Defense Appropriations: The Process, Politics, and National Security Implications

By

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Rich Hagner
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Chapter 1: Introduction to the Dissertation

The defense appropriations process is an understudied portion of American politics despite its importance for domestic and international politics. Much of this neglect is due to a lack of access to the process and those who influence it. As a result, most of the work on appropriations and budgetary politics black-boxes defense appropriations, missing opportunities to better understand and apply theories important to political scientists. This dissertation explores the politics of the process and identifies mechanisms that lead to defense appropriations outcomes. These outcomes have significant electoral and national security implications.

In the following chapters, I explore political aspects of the defense appropriations process that are often overlooked in existing research. These considerations – how decisions are made throughout the process, the ability of elites to influence public support for defense spending, and the oversight role of Congress – all illuminate aspects of defense appropriations and provide new avenues to apply and test our understanding of politics. The major contribution of this research is that it presents a unique and complicated process in a way that is understandable, comprehensive, and illustrative, thus identifying a largely untapped portion of politics in which spending and policy decision are made.

1.1 The Contours of Defense Appropriations

In Chapter 2, I provide a descriptive account of the defense appropriations process. Defense spending plays a large role in both domestic and international politics, yet the defense appropriations process is largely opaque to scholars. While significant work has been done on budgetary politics, most of this research focuses on macro-level political dynamics and neglects the micro-level incentives and decisions that play a significant role

in outcomes. Using interviews with congressional staff, Department of Defense leaders, and Office of Management and Budget officials, this paper provides a holistic description of the defense appropriations process that captures the multi-level political exchanges that influence spending outcomes. From this analysis several implications emerge for our understanding of domestic and national security politics.

Chapter 2 proceeds as follows. First, I provide a brief review of what the existing scholarship reveals about defense appropriations and highlight where more work needs to be done. I then discuss the methodology of my semi-structured interviews with individuals who have first-hand knowledge of the process – those who operate daily in the politics of defense appropriations. I then proceed to describe the three phases of the defense appropriations process: budget formulation, congressional lawmaking, and budget execution. In the budget formulation section, I describe interactions between DoD and the Office of Management and Budget prior to the release of the president's budget request to Congress. I then describe the defense appropriations process within Congress, including interactions between the various committees of jurisdiction as well as interaction between the Department of Defense and, the Office of Management and Budget (OMB) – the president's executor of budget policy, and Congress. Finally, I describe the budget execution process with a specific focus on the ability of Congress and the president to influence DoD's execution of appropriated funds. I conclude by discussing the process as a whole, summarizing the implications for current political science research identified at each phase of the process.

1.2 Elite Cues and Defense Spending

In Chapter 3, I examine the effect of elite cues on public opinion of defense spending. American voters have multiple sources to turn to when determining opinion on policy issues. Scholars have shown that elite cues play a significant role in shaping public

opinion, particularly among partisans. On issues of national security policy, scholars have also demonstrated that on decisions about whether or not to use military force, the public takes cues from military leaders. But how do military and partisan cues influence public opinion on defense budgets? How do those effects compare to each other?

Chapter 3 examines elite cues to determine their effect on public support for defense spending decisions. Tod o this, I employ a series of experiments in which subjects must weigh realistic scenarios when determining support for spending decisions. The results reveal that, in general, partisan cues effect public opinion in a predictable manner. In contrast, military elite cues do not move public opinion in a consistent manner on defense spending. The effects of military cues vary based on the issue being discussed and the partisan identification on the individual. Further, the presence of a military cue can increase polarization on certain defense spending issues. These findings are important for understanding the limits elite cues have on moving public support for defense spending issues.

1.3 Misaligned Incentives and Defense Appropriations Outcomes

In Chapter 4, I further explore the unique interaction between the Department of Defense and Congress during the defense appropriations process. When it comes to defense spending, the Department of Defense (DoD) and Congress have interests that partially overlap (protect against national security threats) and partially conflict (policy priorities and distribution of resources). Given the transparency of the process in open democracies, they also have a secondary concern, revealing capability gaps to adversaries through spending decisions. How then, do we end up with spending decisions that (1) do not address capability gaps, (2) fund items not required for national security, or (3) do both?

To answer this question, I develop a model of incomplete information that accounts for DoD's private information about capability gaps, concern about information revealed

to adversaries, and the oversight capacity of Congress. Using this model, I identify two perfect Bayesian equilibria of interest. The first produces an outcome in which DoD only makes genuine funding requests and Congress always approves them. The second, surprisingly produces a result in which DoD withholds some genuine requests, but also has an incentive to make more opportunistic requests. The nature of the equilibrium depends on Congress's oversight capacity and willingness to punish when DoD takes advantage of its private information to present opportunistic requests. To complement these results, I use interviews with DoD officials and congressional staffers to provide a better understanding of the parameters of the model and funding outcomes.

Chapter 2

Chapter 2: The Contours of Defense Appropriations: Process and politics of funding national security requirements in the United States

"After years of devastating cuts, we are rebuilding our military like never before" –President Trump (Fort Drum, New York 2018)

2.1 Introduction to the Chapter

Defense spending has been an essential component of the politics and performance of the Trump presidency. Through the appropriations process, President Trump has been able to claim credit for following through on campaign promises to build and modernize the military. Speaking to troops at Fort Drum, President Donald J. Trump touted the robust increase in funding he and Congress provided to the Department of Defense (DoD) (O'Brien (2018)). This is a common theme in the president's public appearances. In addition to claiming credit for the increase of defense funding, the president leveraged his discretionary powers over spending to accomplish other policy goals. His decision to transfer $2.5 billion of appropriated defense funds to construct a border wall is the starkest example (Barnes (2019)).[1] President Trump's actions illustrate just how important defense budgeting and spending are for implementing policy and generating electoral support.

Defense appropriations are relevant to a host of issues political scientists strive to understand. With defense spending set at $716 billion (17 percent of the federal budget) in 2019 (Stein (2018)), the defense appropriations process determines roughly 60 per-

[1]Executive Order 13767, "Border Security and Immigration Enforcement Improvements," was published in January 2017. The decision to transfer funds was in support of this executive order. Text can be found at https://www.whitehouse.gov/presidential-actions/executive-order-border-security-immigration-enforcement-improvements/.

cent of the discretionary budget. Defense budgets can help members of Congress bring federal dollars to their districts, provide for special interest programs, and support re-election constituencies, including military personnel and contractors. Defense spending also directly impacts national security policy and the ability of the United States to deter adversaries and reassure allies. Indeed, the funding request provided by the DoD is generated to support the National Security Strategy (NSS) – an official document developed by the National Security Council (NSC) to provide direction on the security priorities of the United States. Decisions made during the defense appropriations process directly impact what the military is and is not able to accomplish.

While funding for the DoD has increased over the past couple years , and while the president has used his executive discretion to move money, this process is still obscure to scholars. Research on defense appropriations is limited, technical, and apolitical. One reason for the dearth of research is the difficulty scholars have accessing decision makers in Congress, the DoD , and the Executive Office of the President, often due to the sensitive nature of decisions being made.[2] Resulting research on defense budgets and appropriations has therefore often focused on macro-level observations (e.g. categorizing the president, Congress, and agency as unitary actors) of the process rather than on the internal dynamics that are also important for outcomes.

In this paper I describe defense appropriations in a way that illuminates the actors and incentives at the various stages of the process in order to provide a better understanding of a complex process and apply it to our understanding of domestic and national security politics. This account is sensitive to the politics of defense budgeting, including the political motives of key participants at various stages of the process, from budget

[2]One recent exception is Heidi Brockmann Demarest's book *U.S. Defense Budget Outcomes: Volatility and Predictability in Army Weapons Funding* (Demarest (2017)). Demarest's book exposes some of the political interactions leading to the approval of Army weapons funding, but it is limited to the Army process and specific to weapons procurement.

formulation to legislative appropriations to budget execution. I use existing research, key government documents, interviews with 20 decision makers involved in the budgeting process, and personal experience to shed light on this often obscure policy making process. In this sense, the paper moves the field forward by delving into a deeper level of detail for a process that is traditionally unobserved. I describe multiple levels of political interactions that can have an effect on defense spending outcomes.

2.2 Defense Appropriations - The Black Box

While important work has been done on budgetary politics, most of it focuses on the macro-level interactions between institutions, and the literature on defense appropriations has had a hard time keeping up with legal and political changes. The most prominent scholarship focuses on the budget process in its most general form, introducing readers to the contours of the budget process by black-boxing the internal deliberations within Congress, DoD, and the executive, particularly when issues of defense policy are concerned (e.g., Wildavsky (1964); Shuman (1984); Schick (2000)). The work that has been most attentive to the details of the defense appropriations process has become outdated, failing to capture key changes to law and practice. Work that accounts for these changes focuses on describing technical details related to parts of the process at the expense of exploring larger causal forces.

Although there has been a significant amount of work on the domestic side of the federal budget, there are several important differences between domestic and defense budgeting. First, there is arguably more at stake with defense budgeting, as it directly impacts the security of the nation's citizens from external threats. Second, more of it is classified. Oversight is more costly for both OMB and Congress, making each more reliant on DoD for information. Third, the defense budget is larger than any other discretionary budget, making it harder to monitor. As I will show, the result is a process that, in

contrast to domestic budgeting, (1) is driven more consciously by a national strategy document, (2) proceeds on different timelines, and (3) involves a different relationship between agency and political officials.

The canonical work that furthered our understanding of budgetary politics is largely focused on macro-level factors and has become outdated. Much of this early work focused on the struggle for control over government spending between the president and Congress. For example, Aaron Wildavsky's classic book, *The Politics of the Budgetary Process* describes the process in the context of interactions among actors and the resulting outcomes, ultimately developing his theory of budgetary incrementalism (Wildavsky (1964)). Similarly, Howard E. Shuman's seminal work on the subject, *Politics and the Budget: The Struggle Between the President and the Congress*, explains a portion of this political struggle related to budget outcomes by providing an overarching description of executive and congressional roles in the budget process (Shuman (1984)). He then uses qualitative examples from the Nixon and Reagan administrations to explain the constitutional contest between the president and Congress that led to the Budget Reform Act of 1974.

In work specific to defense spending, scholars during this period described the increased oversight role of authorizing committees in the budget process. The members of the authorizing committees (i.e., authorizers) are responsible for establishing which programs can be pursued by agencies and how much money can be spent on them. Appropriators are responsible for determining how much funding is allotted to those programs. Notably, Congress expanded the power of the Armed Services Committees in the House and Senate, requiring that defense programs be reauthorized every year. Most other programs have indefinite authorizations or require reauthorization less frequently – say, five years (Gordon (1961); Stephens (1971)). These works describe how empowering the Armed Services Committee allowed Congress to gain a better understanding of the

spending decisions made by the president and DoD and to increase congressional influence over those decisions. Other scholars described the tools that Congress put in place to gain greater control over budget execution. Specifically, Congress reformed the appropriations process by placing greater limits on reprogramming – the process in which agencies transfer appropriated funds from one program to another (Fisher (1974)).[3] These changes limited the president's ability to unilaterally make decisions of how appropriated funds are used. These changes collectively facilitated increased oversight through regular reviews of spending decisions and restrictions on spending flexibility (Kanter (1979)).

This early work on budgetary politics and its effect on defense spending provides a good foundation for understanding the macro-level political contest for control of the budget and how that contest effects defense policy. However, the publications that make up that body of work were written prior to key changes in the budget process that further empowered Congress. Arguably, the largest change came when Congress enacted the Budget Enforcement Act of 1990 (BEA). The BEA altered the process in two ways that significantly impact defense appropriations. First, the act set caps on discretionary spending and implemented "pay-as-you-go rules for revenue and direct spending" (Schick (2000)). Thus, the Appropriations Committees now have to operate within a set amount of funding for each subcommittee: that is, adding funds to one program requires reducing funds to another. This change affects decisions throughout the process. Second, the BEA requires agencies to project their funding requests for the next five years. This change helps Congress better put presidential requests for budget changes into context. Prior to this change, the president's budget request addressed only the next fiscal year, putting the burden on congressional staff to identify changes in priorities or programmatic

[3]There is a distinction between transfers and reprogramming: transfers refer to the movement of money between accounts, whereas reprogramming refers to the movement of money within accounts. For reasons discussed later, DoD has discretion to do both, and these actions are commonly referred to as the reprogramming of funds.

deficiencies.

In addition to these procedural changes, the political environment has changed over the last several decades. The increased polarization of the two political parties (e.g., Poole and Rosenthal (1984); Kam (2005); Druckman et al. (2013)), weaker electoral incentives to deliver government funding to districts (e.g., Mayhew (1974); Grimmer (2013)), and the regular partisan struggle for control of Congress (see Lee (2016)) are arguably all departures from the state of the world in which earlier work was written. This increased polarization and focus on party electoral priorities has reduced the importance of across-the-aisle distributive politics and made bipartisan agreement on defense appropriations harder to achieve. The combination of these alterations in the political environment and the procedural changes noted above produces a multitude of micro-level interactions (those between individuals within and across institutions) and decisions that influence the overall outcome of the appropriations process.

Some scholars of budget politics discuss how these procedural and environmental changes influence the broad contours of budget politics, providing valuable insight into how the process driving the outcomes has evolved. For example, Allen Schick provides a detailed account of the formal federal budget process spanning the formulation of the president's budget request to an explanation of obligations and expenditures (Schick (2000)). With a focus on the shift from deficit to surplus during the Clinton administration, Schick describes the interactions between the president and Congress, but he focuses almost exclusively on domestic programs. Other scholars have been effective in describing the modern budgeting process while accounting for changes in the political environment (Wildavsky and Caiden (2004); Krause and Cook (2015); Gosling (2016); Dearborn (2019)). These scholars provide valuable insights into the various political issues when budgeting at the local, state, and federal levels. As with earlier work, these efforts focus on the more general aspects of budgeting that are applicable across these

levels, and defense spending is mentioned only in passing, leaving a large portion of the federal budget unexplored. Similarly, scholars doing research on legislative appropriations outcomes (e.g., Crespin and Rohde (2010); Woon and Anderson (2012); Hanson (2014)) and distributive politics (e.g., Berry et al. (2010); Hudak (2014); Kriner and Reeves (2015)) provide important insight into how legislators and executives use appropriations to help them get reelected, but this is usually in the context of domestic appropriations.[4] These scholars have advanced our understanding of the role formal processes play within various lawmaking structures, how those processes determine outcomes, and how those outcomes lead to political payoffs.

Scholars have begun to examine the modern world of defense budgeting, but this work is often technical and apolitical. Philip Candreva provides an up-to-date account of defense budget development within the Pentagon (Candreva (2017)). He provides a detailed description of the Planning, Programming, Budget, and Execution (PPBE) process – the new system used to generate budget estimates directed by the BEA – and the current organizational structure of the Office of the Secretary of Defense (Comptroller) (OSD-C), including its relationship with the offices of the service secretaries. In her work on funding Army weapons systems, Demarest details some of the interactions between congressional staff and DoD officials (Demarest (2017)). The Congressional Research Service (CRS) has produced documents describing parts of the process, also in an apolitical manner.[5]

In total, however, there is little current work on the defense appropriations process

[4]Scholars have also researched budgetary politics at the state level (e.g., Alt and Lowry (2000, 2003); Lowry (2003)).

[5]Papers published by CRS describe the Future Years Developmental Plan (FYDP) (Williams and Peters (2018)), the PPBE (Williams (2016)), and Continuing Resolutions (CR) (Williams and Roscoe (2018)). These documents, written specifically for members of Congress, provide a great secondary resource for understanding the technical aspects of the process. However, they simply describe the processes and omit the politics that drive the decisions within them.

that describes the politics of decision making inside and among DoD, Congress, and OMB. In what follows, I take advantage of unique access to key documents, processes, and officials to describe the defense budget process from executive formulation to appropriations to execution.

2.3 Peering into the Black Box

To provide a detailed description of the current defense appropriations process that is comprehensive, accessible, and attentive to the political nature of the process, I rely on existing literature, government documents, and in-person interviews with officials working in OMB, Congress, and the DoD. Existing sources provide a starting point for understanding the formal processes used by the institutions involved: he presidency, Congress, and DoD. Additionally, documents from both Congress and DoD capture the priorities and considerations of the respective staff during the appropriations process. Some of these documents are easily accessible, including budget resolutions, the president's budget request, and appropriations reports. Other documents were used for internal DoD briefings or presentations by DoD to Congress. These documents and my discussions with staff helped inform the descriptions and graphics I use to describe this complex process.

2.3.1 Semi-Structured Interviews

Most important to this paper are the interviews with officials in the administration, Congress, and the DoD.[6] A typical interview lasted 45 – 60 minutes and was conducted

[6]It is important to acknowledge that this access was time specific, thus shaping the pool of interviewees available to me. Interviews were conducted in 2018 and 2019. During this period, the Republicans had control of the White House. During the first interviews in 2018, Republicans had control of both chambers of Congress. While I was able to speak with officials from a good mix of political backgrounds, the sentiments expressed could be a function of the current political environment. For this reason, I

in the official's office. In advance of each interview, the official received a description of my project and the guidelines I was following in order to protect their identity. Some officials requested the list of questions in advance, which I provided. I used the list of interview questions provided in the appendix as a guide, but I allowed the officials the flexibility to discuss aspects of the process they felt were important or may be overlooked. I was particularly interested in the roles and interactions of the actors involved in the process. For example, I asked questions like "What is your role in OMB/Congress/DoD as it relates to the defense appropriations process?" and "What interaction do you have with OMB/Congress/DoD?" in order to compare answers. I used the interviews to establish the timeline and focal points of the process, identify areas in which various participants can influence the outcomes, and illuminate friction points that result from conflicting incentives. These micro-level details provide a better understanding of the politics that drive each stage of the process.

When the interview was complete, I typed up my notes and sent them to the interviewee for review. Often, I included follow-up questions to clarify or expand on what was discussed in the interview. For example, in one case a congressional staffer mentioned general transfer authority. By asking for clarification on this comment, I was able to learn more about the transfer restrictions Congress included in the bill versus those included in the report. (This point is significant, and I discuss this in more detail later.) In almost all cases, officials were happy to answer my follow-up questions. After reviewing notes for accuracy, interviewees returned the notes to me for use in this project.[7] This method

focus on responses strongly relevant to the politics of the process and not those more salient partisan issues specific to the time of the interview.

[7]There may be concern that this interview method would reduce what information was captured in the interview because it provides the subject a chance to delete comments. This was not the case. More often than not, the document was returned with additional information that contributed to a better understanding of the process.

– sharing the transcript with the interviewee and asking for clarifications or corrections – had two distinct benefits. First, the officials understood their information would be handled confidentially, which allowed them to speak more openly. Second, the officials were able to drive parts of the interview. This interaction illuminated parts of the process that I may not have otherwise considered important.

For the Executive Office of the President, I focused my efforts on the OMB. OMB plays a key role in all parts of the budget process, and my questions were geared toward OMB's role in the development of the president's budget request (formulation), its interaction with DoD and Congress (appropriation), and its ability to influence the execution of funds after they are appropriated (execution). I interviewed congressional staff of the Budget Committees and the Appropriations Subcommittees for Defense – staff of both the majority and the minority parties.[8] These interviews were designed to clarify the role each committee plays, how the respective committees interact with one another, and the incentives driving decisions made during the process. This is important since the three different types of committees – budget, authorizing, and appropriating – all claim some part of the process. When interviewing those within DoD, I interviewed officials involved in budget formulation and execution at both the Office of the Secretary of Defense and the service level (e.g., the Department of the Army). These questions focused on the inner workings of the DoD budget process, such as interactions among services, interactions with Congress and OMB, and the incentives that must be considered at each decision point. In all, I conducted twenty interviews.[9]

[8]Given the change in the House of Representatives between interview periods, some staffers changed from the majority party to the minority party. Almost all staffers interviewed had experience being in both the majority and the minority.

[9]Interviews included six congressional staff, three OMB staff, and 11 DoD officials. Some individuals had experience in multiple categories.

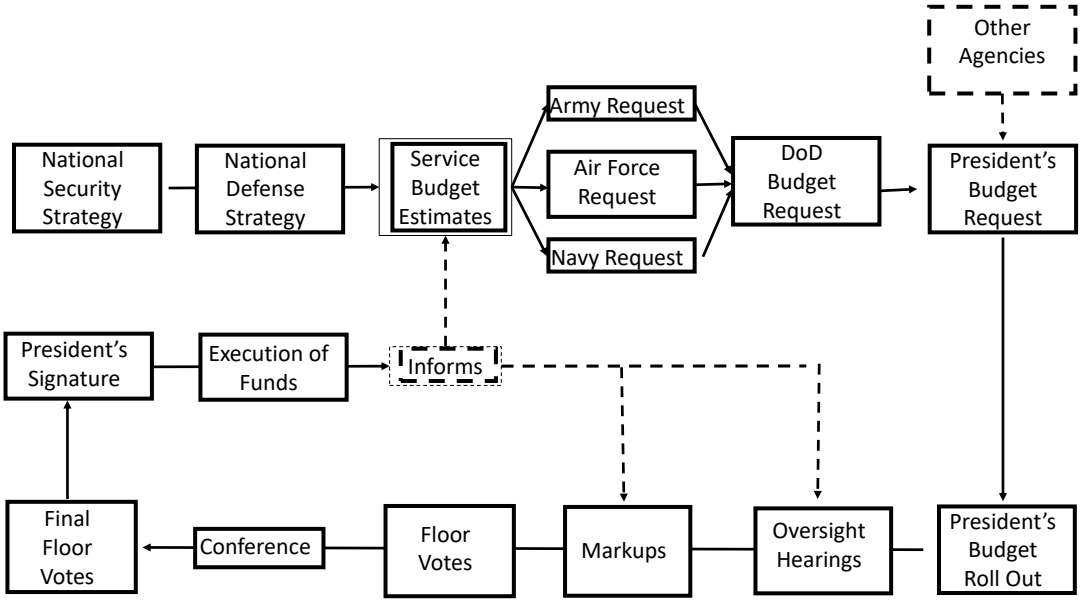
2.4 Thinking in (Simplified) Time

Staff within the DoD are always working on the budget and on different parts at the same time. They are planning for the next fiscal yearâs proposal while arguing for this yearâs appropriation and managing last yearâs allocations. And they are doing this in the context of larger five-year plans. The processes are overlapping and occurring in parallel, and what happens in this yearâs spending can affect next yearâs budget and the request for the following year. The easiest way to understand the process is to first look at the stages of one budget cycle from start to end, absent the complexities that exist when the cyclical process is in motion. Figure 2.1 provides a simplified overview of the full defense appropriations process from the administration's publication of national security priorities to the spending of appropriated funds. Each stage of this process is described in more detail below, but it is useful to picture one iteration of the process in isolation.

The entire process is informed by the National Security Strategy (NSS). The Goldwater-Nichols Department of Defense Reorganization Act of 1986 requires that the president produce the NSS annually and present it to Congress with the budget request (Dale (2013)). The NSS, as its name suggests, details the security priorities of the nation and a whole-government approach to accomplishing them. In response to the NSS, the secretary of defense develops the National Defense Strategy (NDS), defining how the military will support the NSS.[10] (The NDS is distinct from the NSS since other parts of the government play a role in national security.) Then DoD and the military services within DoD develop their budget estimates, identifying the funding required to support these

[10]There are several other documents that assess threats and inform both the NSS and the NDS, including the Quadrennial Defense Review. For a better understanding of these documents and their relationship to one another, see the Congressional Research Service report *National Security Strategy: Mandates, Execution to Date, and Issues for Congress* (Dale (2013)).

Figure 2.1: The Process, Simplified



Above: This diagram depicts the full appropriations process. This process begins with guidance from the National Security Strategy and ends with the execution of fund provided in the Defense Appropriations Bill.

strategies.[11] In accordance with the BEA, officials are required to estimate spending five years out.[12]

Next, the military services (Army, Navy, Air Force, and the recently created Space Force) submit their budget requests for the upcoming fiscal year to DoD. DoD aggregates these requests after some back-and-forth with services and then submits its overall request, just as all other agencies do, to OMB. OMB takes all agency submissions, including those from DoD, and uses them to formulate the president's budget. The OMB process usually involves some back-and-forth between OMB and the agencies to make sure requests are in line with the president's priorities. OMB works to shape DoD's budget request to meet the overarching budget goals of the president.

The president's budget request is then submitted to Congress to kick off the congressional phase of the appropriations process. The House and Senate Budget Committees, Armed Services Committees, and Appropriations Committees' Subcommittees for Defense (HAC-D and SAC-D , respectively) conduct hearings and markups.[13] The defense appropriations bills move to the respective chamber floors for a full chamber vote. The two chambers then resolve differences in the bills in a conference committee comprising members from both chambers. Once these differences are resolved, the final version of the bill is returned to the House and Senate in identical form for final passage, after which it is sent to the president for signature. Once the bill becomes law, the DoD

[11]The military services constitute a key part of DoD, but the department also includes many other components, such as the Defense Intelligence Agency and the Defense Commissary Agency.

[12]This can be problematic for incoming presidents who inherit budget estimates based on the last administration's security priorities.

[13]During this time, the authorizers on the House and Senate Armed Services Committees are also going through their process of developing the National Defense Authorization Act (NDAA). This is significant. In order for DoD to use funds, it has to be both authorized in the NDAA and appropriated in the defense appropriations bill.

begins executing the appropriated funds.[14] During this phase, the president's ability to influence spending decisions increases through mechanisms such as apportionment, reprogramming, and transfers. As will be discussed later, there are limitations to the use of these tools and potentially significant consequences when Congress believes they are being abused.

Several factors in the execution phase are used to inform the following year's budget estimates within DoD and the actions of Congress during oversight hearings and the committee markup process. With this information in hand – along with the NSS, the NDS, and past years' estimates of spending – the process begins again.

As discussed below, this process in constantly in motion. At each stage there are multiple actors with vested interests in the outcomes the appropriations process produces. To further describe this process, the actors, and their incentives, the following sections break the process down into three main phases: the president's budget request, congressional appropriations, and budget execution.

2.5 The President's Budget Request

Two unique processes inform the development of the president's budget request. The first is the NSS process, which establishes the security priorities for the nation. The second, which is more formal, is the Planning, Programming, Budgeting, and Execution (PPBE) process, used to analyze the security strategy, to determine the resources required to execute it, and to establish a budget to fund those resources. The PPBE process, described in more detail below, produces the Future Years Developmental Plan (FYDP) – the five-year projection of requirements mandated by the BEA. Given the length of the

[14]Both OMB and Congress have a significant role during this period. OMB establishes apportionment guidelines, setting the rate at which DoD can spend appropriated funds. Both OMB and Congress have a role in DoD's ability to transfer funds through reprogramming.

process, it often overlaps administrations. With each new administration developing its own NSS, there can be frictions between the formal PPBE process within the Pentagon and the changing national security priorities.

2.5.1 National Security and National Defense Strategies

The president's budget request begins and ends with the NSS and the NDS developed by the National Security Council (NSC) and the secretary of defense, respectively. Created by the NSC, with guidance from the president and input from the cabinet secretaries, the NSS provides a comprehensive, overarching strategy for national security. This strategy establishes diplomatic, information, military, and economic efforts pursued by the administration. By law, the president is supposed to present an NSS with each budget request. Given the time required to produce a comprehensive NSS, the administration traditionally publishes one and then supplements it with a classified Defense Planning Guidance (DPG). The DPG allows the administration to adjust the NSS in order to respond to changes in national security priorities during a president's tenure.[15]

The NSS provides broad guidance on military and diplomatic goals to protect the American homeland and confront present or emerging threats. Most versions of the NSS include sections on protecting American interests or prosperity, on increasing or preserving American strength throughout the world, and on a prioritization of regional focus.[16] From this broad guidance, the DoD develops the NDS. Often, the NSS and the

[15]For reasons discussed later, the delay in the production of the NSS and the classified nature of the annual DPG can become sources of friction when the DoD and Congress discuss the president's budget request.

[16]For example, President Trump's 2017 NSS covers four pillars: (1) Promote the American People, the Homeland, and the American Way of Life; (2) Promote American Prosperity; (3) Preserve Peace through Strength; and (4) Advance American Influence. It can be found at https://www.whitehouse.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905.pdf

NDS are written in coordination. The NDS provides more detail as to the military's role in implementing the NSS, offering an assessment of current threats, capability gaps, and resourcing priorities. In coordination with the NSC, the secretary of defense identifies and sets priorities for the capabilities required to meet the objectives established in the NSS.[17] Identifying and prioritizing efforts sets the foundation of DoD's budget request process. During the appropriations process, both documents are used by DoD to justify the president's budget request, used by Congress to question the decisions made by DoD, and used by the Office of the Executive to justify transfers between accounts.

Though neither document is binding, both the NSS and the NDS are used by actors in each stage of the process to justify their decisions or proposed changes. Individuals able to provide the most compelling argument connecting their desired outcomes with these two documents have an increased chance for realizing their desired outcomes.

2.5.2 Creating the President's Budget Request

The president's budget request is the culmination of a five-year process driven by the PPBE system, which is informed by the priorities set in the NSS and the NDS. It provides constant analysis of programming requirements, the amounts appropriated toward those programs, and the funding spent in order to construct the FYDP – the five-year projection required by the BEA. The FYDP then informs the defense portion of the president's budget request. While the technical aspects of how DoD develops this budget request are important, they do not in themselves lead the outcomes of significant interest. Those outcomes – the decisions of what to request, what not to, and at what levels – are mainly determined the year prior to the budget request through a series of

[17]It is important to note that the NDS is a product of the secretary of defense who, by nature of his appointment, is a member of the administration. The chair of the Joint Chiefs of Staff also produces a National Military Strategy, which is a DoD military document but which is not viewed as a driving factor of the budget process.

decision points within DoD and between DoD and OMB.

In October the process for building the following year's defense budget request begins in earnest and culminates with the rollout of the president's budget request to Congress in February. This is significantly different from the budget requests of other agencies that begin in February, as soon as the last president's budget request is submitted to Congress.[18] This process involving OMB, the Office of the Secretary of Defense (OSD), and the individual services focuses on adjustments to the current budget and features multi-level interaction and negotiations. Figure 2.2 below depicts the primary players along with the inputs and outputs that lead to the finalized president's budget request.

The center column of Figure 2.2 depicts the hierarchical structure of the budget formulation process. The column to the left depicts the inputs at each level that drive the budget formulation process. As mentioned, the NSC, with guidance and approval from the president, publishes the NSS and in subsequent years, the DPG. The secretary of defense publishes the NDS and the service secretaries publish their respective planning guidance. Only the Army, Navy, and Air Force have appointed service secretaries; the Marine Corps falls under the department of the Navy.[19]

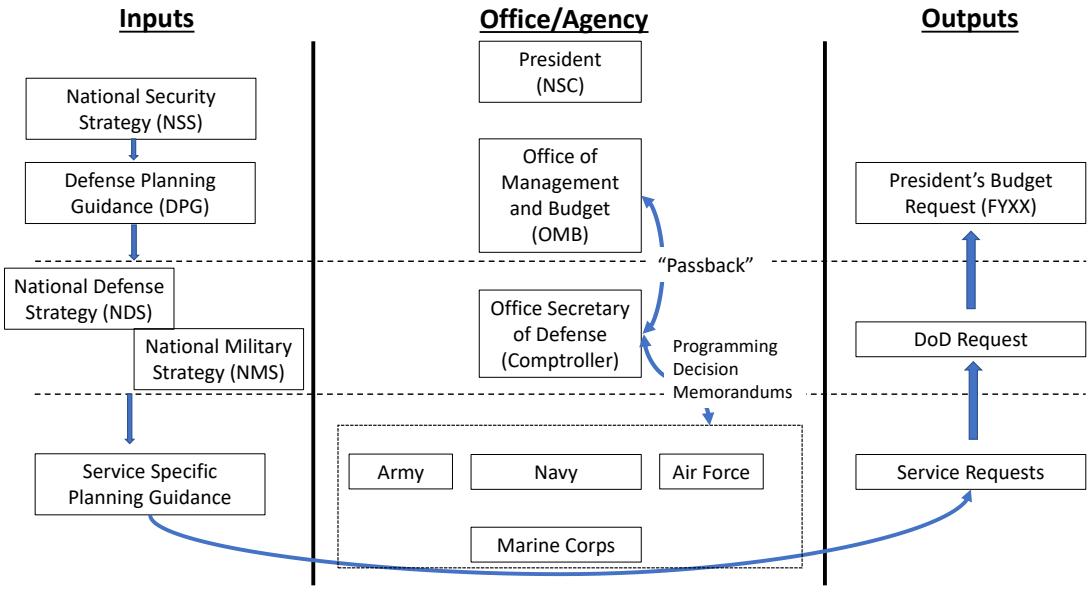
The process begins in October. When the services start their work, they have two sets of guidelines in hand. First, agencies have top-line budget caps from OMB. As one OMB official told me, this top line is more of a range and is based mainly on administration policy and changes in the security environment,[20] but it is also informed by what the

[18]While the budget formulation process for a given fiscal year technically begins as soon as the last president's budget request is submitted to Congress, most of the significant changes are made from October to February. Two factors drive this. First, by October, it is largely known what is being appropriated within the previous president's budget request. Second, changes in the national security environment and administrative priorities are more clearly known.

[19]This point becomes more important during the congressional phase when issues of advocacy and appeals arise.

[20]For example, a national security threat from a country or non-state actor may emerge, requiring

Figure 2.2: Process: Developing the president's budget request



The president's budget request is derived from requirements to support the national security strategy. Interactions between the administration, DoD, and the services determine the resources requested. The services begin forming their budget estimates in October. Passback between DoD and OMB occurs in December. The president's budget request is finalized late January and submitted to Congress in February.

administration believes Congress is willing to approve. Using OMB's guidance, the Office of the Secretary of Defense provides similar top-line guidance to the services. Second, the services have guidance from previous years' work on the budget through the PPBE process. This process provides information on which programs are on schedule, which are behind, and whether any of them require changes to their funding level. It also identifies the effects of actions taken by OMB or Congress during the previous appropriations cycle. (More on this later.)

Refinement of the budget requests occurs at two different levels (as denoted by the dotted lines in fig. 2.2). The first is between the individual services and the Office of the Secretary of Defense (Comptroller) (OSD-C). The year leading up to the release of the president's budget request begins with broad guidance from OMB regarding the top line for the request for defense. This guidance is provided to all agencies soon after the previous president's budget request is submitted to Congress in February. The second is between OSD-C and OMB. Multiple interviews with service, OSD, and OMB officials have shed light on how these interactions occur.

2.5.3 Service Requests and "Programming Decision Memos"

The formalized PPBE process provides the initial starting point for each service as it determines what to include in its budget request.[21] Each year, the services (and other components of DoD) provide a five-year Program Objective Memorandum (POM) to OSD-C. The POM allows the services to project requirements out another year, but it also provides an opportunity to adjust the more near-term projections. In this sense, the biggest possibility for change is in the latter years, three to five years down the

additional funding. Similarly, a predicted threat may no longer be present.

[21] As mentioned earlier, there are several good sources that better explain the technical aspects of this process. Given my interest in the political interactions and outcomes, that process is beyond the scope of this paper.

road, though opportunities to make adjustments arise leading into the president's budget request. Given that requirements and funding are generated five years ahead of the president's budget request, the POM provides the services with the predictability required to manage programs and the associated accounts. The Office of Cost Assessment and Program Evaluation (CAPE)[22] integrates the service POMs, develops the DoD POM, and creates the Budget Estimate Submission (BES) , which covers the first two years of the POM. The first, or most recent year, of the BES is what comes under consideration for the next year's president's budget request.

Each service refines its request based on guidance from OSD-C. This guidance reflects anticipated changes in funding levels and information from CAPE on the prioritization of programs. The services may have some flexibility as to how they apply this guidance across accounts. For example, the Army includes five primary accounts in its request: operation and maintenance (O&M); procurement; military and personnel (MILPERS); research development testing and experimentation (RDT&E); and military construction (MILCON). If informed of a need to reduce the overall amount requested, it may choose to prioritize investment in RDT&E over that of O&M. In some cases, however, the services do not have flexibility.

2.5.4 Programming Decision Memorandums

In early December, OSD-C issues Program Decision Memorandums (PDMs) back to the services based on Program Budget Decisions (PBDs) made by OSD and CAPE. The PDMs can require an increase or decrease of funding for a program or end a program altogether. According to one OSD appointee, around 100 PDMs are issued each year. Decisions regarding a program's future can be based on changes in available funding

[22]CAPE resides at the Office of the Secretary of Defense and is responsible for pragmatic decisions across DoD.

(budget cutbacks or increases), program performance (programmatic delays or accelerations), or investment priorities (decisions on how to support the NSS and the NDS). This OSD appointee explained that the NDS is used to inform these decisions and the PBDs help refine the service requests to be more in line with DoD requirements. This phase of the process becomes contentious between the services within the Pentagon due to the politics involved. It is the biggest opportunity for DoD leadership (i.e., appointees) to adjust each service's BES and make changes to the outputs of the PPBE process. Once complete, DoD submits the defense request for inclusion in the president's budget request.

2.5.5 DoD Request and "Passback"

In mid-December DoD submits its request to OMB for inclusion in the president's budget request. Similar to the review OSD-C conducts of the service requests, a process called *passback* is executed by the OMB. One OMB official familiar with the process described this passback phase as a negotiation that lasts through December. The goal of OMB is to bring DoD's request in line with the NSS the same way OSD-C brought the service requests in line with the NDS. In this case, OMB arbitrates when changes within DoD's request impacts other agencies and brings DoD's request in line with other parts of the federal government's budget.[23]

The OMB is a rather small organization, made up of roughly 400 personnel. Within OMB, the National Security Division under the Department of Budget has roughly 30 analysts, most with graduate degrees or a public policy background. They conduct their analyses from a policy perspective, but OMB relies on DoD for budget expertise.

[23]For example, DoD may be responsible for programs that directly impact the State Department or the intelligence agencies. When trying to use those programs to find cost savings, OMB will become the arbitrator between DoD and the impacted agency and render a final decision.

When possible, OMB analysts sit in on OSD meetings finalizing the DoD request in order to gain understanding. In their review of the request, analysts do not conduct line-by-line oversight. Instead, they identify areas of significant change or areas that should have been changed (based on revisions to the NSS and the NDS) but haven't been. OMB makes final decisions on these changes and finalizes the president's budget request to Congress. Occasionally, however, due either to anticipation of preferences in Congress or to changes in inflation projections, OMB changes DoD's top line at the last minute. This results in a condensed and accelerated rehashing of the process both within DoD and between DoD and OMB. These last-minute changes cause significant friction between the services and between DoD and OMB. Though it's rare, officials within DoD can go to the media or Congress to express their discontent. Two factors discourage these types of leaks. First, career military members pride themselves on professionalism and generally look down on going around decision makers. This is due to the respect for chain of command and civilian control of the military. Second, there is only a small group of people within the Pentagon who have access to this information, so it is not difficult to identify the source of the leaks based on the issue and access to information.

2.5.6 The Finalized President's Budget Request

Once the president's budget request is finalized, DoD and the services within it begin preparing for the rollout to Congress. While generating justification documents and specific service request briefings is largely uninteresting, it is important to recognize that the leadership of each service and DoD become adamant supporters of the president's request. While the leadership of the individual services may have incentives to disagree with the president's budget, they rarely do. Occasionally, when Congress asks direct questions in hearings or through requests for information, career military officials are able to express specific concerns about funding decisions made. In such cases, DoD

officials are required to tell the truth and often asked to provide their opinion "based on their military expertise." As discussed below, Congress can, and often does, alter the president's budget request in ways that disproportionately fund one service's priorities over another's. Leveraging comments by military officials for this purpose can cause friction among career military, the appointees over them, and OMB.

2.5.7 Discussion and Implications

To this point I have described a process of developing the defense portion of the president's budget request that is very formal and fairly rigid. This process provides predictability for an organization that currently receives more than $700 billion in annual appropriations. Given the literature on electoral incentives and presidential control of agencies, this process provides a great mechanism for examining the opportunities for, and limitations to, the president's influence over funding decisions. Two areas that seem apparent are (1) the use of presidential appointees and (2) the directing of funds to benefit specific constituencies.

In terms of outcomes, the primary actors are the service secretaries, the service chiefs, and the service comptrollers. The secretaries and the comptrollers are all appointees who must be nominated by the president and confirmed by the Senate (PAS). During the development of the POM and the review of service BESs, appointees have an opportunity to make adjustments to bring the request more in line with the president's priorities as outlined by the NSS. Specifically, service secretaries and comptrollers play a significant role in overseeing these segments of the process: they shape out-year funding projections through the development of the POM, and they are able to adjust the service budget estimates when determining how to respond to OMB top-line guidance or PDMs.

The service chief and the comptroller's military deputy are career military officers, usually with over thirty years of service. It is possible that the competing priorities of

the two groups causes friction. One senior military official told me, "I put high premium on a disciplined process." This sentiment was common among the uniformed and career officials with I spoke. Each administration, however, has different priorities and a limited time to implement them. If an administration wants change fast, it may become frustrated with the bureaucratic system, which results in a divergence of priorities. As one current appointee explained, due to the structure of the PPBE process and the FYDP, DoD cannot make changes as quickly as the administration would like in order to meet the new NSS. However, another PAS appointee expressed some optimism in utilizing the annual budget review as a mechanism for implementing change but suggested these mechanisms did not provide the type of responsiveness desired by the secretary of defense.

The interviews also revealed contrasting opinions on the role of appointees within DoD. Both career military and appointees agreed that civilian control of the military consistent with theories of objective control (Huntington (2002)) and unequal dialogue (Cohen (2003)). However, their views on the selection and purpose of appointees somewhat diverge. While presidents use their power of political appointment to influence agencies (see Moe (1985)), career military officials want, above all, for their agencies to be led by appointees who are competent. The career military officers I talked to emphasized the importance of experience to an appointee's ability to come in and understand the department and how it operates. When a president appoints people without this expertise, it hinders the budget building process, increases uncertainty among the services, and, as I discuss in the next section, complicates the relationship between DoD and Congress. This sentiment among the career DoD officials I interviewed is with the scholarship on political appointees (e.g., Lewis (2008); Hollibaugh et al. (2014)): that is, the expertise of appointees affects agency productiveness. Expertise can be gained through past military service, but it can also come via prior experience in the Pentagon or

by working on defense issues in other capacities (e.g., as congressional staff on a defense committee, from a position at OMB, or a job at a defense think tank). An appointee's perceived lack of expertise, especially when dramatic changes are being proposed, can cause friction between career military officials and political appointees.

There are several ways in which lack of expertise could be problematic. First, DoD is a large and complex organization. Those who have not worked within DoD have a steep learning curve and significantly slow down the processes as they work to catch up. Extra preparation for congressional engagements, lengthy meetings to explain the impact of decisions being made, and a lack of understanding how processes within the Pentagon work can all contribute to delayed results in a fast-paced appropriations cycle. Second, there is a credibility aspect to expertise that affects an individual's ability to influence outcomes both within DoD and when interacting with Congress. Much of the work of appointees is executing the president's priorities. When there is a lack of expertise in explanations of why these changes are beneficial, military officials and those in Congress will question the motives. Inexperienced appointees, for example, recommend things that do not make sense from the perspective of the NSS or past commitments to Congress. Finally, because many of the programs and resources being requested in the budget are technical and/or classified, effective justification of these requests to Congress requires expertise.

Understanding the interaction between OMB and DoD in terms of developing the president's budget also helps illuminate some of the principal-agent problems highlighted in the bureaucracy literature. Due to the size and scope of the DoD budget, OMB is limited in the amount of oversight it can provide. In interviews, multiple OMB officials conceded that this relationship depends a lot on DoD's willingness to work with them. One OMB official highlighted that the analysts look at the budget from a policy perspective and rely on DoD for budgeting expertise. The OMB's lack of influence calls

into question the ability of a president to leverage the defense portion of the request for distributive gains. One OMB official with experience through multiple administrations told me that while there have been situations in which the president directs that "his guys" are to be included on decisions regarding specific funding issues, such a demand is rare in the budget formulation phase. In these rare cases, the president may want to influence appropriations outcomes through adjustments to DoD's request. The real opportunity for change, however, comes during the execution phase. It is there – after funds have been appropriated – that the president, through OMB and the appointees, can try to influence spending decisions to benefit specific constituencies.

The president and relevant political appointees want to influence the process in order to bring the budget in line with national security priorities. For example, President Barack Obama's second NSS has often been called a "pivot to the Pacific," with increased focus on countering a rising China.[24] In the Obama administration's following budget request, there was an increase in funding for the Navy. Overall, the structure of the PPBE process and the professionalism of the career DoD officials limit the administration's ability to influence spending outcomes through the DoD's request for defense funding. This does not imply that the process ensures the DoD receives the funding it determines is required to execute the NDS. Decisions by OMB on DoD's overall top line and decisions within DoD on the services' top lines can significantly affect which of the requirements identified in the PPBE process are included in the president's budget request. If a service's portion of the budget is reduced, it may not be able to request funding for the items previously identified as requirements. These top-line and programmatic decisions can cause friction (1) within services, over which programs to cut; (2) between services, over how much of the budget a service receives; and (3) between career military officials

[24]This NSS can be found at

https://obamawhitehouse.archives.gov/sites/default/files/docs/2015$_{n}ational_{s}ecurity_{s}trategy_{2}.pdf$

and the political appointees leading them.

The president's budget request is merely a starting point for negotiations with Congress. The process leading to the finalization of the request presents several items for Congress to consider. First, the request includes funding amounts along with proposed language on discretion or restrictions for how those funds are spent. Second, the request explains the justification for each program contained within the request. Delivered with the president's budget request are thousands of pages of justification documents, called J-books, outlining the current request, how it ties to security requirements, and how much DoD is expecting to ask for in the future. This information is used as a starting point for congressional deliberations. The following section describes the defense appropriations process from the rollout of the budget request to final signing.

2.6 Congressional Appropriations

The appropriations process will produce a bill and a report. This bill typically includes top lines for each service and language specifying funding for select functions and projects. The report accompanying the bill provides additional instructions for how funds should be allocated. The outcomes of the congressional phase in the appropriations process are determined by several factors. First, while the Appropriations Committee produces the appropriations bill, the Budget and Armed Services Committees determine the overall amount that can be spent and what programs can be funded. Second, members of Congress have strong incentives to shape the appropriations bill. Through the subcommittee staff, there is a mechanism to include member requests, impacting both policy and distribution of funding. Finally, DoD (and the included services) have an incentive to recoup funding for programs that may have been left out of the president's budget request by OSD or OMB. Congress's request for an unfunded requirements list provides an opportunity to seek additional funding. These processes and incentives can align to cre-

ate outcomes all parties prefer. They can also cause friction as the president, Congress, and DoD all try to arrive at their preferred outcomes.

In early February, Congress receives the president's budget request for the following fiscal year.[25] This provides Congress roughly seven months to consider and pass the appropriations legislation in order to fund the various agencies within the government. Congress considers twelve separate appropriations bills annually.[26] The Senate and House Appropriations Committees are divided into twelve separate subcommittees, one for each bill.

The chair of each subcommittee is responsible for producing the bill and accompanying report stipulating how the appropriated funds are to be spent. It is also the chairâs job to shepherd the subcommittee bill (and report) through the legislative process. The chair is assisted by other members of the subcommittee and the subcommittee staff. The subcommittee staff are experienced congressional staffers, many of whom have significant expertise in the subcommitteeâs issue area. The size of each subcommittee and the number of staff vary from year to year and between chambers. One consistent feature is that the majority party has more members and significantly more staff. This section focuses on the process involved in funding the DoD, specifically the defense appropriations bill.

2.6.1 Relevant Committees and Impact on Appropriations

There are three committees in each chamber that significantly influence the amount of money the DoD receives and how it can be spent. The House and Senate Budget, Armed Services, and Appropriations Committees each play a critical role in how closely the

[25]The fiscal year is from 01 October to 30 September the following year.

[26]In recent Congresses, bills have been packaged together as "omnibus" or "minibus" legislation, often passed well after the end of the fiscal year. While this process has significant impacts on defense spending – as do government shutdowns and continuing resolutions – these impacts are outside the scope of this paper.

president's budget request and the final defense appropriations bill match. During the rollout of the president's budget request, each committee receives the same briefings and justification materials from DoD. While the role of the Appropriations Committees is the primary focus of this paper, it is important to understand how that process is influenced by the other two oversight committees.

2.6.2 The Budget Committee

The Budget Committee's primary role is to establish the top line for each appropriations subcommittee, otherwise known as 302 allocations, through the budget resolution. This sets the parameters for the Appropriations Committee to begin its work. To establish the 302 allocations, the Budget Committee projects ten years out by working with the Congressional Budget Office (CBO) to predict the impact of inflation and any growth or reduction needed in specific accounts, or functions. For defense appropriations, the budget functions of importance are national security (050) and, more specifically, the Pentagon (051).

While the budget resolution is an important part of the process, it is a fairly weak mechanism for control. The budget resolution is chamber specific, often leading to differences in House and Senate guidance to committees. These differences are worked out in conference, and the conference report is sent to each chamber for a full floor vote. It is frequently the case that the chambers fail to agree on the budget resolution, especially in a divided Congress, causing both chambers to move forward with different top lines. The influence of the Budget Committee has been weakened in recent years with the passing of the Budget Control Act and resulting bipartisan budget agreements. With these laws in place, the top lines, usually set by the Budget Committee, are already decided. These laws, negotiated by party leadership, establish the top lines that the Budget Committee includes in the budget resolution, thus removing that authority from the committee.

There are, however, still two areas of jurisdiction in which the Budget Committee has some teeth. First, it is responsible for ensuring no authorization language is included in appropriations bills. Authorization language, a function of the authorizing committees, establishes what Congress can appropriate funds to. The appropriations bill cannot start or end a program; it can only determine how much money an authorized program receives. Second, the committee ensures that the appropriations bills don't break the caps set by law or the budget resolution. Recently, caps have been set in law by the Budget Control Act and subsequent bipartisan budget agreements. Prior to these mechanisms, the budget resolution set the caps for each chamber. Both of these oversight responsibilities – preventing authorization language and enforcing the caps – reveal themselves as points of order when a bill is under consideration. It is the Budget Committee's responsibility to call a point of order when a violation of these two conditions has been identified, requiring the fault to be corrected. The projections made by the Budget Committee and its enforcement of rules influence the outcomes of the defense appropriations bill by establishing the ceiling for funds being appropriated to DoD and by preventing authorizers and appropriators from stepping outside their roles.

2.6.3 The Armed Services Committee

The Armed Services Committee is responsible for passing the annual authorization legislation for national security, the National Defense Authorization Act (NDAA). This annual bill has an extensive effect on DoD in that it sets national security policy into law and establishes guidelines for spending. While these are interrelated, it is the latter that is of most interest to the outcomes of the defense appropriations bill. Having received the president's budget request and guidance on top lines from the Budget Committee, the Armed Services Committees in the House and Senate set the authorizations for spending for the DoD. The authorizations perform two key tasks: they allow DoD

to begin or continue a program, and they set into law the most DoD can spend on that specific program. [27] This means the NDAA has a significant impact on DoD. First, if a program is not included in the NDAA, DoD is not authorized to pursue it. Second, the Armed Services Committees can effectively restrict the amount of money DoD spends on a program, regardless of how much is appropriated. A common analogy for the second point is that of buckets of water. For each line of funding requested by DoD, the Armed Services Committee determines whether a bucket exists and the size of that bucket. The appropriators then determine how much to put in each bucket. They can choose not to fill it, fill it half way, or overfill it. On the occasions that the appropriators exceed the amount authorized, DoD must arbitrate between the two committees or risk being called in for hearings to explain lack of compliance.

The NDAA usually passes in Congress several months before the defense appropriations bill, but the committees work on the two bills in parallel. Given the limitations the authorizers can put on defense spending measures, congressional staff between the committees and chambers often meet to discuss their respective committees' positions on various issues. While the decisions of the Budget and Armed Services Committees help inform the outcomes of the defense appropriations bill on the margins, the Appropriations Committee Subcommittee for Defense is the primary body determining the final defense appropriations bill.

2.6.4 The Appropriations Committee and Bill Process

The appropriations process requires near constant interaction between the Appropriations Committeesâ Subcommittees for Defense and the DoD. The process that results

[27] This annual review and reauthorization of programs is unique to DoD. For a more complete discussion, see Gist (1981)

in the annual bill is continuous. As such, DoD must be responsive. Figure 2.3[28] depicts both the congressional appropriations timeline and the department's two-track timeline to provide a visual of how the different stages in the appropriations process correspond to the actions taken by DoD. While these interactions between the Subcommittees for Defense and DoD are occurring, DoD is also working through its internal PPBE process and developing the budget request for the following fiscal year, as discussed in the previous section. The interactions can be conceptualized into three main phases: congressional oversight, budget rollout and defense, and committee and floor consideration.

2.6.5 Constant Review

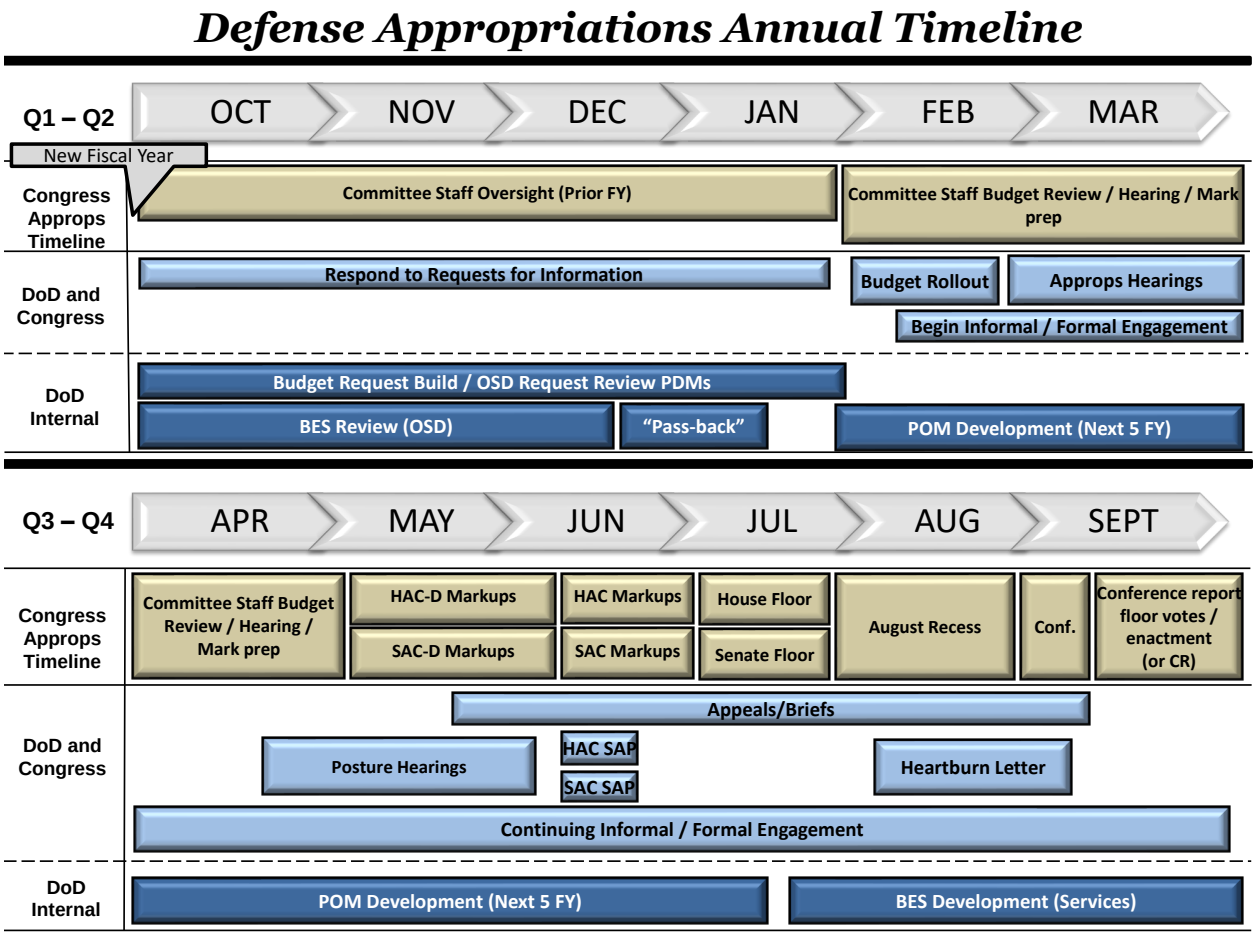
Even before the Appropriations Committees receive the president's budget request, members and the professional staff of the committee begin preparing the defense appropriations bill. From October to January, the professional staff conduct oversight by reviewing DoD obligations and expenditures[29] from the current fiscal year to determine how the funding appropriated in previous years is being used and to identify potential inefficiencies.[30] When members have questions about specific issues, the Subcommittee for Defense holds hearings to better understand how the funds are being used. Often, these hearings are closed due to the classified nature of the material discussed. Members of the

[28] Figure 2.3 is a modified version of a chart used for DoD internal briefings that became publicly accessible (Milam (2018)).

[29] *Obligations* refer to funding that has been allocated to DoD for a specific program – usually in the form of finalized contracts. *Expenditures* refer to funding that has been spent.

[30] These inefficiencies can include anything that prevents a program from spending the appropriated money as planned, such as a delayed or protested contract or a delay in technological capability development. Given that the accounts receive multiyear funding, the professional staff monitor the obligations and execution of the funding to ensure the program are on track. If not, the staffers may rescind some of the funding, allocate it to something else, or reduce the funding for the same program the following year.

Figure 2.3: Appropriations Process: DoD and Congress



The appropriations process is constant, requiring continuous interaction between DoD and the subcommittee for defense.

subcommittee, along with professional and personal staff, also conduct delegation visits to areas of military interest in order to better understand how the money is being spent.

Leaders within the DoD are aware of this constant oversight and have processes in place to anticipate and respond to congressional concerns. Budget analysts and program managers monitor the obligations and expenditures of their specific portfolios.[31] When a program falls behind schedule due to a contract delay, unexpected costs, or some other reason, the program manager and the budget analysts are usually the first to know. If the issue gains attention from Congress, the service responsible for the program can anticipate a request for information (RFI) from the committee staff. RFIs are responded to in writing, with a meeting, or through a congressional delegation visit to the location of the program in question. The budget liaison offices[32] facilitate interactions between the professional staff and program managers. The budget liaison offices, which are mandated in the defense appropriations bill, are responsive to the Appropriations Committee. This function is different from that performed by the Office of the Chief Legislation Liaison (OCLL) , which is responsive to the Armed Services Committees. Ultimately, both offices work for the secretary of their respective services. As a result, RFI responses are often coordinated to ensure the same response is being provided to the appropriators and the authorizers.

While Congress is conducting its oversight, the next budget request is being finalized within DoD. Based on the RFIs received from Congress, DoD and the individual services can anticipate items in the budget request that will draw extra attention. For example, given multiple delays in the F-35 fifth-generation fighter jet program, the leadership of

[31]A portfolio includes multiple programs of a specific nature. For example, all programs involving Army helicopters may be grouped into an aviation portfolio.

[32]Each service has a budget liaison office that works exclusively with the Appropriations Committees. Interactions with the rest of Congress, including the Armed Services Committees, are facilitated through the services' legislative liaison offices.

the Air Force and the Navy expect questions on their requests to continue funding that program. Each service has a host of programs and efforts about which it expects Congress to ask questions. To preempt these questions, the services work to include them in their rollout of the president's budget request.

2.6.6 Budget Roll Out and Defense

It is DoD's job to present the defense portion of the president's budget request and defend the items it contains. As discussed before, once the administration finalizes the budget request, leaders within the DoD provide their full support. This support takes two forms. First, the senior leaders of DoD and the individual services conduct *budget rollout* briefings for the professional staff of the Armed Services, Appropriations, and Budget Committees in both the House and the Senate. These briefs – which last several hours and include a presentation by the comptroller and a senior member of the service – highlight the overall level of funding requested along with the levels for each subcategory within the request.[33] After the formal presentation, the professional staff have an opportunity to ask pointed questions about changes in the budget. Depending on the committee, the professional staff may allow personal staff to attend and ask questions as well. The full budget rollout to Congress is usually completed within a week of the release of the president's budget request.

Once the president's budget request is rolled out, the focus within Congress quickly changes to the specific items it contains. From the time of the rollout up until the

[33]Subcategories include military and personnel, procurement, research and development, and operations and maintenance, in addition to other programs or issues identified as congressional interest items. For example, in the FY16 budget rollout for the Army, senior leaders knew that the Aircraft Realignment Initiative (ARI), which would transfer Apache helicopters from the National Guard to the Active Army in exchange for Blackhawks, was a point of contention for several members in Congress. To address this issue upfront, the Army decided to cover it during the rollout briefs.

subcommittee considers the initial draft of the bill,[34] the professional staff spends time reviewing the justification documents, receiving program specific briefings, and sending RFIs to OSD and each of the services in order to better understand how the money being requested is going to be used. Coupling that with their data of program execution, the professional staff in the House and the Senate begin compiling recommendations for rescissions to previous funding and adjustments to the current president's budget request. Like the team at OMB, the number of professional staff working with the subcommittee is fairly small. They rely on the congressional liaison offices within DoD to get accurate answers to their questions. Also similar to the OMB staff's review of the DoD request, the subcommittee's professional staff turns its attention quickly to any significant changes in funding for a program and deviations from the NDS.

Given the demand for access, members of the subcommittee could find themselves in meetings all day. Each office handles this differently. Most member offices have a screening criteria for taking meetings and let the legislative assistant responsible for defense handle those meetings that do not require the member's direct attention. Regardless of internal process, these meetings, together with the member's review of the budget request, result in a list of changes the member would like to propose – either in the level of funding or in the language. Each member office has a different process for deciding which changes to ask for; some are formal but many are informal. Adding funding and reducing funding are the most common changes. Members also request changes to language, which predominantly has one of two effects. First, members may want to restrict the use of funding in order to impact policy. For several years, Republicans included language restricting the use of funding available for transferring Guantanamo Bay prisoners to

[34]The initial draft is developed by the subcommittee staff. The staff uses the prior year's bill as a starting point or blueprint: they make adjustments based on Budget Committee top lines, changes in the president's request, and requests from members of Congress.

prevent the prison there from being closed. Second, and more prevalent since the ban on earmarks, is language specifying what type of material, company, region, and so on can be used for a specific procurement line.

Through the professional staff of the subcommittee, each subcommittee member submits their list of proposed changes. Members on the full Appropriations Committee also put in similar requests. The subcommittee chair often holds an informal hearing for those members not on the Appropriations Committee in order to receive their requests and take them into consideration. When members submit their requests, they specify whether they want to change the actual bill or the report language. Most requests that are approved end up being included in the report language. This is an important point as the report that accompanies the bill is an administrative agreement rather than actual law. While DoD treats the report language as if it were law, it is not legally bound to do so. This fact can impact execution of funds, as discussed later.

While members are submitting their requests , DoD is active on Capitol Hill defending the president's budget request with both formal hearings and informal meetings. There are two types of formal hearings that occur. The first are appropriations hearings by the Subcommittee for Defense (HAC-D and SAC-D). These are conducted by the subcommittee soon after the budget request rollout . Again, the number of DoD attendees in these hearings is determined by the subcommittee chair, but there are traditionally five separate hearings: DoD, Army, Navy, Air Force, and National Guard and Reserve. At each hearing, the secretary and chief of the respective organization sit before the subcommittee to answer questions about their respective portion of the defense budget request. The second type of formal hearings are commonly referred to as "posture" hearings, which cover specific issues based on the interests of the subcommittee and often are closed to the public. The announcement of an additional hearing by the Appropriations Committee can signal to DoD that some members of the committee have concerns with

the specific program or initiative being discussed. This is especially true if it is an open hearing and members have an opportunity to publicly question the decisions made by the department. Many closed hearings are classified and offer the DoD an opportunity to provide details about ongoing missions and capability assessments. These hearings can provide members of the subcommittee with a better understanding of the impact that changes to the request would have on the military.

The subcommittee staff works to facilitate member requests while minimizing the negative impact to DoD. For example, a member may request an increase for the procurement of a specific vehicle because it is made in that member's district or state. Another common type of request is to include language that points investment into the member's district or state. Because the defense appropriations bill includes a lot of money for research but earmarks are banned, members are now incentivized to include language that directs research funding toward universities or institutions they support. Language can also provide increased specificity regarding the type of research being conducted. If the authorization provides for research on electronics and electronic devices, a member can request specific language directing a portion of those research funds toward a specific type of battery. Sometimes a member requests language that restricts supply procurement to only American companies or energy-friendly companies, especially when that may give advantage to a company that resides in that member's district. The subcommittee staff look to incorporate members' requests into what the president has requested.

To find more matches between member requests and DoD needs, the subcommittee asks each service for an unfunded requirements (UFR) list.[35] A service's UFR list con-

[35]The timing of this request varies greatly from session to session. Usually the congressional staff want it as early in the process as possible so they can have it available when making recommendations to the chair.

sists of items that were requested in the defense budget build but were removed due to guidance from either OSD or OMB during the development of the president's budget request. The format of the UFR list varies by service, but it usually includes a prioritization of items. These lists are supposed to be reviewed and approved by OSD to ensure they align with what was indeed requested. Given the time constraints of Congress and the incentives to get additional funding on the part of the services, this is not always the case. However, OMB does not see the UFR list, nor does it have veto power over it. The professional staff on the subcommittee work to align UFR lists with member requests to include in the draft appropriations bill brought before the subcommittee for consideration.

While the formal hearings are being conducted, representatives from DoD and the services conduct informal office calls and host socials with subcommittee members to answer any questions they have about specific or parochial items included in the president's request. Many of these meetings are concurrent with the hearing in order to address concerns a member has prior to the hearing or follow up on questions asked during the hearing. During these meetings, DoD officials are able to get a sense of the most contentious issues and where members are willing to provide support for the budget request. This information helps senior leaders prepare the answers they provide during the hearings, and it also helps them develop a strategy to defend portions of the request by scheduling additional office calls to convince members that the items of concern are indeed requirements and on schedule. A common issue that results in a cut in funding is that a previously funded program is behind schedule in terms of development or procurement. For example, a procurement program may have a large amount of funding left from the previous fiscal year. The excess prior-year funding can cause the perception that a program is behind schedule when in reality, one contract announcement will obligate all the remaining funds. The meetings described above both reinforce the need for the

program and demonstrate how the funds are going to be used.

At this stage of the process, DoD officials are also meeting with the subcommittee staff, offering briefings on contentious programs and responding to requests for information. The subcommittee staff combine the multiple sources of information – analysis of obligations and expenditures, the president's budget request, budget top lines, members' requests, DoD input, and the unfunded requirements list – to make recommendations to the subcommittee clerk and ultimately the chair of the subcommittee.[36] When considering member requests, the subcommittee staff looks for win-wins; when changing the president's budget request, they want to match requests of members with items on the UFR list. When these two requests match, it makes the requests less contentious and more likely to be included in the initial draft. For example, imagine that the Navy is trying to build its fleet to a total of 355 ships, and members from Mississippi and Maine have shipbuilding facilities in their states. It is easy for subcommittee staff to align these two requests.

Further, the subcommittee staff try to prevent including items that DoD does not want included. This is not always possible. Occasionally, the services are provided with funding for programs they want to discontinue. This was the case with the Air Force's A-10 Warthog, when members were directing spending to it with the intent of keeping it operational. To this end, the 2017 House report on defense appropriations included this provision: "Language is included that prohibits the use of funds to divest, retire, transfer or place in storage or on backup status any A-10 aircraft, or to disestablish any A-10 units." (House Appropriations Committee- Subcommittee for Defense (HAC-D) (2016), 355) Similarly, in 2013 the Army continued to receive funding for M1-A1 Abrams tanks built in Lima, Ohio, in order to keep the assembly lines warm despite a reduction

[36]The clerk manages the rest of the subcommittee staff, acting as the facilitator of the chairperson's intent across accounts.

in the Army's requirements for tanks (Lardner (2013)). These decisions by Congress have electoral benefits but are justified by tying the capabilities to national security requirements. For the A-10, the justification is that no other aircraft can support ground troops. For the tank plant in Ohio, closing the plant would reduce the ability to surge tank production if a large war required it. Neither justification is completely false, but both are example of programs for which the services did not want additional funding.

After the subcommittee clerk reviews and approves the recommended changes, the chair of the subcommittee reviews it and sends it out to the rest of the subcommittee and consideration of the bill begins in earnest.

2.6.7 Committee and Floor Considerations

The "chairman's mark" is the first draft of the appropriations bill as prepared by the subcommittee staff and approved by the chair. This draft, including both the bill and the report, reflects as many of the subcommittee member requests (both changes to funding and language) as possible. The chairman's mark must comply with the guidelines set by the Budget Committee. As a result, requested additional funding for programs is offset by the savings in inefficiencies and recommended cuts identified by the professional staff.[37]

If a member's request submitted to the subcommittee is contentious, either because it is directly out of line with DoD or it has a partisan component, it is often omitted from the chairman's mark and left to the advocating member to bring up as a proposed amendment in the subcommittee markup hearing. subcommittee and full committee markups usually occur in quick succession. During these markup hearings, members of the Subcommittee for Defense and the full committee can make amendments to the

[37]The advantage for members getting requests into this initial version of the bill is that they are not responsible for identifying the offsets (i.e., cuts) to fund their adds. In addition, requests that involved changes to report language receive less attention than they would if submitted as an amendment later in the process.

proposed bill. Once again, the jurisdiction of the Budget Committee plays a factor dictating that for any funding members want to add to a program, they must identify a program or multiple programs from which those funds will be taken. In doing such, an amendment has two challenges: (1) convincing a majority of the committee members that the add is desired and (2) convincing that same majority that the money was not needed in the losing account. Following passage in the full Appropriations Committee, the bill then goes to the floor of the respective chamber for consideration. Here too, members can make amendments but are subject to the same requirement of identifying offsets to fund any program increases they present.

The publication of the chairman's mark and associated report begins the appeals process for DoD. Appeals refer to an attempt by DoD or the services to restore funds that had been taken from an account or to have report language removed or altered. In these cases, DoD views the "marks" as detrimental to its operations, either programmatically or in terms of how it operates. The appeals are submitted to the committees, and DoD usually follows up with formal engagements to explain to members and the professional staff why the cut or language is detrimental to DoD. Each service takes a different approach to appeals. One official told me that the policy for the Air Force is to appeal all program cuts and see what can be recovered. The Army, on the other hand, has a very formal process of dividing the appeals into tiers through a series of review boards. The boards divide the appeals into three tiers based on the impact each cut has on the Army. That list is then approved by the secretary of the Army. Only the top-tier appeals, usually 10 to 15, are actively pursued by the Army.

Each service submits its list of appeals to OSD for approval. This information, both the appeals and accompanying justification, helps inform the contents of the "heartburn letter" discussed later. The Office of the Secretary of Defense has approval authority within DoD for appeals. Approval is not difficult to receive, given that these items were

included in the president's budget request. Representing the president, the OMB also has approval authority for appeals. Unlike the UFR list, appeals can be vetoed by OMB.

Before a service can send its list of appeals to Congress or begin discussing them, both OSD and OMB have to approve the appeals.[38] Given that more than three months pass between the formulation of the president's budget and the markup process, it is possible that specific funding requests are no longer required or that at least they are not worth fighting Congress over. It may also be the case that a program received negative press or fell behind schedule in that time frame. In these cases, OMB and Congress may take into account potential negative public opinion. Once the appeals lists are approved, the services develop strategies to make their case for passage on Capitol Hill and begin meeting with members of Congress and the subcommittee staff.

In conjunction with the appeals, the president issues a Statement of Administration Policy (SAP) for both the House and Senate versions of the defense appropriations bill before they go to the chamber floor.[39] This document highlights the parts of the bill the president agrees with and those that he or she does not, and it serves as a strong signal to members of both parties. The SAP can include praise for funding or language found in one chamber's bill and not the other's to signal that the final bill should include these provisions. It can also express displeasure with portions of the bill, indicating a hope that it gets resolved in conference. Most notably, the SAP can contain a veto threat if the president has strong opposition to a portion of the bill as written. Depending on the incentives of Congress, the veto threat can compel members to change the provision for which the threat was issued. When Congress strongly believes the provision should be

[38]It is worth noting that the appeals process and limitations only apply to DoD. If an individual member of Congress disagrees with something in the bill or report, the member can meet with the subcommittee staff or request meetings with DoD officials to better understand the impact.

[39]SAPs can be found on the OMB website: https://www.whitehouse.gov/omb/statements-of-administration-policy/

included, it can ignore the veto threat and choose to keep it in the bill as written.[40]

Following passage of the House and Senate versions of the defense appropriations bill, the respective subcommittees go to conference. The objective here is to work out the differences between the two versions so both chambers can vote on the same bill. Most of the conference work is done by the professional staff over the August recess. During conference, the staff only reviews items in the bill that the House and Senate have marked differently. These often includes changes to program funding levels and specific language either chamber has added. During this time, the professional staff from the House and Senate compare notes to determine where compromise can be found and where their members will have to get involved. Following the staff's initial conference meetings, referred to as preconference, each chamber designates conferees to work out the rest of the remaining issues. Usually, with guidance from appropriations chairs, the conferees negotiate the final concessions; the result is a bill and report both chambers have agreed on.

In recent years however, the most politically salient issues are resolved by party leadership, arguably reducing the influence of appropriators. Just as the budget committee's ability to set top-line funding levels has been diminished by bipartisan budget agreements created under the direction of party leaders, so too the authority and prestige and the Appropriations Committee chairs have been reduced. Whereas the chairs once had the leverage to bring about compromise through deal making, they have less authority to do so now as a result of the role party leaders have assumed.

The time period before the conference report is finalized is DoD's last opportunity to make appeals.[41] Compiling a list of the most pressing appeals from the services,

[40]For a full discussion of SAPs and veto threats, see Cameron (2000) and Cohen (2012).

[41]The conference report includes the agreements made with regard to both the bill and the report. Recall that the conference only covered those items in the bill and report over which the House and Senate disagreed.

OSD drafts a document called a "heartburn letter," which is sent from the secretary of defense to the chairs and ranking members of both Appropriations Committees and both Subcommittees for Defense. This letter is usually short and contains only the highest priorities for DoD.[42] The heartburn letter is the last and strongest request from DoD for changes to the defense appropriations bill. While the contents of the heartburn letter vary by secretary of defense, the letter usually includes priority appeals that the services have not been able to resolve on their own and items identified as detrimental to DoD as a whole. The conference committee takes this and any SAP items into consideration when working through the differences between the House and Senate versions. Once all the issues between the House and Senate versions have been resolved, the conference committee publishes the conference report. This report only contains the items that had to be negotiated in conference.

Following the release of the conference report (and the final version of the bill), the president may choose to send out a revised SAP, which can either praise Congress for making the requested changes or continue to highlight deficiencies in the legislation from the president's perspective. Again, the veto threat is the strongest statement the SAP can provide. Veto threats in the SAP can fall anywhere along a spectrum – from suggesting a veto may be considered to explicitly stating the bill in current form will be vetoed.

Once each chamber votes on and passes the conference report, the defense appropriations bill is sent to the president for signature. The president can then choose to sign the bill, veto the bill, or let the bill go into effect without his or her signature. The signing statement highlights provisions of the bill the president is proud of and wants

[42] Access to this letter is usually tightly controlled. However, a leaked heartburn letter gained attention during the Obama administration when Secretary of Defense Ashton Carter expressed opposition to proposed increased contingency funding designed to get around budget caps that had been agreed to in the bipartisan budget agreement. See, e.g., https://thehill.com/policy/defense/287796-pentagon-reissues-veto-threat-as-defense-bill-conference-kicks-off .

to claim credit for. The signing statement is also an opportunity to blame Congress or the opposing party for provisions that were not included and items that members of the president's party would prefer were omitted.[43]

Through this process, Congress has produced a budget resolution, an appropriations bill, an authorization bill, and reports that accompany all three. In addition to generating guidance to DoD, many of the interactions throughout the process result in informal understandings of the intentions of the committees and Congress as a whole. These understandings can include where – in what state or with which company – Congress believes certain funds will be spent, based on the member or group of members who submitted the request. They can also include expectations for updates and notifications on items of interest that are not specifically required by the bill or report language.

In recent years, it has become increasingly common that one of the two chambers fails to pass the defense appropriations bill. In fact, 1997 was the last year in which all 12 individual bills were passed on time (Desilver (2018)). Delays of individual bills are usually due to political calculations of chamber leaders on how to move forward with the 12 individual appropriations bills. Party leaders may want to prevent the defense bill from going to the floor and so hold it as leverage to get concessions on the other 11 bills. In these cases, the subcommittees still conference, but they negotiate based on the committee version of the bill or the last version to have had a vote. These situations are more common due to the political dichotomy of defense versus domestic spending. Regular order has given way to constant unpredictability, resulting in continuing resolutions and omnibus legislation.

[43]For more discussion on signing statements and when they are use used, see Cooper (2005) and Kelley and Marshall (2010).

2.6.8 Discussion and Implications

In the above section, I provided a micro-level description of the appropriations process within Congress. This description highlights the roles and responsibilities of the Budget, Armed Services, and Appropriations Committees along with the relationships they have with each other, the DoD, and the administration. Key decisions during this phase include top-line budget numbers, authorization of programs, funding levels for those programs, and what changes should be made to the president's budget request. Additionally, congressional staff are determining which member requests to include in the bill with assistance from the UFR lists provided by the services. The descriptions of these interactions bring to light the motivations of the various actors within the process, including members of Congress, the professional staff, DoD officials, and the OMB. Understanding these micro-level interactions provides an opportunity to further analyze the politics of the process. Several implications emerge from this analysis for our understanding of agency oversight and capacity, member ideology and effectiveness, and the competing elite cues that can influence the process.

Both the administration and Congress want compliance from agencies but have limited time and resources to ensure it. This challenge of conducting oversight of the DoD is compounded due to the sensitive nature of the policy issues and the large budget. The section above illuminates some of the oversight challenges for both Congress and the president. Scholars have provided great insight into the role of oversight by exploring when Congress decides to delegate (see Epstein and O'Halloran (1999); Kiewiet and McCubbins (1991)) and the role that capacity plays in the level of discretion Congress decides to give an agency (Shipan (2004); Bolton et al. (2015); Bolton and Thrower (2019)). Factors such as staff size, education, experience, and time in position all play a role in the professional staff's level of capacity. Given the constant oversight and small annual

window for producing an appropriations bill, there may be more significant implications than already identified in scholarly work on the so-called revolving door (e.g., Blanes et al. (2012); Cain and Drutman (2014)).[44] Changes in staff due to the switching of chamber majorities or opportunities to lobby can have an adverse effect on institutional knowledge, leaving the less experienced professional staff to rely more on the information provided by DoD.

As discussed, Congress relies on DoD to provide timely and accurate information in order to conduct its assessment of the president's budget. While some scholars have questioned the presence and influence of legislative liaisons in the DoD (Fiorina (1989)) and implied that relationship between agencies and Congress is based primarily on *quid pro quo* exchanges (Arnold (1979)), the agency can supplement expertise made available to the committee staff. In fact, scholars have demonstrated that detailees from agencies, like legislative liaisons, have increased committees' oversight capacity (Mills and Selin (2017)). In this case, trust and relationships matter. In particular, professional staff told me that the relationships between the senior leaders of the services and the subcommittee clerks play the most important role in fostering trust between the two institutions. Any friction or distrust at that level trickles down to the professional staff managing specific accounts. The professional staff want to get to the right number for each account, and that requires an open and honest dialogue of each service's needs without endangering national security.[45] One staffer commented that the dialogue is perceived as more open and honest when it occurs with career military officials – highlighting the role of trust, a

[44]The revolving door refers to congressional staff deciding to become lobbyists and vice versa. The primary concern in most literature is the influence gained by hiring staff to be lobbyists.

[45]This asymmetry of information – in which DoD knows the capability gaps that pose threats to national security – creates a principal-agent problem for congressional oversight. Unique to the defense appropriations bill is a concern among both Congress and DoD that adversaries will gain an advantage if a request is denied. I discuss this in chapter four.

variable tough to measure, in the micro-level political interactions that drive outcomes.[46]

While this type of dialogue may assist in Congress's oversight of DoD, it could cause challenges for oversight by the president. While the formation of the president's budget request is tightly controlled by OMB, UFR lists provide a significant challenge to OMB's oversight ability. One OMB official was more blunt, suggesting that the UFR list undermines what OMB does. In addition to bypassing OMB, the UFR list can give individual services the ability to circumvent OSD. Given that a UFR list is a mechanism Congress uses to justify member requests, both the subcommittee and the services have an incentive to make sure the UFR lists are distributed. On occasion, the subcommittee will receive a service's UFR list prior to OSD approval, causing friction within the Pentagon. These occasions are rare and result in informal and formal reprimands by OSD.

This description of the process highlights the benefits of being on a committee, but it also exposes one of the challenges to researching member ideology and effectiveness. Much of the research on ideology is based on DW-NOMINATE scores calculated from the roll call votes of members (Poole and Rosenthal (1984)). Similarly, Legislative Effectiveness Scores are based on a member's ability to get their sponsored bill or amendment through the legislative process (Volden and Wiseman (2014), 245). However, if members are able to influence the chairmanâs mark as described above, there may be a gap between a memberâs true ideology or effectiveness and what these measures report. Multiple professional staff told me that each request taken from the members of the subcommittee receives full consideration, regardless of majority or minority status. Provided that the request is not partisan in nature, it has a very good chance of making it into the chairmanâs mark. For these issues, membersâ ability to work their requests into the draft prevents members from having to sponsor their own bill or amendment. Also, a

[46]This comment brings into question the role of political appointees and their effectiveness in advocating the president's budget request to Congress.

member can vote against a bill loaded with their requests if it is known the bill will pass.[47] This political maneuvering in itself is significant because it suggests that being on the subcommittee can lead to a lot of success and may actually be more valuable to minority members who want to gain electorally by claiming credit for appropriations successes (Grimmer (2013)). A member's success in getting requests included in the bill may be correlated with high Legislative Effectiveness Scores. It is also possible that this process serves as a strategic substitute for those in the minority party and potentially explains the lack of increase in Legislative Effectiveness Scores for committee members (**?**).

The literature on electoral incentives consistently demonstrates that the appropriations process provides both the desire and the mechanisms to score political points. What is not clear are the constraints the process imposes on allowing a member to abuse those mechanisms. In interviews, professional staffers described a process that takes into account member requests but that holds the needs, or at least desires, of the military as a priority. Using the information provided during the president's budget request rollout, UFR lists, appeals, and the heartburn letter, the committee, through its professional staff, comes to understand which of the member requests can actually be utilized.

Member requests not aligned with the desires of DoD or an individual service are unlikely to make it into the chairman's mark. Requests of this type that do make it in usually come from senior members of the subcommittee or a large coalition of members. An example of the latter would be when a defense company sends a letter, endorsed by over a hundred members, to the subcommittee chair in support of a program DoD wants to cut. When such letters align with a subcommittee member's request, the programs being supported are likely to make it into the draft bill or associated report. This was

[47]For example, if a subcommittee member is in the minority and the party leadership has directed the party to vote against a bill.

the case when 176 members of the House and Senate sent a letter to Army Chief of Staff General Mark Milley supporting the WIN-T communications programs and provided a copy to the defense committees (Erwin (2017)). These cases are, in general, few and far between. In most cases, a subcommittee member has to present an amendment during the markup hearing giving the issue more visibility and signaling that it is either partisan in nature or not in line with the desires of DoD. Having to bring a desired change to the markup hearing as an appeal exposes the member to political, partisan, and public opinion constraints that the issue would not otherwise have to overcome.

The final implication emerging from this micro-level understanding of interactions and incentives is that we need to better understand the role of elite cues and public opinion. With so much at stake both electorally and in regard to national security, the president, members of Congress, and military leaders have an opportunity to influence public opinion to support their preferred outcomes. Great work has been done on the president's ability to use the bully pulpit to affect public opinion (Kernell (1997); Greenstein (2009); Wood (2009)), even looking specifically at the president's ability to influence appropriations outcomes (Canes-Wrone (2006)). However, there is an acknowledgement that the president's ability to affect public opinion is conditional on factors such as the partisanship of the receiver (Edwards (2003)) and that the president's cue may be just one of multiple competing cues (Canes-Wrone (2006)). While the president and Congress may compete for public support, we know that military elites can shape public opinion on decisions to use military force (Golby et al. (2018)). It is worth examining the effect of the various elite cues in the context of the defense appropriations process to better understand whether and how the president, Congress, and military leaders can influence outcomes by moving public opinion.

The congressional phase of the defense appropriations process results in a bill that is law, a report that is an administrative agreement, and informal agreements between

Congress and DoD. While the administration, represented by OMB, has limited oversight during the congressional appropriations process, there are other mechanisms at its disposal to influence how DoD spends the money Congress appropriates. The next section describes the budget execution phase, highlighting the control that both Congress and the president can impose on the decisions of the DoD.

2.7 The Execution of Appropriated Funds

After the defense appropriations bill is passed, DoD has specific guidelines from Congress on where and how the appropriated funds can be spent. The defense-wide and service-specific major accounts – military personnel (MILPERS); procurement; operations and maintenance (O&M); research development, test, and experiments (RDT&E); and MILCON – each have hundreds of line items for which funding levels are specified. Some details are specified in law whereas most are provided in the report. The DoD looks to the NDAA, the defense appropriations bill, and the language in the report from the Appropriations Committees to determine the amount of funding each line item has received and identify restrictions placed on that funding. Just as Congress monitors program performance, OSD-C and OMB do the same in order to identify cost savings and transfer funding from one program to another.[48] This section describes the transfer authority given by Congress to the DoD, highlighting the micro-level politics involved in reprogramming requests.

As described earlier, the legislative process produces several sources of guidance about where and how DoD is to spend the funding Congress has appropriated. The guidance falls into two primary categories, law and administrative agreements. Guidance to DoD

[48] As discussed later, DoD has some discretion to transfer funds between programs within accounts. Congress, however, imposes several restrictions on DoD's ability to execute these transfers by specifying transfer authority and reprogramming guidance.

on the transfer of funding can be found in both. Within the defense appropriations bill, Congress specifies the general transfer authority (GTA), special transfer authority (STA), and transfer restrictions applied to specific accountsâso the guidance contained in this bill is law. In the report language, Congress sets reprogramming requirementsâso this guidance comes from administrative agreements.

2.7.1 Transfer Authorities

The defense appropriations bill establishes a limit on the amount of appropriated funds the DoD can transfer between accounts within a fiscal year. This applies to the service-specific and defense-wide accounts discussed earlier: MILPERS, O&M, procurement, and RDT&E.[49] GTA refers to funds within the base budget. STA refers to funding for overseas contingency operations (OCO). Throughout the year, DoD must comply with the law as set in the appropriations bill, track the amount of funding it transfers between accounts, and report it to Congress. Both GTA and STA provisions establish a cap, which DoD cannot exceed, and include specific restrictions on use of the authority.

The following is an example of the provisions for GTA included in the fiscal year 2019 defense appropriations bill:

> SEC. 8005. Upon determination by the Secretary of Defense that such action is necessary in the national interest, he may, with the approval of the Office of Management and Budget, transfer not to exceed $4,000,000,000 of working capital funds of the Department of Defense or funds made available in this Act to the Department of Defense for military functions (except military construction) between such appropriations or funds or any subdivision thereof, to be merged with and to be available for the same purposes,

[49]Funding for the MILCON accounts is appropriated through the MILCON/VA bill by the Military Construction, Veterans Affairs, and Related Agencies Appropriations Subcommittee.

> and for the same time period, as the appropriation or fund to which transferred: Provided, That such authority to transfer may not be used unless for higher priority items, based on unforeseen military requirements, than those for which originally appropriated and in no case where the item for which funds are requested has been denied by the Congress: *Provided further,* That the Secretary of Defense shall notify the Congress promptly of all transfers made pursuant to this authority or any other authority in this Act: *Provided further,* That no part of the funds in this Act shall be available to prepare or present a request to the Committees on Appropriations for reprogramming of funds, unless for higher priority items, based on unforeseen military requirements, than those for which originally appropriated and in no case where the item for which reprogramming is requested has been denied by the Congress: *Provided further,* That a request for multiple reprogrammings of funds using authority provided in this section shall be made prior to June 30, 2019: *Provided further,* That transfers among military personnel appropriations shall not be taken into account for purposes of the limitation on the amount of funds that may be transferred under this section. (Pub L. No. 115-245 (2018))

There are several significant directives that result from this language. First, the cap for GTA is set at $4 billion and requires the approval of the OMB. While the cap may seem high, it is a little more than 0.6% of the appropriated funds. As one DoD official commented, this authority make it possible to have programmatic changes at the margins during the fiscal year. Considering that many of the programs funded cost millions of dollars, this does not provide a lot of room for widespread change. A second significant directive is the requirement that "the Secretary of Defense shall notify the Congress promptly of all transfers made." While the law requires notification of

transfers, it does not require their approval, nor does it specify a timeline for notification to occur.[50] Finally, the language contained in the bill specifies that "a request for multiple reprogrammings of funds using the authority provided in this section shall be made prior to June 30, 2019." This establishes a deadline for what DoD calls the "omnibus reprogramming request" used to make adjustments across DoD to account for changes in program progress and department priorities.[51]

The law providing for GTA gives a significant amount of discretion for DoD in regard to transfers within the base budget. DoD also receives one-year funding for overseas contingency operations, and the appropriations bill provides guidance for the transfer of those funds as well. Below is an example of STA provisions included in the fiscal year 2019 defense appropriations bill:

> SEC. 9002. Upon the determination of the Secretary of Defense that such action is necessary in the national interest, the Secretary may, with the approval of the Office of Management and Budget, transfer up to $2,000,000,000 between the appropriations or funds made available to the Department of Defense in this title: Provided, That the Secretary shall notify the Congress promptly of each transfer made pursuant to the authority in this section: Provided further, That the authority provided in this section is in addition to any other transfer authority available to the Department of Defense and is subject to the same terms and conditions as the authority provided in section 8005 of this Act. (Pub L. No. 115-245 (2018))

[50]This was a point of contention between the Trump administration and Congress when OMB directed DoD to transfer funding to support the building of the border wall. The secretary of defense notified Congress of the transfer, per that directive, but this notification violated the norms set through administrative agreements regarding reprogramming of funds. As discussed later, these agreements are found in the report language and not the actual law.

[51]More on the omnibus reprogramming later in the section.

Again, there are several important provisions included in this language. First, the cap for STA is set at $2 billion. Given that the OCO budget for fiscal year 2019 is roughly $68 billion, the amount DoD is allowed to transfer is a little less than 3% of the funds appropriated for OCO.[52] As with GTA, DoD is required to notify Congress "promptly" of each transfer. The transfer of funds within the OCO accounts is also subject to all the same restrictions imposed on GTA, including the approval of OMB.

Having described the transfer authorities, general and special, codified in law through the appropriations bill, it is important to note that individual accounts also include restrictions on whether and when transfers from that account can occur. The appropriations bill contains language limiting the amount of funding that can be transferred from a specific account or between specific programs within an account. Further, specific language is included annually preventing DoD from using its transfer authority to begin new programs that were not authorized in the NDAA. The bill, however, does not establish requirements for DoD to ask Congress for approval prior to transferring funds provided the transfer falls within the GTA or STA guidelines established in law. This provides the president a significant amount of discretion as commander and chief.

This discretion is significant in that the president can legally direct DoD to transfer funds provided the amount does not exceed the caps set in the bill. This was the case in 2019 when President Trump directed DoD to transfer funds to build a physical barrier on the border with Mexico. Each DoD official and congressional staffer I met with conceded that the transfer of funds was legal but strongly believed that the use of this discretion harms the relationship between DoD and Congress. This harm results from violating long-standing norms established through the reprogramming process that DoD

[52]It is important to note that OCO funding is only available for the current fiscal year and is designed to address contingency operations, which are largely unpredictable. In this light, 3% flexibility seems very small. In recent years, however, the OCO account has been used to fund sustained operations overseas as a result of the wars in Iraq and Afghanistan.

uses to receive approval from both OMB and Congress. The following section discusses reprogramming in more detail.

2.7.2 Reprogramming

Reprogramming is a term used to describe the transfer of funds from one program to another. As such, reprogramming is subject to all the laws regarding transfers in the defense appropriations bill. There are many reasons an individual service or DoD would want to move funds from one account to another. As detailed before, a program's funding requirements were estimated months before the president's budget request is submitted to Congress. Another several months go by before an appropriations bill is passed, during which Congress goes through the appropriations process described above. While the request to Congress was the best analysis DoD could provide at the time, requirements and realities change over the course of a year and a half. As one official told me, during this time the truth changes.

When DoD needs to adjust programmatic spending, it must transfer funding from one program to another through the reprogramming process. Some observers have sounded the alarm on DoD's use of reprogramming. For example, "In FY 2011, there was an almost 500% increase in reprogramming requests from DoD that totaled over $15 billion"(Mrdeza and Gold (2012)). While requests for reprogramming may be increasing, the amount of funds that can be reprogrammed in a fiscal year is limited both by the transfer authority set in the bill and by the reprogramming guidelines included in the report language. As noted before, the report language is not law, but rather a specification of congressional intent that is viewed as an administrative agreement between Congress and the agency. Below is the report language from the House report that accompanied the fiscal year 2019 defense appropriations bill.

REPROGRAMMING GUIDANCE

The Committee directs the Secretary of Defense to continue to follow the reprogramming guidance for acquisition accounts as specified in the report accompanying the House version of the Department of Defense Appropriations bill for Fiscal Year 2008 (House Report 110-279). The dollar threshold for reprogramming funds shall be $10,000,000 for military personnel; $15,000,000 for operation and maintenance; $20,000,000 for procurement; and $10,000,000 for research, development, test and evaluation.

Also, the Committee directs the Under Secretary of Defense (Comptroller) to continue to provide the congressional defense committees annual DD Form 1416 reports for titles I and II and quarterly, spreadsheet-based DD Form 1416 reports for Service and defense-wide accounts in titles III and IV of this Act. Reports for titles III and IV shall comply with guidance specified in the explanatory statement accompanying the Department of Defense Appropriations Act, 2006. The Department shall continue to follow the limitation that prior approval reprogrammings are set at either the specified dollar threshold or 20 percent of the procurement or research, development, test and evaluation line, whichever is less. These thresholds are cumulative from the base for reprogramming value as modified by any adjustments. Therefore, if the combined value of transfers into or out of a military personnel (M-1), an operation and maintenance (O-1), a procurement (P-1), or a research, development, test and evaluation (R-1) line exceeds the identified threshold, the Secretary of Defense must submit a prior approval reprogramming to the congressional defense committees. In addition, guidelines on the application of prior approval reprogramming procedures for congressional special interest items are established elsewhere in this report.(U.S. House. 115th Congress. 2d. Session (2018))

The reprogramming guidance in the House report establishes caps for individual accounts and line items.[53] The language further specifies conditions under which DoD must request prior approval by stating, "The Department shall continue to follow the limitation that prior approval reprogrammings are set at either the specified dollar threshold or 20 percent of the procurement or research, development, test and evaluation line, whichever is less" (**?**, 123). This provision establishes the limitsâeither by dollar amount or percentage of the program's fundingâfor which DoD must receive prior approval. Additionally, the report includes guidelines for the reprogramming of funds from accounts identified as special interest items. These guidelines establish the parameters for what DoD calls an above-threshold reprogramming.

While Congress establishes these guidelines on the reprogramming of funds through report language, they are not law. As several congressional staff acknowledged, it would be very difficult to impose these restrictions through law and require a full vote. So instead, these provisions are included in the report language. Both DoD officials and congressional staff expressed their belief that this arrangement was preferable as it provides flexibility to react to unforeseen circumstances without involving the entire Congress. The *Department of Defense Financial Management Regulation* acknowledges this, stating, "recognition by the Congress of the practice of reprogramming DoD funds covered in DoD Appropriations Acts as a necessary, desirable, and timely device for achieving flexibility in the execution of DoD programs" (Department of Defense (2000), 6-01). As such, DoD strives to follow the intent of Congress as described in the report.

There are several justifications for reprogramming requests. The cost analysis may have overestimated requirements due to savings found along the way. A drop in oil

[53]Recall that each program in the president's budget request is designated by a specific line item in the justification books. These line items make up the different accounts. The report that accompanies the defense appropriations bill includes tables designating the specific amounts appropriated to each line item.

prices, program delays, or contract protests are just a couple reasons a program may no longer require the full amount appropriated by Congress. Similarly, the cost analysis may have been an underestimate due to an increased price of materials, changes to the program design, or a need of an item at a faster rate. OSD-C and service comptroller offices are constantly monitoring these accounts to determine their progress and ensure they are on the desired spending plan. They use this information to recommend changes in the accounts through reprogramming. When a desired reprogramming of funds exceeds any of the thresholds established in the report language or transfers funds from one account to another, DoD submits a reprogramming request to the four defense committees: the House and Senate Armed Services Committees (HASC and SASC) and the Subcommittees of the House Appropriations Committees (HAC-D and SAC-D). When a reprogramming request includes funding for intelligence programs – designated a congressional special interest item – the reprogramming request must also be presented to the two intelligence committees: the House Permanent Select Committee on Intelligence (HPSCI) and the Senate Select Committee for Intelligence (SSCI).

Though Congress sets the guidelines for reprogramming funds, OMB approves and, in some cases, directs the reprogramming process. Of most interest are the above-threshold reprogramming requests that require congressional approval. These requests include the amount to be transferred, the gaining account, and the losing account, along with a justification for each portion of the request . The military service bears the burden of receiving approval from OSD-C, OMB, and four to six committees; it must also justify both why the gaining account needs these funds and why the losing account does not need these funds. The service's request is sent to OSD-C for review and approval and then to OMB for final review and approval. Once approved by OMB, the request is sent to the oversight committees.

After the committees receive the reprogramming request, the professional staff review

it and make a recommendation to the chair on whether or not it should be approved.[54] This process can take months and may result in partial approval – for example, with one or multiple committees agreeing to the gaining account but not the losing, or source, account.[55] The source account for reprogramming is important not only to Congress, but to OMB and OSD as well. Either could choose to deny a service request in order to save the source account for the annual omnibus reprogramming. Ultimately, these reprogramming requirements are administrative agreements because they are included in the report as opposed to the bill itself. However, officials in DoD and congressional staff agree that it would be counterproductive for DoD to operate outside these guidelines.

2.7.3 Omnibus Reprogramming

Once a year, the DoD conducts an annual budget review and submits a department-wide reprogramming request referred to as the omnibus reprogramming request. As discussed above, Congress sets the deadline for this reprogramming package, which includes multiple requests for funding transfers between programs and accounts. This request transfers funds not only within service and defense-wide accounts, but also between these accounts. The omnibus reprogramming can be considered the single most significant change the DoD's execution glide path post-appropriations. This process is OSD and OMB led. Services submit their requests for inclusion in the omnibus request along with potential source accounts from which those requests could be met. OSD-C then reviews the re-

[54] In order to provide these recommendations, the committee staff request obligation and execution metrics from the services. This information helps them to better understand why a gaining program requires more funding or a source program has money that cannot be executed in the fiscal year.

[55] Given the electoral incentives discussed in the section on the appropriations process within Congress, it is possible the source account is of significance to a specific member of Congress. These considerations are taken into account when the reprogramming request is developed. Each reprogramming request is vetted through the service and OSD legislative affairs offices to assess the likelihood of congressional approval.

quests, prioritizes them, and matches them with sources. In this process, the gaining account and source account do not need to come from the same service.

As with the process leading to the finalization of the president's budget request, this process too can lead to the perception of winners and losers within the Pentagon. Based on the priorities of OMB and OSD, one service may be required to provide source accounts for another service's programs. OSD-C directs the services to provide a certain amount of source account funding – to identify funds that could be made available – and each produces a list of source accounts. Included with the list is an analysis of the risk of using the account as a source. The risk identified could be programmatic, such as potentially delaying the production of a piece of equipment. There is also a risk in using the same account as a source over multiple years. For example, the Air Force had $400 million cut from its fiscal year 2020 request for pilot training as a result of transferring funds from that account the two previous years (Donnelly (2019)). These source lists and associated risks are presented to OSD-C for its final decision on what will be included in the omnibus reprogramming request.

Once OSD-C finalizes the omnibus request, it is sent to OMB for final approval. At this point OMB can ensure that any directed reprogrammings are included and monitor what programs DoD is requesting additional funds for and where those funds originate. Although it has a limited role in the UFR list process in the congressional phase, OMB has complete control of the reprogramming process. The omnibus reprogramming request is then sent to the relevant committees in Congress. Approval of the omnibus reprogramming can be piecemeal over a long period of time. Portions of the request that are non-controversial from the perspective of the defense committees are prioritized and quickly approved. Portions that are more controversial, either because of the gaining or source account, can take months to approve or be denied outright. If a desired transfer of funds is not included in the omnibus reprogramming request, it is unlikely to get ap-

proved afterward. Given that the omnibus reprogramming is presented to the oversight committees in the summer,[56] the committees are already in the markup process for the next fiscal year. Unless the reprogramming request is something pressing or of congressional interest, the committee staff usually view the omnibus as the last opportunity to make adjustments. Any decisions by Congress to deny a reprogramming request is just that – a lack of approval. This does not constitute a legal restriction, but it can result in additional legal restrictions on transfers and reprogramming or cuts to a program in the next appropriations bill.

2.7.4 Discussion and Implications

The budget execution phase provides the DoD, the administration, and Congress with another opportunity to influence defense spending outcomes. Two aspects of this process deserve further attention in order to gain a better understanding of the micro-politics that affect outcomes. First, the language included in both the appropriations bill and the associated report has a significant impact on how DoD can execute the funds appropriated by Congress. Second, reprogramming is a tool that all the political actors leverage, though they do so to accomplish different goals.

First, consider the impact of the language used. While DoD may follow the guidelines included by Congress in the bill and the report, only the bill language is law. This brings increased significance to the legislative portion of the defense appropriations process. When members are submitting a request, they would prefer it to be included in the bill to ensure there are no changes during the execution phase. The Appropriations Committee, however, prefers as much flexibility as possible and therefore includes most of the member requests in the report. This flexibility prevents DoD from having to produce an amended or supplemental budget request that has to go through the entire

[56] Recall the June 30 suspense in the fiscal year 2019 appropriations bill.

markup process and a floor vote. Both Congress and DoD benefit from these agreements, but the success depends on DoD's treating the report language as law. If DoD does not comply, Congress has the ability to punish the department by increasing the restrictions on transfer authority[57] or by including more specific provisions in the bill language.[58]

Perhaps more significant is the fact that the reprogramming process allows DoD to fund programs at levels higher than Congress originally intended when writing the bill. Given the discretion regarding reprogramming, additional funding can be allocated to a program approved by OMB and the defense committees provided it does not exceed any restriction specified in the bill. Given that OMB can direct reprogramming, this has significant implications for our understanding of delegation and distributive politics and the variation in both when under unified or divided government. While scholars have shown that Congress and the president both use the appropriations process for electoral benefit, this description of the micro-level politics in the execution phase provides insight into how this is accomplished.

Complementing its ability to direct DoD reprogramming actions, OMB also uses apportionment authorities as an oversight tool. Per the Antideficiency Act, as a way to ensure agencies do not overspend appropriated funds, OMB can control the timing and rate at which DoD receives its funding. In more recent years, OMB has used apportionment as a tool to extract information on funding execution.[59] More work is required to better understand how this tool is used to exert control over DoD.

The second important aspect of micro-level politics that emerges from our under-

[57]For example, after President Trump transferred money to fund the border wall, the Democratic-led House version of the defense appropriations bill proposed a significant reduction in general transfer authority.

[58]For example, in 2015 the Republican-led Congress included language stating that none of the funds provided could be transferred for use to close down the federal prison in Guantanamo Bay, Cuba.

[59]For a more detailed discussion on how OMB uses these authorities, see Christensen (2012) and Lewis (2017).

standing of the reprogramming process is in regard to the incentives behind its use. Leveraging the reprogramming process to influence appropriations execution has immediate and long-term effects. In the short term, it provides OMB and DoD with an opportunity to change funding priorities and make required adjustments while executing the funds appropriated by Congress. However, career military and political appointees can, and often do, view the objectives of reprogramming differently. According to one of the career military officials I met with, the reprogramming process is meant to be a leveling off of accounts for which funds have been appropriated. In this case, it is an extension of the disciplined Planning, Programming, Budget, and Execution (PPBE) process and is not designed for significant changes in priorities. However, the OMB officials and DoD appointees I met with described reprogramming as an opportunity to impose the changes to the NSS and the NDS outside of the formal budget formulation process. When discussing the ability to change how funds were executed, one DoD appointee minimized the changes made through reprogramming, explaining that it only accounts for roughly $4 billion of a $700 billion budget. This appointee's point is that reprogramming authority only allows DoD to make changes on the margins. Alternatively, an official at OMB viewed the process as an opportunity to execute changes in administration priorities.

This latter view – that reprogramming is a tool of the administration to make changes – can cause long-term challenges with Congress. If these "marginal changes" through reprogramming impact items that are member-specific requests, DoD will have a challenge in building the open dialogue and trust professional staffers desire. Additionally, each reprogramming request adds to the institutional knowledge built in the oversight committees. If a program is used as a source account in the previous year, the professional staff will be more critical of requests for that program in future years. Along the same lines, if a program is constantly receiving additional funding post-appropriations, it will receive more scrutiny and face the risk of having DoD officials called to the Hill

to explain the program's failure.

Political appointees play a key role in the execution of appropriated funds. Service secretaries and comptrollers in particular have access to both the information (budget estimates, progress of programs, and presidential guidance), tools (reprogramming specifically), and authority to influence the execution of funds in a way they deem best. Their ability to influence this process is likely a function of their expertise and credibility. The incentives behind their influence may vary depending on their connection to DoD and the president. The difference could determine whether an appointee shares DoD's sentiment that the administrative agreements within the appropriations report should be treated as law. If not, an appointee's effort to influence outcomes at the behest of the president could do long-term damage to the relationship between DoD and Congress.

The execution of the funding for defense programs is the culmination of the defense appropriations process. While DoD may desire to use the reprogramming process to level off accounts, there are more salient political incentives for the president and Congress. The president may want to use the discretion Congress has granted to the agency as a way to score political points or adjust spending to meet new national security challenges. Similarly, Congress has an incentive to maintain the agreements that led to the passing of the defense appropriations bill and protect individual member's priorities. Both the president and Congress can leverage the reprogramming process to meet their intent – the president by directing reprogramming of funds within DoD and Congress by denying reprogramming requests. The extent to which either is successful depends on what law is specified in the bill and the whether or not DoD (at the direction of the president) follows the administrative agreements included in the report.

2.8 Conclusion

Scholars have done a great job explaining the macro-level politics that drive budgetary outcomes. Previous work has also demonstrated the struggle between the president and Congress for control of defense policy through defense spending. The description of the defense appropriations process in this paper builds on previous work by illuminating the micro-level political interactions and incentives at the various stages of the process. The president, Congress, and DoD all play a role in defense spending outcomes. More importantly, the multi-layered political interactions between and within these institutions have an enormous effect on the outcomes at each stage of the process. This paper identifies those interactions and provides previously unavailable insight into the inner workings of the defense appropriations process. In doing so, this paper identifies several implications for our understanding of political outcomes during the budget formulation, congressional appropriations, and budget execution phases.

As described in the budget formulation section of this paper, DoD uses a very formalized PPBE process to generate its budget request. The president, however, has incentives to adjust that request and uses OMB and political appointees to do so. Appointees in particular have an ability to adjust DoD's request through the Program Objective Memorandum (POM) and Program Decision Memorandum (PDM) processes in which decisions about funding are made for future years and the president's budget request, respectively. The description of the budget formulation process and data presented in this paper can help further our understanding of the effectiveness of political appointees. Leveraging this information can provide better insight into how and under what conditions presidents are able to gain control of agency outcomes. Using data from the president's budget request to Congress and comparing it to the prior year's estimate and to what Congress eventually appropriated can provide leverage in answering these questions.

There are also multiple important interactions occurring during the congressional appropriations phase. From the budget rollout through the appeals process, political appointees are present in, if not leading, the effort. Identifying the key appointees – secretaries and comptrollers – and their presence in the process illuminates how they work to implement the president's national security strategy. Additionally, understanding how committee members input their requests during the process provides a better understanding of the limits our current measures of ideology and legislative effectiveness. This description also illuminates the tools Congress has to conduct oversight and the incentives driving the use of those tools. The president and DoD can take advantage of private information and the discretion granted by Congress. Breaking trust with Congress, however, can result in significant costs imposed during the next appropriations cycle – costs that remain after a president leaves office. Also, with so much at stake for the president, Congress, and DoD, the question of political opinion rises: who is able to move it? Exploring these topics further will provide a better understanding of the legislative actors, interactions between institutions, and whether or not public opinion plays a role in outcomes.

Finally, the description of the budget execution phase highlights the importance of transfers and reprogramming as tools to react to changes in spending requirements during the fiscal year. This tool for flexibility benefits both DoD and Congress, but the restrictions on its use can fluctuate depending on the macro-level political environment. Friction between the president and Congress can put DoD in a precarious situation as an agency within the executive branch that wants to preserve a good relationship with Congress. Reprogramming, as described in this paper, provides a mechanism for which Congress and the president pursue (or defend) electoral benefits. This calls into question the impact on trust between DoD and Congress and how the variation in trust affects appropriations outcomes.

More research is needed on the individual's incentives at each decision point. Notably, appointees are present and often take a leading role in each phase of the process. During the budget formulation, they have an opportunity to bring DoD's budget estimate in line with the president's security priorities. In the Congressional phase, appointees are present during the rollout of the president's budget request, the appropriations hearings, appeals meetings, and other frequent interactions with Congress. During the execution phase, appointees approve and have the ability to direct transfers and reprogramming actions. This presents them with an opportunity to support the president's distributional preferences, but additional analysis is needed to determine whether this is the case. The secretaries also gain some media attention, giving them an opportunity to shape public opinion on defense issues. Their credibility with Congress affects their ability to execute both the president's and their own objectives. More work is needed to determine the effects of appointees within the DoD.

This paper provides a foundation for further research in these areas. Leveraging interviews of the individuals directly involved in the process, I have provided an up-to-date description of the defense appropriations process, exposing the multiple micro-level political interactions that may have otherwise been missed. The result is a better understanding of what occurs within the black box of defense appropriations.

Chapter 3

Chapter 3: Moving Public Support for Defense Spending: Elite cues and party identification

> "If you're going to increase end strength, you've got to increase the money to go with the end strength, to pay for their readiness." - General Mark Milley (2017)

3.1 Introduction to the Chapter

Military leaders have a vested interest in national security policy. Decisions made by politicians can directly influence the likelihood of success of the U.S. military. These decisions – specifically, the funding to support them – are codified in the annual defense appropriations bill. Though there are many funding issues military leaders may be concerned with, there are three that arise every year: (1) the overall funding level for DoD; (2) funding levels for regional support operations; and (3) funding levels for specific programs (i.e., weapons capabilities). While military leaders meet with stakeholders in the executive and legislative branches to justify their recommendations, there is another tool at their disposal: public opinion. Military leaders may decide to speak out in an attempt to persuade the public to support certain spending decisions. Public support of for defense spending can produce pressure on politicians, leading them to vote for increased defense spending even when they disagree. (Bartels (1991)). But what effect should military leaders expect their statements to have on public opinion? How does that effect compare to other political cues?

Studies on military elite cues have demonstrated that military leaders can be effective in increasing public support for decisions to use military force against other countries – otherwise known as use-of-force decisions (Gelpi and Feaver (2002), Recchia (2015);

Golby et al. (2018)). The common explanation is that Americans view the military as having expertise, increasing the level of trust in their statements. Based on these results, military leaders could believe these effects apply when making public statements in support of spending decisions. Indeed, spending decisions are arguably as important as use-of-force decisions, since spending determines deterrence and capacity should a conflict break out.

There is reason, however, to believe that public opinion responds differently to military elite cues when defense spending decisions are being considered. First, defense spending has become a highly ideological and partisan issue (Stimson et al. (1995); Stimson (1991); Newport (2018); Fordham (2001); Williams (2015)), and support for policies that increase defense spending vary by partisan identification. Second, the effect may not be consistent across defense spending issues. Spending debates happening in real time contain cues from various sources. Some of these cues may be more salient depending on an individual's partisan identification. Military leaders may not be able to accurately predict the effect of their statements on public opinion.

This paper asks three questions: (1) What effect does the presence a military elite cue have on support for salient defense spending decisions? (2) How does that effect compare to those of political elites? (3) How do these effects change based on the salience of the issue being considered? To answer these questions, I employ five survey experiments measuring the effect of military and political elite cues on support for a variety of military spending decisions. I find the effects of cues from political elites are more predictable and consistent than those from elite military officials. Interestingly, partisan cues on defense spending tend to have a strong negative effect on out-party responders and minimal positive effect for co-partisans. This is consistent with scholarly work on polarizing cues (e.g., Nicholson (2011)). The effect of a military elite cue varies across defense spending issues and by party identification. This finding calls into question the applicability of

previous research on military cues to defense spending issues. The results have significant implications when elites consider whether or not to publicly support defense spending outcomes.

3.2 Public Opinion, Partisan Identification, and Elite Cues

Studies on public opinion have consistently demonstrated that elite cues have a positive effect on support for proposed policies (e.g., Mondak (1993); Zaller (1992)). When trying to determine support for a particular policy, individuals look for information from sources they deem credible. But who are these credible sources? We know that political party elites, including party leaders, are one such source and are especially effective in shaping the opinion of strong partisans (see Bartels (2002); Druckman et al. (2013)). The effect of partisan elite cues is influenced not only by the strength of an individual's partisanship, but also by levels of political awareness (Kam (2005)).

The effect of cues from partisan elites can be furthered by information about group benefits – invoking a negative response toward the out-group (Nicholson (2011)), specifically among those with a predisposition to identify those out-groups (Kinder and Kam (2010)). These effects can work in two ways. First, partisans can have a negative affect toward out-party groups. In this case, partisans reject information from those of the other party. Second, the identification of an out-group as posing an existential treat to the United States can reduce the partisan effects based on an individual's ethnocentrism and have a rallying effect – as was the case after the 9/11 attacks (Kam and Kinder (2007); Kam and Kinder (2012)). In this case, the negative effect of partisanship is diminished by a larger outside threat. Both out-group features can be present when debating defense spending issues, particularly when specific geographical regions are under consideration.

Partisan cues can also be overcome when an individual believes information is com-

ing from a source of expertise (Page et al. (1987)). Doctors, lawyers, scientists, and other professional occupations are examples of sources of expertise. Information relayed through these individuals can reduce the extent to which an issue is viewed through a partisan lens. In the context of national security policy, military leaders should be effective at shaping public opinion due to the expertise they possess and the fact that many policy decisions are framed in terms of existential threats (e.g., Golby et al. (2018)). Yet research on the effect of military elites on public opinion is limited, partly because the military rarely speaks out publicly on policy issues.[1] The most obvious exceptions are cases when policymakers are considering the use of military force against an adversary. In these cases, studies have provided evidence that military elites possess distinct preferences for how to use the military and that they can influence public opinion and policymakers on use-of-force decisions (Fordham (2001); Gelpi and Feaver (2002); Recchia (2015)). One recent study demonstrated that the presence of a military elite cue increased public support for use-of-force decisions across a variety of hypothetical situations, though the effect was stronger for Republicans than Democrats (Golby et al. (2018)). This research has advanced our understanding of the effect military leaders can have on public opinion when they choose to speak out publicly on use-of-force decisions.

The execution of policy, however, requires funding. While military leaders are able to shape public opinion on use-of-force decisions, this doesn't generate the funding for those policies . The same is true when the military wants to increase spending for specific capabilities. What effect do military elite cues have on public opinion when defense spending decisions are being considered? This is a hard question to answer since spending issues tend to be more partisan, voters have more information about spending levels than about use-of-force decisions, and voters receive many competing

[1]Generally, military leaders do not speak out on policy or funding decisions due to the cultural professionalism and adherence to civil control of the military.

cues on spending from political elites. Indeed, scholars have demonstrated that there is a significant ideological and partisan divide in support for defense spending (Fordham (2001); Stimson (1991); Stimson et al. (1995); Williams (2015)). A 2018 Gallup poll found that 54% of Republicans and 17% of Democrats believe the U.S. is spending too little on defense, while 15% of Republicans and 53% of Democrats believe too much is being spent on defense (Newport (2018)). In addition, research shows that public opinion on defense spending is partially determined by recent levels of spending; public support increases when recent levels have been low and decreases when recent levels have been relatively high (Wlezien (1995)). These factors, specifically the partisan preferences and increased awareness of spending trends, suggest the effect of military elite cues on public support for use-of-force decisions may not be the same when defense spending is being considered.

Military leaders are not exclusive in their desire to shape the outcomes of defense spending decisions. Political elites have their own desired national security outcomes. Scholars have pointed to the president's ability to influence public opinion (Kernell (1997); Greenstein (2009); Wood (2009); Canes-Wrone (2006)), for example. While the president has a preference for defense spending outcomes, political leaders from the other party also have preferences. In addition to national security calculations, political elites have to take into account their own party platform and electoral incentives. As a result, voters may get cues from both military and partisan sources.

Use-of-force and modernization decisions are costly. While individuals in both parties may respond positively to elite military cues on general use-of-force decisions, the inclusion of information regarding the increased spending required to execute these decisions may significantly change these outcomes. Partisan cues may play a larger role in moving public support for spending issues. Given that DoD is viewed as an agency with expertise *and* as being relatively conservative compared to other agencies (Clinton et al. (2012);

Clinton and Lewis (2008); Richardson et al. (2018)), there is evidence partisans vary in their confidence in statements from military leaders (Robinson (2019)). Even on use-of-force issues, the effect of military cues is stronger for Republicans than for Democrats (Golby et al. (2018)). Do partisans view cues from military elites as a source of expertise or as another partisan cue? Perhaps this view of source cue depends on the issue. Given the partisan bias on defense spending, partisans may be selective in how they respond to military cues; they may react to perceived expertise only when the cues match their prior political assumption. When receiving cues supporting defense spending initiatives, partisans may be more compelled by cues coming from their own political party than those from the military. This is important to understand, given the significant effect public opinion can have on defense spending outcomes (Bartels (1991)). Understanding the effects of political elite cues and partisan identification on public opinion of defense appropriations decisions is important to our understanding of both political behavior and policy outcomes.

3.3 Influencing Defense Appropriations Outcomes

There are three types of defense spending outcomes that elites want to influence. The first outcome is the overall defense spending level. Political elites debate this issue annually – with Republicans usually advocating for an increased defense budget and Democrats withholding defense funding in order to fund other domestic priorities. For example, in 2015, Democratic Party leaders held up the fiscal year 2016 defense appropriations bill in order to renegotiate budget caps for domestic programs (Snell (2015)). Military leaders also have a preference for increased defense spending. Given the uncertainty of funding levels from year to year, it stand to reason that military leaders prefer increased overall funding to hedge against potential cuts in the future.

The second outcome that elites may want to influence is where defense spending

is allocated globally. Funding included in the defense appropriations bill determines what national security policies can be executed. Yearly, political leaders must decide where the U.S. should spend money to assist allies and protect the nation's interests. Recent debates about funding weapons for Ukraine to deter Russia or about increased cooperation exercises in the Pacific to deter China are just two examples. Just as they are interested in use-of-force decisions, military leaders have an interest in these outcomes as well.

Finally, political and military elites are interested in which defense programs receive funding. The defense appropriations bill specifies whether a military program receives funding and how much funding is appropriated to it. Political elites receive electoral benefits by bringing funding to their districts. Increases in funding for specific programs can equate to increased jobs and investments in military installations or research at a local university – which wins votes among the electorate. For example, when the Army wanted to discontinue production of its Abrams tank, members of Congress prevented it from doing so (Lardner (2013)). This decision kept a tank production facility in Lima, Ohio, open, as requested by three congressmen – of both parties – from Ohio. Military elites are interested in maintaining strategic over-match against near-peer adversaries. Both political and military elites have incentives to make public statements in support of specific programs.

It is possible that the effect of these elite cues vary from issue to issue. Americans may have a stronger reaction to political cues in some cases and to military cues in others. Issue salience, increased knowledge about the issue, and party identification are likely contributors to the effectiveness of these elite cues. To determine the effect of political and military elite cues, I have run five experiments using these three different types of defense spending outcomes.

Hypothesis 1: Elite cues will have no effect on the aggregate support for

increasing overall defense spending.

While defense spending in general has become a partisan issue, it is possible that public opinion can be moved when the specifics of that spending are identified. The public may not have a strong prior opinion on increasing spending in specific areas of the world or for specific programs. When specifics are presented, individuals will look to sources of expertise for information (e.g., Page et al. (1987); Golby et al. (2018)). The resulting expectation is that military elite cues in support of specific increases in defense spending will increase public support.

> Hypothesis 2: Military elite cues will have a positive effect on overall public support for increased spending in specific areas (regional or programmatic).

The military, however, may carry with it a partisan prime (e.g., Clinton and Lewis (2008); Clinton et al. (2012); Clinton et al. (2014)). While the military may be viewed as a source of expertise and professionalism, it is also viewed as a more conservative agency. The resulting expectation is that the effect of a military elite cue will be stronger for Republicans than for Democrats, as noted in hypothesis 2a.

> Hypothesis 2a : The positive effect of military elite cues on public support for increased spending in specific areas (regional or programmatic) will be stronger for Republicans than for Democrats.

Military leaders are not alone in their ability to offer statements in support of defense spending decisions. Political leaders also have an incentive to advocate support when they believe an increase in defense spending will advance their policy or electoral goals. In these cases, my expectation is that the effects mirror that of previous research on elite cues and public opinion. That is, partisans will look to their party leaders to develop their opinion on a specific issue (e.g., Bartels (2002); Druckman et al. (2013); Achen and

Bartels (2016)). As a result, partisan cues will have a positive effect on co-partisans and a negative effect on those who identify with the opposite party (e.g., Nicholson (2011)) – my third hypothesis.

> Hypothesis 3: Political elite cues will have a positive effect on co-partisans and [H3a] have a negative effect on out-party members (regional or programmatic).

There are times in which political and military leaders agree on the importance of increasing defense spending. The addition of a military elite cue to a partisan cue may provide credibility to the partisan leaders' statement due to the additional signal of expertise. In this case, I expect the overall level of support to increase compared to the level when only a political elite cue is present.

> Hypothesis 4: When aligned with a partisan elite cue, the presence of a military elite cue will have a positive effect, increasing the overall level of support compared to the level when only the partisan cue is present.

Finally, there may be a concern that elite cues further polarize public opinion on defense spending issues. That is, the presence of an elite political cue will increase the distance between strong Democrats and strong Republicans on their support for a specific spending proposal. Similarly, it is reasonable to think the presence of an elite military cue will reduce the polarization in opinion about the proposed policy.

> Hypothesis 5: The presence of a partisan cue will increase polarization in public opinion on defense spending issues. [H5a] The presence of a military elite cue will reduce the partisan polarization effect.

3.4 Research Design

The objective of this study is to (1) determine the effect of partisan and military elite cues on public opinion for a variety of realistic defense spending decisions, (2) determine the effect these cues have on self-identified partisans, and (3) identify the effects of elite cues on issue polarization. To do this, I run a series of experiments to determine the effect of elite cues on defense spending. The experiments included in this paper focus on recent debate concerning increases in overall defense spending, spending to supporting allies, and modernization efforts. The control condition contains no elite cue. The treatment conditions include information that one of the political elites (Democrat, Republican, military) has released a statement strongly supporting the proposed increase. Subjects are then asked to record their level of support for the proposal (strongly support, somewhat support, somewhat oppose, strongly oppose).

3.4.1 Experiments 1-3

Design: The first experimental design is a randomly assigned post-test only with three treatments and control as depicted here:

- $R - - > O_{LevelofSupport}$
- $R - - > T_{MilEliteSupportCue} - - > O_{LevelofSupport}$
- $R - - > T_{DemEliteSupportCue} - - > O_{LevelofSupport}$
- $R - - > T_{RepEliteSupportCue} - - > O_{LevelofSupport}$

Subjects are randomly assigned (R) to either the control or one of the three treatment groups. Those in the treatment groups receive additional information (T) indicating the support of one of the three elites. The subjects' level of support of is observed (O) through their response to the post-test question.

The first three experiments each use a different vignette.[2] The first vignette focuses on overall defense spending, asking subjects about their level of support for a decision to increase defense spending this fiscal year. The second captures opinion on increased spending to support sending more troops and equipment to Europe in order to deter Russia. The third vignette asks subjects about their level of support for a proposal to increase troops and equipment in South America to stabilize unrest in Venezuela. I chose these two geographical vignettes because (1) they were both issues discussed in the media a couple months prior to the survey and (2) they vary in political salience, with the Russian vignette having a partisan (or electoral) component that Venezuela does not. The treatments consist of a military elite cue, a congressional Democratic cue, and a congressional Republican cue – all in support of the proposed policy. The vignettes were administered one after the other; subjects were randomly assigned to treatments in each vignette.

Subject Pool: To gather my sample and randomly assign subjects to the four conditions, I use Lucid Survey Marketplace and the Research on Individuals, Politics, and Society (RIPS) lab Qualtrics survey generator. I chose the Lucid platform as my recruiting tool due to its accessibility and the fact that it has been validated for use in political science research as a convenience sample (Coppock and McClellan (2019)). Unlike other survey platforms, Lucid includes controls to produce a nationally representative sample.[3] Respondents were compensated $1.00 for their participation in the five- to six-minute survey experiment. The 1,952 respondents were randomly assigned to either the control or one of the three treatment groups and re-randomized for each experiment.[4] A breakdown

[2]Full vignettes can be found in the appendix.

[3]This is important as the focus of my project is on influencing public opinion focusing on the variation in self-reported partisan identification. Unlike other survey platforms, Lucid allows researchers to set quotas for party identification, resulting in a sample more representative of the national population.

[4]The target goal was 2,000 respondents. Forty-eight respondents did not complete the survey ex-

of the observations in each vignette and treatment is included in Table 3.1, below.

Table 3.1: Experiments 1-3: Distribution of Observations

Area of Increased Support:	Control	Military cue	Democratic cue	Republican cue
Overall defense spending	505	487	476	484
Defense spending in South America	530	486	447	489
Defense spending in Europe	503	513	490	446

Prestimulus Questionnaire: Because I am interested in public opinion and policy outcomes, my population of interest is likely voters. As a result, pretest questions include age and residency to screen for likely voters. Additionally, I am interested in party identification and the strength of that identification. To capture this, I use a two-step party identification question consistent with American National Election Studies (ANES) standards.[5]

I create indicators for self-identified Republicans and self-identified Democrats for analysis of support. For analysis of issue polarization, I recode PID to 1 such that strong Democrat=0 and strong Republican=1.

Survey: Preceding the first survey experiments, subjects are presented with basic introductory information about the defense appropriations process.

> Each year Congress passes a defense appropriations bill, which provides money to the Department of Defense to meet national security requirements. Congress sets the overall level of spending based on national security and domestic considerations. Congress also considers how to allocate defense funds in order to address specific national security concerns.

periment and were therefore dropped from the data.

[5]Question 1: Generally speaking, do you usually think of yourself as a Republican, a Democrat, an Independent, or what? IF REP/DEM: Would you call yourself a strong [REP/DEM] or a not very strong [REP/DEM]? IF IND/OTHER/DK/NO PREFERENCE: Do you think of yourself as closer to the [REP/DEM] Party or to the [REP/DEM] Party?

Subjects were presented with all three vignettes and randomly assigned to either the control or one of the three treatments. Re-randomization into groups (control and treatments) was conducted for both of the following vignettes. Following each vignette, subjects registered their level of support for the policy on a four-point scale from strongly oppose to strongly support.[6] For ease of analysis, I recode the responses to 1 such that 0 = strongly oppose and 1 = strongly support.

Analysis: In order to analyze the effect of the elite cues on public support for increased defense spending issues, a difference-in-means test was conducted to determine the average treatment effect of each vignettes.

In order to determine the effect of elite cue and party identification, I use ordinary least squares (OLS) regression. I calculate two models for each vignette:

- **Model 1:** Level of Support$= \beta_0 + \beta_{MilEliteCue} + \beta_{RepEliteCue} + \beta_{DemEliteCue} + \epsilon$
- **Model 2:** Level of Support$= \beta_0 + \beta_{MilEliteCue} + \beta_{RepEliteCue} + \beta_{DemEliteCue} + \beta_{RepID} + \beta_{DemID} + \beta_{DemID*MilCue} + \beta_{RepID*MilCue} + \beta_{DemID*RepCue} + \beta_{RepID*RepCue} + \beta_{DemID*DemCue} + \beta_{RepID*DemCue} + \epsilon$

3.5 Results Experiments 1-3

This experimental design outlined above provides leverage on understanding several aspects of public opinion and defense spending. First, the variety of vignettes replicates multiple realistic spending discussions that both political and military leaders are interested in. Annual deliberations over defense appropriations outcomes focus on the potential to increase funding in general or to support specific geographical areas. Second, the variation of elite cues as a treatment tests the effect political and military leaders

[6]Example: Do you support or oppose **[no prime/or source cueâs position that]** an increase in defense spending is needed this year?

have on support for a variety of defense spending scenarios. Below are the results for experiments 1 through 3.

3.5.1 Increased Overall Defense Spending

To test the expectations detailed above, I began my analysis of elite cues' effect on support for increased defense spending in general. I conduct a simple difference in means test to compare the average treatment effect of each elite cue to the control. As expected, the results in Table 3.2 suggest that none of the elite cues generate a significant change in average support for an overall increase in defense spending. While past research on military elite cues implies military leaders can move public opinion on use-of-force decisions, there is no evidence here that the effect applies to general defense spending. It is worth noting that, of the elite cues, the military cue has the strongest effect, but the result is not statistically significant.

Table 3.2: Effect of elite cues - Increase in overall spending

	Control	Military Cue	Democratic Cue	Republican Cue
Average	.64	.65	.64	.66
Standard Dev.	.31	.31	.30	.33
DIFF (SE)		.01 (0.19)	.006 (.02)	-.001 (.021)
Obs	505	487	476	484

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1 for one-tailed tests
Note: DIFF (SE) refers to the difference in effect of being in the treatment group compared to the control.

Given the partisan nature of defense spending, it is possible that the effect of each cue impacts individuals disproportionately based on their partisan identification. To explore this possibility, Table 3.3 below displays the average support of self-identified Democrats and Republicans in each treatment group.[7]

[7]Categorization of Republican and Democrat is based on the individual's self-identified partisanship

Table 3.3 reveals several results worth noting. First, the average level of support for the increase varies significantly between Democrats and Republicans. This is consistent with literature on defense spending. Within the control group, the level of support among Republicans is nearly 20 percentage points higher than that among Democrats.[8] The high coefficient (0.76) for support among Republicans in the control group suggests there may not be much room for increase, regardless of elite cue.

Table 3.3: Effect of elite cues on self-identified partisans: Increase in overall spending

	Control		Military Cue		Democratic Cue		Republican Cue	
Party of Respondent	Dem	Rep	Dem	Rep	Dem	Rep	Dem	Rep
Average	.58	.76	.56	.81	.67	.69	.53	.84
Standard Dev.	.34	.24	.32	.22	.31	.29	.36	.24
DIFF (SE)			-.02 (.03)	.05** (.03)	.09*** (.03)	-.07** (.03)	-.05* (.04)	.07*** (.03)
Obs	194	164	174	157	168	147	174	155

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1 for one-tailed tests
Note: DIFF (SE) refers to the difference in effect of being in the treatment group compared to the control.

The disparity in level of support between Democrats and Republicans increases when respondents are exposed to the military cue (0 .25) and Republican cue (0.31), though for slightly different reasons. The military elite cue has no effect on Democrats but a positive effect on Republicans. The Republican elite cue has a negative effect on Democrats and

in the prestimulus questionnaire. This is a slight deviation from studies of political behavior that group independent 'leaners' as either Republican or Democrat. Because of this, the results should be more conservative than if the leaners were included as partisans. Table 5.1 in the appendix shows this is generally the case.

[8]Perhaps surprisingly, the level of support among Democrats seems high. This may be a function of the wording in the vignette, which highlighted the justification for the increased spending to keep ahead of near-peer adversaries.

a positive effect on Republicans. Despite the concern for a ceiling effect resulting from the already high support among Republicans, both the military and Republican cues cause a significant increase.

The second result of significance is the effect of the Democratic cue on average levels of support by partisans. The level of support between Democrats and Republicans converged significantly (0.667 and 0.692, respectively) when the support cue came from "Democratic congressional leaders." Self-identified Democrats respond positively to the co-partisan cue, increasing their average support by 9 percentage points compared to the control group. Alternatively, self-identified Republicans respond negatively with an average level of support 7 percentage points less than the control group. This positive co-partisan effect on Democrats and negative out-party effect on Republicans bring their level of support closer together. As shown later, these types of effects of elite cues have an impact on issue polarization.

In order to analyze the effect of all the differences simultaneously, I use a multiple-comparisons regression.[9] This method isolates the effects of each treatment by party identification. Table 3.4 below, contains the three models discussed in the methodology section. Model 1 replicates the results found in the difference in means test in Table 3.2. Model 2 includes variables for each treatment group, the party identification of Democrats and Republicans, and the interaction of the identification with the treatment subjects were randomly assigned.

As expected, model 2 shows party identification is the strongest indicator of support for increased defense spending.[10] Model 2 isolates Republicans, Democrats, and independents by treatment type to analyze the effect each treatment has on partisans.[11] The

[9]For this analysis I use OLS. For robustness, analysis using ordered probit is included in the appendix. The results are consistent.

[10]An analysis of the effect of each treatment on polarization is included later in the paper.

[11]As with the earlier test, model 2 accounts for the individual's self-identified partisanship. This is a

Table 3.4: Effect of party identification and elite cue on level of support, general spending

VARIABLES	(1) Pr*Support*	(2) Pr*Support*
Military Cue	0.010	0.003
	(0.020)	(0.036)
Republican Cue	-0.000	-0.012
	(0.021)	(0.035)
Democratic Cue	0.006	-0.002
	(0.020)	(0.034)
Rep ID		0.192***
		(0.032)
Dem ID		0.010
		(0.035)
Dem ID*Mil Cue		-0.022
		(0.050)
Rep ID*Mil Cue		0.045
		(0.044)
Dem ID*Rep Cue		-0.040
		(0.050)
Rep ID*Rep Cue		0.086*
		(0.044)
Dem ID*Dem Cue		0.090*
		(0.048)
Rep ID*Dem Cue		-0.067
		(0.046)
Constant	0.636***	0.570***
	(0.014)	(0.026)
Observations	1,952	1,952
R-squared	0.000	0.107

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

constant, "Rep ID," and "Dem ID" rows capture the levels of support of independents, Republicans, and Democrats in the control group, respectively. The first three rows capture the effects of independents in the three treatments. The remaining rows isolate the effect of the elite cue on being either Republican or Democrat.

Three key results emerge from this analysis. First, elite cues do not move public support for defense spending in aggregate. Given the salience of defense spending and offsetting partisan effects, this is not surprising. Second, Republicans and Democrats both increase support when the co-partisan cue is present. This too is unsurprising, given what we know about partisan cues. It is interesting to note that the negative effect is not statistically significant when the out-group cue is present. Third, the military elite cue has no effect in general or on partisans specifically.

Overall, the results from the analysis above are not surprising and align with the hypotheses 1 and 3 stated earlier. Given what we know about military and partisan elite cues, we may expect different results when the proposed increase in funding is applied to a specific effort. I start with topics that best apply to the issue of geographical focus for increased spending. The two vignettes presented in the experiment highlight recent debates to increase spending for troops and equipment in Europe and the debate to do the same in South America. Both debates center around protecting U.S. interests. In Europe, these interests are supporting allies and deterring Russia. In South America, the interest is stabilizing Venezuela.

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slight deviation from studies of political behavior that group independent "leaners" as either Republican or Democrat. Because of this, the results may be more conservative than if the leaners were included as partisans.

3.5.2 Increased Defense Spending in Europe

There are three reasons we may think the effect of military and partisan cues are different in the case of increasing funds in Europe. First, this increase does not necessitate a trade-off in domestic spending. This perceived zero-sum game is the basis for much of the partisan difference in opinion when considering overall defense spending. Second, most national security experts agree that Russia presents a threat to the United States and its allies. Americans may view Russia as a threatening out-group, causing them to be more deferential to the expertise of military leaders and less influenced by partisan cues. Finally, as a result of the debate into Russia's election meddling in 2016, the proposal to increase funding in Europe could prime political or electoral considerations in the minds of partisans.

The results from Table 3.5 suggest that partisan and military elite cues do not move overall support – or support among independents – for increased defense spending in Europe. Consistent with the expectations and findings in the first experiment, Republican ID is the strongest indicator for support. Though not statistically significant, co-partisan cues have a positive effect on support. This is expected as well. An interesting result from the political elite cues is the large negative effect the Democrat cue has on the support of Republicans (-0.092). This could be a result of the ongoing debate over Russia's meddling in the 2016 elections. Republicans may view a Democratic endorsement of increased spending to deter Russia through a political lens – as an attack on their party's success in that election.

The expectation for the military elite cue was an increase in support, given the military's expertise on national security issues. This increase does not materialize in model 1. In model 2, the results suggest that the effect of the military elite cue on independents is negative (-0.057), on Democrats is positive (+0.095), and on Republicans

Table 3.5: Effect of party identification and elite cue on increased spending in Europe

VARIABLES	(1) (Model 1)	(2) (Model 2)
Military Cue	0.005	-0.057
	(0.020)	(0.036)
Republican Cue	-0.0130	-0.0293
	(0.020)	(0.035)
Democratic Cue	-0.003	-0.002
	(0.019)	(0.032)
Rep ID		0.158***
		(0.032)
Dem ID		-0.017
		(0.034)
Dem ID*Mil Cue		0.095*
		(0.048)
Rep ID*Mil Cue		0.068
		(0.046)
Dem ID*Rep Cue		-0.0009
		(0.050)
Rep ID*Rep Cue		0.053
		(0.045)
Dem ID*Dem Cue		0.074
		(0.046)
Rep ID*Dem Cue		-0.092**
		(0.046)
Constant	0.618***	0.575***
	(0.014)	(0.024)
Observations	1,952	1,952
R-squared	0.000	0.068

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

is positive (+0.068), though only the effect on Democrats is statistically significant. Again, given the partisan priming the discussion of Russia may carry, it is possible that partisans view the military as supporting their priors on the issue and that independents are weary of the political debate between the two parties.

The results of the second experiment suggest that the cleavages tied to overall defense spending are not fully present when the issue is specific to a certain geographical area. There are, however, partisan primes that accompany the specifics of deterring Russia and supporting European allies. These primes manifest themselves in the effect of military elites on partisans.

3.5.3 Increased Defense Spending in South America

It is possible, if not likely, that increasing funding to Europe for deterring Russia is already a politically primed issue . The public, and partisans within, may have already made up their mind on this issue. Another debate about where to use the military began following the Venezuelan elections in 2019. We may expect different results here because (a) the issue is less politically charged (i.e., partisans do not see this connected to their party's success); (b) Democrats tend to support efforts to maintain democracy; and (c) it is not an area of the world where the United States is visibly involved militarily. Unlike in the Europe case, providing increased military spending in South America does not have the potential electoral implications that deterring Russia has. Additionally, the lack of U.S. military presence and traditional media attention makes the situation in Venezuela one in which Americans do not have a lot of prior opinions. This suggests thatâas compared to their responses to the Europe caseâAmericans may defer more to the expertise of the military (Page et al. (1987); Golby et al. (2018)) and information cues from their co-partisan leaders (e.g., Druckman et al. (2013); Achen and Bartels (2016)). Table 3.6 displays the results of this experiment.

Table 3.6: Effect of party identification and elite cue on increased spending in support of Venezuela

VARIABLES	(1) (Model 1)	(2) (Model 2)
Military Cue	0.025	0.060*
	(0.020)	(0.032)
Republican Cue	-0.015	0.013
	(0.020)	(0.032)
Democratic Cue	-0.007	0.037
	(0.020)	(0.033)
Rep ID		0.182***
		(0.032)
Dem ID		0.101***
		(0.032)
Dem ID*Mil Cue		-0.107**
		(0.047)
Rep ID*Mil Cue		-0.006
		(0.045)
Dem ID*Rep Cue		-0.152***
		(0.047)
Rep ID*Rep Cue		0.077*
		(0.046)
Dem ID*Dem Cue		0.007
		(0.046)
Rep ID*Dem Cue		-0.157***
		(0.049)
Constant	0.597***	0.507***
	(0.014)	(0.022)
Observations	1,952	1,952
R-squared	0.002	0.085

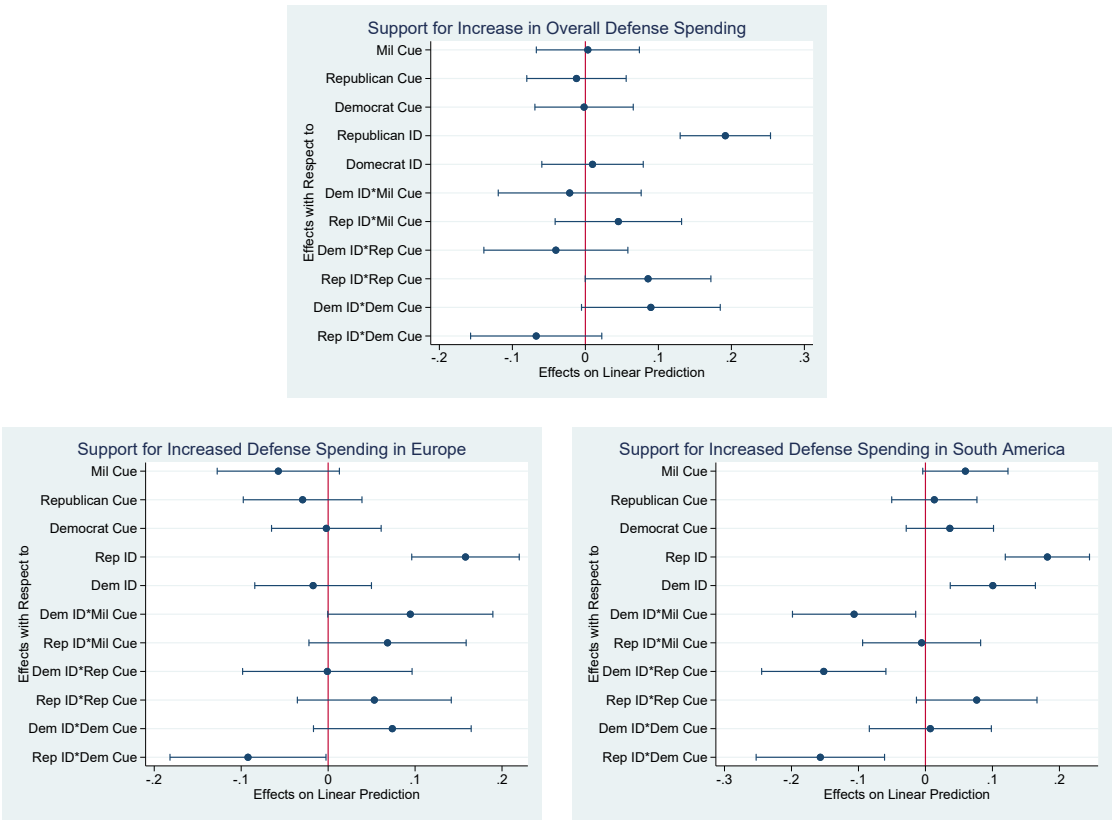
Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Several interesting results emerge from this analysis. First, the military elite cue has a positive effect on independents. This positive effect on support by independents (+0.06) is the only statistically significant result from the elite cues on independents, though the two partisan cues have a weak positive effect as well. Second, self-identifying as either a Republican or a Democrat has a positive effect on support for increasing military spending in South America (+0.18 and +0.10 respectively). Two possible explanations for this are that (1) this issue of increased defense spending in South America does not have a partisan prime or that (2) Republicans and Democrats are responding to two different components of the scenario. Republicans may be responding to the increase in defense spending, whereas Democrats may be responding to the effort to stabilize Venezuela.

Another interesting result is the partisan reaction to the military cue. The military elite cue has a negative effect on Democrats (-0.11) and a small positive, but statistically insignificant, positive effect on Republicans. The effect on Republicans is consistent with the previous two experiments. For Democrats, however, the military elite cue has a nearly opposite effect when compared to the Europe scenario. While identifying as a Democrat increases an individual's likelihood of supporting the increase in funding, the inclusion of a military cue voids that effect. In this case, the military elite cue may signal how the stabilization to Venezuela will be brought about. Democratic respondents may want to bring stabilization, but they have concerns about a military intervention. In summary, military cues get caught up in complicated partisan politics about intervention in certain regions of the world.

Finally, the partisan elite cues only have the predicted effects on the out-group. Democrats and Republicans receiving a cue from their own party do not change their level of support. A cue from the other party, however, has roughly the same negative effect for Republicans (-0.157) and Democrats (-0.152).

Figure 3.1: Predicted effects: Party identification, source cue and support for defense spending proposals



Note: Figure 3.1 displays the variation in effects resulting from source cue and party identification.

These variations, and their contrast with the previous vignettes, demonstrate the challenges elites may have in predicting the effects of their public statements in support of defense spending initiatives. Through the first three experiments, the military elite cue has produced no significant positive effect on the aggregate support of initiatives; its effect on independents and partisans has varied based on the issue being proposed. The partisan elite cues have, in general, affected support as predicted, though these effects are stronger on the out-party than on co-partisans. Figure 3.1 provides a visual depiction of the results so far.

3.6 Experiments 4 & 5: Program Specific Increases

The primary goal of these experiments is to increase the political salience of the elite cues and measure their effect on the level of support for increased spending on specific defense capabilities. To do so, I use President Donald J. Trump and House Speaker Nancy Pelosi as the political elite cues. For specific defense capabilities, I use low-yield nuclear weapons and cyber capabilities. I choose these two because they were both items included in DoD's budget request that gained attention during the past year (Mehta (2019); Boyd (2019)). A secondary goal is to determine the effect of allied elite cues, those in which the military elite cue for support is included with the statement of support from President Trump or Speaker Pelosi. The result is five treatment groups per experiment.

Design: The second experimental design is a randomly assigned 2x3 factorial with five treatments and control as depicted here:

- $R - - > O_{LevelofSupport}$
- $R - - > T_{MilleySupportCue} - - > O_{LevelofSupport}$
- $R - - > T_{TrumpSupportCue} - - > O_{LevelofSupport}$
- $R - - > T_{PelosiSupportCue} - - > O_{LevelofSupport}$

- $R - - > T_{TrumpAndMilleySupportCue} - - > O_{LevelofSupport}$
- $R - - > T_{PelosiAndMilleySupportCue} - - > O_{LevelofSupport}$

In this experiment, I use two vignettes focused on the level of support for an increase in spending for specific weapons capabilities.[12] The first vignette asks about low-yield nuclear weapons, asking subjects whether they support an increase in spending for this capability. The second vignette focused on cyber capabilities, asking subjects whether they support an increase in spending for this issue.

Subject Pool: For the same reasons discussed earlier, I again use the Lucid Survey Marketplace and the RIPS lab Qualtrics survey generator. In these survey experiments, 2,859 respondents were randomly assigned to either the control or one of the five treatment groups.[13] Distribution of subjects to the vignettes and cues are provided in table 3.7:

Table 3.7: Experiment 4 & 5: Distribution of observations

Support for increase in:	Control	Military Cue	Pelosi Cue	Trump Cue	Pelosi & Mil Cue	Trump & Mil Cue
Funding for Low Yield Nuclear Weapons	478	474	514	476	482	435
Funding for Cyber Capabilities	457	481	506	454	484	477

Prestimulus Questionnaire: For these survey experiments, I also use the same pretest criterion to screen for likely voters described for experiments 1-3.

Survey: In the fourth and fifth survey experiments, subjects are presented information on how policy makers decide where to make defense spending investments:

> Each year national security experts in the United States review the military investments of other countries. The reviews identify capability gaps between

[12]Vignettes can be found in the appendix.

[13]The target goal was 3,000 respondents. 141 respondents did not complete the survey experiment and were therefore dropped from the data.

the United States and potential adversaries and allow policy makers an opportunity to address these gaps through defense spending

Subjects are then presented with the two vignettes. The first discusses the need for low-yield nuclear weapons. The second discusses the need for increased cyber capabilities. Subjects are randomly assigned to either the control or one of five treatment groups. Re-randomization into groups was conducted for the second vignette. Subjects registered their level of support for the policy on a four-point scale from strongly agree to strongly disagree, and I recode the responses to 1.[14]

Analysis: In order to determine the effect of various elite cues and partisan identification, I use OLS regression. I calculate two models for each vignette. The first model captures the average treatment effect (ATE) of each cue, replicating a difference in means test. The second isolates the treatment effects by partisan identification:

- **Model 1:** Level of Support$= \beta_0 + \beta_{MilEliteCue} + \beta_{TrumpCue} + \beta_{PelosiEliteCue} + \beta_{Trump\&MilCue} + \beta_{Pelosi\&MilEliteCue} + \epsilon$
- **Model 2:** Level of Support$= \beta_0 + \beta_{MilEliteCue} + \beta_{TrumpCue} + \beta_{PelosiEliteCue} + \beta_{Trump\&MilCue} + \beta_{Pelosi\&MilEliteCue} + \beta_{RepID} + \beta_{DemID} + \beta_{DemID*MilCue} + \beta_{RepID*MilCue} + \beta_{DemID*TrumpCue} + \beta_{RepID*TrumpCue} + \beta_{DemID*PelosiCue} + \beta_{RepID*PelosiCue} + \beta_{DemID*Trump\&MilCue} + \beta_{RepID*Trump\&MilCue} + \beta_{DemID*Pelosi\&MilCue} + \beta_{RepID*Pelosi\&MilCue} + \epsilon$

3.7 Results Experiments 4 & 5

Experiments 4 and 5 do three things: (1) increase salience of the political prime; (2) apply elite cues to issues of programmatic funding, which commonly occurs each appropriations

[14]Example: Do you agree or disagree **[No Prime/with President Trump/with Speaker Pelosi/with General Milley/General Milley and President Trump/General Milley and Speaker Pelosi]** that increased spending for cyber capabilities is needed?

cycle; and (3) provide a way to conduct initial analysis of the effect when partisan and military cues are aligned. These experiments use two programs that received attention during the fiscal year 2020 appropriations cycle: low-yield nuclear weapons and cyber capabilities. While the issues of cyber and cyber security have been in the news for the last several years, most Americans have not heard debate about low-yield nuclear weapons. The provides an opportunity to conduct analysis on the effect of elite cues when the programs being discussed vary in salience.

Following the format of the first three experiments, table 3.8 displays the results of the two models for the nuclear and cyber vignettes. The difference is that there were five treatment groups and a control. In addition to each elite cue (military, Trump, and Pelosi), there are two "aligned" treatments. One treatment included statements from President Trump and Army General Mark A. Milley supporting the proposed increase and the other included Speaker Pelosi and General Milley. The result is that the first five rows in the table represent the five treatments. In model 2, the first five rows display the effects the treatment had on independents.

Model 1 for each experiment shows that between the two programs, low-yield nuclear weapons and cyber capabilities, there is a significant difference in the average level of support in the control (0.58 and 0.75 , respectively). Consistent with the other three experiments, model 2 shows that party identification has a strong effect on the level of support for both spending initiatives. One result that jumps out immediately is the negative effect both political cues, President Trump and Speaker Pelosi, have on overall support of the two proposals (model 1).

In these programmatic proposals, the military elite cue had no effect on any of the self-identified independents, Democrats, or Republicans. And again, the partisan cues are not fully consistent with expectations. While the Trump cue has a positive effect on Republicans when they're considering the cyber vignette (+14 percentage points),

Table 3.8: Effects of cues and party ID on support for increasing spending on specific capabilities

VARIABLES	(1) (Nuclear)	(2) (Nuclear)	(1) (Cyber)	(2) (Cyber)
Military Cue	-0.003	0.005	-0.026	-0.035
	(0.020)	(0.032)	(0.018)	(0.031)
Trump Cue	-0.053**	-0.022	-0.103***	-0.114***
	(0.022)	(0.037)	(0.020)	(0.036)
Pelosi Cue	-0.036*	0.012	-0.096***	-0.060**
	(0.021)	(0.033)	(0.018)	(0.030)
Trump&Military Cue	-0.017	-0.014	-0.067***	-0.081**
	(0.022)	(0.035)	(0.019)	(0.032)
Pelosi&Military Cue	-0.001	0.057*	-0.036**	-0.021
	(0.020)	(0.033)	(0.018)	(0.032)
Rep ID		0.212***		0.087***
		(0.034)		(0.030)
Dem ID		0.054		0.009
		(0.033)		(0.031)
Rep ID * Mil Cue		0.000		0.017
		(0.046)		(0.043)
Dem ID*Mil Cue		-0.029		0.012
		(0.046)		(0.043)
Rep ID*Trump Cue		0.053		0.140***
		(0.050)		(0.044)
Dem ID*Trump Cue		-0.141***		-0.093*
		(0.052)		(0.050)
Rep ID*Pelosi Cue		-0.245***		-0.154***
		(0.052)		(0.044)
Dem ID*Pelosi Cue		0.062		0.035
		(0.0469)		(0.0428)
Rep ID*Trump/Mil Cue		0.076		0.139***
		(0.049)		(0.042)
Dem ID*Trump/Mil Cue		-0.083		-0.048
		(0.051)		(0.046)
Rep ID*Pelosi/Mil Cue		-0.221***		-0.109**
		(0.050)		(0.046)
Dem ID*Pelosi/Mil Cue		0.014		0.044
		(0.047)		(0.043)
Constant	0.575***	0.497***	0.751***	0.722***
	(0.014)	(0.024)	(0.012)	(0.022)
Observations	2,859	2,859	2,859	2,859
R-squared	0.004	0.092	0.016	0.080

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

that is the only co-partisan cue that has a positive effect. The out-party effects are consistently negative, matching the results from the previous experiments. The results suggest, however, that those negative effects can be mitigated by the presence of an aligned military cue. Democrats exposed to the Trump cue had a significant negative response in both vignettes. That negative effect became null when the Trump cue was aligned with the military cue. Republicans exposed to the Pelosi cue also had a strong negative response. When the Pelosi cue was aligned with the military cue, the negative effect was only slightly reduced, but it was still significant.

These results again suggest that the effect of military cues on issues of defense spending are difficult to predict. Partisan cues, however, are more predictable – with the negative affect being the most consistent feature. Up to this point, the results demonstrate that elite cues do move public support, especially partisan support, for defense spending issues. During the appropriations process, as with most legislation that has to pass both chambers, proposals that receive bipartisan support are more likely to pass. While the results above demonstrate the general effects on support among self-identified independents, Democrats, and Republicans, they do not clearly measure the distance in support between strong Democrats and strong Republicans. That is, the results do not measure the polarization of each issue and how these elite cues affect polarization. So in the next section, I will address this issue of elite cues and polarization.

3.7.1 Effects of Elite Cues on Polarization

To measure polarization, I use the PID variable, which measures the strength and directionality of partisanship. It is normalized to a 0-1 scale in which 0=Strong Democrat and 1=Strong Republican. The resulting coefficient of this variable is the difference in level of support between being a strong Democrat and being a strong Republican (i.e., polarization).

Table 3.9: Effect of elite cues on issue polarization

VARIABLES	(1) Overall Spending	(2) Europe	(3) Venezuela	(4) Nuclear	(5) Cyber
Mil Cue	-0.034	-0.028	-0.034	-0.038	-0.040
	(0.034)	(0.033)	(0.033)	(0.033)	(0.029)
Rep(Trump) Cue	-0.077**	-0.003	-0.02	-0.190***	-0.231***
	(0.036)	(0.033)	(0.034)	(0.037)	(0.034)
Dem(Pelosi) Cue	0.091***	0.023	0.039	0.106***	0.011
	(0.033)	(0.032)	(0.033)	(0.032)	(0.029)
Trump&Mil Cue				-0.121***	-0.155***
				(0.036)	(0.032)
Pelosi&Mil Cue				0.112***	0.039
				(0.033)	(0.028)
PID (0-1)	0.214***	0.147***	0.128***	0.157***	0.082***
	(0.034)	(0.034)	(0.036)	(0.038)	(0.032)
PID*Mil Cue	0.083*	0.062	0.097*	0.063	0.032
	(0.048)	(0.051)	(0.053)	(0.053)	(0.046)
PID*Rep(Trump) Cue	0.151***	0.016	0.047	0.278***	0.281***
	(0.051)	(0.051)	(0.055)	(0.057)	(0.048)
PID*Dem(Pelosi) Cue	-0.182***	-0.030	-0.073	-0.312***	-0.220***
	(0.051)	(0.050)	(0.054)	(0.057)	(0.049)
PID*Pelosi&Mil Cue				-0.249***	-0.163***
				(0.056)	(0.048)
PID*Trump&Mil Cue				0.206***	0.194***
				(0.056)	(0.048)
Constant	0.535***	0.542***	0.531***	0.508***	0.713***
	(0.0240)	(0.0215)	(0.0229)	(0.0226)	(0.0204)
Observations	1,952	1,952	1,952	2,859	2,859
R-squared	0.096	0.039	0.036	0.086	0.079

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3.9 contains the polarization analysis from the five experiments. The interactions between PID and the source cue (in bold) display the effect of that source cue on polarization. The results show that the military elite cue has a positive effect on polarization for general defense spending (+0.083) and increased spending in Venezuela (+0.10). Based on the analysis earlier, this is a function of the military elite cue's positive effect on Republicans and negative effect on Democrats. The Republican cue only has a significant positive effect when respondents considered overall defense spending (+0.15). The Democratic cue had a negative effect on polarization when respondents considered the proposal of increasing overall defense spending (-0.18). Again, this is the result of co-partisans increasing their support and Republicans decreasing theirs.

It is worth noting that none of the three elite cues had a significant effect on polarization for the proposal to increase spending in Europe. Additionally, the effects of the partisan elite cues were not statistically significant in either of the geographic vignettes. The military elite cue increases polarization in two of the three experiments, thus adding another concern for military leaders when considering whether or not to make public statements.

Experiments 4 and 5 provide an opportunity to analyze two facets of how elite cues affect issue polarization. First, as with the analysis above, we can determine whether partisan and military elite cues affect polarization related to the level of support when specific programs are being considered. Second, using the aligned vignettes, we can determine whether or not adding a military elite cue to a partisan cue affects the level of polarization.

Columns 4 (Nuclear) and 5 (Cyber) display the polarization analysis for experiments 4 and 5. Unsurprisingly, the two salient political primes have a significant effect on issue polarization, though in opposite directions. These effects replicate those of the partisan cues on support for an increase in general spending: the President Trump cue has a

positive effect on issue polarization (+28 percentage points in in both vignettes) and the cue from Speaker Pelosi decreases polarization (-25 and -16 percentage points). The military elite cue has no effect on issue polarization for either program for which an increase was proposed.

The results also suggest that military elite cues, by themselves, do not have an effect on polarization for program-specific vignettes . But they do appear to reduce the partisan polarization effects. On the issue of increasing funding for low-yield nuclear weapons (column 4), the effect of the allied Trump and military cue on polarization is +0.21. This is 7 percentage points fewer than the effect of the Trump cue alone. In this case, the presence of an aligned cue reduced the increase in polarization that resulted when the cue came only from the president. When the military cue is aligned with Speaker Pelosi, the negative effect on polarization is reduced from -0.31 to -0.25. This suggests that the presence of the Pelosi cue by itself reduces polarization more than when it is aligned with a military cue. These results are replicated in the cyber vignette (column 5).

The analysis of elite cues' effect on the polarization surrounding defense spending issues is informative for three reasons. First, it demonstrates again that military elite cues on defense spending issues do not affect levels of support in a consistent manner. Second, it reveals variation in how the partisan cues affect polarization on defense spending. While Republican cues, including a cue from the president, increase polarization, Democratic cues can decrease it. This is a function of the partisan priors tied to the issue of defense spending and the negative affect Republicans have toward Democratic cues. Third, and perhaps most significant, the analysis shows the effect of the aligned cue compared to that of the individual partisan cue. While this analysis was only included for two of the five experiments, it provides initial evidence that the addition of a military elite cue can partially mitigate the effect of partisan cues on polarization.

3.8 Conclusion and Discussion

Elites, both military and political, have an interest in the outcomes of the defense appropriations process. Military officials and partisan politicians can choose to make public statements in order to shape opinion toward their desired outcome. Past research suggests that we may be able to predict the effect of public statements on public opinion. The five experiments above, however, demonstrate that this is not always the case, specifically for military elite cues. Table 3.10, below, displays the results of the hypothesis tests in each experiment.

Table 3.10: Analysis of hypothesis

	General Support	**Europe**	**South America**	**Nuclear**	**Cyber**
H1: Elite cues' effect on overall spending in aggregate	Null	–	–	–	–
H2: Mil cue has positive effect on support for specific issues	–	Null	Null	Null	Null
H2a: Mil cue has stronger effect on Republicans than Democrats	Null	X	✓	Null	Null
H3: Partisan cue has positive effect on co-partisans	✓	Null	✓	Null	Null
H3a: Partisan cue has negative effect on out-party	✓	✓	✓	✓	✓
H4: Mil cue increases support relative to partisan cue	–	–	–	✓	✓
H5: Mil cue reduces polarization	X	Null	X	Null	Null
H5a: "Aligned" cue reduces polarization relative to partisan cue	–	–	–	✓	✓

Note: ✓= Effect matched hypothesis; X = Effect opposite of hypothesis

The expectation for general defense spending (H1) was that elite cues would not be able to move overall public opinion. Given the annual debate over defense spending, most Americans probably have a firm position on this issue. The results from the experiment 1 support this. The surprising result is the effect of military elite cues on public support for specific defense spending issues (H2). The expectation was, based on previous work on military cues (Golby et al. (2018)), predicted that there would be a positive effect as a

result of perceived expertise (Page et al. (1987)). The effect on public opinion in general was null across the spectrum of issues. The effect of the military elite cue on partisans (H2a) varied based on the issue being proposed. This suggests that military leaders do not possess the same ability to increase support for defense spending issues that they do for use-of-force decisions.

In general, the partisan elite cues act as predicted, though there are cases in which the co-partisan cue produced null results (H3). The interesting result here is the consistency of the negative effect when the out-group cue is present even though the co-partisan cue does not always produce a positive effect. This is consistent with past work on negative affect toward out-party groups (Nicholson (2011)). The alignment of a military cue does appear to have two important effects. First, it increases overall support when compared to the partisan cue in isolation (H4). Second, it mitigates the polarization effect of the partisan cue (H5a). Interestingly, the military elite cue by itself increased polarization in two of the five experiments (H4).

The results described above are consistent with previous literature on partisan elite cues, but they call into question our understanding of cues from military elites. Perhaps the most obvious takeaway is that military cues do not work in a consistent manner when addressing issues of defense spending. Defense spending in general – and the specific issues for which increased funding may be required – can carry partisan primes. Making public statements on these issues may be viewed as being motivated by partisan preferences or self-interest. There is little here to suggest the public responds positively to the expertise of military leaders on these issues. Further, this specific design does not provide enough leverage to determine whether or how the presence of out-groups (partisan and international) varies in its effect on support for defense spending. This is an important component of public opinion and deserves further attention. Senior military leaders should be aware of the effect partisan elite statements can have on

public support and issue polarization. The two experiments that included aligned cues indicate that military leaders may want to make an aligned statement if a party elite has already publicly expressed support. Doing this can increase the overall level of support and mitigate the polarization effect.

Given the impact that the annual defense appropriations process has on both policy and political outcomes, more work should be done to better understand how public opinion determines the end result. This study is a starting point for that work. Future projects should look at the effect of elite cues that are not in agreement – specifically when military leaders make statements that are out of line with those made by political elites. This line of research will help advance our collective understanding of both political behavior and legislative outcomes.

Chapter 4

Chapter 4: Misaligned Incentives and National Security: The roles oversight and private information play in defense appropriations outcomes

"Army's $182 billion FY19 budget request seeks to fill capability gaps."

–*Defense News* headline, 2018

4.1 Introduction to the Chapter

In an open democratic government, the process of appropriating funding to the Department of Defense (DoD) is inherently informative to potential adversaries. The defense portion of the president's budget request is publicly available. A less-than-careful look through the request reveals programs and capabilities for which the DoD is requesting significant increases in funding. As Robert Powell has indicated (2007), this provides a signal of vulnerability in that specific area – a vulnerability that DoD wants to address. For example, as a 2018 *Defense News* article points out, "The prioritization of funding within the account show the Army's shift to a focus on armored combat against a near-peer adversary" (Judson (2018)). Having identified a deficiency in some of the armored vehicles when compared to those of adversaries, the Army requested additional funding to close the capability gap.

The identification of a capability gap, and its inclusion in a funding request to Congress, does not guarantee it will be addressed. Congress must determine what type of request DoD is sending. The request could be genuine – an immediate requirement to address a current capability gap – or it could be opportunistic – an increase in funding for a program in which no current capability gap exists. Only DoD knows for sure whether the request is genuine or opportunistic. Both DoD and Congress are concerned about the national security implications of highlighting a capability gap but then not addressing it

through increased funding (i.e., Congress's denying a genuine request).

The distinction between a genuine request and an opportunistic request is the immediacy of the threat resulting from the capability gap. For example, DoD may receive information through intelligence channels that China has developed a hypersonic missile that can evade current missile defense systems. Without an immediate increase in funding, this gap would remain a vulnerability. Opportunistic requests, on the other hand, are not directly related to an immediate capability gap. These requests focus on increasing funding for current programs in order to maintain superiority (or parity) in that area or to hedge against potential funding cuts in future years. Either can be presented, or perceived, as a request to address an immediate threat. And although Congress wants to address these threats, it does not always have the information to determine how critical a request is.

It is important to understand the principal-agent problem that occurs when Congress has oversight responsibility for defense spending but DoD has private information about capability gaps that need to be addressed through increased spending. Congress is limited in its oversight capacity and, as such, will delegate to agencies with expertise when policy outcomes are uncertain (Epstein and O'Halloran (1999); Kiewiet and McCubbins (1991)). This produces an environment in which agencies can advance opportunistic requests in order to get more funding in areas where it is not immediately required. While increased oversight capacity can increase the likelihood that Congress will detect opportunistic requests, capacity is only effective if Congress is willing to punish the agency when opportunistic requests are made.

In this paper, I develop a model of the interaction between DoD and Congress accounting for two factors directly impacting the outcomes of these requests: (1) the level of cost Congress will impose if an opportunistic request is detected and (2) the level of security threat when information about a genuine capability gap is revealed. I then de-

scribe these opportunistic requests to provide a better understanding of how the agency (DoD) and Congress often benefit from these additional funds. In this sense, this paper moves the discussion forward by accounting for the agency's and Congress's national security concerns and for Congress's electoral concerns.

The most striking finding is that opportunistic requests are made much more frequently than genuine requests when congressional oversight is sufficiently weak. This counterintuitive behavior arises from an asymmetry in DoD's incentives that is unique to the national security context. When a genuine capability gap exists, merely asking Congress to fund it creates a security risk – unless the funding request is ultimately granted. Opportunistic requests do not carry the same upfront security risks; they are only costly when oversight functions well. Consequently, in a low-oversight involvement, genuine requests will be deterred due to the security risks associated with being denied, whereas opportunistic requests will be put forward frequently.

The contribution of this paper is twofold. First, it extends the literature on congressional oversight by accounting for both information gained by Congress through increased capacity and the role congressional incentives play in enforcement. I do this by presenting a formal model that takes into account private information DoD has regarding capability gaps and the concern about revealing this information to adversaries. Second, it provides a modified concept of oversight, one accounting for both capacity and will. With this concept of oversight, the model sheds light on domestic factors that may have negative national security implications.

The format of this paper is as follows. To begin , I discuss the openness of the defense appropriations process in the United States and the concerns about national security in terms of revealing information about potential capability gaps. Next, I provide a brief overview on the scholarly work from two areas of study: congressional oversight and resource allocation in support of national security. I describe why understanding the

interaction between DoD and Congress during the defense appropriations process must take both into consideration, while noting that no work to date has done so. To analyze outcomes in the appropriations process, I present a model of incomplete information that captures the interaction between DoD and Congress. From this model arise two interesting equilibria: "honest" and "detrimental." Following the explanation of the model, I focus on the opportunistic equilibrium and the role oversight plays. Supplementing the analysis of the model with in-person interviews of those involved in the process, I explain when and how opportunistic requests are made, why they may get approved even in times of high capacity, and how these requests should be understood. Finally, I briefly discuss ways to reduce outcomes that negatively affect national security.

4.2 Funding National Security in an Open Democracy

In 2019, the defense budget for the United States was set at $716 billion (Stein (2018)) – roughly 60 percent of the discretionary budget. This is significant for two reasons. First, the amount signals the level of priority the United States has assigned to its military forces. More importantly, in the case of open democracies, it is easy to find out exactly how this amount is divided between specific programs and initiatives within DoD.[1] Second, the fact that defense spending makes up over 60 percent of the discretionary budget increases the attention it receives from members of Congress. These members, focused on reelection (e.g., Mayhew (1974)), conduct their oversight responsibilities while maximizing the amount of funding they bring back to their districts (e.g., Grimmer (2013)). The defense appropriations process provides an opportunity for members of Congress to do both (see Arnold (1979); Balla et al. (2002); Bertelli and Grose (2009)). The process

[1]The Office of the Secretary of Defense (Comptroller) is required to publish this information and make it publicly available. So-called "Green Books" breaking down each year of defense spending by specific program, or line item, can be found on the comptroller's webpage.

also provides an opportunity for international and domestic audiences to learn about capability gaps the United States may have.

The defense appropriations process is, by nature, a political process involving the president, Congress, and the agencies. Most of the internal politics that occur are unobserved by outside international and domestic audiences.[2] Each year, however, two publicly available documents provide insight into what the military requested and what Congress approved – the president's budget request and the defense appropriations bill.

The president's budget request is submitted annually to Congress in February and begins the process of passing a defense appropriations bill. Within the request are changes recommended by the DoD to address new and evolving national security requirements. These changes reflect DoD's assessment of the challenges potential adversaries pose to the United States based on the capabilities they are developing. Whether or not these funding changes are approved is up to Congress. Once the president's budget request is received, Congress begins the portion of its lawmaking role that results in the annual defense appropriations bill. This process lasts until the final bill is signed into law and includes months of hearings, meetings with DoD officials, and staff reviews of programs.

During this process, DoD and the services within it are asked to provide Congress with an unfunded requirements (UFR) list. The UFR list contains items that the services within DoD thought should be included in the president's budget request but were not.[3] The request for the UFR list provides DoD a second opportunity to make requests to

[2]In chapter 2, "The Contours of Defense Appropriations: Process and Politics of Funding National Security Requirements in the United States," I provide a descriptive account of this process.

[3]For a foreign adversary observing how the Congress is responding to DoD requests, there is some probability the request observed was genuine (i.e., addressing an immediate capability gap). While this paper is not focused on the decisions of the adversary, it reasons that it calculates the probability of a genuine request as P and the probability of an opportunistic request as 1–P and then uses this to determine its own resource allocation in response. The greater the probability a request was genuine and rejected, the higher the likelihood the adversary adjusts resources to take advantage.

Congress. The defense appropriations bill is finalized by the end of the previous fiscal year[4] and is made publicly available.

The result of this process is informative to both international and domestic observers. For international observers, particularly adversaries of the United States, Congress's denial or reduction of funding for programs DoD requested through the president's budget request signals a potential capability gap that will not be addressed during the next fiscal year – possibly giving an advantage to adversaries. For domestic audiences, the final defense appropriations bill indicates whether Congress followed through on campaign promises and whether individual members were able to bring funds back to their individual districts. How well Congress manages these signals depends on its oversight capacity and its ability to effectively allocate funds to meet the challenges posed by adversaries.

4.3 Theoretical Considerations

The interaction between DoD and Congress is unique. In contrast to most other agencies, DoD's funding is specific to addressing national security concerns. Decisions made during the appropriations process are observed by other actors, and those observations inform adversaries' calculations regarding the United States' strength, commitment, and capabilities. While, for instance, the contents of the Health and Human Services appropriations bill may directly impact the nation's ability to fight diseases, those diseases do not adjust their strategies for infecting U.S. citizens based on that funding. Near-peer competitors and adversaries, on the other hand, do react to the investments made (or withheld) in defense appropriations bills in order to disadvantage U.S. security. Adding a layer of complexity to the process, Congress must weigh both national security and

[4]The final defense appropriations bill is supposed to be signed into law no later than the end of September. However, Congress often requires an extension, or continuing resolution, to complete negotiations.

electoral incentives when determining which programs to fund and which to deny. To determine the parameters to include in this model, I rely on three broad areas of scholarly work: (1) private information and congressional oversight, (2) information and resource allocation, and (3) interests.

4.3.1 Private Information and Congressional Oversight

Agencies have an informational advantage over Congress. As a result of their "policy expertise," agencies are better positioned to predict the outcomes of policy decisions made by Congress (Gilligan and Krehbiel (1987)). This is especially true for DoD. Given the sensitive and often classified nature of the information and the expertise required to analyze it, DoD officials are in the best position to understand the relationship between funding decisions and military capability. Scholars have demonstrated that when policy outcomes are uncertain, Congress tends to delegate to agencies that have expertise (see Epstein and O'Halloran (1999); Kiewiet and McCubbins (1991)), particularly during periods of unified government (Kiewiet and McCubbins (1991); Huber et al. (2001); Bolton and Thrower (2019)).

The annual appropriations process, however, generates many binary choices to approve or disapprove funding for thousands of programs included within the request. Additionally, the individual services have the opportunity to present a UFR list. When an item appears in the president's budget request and the UFR list, DoD can claim a genuine capability gap exists. And while the political parties may disagree on overall funding levels, both generally want a military capable of meeting the goals set out in the nation's National Security Strategy.[5] Members of Congress must make choices each

[5]The National Security Strategy, developed by the president's National Security Council, outlines the security priorities for the nation. As established by the Goldwater-Nichols Department of Defense Reorganization Act of 1986, the president is required to provide a National Security Strategy with each

year about programs in the president's budget request. They rely on the DoD for its assessment of how important these different requests are for national security.

Congress is not necessarily at a loss for other advisors and experts apart from the DoD. Congress has multiple tools at its disposal to ensure agencies are doing what Congress prefers (e.g., Noll et al. (1989); Mccubbins et al. (1987)). Hearings, requests for information, reviews by study commissions, and thorough evaluations of programs are just a few examples of the mechanisms that provide Congress with the ability to conduct oversight. Additionally, Congress can call on outside expertise. For example, when the Army considered changing its investment in helicopters, Congress initiated the National Commission on the Future of the Army, composed of defense experts, to provide outside expertise on some of the decisions the Army was making (Feickert (2016)). Such oversight can illuminate whether a request by DoD was driven by an immediate capability gap. If it finds that a request is opportunistic, Congress can impose significant punishment in the form of additional oversight hearings, spending restrictions in the bill, investigations that embarrass DoD, and delays in the confirmation of key appointees (e.g., Fisher (1975); Kanter (1979); Weingast and Moran (1983); Mccubbins et al. (1987); Wilson (1989)). If DoD requests additional funds using a nonexistent capability gap as justification, Congress has these punishments at its disposal.

The ability to detect and punish is an important function of congressional oversight capacity. Recent work focused on this capacity has found that the level of discretion provided, even under divided government, is largely conditional on Congress's ability to reduce uncertainty (Bolton et al. (2015); Bolton and Thrower (2019)). This understanding of capacity and its relationship to oversight is key to modeling the interaction between DoD and Congress when a request for funding is being considered.

budget request.

4.3.2 Information Signalling and Resource Allocation

The discussion of oversight and capacity is important given that Congress's primary role role is to properly fund national security requirements, albeit within the limitations provided by the national budget and other funding priorities. Its role has significant implications for success in future conflicts. The result of the interaction between DoD and Congress has two information-signaling implications. First, a decision to deny a request by DoD could potentially leave a capability gap unaddressed. This public revelation of a capability shortcoming reduces an adversary's uncertainty of a strategic mismatch (Fearon (1995)). For example, if an adversary knows it has an advantage in cyber capabilities, this information informs whether and how that adversary will attack the United States. Second, disagreements between Congress and DoD can signal lack of unity on security priorities, which in turn can be interpreted by an adversary as a lack of commitment (Fearon (1994)). Both DoD and Congress would prefer to reduce the risk of adversaries' gaining information on capability gaps and commitments.

This concern over revealing information is unique to defense appropriations. While other agencies have private information about policy and spending outcomes, no third-party actors are adjusting their strategies in response to those decisions. For example, while the Department of Housing and Urban Development may request funding for researching discrimination in the mortgage industry, other countries are not crafting their lending policies in response to whether Congress funds such research. Adversaries of the United States observe and respond to decisions made on defense appropriations in ways that are directly detrimental to the security of the country.[6]

Information on capability gaps in the armed forces is especially useful to adversaries.

[6]Funding in policy areas such as innovation, space travel, foreign aid, and trade is also subject to third-party actors' observing and adjusting in order to gain an advantage. Future work should consider whether these agencies have the same concern of revealing gaps when generating their budget requests.

Scholars of resource allocation have consistently demonstrated how the allocation of soldiers, equipment, and resources can result in strategic advantage on the battlefield (see Powell (2007); Powell (2008)). Knowing how and where the United States is investing its defense dollars is informative in itself; knowing which requests have been denied is much more informative. Adversaries can use this information to adjust their own resource-allocation strategy, resulting in their strategic advantage in capabilities (Golman and Page (2008)).

The literature on information signaling and resource allocation provides great insight into how the decisions made during the defense appropriations process can impact an adversary's choices and ultimately the outcome of conflict. When Congress is conducting its oversight role and adjusting the president's budget request, potential adversaries are able to observe these changes and revise their priorities regarding their own resource allocations.

4.3.3 Interests

While DoD and Congress have the common interest of providing for national defense, they each have other interests that affect the outcomes of the appropriations process. Members of Congress have domestic political interests. Primarily, they want to be reelected into office (e.g,. Mayhew (1974)). One way they work toward this goal is by bringing federal funds back to their own district or state. Due to budget caps, these decisions become zero-sum equations: that is, additional funding for one project is offset by reduced funding for another. Given the uncertainty around other policy outcomes , members often shift their efforts to the appropriations process in order to claim credit for increased funding and jobs (Grimmer (2013)). Because most of the discretionary funding in the federal budget is determined by the defense appropriations process, securing DoD investment in state and local projects is attractive to members seeking reelection.

DoD, like any agency, is concerned about policy outcomes (see Wilson (1989)). These outcomes, however, extend beyond a single appropriation cycle. Uncertainty about funding levels from year to year produces an incentive to submit requests for more than what is required in a given year. Even when a capability gap does not currently exist, DoD may want to request additional funding to stay ahead of adversaries by increasing research and development or procuring more weapons. These so-called opportunistic requests would fund programs or items that DoD anticipates needing in future years, but they do not address an immediate capability gap. While such requests build overall military capability, they do not have the same strategic-advantage implications that are tied to genuine requests. For example, the Navy may request an additional ship or the Air Force may request additional aircraft, but if these requests are not in response to new information on strategic over-match by an adversary, they are opportunistic

The literature on oversight capacity focuses on Congress's ability to reduce the uncertainty that results from the discrepancy between what Congress knows and what the agency knows. However, reducing uncertainty is only one part of oversight. When considering appropriations requests, the will or desire to punish an agency – and the magnitude of that punishment – is also a factor in an agency's decision-making process. If the agency believes Congress is unable to identify genuine requests due to lack of oversight capacity, it will make opportunistic requests. The same holds true if Congress has high oversight capacity but lacks the will to deny an opportunistic request and punish the agency. This can be the case when the electoral interests and the interests of DoD align (e.g. Arnold (1979); Fiorina (1989)). How do concerns about information revealed to the adversary and the incentives of DoD and Congress determine outcomes in the defense appropriations process?

To answer this question, I develop a formal model that takes into account the private information DoD has on capability gaps, concerns Congress and DoD have for providing

information to adversaries, and the cost Congress can impose on DoD through oversight when requests do not reflect true national security concerns. In the model, I identify two equilibria of interest. The first is an "honest" equilibrium in which DoD only presents genuine requests. The second is what I call a "detrimental" equilibrium in which DoD withholds submitting some genuine requests and always submits opportunistic requests. These equilibria are the result of concern for information signaled to adversaries and the level of cost Congress can (or will) impose on DoD.

4.4 The Model

The following section describes the model of the interaction between DoD and Congress when DoD has private information about capability gaps. First, I describe the model, provide a table of payoffs, and present a diagram of the game tree. Then, I describe the variables used and briefly explain their real-world application. Next, I demonstrate the outcomes of the game if there were perfect information. Following the analysis of perfect information, I conduct an analysis of pooling and separating equilibrium when private information exists and present those along with a brief analysis of the practical implications of each.

4.4.1 Setup

The game consists of 2 players $i = \{DoD, Congress\}$. Nature determines the size of the gap in capabilities $g \in \{0, \bar{g}\}$ and reveals it to DoD through intelligence sources resulting in two types of requests $t = \{Genuine(G), Opportunistic(O)\}$. The probability that Congress is facing $DoD_{t:G}$ is $P \in [0, 1]$ and the probability it is facing $DoD_{t:O}$ is (1-P). DoD chooses between asking for additional funds (α) and not asking. Congress chooses between approving or disapproving the request. μ denotes Congress's belief, after observing the request, that DoD's request is genuine. As the equilibria sometimes

involve mixed strategies, I let q denote the probability of a request from $DoD_{t:G}$; r denote the probability of a request from $DoD_{t:O}$; and s denote the probability that Congress approves a request.

Capability Gap (g): This variable refers to the capability gap between the United States and any competitor in a specific program. Formally, I define the capability gap as $g \in \{0, \bar{g}\}$ where g is a random variable and $\bar{g} > 0$. As an example, the development of hypersonic missiles, directed energy weapons, or offensive cyber capabilities by near-peer competitors may be identified as a gap in capability. An increase in $\bar{g}$ correlates with the increased significance of the capability gap.

Resources to Address the Gap (α): DoD requires funding to address capability gaps. As such, α is what it would cost to resolve a genuine capability gap of size $\bar{g}$. Given that resources are finite, any additional allocation of α to DoD must come from funds Congress would otherwise use elsewhere. As a result, addressing a capability gap results in negative utility ($-\alpha$) for Congress.

Information Cost I: This variable refers to information gained by a third-party adversary. Outside of the direct Congress-DoD interaction, both Congress and DoD are concerned about revealing information an adversary can use to its advantage. This information is the revelation of a capability mismatch, thus reducing the uncertainty that the adversary has an advantage (Fearon (1995)). Both DoD and Congress want to avoid situations in which the adversary is provided this information.

Disagreement Cost D: Similar to the information cost, a disagreement cost arises when Congress denies a DoD request. The disagreement between Congress and DoD over the priorities for funding signals domestic political strife to the adversary and indicates a lack of commitment (Fearon (1994)). This cost is present for both genuine and opportunistic requests.[7]

[7]Note: The distinction between the disagreement cost and the information cost described above

Cost K: Cost refers to the penalty DoD pays if Congress detects an opportunistic request.[8] I parameterize cost as $K = \gamma(C_{DoD}) + (1 - \gamma)(0)$. In this case, Congress can impose punishment (C_{DoD}) when an opportunistic request is detected. The severity of (C_{DoD}) can vary based the incentives of Congress. That is, the level of C_{DoD} when an opportunistic request is discovered depends on the will of Congress to impose punishment. The probability that Congress will find out there is no gap ($\gamma \in [0, 1]$) depends on its oversight capacity. The more Congress invests in oversight, the higher the probability of detecting an opportunistic request.[9]

4.4.2 Game Tree and Payoffs

The resulting game tree and associated utilities are shown in figure 4.1. In the center, Nature reveals whether there is a genuine capability gap (left side) or no capability gap (right side). DoD then chooses to Ask or Don't Ask. If DoD asks, Congress has the option to Approve or Disapprove.

The payoffs are annotated in Table 4.1 below. On top is DoD broken into its two types and two choices for each type. In the left column is Congress which can choose to Approve or Disapprove.

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is important. While the two could be combined, there is a distinction between genuine requests and opportunistic requests in the concern of sending informative signals. While the observables are the same for the adversary, DoD and Congress are not concerned about revealing information about a nonexistent gap when Congress denies an opportunistic request. Both are concerned, however, about signals of disagreement and the impact of credible commitment.

[8]To construct the cost variable, I use a parameterization similar to that found in G. S. Becker's "Crime and Punishment," in which the severity of the punishment and the probability of being caught both contribute to utility calculations (Becker (1968)).

[9]The significance of the parameterization is discussed more clearly later, in the discussion of what the opportunistic requests look like and why there is a low cost to DoD even when capacity is high.

Figure 4.1: Game tree: Interaction between DoD and Congress

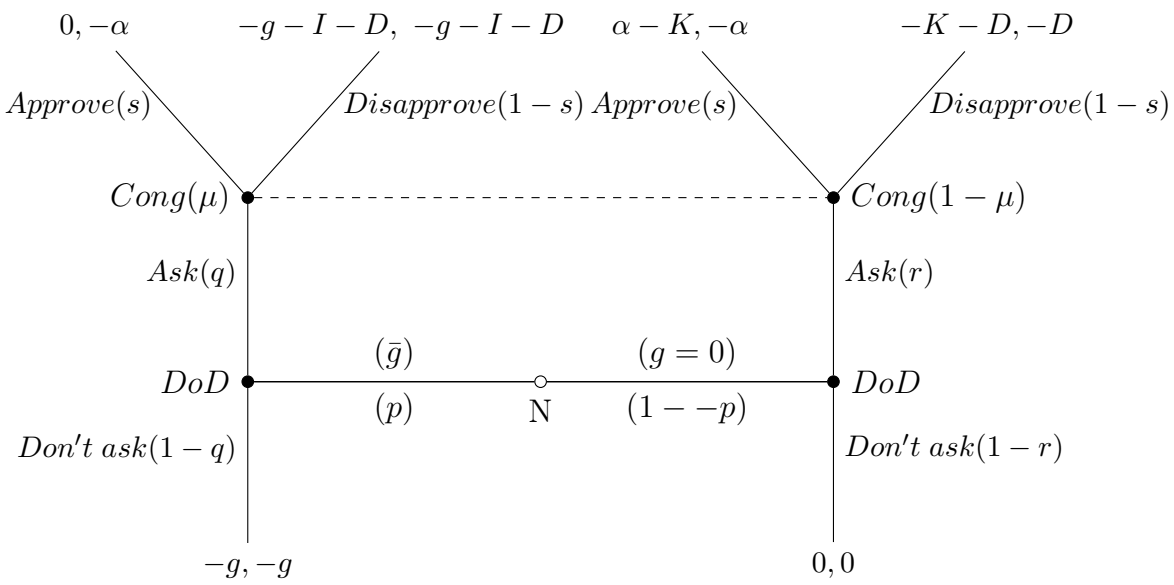


Table 4.1: Payoffs for Congress and DoD

	DoD				
Cong		Ask if	Ask if g=0	Don't if	Don't if g=0
	Approve	0, $-\alpha$	α-K, $-\alpha$	-g, -g	0,0,
	Dissaprove	-g-I-D, -g-I-D	-K-D, -D		

4.5 Results

4.5.1 Game With Perfect Information

Analyzing the game with perfect information, such that Nature's move is observed by Congress, allows us to determine a baseline for analysis of the incomplete information game. In the complete information game, Congress is able to confirm that a capability gap exists and then allocates the required amount of funding to address that gap. As a result, Congress would know what level of α is required to address the gap and would always approve requests when $g = \bar{g}$. A quick analysis of the payoffs produces the first two Lemmas.[10]

> *Lemma 1: If $g = 0$, then DoD never requests and if it did, Congress would disapprove.*
>
> *Lemma 2: If $\alpha \leq \bar{g}$, then DoD always requests and Congress always approves.*

Lemmas 1 and 2 are fairly intuitive. Congress knows whether or not a capability gap exists. Further, Congress will not appropriate more funding than what is required to address that gap. When a capability gap does not exist, Congress denies the request. As a result, DoD only makes genuine requests. This leads to Proposition 1:

> ***Proposition 1*:** If Congress has complete information, such that Nature's move is observed by Congress, DoD will always request when a capability gap exists and not request when the gap does not exist.

Proposition 1 provides a starting point for analyzing the incomplete information game. In any equilibrium, Congress will approve requests when it believes they are genuine and $\alpha < g + I + D$. Ideally, Congress wants to know about capability gaps and fund them at

[10] Full analysis and proofs can be found in the appendix.

the appropriate level. This analysis of the complete information game provides a starting point for analyzing the private information game.

4.5.2 Game With Incomplete Information and The Role of Oversight

Given the information asymmetry that results from DoD's private information about capability gaps, Congress does not usually have perfect information. There are occasions in which Congress may know they are receiving a genuine request because information about a capability gap has become observable. This could be the result of a capability demonstration by another nation, a failed capability test by the United States, or a successful attack on U.S. interests. For example, prior to September 11, 2001, it is likely $P \neq 1$. However, following the attacks on the World Trade Center and the Pentagon, it became clear to everyone concerned that capability gaps were present. It may also be known that $P = 0$, which one could argue was the case following the United States military's rout of the Iraqi army in Gulf War I. .

These cases are infrequent. More often it is the case that DoD identifies capability gaps through intelligence resources Congress does not possess and decides whether or not to request additional funds. Outcomes for the game with private information vary based on the probability of the capability gap, the strategies used by DoD and Congress based on Congress's beliefs, and the amount of cost Congress will impose on DoD if it detects an opportunistic request. It is this last point that contributes to our understanding of the importance of Congress's oversight capacity. Working through the game, I identify two equilibria that directly impact national security. The first, "honest" equilibrium, is separating such that DoD only submits genuine requests and Congress always approves. The second, "detrimental" equilibrium, is a semi-separating equilibrium in which DoD always submits opportunistic requests and sometimes submits genuine requests. The model and equilibrium analysis demonstrate that congressional oversight plays a critical

role in which equilibrium Congress and DoD achieve.

For any perfect Bayesian equilibrium (PBE) analysis, we must identify the conditions in which Congress believes it is receiving a genuine request and approves.

> *Lemma 3*: It is the best response for Congress to approve a request if and only if:
>
> $$\mu \geq \frac{\alpha - D}{\bar{g} + I} \equiv \mu*$$

Lemma 3 identifies the belief cut point at which Congress approves DoD requests.

4.5.3 The "Honest" Equilibrium

First, we are interested in whether or not there exists a PBE in which DoD only makes genuine requests and, if so, under what conditions. That is, are there conditions in which DoD has private information about the capability gaps but chooses to submit requests only when the gaps exist? This requires a separating equilibrium in which $DoD_{t:G}$ always asks and Congress always approves while $DoD_{t:O}$ never asks. Proposition 2 contains this equilibrium assessment for the honest equilibrium:[11]

> ***Proposition 2*:** If and only if $K \geq \alpha$, then an "honest" PBE exists in which the following assessment is used:
>
> - $\mu = 1$
> - $\sigma_{DoD_{t:G}} = Ask; \sigma_{DoD_{t:0}} = Don't$
> - $\sigma_{Cong} = Approve$

When K is high enough, DoD chooses not to make opportunistic requests. This in turn ensures Congress that requests received from DoD are genuine. While I have

[11] Proof included in the appendix.

labeled this the honest equilibrium, it is also the ideal outcome. From a national security standpoint, capability gaps are being identified and addressed. Congress's approving all requests creates two benefits. First, DoD does not choose to withhold information on capability gaps because it fears that doing so will mean those gaps go unfunded. Second, no additional information is provided to adversaries regarding continued capability gaps due to lack of funding or civil-military friction.

Since Congress is approving all requests, $DoD_{t:O}$ could deviate to "ask" and receive approval. However, this is costly in the honest equilibrium given K. As a result, the best response for $DoD_{t:O}$ is to not ask. From a domestic politics and fiscal responsibility standpoint, the high cost prevents opportunistic requests from being made and approved. While increased oversight and the concern of punishment may be perceived as negative to any agency, it generates an environment in which trust is established and security interests are preserved.

4.5.4 The "Detrimental" Equilibrium

Unfortunately, the honest equilibrium holds only if K is large enough. So, what happens when the cost DoD incurs for opportunistic requests is low because Congress does not have the capacity or will to conduct effective oversight? If the honest equilibrium maximizes the advantages to national security and fiscal responsibility, is there an equilibrium that does the opposite? Proposition 3 identifies this equilibrium assessment:

> **Proposition 3:** If K and D are sufficiently low, such that $K + D < \alpha$, there exists a PBE in which DoD mixes between asking and not when $g = \bar{g}$ and always asks when $g = 0$. The following assessment is a PBE:
>
> - $\sigma_{DoD_{t:G}}$ mixes using $q^* = \frac{(1-p)(\alpha-D)}{p(-\alpha+\bar{g}+I+D)}$
> - $\sigma_{DoD_{t:0}} = Ask$

- σ_{Cong} mixes using $s^* = \frac{I+D}{\bar{g}+I+D}$

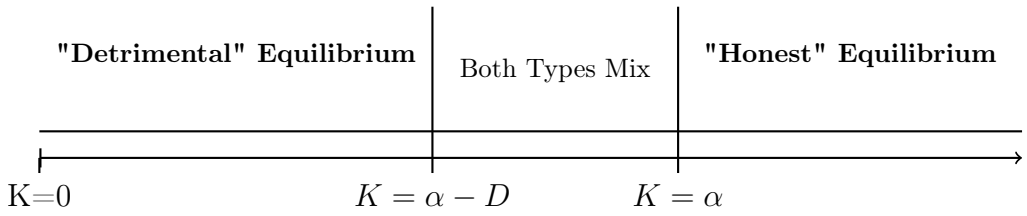
In this case, an attempt to reduce the number of opportunistic requests by making DoD indifferent between Ask and Don't Ask only affects the genuine type due to the low cost (K). Because Congress is mixing between Approve and Disapprove, DoD withholds some genuine requests for fear that information about a vulnerability will be revealed. The opportunistic type, while indifferent when the request is denied, has only to gain when the request is approved. The cost (K) that Congress can impose is so low that DoD benefits from making opportunistic requests, even if they get denied. Therefore, the opportunistic type will always ask. This further highlights the significance of the principal-agent problem when an agency has private information regarding funding requirements. The risk is arguably more significant when talking about the DoD. The semi-separating equilibrium described above suggests that when real capability gaps exist, the increased probability of Congress's rejecting the request deters DoD from asking. However, because there are marginal consequences when capability gaps are nonexistent and the request is denied, opportunistic requests are always made.

The detrimental equilibrium that results from the model illuminates a state of the world in which two normatively negative outcomes are occurring. First, DoD is refraining from asking for increased funding to address some known gaps in capabilities. Congress is not able to determine on its own whether the request is genuine; therefore, it has to mix between Approve and Disapprove. To avoid the risk of signaling to adversaries where the United States might be over-matched, DoD decides not to ask for additional funds in certain cases. As shown later, this decision by DoD is significantly influenced by the risk of information being revealed: the higher the information cost, the less likely DoD is to ask for funding.

The second normatively negative result is that DoD always submits opportunistic requests knowing they will sometimes get approved. This approval by Congress can be

based on three factors : (1) Congress's concern for revealing gaps that do not exist; (2) Congress's concern for signaling disagreement with DoD; and, most importantly, (3) Congress's inability to impose a cost great enough to deter opportunistic requests. Figure 4.2, below, displays the equilibrium outcomes and how the level of K leads to the honest and detrimental equilibria we are interested in.[12]

Figure 4.2: Equilibrium outcomes based on level of cost K to DoD



Note: Figure 4.2 depicts the equilibrium outcomes based on the amount of cost (K) Congress can impose.

Given the significant implications of the detrimental equilibrium, it is important to understand what is driving this important result. That is, how do the concern about revealing information and the level of cost imposed by Congress affect these outcomes. Understanding this will shed light on the impact the interaction between Congress and DoD has on defense spending and national security more broadly.

4.6 The Effect of Information Cost on Potential Outcomes

In the interaction between DoD and Congress, the most significant threat to national security is revealing a genuine capability gap and not addressing it. The model shows that

[12]The conditions for a pure strategy equilibrium are established when $K \leq \alpha$. Similarly, the conditions for an equilibrium in which the genuine type mixes are established when $K \geq \alpha - D$. As a result, there exists a third equilibrium not addressed in this paper in which both types of DoD mix when K is between $\alpha - D$ and α (see Kreps and Wilson (1982) and Fudenberg and Tirole (1991)). In this range, I suspect the probability of DoD's making a genuine request increases and the probability of an opportunistic request decreases as K increases.

when K is low, such that $K = \alpha - D$, Congress mixes between Approve and Disapprove. In response, $DoD_{t:G}$ also mixes between Ask and Don't Ask. This is the detrimental equilibrium. Do"s response is due to its private information on the capability gap and the risk of that information's being revealed. The larger the risk that information will be revealed, the less likely DoD is to ask for funds to address the gap. Figure 4.3 below depicts the effect of I on both the probability of DoD asking and Congress approving .

As the information cost increases, the probability of DoD's submitting a genuine request decreases. This is due to Congress's inability to identify a request as genuine. In this case, low K is the result of Congress's low capacity to identify a genuine request. Figure 4.3 also shows that the probability of Congress's approving a request increases as the information cost increases. Unfortunately, Congress is unable to discern between genuine and opportunistic requests; Congress cannot determine whether the capability gap exists, nor can it discern the associated information cost of revealing it to adversaries. As a result, DoD becomes less likely to make the genuine request as the information cost increases. This dynamic is detrimental to national security and highlights one of the areas in which the interests of Congress and DoD are not aligned.

It is important to understand that the probabilities depicted in figure 3 are based completely on the change in information cost and not on the size of the capability gap. In the model, DoD always asks for the amount of funding to address the gap such that $\alpha = \bar{g}$. As a result, the two variables cancel each other out. Practically speaking, though, the size of the capability gap, and specifically the funding to address it, is not necessarily correlated with the information cost. For example, it is increasingly the case that weapons systems depend on software to function properly. A vulnerability in software could result in an immediate capability gap but requires a small amount of funding to fix. The revelation of that vulnerability, however, could provide a significant advantage to an adversary. Conversely, there could be a large capability gap in an area

Figure 4.3: Effects of information revealed (I) to adversaries

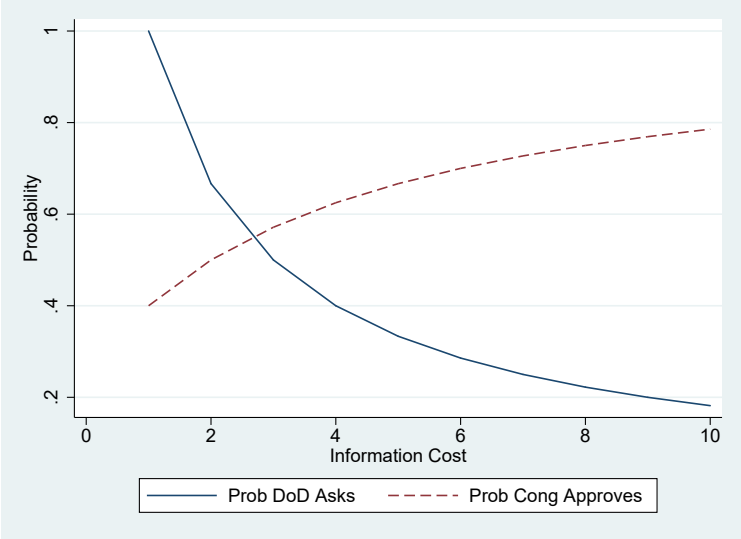


Figure 4.3 shows the effect of concern for revealing information (I) on the probability (s) that Congress approves a request and the probability (q) that DoD makes a genuine request when all other parameters are held constant.

or domain where the United States is not competing. In this case, the information cost is low because there is no strategic advantage for the adversary to assume . DoD may be more likely to make a request in this case, but is also more likely the request will be disapproved depending on Congressâs ability to determine the true capability gap and information cost.

In the honest equilibrium, all genuine requests are made and approved. In this case, Congress knows it is only receiving genuine requests. This dynamic results in all capability gaps being addressed. Arrival at the honest or detrimental state of the world depends on the K parameter. Given that K is a probabilistic function, there is variation in how it affects decisions made by DoD and Congress. This variation leads to instances in which the interests of Congress and DoD overlap but also to instances where they separate.

4.7 Cost K and the Misalignment of Interests

In this model, the variable K is doing the majority of the work in determining outcomes. Based on in-person interviews with congressional staff and DoD officials, this result matches the practicalities of the relationship and highlights the importance of congressional oversight of agencies. By using a probabilistic formulation for cost ($K = \gamma(C_{DoD}) + (1-\gamma)(0)$), we can gain better insight into the choice to invest in oversight capability (γ) and the level of severity at which Congress is willing to punish DoD (C_{DoD}). If Congress is able to detect opportunistic requests but unwilling or unable to enact punishment, K may still be too low to deter DoD. Conversely, if Congress is willing to punish severely but has only a marginal chance of detection, DoD may not be fully deterred. The analysis above shows that when K is large enough, Congress only receives genuine requests. Why, then, would Congress not ensure K is large enough to act as a deterrent by investing in its oversight capacity and imposing strict punishment?

Members of Congress have incentives to increase spending. Research shows that the more committees an agency has providing oversight, the less effective that oversight is. This reduction in effectiveness is due to the increased number of members seeking to receive benefits (Clinton et al. (2014)). While Congress collectively may desire only genuine requests, individual members benefit from many opportunistic requests, thus reducing the chances members will act to punish DoD. This misalignment of interests has a significant effect on the outcomes in resource-allocation decisions. As the equilibria identified in the model show, if $K < \alpha$, then DoD will provide some opportunistic requests. This causes Congress (the collective) to have to mix between approval and disapproval. As a result, DoD will not ask for funds to address some capability gaps – leaving the United States vulnerable in those areas. More concerning is that some genuine requests will get deniedâleaving the country vulnerable *and* advertising gaps to

potential adversaries. How do Congress and DoD mitigate these risks while pursuing their own goals?

Two cases can drive a low cost to DoD such that $K < \alpha$. The first is low oversight capacity: Congress is not able to detect opportunistic requests. The second case is low punishment: Congress chooses not to punish DoD. When the cost is so low that $K < \alpha - D$, the detrimental equilibrium results. But when do these conditions exist? To gain insight into this question, I conducted interviews with several congressional staff members and DoD officials involved in the process.[13] These interviews provide a better understanding of the different incentives driving the outcomes of the defense appropriations process, and they provide some context to the results described in the model.

4.7.1 When Low Capacity Leads to Low K

As discussed earlier, when Congress lacks capacity, it cannot conduct effective oversight. This leads to greater deference to agencies, including in regard to budget requests. When funding for DoD is under consideration, agency expertise manifests itself in the budget request, the unfunded requirements (UFR) list , and justification documents.[14]

Congressional staff use these documents to conduct their oversight, identifying changes to programs or additions of new programs as compared to the previous year. While some of these changes are associated with genuine capability gaps, others may be more opportunistic in nature. According to one congressional staffer, the justifications accompanying the requests almost always suggest a connection to the National Security Strategy or to a newly identified capability gap. The role of Congress is to scrutinize these requests and

[13]These semi-structured interviews were conducted for my overall dissertation project. Individuals were selected based on their current position and expertise in the defense appropriations process.

[14]Justification documents accompany the president's budget request. These documents include the cost of the program, any changes to it, and an explanation of why the program is required.

the justifications that accompany them to determine which are genuine and which are opportunistic. One recent example was congressional skepticism over the justification for funding a physical barrier on the southern border (Baldor and Burns (2019)). If oversight capacity is low, Congress cannot make the distinction and must use the mix between Approving and Disapproving. As the model shows, DoD then mixes between Asking and Not Asking. Displayed earlier, the probability that DoD will ask decreases as the information cost increases. Again, the probability of Congress's approving these requests would increase as the information cost increases. In this state of the world, however, Congress does has neither the capacity to know what the information cost (I) is nor the ability to impose cost (K) on DoD to ensure only genuine requests. This negative impact on addressing genuine capability gaps implies that low congressional capacity hurts national security.

When the capacity of the congressional staff is high, DoD is not concerned with genuine requests' being denied. The staff is capable of looking into the requested increase and confirming that it is required to meet a capability gap. However, this high capacity also allows congressional staff to identify opportunistic requests. When DoD is trying to add funding to programs that are not immediately required, the congressional staff identify those requests and Congress can impose some level of cost (C_{DoD}). When capacity is high, the will to punish DoD determines whether or not Congress receives opportunistic requests.

4.7.2 When Low C_{DoD} Leads to Low K

In order to prevent opportunistic requests, the level of cost (K) must be such that it outweighs the utility gained by submitting said request (α). Importantly, Congress must be willing to impose that cost. Why would a Congress with high capacity *not* impose a punishment on an agency that submits opportunistic requests? The electoral incentives

of members of Congress create conditions in which some opportunistic requests will be accepted with no penalty. As such, there are two types of opportunistic requests that members of Congress may prefer to support. The first is increased funding for programs included in the president's budget request that bring funding or jobs to a specific congressional district. The second type involves the individual services' UFR list detailing programs that the services wanted but were not included in the president's budget request.[15]

This situation creates incentive overlap between Congress and DoD. Long-term funding for the DoD is unpredictable. The top-line levels that Congress and the administration set vary from year to year. This creates an incentive for agencies to include more than may be needed in the president's budget request – anticipating that funding in the next year may be reduced. In addition to making requests that address capability gaps, DoD may request increased funding for programs that address potential future gaps or for increasing procurement of certain weapons systems. When these types of requests line up with the desires of the members of Congress, there is a lack of desire (i.e., no will) to punish the agency.[16]

The UFR list is another opportunity for a service to provide both genuine and opportunistic requests. This list comprises funding for programs and initiatives that did not make it into the president's budget request. The defense committee staff reviews this list and makes a recommendation to the chair of the appropriations committee as to which items on this list should be added to the final appropriations bill. As one congres-

[15]In this case, Congress asks the services (Army, Navy, and Air Force) what they needed that did not make it into the president's budget. In this sense, Congress and DoD bypass the Office of Management and Budget in sending requests to Congress.

[16]DoD could also make requests that have nothing at all to do with future requirements. In these cases, the probability of Congress' detecting and punishing increases. The point here is that the model holds for abusive opportunistic requests along with those more in line with meeting national security requirements.

sional staffer stated, the goal here is to look for win-wins; they want to both find items the services can use and fulfill member interests. Sometimes those member interests are focused on a specific portion of national security (e.g., regional or capability), but often an interest specifically compliments a reelection incentive for a member or group of members. Though the interests are misaligned, the results are not.

Opportunistic requests are not inherently negative or wasteful. They are the rational reaction of an agency when future years of funding are uncertain or essential items are not included in the president's budget request. The principal-agent problem that results from DoD's private information about capability gaps is limited when Congress has high oversight capacity. When considering requests, a high-capacity Congress prioritizes immediate capability gaps and then tries to match opportunistic requests with the interests of the members of Congress. As a result, the punishment Congress imposes is minimal and the overall outcome is very different than when capacity is low.

4.7.3 Conclusion - Implications for Oversight and National Security

The fiscal year 2021 defense budget request was submitted to Congress in early February 2020. The $774 billion proposal consists of thousands of individual requests – including funding for new research and development of hypersonic missiles, microelectronics, and artificial-intelligence capabilities (Mehta (2020)) to name a few. In addition, the chief of Naval Operations has publicly commented that the Navy needs more funding to build the Columbia-class submarine, the replacement to the aging Ohio-class variant from the 1980s (Larter (2020)). This request for additional funding from the Navy, along with other requests from the Army and Air Force, are sure to end up on the UFR lists sent to Congress when requested. All of these public requests are observed by adversaries of the United States. Decisions made by Congress on what to fund provides adversaries with information on where potential vulnerabilities are in the form of capability gaps.

The analysis above demonstrates that private information possessed by DoD presents a principal-agent problem that impacts decisions of resource allocation. Not every request submitted to Congress represents an immediate capability gap. Congress and DoD are both concerned about information revealed if a request to remediate a genuine capability gap is denied. The model demonstrates that this information cost and Congress's oversight capacity determine which equilibrium DoD and Congress achieve – detrimental or honest. If DoD is dealing with a low-capacity Congress, it is more likely to withhold a genuine request as the information cost increases. In the case of the fiscal year 2021 budget request, this means some genuine requests will be withheld while other genuine requests that are submitted will be denied. As a result, some capability gaps will not be addressed – several of which adversaries will become aware – because Congress decides to not approve related funding. When capacity is low, DoD is also more likely to make opportunistic requests. This misalignment of interests has a negative effect on national security. This is detrimental both to national security and in terms of responsible resource allocation.

As capacity increases, however, the outcomes of requests depend on Congress's willingness to punish opportunistic requests. As the analysis above shows, the level of punishment depends on where the incentives of DoD and Congress align. When an opportunistic request aligns with a member's interests, it is approved. For example, we should expect the Navy's request for additional funding to build the Columbia-class submarine to be supported by members who have shipbuilding installations in their district or state. If the interests do not align, the request is not approved and Congress imposes a punishment on DoD. This prevents DoD from submitting requests out of line with member interests and national security. Genuine requests are submitted and approved. Opportunistic requests are limited to areas in which future national security requirements align with members' interests.

The defense appropriations process, unlike the process for funding other agencies, is unique in that both Congress and DoD have to consider the information being revealed to potential adversaries. As a result, this model may not be easily generalized to other appropriations bills,[17] but it does shed light on a relatively understudied portion of politics. The incentives of Congress and DoD within the defense appropriations process are both complimentary and competing. Acting on these incentives carries a risk of revealing information. How, then, can the United States reduce this risk?

One way to reduce the risk is to maintain a high-capacity congressional staff. The committee staff have a large responsibility – for which they require expertise – to discern the national security implications of approving or rejecting requests for funding. They also understand the incentives of Congress and can look for the win-win solutions discussed above. A low-capacity staff is unable to do this. The result, then, is a state of the world described in the detrimental equilibrium.

A second option is to increase the classified portion of the defense budget. This provides two advantages. First, the requests made by DoD would be more difficult for adversaries to observe. If this were not publicly available, adversaries would not intuit where potential capability gaps exist.[18] The second advantage is that members of Congress would not look toward these items to claim credit in their district because they would be unable to discuss them. As a result, there would be fewer opportunistic requests.

Areas in which the interests of DoD and Congress overlap and part ways only partially account for the decisions made when providing funding for the nation's defense.

[17]However, it could be adapted to account for domestic audiences such as donors or partisan groups who have an interest in what programs or initiatives an agency is advocating vis-Ã -vis Congress.

[18]One could argue that the information revealed would suggest the United States is not pursuing this capability, thus creating more uncertainty. This, however, would be better than having a request publicly denied because DoD is working with a low-capacity Congress.

The model and discussion in this paper bring to light the unique concern of revealing information to a third-party actor. This concern, together with the cost Congress imposes on DoD, drives the outcomes of the interaction. This understanding has significant implications for national security and provides insight into how the risks associated with misaligned interests can be mitigated.

Chapter 5

APPENDICES

5.1 Appendix 1

Purpose: To get a better understanding of the Defense Appropriations process and provide some qualitative context based on the experience of those directly involved.

Process: Information gained through the interview will be recorded in writing and sent to the individual being interviewed for review and editing if desired. Once approved, content of the interview will be used in research papers and dissertation work describing the defense appropriations process.

5.1.1 General Questions

- What is your role in OMB/Congress/DoD as it relates to the Defense Appropriations Process?
- Who in Congress/DoD/OMB do you primarily work with?
- How much discretion do you have in your role (what flexibility/mechanisms does your office have to change the president's request for defense appropriations)?
- What in the appropriations process causes you the most challenges?
- Can you provide an example of a change made to the budget request that you were responsible for?
- How effective do you feel you are in accomplishing your job? What do you view as barriers to being more effective?

- Since the midterm elections have there been any changes in how you go about doing your job? Any changes in what you believe can and can not be accomplished?

5.1.2 OMB Questions

- What role does the NSS and NDS have in developing the budget request?
- How does the annual Defense Planning Guidance impact the PB?
- What is your timeline from setting the top-line to delivery of the Presidentâs Budget to Congress?
- How flexible is your internal budget process (at what points can you adjust the request)?
- What role, if any, does OMB have in Above Threshold Reprogramming?
- Where are the points of friction in the process you find yourself spending most of your time?
- What interaction do you have with OSD(C)? Budget Committees? Appropriations Committees?
- How does the pass-back process work (when does it begin, who is involved, when is it complete)?
- How are the contents of the SAP determined?
- What role does your office have in ensuring appropriated funds are executed properly? What flexibility or mechanism do you have to instruct DoD to change course on execution of funds?

5.1.3 DoD Questions

- What role does the NSS and NDS have in developing your budget request?
- How flexible is your internal budget process (PPBE, POM, FYDP)?
- Appointees: How much discretion do you have in changing your budget request?
- Appointees: How much discretion do you have with assigning Schedule C appointees?
- Where are the points of friction in the process you find yourself spending most of your time?
- When dealing with Members of Congress, what difference does their military experience make?
- What interaction do you have with OSD(C)? OMB?
- Explain the appeals process, how appeals are selected and who approves them.
- How much discretion does DoD have in the execution of funds?

5.1.4 Congress Questions

- What role does the NSS and NDS play in your evaluation of DoD's budget request?
- How do Members make changes to the appropriations bills (Sub-Committee Members, Committee Members, and Members not on the committee)?
- From your perspective, what has changed in the role of the Appropriations Committee?

- When dealing with Members of Congress, what difference does their military experience make?
- From your perspective, what factors impact DoD's ability to defend the President's Budget the most? What factors impact the success of appeals the most?
- What are your thoughts on the difference between appointees and career military advocating a specific program or appeal? Are there points in the process or conditions that make one more effective than another?
- What tools do you have to ensure DoD spends money as Congress intends?
- Do you notice when the number of appointees in an agency increases?
- When and how do you interact with staff on the Budget Committee, SAC-D, and OMB?
- How do you evaluate requests for increases in funding?

5.2 Appendix 2

5.2.1 Vignettes: Experiments 1-3

Vignette 1 (Increase in Overall Spending):

According to multiple news outlets, Congress is considering a defense appropriations bill which will increase funding for the Department of Defense this year. This increase provides funding to DoD to modernize the military and protect U.S. interests. Some believe this increase is needed while others believe the U.S. spends enough on defense already.

Cues:

No Cue

Elite Cues: [Prime: Congressional Republican Leaders/Congressional Democratic Leaders/General Mark Milley (Chairman Joints Chief of Staff)] [have/has] released a statement strongly supporting an increase in defense spending this year as critical to National Security.

Question and Responses:

Do you support or oppose **[No Prime/Or source cueâs position that]** an increase in defense spending is needed this year?

(4) Support Strongly (3) Support Somewhat (2) Oppose Somewhat (1) Oppose Strongly

Vignette 2 (Increase in Spending (Deter Russia)):

According to multiple news outlets, the United States is considering increasing defense funding for troops and equipment in Europe in order to deter Russia and defend U.S. interests. Some people believe this increase in funding is needed while others believe the U.S. spends enough on defense already.

Cues:

No Cue

Elite Cues: [Prime: Congressional Republican Leaders/Congressional Democratic Leaders/General Mark Milley (Chairman Joints Chief of Staff)] [have/has] released a statement strongly supporting the increased funding for efforts in Europe as critical to National Security.

Question and Responses:

Do you support or oppose **[No Prime/Or source cue's position that]** the increase in funding is needed this year?

(4) Support Strongly (3) Support Somewhat (2) Oppose Somewhat (1) Oppose Strongly

Vignette 3 (Increase in Spending (Stabilize Venezuela)):

According to multiple news outlets, the United States is considering increasing defense funding for troops and equipment in South America in order to stabilize unrest

in Venezuela and defend U.S. interests. Some people believe this increase in funding is needed while others believe the U.S. spends enough on defense already.

Cues:

No Cue

[Prime: Congressional Republican Leaders/Congressional Democratic Leaders/General Mark Milley (Chairman Joints Chief of Staff)] [have/has] released a statement strongly supporting the increased funding for efforts in China as critical to National Security.

Question and Responses:

Do you support or oppose **[No Prime/Or source cue's position that]** the increase in funding is needed this year?

(4) Support Strongly (3) Support Somewhat (2) Oppose Somewhat (1) Oppose Strongly

Vignette 3: Increase Funding (Venezuela):

According to multiple news outlets, the United States is considering increasing defense funding for troops and equipment in South America in order to stabilize unrest in Venezuela and defend U.S. interests. Some people believe this increase in funding is needed while others believe the U.S. spends enough on defense already. **[No Prime] or**

[Prime: Congressional Republican Leaders/Congressional Democratic Leaders/General Mark Milley (Chairman Joints Chief of Staff)] [have/has] released a statement strongly supporting the increased funding for efforts in China as critical to National Security.

Question: Do you agree or disagree **[No Prime/Or with source cue]** that the increase in funding is needed this year?

a) Strongly Agree

b) Somewhat Agree

c) Somewhat Disagree

d) Strongly Disagree

5.2.2 Vignettes: Experiments 4 & 5

Introductory Information: Each year national security experts in the United States review the military investments of other countries. The reviews identify capability gaps between the United States and potential adversaries and allow policy makers an opportunity to address these gaps through defense spending.

Vignette 1 (Low Yield Nuclear Weapons):

One recent debate is over an investment in low yield nuclear weapons which could be used to target underground nuclear facilities in countries like Iran and North Korea. Some people support investing in low yield nuclear weapons, other people do not.

Cues:

No Cue

Elite Cues 1 and 2: In a press statement **[President Donald Trump/Speaker Nancy Pelosi]** strongly supported an increase in spending for low yield nuclear weapons.

Elite Cue 3: During his confirmation hearing to become **Chairman of the Joint Chiefs of Staff, General Mark Milley**, highlighted that increasing spending for low yield nuclear weapons is important for national security

Aligned Cues 4 and 5: In a press statement **[President Donald Trump/Speaker Nancy Pelosi]** strongly supported an increase in spending for low yield nuclear weapons. Chairman of the Joint Chiefs of Staff, General Mark Milley, also made a statement that increasing spending for low yield nuclear weapons is important for national security

Question and Responses:

Do you agree or disagree **[No Prime/with President Trump/ with Speaker**

Pelosi/ with General Milley/General Milley and President Trump/ General Milley and Speaker Pelosi] that increased spending on low yield nuclear weapons is needed?

(4) Strongly Agree (3) Somewhat Agree (2) Somewhat Disagree (1) Strongly Disagree

Vignette 2 (Cyber Capabilities):

One recent debate is over an investment in cyber capabilities which could be used to defend critical infrastructure and attack adversaries. Some people support investing in low yield nuclear weapons, other people do not.

Cues:

No Cue

Elite Cues 1 and 2: In a press statement **[President Donald Trump/Speaker Nancy Pelosi]** strongly supported an increase in spending for cyber capabilities.

Elite Cue 3: During his confirmation hearing to become **Chairman of the Joint Chiefs of Staff, General Mark Milley**, highlighted that increasing spending for cyber capabilities is important for national security

Aligned Cues 4 and 5: In a press statement **[President Donald Trump/Speaker Nancy Pelosi]** strongly supported an increase in spending for low yield nuclear weapons. Chairman of the Joint Chiefs of Staff, General Mark Milley, also made a statement that increasing spending for cyber capabilities is important for national security

Question and Responses:

Do you agree or disagree **[No Prime/with President Trump/ with Speaker Pelosi/ with General Milley/General Milley and President Trump/ General Milley and Speaker Pelosi]** that increased spending for cyber capabilities is needed?

(4) Strongly Agree (3) Somewhat Agree (2) Somewhat Disagree (1) Strongly Disagree

5.2.3 Robustness Checks

Table 5.1: Experiments 1-3 Accounting for "Leaners"

VARIABLES	(1) (General)	(2) (Europe)	(3) (Venezuela)
Military Cue	-0.021	-0.108**	-0.006
	(0.049)	(0.045)	(0.027)
Republican Cue	-0.022	-0.098**	-0.055**
	(0.047)	(0.045)	(0.028)
Democratic Cue	-0.027	-0.056*	-0.025
	(0.048)	(0.033)	(0.029)
Rep ID	0.208***	0.110***	0.139***
	(0.039)	(0.032)	(0.024)
Dem ID	0.015	-0.025	0.038
	(0.041)	(0.036)	(0.024)
Dem ID*Mil Cue	0.013	0.114**	-0.000
	(0.058)	(0.054)	(0.037)
Rep ID*Mil Cue	0.059	0.155***	0.081**
	(0.055)	(0.050)	(0.034)
Dem ID*Rep Cue	-0.028	0.062	-0.043
	(0.057)	(0.055)	(0.038)
Rep ID*Rep Cue	0.084	0.142***	0.166***
	(0.053)	(0.051)	(0.036)
Dem ID*Dem Cue	0.115**	0.117***	0.109***
	(0.057)	(0.044)	(0.037)
Rep ID*Dem Cue	-0.051	-0.002	-0.075*
	(0.056)	(0.042)	(0.040)
Constant	0.549***	0.587***	0.529***
	(0.035)	(0.029)	(0.021)
Observations	1,952	1,952	1,952
R-squared	0.122	0.073	0.086

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 5.2: Experiments 1-3 Using Ordered Probit

VARIABLES	(1) (General)	(2) (Europe)	(3) (Venezuela)
Military Cue	0.015	-0.195	0.195*
	(0.121)	(0.124)	(0.109)
Republican Cue	-0.048	-0.100	0.042
	(0.116)	(0.120)	(0.108)
Democratic Cue	-0.015	-0.016	0.119
	(0.115)	(0.110)	(0.111)
Rep ID	0.687***	0.580***	0.644***
	(0.116)	(0.117)	(0.115)
Dem ID	0.046	-0.050	0.356***
	(0.120)	(0.119)	(0.112)
Dem ID*Mil Cue	-0.078	0.316*	-0.361**
	(0.169)	(0.168)	(0.161)
Rep ID*Mil Cue	0.210	0.258	0.014
	(0.167)	(0.172)	(0.163)
Dem ID*Rep Cue	-0.124	-0.010	-0.514***
	(0.170)	(0.172)	(0.161)
Rep ID*Rep Cue	0.431**	0.193	0.345**
	(0.172)	(0.169)	(0.171)
Dem ID*Dem Cue	0.319*	0.268*	0.014
	(0.167)	(0.162)	(0.160)
Rep ID*Dem Cue	-0.231	-0.324*	-0.539***
	(0.166)	(0.166)	(0.171)
/cut1	-1.129***	-1.252***	-0.961***
	(0.091)	(0.091)	(0.078)
/cut2	-0.312***	-0.287***	-0.0838
	(0.088)	(0.086)	(0.076)
/cut3	0.798***	0.790***	1.029***
	(0.089)	(0.087)	(0.078)
Observations	1,952	1,952	1,952

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 5.3: Experiments 4 & 5 Accounting for "Leaners"

VARIABLES	(1) (Nuclear)	(2) (Cyber)
Military Cue	-0.013	-0.012
	(0.046)	(0.046)
Trump Cue	-0.021	-0.147***
	(0.050)	(0.053)
Pelosi Cue	0.030	-0.040
	(0.047)	(0.043)
Trump&Military Cue	-0.047	-0.081*
	(0.050)	(0.044)
Pelosi&Military Cue	0.029	-0.025
	(0.046)	(0.047)
Rep ID	0.208***	0.134***
	(0.041)	(0.037)
Dem ID	0.059	0.058
	(0.040)	(0.038)
Rep ID*Mil Cue	0.023	-0.005
	(0.055)	(0.053)
Dem ID*Mil Cue	-0.012	-0.027
	(0.054)	(0.053)
Rep ID*Trump Cue	0.066	0.168***
	(0.059)	(0.058)
Dem ID*Trump Cue	-0.149**	-0.049
	(0.060)	(0.061)
Rep ID*Pelosi Cue	-0.228***	-0.156***
	(0.059)	(0.052)
Dem ID*Pelosi Cue	0.031	0.013
	(0.056)	(0.050)
Rep ID*Trump/Mil Cue	0.105*	0.101**
	(0.059)	(0.051)
Dem ID*Trump/MilCue	-0.035	-0.037
	(0.059)	(0.053)
Rep ID*Pelosi/Mil Cue	-0.164***	-0.087
	(0.057)	(0.055)
Dem ID*Pelosi/Mil Cue	0.056	0.0420
	(0.054)	(0.054)
Constant	0.479***	0.676***
	(0.034)	(0.033)
Observations	2,859	2,859
R-squared	0.104	0.089

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 5.4: Experiments 4 & 5 Using Ordered Probit

VARIABLES	(1) (Nuclear)	(2) (Cyber)
Military Cue	0.021	-0.140
	(0.103)	(0.119
Trump Cue	-0.053	-0.411***
	(0.119)	(0.129)
Pelosi Cue	0.0479	-0.232**
	(0.106)	(0.115)
Trump&Mil Cue	-0.041	-0.299**
	(0.112)	(0.118)
Pelosi&Mil Cue	0.183*	-0.090
	(0.105)	(0.121)
Rep ID	0.731***	0.362***
	(0.120)	(0.127)
Dem ID	0.192*	0.027
	(0.106)	(0.121)
Rep ID*Mil Cue	-0.028	0.076
	(0.160)	(0.180)
Dem ID*Mil Cue	-0.109	0.037
	(0.148)	(0.166)
Rep ID*Trump Cue	0.167	0.521***
	(0.177)	(0.182)
Dem ID*Trump Cue	-0.480***	-0.294
	(0.174)	(0.181)
Rep ID*Pelosi Cue	-0.826***	-0.587***
	(0.175)	(0.172)
Dem ID*Pelosi Cue	0.190	0.125
	(0.153)	(0.164)
Rep ID*Trump/Mil Cue	0.275	0.611***
	(0.173)	(0.186)
Dem ID*Trump/Mil Cue	-0.268	-0.166
	(0.167)	(0.169)
Rep ID*Pelosi/Mil Cue	-0.742***	-0.424**
	(0.167)	(0.182)
Dem ID*Pelsoi/Mil Cue	0.044	0.196
	(0.153)	(0.170)
/cut1	-0.848***	-1.625***
	(0.077)	(0.091)
/cut2	-0.054	-0.900***
	(0.076)	(0.088)
/cut3	0.998***	0.250***
	(0.077)	(0.087)
Observations	2,859	2,859

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

5.3 Appendix 3

5.3.1 Proof: Complete Information

Analyzing the game with perfect information, such that P=1, allows us to determine a baseline for analyzing the incomplete information game. In the complete information game, Congress is able to confirm that a capability gap exists and so allocates the required amount of funding to address that gap. As a result, Congress would know what level of α is required to address the gap and always approve when $g = \bar{g}$.

> *Lemma 1: If $g = 0$, then DoD never requests and if it did, Congress would disapprove.*

Proof: Recall from Congress's payoffs when receiving an opportunistic request that $U_{Cong}(Approve) = -\alpha$ and $U_{Cong}(Disapprove) = -D$. Given that for opportunistic requests $g = 0$, any request of $\alpha > D$ will be disapproved. This holds in any case in which $D < \alpha < \bar{g} + I + D$. When Congress disapproves, $U_{DoD}(Ask|Disapprove) = -K - D$ and $U_{DoD}(Don't) = 0$. Therefore, DoD will not send opportunistic requests when it knows Congress will disapprove.

> *Lemma 2: If $\alpha \leq \bar{g}$, then DoD always requests and Congress always approves.*

Proof: Recall from Congress's payoffs when receiving a genuine request that $U_{Cong}(Approve) = -\alpha$ and $U_{Cong}(Disapprove) = -g - I - D$. Therefore, Congress will approve any request when $g = \bar{g} > 0$, provided that $\alpha = \bar{g} and g + I > 0$. If DoD requests $\alpha > \bar{g}$, Congress will disapprove the request.

> ***Proposition 1*:** If Congress has complete information, then DoD will always request when a capability gap exists and not request when the gap does not exist.

Proposition 1 follows from *lemmas* 1 and 2 and provide a starting point for analysis of the incomplete information game. In any equilibrium, Congress will approve requests when it believes they are genuine and $\alpha < g + I + D$. Ideally, Congress wants to know about capability gaps and fund them at the appropriate level. This provides a starting point for analysis for the private information game.

5.3.2 Proof: Honest Equilibrium

For any PBE analysis, we must identify the conditions in which Congress believes it is receiving a genuine request and Approves.

> *Lemma 3*: It is the best response for Congress to approve a request if and only if:
>
> $$\mu \geq \frac{\alpha - D}{\bar{g} + I} \equiv \mu*$$

Proof: Given belief μ, Approve is optimal when:

$$\mu(-\alpha) + (1-\mu)(-\alpha) \geq \mu(-\bar{g} - I + D) + (1-\mu)(-D)$$

$$-\alpha - D \geq \mu(-\bar{g} - I)$$

$$\mu \geq \frac{\alpha - D}{\bar{g} + I}$$

Therefore, $\alpha > D \implies \mu* > 0$ and $\alpha < \bar{g} + I + D \implies \mu* < 1$. This completes the proof. □

For any PBE analysis, we must identify the conditions in which Congress believes it is receiving a genuine request and approves.

Lemma 3: In any PBE, Congress Approves if:

$$\mu \geq \frac{\alpha - D}{\bar{g} + I} \equiv \mu*$$

Proof: Given belief μ, Approve is optimal when:

$$\mu(-\alpha) + (1-\mu)(-\alpha) \geq \mu(-\bar{g} - I + D) + (1-\mu)(-D)$$

$$-\alpha - D \geq \mu(-\bar{g} - I)$$

$$\mu \geq \frac{\alpha - D}{\bar{g} + I}$$

Therefore, $\alpha > D \implies \mu* > 0$ and $\alpha < \bar{g} + I + D \implies \mu* < 1$. This completes the proof. □

The "Honest" Equilibrium: First, we are interested in whether or not there exists a perfect Baysian equilibrium (PBE) in which DoD only makes genuine requests, and if so, under what conditions. That is, are there conditions in which DoD has private information about the capability gaps, but chooses to submit requests when the gaps exist? This requires a separating equilibrium in which $DoD_{t:G}$ always asks and Congress always approves while $DoD_{t:O}$ never asks.

Proposition 2: If and only if $K \geq \alpha$, then an âhonestâ PBE exists in which the following assessment is used:

- $\mu = 1$
- $\sigma_{DoD_{t:G}} = Ask; \sigma_{DoD_{t:0}} = Don't$
- $\sigma_{Cong} = Approve$

Proof: Is there a PBE where:

$$\sigma_{DoD}(Genuine) = Ask$$

$$\sigma_{DoD}(Opportunistic) = Don't$$

If DoD uses these strategies, Bayes rule implies $\mu = 1$. It follows from *Lemma 2*, that when $\mu = 1$, Congress approves.

Can DoD profitably deviate? Yes, when K is low.

Consider a deviation by the Opportunistic type to Ask. This is profitable when:

$$U_{DoD_{t:O}}(Ask) = \alpha - K > 0 = U_{DoD_{t:O}}(Don't)$$

which holds for $K < \alpha$.

Can DoD profitably deviate when $K \geq \alpha$? No. When $K \geq \alpha$, the highest payoff $DoD_{t:O}$ can receive is 0, which is equal to the payoff for Not Asking. If $DoD_{t:G}$ deviates to "Don't Ask", the payoff is $-\bar{g}$ which is less than α. This completes the proof. □

5.3.3 Proof: Detrimental Equilibrium

Can we find a PBE in where conditional on state $g = \bar{g}$, DOD mixes?

> **Proposition 3:** If K and D are sufficiently low, such that $K + D < \alpha$, there exists a PBE in which DoD mixes between asking and not when $g = \bar{g}$ and always asks when $g = 0$. The following assessment is a PBE:
>
> - $\sigma_{DoD_{t:G}}$ mixes using $q^* = \frac{(p-1)(\alpha-D)}{p(-\alpha+\bar{g}+I+D)}$
> - $\sigma_{DoD_{t:0}} = Ask$
> - σ_{Cong} mixes using $s^* = \frac{I+D}{\bar{g}+I+D}$

This equilibrium holds when $g + I \geq \alpha \geq D$ is set as a scope condition. This condition states that the capability gap and the information cost are greater than the request. Additionally, the request is greater than or equal to the disagreement cost. In practice, this makes sense. DoD will not ask for funding in which the disagreement cost is higher than the amount requested. Similarly, DoD will not request funds that do not address the capability gap when that information can be observed.

> *Lemma 4: Let s be the probability Congress Approves; it is best response for $DoD_{t:G}$ to ask iff $s \leq s*$; best response not to ask if $s \leq s*$.*

Proof:

$$-\bar{g} = s(0) + (1 - s)(-\bar{g} - I - D)$$

$$-\bar{g} = (1 - s)(-\bar{g} - I - D)$$

$$0 = -I - D + s(\bar{g} + I + D)$$

$$\frac{I + D}{\bar{g} + I + D} = s^*$$

When s*= $\frac{I+D}{\bar{g}+I+D}$, then $DoD_{t:g}$ is indifferent between Asking and Not. This completes the proof. □

Congress must also be indifferent. First, what is μ subject to the Genuine type Asking with probability q and Not Asking with probability $1 - q$ and the Opportunistic type always Asking?

> *Lemma 5:* Congress is indifferent between Approve and Disapprove when $DoD_{t:G}$ mixes between Askand Don't with probability $q* = (\frac{(1-p)(\alpha-D)}{p(-\alpha+g+I+D}$) and $DoD_{t:O}$ always Asks when $\mu = \mu*$.

Proof:

By Bayes rule,

$$\frac{pq}{pq + (1-p)} = \mu*$$

From *Lemma 3* we know that Congress is indifferent when:

$$\mu* = \frac{\alpha - D}{\bar{g} + I}$$

to determine $q*$

$$\frac{pq}{pq + (1-p)} = \frac{\alpha - D}{\bar{g} + I}$$

$$q* = (\frac{(1-p)(\alpha - D)}{p(-\alpha + \bar{g} + I + D)})$$

When is $q* \in (0, 1)$? When $\bar{g} + I \geq \alpha \geq D$

Given σ_{Cong}, is σ_{DoD} sequentially rational?

First, can $DoD_{t:G}$ profitably deviate? No, given *lemmas* 4 and 5 $\sigma_{DoD:t:G}$ and σ_{Cong} are best responses to each other. Next, can $DoD_{t:O}$ profitably deviate? No. Given σ_{Cong}, the best response for $DoD_{t:O}$ is to Ask when $K + D < \alpha$.

This completes the proof. □

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