Political Polarization in Illinois: A Case Study of How the Rhetoric of Politicians Changes Over Time

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ABSTRACT

Nationalization theory suggests that politics at all levels of government are increasingly viewed through a national lens. At the federal level, rhetoric used to describe members of the other party in Congress and the presidency has become increasingly negative, providing evidence of greater polarization. Is the same phenomenon occurring at the state level? Using sentiment classification on candidate-endorsed Illinois gubernatorial campaign ads from the 2010 and 2018 election cycles, this study examines changes in the frequency of negative rhetoric directed at opposing candidates in attack ads. Results show an increase in both the frequency and magnitude of negative rhetoric used in attack ads from 2010 to 2018, which provides evidence of increasing polarization at the state level. Mentions of the president by members of the opposite party also increase significantly, linking state affairs to national politics as predicted by nationalization theory. A possible remedy to curb the increasing polarization of campaigns is to implement rank choice voting for state-level elections.

Keywords: political polarization, nationalization theory, democracy, state government, federalism, campaign ads, gubernatorial elections, sentiment analysis, sentiment classification

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I. INTRODUCTION

Historically, the average American would cite external actors as the greatest threats to American democracy, like the communist USSR during the Cold War or al-Qaeda during the War on Terror. Today, more Americans are likely to say the biggest threats to democracy are Americans from the other political party (*Political Polarization in the American Public*, 2014). This internal threat of political polarization is increasing tensions, and we have had an uptick of these political differences rising to the level of rioting and violence.

Traditionally, polarization is thought of in the context of whether legislators from different parties can compromise to pass effective legislation. However, in recent years, political polarization has appeared to become increasingly relevant to American's daily lives and the stability of our democracy. The riots that followed the 2016 and 2020 presidential elections, electing a Republican and Democrat, respectively, and the questions raised about the legitimacy of the 2020 election show that the United States is susceptible to "democratic backsliding" from political polarization and other factors, like any other country (Mettler & Lieberman, 2020). These events demonstrate the need to understand the ways that political polarization permeates through our society, what its effects are in the operations of government, and the results for its citizens in order to take action. We have typically seen more intense partisanship at the federal level, with state and local governments able to find more ground for compromise. I am interested in finding out whether the increased polarization at the federal level has begun to reach state politics as well.

My research attempts to answer the question of whether there has been an increase in the negativity of rhetoric used in attack ads in campaigns for governor of Illinois between 2010 and 2018? Illinois serves as a good case study for examining state-level polarization because its governor seat is not historically owned by one party. Since the mid-1970s there have been eight different governors of Illinois, of which four were Republicans and four were Democrats. In the period from 2010 to 2018, the elections have produced one Republican and two Democrat governors. There is also a prominent regional divide, with the more urban northern part of the state (Chicagoland) having more representation by Democrats while the rural, central and downstate areas tend to elect Republicans. Despite Chicagoland's small geographical area when compared to the rest of the state, its much denser population means that the urban Democrats usually hold the majority of legislative seats in the Illinois House and Senate.

This research conducts a sentiment analysis study on campaign ads from Illinois gubernatorial general elections to evaluate whether political polarization in Illinois' state-level politics has changed since 2010. This analysis is based on sentiment classifications performed using the AFINN Sentiment Lexicon, Bing Sentiment Lexicon, and the NRC Word-Emotion Association Lexicon to analyze the frequency that rhetoric conveying negative sentiments (such as anger, disgust, fear, and sadness) is used in a given gubernatorial campaign cycle, and whether this changes significantly over time.

II. LITERATURE REVIEW

Distinguishing Ideological Polarization from Political Polarization

For my purposes, I use a few key differences to distinguish between ideological polarization and political polarization. Ideological polarization describes a growing divide between the policy stances of Democrats and Republicans. This manifests in the loss of conservative Democrats and liberal Republicans, resulting in less common ground in the policy goals between each party. Measuring ideological polarization has a relatively simple method of looking at party-line voting trends over time. There is already literature that describes the increase in party-line voting, so my research will not focus on this form of polarization (Sinclair, 2014).

Instead, my study is interested in political polarization, or "partisan animosity," which is concerned with the way Democrats and Republicans view members of the other political party (*Political Polarization in the American Public*, 2014). There is some conflicting literature about the influence of ideological polarization on political polarization. A study in 2007 identified a link between ideological polarization of political candidates and ideological voting behavior of more educated citizens (Lachat, 2008). However, there is recent evidence from researchers at Cornell University that political polarization is not necessarily grounded in deeply rooted ideological divisions for the average person. Rather, policy stances within a party have some tendency to be contradictory, and these positions are driven by "opinion cascades," where party members hop on the bandwagon of an opinion put forth by one of the first party leaders to speak on an issue (Macy et al., 2019). This suggests that the party platform could be very different had someone else spoken up early on. Because of the disagreement about the link between these two types of polarization, it is important to distinguish ideological polarization from political polarization for this research.

Context and Prior Research

There have been multiple studies of sentiment analysis that point to increased political polarization on a congressional level, with negative rhetoric being used as a proxy variable for political polarization (Abercrombie & Riza Batista-Navarro, 2001). In research on speeches from members of Congress, it has been found that since 2000, speeches made by members who were not the same party as the president were more negative than speeches made by members of the president's party (Tucker et al., 2020). Another study from 2008 found that an algorithm can even predict the party of a legislator in Congress based on the qualities of their speech in legislative debate (Yu et al., 2008).

I aim to build on this research by determining whether political polarization has also increased at the state level, and I do so through the more targeted lens of the ways parties describe each other in attack ads. My research addresses the lack of empirical findings about state-level polarization (Bishop, 2019) by looking to identify broad patterns of change in Illinois between 2010 and 2018.

Nationalization Theory

A key idea that drives my research is nationalization theory, described by Daniel J. Hopkins in his 2018 book *The Increasingly United States: How and Why American Political Behavior Nationalized*. This theory suggests that state and local politics are increasingly seen through the lens of national politics. Hopkins provides the example that candidates for state-level offices increasingly advertise who they support in presidential elections in order to win the votes of that presidential candidate's supporters. Additionally, a state's support for a presidential candidate translated into support for that same party in the state-level elections (Daniel J.

Hopkins, 2018). This is a significant change because as recently as 2000, "knowing which party won the most recent presidential race in a state told you almost nothing about who that state's U.S. senators were" (Mehta & Enten, 2014).

Due to the existing evidence of increased polarization in Congress, applying nationalization theory would suggest that state-level polarization will increase as well because of a greater identification with national politics. For this reason, *my hypothesis is that the rhetoric used to talk about members of the other party in attack ads will become more negative from 2010 to 2018*, which would provide new evidence supporting Hopkins' nationalization theory. Existing evidence focuses on trends in voting patterns and ideology (Daniel J. Hopkins, 2018), but my research has the potential to show that nationalization theory also applies to the conduct of elected officials and affects their reported opinions of the other party.

Summary

Existing literature has used the sentiment of politicians' rhetoric to measure political polarization in the U.S. Congress. The advantage of this method is that it can analyze the opinions that party members have of one another in a way that measuring ideological polarization through voting behavior cannot. Nationalization theory proposes that state politics are increasingly seen through the lens of national politics and provides evidence that national elections influence state elections. However, there is a gap in the literature about whether the political polarization seen in Congress has reached the state-level of government. My research aims to fill this gap to determine whether political polarization in Illinois state government has followed the national-level trend.

III. DATA

My data is comprised of the spoken words in campaign ads endorsed by general election gubernatorial candidates in Illinois during the 2010 and 2018 election cycles. Campaign ads fall under the umbrella of performative speech acts because they are designed for public consumption and are meant to be persuasive. Performative speech makes the most sense for this study because nationalization theory is concerned with how politics are viewed, so the framing of the speech act is important. Speech acts from less public areas of government activity, such as legislative floor debate, are probably less susceptible to national framing. Additionally, polarization is more likely to influence state-wide elections before reaching legislators elected on a more local level, so focusing on gubernatorial candidates is the best way to establish whether the phenomenon of increasing political polarization in Illinois is happening at all.

Additionally, the specific period from 2010 to 2018 is an important case study for several reasons. During this time, one Republicans and two Democrats served as Governor of Illinois, so the balance of political power in Illinois has shifted repeatedly. Furthermore, election of President Donald Trump and his failed reelection attempt has led to political unrest with rioting from both his opposition and supporters, and it has been found that the average American citizen now associates more negative traits with the "other" party than they did in 2016, such as being more "close-minded," "immoral," and "unintelligent" than average Americans (*Partisan Antipathy: More Intense, More Personal*, 2019). Nationalization theory would predict a similar spike in state-level polarization beginning around 2016.

For the campaign cycles I examine, I include all attack ads that were created by each general election candidate's official campaign. The organization that created the ad can be easily determined by the requirement that they have on-screen text at the end of the ad that states, "Paid for by (name of PAC)," to disclose their funding source (*Advertising and Disclaimers*, n.d.). The one exception to including all attack ads is that those which attack a candidate's opposition in the primary election are omitted so that the analysis will not be skewed by including data from a candidate attacking members of their own party. The ads were collected from the candidates' campaign channels on YouTube (*YouTube - Bradyforillinois*, n.d.; *YouTube - Bruce Rauner*, n.d.; *YouTube - JB Pritzker*, n.d.; *YouTube - QuinnForIllinois.Com*, n.d.; *YouTube - Rauner Failed*, n.d.). It is not usually clear from a video's YouTube description whether the ad was made for television, radio, or shown only online, so I do not distinguish between these. The YouTube pages also include other videos of the candidates doing things like making speeches, but these are not included in my data set if they lack the "Paid for by (PAC)" disclaimer.

A rough draft of the transcripts of the ads was obtained by opening an ad in YouTube and clicking "Open Transcript" in the menu denoted by three horizontal dots. I copied these transcripts into Microsoft Word, then reviewed the transcripts while listening to the ads to manually correct errors, add punctuation, and fix formatting. My data only includes transcriptions of the spoken words in the ads (voiceovers and people speaking on-screen), unless nothing is spoken, in which case I use on-screen text.

When it comes to the unit of analysis for conducting a political sentiment analysis study, existing literature is varied. Computer scientists tended to define their unit of analysis as something smaller, like a speech, paragraph, sentence, or phrase, while political scientists were

more likely to define their unit of analysis as something larger like the "actor" or politician, who are analyzed as a collection of all of their speech (Abercrombie & Riza Batista-Navarro, 2001). I follow the political science model, but since I am interested in broad patterns of change, my unit of analysis is the campaign year, including but not distinguishing between ads from each candidate.

IV. DESCRIPTION OF MAIN VARIABLE

The variable I am interested in observing is political polarization in Illinois gubernatorial elections, defined for this study as the way candidates talk about members of the other political party in endorsed attack ads. Because there is no direct measurement of political polarization, the negativity of rhetoric used to talk about the other party will be measured as a proxy variable, as is consistent in the literature on legislative sentiment analysis (Abercrombie & Riza Batista-Navarro, 2001). Due to the lack of prior research on partisan rhetoric at the state-level, this case study only seeks to determine whether there has been a change in rhetoric over time. It will not attempt to define a causal relationship between an independent variable and use of negative rhetoric.

V. METHODOLOGY

To perform my analysis, I used R to run sentiment classifications on the language in the campaign ad transcripts using the AFINN Sentiment Lexicon, Bing Sentiment Lexicon, and the NRC Word-Emotion Association Lexicon, which are all included in the tidytext package of R (2 Sentiment Analysis with Tidy Data | Text Mining with R, n.d.). Each lexicon evaluates the positivity and negativity of campaign ad transcripts but use different methods to do so. AFINN

codes words as either negative or positive on a scale of -5 to +5 while Bing uses a binary classification of negative or positive without assigning a sentiment score to the words. Neutral words are excluded because they do not have a sentiment. NRC also classifies words as negative or positive, but additionally codes them for whether they represent the emotions of anger, anticipation, disgust, fear, joy, sadness, surprise, and trust. One word can fall under multiple categories. Using established lexicons already used in published research offers consistency and allows my research to be compared to prior work in the field (Abercrombie & Riza Batista-Navarro, 2001). Additionally, analyzing results from three different sentiment lexicons provides a reliable picture of my data and creates the opportunity to compare results between dictionaries to verify that there is consistency.

VI. RESULTS

My analysis of gubernatorial election attack ads from 2010 and 2018 yields three key results. The first is that words with negative connotations are used more often in 2018 than in 2010. Secondly, the words themselves have become more negative, returning lower AFINN scores. Finally, national politics are mentioned significantly more in the 2018 election.

One way to examine the increase in the use of negative rhetoric is to look to the emotions conveyed by the language in the ads. The NRC Lexicon finds the negative emotions of anger, fear, sadness, and disgust all make up a larger share of the overall emotion in 2018 attack ads than they do in ads from 2010.

Emotions in 2010 Attack Ads as a Percentage of Total Emotion

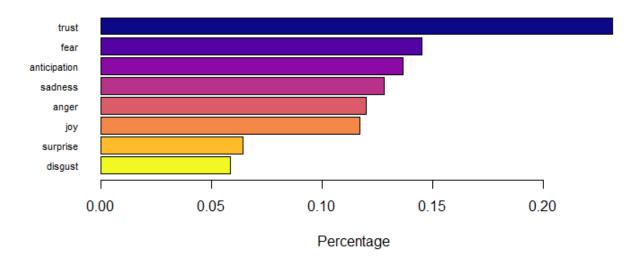


Figure 1: Trust words are by far the most common in the 2010 election, followed by fear and anticipation. Positive and negative emotions both appear throughout the ranking.

Emotions in 2018 Attack Ads as a Percentage of Total Emotion

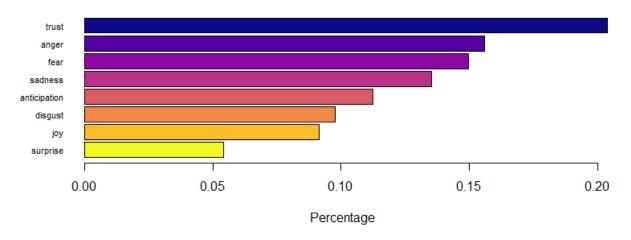


Figure 2: Trust words remain the most common, but the margin narrows between trust and negative emotions of anger, fear, and sadness. Disgust also increases from \sim 6% of the overall emotions to \sim 10%.

Looking at these results in a table, it is clear that negative emotions became more common in 2018. All four negative emotions increase in prevalence while all four positive emotions decrease in prevalence.

Table 1: Percentage of Total Attack Ad Emotions Made Up by Each NRC Emotion Per Year. Negative emotions are shown in red and positive emotions are shown in green.

Emotion	2010	2018	Change from
			2010 to 2018
Trust	23.1%	20.4%	-2.7%
Anger	12.0%	15.6%	+3.6%
Fear	14.5%	15.0%	+0.5%
Sadness	12.8%	13.5%	+0.7%
Anticipation	13.6%	11.2%	-2.4%
Disgust	5.8%	9.8%	+3.9%
Joy	11.7%	9.1%	-2.6%
Surprise	6.4%	5.4%	-1.0%

It is important to note that even in attack ads, there are still positive sentiments expressed. This is explained by the tendency for candidates to compare themselves to their opposition as a method of persuasion. While the primary focus of an ad might be to target their opponent, a candidate will sometimes promote their own positive qualities for comparison.

Another way to look at the frequency of negative rhetoric is to compare graphs of how many times words with each AFINN score were used in an election cycle. Unlike in 2010, the

occurrences of 2018 negative scores exceed or are roughly equal to their positive counterpart (i.e., In 2018, -1 occurs more than +1, -2 and +2 are roughly equal, etc.).

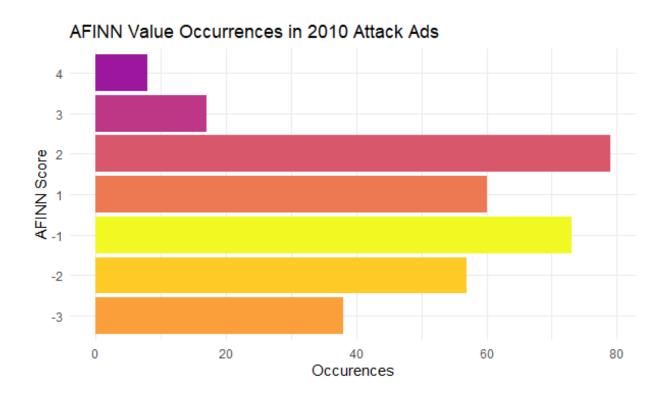


Figure 3: +2 and -1 were the most common AFINN scores. The numbers of occurrences are fewer near the top and bottom ends of the spectrum. No words had a score of +5, -4, or -5.

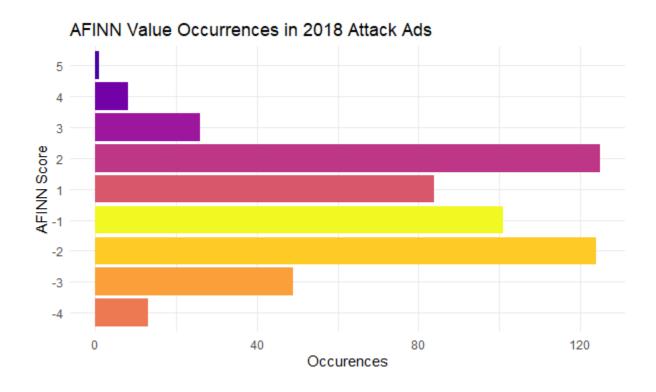


Figure 4: +2 and -2 are the most common AFINN scores in 2018. -5 was the only score to have no words used.

These graphs of AFINN score frequencies also show another key finding, which is that the individual words used in the campaigns have become more negative. While mildly positive words with a score of +2 are most common by a small margin in both years, mildly negative words with a score of -2 increased significantly in comparison to the share of words overall from 2010 to 2018. Additionally, strongly negative words with a score of -4, which were not seen in 2010, are introduced in 2018. These include multiple uses of the words "damn" and "fucking," although these were partially bleeped for the sake of being aired on television.

Quantifying these results makes it easier to compare the overall sentiment of the attack ads in each campaign. The cumulative value of all the positive words can be found by multiplying the positive AFINN scores by the number of occurrences each score had, then

summing the total. After doing the same for negative words, the difference between the positive cumulative value and the negative cumulative value produces the net sentiment value of all the attack ads for a campaign year. The tables below show the results of these calculations.

Table 2 & 3: Finding the Net Value of All Attack Ads in 2010 and 2018.

2010	Word	Cumulative
	Count	Value
Positive	164	301
Words		
Negative	-168	-301
Words		
Net Value	-4	0

2018	Word	Cumulative
	Count	Value
Positive	244	449
Words		
Negative	-287	-548
Words		
Net Value	-43	-99

In 2010, words with a negative sentiment score were only used four more times than positive words in attack ads. In 2018, this number had increased to 43. The cumulative values for positive and negative words in 2010 were the same, meaning that attack ads that year used just as strong of positive sentiments as negative sentiments, for a net value of 0 and an average sentiment score of 0 per ad. The net cumulative value for 2018 was -99. Dividing -99 by the total number of attack ads in 2018 (85) produces an average AFINN sentiment score of approximately -1.16 per ad.

To check for accuracy of these results, the net sentiments of ads are compared across three different lexicons. The results are consistent across all three lexicons for 2010. While there

is a small amount of discrepancy about the magnitude of positivity or negativity, there is agreement about when to classify an ad as positive or negative.

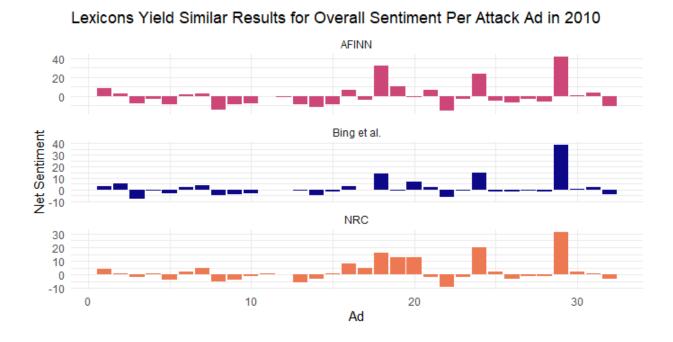


Figure 5: All three lexicons yield similar results for the overall sentiment of each attack ad in 2010.

Results are less consistent between lexicons for 2018. AFINN generally returns the most extreme net sentiment values, followed by NRC, with Bing usually returning the values that are closest to zero. This is most likely explained by the fact that Bing and NRC use binary classifications of positive and negative, while AFINN sorts them on a scale of -5 to +5. In 2010, AFINN found most words to fall near the middle of the scale, so there would not be much

variation between the scale and binary lexicons. The stronger sentiments in the 2018 campaign would be expected to produce more extreme results for AFINN.

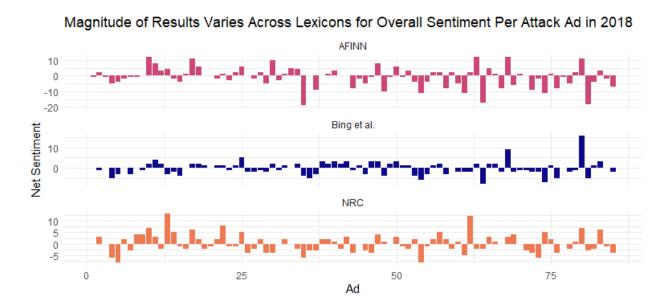


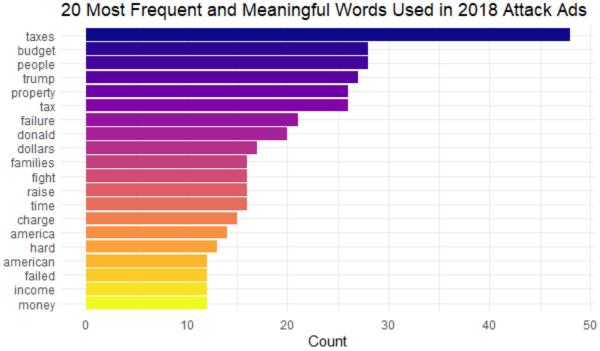
Figure 6: The number of attack ads has more than doubled since 2010, reflecting a huge increase in campaign spending and the technological advancements that make it easier to produce ads. AFINN's classification of words on a scale is expected to be responsible for producing stronger net sentiment values than the other binary lexicons.

The last key finding of this research is that attacks focused on the president become a prominent part of the other political party's campaign for governor in 2018. This is determined by analyzing buzzwords, or the most frequent words, from each campaign year. Barack Obama was not mentioned at all in the Republican candidate's ads in 2010, however Donald Trump's name was mentioned in the Democratic candidate's attack ads 27 times in 2018. This was

enough to make "Trump" the fourth most frequent word out of all of the attack ads from the 2018 campaign.

20 Most Frequent and Meaningful Words Used in 2010 Attack Ads time dollars people raises taxes budget cut plan vote voted wage income salary tax break job jobs labor raise worse 0.0 5.0 10.0 15.0 Count

Figure 7: The top buzzword of the 2010 campaign was "pay," with most of the other buzzwords relating to the economy. This data includes attack ads from both candidates. It excludes meaningless words that would inevitably be used in a governor's campaign, like "Illinois," "governor," and names of state-level politicians.



Count

Figure 8: The top buzzword of the 2018 campaign by far was "taxes," but the name of the president ranked fourth.

Other buzzwords like "failure," "fight," and "failed" indicate a more hostile campaign. As in Figure 7, this data includes attack ads from both candidate and excludes meaningless words that would inevitably be used in a governor's campaign, like "Illinois," "governor," and names of state-level politicians.

Of the 20 most frequent words in each election, only a small number of them are

classified by AFINN as having a negative sentiment. None of the top 20 words in attack ads were classified with a positive sentiment. While "worse" has the strongest negative sentiment of this list, it is also used the fewest times.

Table 4 & 5: The most frequent words with an AFINN sentiment score from attack ads in each campaign year. 2010 only has three buzzwords with negative sentiments, which increases to 4 in 2018.

2010 Buzzwords	Sentiment Score
Pay	-1
Cut	-1
Worse	-3

2018 Buzzwords	Sentiment Score
Failure	-2
Fight	-1
Hard	-1
Failed	-2

VII. IMPLICATIONS

The increases seen in both the frequency of negative words and the negativity of AFINN scores in state-level attack ads point to an increase in political polarization from 2010 to 2018 in Illinois, as nationalization theory would predict. Furthermore, the shift to attacking the president in 2018 ads is noteworthy because while the 2010 campaign for governor focused almost entirely on state issues, the Democratic candidate in the 2018 election expected, and encouraged, voters to base their decision on national politics. However, more research is needed in order to determine whether state-level politicians are fueling the nationalization of Illinois elections or whether candidates are responding to voter priorities caused by another source, such as mainstream news media.

Regardless of the source of the nationalization, a candidate's campaign strategy of "support me because I'll stand up to the other party" raises a few questions about what voters are really thinking when they cast their ballot. Rather than voting for candidates they actually like, are voters today more inclined to see their decision as voting against the other, more unfavorable candidate? Do the individual candidates even matter to the average voter, or is party the sole factor in general elections? Answers to these questions will help predict the political campaign landscape of the future.

My primary analysis looked specifically at attack ads, but the overall campaigns in 2010 and 2018 both used more positive language than they did negative language. However, if constituents are voting against candidates rather than for them, there is an incentive for campaigns to direct their resources towards producing more attack ads rather than balancing their

attacks out with self-promotion ads, which would push the state towards even greater political polarization.

Policy Recommendation

Greater polarization not only affects our election cycles, but also presents legislative and policy challenges. A less polarized legislature provides opportunities for cooperation and compromise between parties on policy. However, if important bills are increasingly passed on party-line votes, that produces policies that are not supported by a large group of the state's voters and also makes it harder to pass bills in the first place.

Implementing rank choice voting (RCV) for state-level elections, which allows voters to rank multiple candidates, offers numerous benefits to counteract the polarization our democracy is suffering from. Instead of driving the political parties further apart, RCV incentivizes more civil campaigns because a candidate would be less inclined to alienate voters who might still put them as a second choice (Stid et al., 2019). It also empowers voters by allowing them to vote for who they believe is truly the best candidate, without worrying about whether they are throwing away their vote on a third party or a less prominent candidate. This also increases the likelihood of being able to actually elect members of third parties to legislative seats. In a best-case scenario, although unlikely to happen soon, RCV could help the United States move away from a dominant two-party system to the point where there are states where no one party alone holds a majority of the legislature. This would force cooperation and compromise between parties because no party would have enough votes to pass legislation on its own.

Maine is the first state to have implemented RCV in their state elections and serves as a guide for other states that choose to follow its lead. While at times legal challenges made the future of rank choice voting in Maine questionable, it ultimately overcame these hurdles, and the voting method was upheld. With precedent in place, implementation should be easier in other states. However, one observation is clear; despite voter support, substantial groundwork must be done before more legislators will allow this policy go to a public referendum (Stid et al., 2019).

Limitations

My study was ultimately limited to the election cycles for 2010 and 2018 due to the availability of data. No databases exist that have compiled Illinois campaign ads. The most complete collections of ads come from the candidate's campaign pages on YouTube, but these only date back to the 2010 election cycle. A very limited number of pre-2010 campaign ads originally aired on television can be found elsewhere online but is not enough to be considered a representative sample. 2014 also had to be excluded from the analysis because the Republican candidate removed the ads from that election cycle from his YouTube channel, so those ads were inaccessible.

If the data existed, my ideal study would have examined campaign ads in Illinois from the time period of 1980 through 2022 to be able to see whether certain national events correlated with changes in levels of state polarization. The aftermath of the September 11, 2001 terrorist attack prompted a period of relative unity in the nation, so it would be interesting to see if (and how long) this unity seemed to last at the state level. The time from 1980 to 2001 would have been used to establish a baseline of what the norm was (or if there even was a norm) for polarization pre-September 11. Additionally, the 2008 financial crisis put strain on the country

and affected public opinion of President Obama. This would have been another noteworthy event to consider when looking for changes in polarization. Finally, it would have been interesting to look at more years following the contentious 2016 and 2020 presidential elections, but this thesis was completed prior to the end of the 2022 Illinois election cycle.

Another limitation of this study is that there is not always a clear distinction between attack ads and promotional ads. While some ads only talk about one candidate's success or only mention the opponent's failures, many ads do both. For this reason, I had to rely on my own discretion to sort the ads into categories of attack or self-promotion. To avoid biasing my data in favor of my hypothesis, I included any ads that put at least half of their focus on the opponent in the attack category. This produced results with more positive values than if I had only included ads that heavily targeted the candidate's opponent. Considering that my analysis produced significant results even with this data selection methodology, I believe this confirms the strength of the political polarization and nationalization I observed.

Future Research

My research serves as a case study to observe what is happening in Illinois campaigns. It would be interesting to expand this study to all states (or a representative sample of states) to see whether the phenomenon occurring in Illinois is reflected across the rest of the country. I would have also liked to study whether incumbent status or political party influenced the amount of negative rhetoric used in a campaign but looking at only two elections does not provide enough data to draw reasonable conclusions about the impact of those variables. Another interesting factor to analyze in a larger data set would be whether certain demographics were more likely to have an increase in negative rhetoric, looking at gender, age, geographic region, and religion.

This would require looking at gubernatorial campaigns where candidates are more diverse, since the candidates in Illinois were all white, male, and Christian.

Now that increasing political polarization has been confirmed in Illinois, additional research should explore the degree that polarization affects the everyday conduct of people elected to state and local levels of government. One way of studying this would be to evaluate the conduct of state legislators or city councilmen during official debate. Observing types of language and interjections used in debate transcripts would provide a less-studied window into the functionality of our democracy, since there may be reasons why a legislator's reported feelings in speech directed at constituents differs from their actual behavior. For example, if they are trying to be elected on a platform based on defeating the other party, their rhetoric used in campaign ads might be more negative and hateful than after they are elected and are speaking to other party members in a professional setting. Or, conversely, if they represent a district where elections between Democrats and Republicans are close, they may use more mild rhetoric during their campaign to appeal to a wider audience of voters than they do once they get into office. If the demonstrated political polarization of Illinois legislators during official government duties remains relatively constant over time, even despite increases in Congress and in the governor's office, it would be a good sign of stability for the United States' federalist system of government if state governments can continue to operate as usual even as outward appearances are turbulent. However, if negative rhetoric and disrespectful conduct are on the rise on the legislative floor, too, this would provide further evidence that we urgently need to take steps to address political polarization sooner rather than later.

VIII. CONCLUSION

This study expands upon existing literature on congressional sentiment analysis by applying similar methods to state elections. By looking at attack ads from the candidates running for governor in Illinois, my research finds that Illinois has followed the same trend of increasing use of negative rhetoric that has been seen in Congress in recent years. This demonstrates the increasing polarization of campaigns at the state level, confirming my hypothesis. Additionally, mentions of the president by members of the other party also increase significantly, linking state affairs to national politics as predicted by nationalization theory, which proposes that state and local level politics are increasingly being seen through a national lens. While the "American experiment" has survived thus far, our democracy has been repeatedly shaken throughout its history, and is not as invincible as is commonly thought (Mettler & Lieberman, 2020). A possible remedy to curb the increasing polarization of American politics is to implement rank choice voting before our democratic system is irreversibly damaged by partisan politics.

IX. AUTHOR BIO

Taylor Longhitano is a third-year undergraduate student in the O'Neill School of Public and Environmental Affairs at Indiana University. She wrote this thesis as the capstone of her participation in the O'Neill Honors Program. She currently studies Law and Public Policy and will begin pursing her Master of Public Affairs at O'Neill in Fall 2022.

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