further understand voting behaviour

Methodology:

Data Source: ProPublica.org API

Range: January, 1993 to present

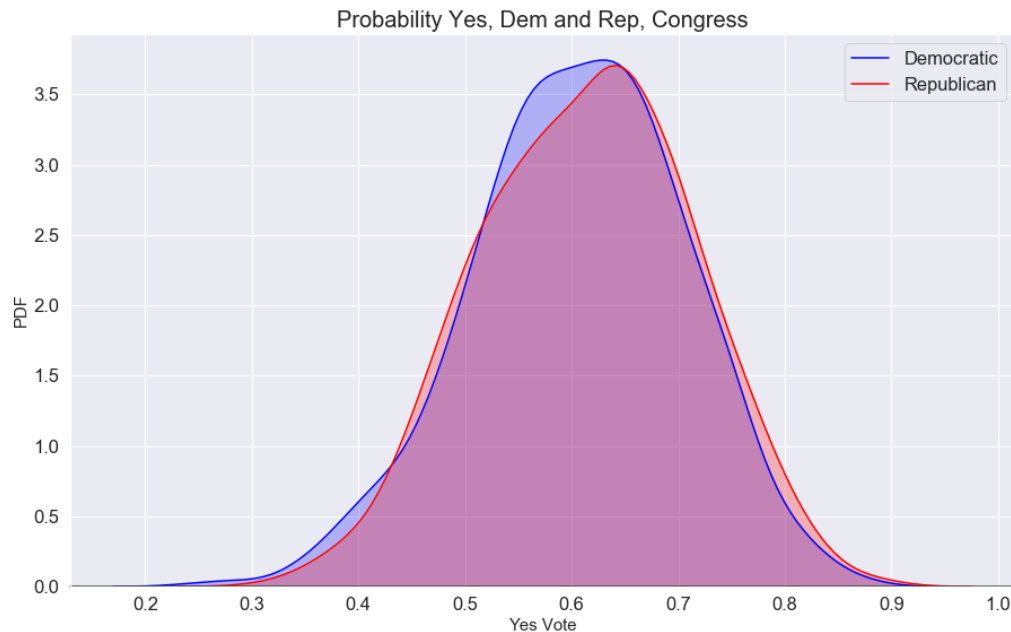
Methodology:

- Determined percentage by dividing vote categories (yay, abstain) for each party against total party members present
- Compared lists of percentage sample means
- Two-sided t-test, $\alpha = .05$

Probability Yes - Democrat and Republican - Congress

Do not reject H_0 that Dem and Rep have the same prob(yes) in Congress since 1992

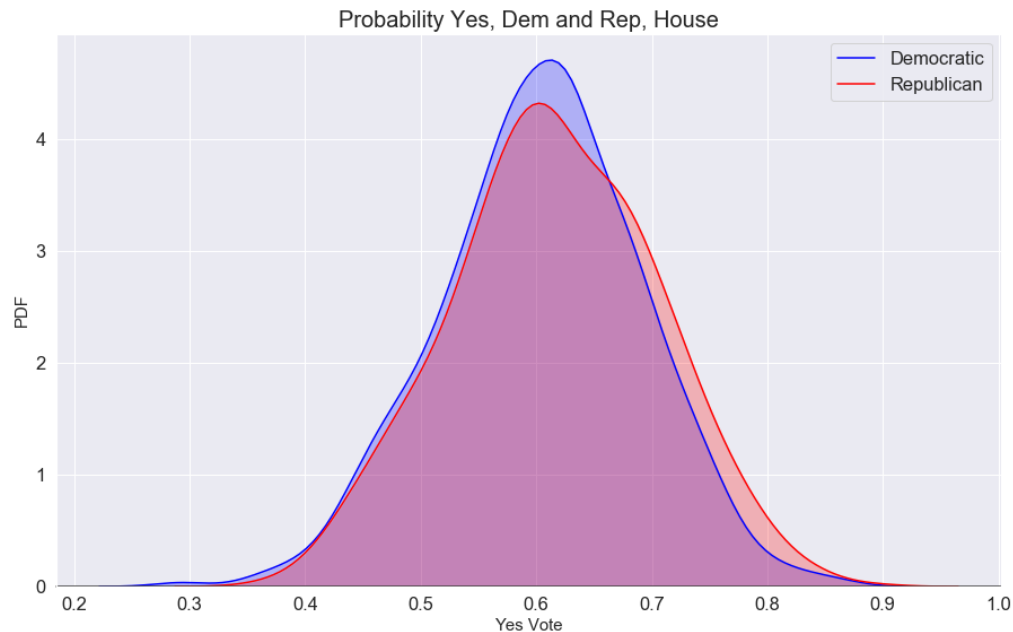
<i>p-value</i>	0.0472
<i>effect (d)</i>	0.0888
<i>power</i>	0.5100



Probability Yes - Democrat and Republican - House

Reject H_0 that Dem and Rep have the same prob(yes) in House since 1992

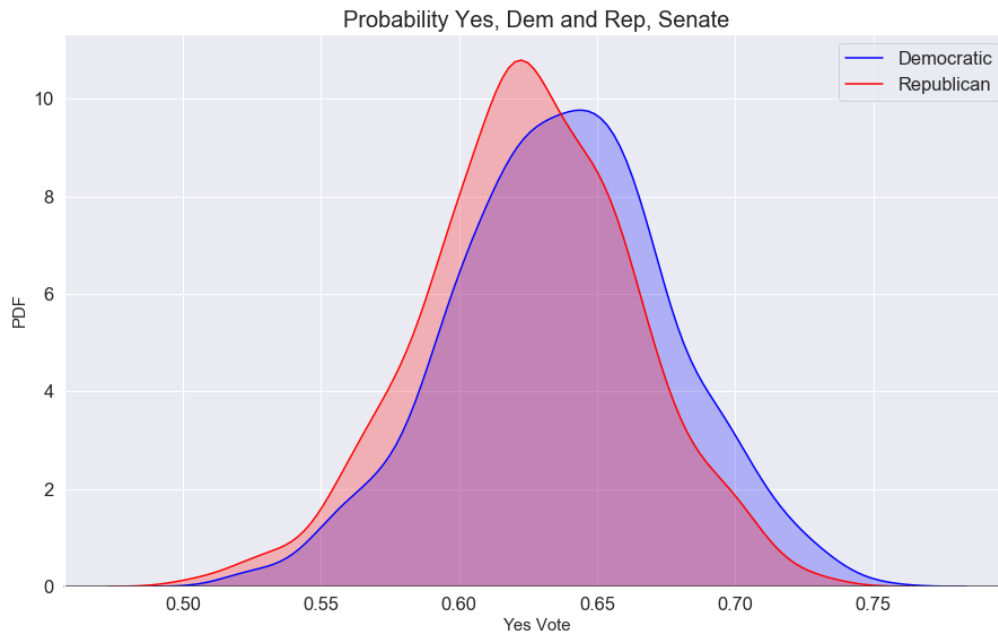
<i>p-value</i>	0.6974
<i>effect (d)</i>	0.0173
<i>power</i>	0.0674



Probability Yes - Democrat and Republican - Senate

Reject that H_0 that Dem and Rep have the same prob(yes) in Senate since 1992

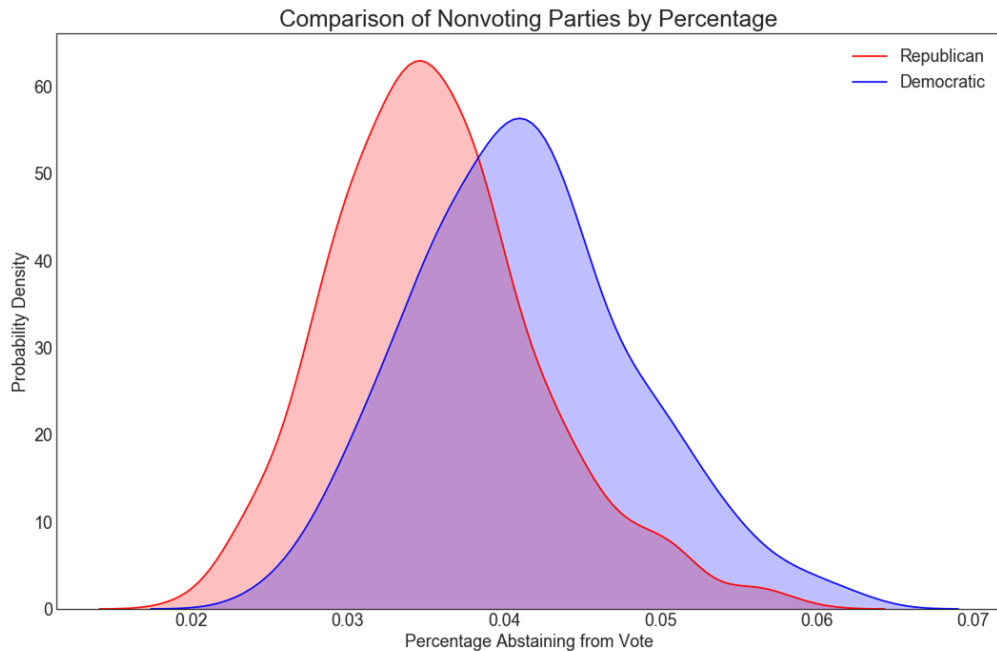
<i>p-value</i>	0.7622
<i>Effect (d)</i>	0.0135
<i>power</i>	0.0605



Probability Abstain - Democrat and Republican - Congress

Reject H_0 that Dem and Rep have the same prob(abstain) in Congress since '92

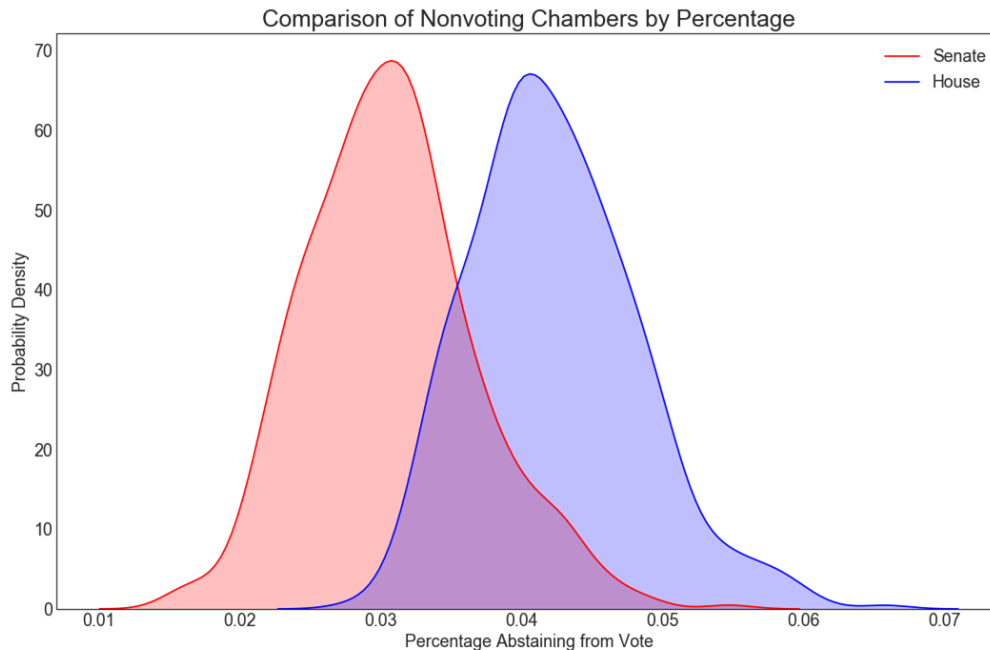
<i>p-value</i>	1.72e-34
<i>Effect (d)</i>	0.805
<i>power</i>	1.0



Probability Abstain - Senate and House

Reject H_0 that Senate and House have the same prob(abstain) in Congress since '92

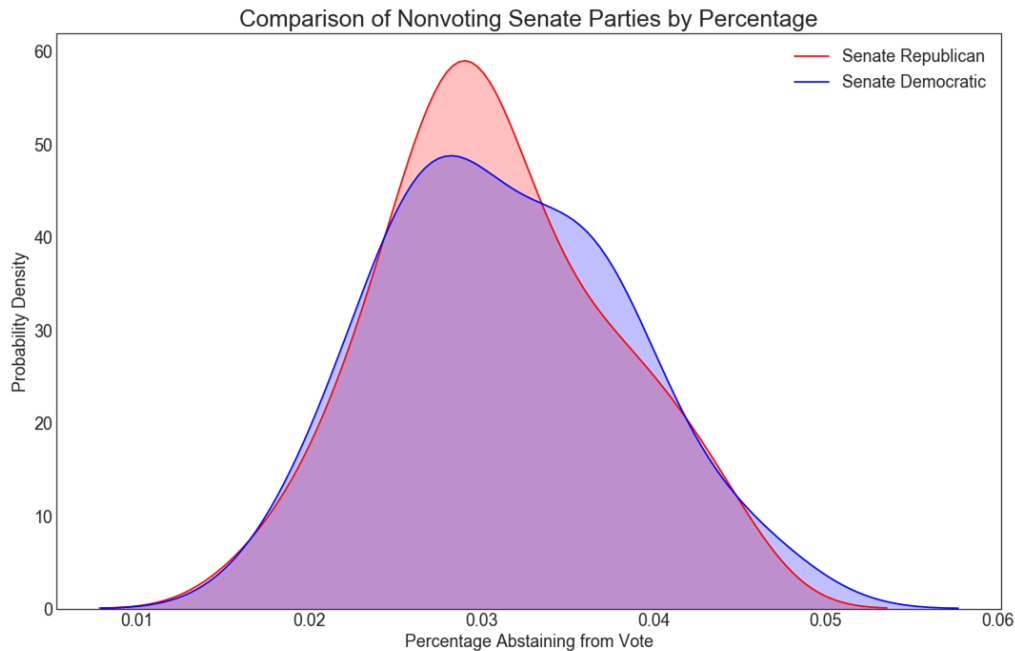
<i>p-value</i>	3.1e-148
<i>Effect (d)</i>	1.96
<i>power</i>	1.0



Probability Abstain - Senate Republicans and Democrats

Fail to Reject H_0 that Senate parties have different prob(abstain) since '92

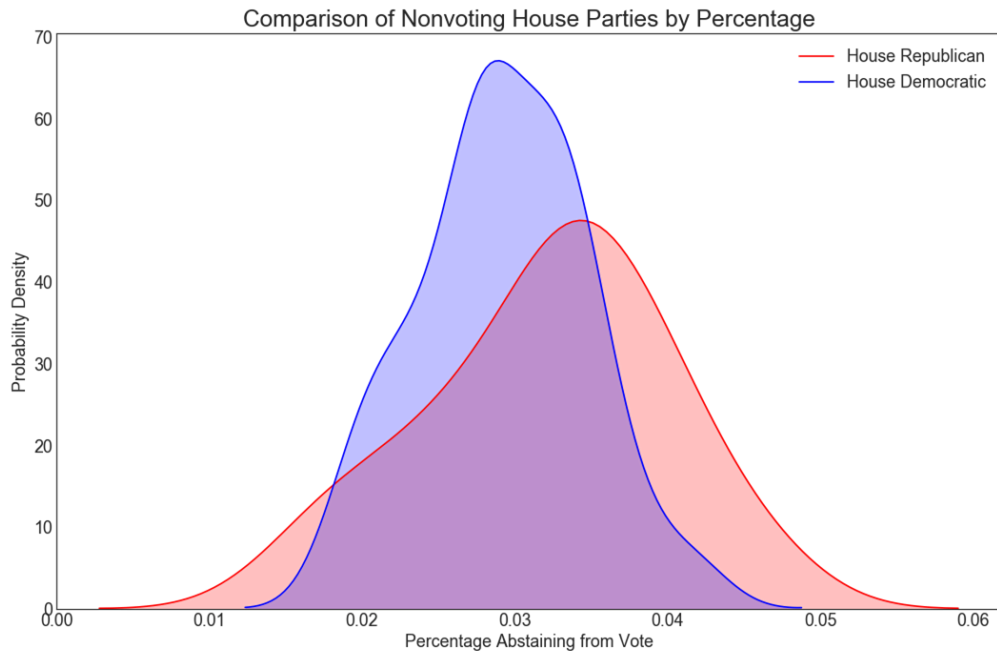
<i>p-value</i>	.63
<i>Effect (d)</i>	-
<i>power</i>	-



Probability Abstain - House Republicans and Democrats

Fail to Reject H_0 that House parties have different prob(abstain) since '92

<i>p-value</i>	1.11e-07
<i>Effect (d)</i>	1.56
<i>power</i>	1.0





Recommendations & Limitations

Further Research and Next Steps

Further Research:

Our current research points out areas that are and are not significant. Key findings are that major differences between parties are not seen in the probability yes between parties.

Both Democrats and House Members were most likely to abstain from voting.

The house Republicans had the largest variance in abstain votes.

Next Step Questions

1. Does Party in Power of Chamber impact voting?
2. Does topic of bill impact votes?
3. How has votes changed over time?
4. Does the type of motion impact votes?

Thank You!