

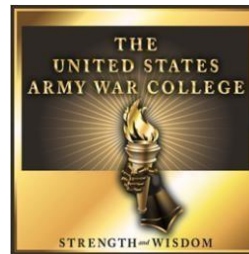
# Strategy Research Project

## Improving the United States Army's PPBE Organization and Processes

by

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Under the Direction of:  
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## Improving the United States Army's PPBE Organization and Processes

(6,228 words)

### Abstract

Given the need for increased Army readiness in the current operational environment, shrinking budgets, and the looming threat of sequestration, the U.S. Army must do all within its power to optimize the use of resources. In Army Directive 2016-16, Changing Management Behavior: Every Dollar Counts acting Secretary of the Army Patrick Murphy reinforced that the Army must achieve the highest levels of readiness while serving as good stewards of taxpayer dollars. Comparing the U.S. Army's PPBE process and organization to the other service's shows that the U.S. Army can improve its ability to break organizational silos, build a more efficient and integrated program, and identify the total cost of resourcing key capabilities. Improving its PPBE organization and processes will allow the Army to more effectively use dwindling resources to maintain the combat readiness required to fight and win America's wars.

## **Improving the United States Army's PPBE Organization and Processes**

Our fundamental task is like no other – it is to win in the unforgiving crucible of ground combat. We must ensure the Army remains ready as the world's premier combat force. Readiness for ground combat is – and will remain – the U.S. Army's #1 priority.

—General Mark A. Milley<sup>1</sup>

Given the need for increased Army readiness in the current operational environment, shrinking budgets, and the looming threat of sequestration, the U.S. Army must do all within its power to optimize the Army's use of readiness resources. In Army Directive 2016-16, *Changing Management Behavior: Every Dollar Counts*, dated April 15, 2016, acting Secretary of the Army Patrick Murphy reinforced that the Army must achieve the highest levels of readiness while serving as good stewards of taxpayer dollars.<sup>2</sup> Honorable Murphy identified two key issues with the Army's Planning, Programming, Budgeting, and Execution (PPBE) process: the Army is challenged to determine the true cost of programs and that the Army executes its budget independent of measurable outcomes.<sup>3</sup> To correct these deficiencies, he tasked all two-star/Tier 2 Senior Executive Services headquarters and above with establishing annual performance measures focused on achieving the highest levels of readiness with the greatest efficiency, identifying and managing total cost of critical processes, eliminating "use or lose" funding principles, and rewarding exemplary stewardship and innovative ideas.<sup>4</sup> Accomplishing these task will improve how the Army resources its units to build readiness; however, the current Headquarters Department of the Army (HQDA) PPBE staff organization and processes hinder the Army's ability to accurately establish performance measures and capture the true cost of critical programs.

In 1969, Professor Frederick Mosher of the University of Virginia identified flaws in the PPBE process: it relies on management science and produces “an oversimplified view of the world”; it is heavily dependent on “medieval models of hierarchy. Line and staff, command and so forth”; and organizations gain power and influence by their position in the process not necessarily by the value of their output.<sup>5</sup> In 2007, Dr. Christopher Paparone, a professor at the U.S. Army Command and Staff College’s Department of Logistics and Resource Operations at Fort Lee, Virginia, reaffirmed Professor Mosher’s earlier critique of the PPBE process and identified three additional challenges. Dr. Paparone argued that the “PPBE creates myopic learning” and favors large existing programs over emergent problems; the “PPBE undercuts organizational creativity and improvisation”; and encourages practitioners to “repeat actions that worked in the past.”<sup>6</sup> Dr. Paparone’s analysis next looked at the PPBE process’ ability to develop a resourcing plan to address the complex adaptive system that is the Army. Dr. Paparone characterized this as a wicked problem that suffers from several challenges: “complex problems are ill defined and more information does not make them less ambiguous”; conditions change rapidly and the use of “past solutions or best practices may continue even after conditions change”; solutions developed by the PPBE process are politically charged and will not always follow rational lines; and matters of policy and strategy are complex and consist of many dependent variables, so “the future-year defense plan approach will likely solve the wrong problems with the myth of precision.”<sup>7</sup> Both Professor Mosher and Dr. Paparone’s work indicates that the Army’s programming organization and procedures are hindering the Army’s efforts to build the most efficient

program, maximize readiness resources, and to capture the true cost of critical processes.

Even though the Trump Administration's first budget proposal calls for increasing defense spending by \$54 billion, the Congressional Budget Office projects that the U.S. national debt will increase to 145% of gross domestic product by 2047.<sup>8</sup> This level of national debt is unsustainable and will have a destabilizing impact on the level of funding the Army will receive annually. Army senior leaders understand this and in *The Army Vision* they state the Army must rapidly adapt to such factors as Congressional budget uncertainty and complex adaptive adversaries.<sup>9</sup> The Army must improve its PPBE process to allow senior leaders to make better cost-informed decisions when resourcing the Army.

The key for the Army is to make organizational and procedural changes in the PPBE process to improve its use of readiness resources and allow it to identify the total cost of critical processes. First, this paper will discuss the importance of strategic planning and programming and then give a short description of the Army's PPBE organization, culture, and process. Second, this paper will describe and compare the Army, Air Force, and Navy's PPBE processes and identify best practices to address identified Army challenges. Finally, this paper will propose changes to the Army's PPBE governing structure and participants.

### The Importance of Strategic Planning and Programming

The Department of Defense (DOD) is made up of almost three million people in numerous organizations operating in multiple domains, all competing for resources with the entirety of the U.S. federal government.<sup>10</sup> By necessity, DOD must have a formalized system that allows it to distribute allocated resources. The PPBE process is

that formalized system and since its inception people have attacked DOD's PPBE process as being cumbersome, inefficient, and slow to react to changes.<sup>11</sup> While it is not a perfect system, it has provided DOD with a reliable planning tool to develop the strategic resourcing plan required to operate an organization as large and complex as the U.S. military. It is easy to say the DOD should abandon the PPBE process for a simpler one with less controls, but this approach does not address the importance of strategic planning. In his book, *The Rise and Fall of Strategic Planning*, Henry Mintzberg identified four reasons organizations conduct strategic planning: "to coordinate their activities," "to ensure the future is taken into account," "to be rational," and "to effect control" of organizations.<sup>12</sup> The problem is when the planning process becomes more important than the execution of the plan and it no longer satisfies the needs of the customer.

#### Army PPBE Process

Developed in the 1960's as a way to improve the Department of Defense's resource allocation process, the PPBE process is the Army's primary fiscal management tool.<sup>13</sup> It is a continuous four-year long process that ties strategy, programming, budgeting, and execution together to build a five-year funding strategy called the Future Years Defense Program (FYDP) and a yearly budget called the Budget Estimate Submission (BES).<sup>14</sup> The objective of the Army PPBE process is to "establish, justify, and acquire the fiscal and manpower resources needed to carry out and execute the Army's assigned missions."<sup>15</sup> Key players in the Army's PPBE process include the Army Secretariat, Army Staff, Major Army Commands (MACOM), the Army National Guard, U.S. Army Reserves, and Program Executive Offices (PEO).

By Army Regulation 1-1, the PPBE process uses a system of governance, advisory, and oversight forums to aggregate and analyze resource information, direct and review cost-benefit analysis, consult and deliberate, make recommendations and decisions, and formally approve the Army Program Objective Memorandum (POM).<sup>16</sup> The Assistant Secretary of the Army (Financial Management and Comptroller) (ASA(FM&C)) oversees the PPBE process while the DCS G-3/5/7 leads the planning phase, the DCS G-8 leads the programming phase, and the Deputy Assistant Secretary of the Army for Budget (DASA/BU), Director Army Budget (DAB) leads the budgeting and execution phases.

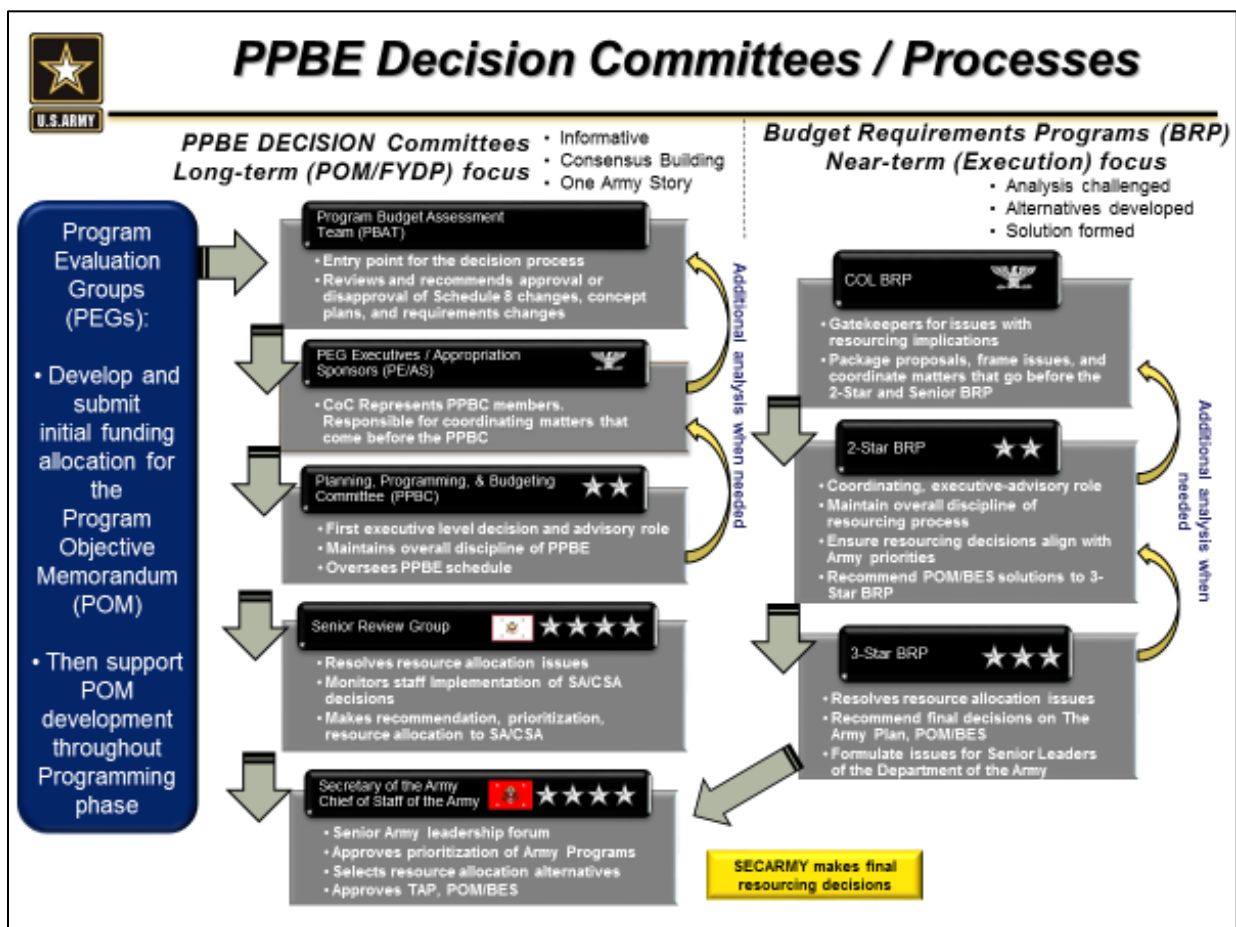


Figure 1. Army PPBE Process<sup>17</sup>



The Army's most senior leadership consisting of the Secretary of the Army (SECARMY), the Under-Secretary of the Army (USA), the Chief of Staff of the Army (CSA), and the Vice Chief of Staff of the Army (VCSA) is responsible for establishing policies and providing strategic direction for preparation of plans, programs, and budgets. By law, the SECARMY has the sole responsibility to make final PPBE decisions for the Army.<sup>18</sup>

Figure 1 depicts the PPBE decision making structure in the Army. The Army Senior Review Group (SRG) is chaired by the SECARMY with the CSA as the vice-chair and is the primary forum that informs the SECARMY's decisions. It is the most senior forum attended by representatives from the Army Staff and Secretariat, MACOMs, and PEOs. The SRG is the first time that the 3-star Deputy Chiefs of Staff principles and 3 and 4-star level Army commands are collectively briefed on recommended resourcing decisions.

The Planning Program Budget Committee (PPBC) is a weekly collaborative forum conducted at the 2-star level. It is co-chaired by the Assistant DCS (ADCS), G-3/5/7, DCS G-8; PA&E (D/PA&E), and the DAB. The PPBC is the first executive-level forum in the PPBE process and serves "in both a coordinating and executive-advisory role. It will provide a continuing forum in which planning, program, and budget managers review, adjust, and recommend courses of action on relevant issues."<sup>19</sup>

As depicted in Figure 2, Program Evaluation Groups (PEG) are the primary staff organizations that implement programming guidance, determine which programs compete for resources, validate requirements, allocate resources, and assess risk within their portfolio.<sup>20</sup> PEGs are responsible for producing an executable and balanced

program recommendation, which is formally recorded in the Program Objective Memorandum.<sup>21</sup> The Army has six PEGs aligned to Title 10 responsibilities and each one is co-chaired by a general officer or senior executive services (SES) civilian employee from the Army Secretariat and the Army Staff. To assist the PEGs in the construction of the POM, the Chief Information Officer/G-6, the DCS G-2, the Chief of the National Guard Bureau, and the Chief of Army Reserves serve as Program Integrators.<sup>22</sup> Program integrators provide the PEGs with technical assistance, subject matter expertise, and monitor PEG actions to ensure their respective areas of expertise are integrated into the overall Army program.<sup>23</sup>

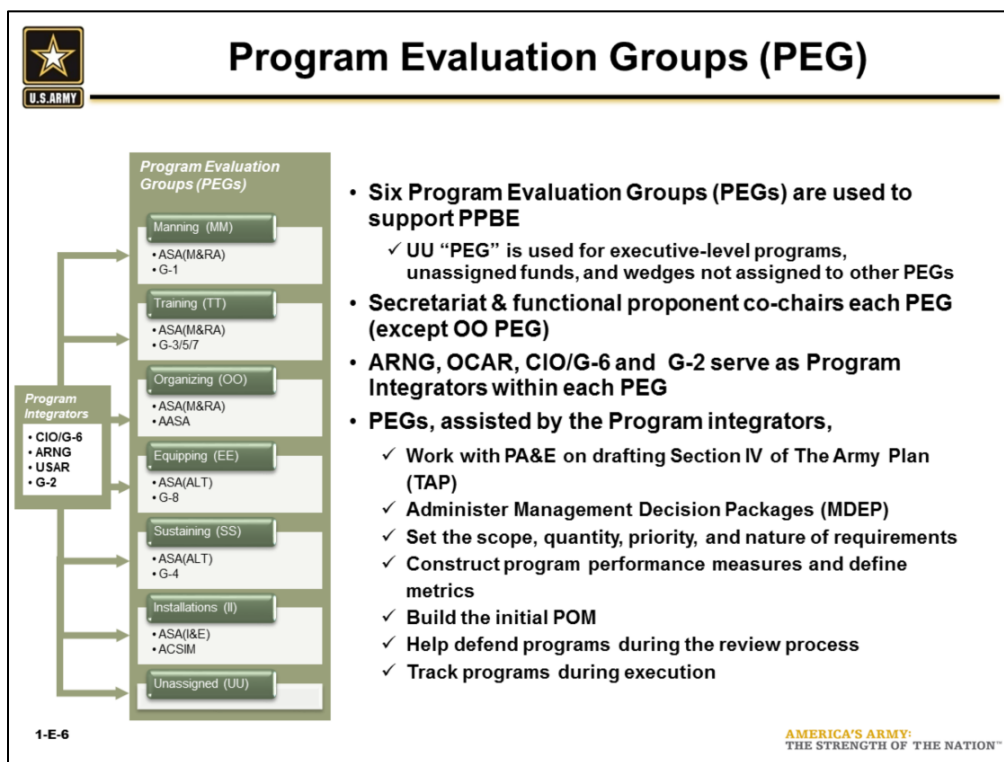


Figure 2. Army Program Evaluation Groups<sup>24</sup>

PEGs do not work in isolation when building their respective programs. They receive input from the combatant commanders, MACOMs, PEOs, operating agencies, and Army leadership (see Figure 3). The PEGs are also assisted by program

integrators, subject matter experts, and Management Decision Package (MDEP) managers.<sup>25</sup> MDEP managers are assigned at the HQDA level, serve as the focal point for functional and programmatic integration, and link program policy with resources inside the PEG.<sup>26</sup>

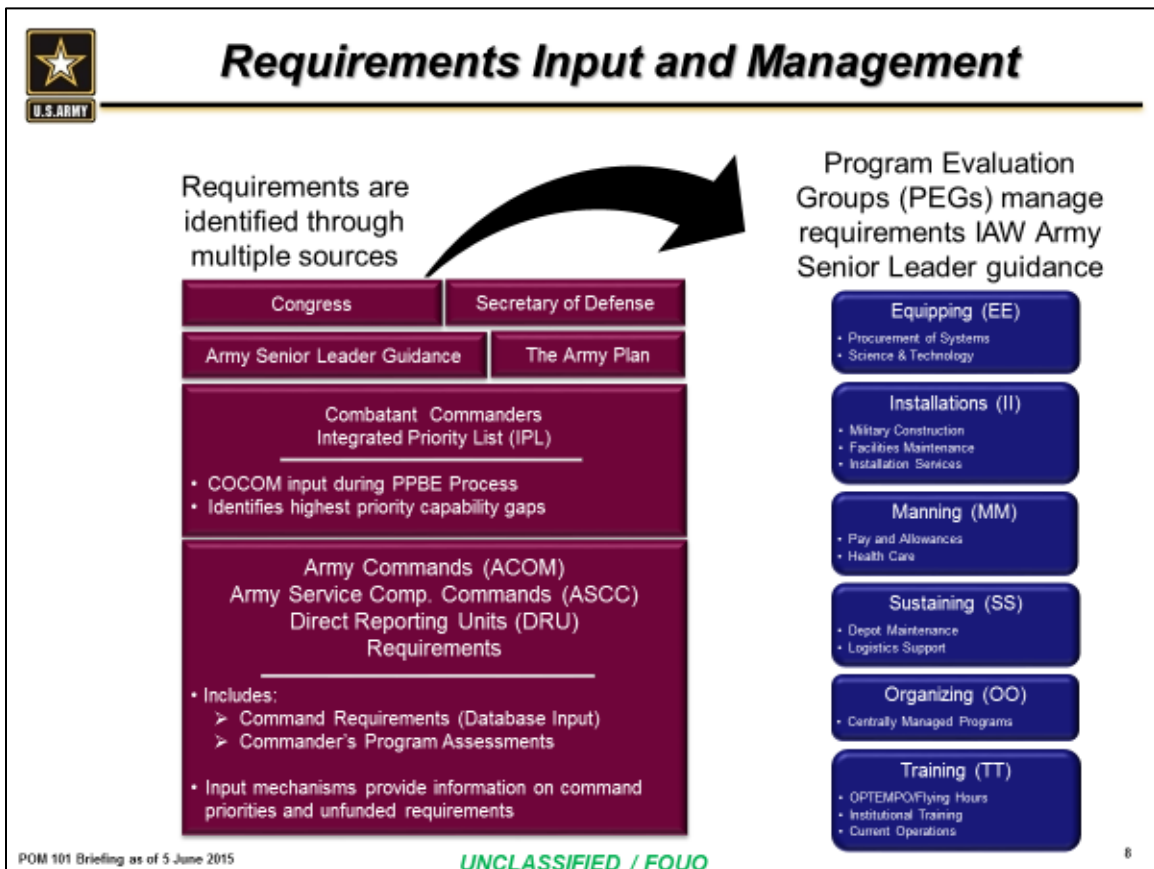


Figure 3. Determining Program Requirements<sup>27</sup>

During the programming phase, the Army major commands submit forecasted resource requirements based on the outputs of the planning phase. The PEGs gather and consolidate the command resource requirements then utilize PEG specific models and procedures to calculate PEGs forecasted level of resources required by MDEP. The PEGs then conduct MDEP briefs to determine the validated level of resources required.

This validated requirement is what the POM is built on. Deficiencies in funding become risk in the program.

MDEPs are the primary resource management tool used to build the POM and each MDEP is assigned to only one PEG. When totaled together, MDEPs describe Army capabilities programmed over the FYDP for the Army—Active Army, Guard, Reserve, and civilian workforce and account for all resources allocated to the Army for programming. MDEPs are an internal Army resourcing tool used to organize resource and funding decisions across individual programs. While individually an MDEP describes a particular organization, unit, program, or function, MDEPs do not capture the total costs required to build a capability.<sup>28</sup>

To communicate the intricate relationships between resourcing and capabilities, the Army developed the Army Resource Framework (ARF).

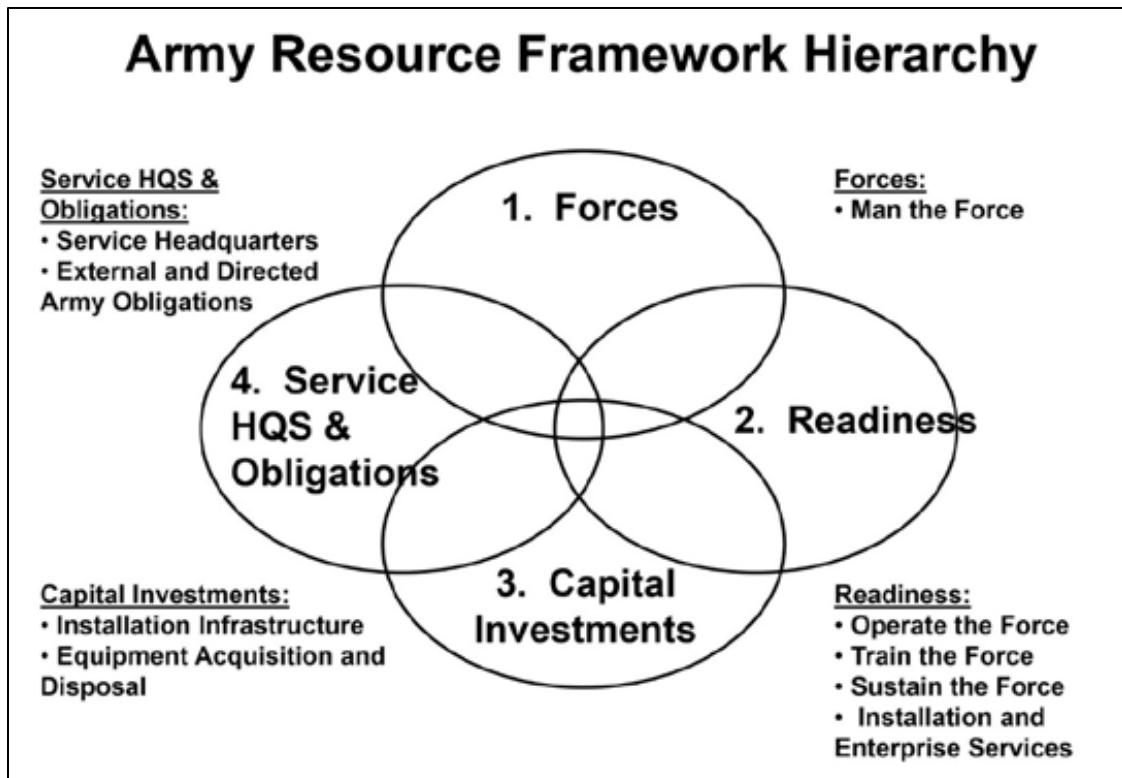


Figure 4. Army Resource Framework<sup>29</sup>

Originally based on a three-tier decision architecture developed by the RAND Arroyo Center, the purpose of the ARF is to align Army capabilities and functions across all elements of the Army program using an established hierarchy.<sup>30</sup> The ARF provides a relationship between Army objectives, sub-objectives, and tasks back to MDEP resourcing decisions providing senior leaders with a holistic view of how resources are aligned to achieve Army objectives. The ARF provides a common language to defend the Army program to OSD, but it does not provide a mechanism to capture the total cost of a capability.<sup>31</sup>

#### Program Evaluation Group Organization – Building the Best Program

Before 1996, the Army's programming organization consisted of fourteen PEGs organized as a combination of staff functions, responsibilities, and major programs (see figure 5).<sup>32</sup> Under this organization, the POM process suffered from many of the same

criticisms that it does today. It was perceived that “the Army POM did not adequately resource many established objectives”; “resource allocations were not balanced across several competing high-priority requirements”; there was a “lack of visibility” and participation in programmatic decisions; that Army programs “lacked balance and gave inordinate priority to retaining military force structure” over future investments; the POM process was dominated by uniformed members; and that the Army focused on meeting internal objectives and did not fully support joint efforts.<sup>33</sup>

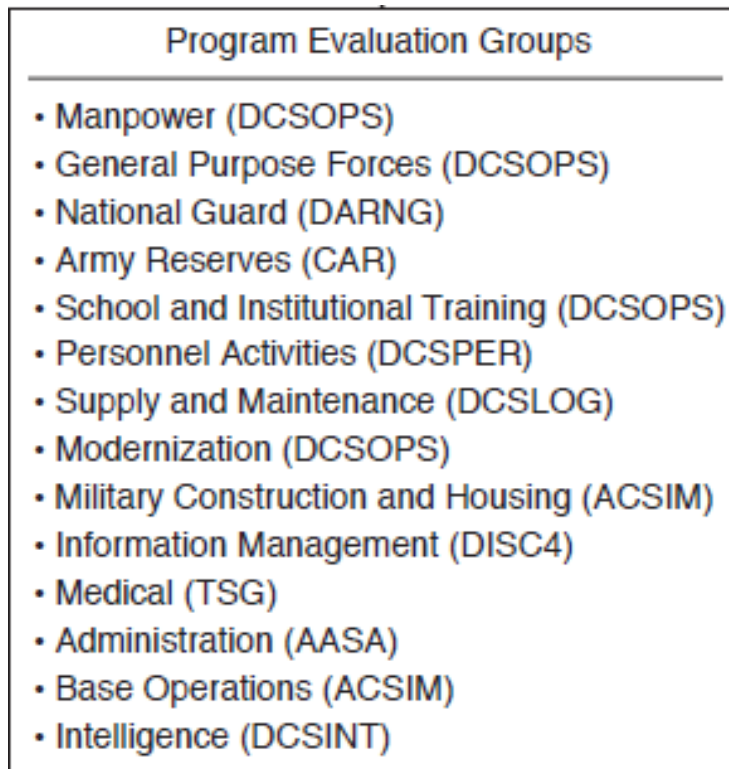


Figure 5. Army PEG Organization Prior to 1996<sup>34</sup>

In the fall of 1994, the SECARMY asked the D/PA&E to revise the POM process to increase the Secretariat’s level of involvement in POM development and to improve the linkage of MDEPs to resourcing decisions. In response to the SECARMY’s request, the D/PA&E sponsored a study led by the RAND Arroyo Center. Of note, the D/PA&E

instructed RAND to not alter the MDEP structure as part of this study.<sup>35</sup> To link Army resourcing decisions to joint missions, RAND used the twelve functions entrusted to the SECARMY according to 10 USC to recommend that the existing fourteen PEGs be reorganized into six PEGs organized along the six broad functional areas of: Equipping, Installations, Manning, Organizing, Sustaining, and Training.<sup>36</sup> RAND recommended that the new PEGs be co-chaired by senior members of the Army Staff and the Army Secretariat to improve communications and increase the level of civilian leadership participation in the Army POM process.<sup>37</sup> RAND also developed a three-tiered decision architecture that linked the six new mission areas to major Army objectives and tasks and then linked the objectives to MDEPs.<sup>38</sup> RAND's analysis and recommendations focused on ensuring the right individuals were organized into functioning groups to ensure resourcing decisions supported joint missions and Army priorities. The D/PA&E accepted RAND's reorganization recommendations and decision architecture and these changes still exist today.

### Army PPBE Organizational Structure

Organizational theorists state that organizations are formed when people identify they can accomplish more as a group than individuals.<sup>39</sup> Given the complexity and size of the effort required to build the Army's POM, individuals and organizations have found efficiencies in developing shared processes and working together. And, while normally viewed in a negative manner, the Army's PPBE enterprise, like most governmental organizations, is organized as a bureaucracy that does produce basic results.

The social theorist Max Weber envisioned an ideal bureaucracy: as an organizational structure with "a fixed division of labor"; "a clearly defined hierarchy of offices, each with its own sphere of competence"; "a set of general rules governing the

performance of offices”; and “the office is the primary occupation of the office holder and constitutes a career.”<sup>40</sup> If Weber’s ideal bureaucracy could ever be achieved it would provide an organizational structure capable of “reliable decision making” abilities, “merit-based selection and promotion,” and “the impersonal, and therefore fair, application of rules.”<sup>41</sup> Unfortunately, ideal systems are rarely achieved as human nature has a way of corrupting them. Examining the Army’s PPBE bureaucracy shows it follows Max Weber’s definition of bureaucracy in that it is characterized by a division of labor, has a hierarchy of authority, and has formalized rules and procedures.<sup>42</sup> *Army Regulation (AR) 1-1: Planning, Programming, Budgeting, and Execution* codifies the Army’s PPBE bureaucracy by establishing which organization is in charge of each phase of the PPBE process; the responsibility and authorities of the entire PPBE enterprise by phase; and the procedures that the Army will follow in building its program.<sup>43</sup>

Further examining the Army’s PPBE bureaucracy by applying Henry Mintzberg’s concepts of organizational structure shows that the Army follows a “divisionalized” form of bureaucracy.<sup>44</sup> Mary Jo Hatch summarized Mintzberg’s “divisionalized” bureaucracy as an organizational structure where “relatively autonomous divisions run their own businesses” and “produce specialized products for particular markets”; and the divisions are “overseen by a corporate staff who set divisional goals”, “control behavior by regulating resources,” and “monitor performance” using standard measures.<sup>45</sup> For the Army’s PPBE bureaucracy, the Army senior leadership provides the guidance and direction, the DCS G-8 allocates the amount of funding to the divisions, and the PEGs are the relatively autonomous division.



## Assessing Army PPBE Organizational Culture

Professor Edgar Schein defined organizational culture as a pattern of “basic assumptions that a group has invented, discovered, or developed,” and “that have worked well enough to be considered valid, and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to these problems.”<sup>46</sup> This definition confirms that the Army has developed a PPBE organizational culture. Many of the processes, procedures, and models the Army PPBE enterprise uses have been repeated for years. New employees are formally trained on the procedures, expected to learn how the POM has been built in the past, and are taught to defend the current POM based on previous POMs. This is not to say that organizational cultures are detrimental to an organization. Organizational cultures “place diverse humans within a shared framework,” “accommodate disagreement while still maintaining collective identity,” and allow for similarity and agreement but account for differences.<sup>47</sup> The problem comes when the organizational culture becomes more powerful or important than the organization, or if the organizational culture becomes fractured by subcultures.

A subculture is a subset of an organization’s members that identifies itself as a distinct group within the organization.”<sup>48</sup> The PEGS have formed subcultures based on shared professional identities and by individuals working closely together.<sup>49</sup> Subcultures are not negative by nature, but can limit coordination and communication if silos develop.<sup>50</sup> In silos, individuals show a high level of agreement between members and a stronger loyalty to the silo than the overall organization. By design, the Army’s staff structure and PEG organization is susceptible to forming silos that can undermine the PPBE organizational culture.<sup>51</sup> A silo’s strong organizational culture and self-

containment makes collaboration between it and other organizations difficult and can lead to unproductive conflict.<sup>52</sup>

Identifying and describing the Army's PPBE organizational structure and culture alone is insufficient to determine if changes can be made to improve the PPBE process. The structure and culture must be assessed. In their 2008 paper, *Organizational Culture: Applying a Hybrid Model to the U.S. Army*, Professors Gerras, Wong and Allen, of the U.S. Army War College, attempted to build a hybrid model to analyze U.S. Army culture.<sup>53</sup> The hybrid model combined aspects of several organizational culture theories and used five of the nine cultural dimensions identified in the Global Leadership and Organizational Behavior Effectiveness Research Program (Globe Study): *High Performance Orientation, In-group Collectivism, Institutional Collectivism, Power Distance, and Assertiveness*.<sup>54</sup>

The Army PPBE Culture can be analyzed using a model similar to the one by Gerras, Wong, and Allen assessing the key characteristics of Power Distance, In-group Collectivism, and Uncertainty Avoidance. *Power Distance* is "the degree which members of a collective expect power to be distributed equally."<sup>55</sup> *Power Distance* will be used to assess the impact of the bureaucracy characteristics of *Division of Labor* and *Hierarchy of Authority*. *In-group Collectivism* is "the degree to which individuals express pride, loyalty, and cohesiveness in the organizations and families."<sup>56</sup> *In-group Collectivism* will be used to assess the impact of subcultures. *Uncertainty Avoidance* is "the degree to which an organization relies on social norms, rules, and procedures to alleviate unpredictability of future events."<sup>57</sup> *Uncertainty Avoidance* will be used to assess the impact of *Formalized Rules and Procedures*.

As of 2017, the Army's programming organization is still built around the RAND recommended six PEGs and 3-tier decision architecture now known as the ARF. Aligning the PEGs based on the RAND recommended mission areas has created silos in the PPBE organization at the three-star and below level. The impact of silos is that a PEG could potentially be more focused on improving its program's resourcing levels over improving overall Army readiness levels and create in-group collectivism. While the D/PA&E provides the PEGs with programming guidance to assist in building a well-coordinated POM, it is impossible to capture all resourcing decisions that must be staffed between PEGs. This stove-piped approach provides little incentive for PEGs to be fully transparent with resourcing decisions, to voluntarily reallocate PEG resources to another PEG to improve Army readiness, and rewards PEGs who artificially inflate their requirements and risk assessment. For example, senior leaders from the DCS G-1 and Assistant Secretary of the Army (Manpower and Reserve Affairs) are members of the Manning PEG, but no senior leaders from the other Army primary staff sections are members. Thus, Manning PEG resourcing decisions are not formally staffed during the initial programming phases. While this alignment ensures the correct subject-matter experts are represented on each PEG, PEG resourcing decisions are not formally staffed and integrated until they are reviewed at the PPBC. By this point in the programming process, many resourcing decisions are difficult to adjust in a significant enough manner to improve overall Army readiness levels and still maintain the POM schedule set by OSD.

The division of labor and power distance created under the Army's PPBE organization makes it difficult for HQDA to communicate the total cost of capabilities to

Army senior leaders or to external audiences. Unlike the platform-centric services of the Navy and Air Force, the Army does not build its program by resourcing specific combat units. Instead, the Army builds its program according to its programming organization of six independent PEGs aligned to 10 USC responsibilities. This organization hinders Army leader's efforts to identify and manage the total cost of critical processes similar to an activities based costing approach as directed in Army Directive 2016-16. As an example, utilizing the Deputy Assistant Secretary of the Army – Cost and Economics (DASA-CE) Forces Cost Model (FCM) to estimate the total annual cost of a single armored brigade combat team shows the Army would need to separately identify military, civilian, and contractor labor cost; operations and maintenance cost; one-time procurement cost; and facility costs.

Table 1. Forces Cost Model Estimate<sup>58</sup>

DASA - CE FORCES COST ESTIMATE MODEL (FCM)					
Estimate - BCT Cost					
SRC - 87310R000					
Estimate Cost Summary					
Cost Element	Cost (FY17\$)	APPN	Cost Element	Cost (FY17\$)	APPN
<b>Operations &amp; Sustainment</b>	<b>\$576,073,344.00</b>		Personnel	\$380,262,914.00	
Direct Equipment Parts & Fuel Cost	\$ 53,942,058.00		Replacement Personnel Training	\$ 13,833,269.00	
Aircraft Operations	\$ 1,305,055.00		Training Through Initial MOS	\$ 13,109,966.00	
Reparables	\$ 820,409.00	OM	Military Pay Funded	\$ 4,547,501.00	PA
Consumables	\$ 481,451.00	OM	O&M Funded	\$ 6,007,397.00	OM
POL	\$ 3,195.00	OM	Other Funded	\$ 2,555,067.00	AMMO
Ground/Afloat Operations	\$ 51,087,628.00		Clothing Initial Issue	\$ 723,303.00	PA
Reparables	\$ 24,321,170.00	OM	PCS Travel: Military & Dependents	\$ 17,017,501.00	PA
Consumables	\$ 22,784,874.00	OM	Military Personnel	\$349,412,144.00	
POL	\$ 3,981,585.00	OM	Basic Pay & Allowances - PA	\$271,961,939.00	PA
Non-OSMIS Equipment Operating Cost	\$ 1,549,375.00	OM	Basic Pay & Allowances - OM	\$ -	OM
Training Ammunition & Missiles	\$ 23,101,689.00	AMMO	BAH/OHA	\$ 76,688,288.00	PA
Post Production Software Support	\$ 15,609,291.00		COLA	\$ -	PA
Annual Maintenance Cost	\$ 1,616,202.00	OM	Special/Incentive/Hazardous Duty Pay	\$ 761,917.00	PA
Modernization Amortized Cost	\$ 13,993,089.00	OPA2	Other Unit Support	\$ 90,886,800.00	
Indirect Support Cost	\$ 12,270,592.00		Installation Services	\$ 38,190,559.00	
Transportation of Things	\$ 399,916.00	OM	Housing	\$ 494,043.00	OM
Other	\$ 117,049.00	OM	Soldier & Family Support	\$ 3,508,482.00	OM
Supplies & Equipment	\$ 4,062,561.00	OM	Security	\$ 1,876,289.00	OM
Contractual Services - Field	\$ 897,372.00	OM	Tng Aids Devices Simulations	\$ 898,494.00	OM
Mission Travel	\$ 1,721,589.00	OM	Command Support	\$ 1,693,546.00	OM
Equipment Leases	\$ 224,343.00	OM	Human Resources Management	\$ 674,053.00	OM
Contractual Services	\$ 2,336,094.00		Infrastructure Support	\$ 13,112,269.00	OM
ADP	\$ 546,227.00	OM	Information Technology	\$ 186,546.00	OM
Other	\$ 1,789,868.00	OM	Logistics	\$ 6,123,445.00	OM
Purchased Equipment	\$ 1,877,654.00	OM	Mission Support	\$ 2,874,030.00	OM
Admin Travel	\$ 336,515.00	OM	Natural Infrastructure Supt	\$ 6,749,362.00	OM
Civilian Labor	\$ 297,498.00	OM	Defense Health Program	\$ 52,696,242.00	OM

Under the current Army PPBE organization and procedures these costs are planned, programmed, and budgeted in five of the six PEGs. With the exception of programming guidance issued annually by the HQDA Deputy Chief of Staff (DCS) G-8, planning, programming, and budgeting decisions are made independently by numerous staff organizations and are focused on distinct performance measurements that do not take the total cost of critical capabilities into account. This can be seen by examining the Army Enterprise PPBE Data Warehouse (PROBE database). In the fiscal year 2016 President’s Budget (PB) request the Army requested \$135 million to fund the 1<sup>st</sup> Armored Division’s maneuver brigade combat teams (MDEP: W1AD). In 2016, the 1AD consisted of one combat aviation brigade, two armored brigade combat teams (ABCT), and one Stryker brigade combat team. Assuming equal distribution of funding between the ABCTs, the Army requested \$41 million per ABCT (see table 2). The requested funding is \$530 million less than the forecasted annual cost of an ABCT according to the FCM.

Table 2. FY16 1st MDEP W1AD Funding Request<sup>59</sup>

<b>1st Armor Division</b>	<b>FY16</b>
	<b>\$ 135,291</b>
Combat Aviation Brigade	\$ 10,943
Division Headquarters	\$ 2,998
Armored Brigade Combat Team (ABCT)	\$ 82,469
Stryker Brigade Combat Team (SBCT)	\$ 38,190

There are three main reasons for the difference. The first reason is many Army expenses are costed at the enterprise level while the FCM uses cost estimates to determine forecasted costs at the individual unit level. Second, the FCM assumes full resourcing of requirements, even if other choices allow for cost reductions. The third

and primary reason is that the FCM is not limited to collecting data from only one PEG and MDEP. The \$135 million in requested funding in the W1AD MDEP consist only of operations and maintenance funding determined by the Training PEG. All other resources required to train the 1AD ABCTs are resourced by the other PEGs in different MDEPs. To further complicate determining the total cost of preparing the 1<sup>st</sup> Armored Division's ABCTs for combat, the PROBE database does not contain the information required to disaggregate the costs for training ammunition, personnel, other unit support, or health care down to the unit level like the FCM does. The PROBE database is unable to readily determine the total cost of the Army's primary force structure elements.

In addition to a challenging division of labor, the hierarchical structure of the Army's PPBE process has created a culture with a high-power distance. While it is the Army's brigade level units that ultimately expend the allocated resources, these organizations are the furthest from the decision making. For the most part, resource allocation decisions rest with a few high-ranking individuals residing in the Pentagon. Major Army Commands (MACOM) can provide initial input and attempt to influence final decisions, but they must live with the decisions made by others. This top-down planning construct suppresses differences and increases the hierarchical dependency of the PPBE process rather than providing subordinate units the flexibility to respond to changes.<sup>60</sup> This rigid structure and high-power distance violates the definition of mission command, "the exercise of authority and direction by the commander using mission orders to enable disciplined initiative within the commander's intent to empower agile and adaptive leaders."<sup>61</sup>

Secretary of Defense Robert Gates once said that “when it comes to predicting the nature and location of our next military engagements ...[the U.S. military has] never once gotten it right.”<sup>62</sup> The inability to accurately predict the future even one year out<sup>63</sup> means it is difficult to build a resourcing plan for the next two to seven years. To help reduce the impact of an unpredictable future each PEG has implemented internal models and procedures to forecast requirements and resourcing levels. These internal models give the PEGs a way to balance forecasted risk in assigned programs, but lack appropriate feedback mechanisms to ensure the models and procedures are accurately predicting the future and lack appropriate linkage to other PEG resourcing decisions. This is problematic as not all portfolios are independent. For example; the Training PEG allocates resources for unit home station training while the Installation PEG allocates resources to support and maintain home station training ranges. If the Training PEG forecasts a need to increase home station training, the PEG will increase funding for home station training at the expense of Training PEG programs. If the Installation PEG prioritizes security operations, it may be unable to fund the support for home station training ranges adequately. Thus, installation training ranges will not be able to fully support unit training and units will not be able to execute their home station training dollars to build readiness, even if predictions of the future indicate the need for increased readiness.

#### Comparing Army PPBE Process to Air Force and Navy

The U.S. Air Force uses a similar governance and oversight structure as the Army called the Air Force Corporate Structure (AFCS). The U.S. Air Force uses the AFCS to provide successive reviews by grade-level and experience of the functional staffs resourcing recommendations. The goal of the AFCS is to “provide a multifunctional, cross-staff perspective on all key U.S. Air Force programs; enhance

responsiveness to program issues; support corporate decision-making through interaction with mission and mission support panels; and cut across organizational boundaries to improve the corporate decision-making process.”<sup>64</sup> The AFCS governance structure consists of the Air Force Council (AFC), the Air Force Board (AFB), the Air Force Group (AFG), and ten mission and mission support panels (see Figure 6).<sup>65</sup>

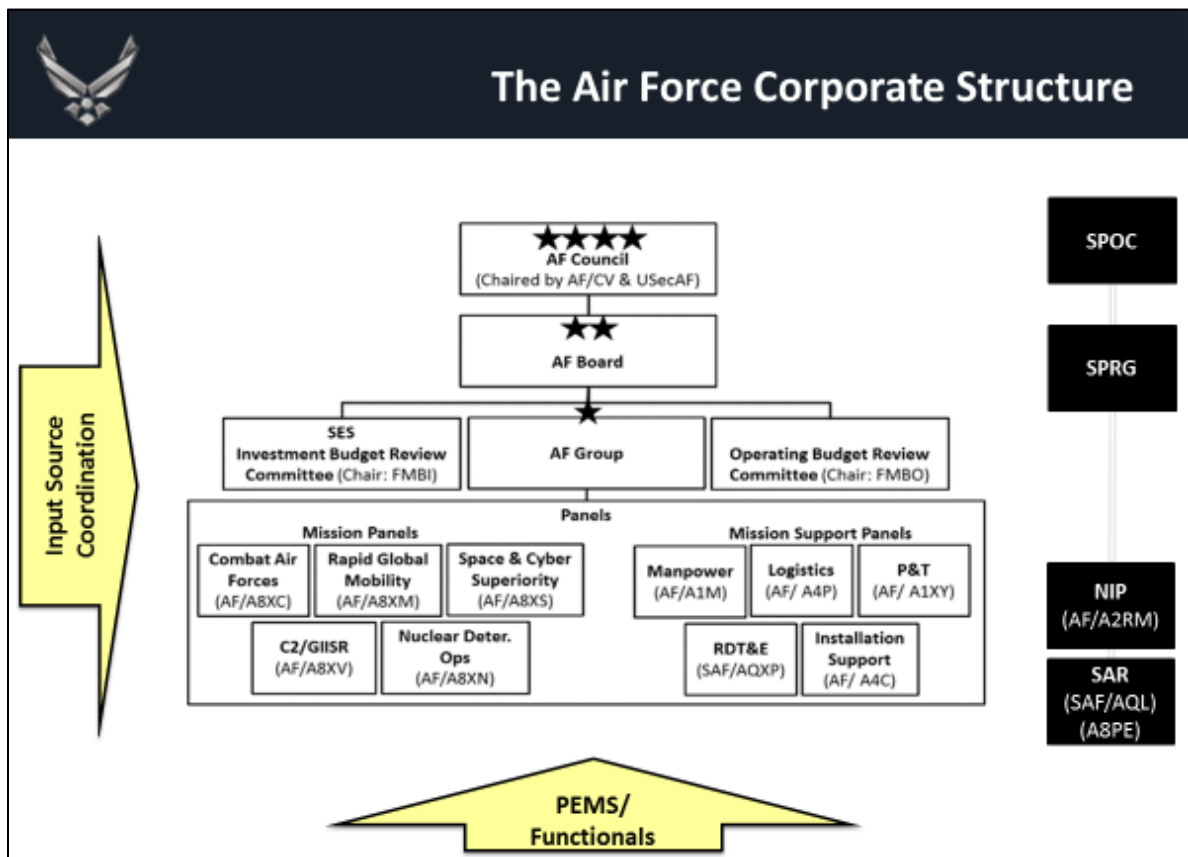


Figure 6. The Air Force Corporate Structure<sup>66</sup>

The Department of the Navy (DoN) is unique among the departments in that it builds two service level POMs one for the U.S. Navy and one for the U.S. Marine Corps. Under the supervision of the Chief of Naval Operations (CNO), the Office of the Chief of Naval Operations staff (OPNAV) builds the Navy’s POM submission while the



Headquarters Marine Corps staff builds its own POM under the directions of the Commandant of the Marine Corps. During the POM build, the OPNAV staff coordinates with the Navy Secretariat, but the Navy Secretariat is not formally part of the Navy's POM build. When complete, the CNO defends the U.S. Navy's POM submission to the SECNAV for inclusion in the Department's final POM. The DoN evaluates and integrates the service POMs into a single department level POM for submission to OSD.

The U.S. Navy does not use a formal committee style governance and oversight structure similar to the Army and Air Force. Prior to the start of POM-19, the Navy used a silo system. The Deputy Chief of Staff (DCNO) for Integration of Capabilities and Resources' (N8) Warfighting Assessments Division (N81) would conduct the Front-End Assessment (FEA) to determine the naval capabilities required to meet OSD and senior naval leadership guidance.<sup>67</sup> After the FEA, resource sponsors would prepare and submit Sponsor Program Proposals (SPP) detailing the resources required to support individual programs to the DCNO N8's Programming Division (N80) to build an initial POM for the Chief of Naval Operations' (CNO) review.<sup>68</sup> This entire process was tightly controlled and organizations had little visibility of decisions made by others.<sup>69</sup>

With the issuance of NAVADMIN 231/16, POM Process Reorganization and OPNAV Staff Realignment, the CNO is attempting to build a culture of transparency, collaboration, and efficiency in the U.S. Navy's PPBE process.<sup>70</sup> The U.S. Navy's new POM process consist of the three overlapping phases of strategy development, requirement and program integration, and resource integration.<sup>71</sup> The Navy's new approach is similar to the Army's POM building process. The DCNO for Operations, Plans, and Strategy (N3/N5) leads the planning phase through strategy development.

The DCNO for Warfare Systems (N9) leads the Requirements-Program Integration phase similar to how Army PEGs validate program requirements. The DCNO N8 leads the resource integration phase to build the U.S. Navy’s strategy-based fiscally balanced program similar to the Army PA&E’s role.<sup>72</sup>

While the CNO’s guidance is to establish a more transparent and collaborative process, it is still unclear if the Navy will further break its stove-piped approach to building its POM. The transparency built into the new POM process does allow stakeholders to view decisions made, but the lack of a collaborative oversight structure may not address all stakeholders’ concerns are addressed throughout the process.

As shown in table 3, each service organizes its programming structure differently. The Army organizes its PEGs utilizing the SECARMY responsibilities identified in 10 U.S.C §3013. Following this approach, the resources required to fully source a warfighting capability, like a brigade combat team, are programmed and budgeted independently by the PEGs and reviewed by the oversight committees. This approach makes it difficult, if not impossible, to capture the total cost of resourcing specific warfighting capabilities. It also makes it difficult for the HQDA staff to communicate the true cost of building or maintaining a current capability or building a new one.

Table 3. Service Specific Programming Organization

<u>Army PEGs</u>	<u>Navy Resource Sponsors</u>	<u>Air Force Mission Panels</u>
Training (HQDA G-3, ASA(M&RA)) Equipping (HQDA G8, ASA(ALT)) Sustaining (HQDA G-4, ASA(ALT)) Installations (ACSIM, ASA(I&E)) Manning (HQDA G-1, ASA(M&RA)) Organizing (AASA, ASA(M&RA))	Warfare Systems (OPNAV N9) Expeditionary Warfare Surface Warfare Undersea Warfare Air Warfare Manpower, Personnel, Education and Training (OPNAV N1) Information Dominance (OPNAV N2/N6) DCNO Fleet Readiness and Logistics (OPNAV N4) Integrations of Capabilities and Resources (OPNAV N8) <u>Navy Requirements Sponsors</u> Manning Levels (OPNAV N1) Interoperability (OPNAV N2/N6) Maintenance and Readiness (OPNAV N4) Total Force Structure, Capability and Capacity (OPNAV N81) Ordnance Requirements (OPNAV N81) Special Programs (OPNAV N89)	Air Superiority (HQ USAF/A8PC ) Global Attack (HQ USAF/ A8PC ) Information Superiority (HQ USAF/ A8PI ) Global Mobility (HQ USAF/ A8PM ) Space Superiority (HQ USAF/ A8PS ) <u>Air Force Mission Support Panels</u> Personnel & Training (HQ USAF/A1MT ) Installation Support (HQ USAF/A4PE ) Logistics (HQ USAF/A4PE ) Research, Development, Test and Evaluation (SAF/AQXR ) Communications & Information (CI) (SAF/XCXRC ) Special Access Required (SAR) (SAF/AQL & HQ USAF/A8PE ) National Intelligence Programs (NIP) (HQ USAF/A2XR ) Competitive Sourcing and Privatization (HQ USAF/A1MS ) Innovation (SAF/XCOI )

The Air Force organizes its Mission and Mission Support Panels utilizing its core missions and functions. The Mission Panels encompass the traditional warfighting capabilities of the Air Force and the Mission Support Panels encompass the enterprise level activities required to support a large organization.<sup>73</sup> Programs that impact more than one panel are coordinated between panels.<sup>74</sup> The panels begin the resource allocation process just like Army PEGs by reviewing and validating program requirements, balancing programs to resource constraints, and presenting resourcing options to Air Force leadership. Similar to the Army, resources required to fully support a core function are resourced independently and then reviewed by an oversight committee.

The Navy organizes its Resource Sponsors around specific warfare capabilities. Unlike the Army and Air Force, the U.S. Navy specific warfare resource sponsors “determine, validate, and integrate requirements and resources for manpower, training, sustainment, safety, modernization, and procurement programs to support its warfighting capability.”<sup>75</sup> To ensure an integrated and balanced program, the Navy utilizes Requirements Sponsors to monitor and evaluate the actions of the Resource Sponsors in programming resources like manpower.<sup>76</sup> This approach allows the Navy to identify and communicate the total cost of individual capabilities to senior leaders.

#### Recommended Changes to the Army’s PPBE Process and Structure

The Army can improve the efficiency and effectiveness of its PPBE process by reorganizing its PPBE governing structure, adjusting its MDEP structure to better capture the total cost of capabilities, and providing greater involvement for the MACOMs. For all three recommendations, the SECARMY will need to direct PA&E to

issue instructions for the changes in the Army Programming Guidance Memorandum (APGM).

In order to build the program around war fighting capabilities instead of 10 USC responsibilities, the Army can utilize the Navy's approach of establishing Resource Sponsors responsible for planning, programming, and integrating all resources required to support key capabilities. For programs that do not fit neatly into the warfighting functions, the Army can utilize the Air Force's example of Mission Support Panels to create programming structure. This approach will create a new division of labor that will enable the Army's PPBE enterprise to identify and capture the total cost of resourcing an existing or emergent capability. It breaks the current silos formed under the existing PEG structure by formally requiring the Army Staff and Secretariat principles to coordinate resourcing decisions. The increased formal coordination will also improve the Army Staff and Secretariat's ability to build an integrated and balance program.

To support reorganizing the PEGs around capabilities, the second recommendation is the Army's MDEP structure needs to be changed. Instead of building MDEPs to describes a particular organization, unit, program, or function, MDEPs should be used to capture the resources required for manpower, training, sustainment, modernization, and procurement to capabilities.<sup>77</sup> Grouping the resources by warfighting functions instead of programs will provide Army senior leaders with a holistic view of the resources required to maintain current capabilities or build new. Similar to the FCM example of the total cost to resource an ABCT, restructuring MDEPs will provide a more holistic view of costs.

The third recommended change is to increase the MACOM's participation in the PPBE process. Currently the MACOMs participate in the PPBE process by providing inputs, monitoring the POM build, and through their commander's program assessments, but they are not "voting" members of the PEGs. In order to reduce the high-power distance of the Army's PPBE organization, the reorganized PEGs should be tri-chaired by the Army Staff, Army Secretariat, and the appropriate MACOM. For example, the United States Army Forces Command (FORSCOM) would be a tri-chair on any governance forum that resources Army warfighting functions like movement and maneuver.

Though developing a new Army PPBE organization would require the efforts of the majority of the Army's PPBE enterprise, the Army already has multiple organizational constructs that could be used to reorganize its PPBE structure. According to Army Doctrine Publication 3.0, "a warfighting function is a group of tasks and systems (people, organizations, information, and processes) united by a common purpose that commanders use to accomplish missions. The Army's warfighting functions are fundamentally linked to the joint functions."<sup>78</sup> Reorganizing the PEGs using the warfighting functions will allow the Army to plan, program, and budget its resources around warfighting capabilities versus Title 10 responsibilities and ultimately create more ready units.

While the Army warfighting functions capture the capabilities required to fight a war, they do not capture all the activities required to prepare an army for war. The U.S. Army Training and Doctrine Command (TRADOC) Regulation (TR) 10-5 can be used to capture these support activities. TR 10-5 identifies thirteen core mission such as initial

entry training, leader development, functional training, and education.<sup>79</sup> These core functions can be used to build Army-level Institutional Support Panels to plan, program, and budget the activities required to support the warfighting capabilities.

Table 4. Recommended Army Programming Organization

<b>Army Warfighting Functions</b>
Mission Command Movement and Maneuver Intelligence Fires Sustainment Protection
<b>Institutional Support Functions</b>
Assessments, Initial Entry Training, Leader Development, and Education Installation Support Research, Development, Test and Evaluation
<b>Army Requirements Sponsors</b>
Army Staff and Secretariat Principles are responsible for providing a planning and program assessment of the resourcing recommendations made by the warfighting and institutional support functions to ensure a balanced and executable program

As illustrated in Table 4, the War Fighting functions will determine, validate, and integrate requirements and resources for manpower, unit training, sustainment, modernization, and procurement programs to support its warfighting function. Voting members of the War Fighting Functions include representatives from FORSCOM, all Army Staff and Secretariat sections, and required PEOs. The Institutional Support Functions determine, validate, and integrate the requirements and resources required to acquire, train, and develop soldiers; support installations, and prepare for the future. Voting members of the Institutional Support Functions include representatives from TRADOC and all Army Staff and Secretariat sections. In order to provide army senior leadership with an independent assessment of the program, Army Staff and Secretariat principles serve as the Requirements Sponsors and are responsible for setting service-wide policies and procedures. Requirements Sponsors also responsible for providing

Army senior leadership with a planning and programming assessment of the resourcing recommendations made by the warfighting and institutional support functions to ensure a balanced and executable program. Using warfighting functions and TRADOC core functions is the best way how the Army PPBE organization can be adjusted to improve the Army's ability to build a balanced and integrated program.

### Conclusion

The key for the Army is to make organizational and procedural changes in the PPBE process to improve its use of readiness resources and allow it to identify the total cost of critical processes. Comparing the Army's PPBE process and organization to the other service's shows that the Army can improve its ability to break organizational silos, build a more efficient and integrated program, and identify the total cost of resourcing key capabilities. But change in a large mature organization is hard. It is especially hard when the change will lead to a loss of power for key organizations and individuals, but this is not a reason to avoid change. If applied to its PPBE process, these changes will allow the Army to more effectively use dwindling resources to maintain the combat readiness required to fight and win America's ground wars.

### Endnotes

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<sup>17</sup> *PPBBOS Portal Home Page*, <https://www.eprobe.army.mil> (accessed January 15, 2017).

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