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# **Planning, Programming, Budgeting, and Execution in Comparative Organizations: Case Studies of Selected Non-DoD Federal Agencies**

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## Abstract

The U.S. Department of Defense (DoD) Planning, Programming, Budgeting, and Execution (PPBE) System is a key mission enabler for the DoD. As observers consider a dynamic threat environment, increasingly capable adversaries, and rapid technological changes, concern has emerged that the DoD's resource planning processes are too inflexible to meet warfighter needs. In the Fiscal Year (FY) 2022 National Defense Authorization Act, Congress mandated the formation of a commission to (1) examine the effectiveness of the PPBE process and adjacent practices, (2) consider alternatives to maximize the DoD's ability to respond to potential threats, and (3) make recommendations for improvement in order to field the operational capabilities necessary to outpace near-peer competitors and support an integrated budget that is aligned with strategic defense objectives.

To provide process improvement insights, the Commission on PPBE Reform asked RAND to provide an independent analysis of PPBE-like functions in non-DoD federal agencies. Here, the authors present case studies of PPBE-like functions in the Department of Homeland Security (DHS), the Department of Health and Human Services (HHS), the National Aeronautics and Space Administration (NASA), the Office of the Director of National Intelligence (ODNI), the Department of Veterans Affairs (VA), and the Department of Energy's National Nuclear Security Administration (NNSA)

## Key Findings

- Other U.S. government agencies looked to the DoD's PPBE System as a model in developing their own systems, which subsequently evolved in accordance with their missions, organizational structures, authorities, staff capacities, available resources, and many other factors.<sup>1</sup>
- There are perceived opportunities to strengthen the connection between strategy and budgets, and long-term planning is sometimes limited relative to that done by the DoD.
- A variety of mechanisms enable budget flexibility and agility to meet dynamic mission demands and emerging threats.
- Mechanisms for enabling agility help agencies weather continuing resolutions and other sources of budget turbulence.
- The emphasis on evaluation rather than execution in some non-DoD PPBE-like processes could be instructive for the DoD. Beyond the explicit focus on evaluation in ODNI, DHS, and NNSA, both VA and NNSA have implemented mechanisms to support better analytic inputs to assist with evaluation that could help inform the DoD's PPBE approach.
- Implementation of PPBE-like processes at the scale of the DoD is resource-intensive, institutionally challenging, and often infeasible for smaller agencies. For NNSA, improved analytic rigor in planning and budgeting is provided through NNSA's internal Office of Cost Estimating and Program Evaluation (CEPE), which provides independent cost estimates

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<sup>1</sup> See McKernan et al. (2024) and Young et al. (2024).



and analyses like those provided by the DoD's Office of Cost Assessment and Program Evaluation (CAPE).

- Consolidated resource management information systems could improve visibility across the federated structures of government agencies.

## Introduction

The 2022 National Defense Strategy (NDS) describes a security environment of complex strategic challenges associated with such dynamics as emerging technology, transboundary threats, and competitors posing “new threats to the U.S. homeland and strategic stability.” To meet this challenge, the NDS calls on the DoD (2022) to undertake three activities: integrated deterrence, campaigning, and “build[ing] enduring advantage.” The last category is defined as “undertaking reforms to accelerate force development, getting the technology we need more quickly, and making investments in the extraordinary people of the Department, who remain our most valuable resource.” This imperative has prompted reflection on the extent to which internal DoD processes, including PPBE, are up to the challenge of enabling rapid and responsive capability development to address the emerging threats.

The Planning, Programming, and Budgeting System (PPBS), the precursor to the DoD's PPBE process, took shape in the first decades after World War II and was introduced into the DoD in 1961 by then–Secretary of Defense Robert McNamara.<sup>2</sup> Drawing on new social science methods, such as program budgeting and systems analysis, the PPBS was designed to provide a structured approach to weigh the cost-effectiveness of potential defense investments. A central assertion of the PPBS's developers was that strategy and costs needed to be considered together.<sup>3</sup> As Charles Hitch, Secretary McNamara's first comptroller and a key intellectual leader in the development and implementation of the PPBS, and Roland McKean (1960) noted, “There is no budget size or cost that is correct regardless of the payoff, and there is no need that should be met regardless of cost.”

To make decisions about prioritization and where to take risk in a resource-constrained environment, the DoD needed an analytic basis for making choices. Therefore, the PPBS first introduced the program budget, an *output*-oriented articulation of the resources associated with a given military capability projected out over five years.<sup>4</sup> The PPBS then introduced an approach for assessing cost-effectiveness, termed systems analysis, which was institutionalized in the Office of Systems Analysis. Since 2009, the institutional successor to the Office of Systems Analysis has been known as CAPE.<sup>5</sup> At its inception, the PPBS was a process for explicitly linking resources to strategy and for setting up a structure for making explicit choices

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<sup>2</sup> An oft-quoted assertion by Secretary of Defense Robert McNamara, which is pertinent to this discussion, is that “[y]ou cannot make decisions simply by asking yourself whether something might be nice to have. You have to make a judgment on how much is enough.” See Enthoven and Smith (1971); see also Young (2009).

<sup>3</sup> Or, as Bernard Brodie stated succinctly, “strategy wears a dollar sign.” See Brodie (1959).

<sup>4</sup> On the need for an output-oriented budget formulation at the appropriate level to make informed choices, Hitch and McKean (1960) noted that the consumer “cannot judge intelligently how much he should spend on a car if he asks, ‘How much should I devote to fenders, to steering activities, and to carburetion?’ Nor can he improve his decisions much by lumping all living into a single program and asking, ‘How much should I spend on life?’”

<sup>5</sup> In a discussion of the founding of PPBS, Enthoven (the first director of the Office of Systems Analysis) and Smith (1971) described “the basic ideas that served as the intellectual foundation for PPBS” as follows: (1) decisionmaking should be made on explicit criteria of the national interest, (2) needs and costs should be considered together, (3) alternatives should be explicitly considered, (4) an active analytic staff should be used, (5) a multiyear force and financial plan should project consequences into the future, and (6) open and explicit analysis should form the basis for major decisions.



between options, based on transparent analysis of costs and effectiveness. Then, as today, the system introduced friction with other key stakeholders, including Congress and industry partners. Key features of the PPBS have become institutionalized in the DoD's PPBE System, and questions have arisen about whether its processes and structures remain relevant and agile enough to serve their intended purposes (Greenwalt & Patt, 2021).

To set up the discussion of case studies, it will be helpful to outline the key features of the PPBE process and clarify some definitions. Today, consideration of PPBE often broadly encapsulates internal DoD processes, other executive branch functions, and congressional rules governing appropriations. Internal to the DoD, PPBE is an annual process by which the department determines how to align military programs and resources to strategic guidance. The process supports the development of DoD inputs to the President's Budget and to a budgeting program with a five-year time horizon (McGarry, 2020), known as the Future Years Defense Program (FYDP). DoD Directive (DoDD) 7045.14, *The Planning, Programming, Budgeting, and Execution (PPBE) Process*, states that one intent for PPBE "is to provide the DoD with the most effective mix of forces, equipment, manpower, and support attainable within fiscal constraints." PPBE consists of four distinct processes, each with its own outputs and stakeholders. Select objectives of each phase include the following:

- **Planning:** "[I]ntegrate assessments of potential military threats facing the country, overall national strategy and defense policy, ongoing defense plans and programs, and projected financial resources into an overall statement of policy" (DoD, 2017).
- **Programming:** "[A]nalyze the anticipated effects of present-day decisions on the future force; detail the specific forces and programs proposed over the FYDP period to meet the military requirements identified in the plans and within the financial limits" (Tyszkiewicz & Daggett, 1998).
- **Budgeting:** "[E]nsure appropriate funding and fiscal controls, the phasing of the efforts over the funding period, and the feasibility of execution within the budget year" (Tyszkiewicz & Daggett, 1998); restructure budget categories for submission to Congress according to the appropriation accounts; and prepare justification material for submission to Congress (McGarry, 2020).
- **Execution:** "[D]etermine how well programs and financing have met joint warfighting needs" (DoD, 2017).

Several features of congressional appropriations processes are particularly important to note. First, since FY 1960, Congress has provided budget authority to the DoD through specific appropriations titles (sometimes termed *colors of money*), the largest of which are operation and maintenance (O&M); military personnel; research, development, test, and evaluation (RDT&E); and procurement (Tyszkiewicz & Daggett, 1998). These appropriations titles are further broken down into appropriation accounts, such as Military Personnel, Army or Shipbuilding and Conversion, Navy (SCN). Second, the budget authority provided in one of these accounts is generally available for obligation only within a specified period. In the DoD budget, the period of availability for military personnel and O&M accounts is one year; for RDT&E accounts, two years; and for most procurement accounts, three years (although for SCN, it can be five or six years, in certain circumstances). This specification means that budget authority must be obligated within those periods, or with only a few exceptions, it is sent back to the U.S. Department of the Treasury (Tyszkiewicz & Daggett, 1998).<sup>6</sup> There has been recent interest in

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<sup>6</sup> For a discussion of the availability of funds appropriated to the DoD for RDT&E activities, see Section 3131 of Title 10, United States Code, Availability of Appropriations.



exploring how these features of the appropriations process affect transparency and oversight, institutional incentives, and the exercise of flexibility, should resource needs change (McGarry, 2020). Importantly, PPBE touches almost everything the DoD does and, thus, forms a critical touchpoint for engagement among stakeholders across the DoD (e.g., Office of the Secretary of Defense, military departments, Joint Staff, combatant commands), in the executive branch (through the Office of Management and Budget), in Congress, and among industry partners.

## Study Objectives and Approach

In close partnership with the PPBE Commission, we selected six case studies of non-DoD federal agencies to explore decisionmaking in organizations facing challenges like those experienced in the DoD: exercising agility in the face of changing needs and enabling innovation. For all six case studies, we conducted extensive document reviews and structured discussions with subject-matter experts having experience in the budgeting processes of the examined U.S. federal government agencies. Case study research drew primarily on government documentation outlining processes and policies, planning guidance, budget documentation, and published academic and policy research. Although participants in structured discussions varied in accordance with the decisionmaking structures across case studies, they generally included chief financial officers, representatives from organizations responsible for making programmatic choices, and budget officials. To facilitate consistency, completeness in addressing the commission's highest-priority areas of interest, and cross-case comparisons, we developed a common case study template. This template took specific questions from the commission as several inputs, aligned key questions to PPBE processes and oversight mechanisms, evaluated perceived strengths and challenges of each organization's processes and their applicability to DoD processes, and concluded with lessons learned from each case. To enable development of a more consistent evidentiary base across cases, we also developed a standard interview protocol to guide the structured discussions.

## Selected Non-DoD Federal Agencies Focus

The idea of dialogue between DoD and non-DoD agencies for lessons in resource planning areas is not new; in 1965, President Lyndon B. Johnson decided to introduce the still-new DoD PPBS across the federal government (Young, 2009). Four of the six cases of non-DoD federal agencies considered by the commission—HHS (known as the U.S. Department of Health, Education, and Welfare in 1965), NASA, VA (known as the Veterans Administration in 1965), and NNSA (functions of which were part of the Atomic Energy Commission in 1965)—were included in this 1965 directive before the experiment ended in 1970. The other two cases of non-DoD U.S. federal agencies—DHS and ODNI—also have PPBE-like functions that resonate with PPBE's origins in the DoD. Although Johnson's mandate was relatively short-lived, all six of these agencies looked to the DoD's PPBE process in the development of their own processes.

These agencies grappled with somewhat similar challenges as the DoD did on issues related to strategic planning, enterprise decisionmaking, and institutional control. Figure 1 compares the discretionary and mandatory budgets of the six agencies with that of the DoD in 2022—showing that the DoD's discretionary budget authority was significantly higher than those of the six other agencies.<sup>7</sup> However, HHS's total annual budget authority was more than \$1.6

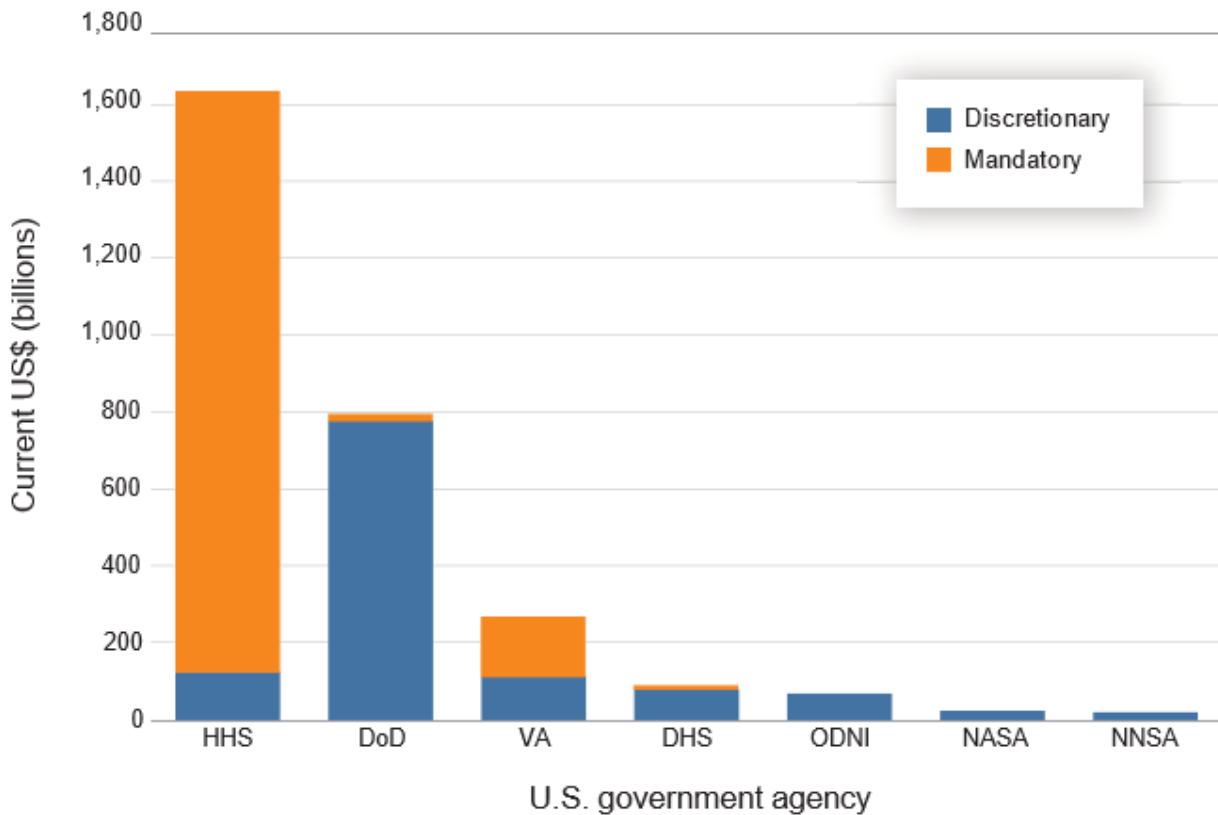
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<sup>7</sup> "The authority for discretionary spending stems from annual appropriation acts, which are under the control of the House and Senate Appropriations Committees. *Mandatory*—or direct—spending includes spending for entitlement programs and certain other payments to people, businesses, and state and local





trillion in 2022, which was more than double the DoD's total 2022 budget authority of roughly \$796 billion. Mandatory HHS funding (primarily for Medicare and Medicaid) constitutes about 90% of the total HHS budget (Office of Management and Budget, n.d.)



**Figure 1. Mandatory and Discretionary Budget Authority, by U.S. Government Agency, 2022**  
(Office of Management and Budget; Office of the Director of National Intelligence)

NOTE: For ODNI, we show the total budget appropriation for the National Intelligence Program and not discretionary budget authority due to a lack of available data for comparison in the OMB tables. As of FY 2017, ODNI does not receive mandatory funds (Federation of American Scientists, n.d.). We similarly show the total NNSA budget appropriation due to a lack of available data for comparison (Office of Management and Budget, n.d.). As of FY 2022, NNSA did not receive any mandatory funds.

The six non-DoD government agencies selected for analysis were identified as agencies that, by virtue of their missions, grapple with some issues like those that the DoD faced (and continues to face) regarding how to enable innovation, make high-tech investments, and transition technology into the field or remain flexible in response to dynamic mission needs. Although each agency is different from the DoD in important ways, their unique stories also provide some notable insights for the commission.

governments. Mandatory spending is generally governed by statutory criteria; it is not normally set by annual appropriation acts.” See Congressional Budget Office (n.d.).



## Key Insights From Selected Non-DoD Federal Agencies Case Studies

The case studies prepared by RAND provided the Commission on PPBE Reform with insights into how other non-DoD U.S. federal government agencies navigate U.S. political institutions and resource planning processes to meet mission needs. The material presented in this discussion, distilled from two separate reports, outlines important themes for the commission to understand when trying to compare the DoD's defense resource planning processes with those of other U.S. government agencies.<sup>8</sup> Despite significant differences between the DoD and these selected agencies in terms of mission requirements, portfolio, organizational evolution, oversight, and size, among many other factors, these cases suggest several insights that are germane for the DoD, which we present below. The following section on key insights consolidates the strengths, challenges, and lessons outlined in each of the case studies considered. The concluding section on applicability speaks directly to the commission's mandate—and to the potential utility of such insights for the DoD's PPBE System.

### Key Insights

#### Key Insight 1: Other U.S. Government Agencies Looked to the DoD's PPBE System as a Model in Developing Their Own Systems, Which Subsequently Evolved

In 1965, President Johnson drew on the still-nascent PPBS in the DoD as a model for the implementation of analogous systems across the federal government. Although that formal effort ended a few years later, the agencies considered in this report all looked to the DoD's PPBE System as a model for a structured and mature approach to planning and resource allocation decisionmaking—as the names of their budget processes often suggest, such as NASA's PPBE, ODNI's Intelligence Planning, Programming, Budgeting, and Evaluation (IPPBE), and NNSA's PPBE systems. However, budgeting processes have evolved individually in accordance with the agencies' leadership buy-in, missions, organizational structures, authorities provided by Congress, staff capacities, other available resources, and many other factors. For example, while civilian PPBE processes failed to take hold in the Veterans Administration when originally introduced in the 1960s, features of a more structured resource planning process, such as a quadrennial review to drive planning and a five-year financial plan, were proposed as a means of addressing perceived shortcomings of the existing system.

For example, although some vestiges of the PPBE framework—such as its rigorous program evaluation capabilities—remain features of the contemporary HHS budgeting system, the department gradually dismantled much of its PPBS during the 1970s in response to the perception that PPBS did not fit with the U.S. Department of Health, Education, and Welfare's missions (the U.S. Department of Health, Education, and Welfare, or HEW, was renamed to HHS in 1980), organizational structure, or program needs.<sup>9</sup> HHS's budgeting system has, therefore, diverged significantly from the DoD's since 1980.

ODNI's IPPBE process was specifically modeled on the DoD's PPBE process, with some modifications to ensure that it was suited to ODNI's mission. This adaptation was done both by necessity, to account for the presence of DoD elements in the Intelligence Community (IC), and by design, given that the architects of the IPPBE process were well versed in PPBE and viewed it as the best model for ODNI's complex organizational structure (ODNI subject-matter experts, interviews with the authors, August–September 2022). One notable and deliberate difference between the IPPBE and PPBE processes is ODNI's substitution of

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<sup>8</sup> See McKernan et al. (2024) and Young et al. (2024).

<sup>9</sup> See, for examples, Harlow (1973), Jablonsky and Dirsmith (1978), Rivlin (1969, Vol. 3, Part V, Section C, pp. 909–922), U.S. Government Printing Office, and GAO (1990).



*evaluation* for the DoD's execution (ODNI subject-matter experts, interviews with the authors, August–September 2022).

While the startup of NNSA postdated by several decades President Johnson's introduction of PPBE to non-DoD agencies, one of its institutional predecessors, the Atomic Energy Commission, was among the agencies that did experiment in developing resource planning processes modeled on the DoD's PPBE processes. Today, NNSA's PPBE process is indebted to the DoD's PPBE System while tailored to NNSA's unique mission needs. For example, NNSA's PPBE process leverages the original intent of the DoD's PPBE System, albeit with an increased focus on evaluation as the fourth phase of its process. The Future Years Nuclear Security Program (FYNSP), analogous to the DoD's FYDP, underlies NNSA's long-term planning, and NNSA's Office of Cost Estimating and Program Evaluation (CEPE) is deliberately modeled on the DoD's CAPE.

Despite the evolution away from the DoD's PPBE System, the agencies considered still generally follow a budgeting process that is common to most U.S. federal civilian agencies. This process begins with an annual planning cycle and culminates in budget execution and performance evaluation.

**Key Insight 2: While Long-Term Planning is Often Limited Relative to That Done by the DoD, There Are Perceived Opportunities to Strengthen Connections Between Strategy and Budgets**

While the relative focus on long-term planning varies across cases in accordance with an agency's mission, organizational design, analytic capabilities, and resource constraints, among many other factors, grappling with how to link priorities to budgetary decisionmaking was a theme across all cases.

One difference between the DoD and three of the agencies (DHS, HHS, and ODNI) considered in this report is the DoD's focus on long-term planning processes. We attribute this difference both to the inherently dynamic requirements of DHS's and HHS's mission sets and to the weaker (relative to the DoD) mechanisms for forging forward-looking, cross-departmental plans through a headquarters function in DHS and ODNI. Because HHS programs deliver mostly health care services and grants, the department operates primarily on one-year discretionary funding and restricts budget planning to the annual budget cycle (HHS officials, interviews with the authors, October 2022–January 2023). Consequently, this relatively near-term planning horizon has resulted in an agency that does not focus on long-term budget planning or utilize well-established links between strategic planning and budgeting (HHS officials, interviews with the authors, October 2022–January 2023).

Long-term planning is particularly important for agencies with missions requiring sustained development efforts rather than short-term operational programs. DHS's federated model, in which the components remain responsible for their separate missions and receive direct appropriations, introduces challenges for headquarters in shaping forward-looking cross-component priorities to drive resource decisionmaking—unlike in the DoD, where the Office of the Secretary of Defense disperses the funds, thereby increasing its control. DHS also lacks a Goldwater-Nichols–type mandate to compel jointness, and DHS headquarters lacks the resourcing of the Office of the Secretary of Defense, limiting the ability of DHS headquarters to coordinate and manage its components.

In contrast to DHS, HHS, and ODNI, the other agencies considered (NASA, VA, and NNSA) have long-term planning processes. For example, NASA adheres to five-year planning guidance and decadal studies to identify future requirements. Both VA and NNSA have processes for long-term planning and linking strategy to budgets, but (like the DoD) there are perceived opportunities to strengthen these connections. In VA, the quadrennial planning



process supports the development of a strategic plan, but there are perceived opportunities to strengthen how plans drive resource decisionmaking. For example, VA aligns its annual budget request (albeit not a long-term plan) to specific mission-oriented outputs (e.g., patients treated, outpatient visits), which provides a helpful link between mission priorities and resources. In NNSA, the Future Years Nuclear Security Program (FYNSP) captures plans beyond the budget year, but there are also initiatives underway to strengthen long-term planning (beyond the FYNSP) and facilitate better alignment between plans and programs.

### **Key Insight 3: A Variety of Mechanisms Enable Budget Flexibility and Agility**

Mechanisms have been designed to meet dynamic mission demands, such as the startup of DHS; provide flexible authorities to meet highly variable mission needs, as with DHS's Disaster Relief Fund and CDC's Infectious Disease Rapid Response Reserve Fund; and adapt quickly to emerging public health threats, as with HHS's Public Health Service Evaluation Set-Aside.

We identified several other mechanisms for enabling flexibility and agility, primarily by giving agencies more discretion (than in the DoD) to redirect appropriated funds. HHS and NASA benefit from having fewer restrictions on fungible expenditures, which allows them to shift resources in accordance with changing priorities. The annual Departments of Labor, Health and Human Services, and Education, and Related Agencies (LHHS) Appropriations Act affords HHS considerable flexibility in reprogramming funds: Below a reprogramming threshold of the lesser of \$1 million or 10% of a budget account, HHS is not required to report it to Congress (National Institutes of Health, Office of Management and Assessment, 2020). Congress has granted HHS additional sources of flexibility during budget execution, including the Secretary's One-Percent Transfer General Provision, which allows HHS to transfer up to 1% from any LHHS appropriation account into another account up to 3% of the amount of the receiving account, with a maximum transfer amount of around \$900 million.<sup>10</sup> HHS appears to have wide latitude in how appropriated funds are spent. Similarly, NASA does not appear to receive appropriations in distinct titles, as does the DoD. In part, this is likely due to NASA's narrower mission requirements (e.g., NASA does not procure at the scale of the DoD).

Another mechanism for flexibility is the authority to carry over funding across years. Although DHS's no-year appropriations have been curtailed, DHS still has authority to allow its components to carry over and spend in the next fiscal year up to 50% of prior-year balances in one-year O&S accounts. HHS also has authority to repurpose expiring unobligated balances. The Non-Recurring Expenses Fund (NEF) allows HHS to take expired, unobligated funds and reallocate them to a department-wide capital investment account. HHS has used the NEF extensively to fund IT systems, particularly for cybersecurity purposes, but operating and staff divisions can request funding for other capital expenditures as well. In some instances, Congress further enables agility by employing broader appropriation categories than those used for DoD appropriations; in this way, agency decisionmakers have more flexibility to implement changes to previously communicated funding priorities. For instance, NASA's receipt of appropriations primarily at the mission level allows mission directorates to decide how to allocate funding between projects without having to seek additional congressional approval.

For both VA and NNSA, we identified several budget mechanisms that are useful for enabling flexibility and agility, primarily because they give each agency a degree of discretion to redirect appropriated funds. VA's advance appropriations are particularly notable in this regard, and for NNSA, the lack of designated colors of money and the small number of appropriation

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<sup>10</sup> The Office of Refugee Resettlement can take up to 15% of the value of transfer funds, so these funds are often transferred there (HHS official, interview with the authors, January 2023).



accounts (relative to the DoD) provide more discretion to the agency on how to prioritize investments and flex as needed to meet emerging needs.

Another mechanism for flexibility is the authority to carry over funding across years. NNSA's no-year appropriations for its operational budget provides funds that remain available for obligation until expended, without the time pressure associated with funding that must be obligated within a certain time frame. These appropriations enable NNSA to spend such funds as needed and avoids incentivizing a spending rush at the end of a fiscal year. One consideration, however, associated with no-year flexibility is the requirement to maintain sufficient financial controls to manage the complex accounting of executing such appropriations provided over several fiscal years at once. VA also has access to multiyear and no-year appropriations for long-term projects, such as construction and land acquisition, among other functions. VA's advance appropriations provide several useful management levers to the agency. As discussed below, they can help VA weather instability caused by delays in receiving regular appropriations and position the agency for more-stable long-term planning. Finally, similar to the DoD, VA and NNSA can request congressional approval to reprogram resources to accommodate changes above a given threshold, but in NNSA at least, this process was reported to be slow and laborious.

#### **Key Insight 4: Mechanisms for Enabling Agility Help Agencies Weather Continuing Resolutions and Other Sources of Budget Turbulence**

Just as budget flexibilities, such as those cited above, can let a manager decide how to prioritize and where to take risks in light of changing mission needs, they can also help an agency manage under continuing resolutions and mitigate the effects of government shutdowns, such as furloughs. Continuing resolutions across the U.S. government remain painful, but an agency's ability to manage them is a function of its portfolio, investments, actions, and other factors.

NASA's two-year expiration timeline for appropriations reportedly provides the agency with a cushion in the likely event that a regular appropriation is delayed. DHS develops requests for grant proposals ahead of anticipated continuing resolutions (GAO, 2021). The ability of DHS components to carry over into the next fiscal year one-year O&S accounts and expend up to 50% of their prior-year lapsed balances could also help DHS mitigate the effects of continuing resolutions, although, as mentioned previously, this is not the main purpose of carryover funding.

A different kind of example for HHS is that its mandatory funding (primarily for Medicare and Medicaid) constitutes about 90% of the HHS budget (Tollestrup et al., 2022). Most mandatory HHS programs, such as Medicare and children's entitlement programs, are budgeted on 10-year schedules outside the annual appropriations process and, thus, are rarely subject to continuing resolutions. Medicaid, however, is still subject to annual congressional oversight (Tollestrup et al., 2022).

Among other benefits, VA's advance appropriations help mitigate challenges associated with constraints on activities during operations under a continuing resolution and uncertainty regarding the timing of a regular appropriation. Similarly, NNSA's no-year appropriations provide the agency with a budgetary cushion (and fewer constraints than those faced under a continuing resolution) in the likely event that a regular appropriation is delayed.

#### **Key Insight 5: The Emphasis on Evaluation Rather Than Execution in Some Non-DoD PPBE-Like Processes Could Be Instructive for the DoD**

ODNI is not alone in substituting evaluation for execution in its budgeting process. DHS has also essentially done so in its PPBE-like process to better understand the results of its



spending. To support implementation of the Foundations for Evidence-Based Policymaking Act of 2018, DHS issued a policy on program and organizational evaluations in February 2021 and annual evaluation plans for FYs 2022 and 2023. This line of effort demonstrates an investment by DHS in evaluation activities. DHS's efforts in this area could help inform the DoD's approach to the execution phase.

As was the case for ODNI, NNSA's PPBE process focuses its fourth phase on evaluation rather than execution. DHS has also made recent efforts to bolster evaluation feedback in its PPBE process by mandating organizational evaluations and annual evaluation plans. In the evaluation phase of NNSA's PPBE process, NNSA evaluates progress toward its performance goals. Although this phase does not generate formal documentation, the input is intended to feed back into the planning phase for the following fiscal year. Beyond this explicit focus on evaluation in NNSA, both VA and NNSA have implemented mechanisms to support better analytic inputs to assist with evaluation, primarily in the programming phase of their PPBE processes. For example, VA leverages actuarial models to project future demand and inform budget requests for certain benefits in the budgeting phase; NNSA's new FormEx information system and CEPE function also equip the agencies with consistent and rigorous analytic capabilities.

**Key Insight 6: Implementation of PPBE-Like Processes at the Scale of the DoD is Resource-Intensive, Institutionally Challenging, and Often Infeasible for Smaller Agencies—However, Analytical Rigor Has Improved Through NNSA's Implementation of CAPE-Like Capabilities**

One area in which a number of the selected non-DoD agencies cannot emulate an exemplary DoD PPBE capability is the DoD's CAPE analytic function. We found that constraints caused by significantly smaller staff and resources shaped the scale of the PPBE-like functions that some examined agencies could execute; in these cases, a CAPE-like function does not exist in comparable size and mission, as this function is resource-intensive to build and maintain and challenging to empower institutionally. As articulated on its website (undated), CAPE's mission is to "provide the Department of Defense with timely, insightful and unbiased analysis on resource allocation and cost estimation problems to deliver the optimum portfolio of military capabilities through efficient and effective use of each taxpayer dollar."

By comparison, the planning, programming, and budgeting for NASA are handled by one NASA organization—the Office of the Chief Financial Officer (OCFO)—and there is a possibility that conflicts of interest might arise. The OCFO's Strategic Investment Division, which develops strategic planning guidance that informs NASA's programming and budgeting phases, is not analogous to CAPE because it is housed within OCFO and, therefore, may not be considered an independent organization when it scrutinizes NASA's budget submissions. Interviewees noted that independent agencies may be able to identify overruns faster than NASA's evaluation-oriented offices could, primarily because of workforce capacity challenges (NASA subject-matter experts, interviews with the authors, September 2022).

ODNI attempted to emulate the analytic rigor of the CAPE function by creating the Systems and Resource Analysis Office (SRA) and tasking it with managing IPPBE integration and synchronization. The goal was to establish a predictable, transparent, and repeatable method to collect and prioritize critical intelligence requirements and to translate those priorities into resource allocations through the IPPBE process. Between 2009 and 2011, ODNI tested this process, which was later codified. But several years later, concerns arose over the evolution of some documents and the ability of SRA to continue its role. ODNI found it difficult to keep SRA staffed with the capability and capacity to fulfill a CAPE-like function.

We found substantial effort in the NNSA case study to centralize and bolster the rigor of



its PPBE processes, including the introduction of the Office of Cost Estimating and Program Evaluation (CEPE), a CAPE-like capability for developing independent cost estimates and analyses of alternatives. NNSA further increased analytical rigor by having its cost analysts report to a single headquarters organization while embedding them in NNSA program offices, thus ensuring the use of standardized costing methodologies and improving transparency and alignment of programs to enterprise-wide priorities.

### **Key Insight 7: Consolidated Resource Management Information Systems Could Improve Visibility Across the Federated Structures of Government Agencies**

We noted efforts (albeit somewhat uneven in practice) in non-DoD agencies to strengthen information systems to enable resource decisionmaking. For example, DHS had an initiative underway to consolidate its PPBE information system to support the development of its five-year funding plan: capturing performance management data has facilitated automation in reporting. NNSA's new FormEX similarly reflects an effort to modernize the IT infrastructure on which PPBE decisions rely. As a budget information management system, FormEX is intended to bolster transparency and information-sharing by providing a common budget structure to facilitate insight into plans, gaps, potential redundancies, and potential execution risks.

As these cases suggest—and as the motivation for the DoD's efforts (as of 2024) to develop Advana reflects<sup>11</sup>—there are potential opportunities to leverage IT and data analytics to better meet complex decisionmaking needs and foster stronger transparency and communication across stakeholder communities.

### **Applicability of Key Insights to the DoD's PPBE System**

The Commission on PPBE Reform is looking for potential lessons from the PPBE-like processes of non-DoD federal agencies. While those agencies' budgeting processes were originally modeled after the DoD's PPBE System, they have been adapted over time to align with the unique missions of each agency. Despite the movement away from the DoD's PPBS model, the agencies still use similar PPBE processes. Because of these similarities, there would be no benefit from the DoD adopting any of these systems wholesale. However, there is value in exploring the ways in which Congress provides each agency with flexibility so that the DoD can ask for similar kinds of flexibility to support more innovation, make funding more predictable over multiple years, and obtain relief from various pain points in the system. These pain points include continuing resolutions, rigid appropriation categories, and appropriations for line items instead of portfolios. The commission could further explore the flexibility mechanisms identified below, organized by agency.

DHS funds are typically budgeted annually, but some programs receive multiyear or no-year appropriations. Congress sometimes appropriates multiyear funds to major acquisition programs to foster a stable production and contracting environment. A key example of no-year money is the Disaster Relief Fund, which is meant to give FEMA the flexibility to respond quickly to emerging disaster relief and recovery needs. As another example, DHS officials mentioned how the border security, fencing, infrastructure, and technology appropriation gave DHS the ability to carry over significant amounts of funds related to this mission area. DHS officials noted that funds are no longer appropriated to this account and that the use of no-year appropriations was significantly curtailed with the implementation of the common appropriations structure (DHS officials, interview with the authors, November 2022).<sup>12</sup> Congress also authorizes DHS

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<sup>11</sup> For more on Advana, see Commission on Planning, Programming, Budgeting, and Execution Reform (2023).

<sup>12</sup> For more information on the border security, fencing, infrastructure, and technology appropriation, see Painter and Singer (2020).



components to carry one-year O&S accounts forward into the next fiscal year and to expend up to 50% of the prior-year lapsed balance amounts. Beyond the base budget, DHS often receives supplemental funds for emergent requirements, the number of which varies from year to year.

HHS has access to emergency supplemental funding and several flexible-spending accounts, such as the NEF, which allows HHS to reallocate expired, unobligated funds to capital investments. These flexibility mechanisms are often given multiyear or no-year funding. HHS does not use a common appropriations structure, so budget justifications focus heavily on missions and needs. This focus allows discussions between the OPDIVs and the SBC's department-level leadership to concentrate on aligning program budgets and missions with the HHS Secretary's priorities.

NASA requests and is allocated funding differently than the DoD. Because NASA's funds are appropriated to mission directorates primarily at the mission, theme, and project levels, NASA has some flexibility to align project funding to meet changing priorities or real-world circumstances. NASA's FY 2023 congressional justification does not request, nor is it funded with, appropriations split into categories, such as RDT&E, procurement, and O&M in the same manner as the DoD. Therefore, NASA does not appear to encounter the same types of restrictions as the DoD with respect to using specific funding for specific activities (e.g., using RDT&E only during the design and development stages of a program). Moreover, all of NASA's appropriations, except for construction, have two-year durations. NASA has obligation goals of 90–95% in the first year of two-year funds, which allow for some funding to be expended in the second year, typically at the start of the fiscal year. Because continuing resolutions are a real possibility, this carryover funding can mitigate any shortfalls that might result at the start of a fiscal year—and, thus, act as a cushion for continuing resolutions.

ODNI funds may be reprogrammed under five conditions: (1) when funds are transferred to a high-priority intelligence activity in support of an emergent need, (2) when funds are not moved to a reserve for contingencies of the DNI or the Central Intelligence Agency, (3) when funds are cumulatively less than \$150 million and less than 5% of the annual accounts available to a department or agency, (4) when the action does not terminate an acquisition program, and (5) when the congressional notification period is satisfied. Congress must be notified of above-the-threshold reprogramming actions (i.e., those that exceed \$150 million or 5%) within 30 days or within 15 days for matters of urgent national security concern. Below-the-threshold reprogramming actions do not require congressional notification. However, ODNI does notify Congress of below-the-threshold actions that may be of congressional interest (Office of the Director of National Intelligence, 2018).

Despite having significant differences with the DoD, VA and NNSA have some notable similarities with the DoD in terms of missions and investment portfolios. First, the DoD's PPBE System served as the initial model for the resource planning processes institutionalized in both VA and NNSA. VA, like the DoD, provides medical care, oversees infrastructure construction, sustains a large footprint of real property, and conducts efforts to modernize IT infrastructure. NNSA, like the DoD, has requirements informed by the demands of emerging threats and a dynamic strategic environment, which necessitate a posture that enables innovation and the leveraging of new technology.

However, there are also important differences that affect the applicability of lessons from VA and NNSA to the DoD. As was true when comparing all of the case studies of comparative non-DoD organizations with the DoD, the DoD stands alone in terms of the global roles that U.S. defense spending enables, the breadth and complexity of its missions, and the overall size of its budget. Both VA and NNSA have more-focused mission sets and significantly smaller discretionary budgets than those of the DoD. Another key difference is the overall constitution of





non-DoD agencies' budgets compared with the DoD's portfolio. VA—and HHS—has a large percentage of its overall budget in mandatory spending, relative to the DoD's budget. About 40% of the VA budget is discretionary spending, and much of this funding is relatively inflexible because it supports medical care. This means that resource planning to support its primary mission depends more on actuarial modeling in VA than in DoD. This difference in planning and programming approaches reflects VA's unique mission and budget portfolio.

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