



Costello College of Business  
Greg and Camille Baroni Center  
for Government Contracting

# PPBE, Technology Transition, and “the Valley of Death”

## Six Modern Case Studies Examining the Impact of PPBE on Defense Resourcing

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# Research Objectives

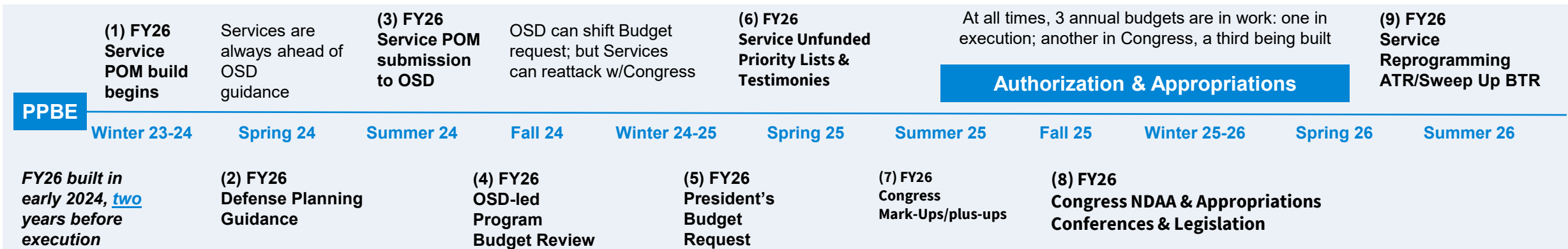
- In support of the efforts of the Commission on Planning, Programming, Budgeting, and Execution (PPBE) Reform, the Baroni Center was tasked with the following objective:
  - Pursuant to Sec. 1004(f)(2)(c), conduct “a review of how the [PPBE] process supports joint efforts, capability and platform lifecycles, and transitioning technologies to production.”
- The research team was also asked the following questions:
  1. Are higher-valued opportunities foregone at the expense of continuing lower-valued programs?
  2. Is the PPBE process a significant root cause of failure to reallocate resources to higher-valued uses as distinct from the JCIDS or Small “A” acquisition process?

# Research Issue

- Original “whiz kids” Alain C. Enthoven and K. Wayne Smith described the intended use of the Planning, Programming, and Budgeting System (PPBS) as such:
  - An “attempt to put defense program issues into a broader context and to search for explicit measures of national need and adequacy;”
  - “a plan combining both forces and costs which projected into the future the foreseeable implications of current decisions;”
  - and “open and explicit analysis ... made available to all interested parties, so that they can examine the calculations, data, and assumptions and retrace the steps leading to the conclusions.”



(1965). Secretary of Defense Robert S. McNamara’s press conference, at the Pentagon [photograph]. National Archives.



# Methodology

- Substantiating and exploring PPBE Reform Commission findings
- Six case studies:
  - Navy Large and Medium Unmanned Surface Vessels (LUSV/MUSV)
  - Air Force Collaborative Combat Aircraft (CCA)
  - Army Robotic Combat Vehicle (RCV)
  - Space Development Agency (SDA)
  - Army Tactical Intelligence Targeting Access Node (TITAN)
  - Joint Rapid Acquisition Cell (JRAC)
- Literature review and 20+ interviews with key government personnel and relevant industry

# Case Study Key Findings

## Case Study 1: Navy Large and Medium Unmanned Surface Vessels (LUSV/MUSV)

- Key Finding #1: Several aspects of the PPBE process make it more cumbersome to move certain programs forward.
- Key Finding #2: A one-size-fits-all PPBE process does not work well for new technology programs with no significant cost or development history.
- Key Finding #3: J-books are not realistic for projects with many interrelated parts because they appear as an “à la carte” menu.

## Case Study 2: Air Force Collaborative Combat Aircraft (CCA)

- Key Finding #1: High levels of coordination with other government agencies and commercial partners were integral to effective operations.
- Key Finding #2: The PPBE process can interfere with service strategy.
- Key Finding #3: A flexible budget structure eases PPBE challenges
- Key Finding #4: Program prioritization by leadership is a critical factor for successfully navigating potential budgeting or congressional issues.

## Case Study 3: Army Robotic Combat Vehicle (RCV)

- Key Finding #1: PPBE is not optimal for progress, but also not always an operational hurdle.
- Key Finding #2: To facilitate program success within the PPBE process, more frequent interactions with Congress are preferable.
- Key Finding #3: Greater flexibility in the PPBE process would be more suited to addressing agile acquisitions, specifically when dealing with iterative requirements and different colors of money.
- Key Finding #4: Consolidating program elements helps in achieve greater flexibility.

# Case Study Key Findings (cont'd)

## Case Study 4: Space Development Agency (SDA)

- Key Finding #1: SDA's use of the MTA and iterative incorporation of commercial technologies support rapid delivery.
- Key Finding #2: Budget requests are made before requirements are finalized—programming occurs before planning.
- Key Finding #3: PE consolidation gives SDA more flexibility to navigate program developments, but external stakeholders who seek to impact programs sometimes prefer a divided PE structure.
- Key Finding #4: Building and launching SDA tranches can be challenging to manage in existing budgetary categories.

## Case Study 5: Tactical Intelligence Targeting Access Node (TITAN)

- Key Finding #1: The use of MOSA, the MTA pathway, and OTA contracts have led to rapid prototyping and program success but still pose unique challenges.
- Key Finding #2: TITAN has benefited programmatically and technologically as a continuation of previous Army research efforts and funding lines.
- Key Finding #3: The shift of program funding from Procurement to RDT&E, accomplished with effective stakeholder alignment, ensured that appropriate investments were made in prototyping, but had downstream effects on industry efforts.

## Case Study 6: Joint Rapid Acquisition Cell (JRAC)

- Key Finding #1: JRAC efforts highlight the challenges of developing and deploying urgently needed capabilities to support operational needs via the services' respective PPBE processes.
- Key Finding #2: Phasing out Overseas Contingency Operations (OCO) funding has made it increasingly difficult to secure funding to fill urgent capability gaps, especially JUONs and JEONs.

# General Results & Recommendations

- Top-level findings align with common PPBE criticisms in several expectable scenarios:
  - When funding rapid development/deployment of new capabilities to meet operational needs
  - When the need for fiscal flexibility is greatest (usually in year of execution)
  - When evolving programs and technologies necessitate program adjustments
- PPBE is one among many factors impacting defense program speed and success; it is often perceived as a necessary annoyance rather than primary hurdle to success
- Case study findings confirmed the two questions of technology transition, with caveats:
  - Important opportunities de-prioritized, but tend to be delayed, rather than “foregone”
  - PPBE heavily tied to JCIDS and “small A” acquisition, but distinctly poses major reallocation challenges in and of itself
- Defense programs can effectively navigate PPBE, in its unreformed state, when:
  - Strong senior leadership drives prioritization
  - Breadth of PEs enables execution flexibility
  - Agile approaches such as the MTA enable programs to evolve with less disruption
  - Regular and candid congressional engagements facilitate program success



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# Thank you!

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