

The Trump Effect

Jaiden Neff; Professor Laura Pyott
Department of Mathematics, West Chester University



Abstract

In the 2016 and 2020 elections, we saw political races unlike ever before. The mania surrounding Donald Trump and politics has been circling the media since he decided to run in 2016. This poses the question “Does Trump's involvement in a political race creates a significant increase in polarization?” I hypothesize that any race involving Trump is more polarized. I define polarization as fewer votes outside of the registered party. The Ram Poll conducted in 2020 and 2022 asks undergraduate students at PASSHE universities who are PA residents for their choice of candidate and political party. My analysis of the effect size shows that in the 2022 election more students vote outside of their party (Cramer’s V= .4).

Introduction

President Donald J Trump has caused the large divide between parties in our country to become significantly worse.

A Pew Research article from 2021 titled “How America Changed during Donald Trump’s Presidency” shows the tremendous divide. The article shows that when asked how they felt about trump's presidency, people who identify with the Republican party had a positive reaction using words like “hopeful” and “informed” while people who identify with the Democratic party used words like “concerned” and “angry”. (Dimlock M, 2021) Knowing this divide is an issue nationally, I wanted to see if Trump's involvement in a political race causes more polarization in Pennsylvania college students. To find polarization I looked at the percentage of students who voted outside of their registered party.

Method

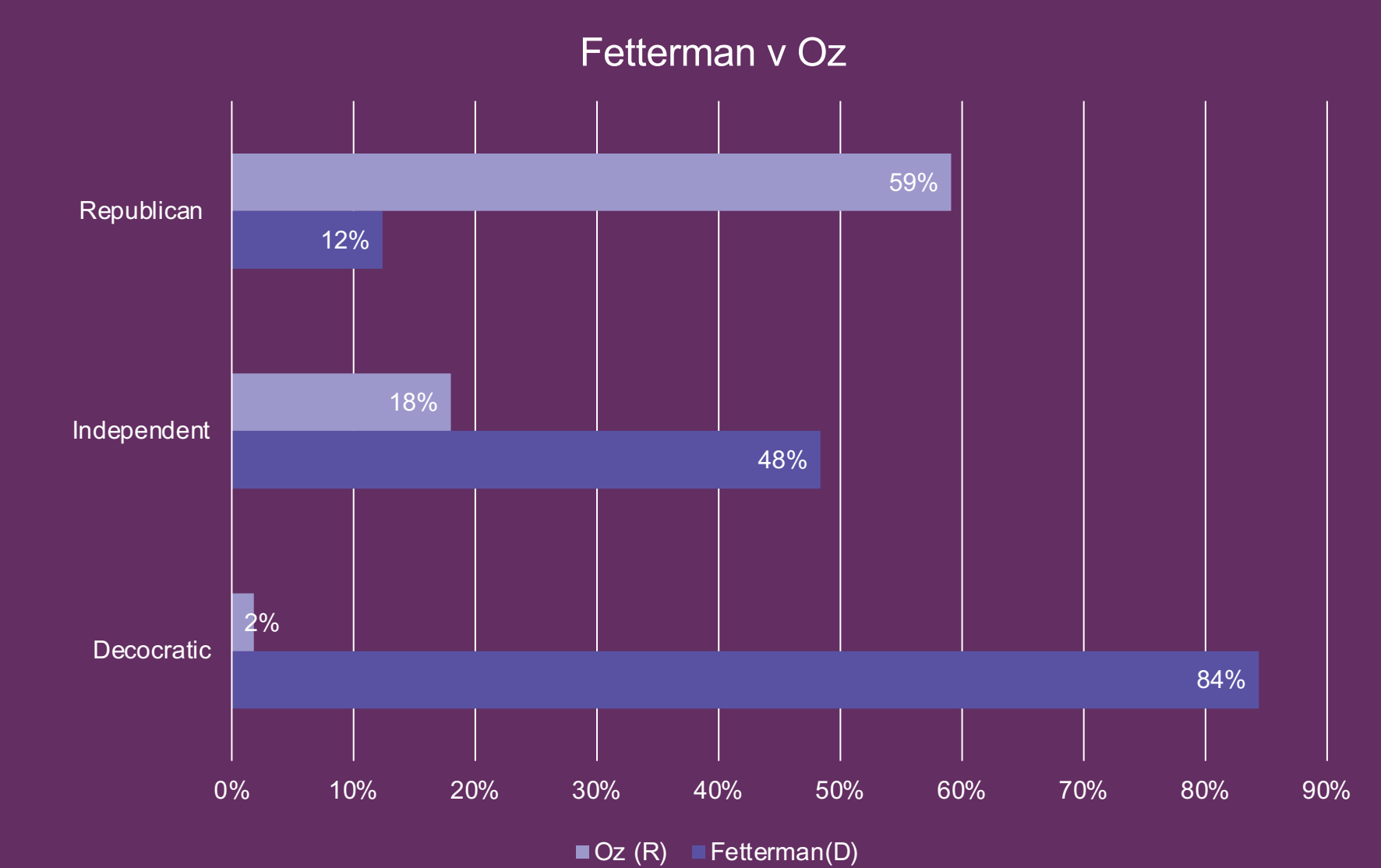
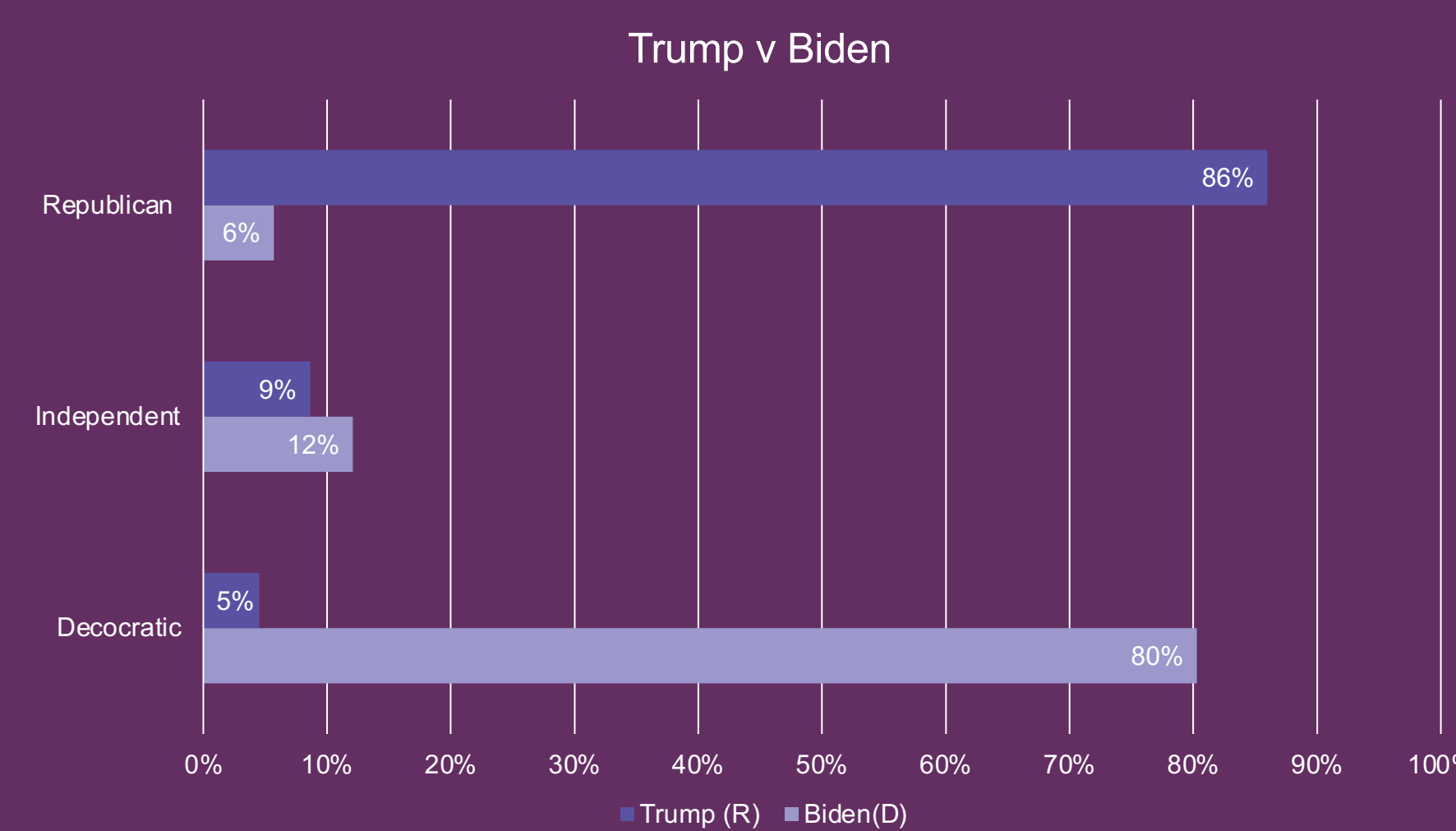
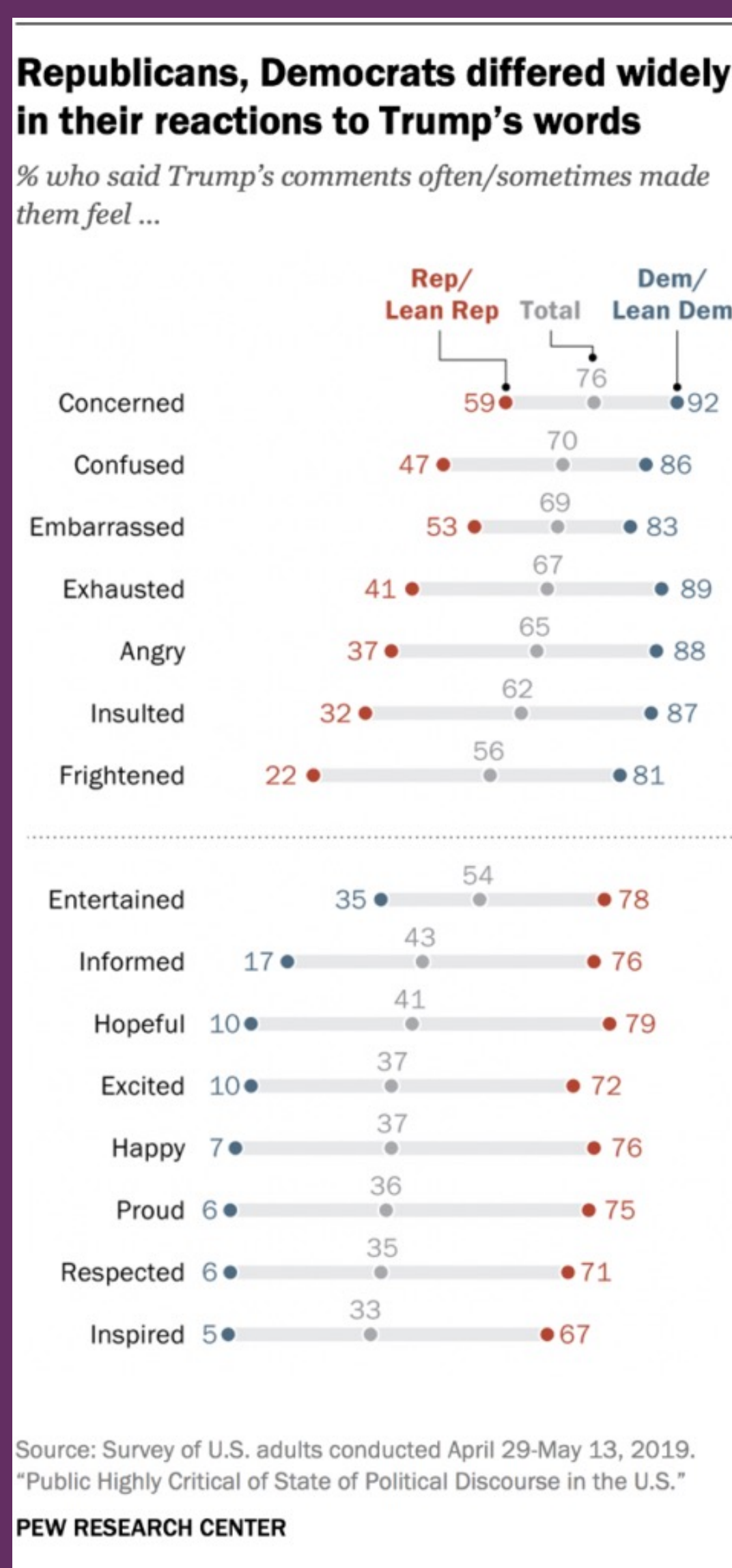
Our intention with the 2022 Ram Poll is to capture the opinions of Pennsylvania college students regarding the midterm election. The Pennsylvania State System of Higher Education (PASSHE) is comprised of 10 universities across the state. We did this by collecting emails from 9 of the 10 universities. Over 15,000 students received emails with the Qualtrics link; we received 948 responses.

The survey included questions about vote choice, issues, and enthusiasm. For my research into polarization, I looked specifically into the cross-tabulation between Political Parties and which candidate the student voted for. I then looked at the results from both the 2020 and 2022 ram poll reports. After finding the cross-tabulations which are highly statistically significant, we find the effect size using Cramer’s V to show which year polled has a higher difference in voting outside of party.

2020 Ram Poll

	Biden(D)	Trump (R)	Do Not Know	Other
Decocratic	80%	5%	15%	25%
Independent	12%	9%	38%	43%
Republican	6%	86%	39%	14%
Something else	2%	1%	8%	17%

Pew Research study



2022 Ram Poll

	Shapiro(D)	Mastriano (R)	Do Not Know	Other
Decocratic	88%	1%	11%	0%
Independent	49%	15%	34%	2%
Republican	15%	59%	24%	2%
Something else	35%	13%	35%	16%

	Fetterman(D)	Oz (R)	Do Not Know	Other
Decocratic	84%	2%	13%	1%
Independent	48%	18%	30%	4%
Republican	12%	59%	23%	4%
Something else	47%	7%	30%	16%

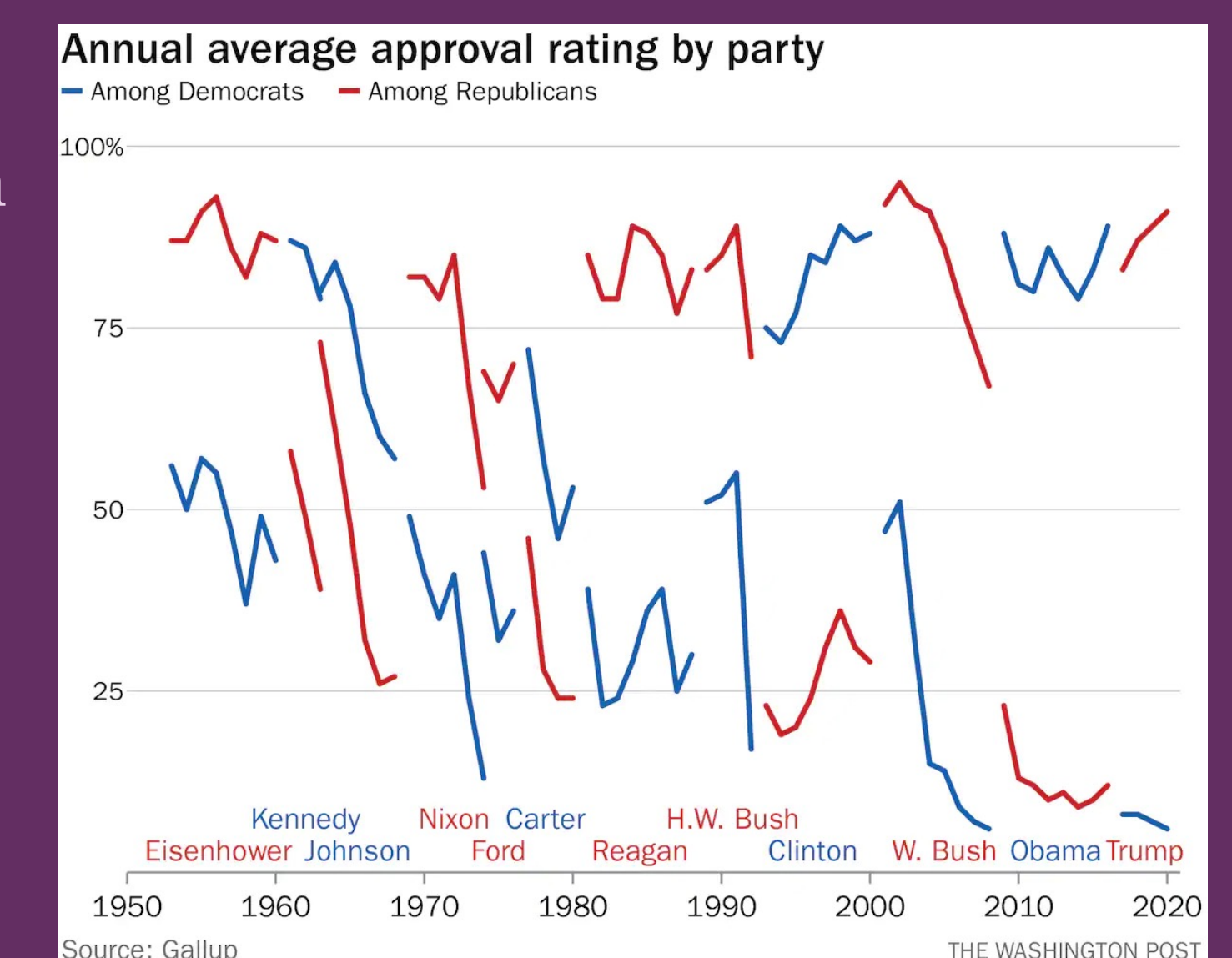
Results

After completing the cross-tabulation between party and candidate they would likely vote for we found a significant result because it is common for people to vote inside their party. What I was investigating though, was how often people voted outside of their party. To look at this result we take a look into the effect size of Cramer’s V. Cramer’s V is an effect size and can measure how strongly two categorical fields are associated. The large effect size for Cramer’s V is .50. When looking at the results we found that the effect size for the Mastriano v Shapiro race was .446. The effect size for the Oz v Fetterman race was .421. Though these are relatively large effect sizes when you look at the effect from the Trump v Biden race which is .663, it is clear that there this race had increased polarization.

Discussion and Conclusion

Though correlation doesn’t always mean causation it is evident through my research that Trump's involvement in political races creates a type of polarization that is different from other races. The Republican party saw fewer votes outside of party in the Trump election than any other race that was observed. Although polarization has been growing for quite a while it hit an all-time high during Trump's candidacy. In a Washington Post article, the polarization was shown by looking at approval and disapproval, and party. The graph below it is shown that Trump's candidacy saw the most extreme on both ends of approval and disapproval. (Bump 2021). This is just yet another example proving the direction of my data and analysis.

Washington
Post study



References:

- Bump, Philip. “Analysis | Party Polarization Hit a High under Trump. Can Biden Reel It Back?” *The Washington Post*, WP Company, 20 Jan. 2021, <https://www.washingtonpost.com/politics/2021/01/20/party-polarization-hit-high-under-trump-can-biden-reel-it-back/>.
- The Effect of Group Polarization on Opposition to Donald Trump*. <https://onlinelibrary.wiley.com/doi/10.1111/pops.12584>.
- Mitchell, Travis. “How America Changed during Donald Trump's Presidency.” *Pew Research Center*, Pew Research Center, 26 Oct. 2022, <https://www.pewresearch.org/2021/01/29/how-america-changed-during-donald-trumps-presidency/>.