


Different Chambers, Divergent Rhetoric: Institutional Differences and Policy Representation on Social Media

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Abstract

For the past decade, members of both the House and Senate have increasingly used Twitter to curate a political agenda, but some are better equipped to drive digital policy conversations—even on a public platform with few constraints, low costs, and outsized user discretion. This research note explores the variable digital representation between congressional chambers, using tweets from the 115th Congress to illustrate asymmetric patterns in lawmakers' rhetorical agendas on Twitter and the role of policy for self-presentation. Senators tweet more frequently, more often about policy, and represent a more diverse agenda on the platform. In this note, we suggest senators' additional resources and incentives for policy expertise shape important differences in digital engagement, illustrating the prevailing importance of institutional nuance for understanding how lawmakers use Twitter to frame their political reputations.

Keywords

congress, Senate, Twitter

Introduction

Members of Congress use social media for reputation building, and central to that self-presentation is their legislative agenda. Increasingly, Congress shares policy information in 280-character quips. Fenno's (1978) expectation that lawmakers prioritize good public policy is somewhat realized on congressional Twitter where policy accounts for more than half of those tweets (Hemphill et al., 2021; Russell, 2021). Lawmakers are spending more time and attention publicizing their policy priorities for a digital constituency, but how lawmakers present themselves on Twitter is hardly universal, and the message variability has implications for policy and representation. Partisanship and elections explain a lot about lawmakers' self-presentation, but in an era of agenda-setting on Twitter, we must also consider the institutional dynamics that influence digital outreach. Prior research suggests resource asymmetries and institutional resources constrain lawmaker behavior (Curry, 2015; Russell, 2021; Schiller, 1995). In this research note, we assess the realities of those different incentives on lawmakers' policy statements on Twitter, exploring whether one specific difference—chamber—affects the tenor and frequency of lawmakers' policy agendas online.

The context of policy engagement in the House and Senate is distinguishable such that we expect the policy rhetoric

shared by members of each chamber to be different. The Senate and its individual members have long been viewed as being more influential and entrepreneurial when it comes to the policy process, and we assess whether those assumptions extend to reputation-building on Twitter. Most research on congressional messaging focuses on one chamber or makes general assumptions across both, but we reveal chamber nuance by comparing differences in lawmakers' digital agenda-setting.

In our research note, we examine tweets by both House and Senate official accounts during the 115th Congress to explain differences in policy representation. We illustrate that senators are more likely to amplify an active policy agenda, using Twitter more often to articulate their policy priorities by communicating a diverse portfolio of issue interests. The implications of these chamber differences mean that how we understand digital communication in Congress is fundamentally shaped by the specific chamber we sample from,

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linking digital, non-institutional tools for representation to existing institutional dynamics and resources.

Different Rhetoric Across Chambers

Twitter's interactive nature may narrow the gap between policymakers and the public (Straus et al., 2013), but the choices that lawmakers make about how to present themselves and their agenda are particular to their legislative environments. For example, in the Senate, the filibuster and the advice and consent power lead to a variable legislative process and terms for efficiency in Congress (Volden & Wiseman, 2018). We expect that chamber differences also affect communications, linking the specifics of the institution to how and when members use Twitter for policy priorities. The asymmetric resources, electoral incentives, and constitutional mandates between the two chambers shape how lawmakers present themselves to a digital constituency. Those chamber-specific differences shape (a) the frequency of representation online and (b) the content of that representation, specifically the nuanced policy agenda that lawmakers advance. On a per-member basis, the Senate has higher capacity in terms of resources and personnel (Brudnick, 2022; Representatives, 2022). Office budgets reflect distance from home district and jurisdiction population, leading the Senate to employ 5,633 staff across senators' offices, committees, officers, and body leadership in 2017, compared to 9247 by the House (Petersen, 2020, 2021). Taking into account the relative size of each chamber, the Senate has more than a 2:1 advantage in personnel per member. Recently, the number of communications professionals has increased as a function of representation staff (Crosson et al., 2020), but senators have more money to spend per office and average a higher number of communications staffers (Brudnick, 2019). The additional resources paired with the nationalized, partisan environment in the Senate mean that engaging with a broad-based digital constituency on Twitter fits the incentives of the platform and the institution. We expect a more substantial in-office press shop means senators have the resources to spend curating an agenda on Twitter.

Frequency (H1): Senators, on average, will send more tweets than the average House member.

Part of that reputation building is deciding how to explain legislative activities (Sinclair, 1990). Research suggests that politicians are stressing national policy debates to make voter connections (Abramowitz & Webster, 2016; Sievert & McKee, 2019), but senators have added opportunity to capitalize on those policy debates. Matthews (1960) noted that being a member of the Senate does not translate into a local reputation, but does facilitate a national reputation. Senators' resources and electoral incentives means they can develop the national policymaking reputation (Sievert & McKee, 2019). We

expect that senators, given their relatively large and more diverse districts, will be more focused on national policy debates on Twitter.

Policy Relevance (H2): Senators will allocate a higher percentage of tweets to policy compared to House members.

In addition to being more attuned to policies, senators' incentives for policy expertise and placement across multiple committees/subcommittees means that senators engage in digital representation with a more diverse policy agenda. Members of the Senate average a higher number of committee assignments and employ more policy staff (Reynolds, 2021). Senators also, in general, represent larger and more diverse constituencies by design. We expect senators' tweets to be more heterogeneous in topic to mirror this dynamic.

Agenda Diversity (H3): Senators will mention a greater number of policy topics on Twitter compared to House members.

Methodology and Results

To test these expectations, we use data from Hemphill et al. (2021) that topic codes all tweets by the official accounts of members of the 115th Congress,¹ totaling ~1.47 million tweets.² More than 53% of the tweets were policy-related while other tweets mentioned sports teams, birthdays/holidays, and local constituents. To measure differences in policy-specific digital presentation, the tweets were first, coded to identify any mention of public policy and second, coded using the Comparative Agendas Project schema using a classifier, categorizing tweets with mention of policy into 20 categories (Hemphill et al., 2021).³ The coding is derived from manually labeled data by Russell (2018) to train a logistic regression classifier, finding that a bag-of-words vectorization and logistic regression achieved the best performance in correctly identifying policy tweets. The graphic below shows the chamber breakdown of tweets, mirroring historical patterns of issue prioritization (Baumgartner & Jones, 2010).

We count the number of tweets per policy topic for each legislator, and compute difference of means tests on the basis of chamber membership; we present select results below (see Appendix for full table). Given senators in general tweet more than House members, we find nearly all of the counts by policy area by chamber are statistically different as expected, the exception being immigration. The picture is similarly nuanced when considering the share of attention, i.e., the share of a legislator's tweets devoted to a given topic as senators spent a higher share of tweets on policy across different issues. Senators are more likely to tweet about policy topics and general government operations. They are also more likely to prioritize social topics, including health, social welfare, and housing. Senators also are more apt to prioritize tweets relating to the physical environment and energy (Table 1).

Tweets by Policy Topic, 115th Congress

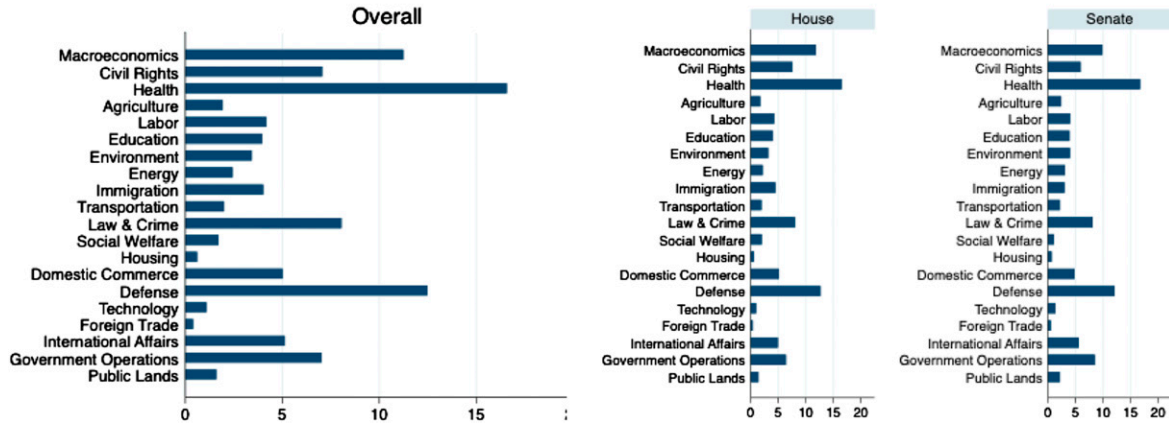


Table I. Difference of Means Tests, by Chamber (Select Results).

Policy Topic	(I) Number of tweets		(II) Share of legislator's tweets	
	House	Senate	House	Senate
None	1,245	1,694***	49.39%	43.11%*
Government operations	83	201***	3.21%	4.97%***
Social policy topics				
Health	215	395***	8.07%	9.24%*
Social welfare	26	26	0.90%	0.62%*
Housing	8	16***	0.29%	0.38%*
Physical environment and energy				
Environment	41	94***	1.53%	2.08%**
Agriculture	23	56*	1%	1.57%***
Energy	28	73***	1.16%	1.81%***
Public lands	18	51***	0.78%	1.19%***

Tweet counts rounded to the nearest whole number.
 * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

To further illuminate the chamber-based differences, we compare descriptive statistics for senators and House members from the seven states with only one House member—Wyoming, Alaska, Delaware, Montana, North Dakota, South Dakota, and Vermont. Even though the House members represent the same jurisdiction as their Senate colleagues, they still exhibit different behavior on Twitter. For example, these House representatives have an average of 872 tweets, while senators for these states average 4187. In pairwise comparisons, none of these states have a House representative who tweets more than their senators in our data set. With respect to content, the trends described above generally hold; senators from these states are more likely to prioritize social policy topics, such as health and housing, and environment, energy, and public lands. However, the House members from these states dedicated a larger share of their tweets,

on average, to social welfare and agriculture than their Senate counterparts.

To further test our expectations, we use an ordinary least squares regression to analyze the relationship between the number of tweets per member of Congress and individual and institutional factors. Table 2 uses the total number of tweets overall as the dependent variable, and only policy-related tweets for Table 3. Each column reports results for either the Senate chamber indicator, personnel expenditures, or jurisdiction population as the main variable of interest.⁴ There is a high degree of collinearity between these variables; this is unsurprising, given member office budgets are, in part, a function of constituency served. The results support our expectation (H1) that senators tweet more than representatives during the 115th Congress; tweeting is also associated with greater capacity and population served. Given the mean for member tweets was nearly 3,000, the magnitude is large.

Table 2. Congressional Chamber Differences in Number of Tweets.

	(1)	(2)	(3)
	Number of Tweets	Number of Tweets	Number of Tweets
Senate	1,345*** (201)		
Personnel spending		.0006634*** (.00008993)	
Jurisdiction population			.0001282*** (.00002194)
Tenure	23.63** (8.487)	23.11** (8.293)	27.89** (8.655)
Electoral security	-27.12* (10.92)	-26.98* (10.72)	-30.64** (11.17)
Female	591.8** (192.4)	564.3** (190.6)	570.5** (195.3)
Republican	-550.7*** (155.5)	-515.9*** (153.6)	-586.2*** (158.6)
Party leader	214.6 (297.8)	132.7 (294.7)	167.8 (302)
Committee leader	-262.8 (225.7)	-238.9 (223.9)	100.8 (250.1)
Constant	3,852*** (599.7)	3,381*** (589.5)	4,014*** (623.2)
Observations	520	516	516
R ²	0.233	0.256	0.212

Robust standard errors in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 3. Policy-Related Twitter Activity for Members of Congress.

	(1)	(2)	(3)
	Policy Tweets	Policy Tweets	Policy Tweets
Senate	936.7*** (130.9)		
Personnel spending		.0004578* (.00005957)	
Jurisdiction population			.00008672*** (.00001379)
Tenure	13.44** (4.68)	12.91** (4.5)	16.26*** (4.817)
Electoral security	-12.59* (6.153)	-12.48* (5.954)	-15.09* (6.325)
Female	377.9*** (107.7)	359.7*** (105.5)	365*** (109.9)
Republican	-487*** (85.73)	-466.3*** (84.28)	-514.8*** (89.23)
Party leader	322.2 (197.7)	267.5 (197)	296.5 (207.3)
Committee leader	-174.9 (126.9)	-141.8 (123.4)	93.4 (143.9)
Constant	1,971*** (343.3)	1,649*** (329.8)	2,092*** (360)
Observations	519	515	515
R ²	0.332	0.358	0.300

Robust standard errors in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

We find the same narrative supported—legislators with more personnel spending and larger jurisdiction populations have more tweets. For every additional 10,000 dollars spent on personnel, a legislator tweets seven additional times. For every one-thousand resident increase, a legislator increases their activity by one tweet.

To examine whether or not senators are more likely to build a digital policy agenda, we use the Comparative Agendas Project coding schema to identify all tweets with a policy mention, contrary to tweets about parades, holidays, constituents, etc. Senators tweet 937 more times about policy-related topics than House representatives do; the other measures of institutional capacity and electoral incentive further support this narrative. Across the regressions, legislators with more tenure and are female tweet more, while

legislators in electorally-secure seats tweet less, as do Republicans.⁵ We interpret these results to indicate chamber resources still play an outsized role, even when considering personnel capacity or jurisdictional size.

Lastly, we tested the agenda diversity hypothesis (H3) by constructing Herfindahl-Hirschman indices (HHI) using the coded policy topics for each legislator. We create diversity indices for all tweets (including non-policy ones).⁶ These indices were scaled between zero and one; a higher value indicates less diversity—a score of one would reveal a legislator who tweets only about a single topic. We use these indices in three OLS regressions (Table 4), and include the same set of controls and the overall number of tweets per member. We generally find support for chamber-specific agenda diversity (H3). Senate membership, personnel

Table 4. Legislators' Overall Tweet Diversity.

	(1)	(2)	(3)
	Overall	Overall	Overall
Senate	-.046*** (.008638)		
Jurisdiction population		-2.505e-09** (8.890e-10)	
Personnel spending			-2.038e-08*** (3.723e-09)
Total number of tweets	-2.238e-06 (3.590e-06)	-4.069e-06 (3.648e-06)	-1.649e-06 (3.685e-06)
Tenure	-.0003921 (.0003975)	-.0003859 (.0004104)	-.000264 (.0004059)
Electoral security	-.0009155 (.0007315)	-.000743 (.0007376)	-.0008101 (.0007273)
Female	-.006349 (.01167)	-.004579 (.01176)	-.005603 (.01168)
Republican	.0558*** (.008927)	.05609*** (.009062)	.05558*** (.008911)
Party leader	-.03051* (.01211)	-.03373** (.0124)	-.02985* (.01226)
Committee leader	.01276 (.01381)	-.008062 (.01259)	.002605 (.01195)
Constant	.3172*** (.04743)	.3096*** (.04763)	.3217*** (.04678)
Observations	520	516	516
R ²	0.195	0.172	0.192

Standard errors in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

spending, and jurisdictional population are associated with greater overall tweet diversity. Across all specifications, Republicans are more likely to focus on fewer issues in their tweets, but party leaders have greater diversity in their online agendas.

Conclusion

Members of Congress employ different strategies in their public-facing messaging, but political science knows much less about what drives these different strategies when it comes to the institutional differences that shape digital reputation-building. Our results suggest that how we understand representation in the Twitter environment is not only defined by partisanship and media norms but also institutional structures, specifically chamber differences, that extend to non-legislative actions online. Members of Congress use Twitter to promote their policy priorities, but given the resource advantages, institutional incentives and electoral context of a senator, how a senator builds that reputation is notably different than a House member. Senators are more vocal on Twitter, particularly about policy issues, and we suggest the institutional, resource advantages of senators are associated with the communication differences.

The variable patterns of congressional communication on Twitter add to a growing body of research that explores how lawmakers communicate their policy agenda. We find that the institutional incentives that not only drive legislative differences also pattern styles of representation on social media, meaning that how we understand congressional communication cannot ignore the unique differences across legislative bodies, both in Congress and abroad. The effect of chamber dynamics on Twitter supports further assessment into how

different political and institutional hierarchies shape digital representation. The expectations for constant online engagement and reputation-building suggest that Twitter, while offering new opportunities for agenda setting, are actually tied to institutional resources and traditional sources of political power.

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Supplemental Material

Supplemental material for this article is available online.

Notes

1. Important exceptions: Gelman, 2021; Hemphill et al., 2021; Russell, 2018, 2021.
2. We are grateful to Hemphill et al. (2021) for making their data public. All tweets were captured through Twitter's API, and made available at <https://www.openicpsr.org/openicpsr/project/118569/version/V2/view?path=/openicpsr/118569/fcr:versions/V2&type=project>
3. Details on policy coding and categories located in Appendix.
4. We also considered whether or not a member was "in cycle," meaning facing re-election in 2018, both within the Senate and

across chambers. Within the Senate, there was no statistically significant relationship between number of tweets, policy-relevant or otherwise, and the in-cycle indicator. Across chambers, the results reflect the trends reported in greater detail here, using the three other operationalized measures of institutional differences.

5. For a robustness check, we also run a logistic regressions (with variable error specifications) to understand the share of attention legislators pay to a given topic, and we find consistent support for senators' increased attention to policy in their digital communication on Twitter (see [Appendix](#)).
6. We also create a policy-related diversity index, which excludes tweets with a non-policy topic. Regressions using this measure are in the [Appendix](#). The same trends hold, with the exception of jurisdictional population.

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