

# U.S. Senators on Twitter: Asymmetric Party Rhetoric in 140 Characters

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## **Abstract**

The U.S. Senate is a party-polarized institution where divisive political rhetoric stems from the partisan divide. Senators regularly chastise political opponents, but not all senators are equally critical. Research finds that elite party polarization is asymmetrical with greater divergence by Republicans, so I expect Republican senators to mimic that trend with higher levels of partisan rhetoric. To assess the variance in partisan rhetoric, I catalogue senators' Twitter activity during the first 6 months of the 113th and 114th Congresses, and find that Republicans are more likely to name-call their Democratic opponents and to make expressions of intraparty loyalty, particularly when they are the minority party.

## **Keywords**

Congress, Twitter, parties, polarization

Partisan rancor in the U.S. Senate reached a tipping point November 21, 2013, as the chamber went “nuclear” and nixed the filibuster for judicial- and executive-branch nominees.<sup>1</sup> The Democratic majority championed the reform, sparking heated backlash and promised retaliation by Republicans:

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“Some of us have been around here long enough to know that sometimes the shoe is on the other foot,” Minority Leader Mitch McConnell said before the vote, telling Democrats, “You may regret this a lot sooner than you think.”<sup>22</sup> The contentious vote is nothing new for a partisan Senate where compromise and bipartisan cooperation are increasingly outdated conceptions rather than political realities. Roll call votes and amendments are well-researched venues for measuring partisan behavior (Harbridge, 2015; Sinclair, 2006; Theriault, 2013), but this party-driven culture extends beyond the institution. Senators’ media activity and communications with constituents are equally appealing public venues to politically attack opponents (Grimmer, 2013; Prior, 2013), but reaching a broader audience is not limited to press releases and CNN appearances. The normalization of social media, specifically Twitter, as a communication alternative bypasses traditional media, and gives senators an unfiltered and unedited opportunity to attack their political opponents. Twitter’s relatively minimal costs, user control, and networked audience put politicians in control of their partisan message (Gainous & Wagner, 2014; Straus, Shogan, Williams, & Glassman, 2016).

Twitter’s open platform may be ideal for partisan gamesmanship, but accessibility does not mean that Senators communicate partisan messages equally. Gainous and Wagner (2014) offer a seminal study of social media technologies by political candidates, and find that party identification is associated with the type of messages sent. Republicans, in addition to challengers and those in competitive races, are most likely to use Twitter for negative campaigning. The diverging rhetoric between the two parties goes beyond the campaign and is reflected in their behavior while in office. Party polarization is often asymmetric (Barber & McCarty, 2015; Hacker & Pierson, 2006; Theriault, 2013), as the increased polarization is tilted to the right at the national level. The Republican Party, at least at the elite level, has moved further to the right than the Democrats have moved to the left (Hacker & Pierson, 2006; Mann & Ornstein, 2012; McCarty, Poole, & Rosenthal, 2006; Skocpol & Williamson, 2012). Ura and Ellis (2012) find this similar pattern among the public. Some attribute this pattern to differing electoral narratives or party functions, while others suggest party leaders intentionally drive Republicans to more conservative positions (Buchler, 2015; Grossman & Hopkins, 2016; Hacker & Pierson, 2006).

Given the Republicans’ greater shift toward partisan extremes, I expect a similar asymmetric pattern of partisan communications by Republicans on Twitter. Despite research that suggests too much deference to the party line is electorally risky (Canes-Wrone, Brady, & Cogan, 2002), members are regularly championing their party on Twitter at the expense of their political opponents.

To test the asymmetry in partisan rhetoric by U.S. senators, I catalogue approximately 90,000 Senate tweets during the first 6 months of both the 113th and 114th Congresses to assess how party influences the likelihood of communicating partisan rhetoric. Partisan rhetoric includes those tweets that include explicit mentions of either party, that is, “Senate Democrats,” “Republican counterparts,” “@GOPBudget,” or representatives of the party, that is, “Democratic President,” “Majority Leader.” I find higher levels of Republican partisan rhetoric across both congressional sessions, suggesting that polarizing rhetoric is more than a function of disgruntled minority members and reflects the asymmetric polarization patterns in Congress.

## Party Polarization and Conflict

The modern reality is a highly party-polarized institution, encouraging intra-party loyalty and interparty discord (Rohde & Aldrich, 2010). Party polarization is so entrenched that members not only refuse to compromise but they also exploit the divisions between political parties through bickering or questions of colleague competence (Lee, 2009). Politicians’ partisan behavior goes beyond ideological differences when members act as partisan warriors by using humiliating and destructive tactics—“ugly politics”—to serve their own policy and electoral interests (Lee, 2009; Sinclair, 2006; Theriault, 2008, 2013). Since the 1970s, party polarization has only escalated (Hetherington, 2001; Levendusky, 2009; Thomsen, 2014), but scholars find that the rate of escalation by Republicans is greater relative to their Democratic counterparts (Hacker & Pierson, 2006; McCarty et al., 2006). Hacker and Pierson attribute this Republican extremism to Republican power brokers rather than a reflection of a more conservative public (2006). Republican Party leaders push for more conservative positions, and maintain their position through electoral threats and control of the party agenda (Hacker & Pierson, 2006). Alternative explanations suggest that the base of the Republican Party and their ideological makeup foster more partisan positions (Grossman & Hopkins, 2016). Democrats tend to be more coalition or constituent based compared with ideologically driven Republicans, and the asymmetry in polarization derives from the asymmetry in party support and function. An elections-focused argument by Buchler (2015) suggests that the parties offer differing electoral narratives that foster a more conservative brand of Republicanism. More narrowly, Sean Theriault (2013) finds specific members of the Republican Party further the asymmetry. Republicans who served in the House prior to their Senate tenure are even more polarizing than other Republican colleagues (Theriault, 2013). The norms of the Newt Gingrich House were transferred to the Senate where they are more likely to be partisan warriors and more likely

than the average Republican senator to use partisan, procedural tactics—reinforcing the partisan divide. My research builds upon these measured partisan differences in polarization to explore whether senators' rhetoric in their social media communications reflects the greater shift by Republicans toward partisan extremes.

## **Twitter in Congress**

The extent of polarization may be a function of venue (Harbridge, 2015), but new media technologies are an increasingly routine political tool to wage partisan battles. Scholars have extensively researched social media adoption in recent years (e.g., Auter & Fine, 2016; Gainous & Wagner, 2014; Straus, Glassman, Shogan, & Smelcer, 2013; Stromer-Galley, 2014). By the beginning of the 113th Congress, every member of the U.S. Senate had a verified Twitter account and many maintained separate campaign accounts. Twitter is not a tool that necessarily alters elected officials' partisan behavior—as party polarization began long before 140-character political jabs—but it extends the reach of the hostile political climate. Larsson and Moe (2012) argue that Twitter contributes to a broadening of public debate by offering a new arena for mediated public communication. Twitter has the potential to extend discussion outside of the “iron triangle” (Shogan, 2010) and gives political actors greater autonomy over the flow of information (Gainous & Wagner, 2014). Twitter changes the norms of representation where politicians work with and respond to followers with greater speed and fewer costs (Shogan, 2010; Straus et al., 2016) but at the same time maintain credibility (Hwang, 2013). Twitter cannot build a favorable reputation, but it can lead to favorable evaluations of politicians that increase perceived credibility (Hwang, 2013).

Social media introduce a fundamentally different relationship between elite actors and the spread of partisan rhetoric by creating an easily accessible and transparent record of party-polarizing priorities.

Early studies of Twitter analyze the platform as a mechanism for activists and the public to inform, to mobilize, and to create a media buzz (Bennett & Segerberg, 2012; Jungherr & Jürgens, 2013; Papacharissi & de Fatima Oliveira, 2012; Poell & Borra, 2012; Tufekci & Wilson, 2012). The use of social media at large for political campaigning is increasingly commonplace in studies across political systems, and has spread from the 2008 U.S. presidential election to more regional and local levels (Auter & Fine, 2016; Bruns & Highfield, 2012; Graham, Broersma, Hazelhoff, & van 't Haar, 2013; Larsson & Moe, 2012). Social media have been integrated into studies of campaign communications (Auter & Fine, 2016; Bruns & Highfield, 2012; Evans, Cordova, & Sipole, 2014; Graham et al., 2013; Larsson & Moe, 2012),

and increasingly into how Twitter is used in governance (Golbeck, Grimes, & Rogers, 2010; Honeycutt & Herring, 2009; Straus et al., 2016).

Multiple early studies of Congress and Twitter consider the patterns of Twitter adoption and the individual or institutional characteristics that initially lead politicians to Twitter. A study by Lassen and Brown (2011) explores the factors that determine when and why members of Congress adopt Twitter, finding that Twitter adoption is difficult to predict. Many of the expected member characteristics, such as their constituency or electoral success, have little effect on a member's decision to use Twitter (Lassen & Brown, 2011). They do find that Republicans were more likely to adopt Twitter, and suggest that their minority-party status in both chambers in 2008-2010 leads them to circumvent more traditional communication strategies (Lassen & Brown, 2011). Chi and Yang (2010) find that adoption is a function of information learning, whereas adoption is higher when those around them—previous adopters—send positive signals about the experience. Straus et al. (2013) compile data from the 111th Congress, and find support for the theory that members adopt Twitter to represent a broader constituency. Their research suggests that Twitter adoption is not patterned by previous reelection percentages, gender, or race, but variables such as urban districts and ideology have significant effects. In another analysis of Twitter adoption during the 111th Congress, Peterson (2012) conducts a multivariate analysis of the House of Representatives. His findings not only suggest strong Republican and ideological effects for adoption but also consider a member's cohort as a significant predictor. The study of social media adoption has also broadened to state legislators, as Cook (2016) looks at both Twitter adoption and activity across all 50 states. He finds that a number of variables including gender, chamber, and leadership positions are positively associated with Twitter activity, while majority status and partisan instability are not factors (Cook, 2016).

Understanding how and why politicians use Twitter is the next step to building a more robust picture of congressional Twitter use. A number of scholars, including Golbeck et al. (2010) and Glassman, Straus, and Shogan (2010), offer multiple avenues for categorizing congressional tweets (Evans et al., 2014). One of the first studies to explore policymaker use of Twitter looks at members' Twitter patterns during two, 1-week periods in 2009—during the initial development of the platform (Glassman et al., 2010). The report suggests that the most frequent type of Twitter communications were press and web link tweets, which comprised of 43% to 46% of tweets. Golbeck et al. (2010) find that Twitter use is similar to how politicians use more traditional forms of media. They look at tweets during 2009 to find that members of Congress tweet informational messages most often and spend less time actually communicating directly with followers. Larsson and Moe (2012)

study tweets surrounding the Swedish elections and find, similarly, that dialogue with followers was second to disseminating information.

In addition, Straus et al. (2016) find that members' clout and ideology are strong predictors of how politicians use Twitter. These "power users" are politicians who are very active and involved on Twitter, have numerous followers, post original content, and often interact with other users. They find that the power users are often more ideological and less moderate.

These initial studies open the door for additional discovery as we begin to look beyond Twitter adoption or general activity and more precisely at the patterns of partisan rhetoric on social media.

## **Perpetuating Partisan Rhetoric on Twitter**

This research explores how senators perpetuate party politics in their congressional communications. Partisan communications are common, but senators will systematically differ in how they communicate their partisan interests. This research draws on that by Gainous and Wagner (2014) and Evans et al. (2014) who find partisan patterns in campaign messages.

I argue that the diverging rhetoric between the two parties goes beyond just the campaign and is maintained while in office. The party exerts great influence not only on legislative behavior (Harbridge, 2015; Sinclair, 2006; Theriault, 2013) but also in the way senators communicate their priorities in Congress. Republicans' greater ideological distance from the center in the Senate increases the divide between the parties, and thus how they communicate partisan rhetoric should also reflect this divide. If we assume that party influence extends to senators' daily communications, I would expect Republicans to more often use partisan rhetoric relative to their Democratic counterparts.

- **Republican Communication Hypothesis:** Members of the Republican Party are more likely than members of the Democratic Party to include partisan language in their Twitter messages.

Social media are valuable attention-seeking tools, and I expect Republican senators will use them to communicate their partisan interests, especially given the tense relationship with the 2013 Democratic majority in the Senate and the Democratic president. Political actors who are dissatisfied with the status quo will strategically act to expand the scope of conflict (Baumgartner & Jones, 2009; Kingdon, 1984; Schattschneider, 1960), and I expect Republicans to expand the partisan conflict to a greater degree than the Democrats. In a December 2012 tweet, Republican Sen. John Cornyn plainly

reminded a follower that “Harry Reid controls the Senate agenda.” Members dissatisfied with the status quo—or who seek to further the partisan divide—may have less recourse within the institution, but by seeking out nonlegislative tools, such as Twitter, senators can direct attention to their desired issues and control the flow of information (Gainous & Wagner, 2014; Lassen & Brown, 2011). Twitter offers members unlimited opportunities to attack their opponents while bolstering their own party brand, and given some Republicans’ “party warrior” activity (Theriault, 2013), I expect similar party patterns on Twitter.

## **Party Conflict on Twitter in the 112th Congress**

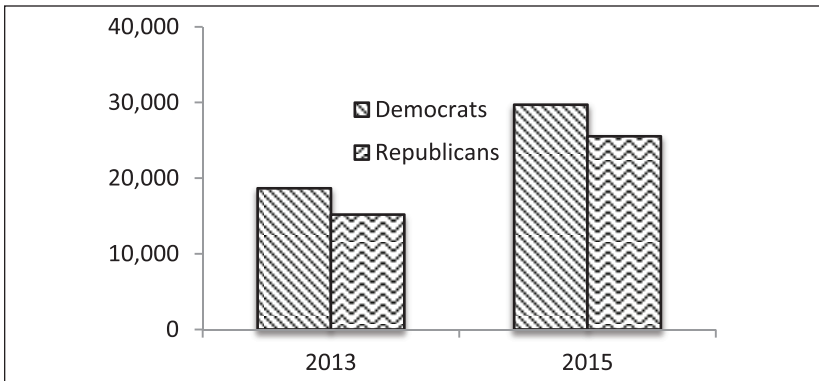
This study analyzes partisanship on Twitter in the U.S. Senate, and though the causes of polarization may be more readily understood in the U.S. House, analyses show that the Senate has become an increasingly polarized chamber similar to the House (Brady, Han, & Pope, 2007; Fleisher & Bond, 2004; Theriault, 2006, 2008). And given the chamber’s historical emphasis on individual autonomy, evidence of partisan effects only furthers such conclusions and is one of the primary reasons I select the Senate. In addition, compared with the House, fewer individuals in the Senate make the analysis and hand coding of this dataset more feasible. This study analyzes the first 6 months of the 113th Congress—the first session in which all senators were on Twitter—and the first 6 months of the 114th Congress—after Senate majority control flipped to the Republicans—to assess the extent to which Twitter serves as a platform for partisan rhetoric for a particular party regardless of majority status within the chamber. This study includes each senator’s Twitter activity between January 3, 2013, and June 30, 2013, and January 3, 2015 and June 30, 2015.<sup>3</sup> I select these time periods because they are just after elections and, given my interest in partisan rhetoric outside of the campaign, politicians are least likely to be distracted by upcoming elections.

Each senator has a verified Twitter account, either managed individually or by the member’s press office, from which the account sends messages with varying degrees of regularity. The account is either the member’s only account or their office account, as campaign accounts were not included because my interest is specifically on communications while in government.

The number of tweets by user varies greatly over both congressional sessions by both user and political party. Republican Senator Mike Crapo of Idaho totaled 1,127 tweets in 2013, but Alabama Republican Senator Richard Shelby totaled just 12. Similarly in 2015, Democrat Cory Booker totaled more than 2,000 tweets and Republican Jim Risch had 58.

**Table 1.** Summary Statistics: Partisan Rhetoric as a Proportion of All Senators' Tweets in 2013 and 2015.

	Tweet total	M	Median	SD	Minimum	Maximum
2013						
Democrat	18,656	0.0454	0.0325	0.0471	0.0000	0.2969
Republican	15,174	0.1725	0.1473	0.1017	0.0000	0.5048
2015						
Democrat	29,711	0.0543	0.0402	0.0514	0.0000	0.4357
Republican	25,524	0.1174	0.0881	0.0856	0.0062	0.3886

**Figure 1.** Number of tweets by U.S. senators.

In 2013, Democrats totaled more partisan and nonpartisan tweets—arguably reflecting more members as the majority party—but the 2015 Republican majority shift did not alter this pattern (Table 1). Democrats as the minority in 2015 were still more likely to turn to Twitter (Figure 1). The average Democratic senator in 2013 included partisan rhetoric in 4.5% of those total tweets versus a Republican who included partisan rhetoric in 17.3% of their tweets. Across both years and among party leaders, the average and median Republican senator had a higher proportion of tweets with partisan rhetoric (Table 2).

Democrats may be slightly more active on Twitter, but that does not mean that they are using partisan rhetoric.

To understand the rhetoric being used, tweets were coded for partisan tone.<sup>4</sup> Tweets were first coded in a binary fashion based upon whether the message includes any partisan language or lacks a partisanship component. Nonpartisan tweets are those messages that have no identifiable mentions of either a political party or representatives of a political party. These messages are the most common



**Table 2.** Summary Statistics: Partisan Rhetoric as a Proportion of Party Leaders’ Tweets in 2013 and 2015.

	Tweet total	M	Median	SD	Minimum	Maximum
2013						
Democrat	2,927	0.0625	0.0316	0.0850	0.0074	0.2969
Republican	5,505	0.2201	0.1624	0.1188	0.0786	0.5048
2015						
Democrat	4,787	0.1044	0.0867	0.0944	0.0241	0.4357
Republican	4,590	0.1993	0.1878	0.0648	0.1270	0.3483

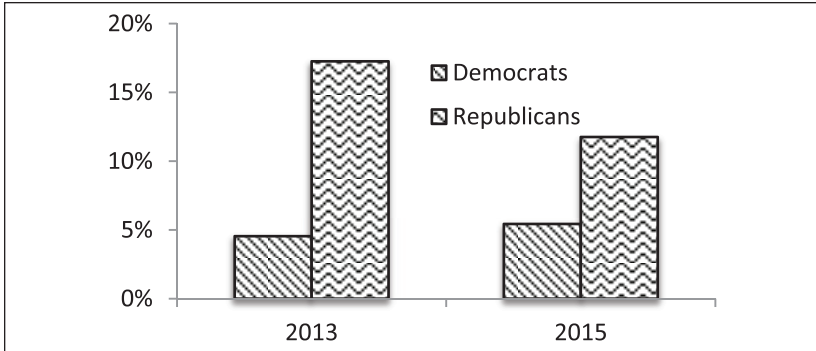
types of messages by politicians on Twitter, and often reference constituent outreach (“town hall meeting on May 5”), press or policy announcements (“statement on budget negotiations”), or celebratory messages (“Happy Mardi Gras”).

The second dimension coded those tweets with partisan rhetoric according to the tone or type of partisanship: negative and positive party rhetoric. Negative partisan rhetoric represents the language expected by ugly politics or party warriors where they often seek to shift blame toward the other party (Sinclair, 2006; Theriault, 2013). Messages were coded as negative if they are critical in their explicit mention of either (a) the other party or (b) representatives of the other party. Tweets in this category are both passive aggressive (“if only the Democratic President had acted sooner”) and direct attacks (“Democrat’s healthcare bill is a failure”). These messages often pair with policy messages, as the examples below demonstrate.

- @SenRandPaul: It boggles the mind to think that now, during an economic recession, Senate Dems put forth a plan to raise taxes . . .
- @SenRobPortman: Instead of giving speeches about jobs, there is plenty Pres Obama can do to spur job growth now—start w/ repealing #ObamaCare
- @SenatorReid: The Republican shutdown caused us to lose at least 125,000 jobs. Totally unnecessary. What a shame. <http://t.co/jG9oQLzCCV>

Party loyalty rhetoric generally includes positive overtones that signal favoritism or support for one’s own party, such as promoting the party’s candidates in upcoming elections, promoting party-specific legislation, or emphasizing positive party performance. These messages evoke party loyalty to both the party’s legislative agenda and nonlegislative priorities, such as elections. Messages in this category are most often direct messages of support for individual party members or the party’s legislative agenda (“The President’s thoughtful #DACA policy has helped DREAMers”). A couple examples of these tweets are included below.

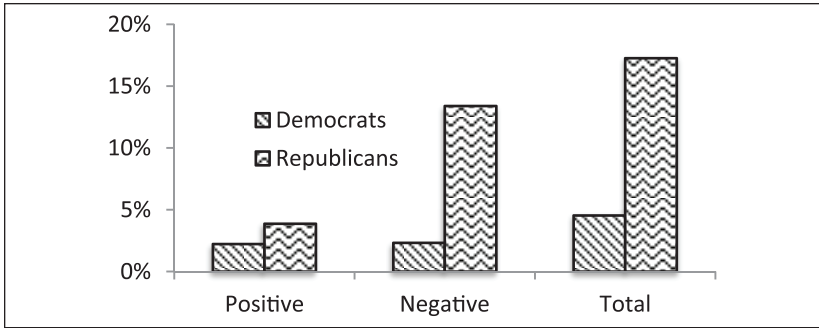
- @JerryMoran: Good to see my fmr House colleague @PaulRyanVP as @MittRomney #VP pick.
- @SenDurbin: @SenateDems bill ensures that millionaires pay their fair share and ends loopholes that cut taxes for companies that move jobs overseas
- @SenMikeLee: Senator Ted Cruz has created his official Twitter account @SenTedCruz. You should follow him. Please RT #tcot #tlot #tgd . . .



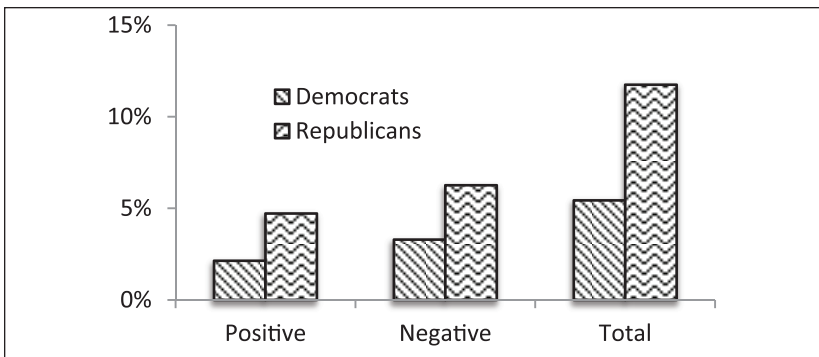
**Figure 2.** Percentage of partisan tweets by U.S. senators.

Combining both positive and negative rhetoric, it is clear that politics on Twitter widely varies by party affiliation. Democrats have a larger total share of Twitter activity, but when we look specifically at partisan messages the percentages are reversed (Figure 2). Republicans in 2013 more than tripled the partisan rhetoric of their Democratic counterparts, and though Republican partisan language dropped in 2015 and the majority party shifted, the Republicans sent almost twice as many tweets with partisan rhetoric. This is a novel finding, given that previous studies have shown that the “out group” or the “underdog” is most driven to social media and issues attacks to gain leverage over the majority (Auter & Fine, 2016; Evans, 2016; Gainous & Wagner, 2014). Here, I find initial support for the hypothesis that partisan rhetoric is not just a function of minority status but remains consistently more common among Republicans even when they control the Senate.

Senate Republicans have higher levels of total partisan rhetoric during both sessions and when we assess tone of those tweets, Republicans maintain higher levels of both positive and negative tweets (Figures 3 and 4). In 2013, 17% of all Republican tweets included partisan rhetoric, and two thirds of those partisan tweets included negative or attacking rhetoric. About 5% of all



**Figure 3.** Percentage of partisan tweets by Tone, 2013.



**Figure 4.** Percentage of partisan tweets by Tone, 2015.

Democratic tweets included partisan rhetoric, and that 5% was split evenly between messages of party support and antagonizing messages toward Republicans. After the majority party shift in 2015, we would expect Democrat and Republican rhetoric levels to switch if partisan rhetoric was a function of majority status; however, both positive and negative rhetoric remain highest among tweets by Republicans. The levels of rhetoric shifted modestly; this is expected, given that Republicans now controlled the Senate status quo. In 2015, the percentage of partisan tweets by Democrats increased by about 1, and Republicans' partisan tweets dropped by almost 6%, but Republicans were still twice as likely to use partisan rhetoric. The use of polarizing rhetoric is still more common among Republicans, regardless of majority party, similar to findings of asymmetric polarization in alternative congressional behaviors.

## **Multivariate Analysis on Twitter Rhetoric**

To further test my hypothesis, I estimate a fractional logit model to assess the effect that partisanship has on the proportion of members' tweets. The fractional logit model allows for proportions that also include proportions of 0 and 1, and models the means. Separate coefficients relate individual characteristics of the senators to their probability for each type of rhetoric. Variations in the logit model are common practice with explanatory variables that are attributes of individuals, or more specifically in this case, U.S. senators. The hierarchical structure of the data does involve some methodological challenges, such that tweets from the same official are more alike than those from other politicians. With this type of clustering, traditional estimation techniques often produce downward biased estimates of standard errors (Mortensen, 2012). To produce unbiased standard errors for the clustered data (Williams, 2000), I conduct the logit model with robust standard errors. As there are a large number of politicians reflected in the data, robust standard errors are appropriate (Green & Vavreck, 2008). Reestimation is also conducted with traditional standard errors, and results indicate consistent results across both approaches.

The dependent variable is the proportion of a senator's tweets that include partisan rhetoric, specifically three dependent variables for total partisan rhetoric, negative rhetoric, and positive rhetoric. The dataset includes binary codes for a senator's party affiliation and leadership status,<sup>5</sup> as well as controls for a member's age, gender, race, candidacy in the upcoming election, the politics of the constituency, seniority, previous electoral success, and whether they are a more partisan "Gingrich Senator."

I control for age, given that Twitter participation is highest among young people and older members of the Senate may be less likely to use new technology to regularly communicate. I also control for gender, given that Evans and Clark (2015) find gender has a direct effect on political candidates' likelihood to go negative. Racial minorities are also controlled for, given that among Twitter users Black and Latino users make up a higher percentage of users (Krogstad, 2015).

A control for whether a member is running for office that session ensures that members are not just resorting to partisan rhetoric to defend or bolster their own campaign fortunes. Evans et al. (2014) find partisan effects during congressional campaigns, particularly for incumbents, so I would expect higher proportions of partisan rhetoric from candidates. I also consider the politics of the state each member represents, given that a member may be driven by the political preferences of their constituents. This control measures the margin of victory for President Barack Obama in each state during

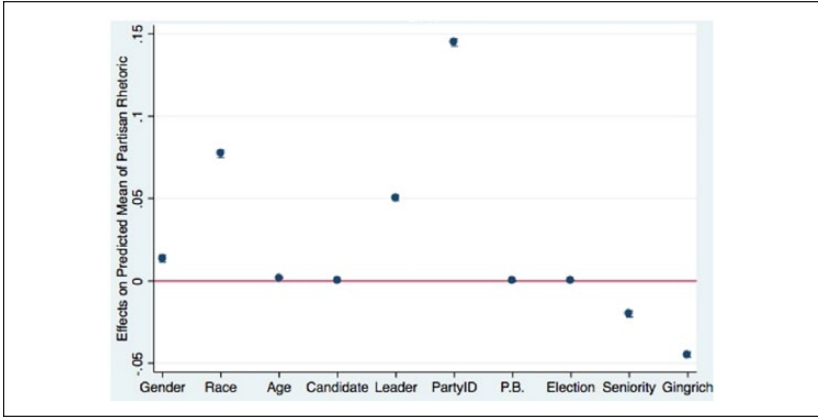


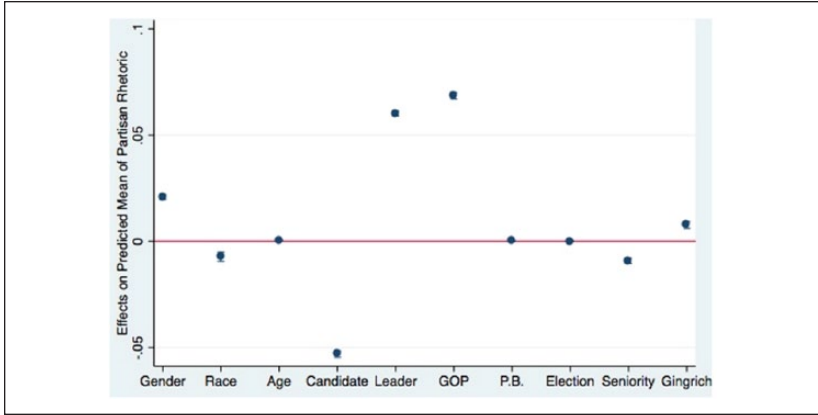
Figure 5. Marginal effects on partisan rhetoric 2013.

the 2012 election. I expect senators from states with a smaller or negative margin of victory to reflect the state’s criticism of the president and be more attack oriented.

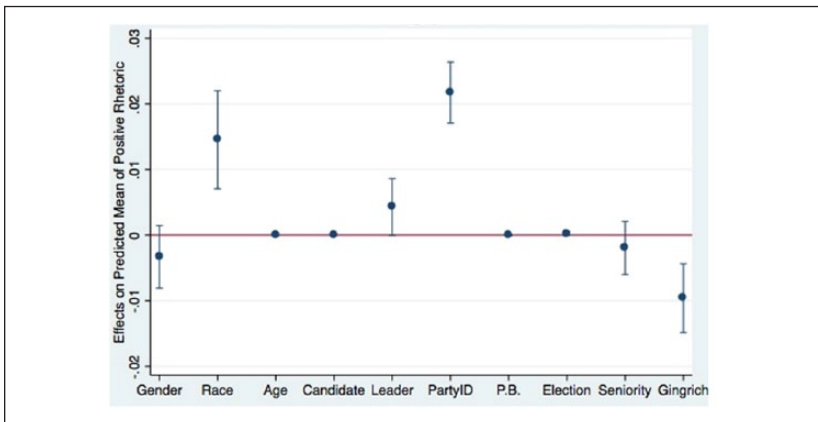
I also consider previous electoral performance, as the relative “safety” of a member’s seat in the Senate may affect their partisan communications. This variable is the margin of victory by the senator in his most recent election. Senators who are less worried about their political future may be free to turn their attention to supporting their party. Finally, Theriault (2013) offers that much of the partisan divide is driven by a subset of Republicans in the Senate, known as “Gingrich Senators.”<sup>6</sup> These are Republicans elected after 1978 with previous service in the House, and I control for this.

The results on the marginal effects of the model suggest positive and statistically significant predicted probabilities for Republican partisan rhetoric across both sessions of Congress (Figures 5 and 6).<sup>7</sup> Republicans, when choosing partisan rhetoric, are about 12% more likely than Democrats to use partisan rhetoric on Twitter in 2013 and 7% more likely in 2015, which should come as no surprise given the fact that Republicans tallied a higher total of partisan rhetoric across all partisan tweets in the dataset. The only other meaningful indicator across both datasets is party leadership, as leaders are 4% to 6% more likely to use partisan rhetoric. The consistent results across both sessions suggest that rhetoric is characteristic of Republican senators regardless of their majority status.

When the rhetoric is disaggregated by tone, I still find similar patterns of Republican likelihood to communicate partisan rhetoric. In 2013, Republicans



**Figure 6.** Marginal effects on partisan rhetoric 2015.



**Figure 7.** Marginal effects on positive partisan rhetoric 2013.

were only 2% more likely to use Twitter to bolster party support or show loyalty, but they were 12% more likely to chide the other party or attack Democrats (Figures 7 and 8). The effects for the other variables were too small to be meaningful, with the exception of leadership where they are 4% more likely to use negative party rhetoric in 2013, regardless of party.<sup>8</sup> Leaders may be more likely to engage in partisan attacks than rank-and-file members, as they must not only provide political cover for themselves but also for the principals who selected them for leadership positions. Positive

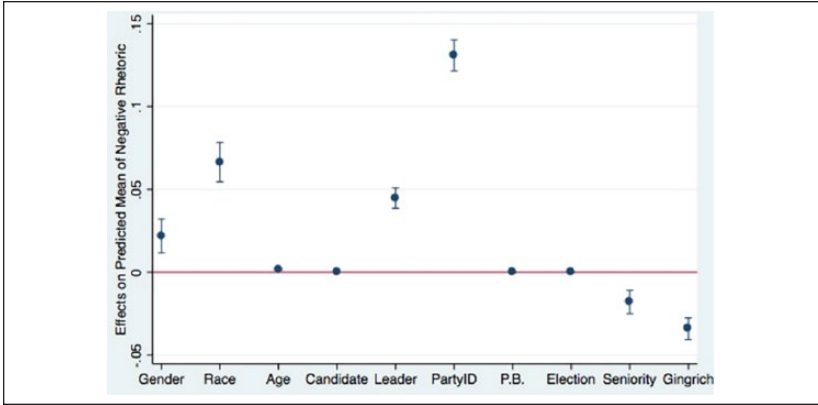


Figure 8. Marginal effects on negative partisan rhetoric 2013.

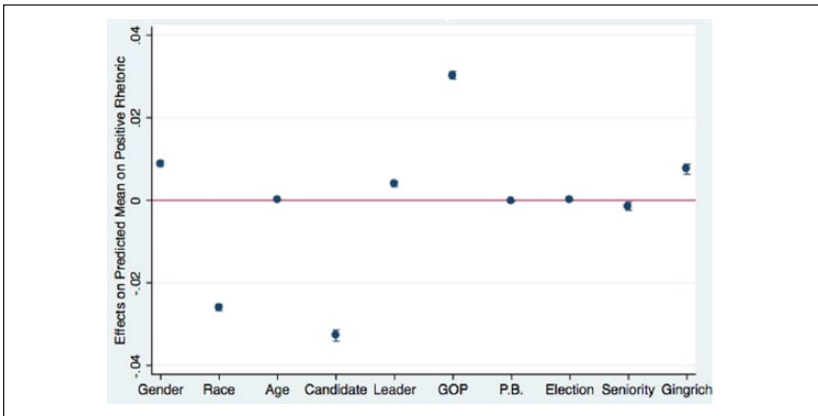
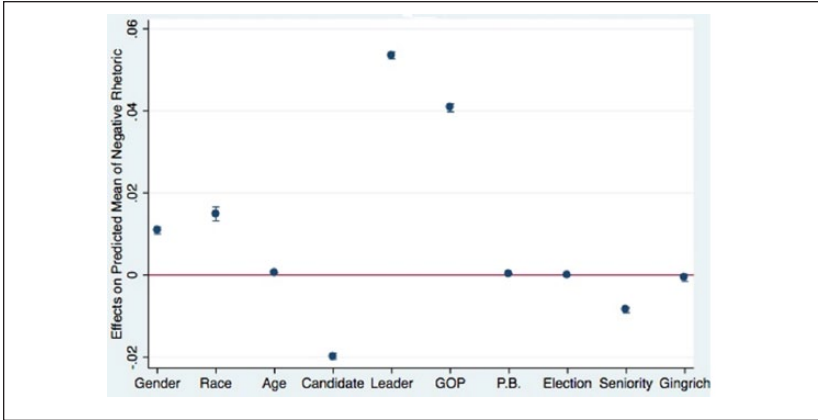


Figure 9. Marginal effects on positive partisan rhetoric 2015.

rhetoric is less predictable in this dataset, likely given its relatively few number of occurrences—about one in 30 tweets.

In 2015, similar patterns to 2013 emerge; however, the Republican effect is much smaller on negative partisan rhetoric, similar to levels of positive partisan tone (Figures 9 and 10). Republicans are about 4% more likely to use negative rhetoric than Democrats and more than 3% more likely to use positive rhetoric. The smaller probabilities across the 2015 data may be due to the Republican takeover of the Senate; however, that change does not completely shift the direction or tone of the rhetoric. Minority status may bolster



**Figure 10.** Marginal effects on negative partisan rhetoric 2015.

Republicans' attacking rhetoric, but a party shift does not erase the partisan pattern.

The controls in both sessions also confirm that partisan rhetoric is not just a function of previous electoral vulnerability, the party preferences of state constituents, or a subset of Republican senators. These results lend support for the hypothesis, given that I find a consistently higher likelihood of Republican partisan rhetoric across both sessions. Republican preferences may go ignored in the institution when they are in the minority, so they redirect attention online and attack the majority party. But I find no evidence of Democrats exhibiting similar patterns to the minority party. Elected officials from a minority party will often seek nonlegislative means to redirect attention (Green-Pedersen, 2010; Vliegthart & Walgrave, 2011), but Republicans and Democrats are not directing their attention with the same partisan rhetoric when they are in the minority.

## Discussion

The results support my hypothesis that Republican Party members in the Senate are more likely to engage in party-polarizing language, and that language is more prevalent when they are the minority party but consistent even when in the majority. Twitter may be an alternative agenda space for minority party interests that seek to alter the status quo and a public relations platform for party leaders who are tasked with shaping the debate, but when Democrats were in the minority in 2015, they did not exhibit the same partisan patterns



as their Republican counterparts. Their increased use of partisan rhetoric is less than 1%, and much smaller at 5% compared with the Republicans' 12% when they were in the minority. The additional variables proved less influential in explaining partisan rhetoric but did suggest that leadership may have a small effect and in 2015 candidacy also had a small, negative effect on partisan rhetoric.

Members of the Senate have multiple goals, and to juggle their many responsibilities they have to be strategic where they place their time and attention. These results suggest that Republicans are more willing to allocate time and attention on Twitter to party politics more often than their Democratic counterparts. I expect these partisan patterns would be similar or even more pronounced in the House where party and party leadership has even greater influence over the institution and the political agenda.

One potential explanation for why we see these asymmetric partisan patterns on Twitter rhetoric lies in the relationship between the President and Congress. Tim Groeling (2010) finds that in presidential news, criticism of the President is most prevalent, and those who oppose the president—in this case, the Republicans in the Senate—most often voice their opposition publicly. Groeling (2010) suggests that members of the President's party are less likely to spend costly communication resources supporting the president. The President is the face of the party, and his bully pulpit power and the media attention he draws open him up to criticism (Groeling, 2010). As the party's central figure, he is a target for Republican critics whose interests are served by unfavorable perceptions of the president and therefore *de facto* unfavorable for the party. The president may be an easy target for partisan attacks, bolstering the Republican Party's opportunities to take a dig at the opposition. The president serves as a one-stop shop for Republican Party members to criticize the Democratic Party, with the intention that the negative image spreads to the Democratic Party as a whole. For instance, Republican senators represented in the dataset often attacked the president and Democratic Party on Twitter for the "#ObamaEconomy" or "Obamacare," but Democrats lacked a similar central figure to blame—House Speaker John Boehner took enough grief from his own party—so they were not as readily primed to go negative. Future research should examine whether Senate Democrats would eventually develop similar partisan patterns in response to a Republican president, or whether Republicans would maintain their pattern of partisan messaging regardless of president.

Criticizing the president may not just be a factor of convenience. Despite the need for senators to work with the White House to pass legislation,

Republican members may see long-term electoral gains by promoting this adversarial relationship with the president. Numerous scholars have noted the desire for parties to maintain compelling brands (Cox & McCubbins, 2005; Groeling, 2010), so senators up for election in a given cycle may turn to Twitter to brand themselves as the better choice by attacking the credentials of the other party.

Twitter enables all senators to shape their public brand, indicate attention to preferred issues, and communicate with constituents and special interests, but underlying these activities is an asymmetric partisan current. The social media site is a low-cost online platform that all senators can utilize to meet their individual goals and engage in partisan rhetoric—whether that be slinging partisan attacks or signaling party loyalty. Senators' Twitter activity is being reinforced as a common routine in Congress, and this study highlights the opportunity to use Twitter as a new resource for examining partisan politics in Congress. Twitter is a conduit for hyperpartisanship, but partisan politics is clearly one of the many motivations and goals that members have when turning to social media. And the partisan influence may carry over not only to the political rhetoric they use but also how they communicate about constituent issues or how they frame public policy problems.

## Appendix

**Table A1.** Marginal Effects of Fractional Logit for Partisan Rhetoric on Twitter.

	2013			2015		
	Coef.	(SE)	$p > z$	Coef.	(SE)	$p > z$
Republican	.1446	(0.0011)	.00	.0684	(7.59e-4)	.00
Leadership	.0504	(8.63e-4)	.00	.0602	(5.84e-4)	.00
Candidate	0	(omitted)		-.0531	(7.75e-4)	.00
Electoral performance	4.34e-4	(4.12e-5)	.00	.49e-6	(2.18e-7)	.00
State party balance	-8.81e-6	(2.34e-5)	.71	4.27e-5	(1.54e-5)	.01
Seniority	-.0200	(8.29e-4)	.00	-.0092	(5.93e-4)	.00
Gingrich Senators	-.0448	(9.50e-4)	.00	.0077	(7.92e-4)	.00
Age	.0017	(4.63e-5)	.00	5.37e-4	(1.56e-5)	.01
Gender	-.0135	(0.0011)	.00	.0208	(6.23e-4)	.00
Race	.0771	(0.0012)	.00	-.0072	(.0011)	.00

Significance levels represent a  $p$  value  $<.05$ .

**Table A2.** Marginal Effects of Fractional Logit for Partisan Tone on Twitter During 113th Congress (2013).

	Positive tone			Negative tone		
	Coef.	(SE)	$p > z$	Coef.	(SE)	$p > z$
Republican	.0217	(0.0024)	.00	.1309	(0.0048)	.00
Leadership	.0043	(0.0022)	.05	.0447	(0.0031)	.00
Candidate	0 (omitted)			0 (omitted)		
Electoral performance	2.47e-4	(1.05e-4)	.02	.0002	(1.45e-4)	.17
State party balance	-8.6e-6	(4.91e-5)	.86	6.97e-5	(9.20e-5)	.50
Seniority	-.0020	(0.0020)	.34	-.0180	(0.0036)	.00
Gingrich Senator	-.0096	(0.0026)	.00	-.0341	(0.0033)	.00
Age	9.37e-5	(1.20e-5)	.77	.0017	(0.0020)	.00
Gender	-.0033	(0.0019)	.17	.0218	(0.0051)	.00
Race	-.0145	(0.0038)	.00	.0665	(0.0060)	.00

Significance levels represent a  $p$  value  $<.05$ .

**Table A3.** Marginal Effects of Fractional Logit for Partisan Tone on Twitter During 114th Congress (2015).

	Positive tone			Negative tone		
	Coef.	(SE)	$p > z$	Coef.	(SE)	$p > z$
Republican	.0302	(4.68e-4)	.00	.0407	(4.94e-4)	.00
Leadership	.0039	(3.14e-4)	.00	.0534	(4.06e-4)	.00
Candidate	-.0327	(6.97e-4)	.00	-.0197	(3.79e-4)	.00
Electoral performance	7.06e-6	(1.96e-7)	.00	-1.07e-6	(1.00e-7)	.00
State party balance	-2.43e-4	(9.03e-6)	.00	3.55e-4	(1.00e-5)	.00
Seniority	-.0015	(4.87e-4)	.00	-.0085	(2.96e-4)	.00
Gingrich	.0075	(6.34e-4)	.00	-7.16e-4	(4.17e-4)	.00
Age	4.07e-5	(1.04e-6)	.00	5.39e-4	(9.93e-6)	.00
Gender	.0089	(3.53e-4)	.00	.0108	(4.26e-4)	.00
Race	-.0259	(3.66e-4)	.00	.0149	(8.76e-4)	.00

Significance levels represent a  $p$  value  $<.05$ .

**Table A4.** Proportion of Senator's Tweets Mentioning Partisan Rhetoric.

2015	Proportion of tweets with partisan rhetoric	2013	Proportion of tweets with partisan rhetoric
Alexander	.388671875	Alexander	.40201005
Ayotte	.039069767	Ayotte	.089073634
Baldwin	.037037037	Baldwin	.053333333
Barrasso	.348370927	Barrasso	.504885993
Bennet	.038167939	Baucus	.02
Blumenthal	.025177026	Begich	.007462687
Blunt	.127009646	Bennet	.023809524
Booker	.010432191	Blumenthal	.019736842
Boozman	.054945055	Blunt	.29390681
Boxer	.224489796	Boozman	.09223301
Brown	.035971223	Boxer	.203389831
Burr	.073954984	Burr	.363636364
Cantwell	.06360424	Cantwell	.021352313
Cardin	.073897497	Cardin	.058935361
Carper	.05	Carper	.052757794
Casey	.06010929	Casey	.019512195
Cassidy	.144230769	Chambliss	.108108108
Coats	.084337349	Chiesa	0
Cochran	.035856574	Coats	.176646707
Collins	.00625	Coburn	.115151515
Coons	.033898305	Cochran	.21686747
Corker	.03021148	Collins	.00621118
Cornyn	.242105263	Coons	.043010753
Cotton	.084745763	Corker	.068047337
Crapo	.131386861	Cornyn	.169064748
Cruz	.19504644	Cowan	.041152263
Daines	.141544118	Crapo	.120781528
Donnelly	0	Cruz	.236209335
Durbin	.065217391	Donnelly	0
Enzi	.185661765	Durbin	.107894737
Ernst	.050167224	Enzi	.173745174
Feinstein	.037109375	Feinstein	.044247788
Fischer	.057142857	Fischer	.086956522
Flake	.026315789	Flake	.15942029
Franken	.043103448	Franken	.026315789
Gardner	.052830189	Gillibrand	.124384236
Gillibrand	.04017531	Graham	.147321429

(continued)

**Table A4. (continued)**

2015	Proportion of tweets with partisan rhetoric	2013	Proportion of tweets with partisan rhetoric
Graham	.13622291	Grassley	.22327044
Grassley	.067901235	Hagan	.015345269
Heinrich	.071428571	Harkin	0
Heitkamp	.012830189	Hatch	.388888889
Heller	.059299191	Heinrich	.024390244
Hirono	.100694444	Heitkamp	.009950249
Hoeven	.027950311	Heller	.095611285
Inhofe	.083333333	Hirono	.011111111
Isakson	.077358491	Hoeven	.014814815
Johnson	.102857143	Inhofe	.240184758
Kaine	.02670227	Isakson	.157142857
King	.023809524	Johanns	.152173913
Kirk	.019366197	Johnson, R.	.170731707
Klobuchar	.024137931	Johnson, T.	.038461538
Lankford	.097156398	Kaine	.016344725
Leahy	.043122677	King	.015576324
Lee	.077738516	Kirk	.018867925
Manchin	.003773585	Klobuchar	.026431718
Markey	.098060345	Landrieu	.03257329
McCain	.079936051	Lautenberg	.12
McCaskill	.084507042	Leahy	.03164557
McConnell	.146744412	Lee	.176666667
Menendez	.06462585	Levin	.01010101
Merkley	.119521912	Manchin	.007042254
Mikulski	.018372703	Markey	.068322981
MooreCapito	.047775947	McCain	.091823899
Moran	.075221239	McCaskill	.051813472
Murkowski	.104132231	McConnell	.316494845
Murphy	.072463768	Menendez	.054545455
Murray	.126059322	Merkley	.122807018
Nelson	.142857143	Mikulski	.066115702
Paul	.10371179	Moran	.078680203
Perdue	.111111111	Murkowski	.032258065
Peters	.018126888	Murphy	.051181102
Portman	.03406326	Murray	.052132701
Reed	.065263158	Nelson	.020408163
Reid	.435714286	Paul	.222477064

(continued)

**Table A4. (continued)**

2015	Proportion of tweets with partisan rhetoric	2013	Proportion of tweets with partisan rhetoric
Risch	.086206897	Portman	.098557692
Roberts	.364902507	Pryor	.015463918
Rounds	.099744246	Reed	.035363458
Rubio	.072562358	Reid	.296992481
Sanders	.064788732	Risch	.207792208
Sasse	.151515152	Roberts	.131979695
Schumer	.086666667	Rockefeller	.018292683
Scott	.059850374	Rubio	.251655629
Sessions	.216216216	Sanders	.009077156
Shaheen	.01459854	Schatz	0
Shelby	.104265403	Schumer	.011278195
Stabenow	.097435897	Scott	.135514019
Sullivan	.112149533	Sessions	.203703704
Tester	.035416667	Shaheen	.013559322
Thune	.187878788	Shelby	0
Tillis	.079320113	Stabenow	.183486239
Toomey	.088105727	Tester	.034482759
Udall	.028985507	Thune	.324041812
Vitter	.09741784	Toomey	.070512821
Warner	.014662757	Udall, T.	.057268722
Warren	.144032922	Udall, M.	.028301887
Whitehouse	.089552239	Vitter	.162471396
Wicker	.150170648	Warner	.008431703
Wyden	.03565365	Warren	.017391304
		Whitehouse	.063157895
		Wicker	.176829268
		Wyden	.033980583
2015: Data not available for Hatch		2013: Data not available for Booker, Kerry	

### *Partisan Coding Guidelines*

*Partisan rhetoric.* This variable is used to indicate if a tweet included any reference to party or used partisan language within the text. Examples of this include mentions of a political party (Democrat's budget, Boehner's House), substituting an actor as a representative of a political party (the president's failures), and attaching partisanship or a party actor to policy (Obamacare, president's healthcare law).

The codes for this column are as follows:

- 0 = No mention of party or partisan information
- 1 = Negative partisan rhetoric, attacking the other party or blame shifting
- 2 = Positive party rhetoric, party loyalty, or support for one's own party
- 3 = Bipartisan rhetoric, referring to compromise and bipartisanship

Further examples and descriptions:

- No partisan rhetoric.

Messages that receive a “0” code are those that have no identifiable mentions of party, partisan rhetoric, or party actors. These messages are the most common types of messages by politicians on Twitter, and often reference constituents, state-based issues or events, media appearances and news reports, holidays, and sports.

Examples of these messages include the following:

---

#CO's on right track w/ unemployment at its lowest level since '09. Proud to champion policies that support #COjobs: <http://t.co/LpoVYUyCKe>

RT @servicewomen: BREAKING: SWAN announces 2013 Lauterbach Award for #TruthandJustice Recipients @SenGillibrand @SenatorShaheen @amyklob . . . Tomorrow at 10AM tune in to @WGANNNews; I'll be joined by @PattyMurray & @PortmanPress to discuss our work on the Budget Conference Committee

Today I introduced loan forgiveness for early ed grads; young teachers need extra incentives. #priorities #4AKkids #AKlegsspeech

@travisf76—We needed to roll back #sequestration, but shouldn't cut #military retirees' #COLA-filed a bill 2 fix it <http://t.co/N975vIHwSk>

RT @PaulRieckhoff: @SenDeanHeller @MartinHeinrich All of us at @IAVA appreciate your leadership in helping #EndTheVABacklog <http://t.co/hgâ€?>

Paid tribute to our fallen heroes at Memorial Day Exercises at #RI Veterans Memorial Cemetery. <http://t.co/wdINkOaFN0>

Thank goodness, we can still get a deep fried Twinkie at the #Iowa State Fair! "Twinkies back in stores today" <http://t.co/RBpMW297cS>

Angel Cano wanted to be a soccer player. He loved to sing, mentored younger kids in the neighborhood. Was killed in Chicago #voicesofvictims

#FF @Nevada\_150 @NevadaWolfPack @UNLVAthletics #BattleBorn #RebelsUnited #NV150

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- Negative partisan rhetoric.

Messages that receive a “1” code are those that have identifiable and negative mentions of the other party, the party’s leadership, or party representatives. These messages are those that are critical to the other party and its actions, both legislative and nonlegislative. Messages in this category are both passive aggressive (“if only the Democratic President had acted sooner”) and direct attacks (“Democrat’s healthcare bill is a failure”). These messages often pair with policy messages, as the example above demonstrates.

Note: Republican references to “Obamacare” are coded as negative partisan rhetoric as they attempt to tie the Affordable Care Act to the Democratic president, making it a partisan policy.

Additional examples of these messages include the following:

“Another broken promise. @LATimes: “Obama hasn’t reined in Big Money” <http://t.co/CC3N2JZ3>”

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RT @SimonRadio1776: @SenRandPaul is joining me next @whoradio Talking #Obamacare #DCDysfunction & more Listen live on iHeart or on line <http://t.co/8FDofNrE> Instead of giving speeches about jobs, there is plenty Pres Obama can do to spur job growth now—start w/ repealing #ObamaCare

RT @GregAbbott\_TX: Abbott takes aim at #ObamaCare “navigators” <http://t.co/e8FDofNrE> #txlege #tcot #txgop #teaparty

Every D voted against it; several up in 2014 RT @FordFlatheadV8: @JohnCornyn why was the insider law that applied to you guys not passed?

President Obama is far too dovish when it comes to standing up and defending our national security interests.

The Unaffordable Care Act: How the President’s health care law fails low income workers <http://t.co/vROwm66vRR>

RT @KentuckyCoal: @McConnellPress:POTUS promoted inefficient & costly/ like solar panels/instead of/reliable/domestically produced/ l . . .

The Republican shutdown caused us to lose at least 125,000 jobs. Totally unnecessary. What a shame. <http://t.co/jG9oQLZCCV>

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- Positive partisan rhetoric.

Messages that receive a “2” code are those that have identifiable and positive mentions of a politician’s own party, support for the party’s leadership and legislative initiatives, or support for the party’s candidates. These messages are those that evoke party loyalty to both the party’s legislative agenda and nonlegislative priorities, such as elections. Messages in this category are most often direct messages of support (“The President’s thoughtful #DACA



policy has helped DREAMers”). These messages often pair with policy messages that tout partisan policy successes or mentions of elections and support for particular candidates.

Additional examples of these messages are as follows:

---

RT @SenateDems: Watch livestream of gun victim survivors read names of gun victims in the Capitol: <http://t.co/LPSKzDSZk9>

Great day for door knocking. Here w Jim Ford, candidate for 1st Selectman in Colchester. <http://t.co/mLyXhzcrSo>

So pls d Bill @deBlasioNYC is running on a platform of #PreKforall & as a champion for struggling #NY'ers. He deserves your vote on Nov 5!

I applaud the President's decision today to #ActonClimate, stand up to special interests, & curb carbon pollution. RT to help thank him!

RT @SenateDems: Are you from #MD? Learn from @SenatorBarb and @SenatorCardin why keeping loan rates at 3.4% is important

Looking forward to @MarcoRubio's #SOTU response. 1st time in history someone has delivered both English & Spanish #GOPResponse.

Disappointed the Senate voted to block @JohnCornyn's RESULTS amdt to the #immigration bill. #securetheborder

RT @SenMikeLee: Senator Ted Cruz has created his official Twitter account @SenTedCruz. You should follow him. Please RT #tcot #tlot #tgd . . .

RT @NoLabelsOrg: “We must disentrall ourselves, and then we shall save our country,” @SenAngusKing says. WATCH: <http://t.co/dwMSPFyvSI>

Talking #filibuster reform with @bindersab, @richarenberg & Alan Frumin this morning @BPC\_Bipartisan <http://t.co/wl7Qhfd4IM>

Glad Rs and Ds have come to agreement that will reopen govt and resolve debt ceiling impasse

I'm encouraged by bipartisan progress in the Senate to end shutdown, open government, pay our bills & prevent default. 🇺🇸

Proud bipartisan #HOPE Act was signed into law, it will save lives for those waiting for organ transplants. -TB <http://t.co/V0gyDX4auQ>

Very disappointed we couldn't reach 60 votes for reasonable, bipartisan legislation to strengthen background checks: <http://t.co/U9oa2l7mZq>

The House joined the Senate to send a clear, bipartisan message to the WH “use your flexibility to put safety first & solve the problem #FAA

RT @reviewjournal: Heller joins move to declassify surveillance court opinions: A bipartisan group of U.S. senators revived a bil . . . <http://t.co/>

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## Notes

1. Supreme Court nominations did not fall under this reform of the filibuster.
2. As quoted by Michael O'Brien, November 21, 2013 for NBC News, "Democrats Drop the Nuclear Bomb, So What Happens Next?"
3. Table of 2013 and 2015 senators and their Twitter accounts are included in the appendix.
4. All tweets were hand coded by a graduate student coder, and 5% of the dataset was double coded by experienced student coders for reliability measures. Student double coding yielded the following intercoder reliability statistics for partisanship: percentage agreement = 98, Cohen's kappa = 94%, Krippendorff's alpha = 94%. Coding guidelines and additional examples of coding scheme are included in the appendix.
5. By leadership status, I mean leadership positions within the party. Examples of this would include majority leader, minority leader, and majority whip.
6. Gingrich senators in the data include Blunt, Boozman, Burr, Chambliss, Coats, Cotton, Crapo, Flake, Graham, Heller, Inhofe, Isakson, Kirk, McCain, Moran, Portman, Roberts, Thune, Toomey, Vitter, Wicker.
7. Tables of the marginal effects are located in the appendix.
8. I also regressed leadership by individual party, and the leadership effect remains consistent across both Democratic and Republican leaderships.

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