#### Article

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Leah Matchett<sup>1</sup>

## Abstract

The existing theories of interaction between Congress and the Department of Defense (DOD) focus on elite-level principle-actor problems. However, the Department, as one of the most popular institutions in the United States, also has significant public appeal and maintains an active public affairs arm. This article builds on theories of bureaucratic reputation to argue that the DOD uses its public communications to advocate for its own budget. I leverage computerized text analysis to examine over 40,000 public facing documents published by the DOD since 2005. I find evidence that the DOD changed both the timing and the content of its public-facing communications to strategically argue for its budget. This is true during large budgetary shifts (like the U.S. budget sequester) and during the period of the year that the budget is under debate.

# **Keywords**

military, civil–military relations, Department of Defense, military public affairs, congress, text analysis

The Department of Defense (DOD) is one of the largest and best-funded U.S. agencies, making up over half of the federal discretionary budget (Congressional Budget

<sup>1</sup>Stanford University, Palo Alto, CA, USA

**Corresponding Author:** Leah Matchett, Stanford University, Palo Alto, CA 94305, USA. Email: Imatchet@stanford.edu Office, 2020). Defense funding has largely been an area of political agreement through post-War history (with the significant caveat of Vietnam), and in recent years, U.S. politicians compete to be more supportive of the troops (Bacevich, 2013). Nonetheless, with the U.S. descent over the "Fiscal Cliff" in 2013, the DOD faced a 6% across-the-board funding cut (U.S. Government Accountability Office, 2013). In the face of such cuts, how do agencies like the DOD advocate for themselves with Congress and the American public?

American political scholars have written extensively on the relationship between agencies and Congress but have more rarely focused on direct empirical tests of strategies by which agencies try to maximize their budget. Where they have, most scholarship focuses on private communications between the agencies and Congress (Banks & Weingast, 1992; Epstein & Halloran, 1999). I draw on theories of bureaucratic reputation to suggest that in addition to privately advocating with Congress, agencies also use their *public* communications to make a case for themselves and their budget. I examine DOD public-facing communication and find that the content, timing, and tone of DOD communications vary systematically with U.S. budget cycles and political shocks to the budget. This suggests that the DOD uses public-facing communications as a means of budget advocacy and that it sees public support as an important political tool.

From 2005 to 2019, the DOD published over 40,000 publicly facing documents. These varied from announcements of troop movements and interviews with the Secretary of Defense to announcements for upcoming rock concerts at military bases. Every publicly facing document not only has to be drafted but reviewed and cleared with the input of substantial work hours. Understanding the context of these documents, and by extension how the DOD advocates for itself through the public, is an important contribution to our understanding agency–Congress relations.

In a competitive fiscal environment, I expect and find evidence that the DOD changed both the timing and the content of its public-facing communications to make a case for its own budget. I generate budget topic scores with a Structural Topic Model to test a series of hypotheses on what drives the prevalence of discussion of the budget. Next, I develop a dictionary-based measure of "urgency" to examine the relationship between budget negotiations and the tone of DOD public communication.

I find that periods of Congressional budget negotiation are associated with increased DOD messaging on the budget. More importantly, the content of the communication changes in response to budget shortfalls, with a measurably increased emphasis on threats. The DOD, with its wide audience of veterans and national security elites, thus, has a previously underappreciated ability to shape the public perception of threat, and one that is deployed in a way that reflects its role as a domestic political actor.

Although there are no doubt other ways in which the DOD attempts to convince Congress to expand their budget, its public communications present a new path to understanding when and how the DOD advocates for itself in the face of a domestic budget constraint. Even if this is only one part of a larger strategy, a purposeful public communication strategy is a necessary component of DOD domestic maneuvering that has been overlooked by scholars of civil–military relations and American Politics.

The next section highlights the debate in civil-military relations on how the military behaves as a domestic political actor and draws on insights from the field of American Politics, which provide a theoretical backdrop for how the public perception of the department can influence its negotiating power. I then present the data and analysis strategy, before turning to findings on when and how the DOD advocates for its own budget. I conclude by and proposing new avenues of research.

# The Agency of (Bureaucratic) Agencies

The DOD is engaged constantly and necessarily in domestic political maneuvering. As an executive agency, the DOD has an incentive to maximize its own budget (Wyckoff, 1990). However, the question remains: What is the best means to achieve this end?

The most prominent work on the bureaucratic maneuvering of the DOD is likely Peter Feaver's agency theory of civil-military relations (Coletta & Feaver, 2006; Feaver, 2003; Nielsen & Snider, 2009). Feaver draws on principle-agent models common in American politics to suggest that the DOD advocates for itself by bargaining with Congress, rather than through Huntingtonian civilian deference (Feaver, 2003). In Feaver's model, this interaction is directly between the agency and Congress. However, agencies likely can also influence Congress through other means, including their relationship with the American public.

The DOD is one of the most respected institutions in America (Shane, 2019). Survey experiments have found evidence that the public readily defers to the opinions of military officers and sees them as especially qualified on foreign and defense policy (Golby et al., 2018; Teigen, 2013). It should, then, be a perfect candidate for an agency that has a reputation with the potential to be a political asset. However, leveraging a reputation for political gain almost necessarily comes at the risk of that reputation. Done poorly, it could open agencies up to accusations of politicization.

Like most agencies, the Department is statutorily forbidden from propagandizing the American public. Despite this, there is a recurrent note of political anxiety about the potential influence of the DOD on domestic populations (see, e.g., Whitlock, 2013). As early as 1970, Senator William Fulbright published *The Pentagon Propaganda Machine*, making the argument that the public affairs arm of the Pentagon was not focused on informing the American public so much as building support for the DOD (Fulbright, 1970). More recently, a Buzzfeed news reporter suggested unnamed high Pentagon officials were eager for a legislative change that would allow them to influence American public opinion more directly (Hastings, 2012). The legislation in question did not, in fact, apply to the Pentagon, but the response to the article—which was picked up by Politico and inspired several Foreign

Policy Articles—suggests real anxiety over the DOD's ability to manipulate the American public through its public messaging.

Jarol Manheim was more direct in his argument of how this influence might occur. In his 1991 book on strategic communication, he asked,

Do we have the best defense money can buy, or are we on the short end of... some other vulnerability real or imagined? The answer, insofar as the Department of Defense has one, is very much a function of where we happen to be in the budget cycle at the time the question is raised. (Manheim, 1991)

In other words, Manheim suggests that the DOD's role as an arbiter of threat can be manipulated to build support for policies to address that threat.

These concerns about the DOD's influence highlight two sources of potential power for the department. First, as Manheim suggests, the agency has more information than Congress, and thus an advantage in negotiations with them—this is the classic advantage that gives any agency power in a principal–agency model and is well highlighted by Feaver's agency theory of Congress. The second, however, is more often overlooked. Both Buzzfeed and Senator Fulbright's main concern was not that the DOD would have better information than Congress—but that they would be able to galvanize the American public's support through their own reputation in a way that supported their budget.

Recent work in American politics emphasizes the role of public communication in agencies' bureaucratic maneuvering. Dan Carpenter argues that agencies actively seek to build and maintain their reputation, which is defined as the set of symbolic beliefs about the agency that are embedded in a network of multiple audiences and are in part shaped by its public communication (Carpenter, 2001). The quest to enhance and maintain their reputation has been used to explain how agencies respond to regulation (Carpenter, 2010), external criticism (Gilad et al., 2015; Maor & Sulitzeanu-Kenan, 2016), and even their policy outputs (Krause & Douglas, 2006). However, less work has addressed how these reputations, once formed, can be used by agencies. Carpenter asserts that agencies' reputations are "valuable political assets-they can be used to generate public support, to achieve delegated autonomy and discretion from politicians, to protect the agency from political attack, and to recruit and retain valued employees" (Carpenter, 2002, p. 41). However, this proposition remains to be proven-in part because it is inherently difficult to measure when precisely an agency is using its reputation, and what the effects of this are relative to other tactics it is likely deploying. This article examines one way an agency might leverage an already strong reputation for its benefit: through reaching out to the American public directly.

If an agency wanted to leverage its reputation with the public for gain, it would have to begin with public-facing communications. These communications could help the DOD budget case in one of two ways. First, an average American could read news stories about the need for greater defense funding and adjusts their preferences on defense spending. This, in turn, could lead them to push members of Congress through phone calls or town halls. This mechanism relies on a highly involved and informed public and is, therefore, unlikely to be the primary goal of the DOD's public communications.

It is more likely that these communications are aimed at national security elites and Congress. Specifically, during periods of budgetary distress, the department could change the amount and the tone of its public-facing communications in the hopes of buttressing elite support. As a trusted arbiter of threat, the DOD's speech has the potential to effectively increase threat perception among national security elites, thus making a case for appropriations.

This change in support can either come from an increased salience of defense activating elite attitudes that are already in favor of defense-or an implicit reference to the popularity that the Department has with the public. As one public affairs manual for DOD professionals cautioned, "It may be harder for elected officials (and civil servants) to question or push back on military advice when they know the military is far more popular with the public than they are" (Blankshain, n.d., p. 30). This is used to caution DOD officials in their dealings with Congress but represents an acknowledgment that reputation can be important in policy elites' response to public messages. Even if constituents are not largely aware of the DOD's communications, the possible electoral threat of a political opponent labeling an electoral official as "soft on defense" for failing to address threats suggests that Congress may be receptive to publicized defense issues. More directly, one Canadian analyst noted that damage to the military's reputation in Canada "may indirectly weaken the capacity of the Department of National Defence [sic] to deal with its adversaries in the perennial battles of the budget" (Stairs, 1998, p. 549) Both of these suggest that the DOD's public communications may be an important tool to influence elites.

These examples suggest that the DOD likely has a strong reputation that might be useful in its domestic bureaucratic maneuvering. However, if, when, and how the DOD uses its reputation to advocate strategically for its interests domestically remain important and unanswered questions that I turn to in the below hypotheses. It may be that the DOD, aware of the risks of being labeled as trying to manipulate the public, does not attempt to use its public communications for bureaucratic ends. If DOD public communications were random or merely role-fulfilling, I would expect a lack of systematic variation around budget cycles. This forms a useful null hypothesis (H0).

H0: The public DOD discussion of the budget is roughly constant through time.

H0 would also be supported if DOD communication was purposive, but nonstrategic. The same would be true if the DOD was acting strategically about its budget, but not using public communications. Support of the null hypothesis could indicate any one of these mechanisms at work. At the same time, rejection of the null hypothesis weakens each of these arguments and suggests that the DOD is using its public-facing communications to engage in purposeful advocacy around the budget.

# Potential Drivers for Defense Communication on the Budget

If the DOD is communicating strategically to advocate for its budget, I would expect communication to occur in times of budgetary stress: either when demands on the defense budget increased or when supply was cut short.

The DOD faces fluctuations in the demands for its resources in the form of changes in international security environment. The outbreak of new conflicts, unexpected missions, or extended deployments dictated by the executive may all increase demands on the defense budget to supplement an expanded mission. It is feasible that in these circumstances the DOD may increase the prevalence of its discussion of the budget in an attempt to inform congress of unexpected outlays and gain more appropriations to supplement an expanded mission:

**Hypothesis 1 (H1):** The DOD talks about the budget more when there are more demands on their capabilities.

In addition to increased demand for DOD action, we might expect that an actual or potential decrease in the budget supply may lead to an increase in DOD messaging on the budget. If this is the case, political situations associated with a decreased like-lihood of defense appropriations may in turn predict an increase in messaging over the budget. The U.S. budget sequester of 2013 was a congressionally imposed large-scale military spending cut.<sup>1</sup> If budget supply determines when the DOD speaks about the budget, this should have elicited a sharp increase in discussion of the budget in DOD communications. The same should be true for periods of budget negotiation:

**Hypothesis 2 (H2):** The DOD talks about the budget more when it faces a congressionally imposed budget cut, or when the budget is under negotiation.

The sequester is plausibly exogenous from the DOD public relations process and was largely unexpected to take effect by actors at the time. Similarly, the time at which the defense budget is being negotiated changes every year, depending on the Congressional calendar. A positive relationship between a possible budget shortfall and increased DOD communication on the budget would indicate that the DOD communication on the budget is driven by supply-side concerns.

Finally, if the DOD is acting as a strategic communicator, I would expect that the tone of their communications should also vary in response to budgetary pressures. Because the DOD has more information about the nature of threats than Congress, they are able to both describe threats and prescribe their solution. For this reason, I expect that the tone of DOD communication on the budget should become more

urgent, emphasizing threats, during periods of budget shortfall. Hypothesis 3 (H3) summarizes this expectation:

**H3:** The DOD communicates more urgently during periods of budgetary stress as a way of increasing the perceived need for their services.

Overall, these hypotheses test how the DOD's public-facing communications react to changes in budget conditions, as a way to understand how they advocate for their interests through these communications. The focus on public-facing communications represents an important potential addition to the agency-theory's focus on DOD-Congress bargaining, as well as a test of the political utility of agency reputations.

# Methodology: Important Messages From Everyday Communications

The corpus for this project is composed of all documents published by the "Department of Defense Documents and Publications" and available on Nexis Uni (excluding contractor notifications). In total, there are 42,690 documents from 2002 to 2019, with systematic inclusion after 2005.<sup>2</sup>

Before analysis, the text was run through several preprocessing steps standard in text analysis (Grimmer, 2010; Grimmer et al., 2022; Manning et al., 2009). These steps involve removing capitalization, punctuation, and word order, and applying a porter stemmer to ensure that similar words with different suffixes group together. Finally, I removed common filler words (commonly referred to as "stop words") using a list developed by the Massachusetts Institute of Technology. These processed texts serve as the basis for the analyses.

Communications in the text corpus range from interviews between journalists and DOD principals to bulletins produced by the different services such as the "Airpower Summary," "Military Family Matters," and "Faces of Defense" feature. The scope of communication is itself interesting, since no previous work has examined the full set of DOD communications. During the period of study, the number of documents was equivalent to 8 a day, all of which must be written and cleared by staff members at substantial cost.

I use a structural topic model (STM) to measure when the budget is discussed in these public-facing communications, using a the stm package developed by Roberts et al. (2013). I ran an unsupervised STM for 25 topics on the entire corpus, arranged in order of descending prevalence in Figure 1. The budget topic made up about 7% of all DOD communications during the time period.

Because document-to-document variation is high, the dependent variable of budget prevalence is averaged on a weekly level. The budget prevalence measure can be interpreted as the average number of weekly documents that are published on the budget. I reran the analysis with monthly aggregation as a robustness check and find



**Figure 1.** Topics Defined by the STM in DOD Communications, 2005 to 2019. Topics Primarily Focused on an Internal (Within-DOD) Audience Are in Blue, While Those Primarily Aimed an External Audience Are in Gray. *Note.* DOD = Department of Defense.

the same results, available in the online appendix. The first half of this article uses this dependent variable to measure the timing of DOD budget communication, while the second paper discusses how the content of Department communications responds to budget pressures.

To address the question of content, I develop a measure of text urgency using a dictionary developed with supervised learning methods. It is common practice in sentiment analysis to use word counts from predefined dictionaries to score the sentiment of a piece of writing. I follow this basic pattern in the measure of urgency but avoid common pitfalls. The assumption at the heart of any dictionary-based method is that the words included in the dictionary accurately capture the category or

sentiment being analyzed. The problem with this is that words inherently differ in their connotation by context (Grimmer et al., 2022; Grimmer & Stewart, 2013). Sentiment analysis with readily available dictionaries is easy to use, but applying a dictionary developed in one setting to another risk nonsensical results. However, when dictionaries are developed and applied rigorously on corpuses of sufficient size, they can be useful tools for analysis.

Rather than rely on a pre-made dictionary I developed a new one, which I validated using a supervised learning method from King Roberts and Lam (KRL), (King et al., 2017). KRL develop and test a supervised algorithm in which the computer uses a seed dictionary supplied by the user to suggest likely words the user can then add to their dictionary if appropriate. This allows for a theoretically driven and corpus-specific dictionary that has significantly better results than their hand coders in tests. The full dictionary is included in the appendix.

I implemented the KRL algorithm in multiple stages, starting from a seed dictionary of highly "urgent" words (including words like crisis, imminent, competitor, rival, threat, urgent, and risk). From this, I calculated the total proportion of urgent words per document (to normalize for document length) and subdivided the corpus at the 90th percentile. Documents with the top 10% of urgency scores were marked as the "reference set," while others became the "search set." I used the search set to train an ensemble learning algorithm of naive Bayes and logit models to classify documents in the search set into "target" (expected to be part of the reference set, or highly urgent) and non-target (not expected to the part of the reference set). The algorithm then generates a list of keywords for the reference, target, and non-target sets. I read these keywords and used the relevant ones to expand the original seed dictionary. After several iterations, new keywords that appeared no longer were related to a sense of urgency. The final dictionary has 121 words.

The use of the supervised learning method helped to unearth several DOD-specific terms that otherwise would have been missed. Words like revisionist, readiness, undermine, and influence are not commonly used in discussing urgency in other contexts but are often used when the DOD discusses threats. I calculated an "urgency score" for each document as the proportion of urgent words it contained. The final urgency measure is right-skewed, with a mean of 0.0287 (indicating 2.9% of words in the document are "urgent"), and a median of 0.0219.

To test the validity of this measure, I examined which documents have the highest "urgency scores." These seem to pass a measure of face validity. Table 1 lists the documents with the top five urgency scores. They all discuss national security issues, weapons, and key challenges to the country, and the proportion of urgent words is remarkably high. In the first piece, 23% of all of the words used in the piece are considered "urgent." For comparison, 3,094 documents (over 7% of the corpus) do not contain a single "urgent" word. The first five alphabetically by title are listed here for comparison. These documents address routine announcements, health policy, tuition for soldiers, and even rock concerts.

High urgency docs		Low urgency docs	
Title	Prop.	Title	Prop.
Gates—Nuclear Weapons Would Make Iran Less Secure	0.231	US\$1 airfare available to Soldiers flying from select airports	0
Joint Chiefs Chairman Calls Iran "Disruptive" to Region	0.216	"I3-Fold" ceremony, other burial scripts approved	0
Review Reduces Weapons, Maintains Deterrence, Obama Says	0.208	"Adopt a U.S. Soldier" Links Volunteers With Deployed Troops	0
Defense Officials Clarify Nuclear Review	0.208	"Aerial layer" expands Army network during evaluation	0
Hagel, Dempsey Discuss North Korea, Iran, Cyber Challenges	0.207	"Alpha Dog" Oversight Means Quality of Life for Iraqis	0

 Table 1. Urgency in DOD Communications: Example Documents With High and Low Urgency Scores.

Note. DOD = Department of Defense.

# The Timing of Budget Communication

In this section, I present the results of a linear model testing when the DOD communicates about the budget and compare the relative explanatory power of the budget supply and budget demand hypotheses. I find support for the former, suggesting that DOD discussion of the budget is associated with danger of budget shortfall.

Discussion of the budget changes throughout the period of study. Figure 2 shows the dependent variable, the prevalence of the budget topic, in addition to the actual military budget and the difference between the realized and requested military budget.<sup>3</sup>

Although there is substantial variation in the weekly prevalence of the budget topic, discussion of the budget first increases and peaks around 2011, subsequently decreasing. Second, there are several weeks in 2010, and a larger number in early 2013 with significantly elevated levels of discussion of the budget. The total military budget is increasing through 2010, then flattens and decreases until after 2016.

The budget demand hypothesis predicts that discussion of the budget should increase in respond to increased demand on the military capabilities. To test this hypothesis, I use Obama's 2009 Afghanistan surge as a source of exogenous increase in the demand on the military. In 2009, President Obama announced the addition of 17,000 U.S. troops to the Afghanistan war effort (a roughly 50% increase). This represents a large increase in the demand for military over the period directly before it. I include temporal variables indicating the time period of the Afghanistan surge<sup>4</sup> as well as the 3 and 6 months before the surge. If the budget demand hypothesis is



**Figure 2.** Weekly Mean Discussion of the Budget Through Time, as Compared With the (Realized) Military Appropriations, and the Difference Between Realized and Requested Appropriations. Blue Dotted Lines Indicate the Obama Administration. The Black Dashed Lines Indicate the Period the Sequester Was Debated.

Note. The first dotted line is the first time Ben Bernanke publicly voiced concern over the economic effects of going off of the "Fiscal Cliff" (February 29, 2012). The solid line is the date the sequester was due to take effect (January 1, 2013). The last dotted line is the date the fiscal cliff problem was resolved by the passage of the Continuing Appropriations Act (October 17, 2013).

supported, I should see positive coefficients for some or all these variables on budget prevalence.

Communications on the budget happen in the context of a requested and realized appropriation. To capture the effect of the budget environment, I included data on the total size of the military budget, from historical data in the FY2019 Defense Budget Overview, and on the difference between Presidential requests for DOD funding and the realized appropriations DIF.<sup>5</sup>

To test the budget demand hypothesis, I include a group of time series variables indicating when budget negotiations occur. The first of these is the U.S. Sequester of 2013. This was a congressionally imposed exogenous cut to defense spending of roughly 10%, which took effect in early 2013.<sup>6</sup> I code a variable for the entire time period of the sequester, as well as one which only includes the period when the sequester was discussed but had yet to take place.<sup>7</sup> Finally, I include a dummy variable for the time period every year between the announcement and approval of the President's budget. The dates from this are taken from Congress.gov's appropriations records.

I also included several classic variables in American politics that could be thought to reduce budget supply. I include a dummy variable for unified government, which has historically been associated with more legislative productivity than divided government. I also include a dummy variable for whether a Democratic president was in office, since Republican presidents are generally considered more hawkish and more likely to push for large defense budgets. However, given the short time span, the Democratic administration variable essentially amounts to a dummy variable for Obama's presidency. As an alternative, I created dummy variables for each U.S. Presidential administration, but the results remain the same. Finally, each regression includes linear and quadratic time trends, monthly dummy variables, and a lagged dependent variable. This helps to address problems of autocorrelation and nonnormality of errors. As we will see, the monthly dummy variables provide interesting insight to patterns in budget communication through the year. I report all results with heteroskedastic and autocorrelated robust standard errors.

Table 2 presents the results of the model of the prevalence of budget discussion. When the entire period of the sequester is included as a dummy variable (Model 1), results are small and insignificant. However, after adjusting for the period directly before the sequester, the average number of budget documents published per week during the sequester increases significantly (Models 2 through 4). As I add covariates the size of this coefficient only increases, and the significance remains high (p < p.001). In the full model (Model 4), the change from just before the sequester to just after is equivalent to more than five budget documents being published every weekor one for every working day. For examples of these, see the defense department sequester homepage (Department of Defense, n.d.). The decrease in discussion of the budget during the period immediately before the sequester took effect is likely caused by the DOD's aversion to appearing political in its communications. To interfere with what was a partisan negotiation over the debt limit would have exposed the department to politicization and sacrificed the bipartisan support it usually enjoys in Congress. At the time, it was also generally thought that the Congressional supercommittee in charge of avoiding the sequester would reach an agreement in the last moment and the sequester would not take effect. In contrast, once the funding cuts took effect there is an immediate response in budgetary communications. This provides strong support for the budget supply hypothesis.

	Budget topic prevalence			
Independent variable	(1)	(2)	(3)	(4)
Sequester	0.563	1.377***	1.496***	2.559***
	(0.568)	(0.413)	(0.427)	(0.448)
Before sequester		-1.533**	-1.634**	-2.352***
		(0.527)	(0.516)	(0.515)
Unified			1.115***	0.924***
			(0.245)	(0.240)
Democratic administration			-0.301	0.639
			(0.376)	(0.395)
Time between budget	-0.445	-0.363	-0.426	-0.493
announce and approval	(0.271)	(0.289)	(0.295)	(0.287)
Afghanistan Surge			1.193	-1.380
(3 months prior)			(0.955)	(0.929)
Afghanistan Surge			0.932	0.151
(6 months prior)			(0.762)	(0.752)
Afghanistan Surge			0.540	0.123
			(0.328)	(0.326)
Military budget				0.014***
, ,				(0.002)
Linear time trend	0.024	0.025***	0.033***	0.019**
	(0.006)	(0.003)	(0.007)	(0.007)
Quadratic time trend	-0.00003	-0.00003***	-0.00003***	-0.00002***
	(0.00001)	(0.00001)	(0.00001)	(0.00001)
January dummy variable	-0.069	-0.201	-0.180	-0.276
	(0.417)	(0.429)	(0.421)	(0.410)
February dummy variable	1.364**	1.233**	1.399**	1.452***
	(0.517)	(0.455)	(0.450)	(0.438)
March dummy variable	2.104***	1.997***	2.150***	2.241***
	(0.552)	(0.490)	(0.485)	(0.472)
April dummy variable	1.037***	0.911	1.020*	1.172*
. ,	(0.545)	(0.512)	(0.507)	(0.494)
May dummy variable	1.273***	1.136*	1.191*	1.325**
	(0.495)	(0.520)	(0.516)	(0.503)
June dummy variable	0.937***	0.806	0.817	0.998*
	(0.506)	(0.508)	(0.500)	(0.489)
July dummy variable	0.086***	-0.215	-0.311	-0.192
	(0.433)	(0.476)	(0.468)	(0.455)
August dummy variable	-0.265	-0.375	-0.500	-0.433
	(0.449)	(0.455)	(0.448)	(0.436)
September dummy variable	0.228	0.116	0.075	0.153
	(0.475)	(0.449)	(0.442)	(0.430)
October dummy variable	0.559	0.539	0.556	0.564
-	(0.410)	(0.433)	(0.426)	(0.415)
November dummy variable	0.010	0.005	0.042	0.039
-	(0.471)	(0.441)	(0.436)	(0.424)
Lagged budget content	0.273	0.258***	0.192***	0.132***
	(0.046)	(0.037)	(0.038)	(0.038)
Observations	694		694	694

# **Table 2.** Linear Regression of Budget Supply and Demand Factors on the WeeklyProportion of Budget Communications in DOD Communications.

Note. DOD = Department of Defense. \*p < .05. \*\*p < .01. \*\*\*p < .001.



Figure 3. Regression Estimates of Discussion of the Budget by Month, From Table 2, With Standard Error

Other potential measures of budget constraint see less support. In this model, unified government is associated with about one more budget document per week when compared with divided government—the opposite of what we would expect. However, this is not overly surprising, since it is unclear whether unified or divided government has any effect on the military budget. The correlation here may be more a feature of the unique periods of unified government from 2005 to 2019 (which all took place at the beginning of a Presidential term). I would need to expand the time series backward to have more faith in this result. Likewise, the time between budget announcement and approval is insignificant and negative in all specifications.

However, the budget cycle does seem to be having some effect on discussion of the Budget. In all of the models in Table 1, the monthly dummy variables are substantively and statistically significant. Figure 3 graphs these coefficients for ease of interpretation, with error bars indicating the standard errors from the regression. Since FY2003, the President's budget request has come out in February 13 out of 17 years (76% of the time), with committee negotiations taking place in March and April, and approval on the floor taking place between June and September. The

strong positive coefficients at the beginning of the year suggest that the DOD is discussing the budget more when it is being negotiated in Congress. The lack of positive or significant results for the budget negotiation variable (Between Announcement and Approval), therefore, likely comes from a relative decrease in discussion in the later part of the budget cycle. Since FY2003, the final date of budget passage has varied from August to April of the next year. Moreover, at the later stages, budget hold-ups are less likely to be susceptible to agency influence. The combination of the positive coefficients during the early months of the year and the lack of significance on the budget negotiations—but only in the early period when they are most likely to have an influence.

The budget demand hypothesis is not supported by the results in Table 2. Although the military budget is significantly correlated with the discussion of the budget the effect is substantively very small. Substantively, a 100 billion dollar increase in the military budget is associated with 1.4 more budget documents published per week. The Afghanistan surge is similarly insignificant. I tested other time frames for the surge but found no significant relationship. However, it makes sense that the DOD communication on the budget is not driven by demand for budget, since the military expenditure has (until 2013) kept pace with an expanding mission. It is only when there is budget shortfall (as in the sequester) that advocacy becomes critical. This evidence strongly supports the idea that DOD is a strategic communicator, using its public-facing communications to advocate for itself. With the understanding that budget communications are driven by need, I can ask the related question of how budget duress affects the tone of the DOD.

# Urgency in DOD Communications

The final section in this analysis uses the "urgency score" described above to develop an understanding of how the DOD uses the content of its communications to advocate for its own budget. I find support that the DOD emphasizes urgency and threats when there is a danger of decreased budget supply: during yearly budget negotiations and in response to the 2013 Sequester. The covariates used are the same as described above, and I have similarly averaged scores by week, and report heteroskedastic and autocorrelation robust standard errors. The dependent variable in this analysis is the urgency score, which can be interpreted as the proportion of words that are "urgent" in the average weekly document.

Table 3 finds the strong support for the budget justification hypothesis—suggesting that the DOD changes the urgency of its language in response to budget pressures. The positive sign on the sequester variable indicates that during the sequester, each document 1,000 words long will have an average of four more "urgent" words than outside of the sequester (an increase approximately equal to 20% of the mean). This relationship holds when controlling for unified government, party of the administration, and the actual military budget, as well as the prevalence of the budget topic.

	Urgency score			
Independent variable	(1)	(2)	(3)	
Sequester	0.004***	0.004***	0.004***	
	(0.001)	(0.001)	(0.001)	
Unified			-0.0004	
			(0.001)	
Democratic			-0.00 I	
administration			(0.001)	
Time between budget	0.001*	0.002**	0.002**	
announce and	(0.001)	(0.001)	(0.001)	
approval				
Budget content		0.001***	0.001***	
		(0.00001)	(0.00001)	
Afghanistan Surge			-0.00 I	
(3 months prior)			(0.002)	
Afghanistan Surge			-0.00 I	
(6 months prior)			(0.002)	
Afghanistan Surge			-0.001	
			(0.001)	
Military budget			0.00001*	
			(0.00001)	
Linear time trend	0.00005	0.00002**	0.00004*	
	(0.00002)	(0.00001)	(0.00002)	
Quadratic time trend	-0.0000	-0.00000*	-0.0000	
-	(0.0000)	(0.00000)	(0.0000)	
lanuary dummy	0.001	0.005	0.001	
variable	(0.001)	(0.001)	(0.001)	
February dummy	0.001	-0.001	-0.0003	
variable	(0.001)	(0.001)	(0.001)	
March dummy variable	0.001	-0.001	-0.001	
,	(0.001)	(0.001)	(0.001)	
April dummy variable	0.002	0.001	0.001	
, ,	(0.001)	(0.001)	(0.001)	
May dummy variable	-0.0003***	-0.001	-0.001	
,	(0.001)	(0.001)	(0.001)	
lune dummy variable	0.0004***	0.0005	-0.0001	
Jane canny fanazie	(0.001)	(0.001)	(0.001)	
luly dummy variable	0.002	-0.002	-0.002	
<i>july calling failable</i>	(0.001)	(0.001)	(0.001)	
August dummy	-0.002	-0.001	-0.001	
variable	(0.001)	(0.001)	(0.001)	
September dummy	-0.0001	-0.0002	0.00001	
variable	(0.001)	(0.001)	(0.001)	
October dummy	0.002	0.001	0.001	
variable	(0.001)	(0.001)	(0.001)	
November dummy	0.001	-0.001	0.001	
variable	(0.001)	(0.001)	(0.001)	
	(0.001)	(0.001)	(0.001)	

# **Table 3.** Linear Regression of Budget Supply Factors on the Urgency of DOD Communications.

(continued)

	Urgency score			
Independent variable	(1)	(2)	(3)	
Lagged urgency	0.208*** (0.045)	0.157*** (0.036)	0.140*** (0.036)	
Observations R <sup>2</sup>	694 .438	694 .438	694 .516	
Adjusted R <sup>2</sup> Residual standard error	.425 0.006 ( <i>df</i> = 677)	.425 0.006 (df = 676)	.499 0.006 (df = 670)	
F	33.038*** (df = 16, 677)	41.073***(df = 17, 676)	31.048*** (df = 23, 670)	

#### Table 3. (continued)

Note. DOD = Department of Defense.

\*p < .05. \*\*p < 0.01. \*\*\*p < .001.

This holds for the entire period of the sequester, and there is not a significant difference between the period directly before the sequester and after the cuts take effect. The budget category is positively correlated with urgency, meaning that budget documents are on average more urgent than non-budget documents. Finally, the period between the announcement and approval of the defense budget is also characterized by more urgent language. Although these effects may seem small, imagine the word "crisis," 'imminent,' or "threat" added to every thousand words published by the DOD. Taken together, these results are highly suggestive of a measurable increase in language when the budget is under negotiation, controlling for an increase in the discussion of the budget.

These results are necessarily dependent on the measurement of the dependent variable, and thus on the words included in the urgency dictionary. As with any dictionary method, ultimately the only way to know whether this dictionary is correctly selecting for documents with an urgent tone is to look at the documents with high and low urgency scores, as I do in Table 1. I have had multiple military professionals review the dictionary and provide feedback. I performed the above analysis several times as I expanded the dictionary from a core set of words using the KRL method, with substantive results remaining the same. For example, I replicated these results with a similar dictionary that included the names of countries like Iran and North Korea, which were considered threats to the United States in the period of study, in addition to the words used in this study, with no change in the significance or interpretation of results. However, with the scale of the dictionary (121 words), it is impractical to test the effect of the inclusion of each word individually.

# Conclusion

Previous formal and empirical work has suggested that agencies try to maximize their budgetary position vis-a-vis Congress through informational asymmetry. I propose and test a new mechanism by which this maneuvering occurs: public-facing communications. I look at the timing and tone of DOD public communications from 2005 to 2009 to argue that the DOD pursues a budget justification strategy driven by supply side pressures. I observe that during periods of budget supply pressure (during budget negotiations or during the U.S. Sequester) the prevalence of the budget in DOD public-facing communications increases, as does the urgency of all communications. I did not find support for increased budgetary demands having a similar effect.

Through the development of a topic model and a new dictionary to detect the level of urgency in DOD communications, I was able to develop separate measures of when (budget topic prevalence) and how (urgency) the DOD communicates with the public. Leveraging the shock of the 2013 sequester, I show that the DOD leverages its public communications to address potential budget shortfalls.

The DOD has a unique role as the arbiter of threats to national security. The finding that the urgency of their communication increases during periods of budget negotiation suggests that they are self-aware of this capability and use it for bureaucratic ends. More language emphasizing urgency and crisis during budget negotiations serves to justify increased appropriations: The Department is making a case for itself.

The defense budget is usually nonpartisan, and it seems that the department feels little need to advocate for itself more under divided government, under different administrations, or when its missions are expanded. This suggests that in general, when there are increased international demands on the DOD, there are also increased funds. However, when funding is scarce the Department is a clearly behaving as a bureaucratic actor. This has important repercussions for our understanding of the political role of the DOD domestically, and how the public plays into this. It also highlights the need for civil–military relations theories to expand their conception of agency–Congress interaction to include this public-facing behavior.

Finally, this work provides an early test of Carpenter's assertion that bureaucratic reputations are valuable political tools. By focusing on an agency that already has a strong reputation, I examine how this reputation is used in times of budget duress. Future work on bureaucratic reputation should compare similar communication strategies across agencies. The methods I have used here—primarily forms of automated text analysis- are promising avenues for the study of agency reputation and communication moving forward.

Although I have focused on urgency as a means of influence, future research should examine other potential mechanisms of reputation management. The audience costs literature suggests that governments care about their citizen's opinions on international issues. If this is the case, we would expect that the agencies in charge of implementing international policies are advocates for themselves and their policies with the American people. I have found evidence for this with regard to budget cycles, but we could also imagine it following administrative efforts to improve publicity of specific policies. In addition, rather than increasing the urgency of language, future research may investigate whether the DOD pushes more patriotic messages

following budget cycles or in the face of unpopular policies. It is also worth considering the varied audiences that the DOD faces. How does their communication change to address their own members, or international audiences?

In a domestic political context where the U.S. military is highly popular, the DOD's use of public communications as a means of budget advocacy suggests the importance of the public in the formation of the defense budget. There is significant evidence that public opinion toward military spending tends to closely mirror actual military spending (Eichenberg & Stoll, 2003; Hartley & Russett, 1992), but much more work needs to be done to examine how and how much the public has an influence on military spending. This research, at the least, suggests that the DOD considers public support for its mission to be an important resource. Its public communications reveal a strategic response to budgetary pressures, and a proactive effort to make the case for the agency among the American public.

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## **Supplemental Material**

Supplemental material for this article is available online.

## Notes

- The U.S. budget sequester of 2013 was a set of automatic U.S. federal spending cuts on a series of outlays including military spending. They were designed as a forcing mechanism to push Republicans and Democrats to come to an agreement on federal spending levels after the Debt Ceiling crisis of 2011. Compromise was never reached, and the sequester came into effect, cutting non-defense spending by 285 billion and defense spending by US\$485 billion over the period 2013 to 2021.
- 2. These are all the documents available on Nexis Uni, with duplicates removed. They were downloaded in April 2019. There are a few documents from 2002, but Nexis Uni does not include systematic references of DOD communications until 2005.
- 3. Data from the Department of Defense Comptroller website.

- 4. I put the beginning of the surge as Obama's announcement on December 2, 2009. The end of the surge is set at October 28, 2014 (after the decrease in troops).
- 5. The realized budget numbers come from the FY 2019 Defense Budget Overview, while the request amounts come from the Comptroller's website.
- 6. The "Sequester" refers to the spending cuts that went into effect in the United States after the country went over the "Fiscal Cliff" that resulted from political disagreements over the decision to raise the debt ceiling in 2012.
- 7. The sequester period is coded as beginning the first time Ben Bernanke publicly voiced concern over the economic effects of going off of the 'Fiscal Cliff' (February 29, 2012), and ending on the date the fiscal cliff problem was resolved by the passage of the Continuing Appropriations Act (October 17, 2013). The early sequester period begins on the same date but ends the date the sequester was due to take effect (January 1, 2013).

## References

- Bacevich, A. J. (2013). *The new American militarism: How Americans are seduced by war*. Oxford University Press.
- Banks, J. S., & Weingast, B. R. (1992). The political control of bureaucracies under asymmetric information. *American Journal of Political Science*, 36(2), 509–524. https://doi. org/10.2307/2111488
- Blankshain, D. J. D. (n.d.). A primer on U.S. civil-military relations for national security practitioners (p. 30). https://media.defense.gov/2020/Jul/07/2002449936/-1/-1/1/ BLANKSHAIN.PDF
- Carpenter, D. P. (2001). The forging of bureaucratic autonomy. Princeton University Press.
- Carpenter, D. P. (2002). Groups, the media, agency waiting costs, and FDA drug approval. *American Journal of Political Science*, 46(3), 490–505. https://doi.org/10.2307/3088394
- Carpenter, D. P. (2010). *Reputation and power*. Princeton University Press. https://press. princeton.edu/books/paperback/9780691141800/reputation-and-power
- Coletta, D., & Feaver, P. (2006). Civilian monitoring of U.S. military operations in the information age. *Armed Forces & Society*, 33(1), 106–126. https://doi. org/10.1177/0095327X05282530
- Congressional Budget Office. (2020, April 15). Discretionary spending in 2019: An infographic—congressional budget office, CongressionalBudgetOffice. https://www.cbo. gov/publication/56326
- Department of Defense. (n.d.). *Special report: Sequestration*. Sequestration. https://dod. defense.gov/News/Special-Reports/Sequestration/
- Eichenberg, R. C., & Stoll, R. (2003). Representing defense: Democratic control of the defense budget in the United States and Western Europe. *Journal of Conflict Resolution*, 47(4), 399–422. https://doi.org/10.1177/0022002703254477
- Epstein, D. O., & Halloran, S. (1999). *Delegating powers: A transaction cost politics approach to policy making under separate powers*. Cambridge University Press.
- Feaver, P. (2003). Armed servants: Agency, oversight, and civil-military relations. Harvard University Press.
- Fulbright, J. W. (1970). The Pentagon Propaganda Machine. Vintage Books.
- Gilad, S., Maor, M., & Bloom, P. B.-N. (2015). Organizational reputation, the content of public allegations, and regulatory communication. *Journal of Public Administration Research and Theory*, 25(2), 451–478. https://doi.org/10.1093/jopart/mut041

- Golby, J., Feaver, P., & Dropp, K. (2018). Elite military cues and public opinion about the use of military force. Armed Forces & Society, 44(1), 44–71. https://doi. org/10.1177/0095327X16687067
- Grimmer, J. (2010). A Bayesian hierarchical topic model for political texts: Measuring expressed agendas in Senate Press releases. *Political Analysis*, 18(1), 1–35. https://doi. org/10.1093/pan/mpp034
- Grimmer, J., Roberts, M. E., & Stewart, B. M. (2022). Text as data: A new framework for machine learning and the social sciences. Princeton University Press. https://press.princeton.edu/books/hardcover/9780691207544/text-as-data
- Grimmer, J., & Stewart, B. M. (2013). Text as data: The promise and pitfalls of automatic content analysis methods for political texts. *Political Analysis*, 21(3), 267–297. https:// doi.org/10.1093/pan/mps028
- Hartley, T., & Russett, B. (1992). Public opinion and the common defense: Who governs military spending in the United States? *The American Political Science Review*, 86(4), 905–915. https://doi.org/10.2307/1964343
- Hastings, M. (2012, May 18). Congressmen seek to lift propaganda ban. BuzzFeed News. https://www.buzzfeednews.com/article/mhastings/congressmen-seek-to-lift-propagandaban
- King, G., Lam, P., & Roberts, M. E. (2017). Computer-assisted keyword and document set discovery from unstructured text. *American Journal of Political Science*, 61(4), 971–988. https://doi.org/10.1111/ajps.12291
- Krause, G. A., & Douglas, J. W. (2006). Does agency competition improve the quality of policy analysis? Evidence from OMB and CBO fiscal projections. *Journal of Policy Analysis* and Management, 25(1), 53–74. https://doi.org/10.1002/pam.20156
- Manheim, J. B. (1991). All of the people, all the time: Strategic communication and American politics. M.E. Sharpe.
- Manning, C., Raghavan, P., & Schütze, H. (2009). Introduction to information retrieval (Vol. 16). Cambridge University Press. https://nlp.stanford.edu/IR-book/pdf/irbookonlineread ing.pdf
- Maor, M., & Sulitzeanu-Kenan, R. (2016). Responsive change: Agency output response to reputational threats. *Journal of Public Administration Research and Theory*, 26(1), 31– 44. https://doi.org/10.1093/jopart/muv001
- Nielsen, S. C., & Snider, D. M. (2009). *American civil-military relations: The soldier and the state in a new era*. Johns Hopkins University Press.
- Roberts, M. E., Tingley, D., Stewart, B. M., & Airoldi, E. M. (2013). *The structural topic model and applied social science*. Neural Information Processing Society.
- Shane, L., III. (2019, July 22). Survey: Public confidence in the military is high, especially among older generations. Military Times. https://www.militarytimes.com/news/pentagon-congress/2019/07/22/survey-public-confidence-in-the-military-is-high-especiallyamong-older-generations/
- Stairs, D. (1998). The media and the military in Canada: Reflections on a time of troubles. International Journal, 53(3), 544–553. https://doi.org/10.1177/002070209805300310
- Teigen, J. M. (2013). Military experience in elections and perceptions of issue competence: An experimental study with television ads. *Armed Forces & Society*, *39*(3), 415–433. https://doi.org/10.1177/0095327X12451561

- U.S. Government Accountability Office. (2013). Sequestration: Observations on the Department of Defense's approach in fiscal year 2013 (GAO-14-177R). https://www. gao.gov/products/gao-14-177r
- Whitlock, C. (2013, July 7). Somali American caught up in a shadowy Pentagon counterpropaganda campaign. Washington Post. https://www.washingtonpost.com/world/ national-security/somali-american-caught-up-in-a-shadowy-pentagon-counterpropaganda-campaign/2013/07/07/b3aca190-d2c5-11e2-bc43-c404c3269c73\_story.html
- Wyckoff, P. G. (1990). The simple analytics of slack-maximizing bureaucracy. *Public Choice*, 67(1), 35–47. https://doi.org/10.1007/BF01890155

## **Author Biography**

Leah Matchett is a PhD Candidate at Stanford University, working on the domestic politics of international security.